



Flex System x222 Compute Node Installation and Service Guide



Machine Types: 7916, 2589

Note

Before using this information and the product it supports, read the general information in Appendix B “Notices” on page 553, the *Warranty Information* document, and the *Safety Information* and the *Environmental Notices and User Guide* documents on the *Documentation CD*.

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Safety

Before installing this product, read the Safety Information.

قبل تركيب هذا المنتج، يجب قراءة الملاحظات الأمنية

Antes de instalar este produto, leia as Informações de Segurança.

在安装本产品之前，请仔细阅读 Safety Information (安全信息)。

安裝本產品之前，請先閱讀「安全資訊」。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφάλειας (safety information).

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

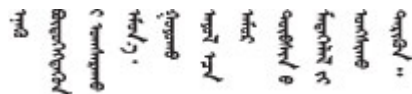
A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza.

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.



Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este produto, leia as Informações sobre Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Pred inštaláciou tohto zariadenia si pečítajte Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Antes de instalar este producto, lea la información de seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

ཐོན་རྒྱུ་འདི་བདེ་སྤྱོད་མ་བྱས་གོང་། སྐྱོར་གྱི་ཡིད་གཟབ་
བྱ་འདྲ་མིན་ཡིད་པའི་འོད་ལྗེར་བལྟ་དགོས།

Bu ürünü kurmadan önce güvenlik bilgilerini okuyun.

مەزكۇر مەھسۇلاتنى ئورنىتىشتىن بۇرۇن بىخەتەرلىك ئۇچۇرلىرىنى ئوقۇپ چىقىڭ.

Youq mwngz yungh canjbinj neix gaxgonq, itdingh aeu doeg aen
canjbinj soengq cungj vahgangj ancien siusik.

Safety statements

These statements provide the caution and danger information that is used in this documentation.

Important: Each caution and danger statement in this documentation is labeled with a number. This number is used to cross reference an English-language caution or danger statement with translated versions of the caution or danger statement in the *Safety Information* document.

For example, if a caution statement is labeled Statement 1, translations for that caution statement are in the *Safety Information* document under Statement 1.

Be sure to read all caution and danger statements in this documentation before you perform the procedures. Read any additional safety information that comes with your system or optional device before you install the device.

Statement 1



 **DANGER**

Electrical current from power, telephone, and communication cables is hazardous.

To avoid a shock hazard:

- Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.
- Connect all power cords to a properly wired and grounded electrical outlet.
- Connect to properly wired outlets any equipment that will be attached to this product.
- When possible, use one hand only to connect or disconnect signal cables.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Connect and disconnect cables as described in the following table when installing, moving, or opening covers on this product or attached devices.

To Connect:

1. Turn everything OFF.
2. First, attach all cables to devices.
3. Attach signal cables to connectors.
4. Attach power cords to outlet.
5. Turn device ON.

To Disconnect:

1. Turn everything OFF.
2. First, remove power cords from outlet.
3. Remove signal cables from connectors.
4. Remove all cables from devices.

Statement 2



CAUTION:

When replacing the lithium battery, use only Part Number 33F8354 or an equivalent type battery recommended by the manufacturer. If your system has a module containing a lithium battery, replace it only with the same module type made by the same manufacturer. The battery contains lithium and can explode if not properly used, handled, or disposed of. *Do not:*

- Throw or immerse into water
- Heat to more than 100°C (212°F)
- Repair or disassemble

Dispose of the battery as required by local ordinances or regulations.

Statement 12



CAUTION:

The following label indicates a hot surface nearby.



Statement 21



CAUTION:

Hazardous energy is present when the blade is connected to the power source. Always replace the blade cover before installing the blade.

UL regulatory information

This device is for use only with Listed chassis.

Chapter 1. Introduction

The Lenovo Flex System x222 Compute Node Types 7916 and 2589 is an ultra high density, high performance server based on the ServerBlade architecture for medium to large businesses. The Flex System x222 Compute Node provides two separate compute nodes, upper and lower, in a single node bay. The upper and lower compute nodes must be installed together, as part of the Flex System x222 Compute Node; however, the upper and lower compute nodes are configured and operated independently.

The Flex System x222 Compute Node is supported in the Flex System Enterprise Chassis only. The Flex System x222 Compute Node requires the installation of scalable switch elements in the Flex System Enterprise Chassis to fully access the upper and lower compute nodes.

This documentation provides the following information about setting up and troubleshooting the upper and lower compute nodes:

- Starting and configuring the compute nodes
- Installing the operating system in each compute node
- Diagnosing problems with the compute nodes
- Installing, removing, and replacing components in the compute nodes

Packaged with the compute node are software CDs that help you configure hardware, install device drivers, and install the operating system.

To download the latest firmware and device drivers, go to <http://www.ibm.com/support/fixcentral> and select **Flex System** and **Flex System x222**.

The compute node comes with a limited warranty. For information about the terms of the warranty and getting service and assistance, see the *Warranty Information* document for your compute node. This document is available on the *Documentation CD*.

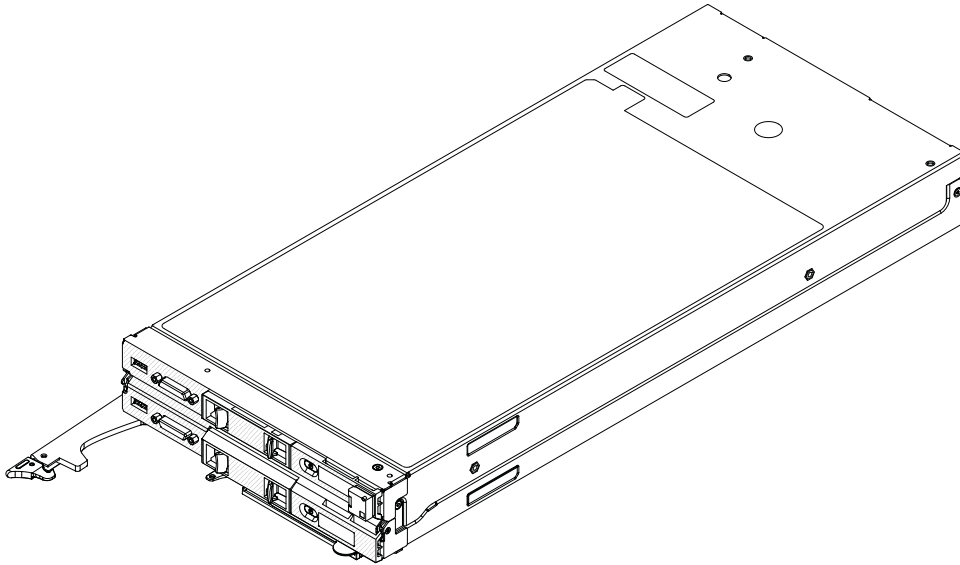
You can obtain up-to-date information about the compute node at <http://www.ibm.com/systems>.

The compute node might have features that are not described in the documentation that comes with the compute node. The documentation might be updated occasionally to include information about those features. Technical updates might also be available to provide additional information that is not included in the compute node documentation. To obtain the most up-to-date documentation for this product, go to <http://pic.dhe.ibm.com/infocenter/flexsys/information/index.jsp>.

You can subscribe to information updates that are specific to your compute node at <http://www.ibm.com/support/mynotifications>.

The model number and serial number are on the ID label on the bezel on the front of the compute node, and on a label on the bottom of the compute node that is visible when the compute node is not in the Flex System chassis. If the compute node comes with an RFID tag, the RFID tag covers the ID label on the bezel on the front of the compute node but you can open the RFID tag to see the ID label behind it.

Note: The illustrations in this document might differ slightly from your hardware.



Related documentation

Use this information to identify and locate related compute node documentation.

This *Installation and Service Guide* contains general information about the compute node, including how to install supported optional devices and how to configure the compute node. It also contains information to help you solve problems yourself and instructions for removing and installing components, and it contains information for service technicians. Documents that are in Portable Document Format (PDF) are on the documentation CD that comes with your product. The following documentation is also available:

- *Safety Information*

This document is in PDF. It contains translated caution and danger statements. Each caution and danger statement that appears in the documentation has a number that you can use to locate the corresponding statement in your language in the *Safety Information* document.
- *Lenovo Warranty Information*

This printed document contains the warranty terms and a pointer to the Statement of Limited Warranty.
- *Environmental Notices and User Guide*

This document is in PDF. It contains translated environmental notices.
- *License Agreement for Machine Code*

This document is in PDF. It provides translated versions of the License Agreement for Machine code for your compute node.
- *Licenses and Attributions Document*

This document is in PDF. It provides information about the open-source notices.

In addition to the documentation in this library, be sure to review the *Installation and Service Guide* for your Flex System chassis for information to help you prepare for system installation and configuration.

To check for updated documentation, go to <http://www.lenovo.com/support>.

You can also find documentation that is related to Flex System products at <http://pic.dhe.ibm.com/infocenter/flexsys/information/index.jsp>.

Brocade documentation

Use this information to identify and locate related Brocade documentation.

The following section introduces Brocade documents that you might find useful for the installation and administration.

- **EN4023 User Guide**

- *Network OS Layer 2 Switching Configuration Guide* - <http://www.brocade.com/content/html/en/configuration-guide/nos-601a-l2guide/>
- *Network OS Command Reference Guide* - <http://www.brocade.com/content/html/en/command-reference-guide/nos-601a-commandref/index.html>
- *Network OS Message Reference* - <http://www.brocade.com/content/html/en/message-reference-guides/nos-601a-messageref/wwhelp/wwhimpl/js/html/wwhelp.htm>

- **FC5022 User Guide**

- *Fabric OS Administrator's Guide* - <http://www.brocade.com/content/html/en/administration-guide/fos-740-adminguide/>
- *Fabric OS Command Reference* - <http://www.brocade.com/content/html/en/command-reference-guide/fos-741-commandref/wwhelp/wwhimpl/js/html/wwhelp.htm>
- *Fabric OS Message Reference* - http://www.brocade.com/content/html/en/message-reference-guides/FOS_740_MESSAGES/wwhelp/wwhimpl/js/html/wwhelp.htm#href=Title.1.2.html
- *Access Gateway Administrator's Guide* - <http://www.brocade.com/content/html/en/administration-guide/fos-740-accessgateway/index.html>

Firmware requirements for the Flex System x222 Compute Node

The Flex System x222 Compute Node requires the following Flex System firmware.

To support the Flex System x222 Compute Node, the Flex System CMM firmware must be updated to a level released after September 1, 2013, along with all other Flex System firmware in the latest release package.

The CMM firmware release date can be checked using the `CMM update -a` command or the CMM web interface.

- For more information about the `CMM update -a` command, see .
- From the CMM web interface, select **Firmware** from the **Mgt Module Management** menu. For more information, see . All fields and options are described in the CMM web interface online help.

To find the latest levels of Flex System firmware, including CMM firmware, complete the following steps:

1. Go to <https://www-304.ibm.com/software/brandcatalog/puresystems/centre/>.
2. Click the **System Updates** tab.
3. Click your type of PureSystem to view its available firmware update packages.
4. Click an update tab to display the firmware components, versions, and dates for each level of firmware package update.

You can click a firmware component name to download it for installation (you might need to register to access this content).

Note: Flex System firmware is released as a package. If you need to update any Flex System firmware, including the CMM firmware, you should update all firmware components in the package.

The Lenovo Documentation CD

The documentation CD contains documentation for the compute node in Portable Document Format (PDF). It includes a documentation browser to help you find information quickly.

You can run the *Documentation* CD on any computer that meets the hardware and software requirements.

Hardware and software requirements

Use this information to determine the minimum hardware and software requirements for the Lenovo *Documentation* CD.

The Lenovo *Documentation* CD requires the following minimum hardware and software:

- Microsoft Windows
- 100 MHz microprocessor
- 32 MB of RAM
- Adobe Acrobat Reader 3.0 (or later) or xpdf, which comes with Linux operating systems

Using the Documentation Browser

Use this information to start the Documentation Browser.

Use the Documentation Browser to browse the contents of the CD, read brief descriptions of the documents, and view documents, using Adobe Acrobat Reader or xpdf. The Documentation Browser automatically detects the regional settings in use in your system and displays the documents in the language for that region (if available). If a document is not available in the language for that region, the English-language version is displayed.

Use one of the following procedures to start the Documentation Browser:

- If Autostart is enabled, insert the CD into the CD or DVD drive. The Documentation Browser starts automatically.
- If Autostart is disabled or is not enabled for all users, use one of the following procedures:
 - If you are using a Windows operating system, insert the CD into the CD or DVD drive and click **Start** → **Run**. In the **Open** field, type
e:\win32.bat
where e is the drive letter of the CD or DVD drive, and click **OK**.
 - If you are using Red Hat Linux, insert the CD into the CD or DVD drive; then, run the following command from the /mnt/cdrom directory:
sh runlinux.sh

Select the compute node from the **Product** menu. The **Available Topics** list displays all the documents for the compute node. Some documents might be in folders. A plus sign (+) indicates each folder or document that has additional documents under it. Click the plus sign to display the additional documents.

When you select a document, a description of the document is displayed under **Topic Description**. To select more than one document, press and hold the Ctrl key while you select the documents. Click **View Book** to view the selected document or documents in Acrobat Reader or xpdf. If you selected more than one document, all the selected documents are opened in Acrobat Reader or xpdf.

To search all the documents, type a word or word string in the **Search** field and click **Search**. The documents in which the word or word string appears are listed in order of the most occurrences. Click a document to view it. Press Ctrl+F to use the Acrobat search function, or press Alt+F to use the xpdf search function within the document.

Click **Help** for detailed information about using the Documentation Browser.

Notices and statements in this document

Use this information to understand the most common documentation notices and statements and how they are used.

The caution and danger statements in this document are also in the multilingual *Safety Information* document, which is on the documentation CD that comes with your product. Each statement is numbered for reference to the corresponding statement in the *Safety Information* document.

The following notices and statements are used in this document:

- **Note:** These notices provide important tips, guidance, or advice.
- **Important:** These notices provide information or advice that might help you avoid inconvenient or problem situations.
- **Attention:** These notices indicate possible damage to programs, devices, or data. An attention notice is placed just before the instruction or situation in which damage might occur.
- **Caution:** These statements indicate situations that can be potentially hazardous to you. A caution statement is placed just before the description of a potentially hazardous procedure step or situation.
- **Danger:** These statements indicate situations that can be potentially lethal or hazardous to you. A danger statement is placed just before the description of a potentially lethal or hazardous procedure step or situation.

Features and specifications

Use this information to view specific information about the compute node, such as compute node hardware features and the dimensions of the compute node.

Notes:

1. Power, cooling, and chassis systems management are provided by the Flex System chassis.
2. The operating system in the compute node must provide USB support for the compute node to recognize and use USB media drives and devices. The Flex System chassis uses USB for internal communication with these devices.

The following table is a summary of the features and specifications of the Flex System x222 Compute Node.

Table 1. Features and specifications

Features and specifications	
<p>Microprocessor: Up to two multi-core IntelXeon microprocessors each for the upper and lower compute nodes</p> <ul style="list-style-type: none"> • Error-correcting code (ECC) protection on the L2 cache • Microprocessor built-in self-test (BIST) during power-on self-test (POST) • Processor presence detection <p>Note: Use the Setup utility to determine the type, speed, and serial number of each microprocessor.</p> <p>Integrated functions:</p> <ul style="list-style-type: none"> • Renesas SH7757 (IMM2) baseboard management controller (BMC) with integrated VGA controller • Emulex BE3 dual-port 10 Gigabit Ethernet controller • Light path diagnostics • Automatic server restart (ASR) • One LSI S/W SATA controller per compute node with support for RAID level-0 or RAID level-1¹ • One external USB port per compute node • Support for two internal USB ports per compute node • Serial over LAN (SOL) • Wake on LAN (WOL) • Wake on PCI (PME) capability • Built-in monitoring for temperature, voltage, and hard disk drives • Advanced Configuration and Power Interface (ACPI) <p>Memory:</p> <ul style="list-style-type: none"> • 12 dual inline memory module (DIMM) connectors per compute node • Type: Low-profile (LP), ECC protected, double-data rate (DDR3) DRAM • Supports 4 GB, 8 GB, 16 GB, and 32 GB DIMMs with up to 384 GB of total memory on each system board when two microprocessors are installed • Support for RDIMMs and LRDIMMs • Vital product data (VPD) and parity testing on memory <p>Drives:</p> <ul style="list-style-type: none"> • Supports one simple-swap, small form factor (SFF) Slim HS Serial ATA (SATA) hard disk drive per compute node. • Optional support for solid state drives (SSDs): one 2.5-inch SSD per compute node or up to two 1.8-inch hot-swap SSDs per compute node (with optional SSD mounting sleeve). 	<p>Predictive Failure Analysis (PFA) alerts:</p> <ul style="list-style-type: none"> • Microprocessors • Memory • Hard disk drives <p>Upgradeable firmware: All firmware is field upgradeable.</p> <p>Size:</p> <ul style="list-style-type: none"> • Height: 55.5 mm (2.19 in) • Depth: 492.7 mm (19.38 in) • Width: 217.35 mm (8.56 in) • Maximum weight: 8.2 kg (18 lb) <p>Environment: The Flex System x222 Compute Node complies with ASHRAE class A3 specifications.</p> <ul style="list-style-type: none"> • Power on²: <ul style="list-style-type: none"> – Temperature: 5°C - 40°C (41°F - 104°F)² – Humidity, non-condensing: -12°C dew point (10.4°F) and 8% - 85% relative humidity^{4,5} – Maximum dew point: 24°C (75°F) – Maximum altitude: 3048 m (10,000 ft) – Maximum rate of temperature change: 5°C/hr (41°F/hr)⁶ • Power off⁷: <ul style="list-style-type: none"> – Temperature: 5°C to 45°C (41°F - 113°F) – Relative humidity: 8% - 85% – Maximum dew point: 27°C (80.6°F) • Storage (non-operating): <ul style="list-style-type: none"> – Temperature: 1°C to 60°C (33.8°F - 140°F) – Altitude: 3050 m (10,006 ft) – Relative humidity: 5% - 80% – Maximum dew point: 29°C (84.2°F) • Shipment (non-operating)⁸: <ul style="list-style-type: none"> – Temperature: -40°C to 60°C (-40°F - 140°F) – Altitude: 10,700 m (35,105 ft) – Relative humidity: 5% - 100% – Maximum dew point: 29°C (84.2°F)⁹ • Particulate contamination <p>Attention: Airborne particulates and reactive gases acting alone or in combination with other environmental factors such as humidity or temperature might pose a risk to the compute node. For information about the limits for particulates and gases, see “Particulate contamination” on page 555.</p> <p>Security:</p> <p>Fully compliant with NIST 800-131A. The security cryptography mode set by the managing device (CMM or Flex System Manager management node) determines the security mode in which the compute node operates.</p>
<ol style="list-style-type: none"> 1. The on-board ServeRAID C100 (software RAID) controller supports only SATA drives and solid state drives (SSD); SAS drives are not supported. The booting and use of internal drives with VMware is also not supported. The RAID feature is not supported by some earlier versions of Flex System x222 Compute Node firmware. 2. Chassis is powered on. 	

Table 1. Features and specifications (continued)

Features and specifications
<ol style="list-style-type: none"> 3. A3 - Derate maximum allowable temperature 1°C/175 m above 950 m. 4. The minimum humidity level for class A3 is the higher (more moisture) of the -12°C dew point and the 8% relative humidity. These intersect at approximately 25°C. Below this intersection (~25°C), the dew point (-12°C) represents the minimum moisture level; above the intersection, relative humidity (8%) is the minimum. 5. Moisture levels lower than 0.5°C DP, but not lower -10°C DP or 8% relative humidity, can be accepted if appropriate control measures are implemented to limit the generation of static electricity on personnel and equipment in the data center. All personnel and mobile furnishings and equipment must be connected to ground via an appropriate static control system. The following items are considered the minimum requirements: <ol style="list-style-type: none"> a. Conductive materials (conductive flooring, conductive footwear on all personnel who go into the datacenter; all mobile furnishings and equipment will be made of conductive or static dissipative materials). b. During maintenance on any hardware, a properly functioning wrist strap must be used by any personnel who contacts IT equipment. 6. 5°C/hr for data centers employing tape drives and 20°C/hr for data centers employing disk drives. 7. Chassis is removed from original shipping container and is installed but not in use, for example, during repair, maintenance, or upgrade. 8. The equipment acclimation period is 1 hour per 20°C of temperature change from the shipping environment to the operating environment. 9. Condensation, but not rain, is acceptable.

What your compute node offers

Your compute node offers features such as the integrated management module 2, hard disk drive support, systems-management support, Lenovo X-Architecture , microprocessor technology, integrated network support, large system-memory capacity, light path diagnostics LEDs, PCI Express, and power throttling.

- **Features on Demand**

If a Features on Demand feature is integrated in the compute node or in an optional device that is installed in the compute node, you can purchase an activation key to activate the feature. For information about Features on Demand, see “Features on Demand” on page 40.

- **Flexible network support**

The integrated Emulex BE3 dual-port 10 Gigabit Ethernet controller in each compute node supports connections to a 10 Mbps, 100 Mbps, or 1000 Mbps network through an Ethernet-compatible switch module in the chassis. The controller supports connections at 10 Gbps. The controller also supports Wake on LAN technology. You can install an additional I/O expansion adapter for network support. The Flex System x222 Compute Node requires the installation of scalable switch elements in the Flex System Enterprise Chassis to fully access the upper and lower compute nodes.

- **Hard disk drive support**

Each compute node supports one simple-swap hard disk drive, with optional support for up to two hot-swap solid state drives (SSDs) per compute node.

- **Lenovo ServerGuide Setup and Installation CD**

The *ServerGuide Setup and Installation CD*, which you can download from the web, provides programs to help you set up the compute node and install a Windows operating system. The ServerGuide program detects installed optional hardware devices and provides the correct configuration programs and device drivers. For more information, see “Using the ServerGuide Setup and Installation CD” on page 44.

- **Lenovo X-Architecture**

Lenovo X-Architecture systems combine proven, innovative designs to make your x86-processor-based compute node powerful, scalable, and reliable.

- **Integrated management module II (IMM2)**

The integrated management module II (IMM2) combines systems-management functions, video controller, the remote presence, and blue-screen capture features in a single chip. The IMM2 provides advanced systems-management control, monitoring, and alerting function. If an environmental condition exceeds a threshold or if a system component fails, the IMM2 lights LEDs to help you diagnose the problem, records the error in the IMM event log, and alerts you to the problem.

Optionally, the IMM2 also provides a virtual presence capability for remote systems-management capabilities. The IMM2 provides remote systems management through industry-standard interfaces:

- Common Information Model (CIM)
- Intelligent Platform Management Interface (IPMI) version 2.0
- Simple Network Management Protocol (SNMP) version 3.0
- Web browser

For more information, see Chapter 4 “Accessing the IMM2” on page 47.

- **Large system-memory capacity**

Each compute node supports up to 384 GB of system memory, using optional 32 GB DIMMs, when two microprocessors are installed. The memory controller in each compute node provides support for up to 12 industry-standard registered ECC DDR3 low-profile (LP) DIMMs on each system board. For the most current list of supported DIMMs, see <http://www.lenovo.com/serverproven/>.

- **Light path diagnostics**

Light path diagnostics provides light-emitting diodes (LEDs) to help you diagnose problems. For more information, see “Light path diagnostics” on page 61.

- **Microprocessor technology**

Each compute node supports up to two multi-core IntelXeon microprocessors. For more information about supported microprocessors, see <http://www.lenovo.com/serverproven/>.

Note: The optional microprocessors limited by the capacity and capability of the compute node. Any microprocessor that you install must have the same specifications as the microprocessor that came with the compute node.

- **PCI Express**

PCI Express is a serial interface that is used for chip-to-chip interconnect and expansion adapter interconnect. You can add optional I/O and storage devices.

The optional Flex System PCIe Expansion Node supports additional PCIe adapters and I/O expansion adapters to provide a cost-effective way for you to increase and customize the capabilities of the compute node. For additional information, see .

- **Power throttling**

By enforcing a power policy known as power-domain oversubscription, the Flex System chassis can share the power load between two or more power supply modules to ensure sufficient power for each device in the Flex System chassis. This policy is enforced when the initial power is applied to the Flex System chassis or when a compute node is inserted into the Flex System chassis.

The following settings for this policy are available:

- Basic power management
- Power module redundancy
- Power module redundancy with compute node throttling allowed

You can configure and monitor the power environment by using the Chassis Management Module. For more information, see the the Flex System Chassis Management Module: Command-Line Interface Reference Guide at http://pic.dhe.ibm.com/infocenter/flexsys/information/topic/com.lenovo.acc.cmm.doc/dw1kt_cmm_cli_book.pdf.

- **Systems-management support**

The compute node IMM2 provides a web interface for remote systems-management support. You can use the interface to view system status and to control systems-management functions and IMM management settings.

The IMM2 communicates with the Lenovo Flex System Chassis Management Module (CMM) and Flex System Manager management software (if installed).

- The CMM is a hot-swap module that provides systems-management functions for all components in an Flex System chassis. It controls a serial port for remote connection and a 1 Gbps Ethernet remote-management connection. For more information, see the the Flex System Chassis Management Module: Command-Line Interface Reference Guide at http://pic.dhe.ibm.com/infocenter/flexsys/information/topic/com.lenovo.acc.cmm.doc/dw1kt_cmm_cli_book.pdf.
- The Flex System Manager management software is a platform-management foundation that streamlines the way you manage physical and virtual systems in a heterogeneous environment. By using industry standards, Flex System Manager management software supports multiple operating systems and virtualization technologies. For more information, see the .

Note: Establishing a management connection to the Flex System chassis using the optional Flex System Manager management software initiates an inventory of components installed in the chassis. An inventory can also be manually initiated. The results of an inventory will not be visible until the inventory completes. If many Flex System x222 Compute Nodes are installed in the chassis, the inventory process is slowed due to the dual-node architecture of the Flex System x222 Compute Node and could take 45 minutes to complete. Additional inventories running at the same time could cause the chassis inventory to exceed 45 minutes.

- **Lenovo XClarity Administrator**

Lenovo XClarity Administrator is a centralized resource-management solution that enables administrators to deploy infrastructure faster and with less effort. The solution seamlessly integrates into System x, ThinkServer, and NeXtScale servers, as well as the Flex System converged infrastructure platform.

Lenovo XClarity Administrator provides:

- Automated discovery
- Agent-free hardware management
- Monitoring
- Firmware updates and compliance
- Pattern-based configuration management
- Deployment of operating systems and hypervisors

Administrators are able to find the right information and accomplish critical tasks faster through an uncluttered, dashboard-driven graphical user interface (GUI). Centralizing and automating foundational infrastructure deployment and lifecycle management tasks across large pools of systems frees up administrator time, and makes resources available to end-users faster.

Lenovo XClarity is easily extended into the leading virtualization management platforms from Microsoft and VMware using software plug-ins, called Lenovo XClarity Integrators. The solution improves workload uptime and service-level assurance by dynamically relocating workloads from affected hosts in the cluster during rolling server reboots or firmware updates, or during predicted hardware failures.

For more information about Lenovo XClarity Administrator, see the <http://shop.lenovo.com/us/en/systems/software/systems-management/xclarity/> and the http://pic.dhe.ibm.com/infocenter/flexsys/information/topic/com.lenovo.lxca.doc/aug_product_page.html.

- **Installing Lenovo XClarity Administrator**

- **Installing Lenovo XClarity Administrator for the first time**

The initial setup of Lenovo XClarity Administrator involves preparing the network, installing and configuring the Lenovo XClarity Administrator virtual appliance, managing systems, and optionally setting up automatic problem notification.

There are a number of different ways to connect manageable systems to the network and to set up the Lenovo XClarity Administrator to manage those systems based on the network topology that is implemented in your environment. For guidance for installing the Lenovo XClarity Administrator in VMware ESXi-based and Hyper-V environments, see <http://pic.dhe.ibm.com/infocenter/flexsys/information/index.jsp?topic=%2Fcom.lenovo.lxca.doc%2Fsetup.html>.

– Free 90-day trial

Lenovo XClarity Administrator offers a free, 90-day trial license that enables you to use all available features (including operating-system deployment, firmware maintenance, and configuration management) for a limited time.

After 90 days, you can continue to use Lenovo XClarity Administrator to manage and monitor your hardware for free; however, you must purchase a full-function-enablement license to continue using Lenovo XClarity Administrator to configure your hardware using Configuration Patterns and to deploy operating systems. You can purchase Lenovo XClarity Administrator licenses from your Lenovo seller or business partner.

For information about installing the license, see http://pic.dhe.ibm.com/infocenter/flexsys/information/index.jsp?topic=%2Fcom.lenovo.lxca.doc%2Fupdate_lxcasw.html.

– Updating Lenovo XClarity Administrator

You can download or import Lenovo XClarity Administrator updates and install the updates from the Lenovo XClarity Administrator web interface. For information about updating a Lenovo XClarity Administrator, see http://pic.dhe.ibm.com/infocenter/flexsys/information/index.jsp?topic=%2Fcom.lenovo.lxca.doc%2Fupdate_lxcasw.html. Ensure that you carefully read the Installation and Setup Instructions in the `Invgy_sw_lxca_***_anyos_noarch.txt` file that is provided in the update package .zip file.

Lenovo XClarity Administrator

Lenovo XClarity Administrator is a centralized, resource-management solution that simplifies infrastructure management, speeds responses, and enhances the availability of Lenovo® server systems and solutions. It runs as a virtual appliance that automates discovery, inventory, tracking, monitoring, and provisioning for Lenovo servers, Flex System servers, and RackSwitch switches in a secure environment.

Lenovo XClarity Administrator provides a central interface to perform the following functions for all managed endpoints.

- **Hardware management**

Lenovo XClarity Administrator provides agent-free hardware management. It can automatically discover manageable endpoints, including Flex System chassis and components, System x, NeXTScale, and ThinkServer servers, and RackSwitch switches. Inventory of the discovered endpoints is also gathered, so an at-a-glance view of the managed hardware inventory and status is possible.

- **Hardware monitoring**

Lenovo XClarity Administrator provides a centralized view of all events and alerts that are generated from the managed endpoints. When a CMM or IMM detects an issue, an alert or event is passed to the Lenovo XClarity Administrator and is displayed in the events or alerts log. A summary of all alerts and events is visible from the Dashboard and the Status bar. Events and alerts for a specific endpoint are available from the Alerts and Events detail page for that endpoint.

- **Operating-system deployment**

You can use Lenovo XClarity Administrator to manage the repository of operating-system images and deploy operating-system images to managed servers.

- **Configuration management**

You can quickly provision and pre-provision all of your servers using a consistent configuration. Configuration settings (such as local storage, I/O adapters, boot settings, firmware, ports, and IMM and UEFI settings) are saved as a server pattern that can be applied to one or more managed servers. When the server patterns are updated, the changes are automatically deployed to the applied servers.

- **Firmware compliance and updates**

Firmware management is simplified by assigning firmware-compliance policies to managed endpoints. When you create and assign a compliance policy to managed endpoints, Lenovo XClarity Administrator monitors changes to the inventory for those endpoints and flags any endpoints that are out of compliance.

- **User management**

Lenovo XClarity Administrator provides a centralized authentication server to create and manage user accounts and to manage and authenticate user credentials. The authentication server is created automatically when you start the management server for the first time. The user accounts that you create for Lenovo XClarity Administrator are also used to log in to managed chassis and servers.

- **Security**

If your environment must comply with either NIST SP 800-131A or FIPS 140-2 standards, Lenovo XClarity Administrator can help you achieve a fully compliant environment. It supports self-signed SSL certificates (which are issued by an internal certificate authority) and external SSL certificates (which are issued by a private or commercial CA). Firewalls on chassis and servers can be configured to accept incoming requests from only Lenovo XClarity Administrator.

- **Service and support**

Lenovo XClarity Administrator can be set up to collect and send diagnostic files automatically to your preferred service provider when certain serviceable events occur in Lenovo XClarity Administrator and the managed endpoints. You can choose to send diagnostic files to Lenovo Support using call home or to another service provider using SFTP. You can also manually collect diagnostic files, open a problem record, and send diagnostic files to the Lenovo Support Center.

- **Task automation using scripts**

Lenovo XClarity Administrator can be integrated into external, higher-level management and automation platforms through open REST application programming interfaces (APIs). Using the REST APIs, Lenovo XClarity Administrator can easily integrate with your existing management infrastructure. You can also run Lenovo XClarity *cmdlets* in a Microsoft PowerShell session to automate certain management functions. The cmdlets use Lenovo XClarity Administrator REST APIs and can automate functions

- **Integration with other management software**

Lenovo XClarity Administrator is available stand-alone or as a bundled offering that is known as Lenovo XClarity Pro. Lenovo XClarity Pro is composed of the base Administrator product plus two Lenovo XClarity Integrator modules that provide integration into Microsoft Systems Center or VMware vCenter. Together, these tools provide discovery, monitoring, configuration, and management functions to reduce the cost and complexity of routine system administration for System x, NeXtScale, and Flex System endpoints.

More information about Lenovo XClarity Administrator is available at <http://shop.lenovo.com/us/en/systems/software/systems-management/xclarity/>.

Reliability, availability, and serviceability features

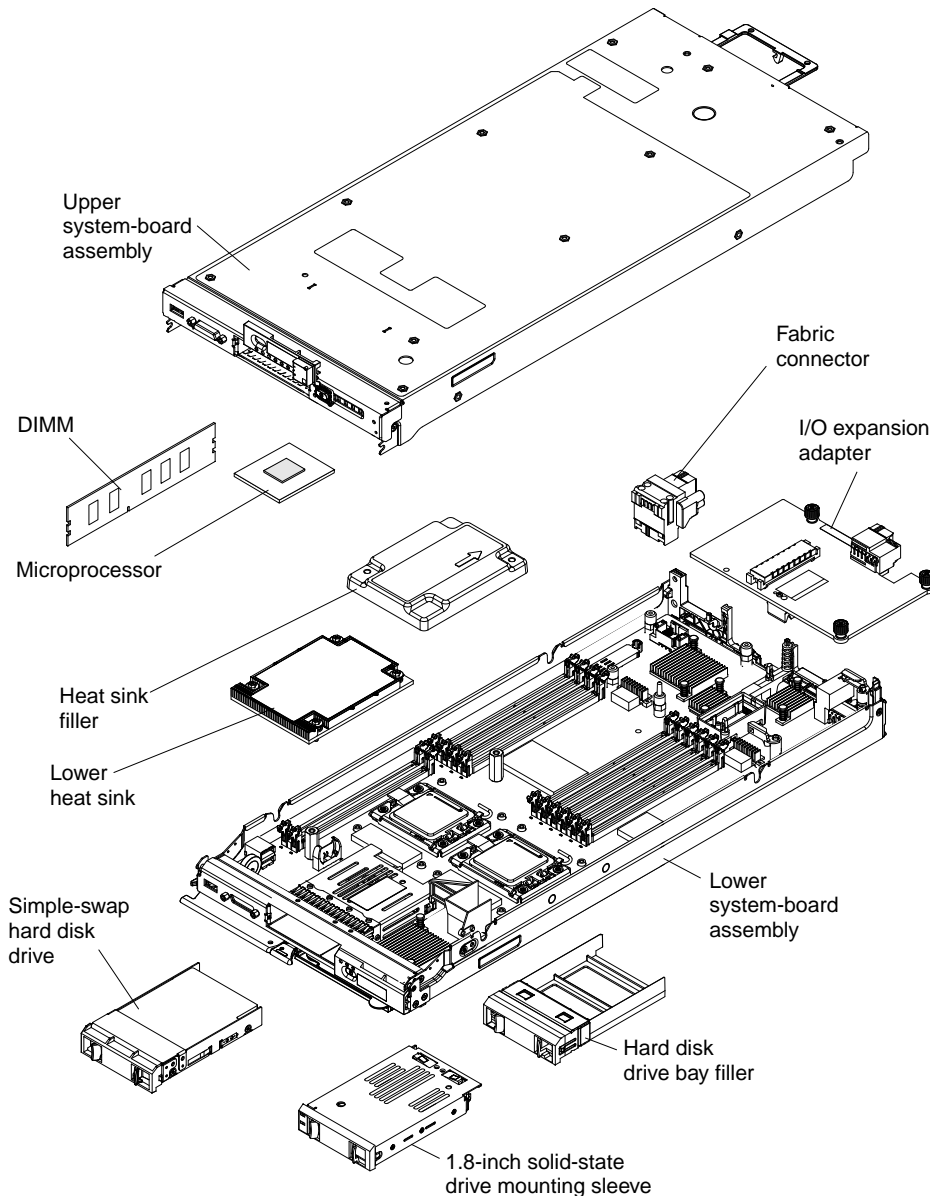
Three of the most important features in compute node design are reliability, availability, and serviceability (RAS). These RAS features help to ensure the integrity of the data that is stored in the compute node, the availability of the compute node when you need it, and the ease with which you can diagnose and correct problems.

Many RAS-related hardware features for the compute node are listed in “Features and specifications” on page 5. Features provided by the compute node “Using the Setup utility” on page 28, Chapter 4 “Accessing the IMM2” on page 47 remote chassis management, and Chapter 6 “Troubleshooting” on page 61 enhance compute node reliability, availability, and serviceability. In addition, access to a customer support center available 24 hours per day, 7 days a week improves compute node availability and serviceability. ¹

Major components of the compute node

Use this information to locate the major components on the compute node.

The following illustration shows the major components of the compute node.



1. Service availability varies by country. Response time varies depending on the number and nature of incoming calls.

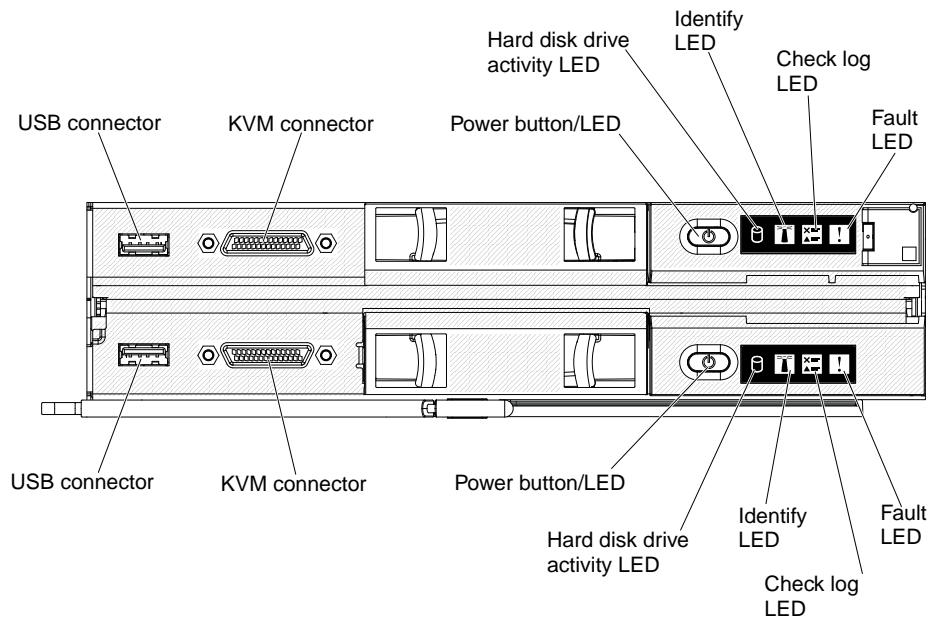
Power, controls, and indicators

Use this information to view power features, turn on and turn off a compute node, and view the functions of the controls and indicators.

Compute node controls, connectors, and LEDs

Use this information for details about the controls, connectors, and LEDs.

The following illustration identifies the buttons, connectors, and LEDs on the control panel. Additional controls, connectors, and LEDs are on the compute node system boards and light path diagnostics panels (see “System-board layouts” on page 18 and “Viewing the light path diagnostics LEDs” on page 61 for additional information).



Power button/LED

When the compute node is connected to power through the Flex System chassis, press this button to turn on or turn off the compute node.

Notes: The power button works only if local power control is enabled for the compute node. Local power control is enabled and disabled through the CMM **power** command and the CMM web interface.

- For more information about the CMM **power** command, see the .
- From the CMM web interface, select **Compute Nodes** from the **Chassis Management** menu. For more information, see the . All fields and options are described in the CMM web interface online help.

After the compute node is removed from the chassis, press and hold this button to activate the system-board LEDs (light path diagnostics). See “Compute node controls, connectors, and LEDs” on page 13 for more information.

This button is also the power LED. This green LED indicates the power status of the compute node:

- **Flashing rapidly:** The LED flashes rapidly for one of the following reasons:

- The compute node has been installed in a chassis. When you install the compute node, the LED flashes rapidly for up to 90 seconds while the integrated management module II (IMM2) in the compute node is initializing and synchronizing with the Chassis Management Module.
- Power permissions have not been assigned to the compute node through the Chassis Management Module.
- The Flex System chassis does not have enough power to turn on the compute node.
- The IMM2 in the compute node is not communicating with the Chassis Management Module.
- **Flashing slowly:** The compute node is connected to power through the Flex System chassis and is ready to be turned on.
- **Lit continuously:** The compute node is connected to power through the Flex System chassis and is turned on.

When the compute node is on, pressing this button causes an orderly shutdown of the compute node so that it can be removed safely from the chassis. This includes shutting down the operating system (if possible) and removing power from the compute node.

If an operating system is running, you might have to press the button for approximately 4 seconds to initiate the shutdown.

Attention: Pressing the button for 4 seconds forces the operating system to shut down immediately. Data loss is possible.

Hard disk drive error LED

When this yellow LED is lit, it indicates that an error has occurred with a hard disk drive installed in the compute node. The LED turns off only after the error is corrected. You can check the CMM event log to determine the source of the condition. For more information, see “Viewing event logs without restarting the compute node” on page 65.

Hard disk drive activity LED

When this green LED is lit, it indicates that there is activity on the hard disk state drive installed in the compute node.

Identify LED

The system administrator can remotely light this blue LED to aid in visually locating the compute node. When this LED is lit, the identify LED on the Flex System chassis is also lit. The identify LED can be lit and turned off through the CMM **led** command, the CMM web interface, or Flex System Manager management software (if installed).

- For more information about the CMM **led** command, see the .
- From the CMM web interface, select **Compute Nodes** from the **Chassis Management** menu. For more information, see the . All fields and options are described in the CMM web interface online help.
- For more information about Flex System Manager management software, see the .

Check log LED

When this yellow LED is lit, it indicates that a condition that causes an event to be logged in the IMM event log has occurred.

The check log LED can be turned off through the CMM **led** command, the CMM web interface, or Flex System Manager management software (if installed).

- For more information about the CMM **led** command, see the .
- From the CMM web interface, select **Compute Nodes** from the **Chassis Management** menu. For more information, see the . All fields and options are described in the CMM web interface online help.
- For more information about Flex System Manager management software, see the .

Notes:

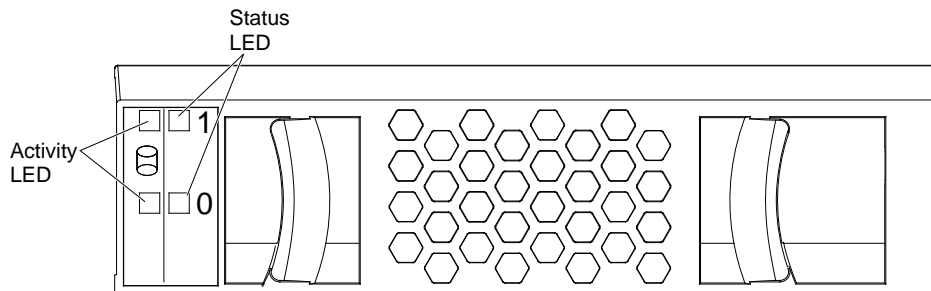
1. Alternatively, you can use the **CMM_INDICATES_ITE_ERROR_N** command to light the check log LED. See the the Flex System Chassis Management Module: Command-Line Interface Reference Guide at http://pic.dhe.ibm.com/infocenter/flexsys/information/topic/com.lenovo.acc.cmm.doc/dw1kt_cmm_cli_book.pdf for more information.
2. You can check the CMM event log to determine the source of the condition. For more information, see “Viewing event logs without restarting the compute node” on page 65.

Fault LED

When this yellow LED is lit, it indicates that a system error has occurred in the compute node. In addition, the fault LED on the chassis system LED panel is lit. You can check the CMM event log and the light path diagnostics LEDs to determine the source of the condition. For more information, see “Viewing event logs without restarting the compute node” on page 65. See “Light path diagnostics LEDs” on page 63 for more information about the LEDs on the compute node.

The fault LED turns off only after the error is corrected.

Note: When the fault LED turns off, you should also clear the IMM event log. Use the Setup utility to clear the IMM event log.

**Solid state drive activity LED (green)**

The this green LED is lit continuously, it indicates that there is activity on the associated solid state drive.

Solid state drive status LED (yellow)

The state of this yellow LED on an optional solid state drive mounting sleeve indicates an error condition or RAID status of the associated drive:

- When the yellow LED is lit continuously, it indicates that an error has occurred with the associated solid state drive. The LED turns off only after the error is corrected. You can check the CMM event log to determine the source of the condition. For more information, see “Viewing event logs without restarting the compute node” on page 65.
- When the yellow LED flashes slowly, it indicates that the associated drive is being rebuilt.
- When the yellow LED flashes rapidly, it indicates that the associated drive is being located.

KVM connector

Connect the console breakout cable to this connector (see “Console breakout cable” on page 16 for more information).

Attention:

- The KVM connectors on the upper and lower compute nodes are rotated 180-degrees from each other. Make sure that the connector on the console breakout cable is correctly oriented before connecting it.
- Use only the console breakout cable that comes with the compute node. Attempting to connect other console breakout cable types might damage the console breakout cable and the compute node.

Note: It is best practice to connect the console breakout cable to only one KVM connector on a compute node at a time in each Flex System chassis.

USB connector

Connect a USB device to this connector.

Note: It is best practice to connect a USB device to the front of only one USB connector on a compute node at a time in each Flex System chassis.

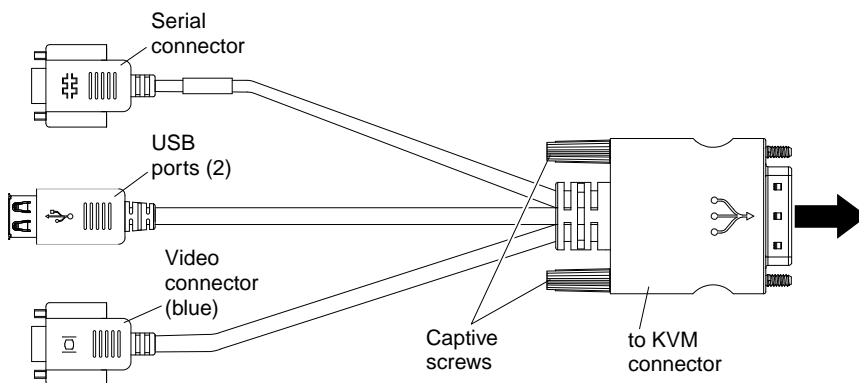
Console breakout cable

Use this information for details about the console breakout cable.

Attention: Use only the console breakout cable that comes with the compute node. Attempting to connect other console breakout cable types might damage the console breakout cable and the compute node.

Use the console breakout cable to connect external I/O devices to the compute node. The console breakout cable connects through the KVM connector (see “Compute node controls, connectors, and LEDs” on page 13). The console breakout cable has connectors for a display device (video), two USB connectors for a USB keyboard and mouse, and a serial interface connector.

The following illustration identifies the connectors and components on the console breakout cable. The console breakout cable (part number 81Y5287) is a customer replaceable unit (CRU) (see the Chapter 5 “Parts listing, Types 7916 and 2589” on page 55 for additional information about ordering parts for the Flex System x222 Compute Node).



Turning on a compute node

Use this information for details about turning on a compute node.

The upper and lower compute nodes are operated separately. After you connect the Flex System x222 Compute Node to power through the Flex System chassis, the upper and lower compute nodes can be started in any of the following ways:

- You can press the power button on the front of a compute node (see “Compute node controls, connectors, and LEDs” on page 13) to start the compute node. The power button works only if local power control is enabled for the compute node. Local power control is enabled and disabled through the CMM **power** command and the CMM web interface.
 - For more information about the CMM **power** command, see the .
 - From the CMM web interface, select **Compute Nodes** from the **Chassis Management** menu. For more information, see the . All fields and options are described in the CMM web interface online help.

Notes:

1. Wait until the power LED on a compute node flashes slowly before you press its power button. While the IMM2 in a compute node is initializing and synchronizing with the Chassis Management Module, the power LED flashes rapidly, and the power button on the compute node does not respond. This process can take approximately 90 seconds after the Flex System x222 Compute Node has been installed.
 2. While a compute node is starting, the power LED on the front of the compute node is lit and does not flash. See “Compute node controls, connectors, and LEDs” on page 13 for the power LED states.
- If a power failure occurs, the Flex System chassis and the compute nodes can be configured through the CMM **power** command and the CMM web interface to start automatically when power is restored.
 - For more information about the CMM **power** command, see the .
 - From the CMM web interface, select **Compute Nodes** from the **Chassis Management** menu. For more information, see the . All fields and options are described in the CMM web interface online help.
 - You can turn on a compute node through the CMM **power** command, the CMM web interface, or Flex System Manager management software (if installed).
 - For more information about the CMM **power** command, see the .
 - From the CMM web interface, select **Compute Nodes** from the **Chassis Management** menu. For more information, see the . All fields and options are described in the CMM web interface online help.
 - For more information about Flex System Manager management software, see the .
 - You can turn on a compute node through the Wake on LAN feature. The compute node must be connected to power (the power LED is flashing slowly) and must be communicating with the Chassis Management Module. The operating system must support the Wake on LAN feature, and the Wake on LAN feature must be enabled through the Chassis Management Module interface.

Turning off a compute node

Use this information for details about turning off a compute node.

When you turn off a compute node, it is still connected to power through the Flex System chassis. A compute node can respond to requests from the IMM2, such as a remote request to turn on the compute node. To remove all power from the compute nodes, you must remove the Flex System x222 Compute Node from the Flex System chassis.

Before you turn off a compute node, shut down its operating system. See the operating-system documentation for information about shutting down the operating system.

A compute node can be turned off in any of the following ways:

- You can press the power button on a compute node (see “Compute node controls, connectors, and LEDs” on page 13). This starts an orderly shutdown of the operating system, if this feature is supported by the operating system.
- If the operating system stops functioning, you can press and hold the power button for more than 4 seconds to turn off a compute node.

Attention: Pressing the power button for 4 seconds forces the operating system to shut down immediately. Data loss is possible.

- You can turn off a compute node through the CMM **power** command, the CMM web interface, or Flex System Manager management software (if installed).
 - For more information about the CMM **power** command, see the .
 - From the CMM web interface, select **Compute Nodes** from the **Chassis Management** menu. For more information, see the . All fields and options are described in the CMM web interface online help.

- For more information about Flex System Manager management software, see the .

System-board layouts

Use this information to locate the connectors, LEDs, and switches on the upper and lower system boards.

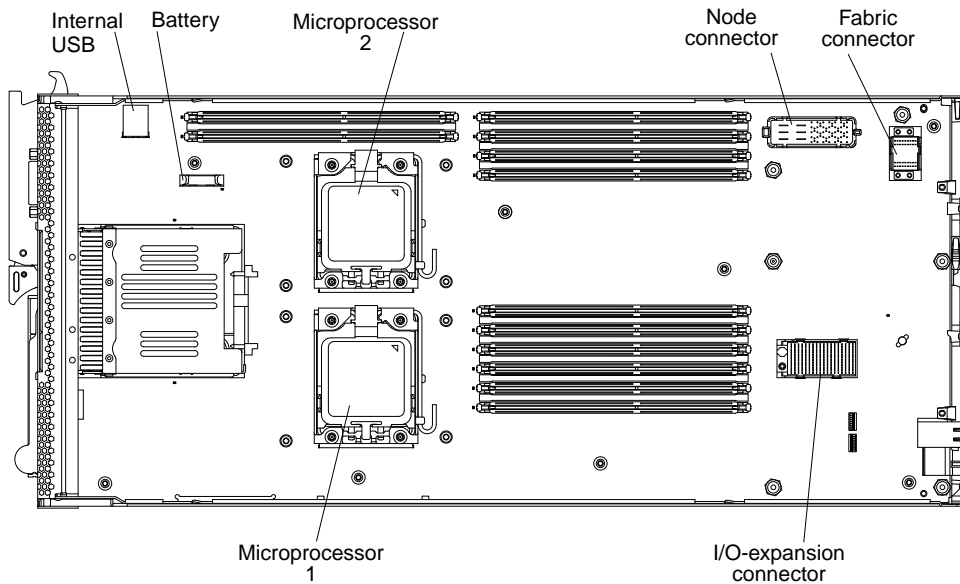
The location of system-board components in the upper and lower compute nodes is different.

Note: Any jumpers that might be seen on the system boards are for debug purposes only.

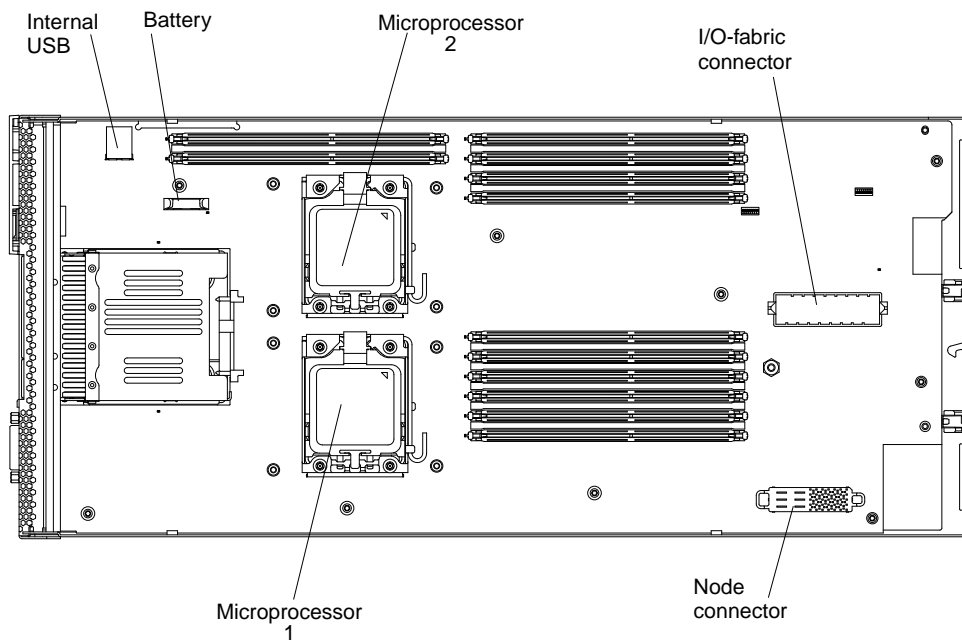
System-board connectors

Use this information to locate compute node system-board components and connectors for optional devices.

The following illustration shows the system-board components, including connectors for user-installable optional devices, in the lower compute node.



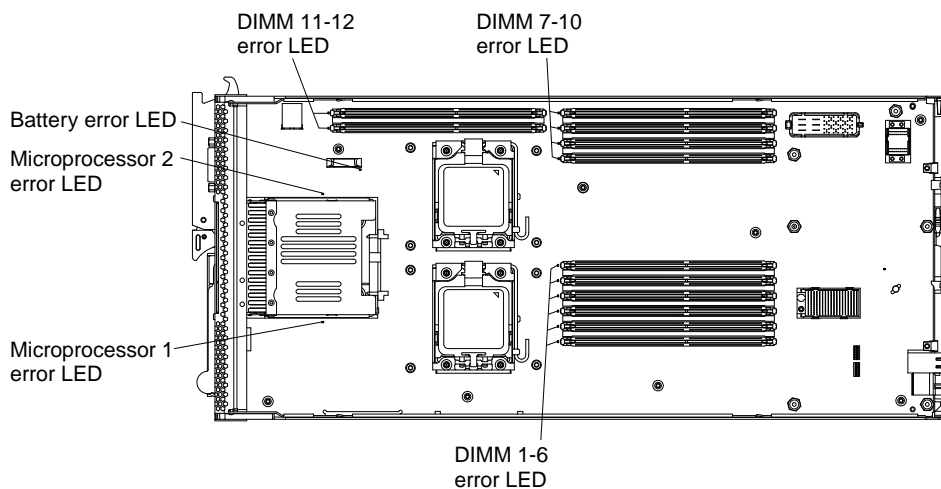
The following illustration shows the system-board components, including connectors for user-installable optional devices, in the upper compute node.



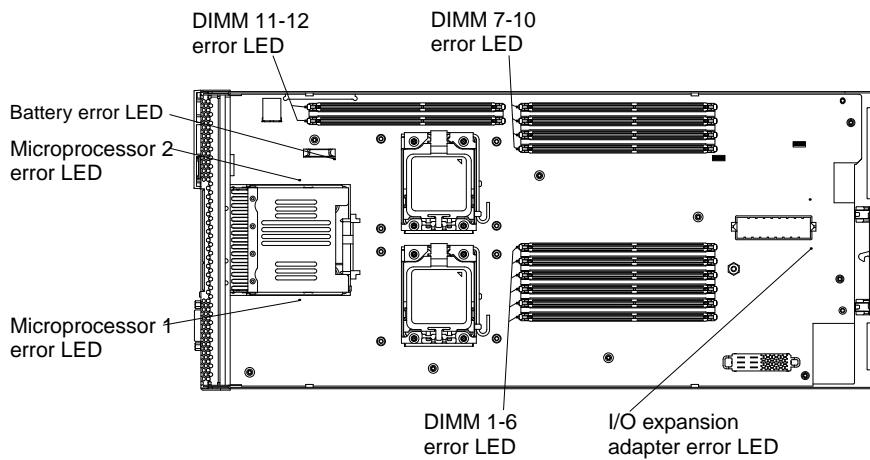
System-board LEDs

Use this information to locate the system-board LEDs.

The following illustration shows the locations of the LEDs on the lower system board.



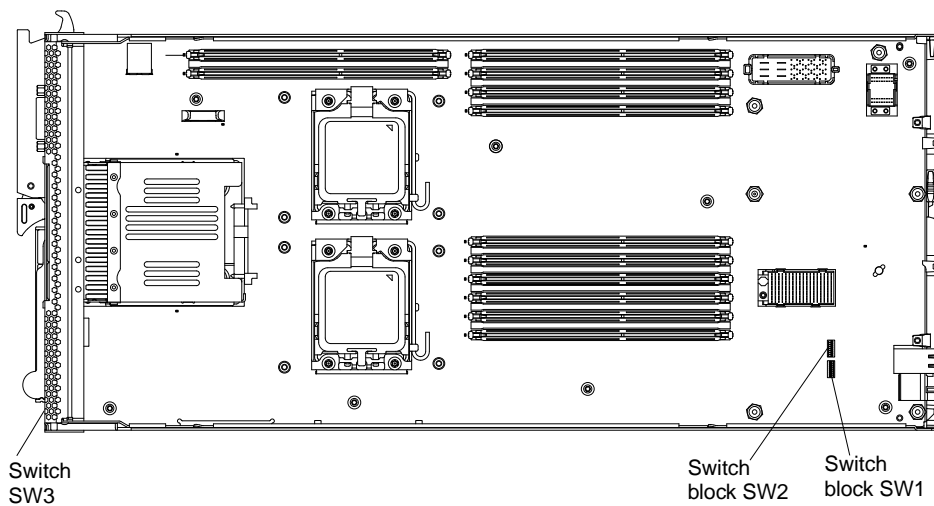
The following illustration shows the locations of the LEDs on the upper system board.



System-board switches

Use this information to locate the system-board switches.

The following illustration shows the location of the switch block on the lower system board.



The following table describes the functions of the switches on switch blocks SW1, SW2, and SW3 on the lower system board.

Note: Unless otherwise noted, the default position for all switches, including those that are listed as “Reserved,” is Off.

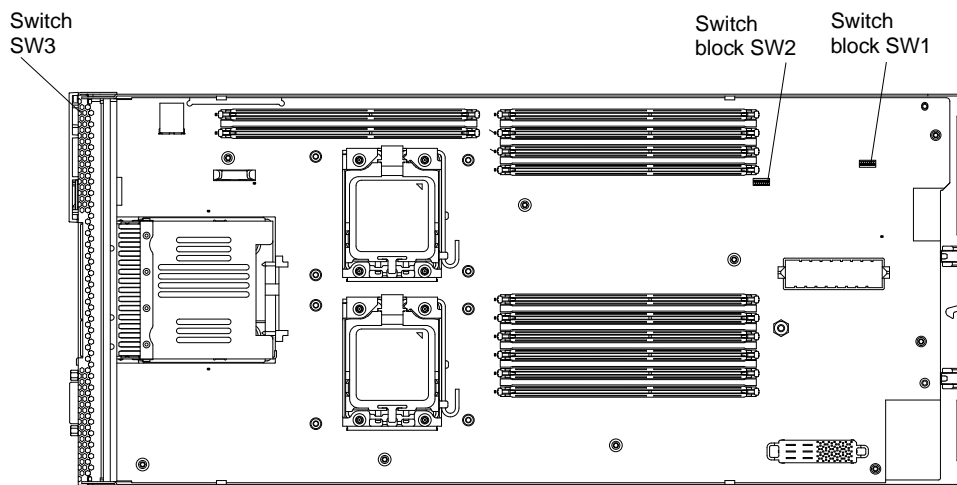
Table 2. Lower system-board switches

Switch number	Description	Definition
SW1-1	Password override	The default position is Off. Changing this switch to the On position overrides the power-on password.
SW1-2	Real time clock (RTC) reset	The default position is Off. Changing this switch to the On position resets the RTC. A momentary toggle is all that is required. To avoid excessive CMOS battery drain, do not leave this switch in the On position.
SW1-3	Reserved.	Reserved.
SW1-4	Force IMM2 update	The default position is Off. Changing this switch to the On position bypasses the operational firmware image and performs a IMM2 firmware update, if the normal firmware update procedure results in an inoperative IMM2. Note: Use this jumper only if the normal firmware update procedure fails and the operational firmware image is corrupted. Use of this jumper disables normal IMM2 operation.
SW1-5	Boot backup UEFI	The default position is Off. Changing this switch to the On position forces the compute node to boot from the backup UEFI image.
SW1-6	Reserved.	Reserved.
SW1-7	Reserved.	Reserved.
SW1-8	Reserved.	Reserved.
SW2-1	Reserved.	Reserved.
SW2-2	Reserved.	Reserved.
SW2-3	Reserved.	Reserved.
SW2-4	Trusted Platform Module (TPM) physical presence	The default position is Off. Changing this switch to the On position indicates physical presence to the TPM.
SW2-5	IMM2 TPM physical presence	The default position is Off. Changing this switch to the On position indicates physical presence of the IMM2 to the TPM.
SW2-6	Reserved.	Reserved.
SW2-7	Reserved.	Reserved.

Table 2. Lower system-board switches (continued)

Switch number	Description	Definition
SW2-8	Boot backup IMM2	When the switch is in the default Off position, the compute node will boot by using the primary IMM2 firmware image. When the switch is in the On position, the compute node will boot by using the recovery IMM2 image. Note: Use this switch only if the normal firmware update procedure fails and the operational firmware image is corrupted. Use of this switch disables normal baseboard management controller (BMC) operation.
SW3	Force non-maskable interrupt (NMI)	Pressing this recessed button on the front panel of the compute node causes the compute node to stop doing what it is doing.

The following illustration shows the location of the switch block on the upper system board.



The following table describes the functions of the switches on switch blocks SW1, SW2, and SW3 on the upper system board.

Note: Unless otherwise noted, the default position for all switches, including those that are listed as “Reserved,” is Off.

Table 3. Upper system-board switches

Switch number	Description	Definition
SW1-1	Password override	The default position is Off. Changing this switch to the On position overrides the power-on password.
SW1-2	Real time clock (RTC) reset	The default position is Off. Changing this switch to the On position resets the RTC. A momentary toggle is all that is required. To avoid excessive CMOS battery drain, do not leave this switch in the On position.
SW1-3	Reserved.	Reserved.
SW1-4	Force IMM2 update	The default position is Off. Changing this switch to the On position bypasses the operational firmware image and performs a IMM2 firmware update, if the normal firmware update procedure results in an inoperative IMM2. Note: Use this jumper only if the normal firmware update procedure fails and the operational firmware image is corrupted. Use of this jumper disables normal IMM2 operation.
SW1-5	Boot backup UEFI	The default position is Off. Changing this switch to the On position forces the compute node to boot from the backup UEFI image.
SW1-6	Reserved.	Reserved.
SW1-7	Reserved.	Reserved.
SW1-8	Reserved.	Reserved.
SW2-1	Reserved.	Reserved.
SW2-2	Reserved.	Reserved.
SW2-3	Reserved.	Reserved.
SW2-4	Trusted Platform Module (TPM) physical presence	The default position is Off. Changing this switch to the On position indicates physical presence to the TPM.
SW2-5	IMM2 TPM physical presence	The default position is Off. Changing this switch to the On position indicates physical presence of the IMM2 to the TPM.
SW2-6	Reserved.	Reserved.
SW2-7	Reserved.	Reserved.

Table 3. Upper system-board switches (continued)

Switch number	Description	Definition
SW2-8	Boot backup IMM2	<p>When the switch is in the default Off position, the compute node will boot by using the primary IMM2 firmware image. When the switch is in the On position, the compute node will boot by using the recovery IMM2 image.</p> <p>Note: Use this switch only if the normal firmware update procedure fails and the operational firmware image is corrupted. Use of this switch disables normal baseboard management controller (BMC) operation.</p>
SW3	Force non-maskable interrupt (NMI)	<p>Pressing this recessed button on the front panel of the compute node causes the compute node to stop doing what it is doing.</p>

Chapter 2. Configuring

Use this information to update the firmware and use the configuration utilities. The upper and lower compute nodes are updated and configured separate and independent of each other.

Updating firmware and device drivers

Lenovo periodically makes UEFI code, IMM2 firmware, diagnostic firmware, and device-driver updates available for the compute nodes. Provisioning is the set of actions that you take to update the firmware and device drivers and install the operating system. Several tools are available to help you update the firmware and device drivers in the provisioning process.

Firmware and device drivers in the upper and lower compute nodes are installed and maintained separately.

Attention: Installing the wrong firmware or device-driver update might cause the compute node to malfunction. Before you install a firmware or device-driver update, read any readme and change history files that are provided with the downloaded update. These files contain important information about the update and the procedure for installing the update, including any special procedure for updating from an early firmware or device-driver version to the latest version.

Notes:

1. Follow the instructions in the readme file that comes with the firmware update.
2. If you are using a compute node that came with the Ethernet LAN-on-motherboard (LOM) controller integrated on the system board, you can find the device drivers at <http://www.emulex.com/downloads/ibm/vfa-software-kits.html>.

- **Flex System Manager Update Manager**

Flex System Manager Update Manager (if installed) acquires, installs, and manages firmware and device driver updates and monitors your compute nodes to ensure that they remain current. For more information about updating the Flex System Manager Update Manager, see http://pic.dhe.ibm.com/infocenter/flexsys/information/topic/com.ibm.acc.8731.doc/Updating_firmware_and_software.html.

- **UpdateXpress System Packs**

UpdateXpress System Packs (UXSP) contain an integration-tested bundle of online, updateable firmware and device drivers for your compute node. The Lenovo ToolsCenter Bootable Media Creator uses UpdateXpress System Packs to update the firmware and device drivers.

Typically, use UpdateXpress System Packs to update firmware and device drivers for a compute node that has previously been provisioned. For more information about UpdateXpress System Packs, see <http://www.ibm.com/support/entry/portal/docdisplay?Indocid=SERV-XPRESS>.

- **Lenovo ToolsCenter Bootable Media Creator**

You can use Lenovo ToolsCenter Bootable Media Creator to create bootable media that is suitable for applying firmware updates and running preboot diagnostics. Using ToolsCenter Bootable Media Creator, you can create a single bootable image on supported media (such as CD, DVD, ISO image, USB flash drive, or set of PXE files) that bundles multiple Flex System tools and updates from UpdateXpress System Packs, which contain Windows and Linux® firmware updates.

Typically, use Lenovo ToolsCenter Bootable Media Creator for the initial setup of a compute node. For more information about the Lenovo Bootable Media Creator, see <https://support.lenovo.com/us/en/documents/LNVO-BOMC>.

To provision a compute node with updated firmware and device drivers by using Lenovo ToolsCenter Bootable Media Creator, complete the following steps:

1. Download Lenovo ToolsCenter Bootable Media Creator to a computer that is connected over the management network to the Flex System Manager management software (if installed) that is managing the compute node.
2. Create the bootable media of firmware and device-driver updates.
3. Connect to the Flex System Manager management software that is managing the Flex System chassis in which the compute node is installed.
4. From Flex System Manager Chassis Manager, select the compute node. In the Actions column, select **Remote Control**.

Note: The user ID that you use to log in to Flex System Manager management software must have sufficient user permissions to manage the compute node.

5. From the Remote Control session, mount the bootable media (using Remote Media).
6. Start the compute node to boot the media and install the updates.

- **Integrated management module II (IMM2)**

You can use IMM2 to update some types of compute node firmware. For more information about the IMM2, see http://publib.boulder.ibm.com/infocenter/systemx/documentation/topic/com.lenovo.sysx.imm2.doc/printable_doc.html (an IBM ID is required to access this content).

Important: To avoid problems and to maintain system performance, always make sure that the UEFI code, IMM2 firmware, and diagnostic firmware levels are consistent in all compute nodes in the Flex System chassis. For information about firmware levels, see <http://www.ibm.com/support/entry/portal/docdisplay?Indocid=MIGR-5091991>.

For additional information about updating firmware and device drivers, see [UEFI Compliant Firmware on System x® and BladeCenter® Servers](#), the [Flex System Quick start guides](#), and the *Firmware Update Best Practices Guide* at <http://www.ibm.com/support/entry/portal/docdisplay?Indocid=MIGR-5091991> (you might need to register to access this content).

Recovering a UEFI image

Use this information to recover a UEFI image. The upper and lower compute nodes each have their own UEFI image; these images are recovered independently.

The compute nodes have an advanced recovery feature that automatically switches to a backup UEFI page if the UEFI code in a compute node has become damaged, such as from a power failure during an update. The flash memory of the compute nodes consist of a primary page and a backup page. If the UEFI code in the primary page is damaged, the integrated management module II detects the error and automatically switches to the backup page to start the compute node. If this happens, a POST message `Booted from backup UEFI image` is displayed, the check log LED is lit, and an automatic BIOS recovery (ABR) condition occurs. The backup page version might not be the same as the primary page version. You can then recover or restore the original primary page UEFI.

Note: Changes are made periodically to the Lenovo website. The actual procedure might vary slightly from what is described in this document.

To recover the UEFI code and restore a compute node operation to the primary page, complete the following steps:

- Step 1. Update the UEFI code (see “Updating firmware and device drivers” on page 25).
- Step 2. Restart the compute node.
- Step 3. At the firmware splash screen, press F3 when prompted to restore to the primary bank. The compute node boots from the primary bank.

Note: The prompt to press F3 is displayed only if the compute node boots from the backup page because of an ABR condition.

If the attempt to flash the primary page results in the compute node not booting and the check log LED is not lit, you can manually restore the UEFI code. To manually restore the UEFI code, complete the following steps.

Note: If the check log LED is lit, the compute node is booting from the backup image, and changing the boot backup UEFI switch to the On position changes nothing.

1. Before you begin, read “Safety” on page iii and “Installation guidelines” on page 491.
2. Turn off both the upper and lower compute nodes (see “Turning off a compute node” on page 17).
3. Remove the Flex System x222 Compute Node from the Flex System chassis (see “Removing a compute node from a chassis” on page 493).
4. Remove the upper compute node (see “Removing the upper compute node” on page 495).
5. In the compute node where you are restoring the UEFI image, locate the boot backup UEFI switch on the switch block and change the switch to the On position (see “System-board switches” on page 20).
6. Replace the upper compute node and reinstall the Flex System x222 Compute Node in the Flex System chassis (see “Installing the upper compute node” on page 497 and “Installing a compute node in a chassis” on page 493).
7. Update the UEFI code in the compute node where you are restoring the UEFI image (see “Updating firmware and device drivers” on page 25).
8. Turn off both the upper and lower compute nodes and remove the Flex System x222 Compute Node from the Flex System chassis (see “Turning off a compute node” on page 17 and “Removing a compute node from a chassis” on page 493).
9. Remove the upper compute node (see “Removing the upper compute node” on page 495).
10. In the compute node where you are restoring the UEFI image, locate the boot backup UEFI switch on the switch block and change the switch to the Off position (see “System-board switches” on page 20).
11. Replace the upper compute node and reinstall the Flex System x222 Compute Node in the Flex System chassis (see “Installing the upper compute node” on page 497 and “Installing a compute node in a chassis” on page 493).
12. Restart the compute node where you are restoring the UEFI image (see “Turning on a compute node” on page 16).

Important: If you are unable to manually restore the UEFI code after several attempts, replace the system-board assembly in the where you are restoring the UEFI image (see “Removing a system-board assembly” on page 543 and “Installing a system-board assembly” on page 545).

Configuring a compute node

Use this information to configure a compute node. The upper and lower compute nodes are configured separately.

To perform a typical initial configuration for a compute node, complete the following steps.

Note: To configure a network interface card (NIC), you configure the IP address of the IMM through the CMM web interface. For more information, see the .

- Step 1. Configure the Unified Extensible Firmware Interface (UEFI) firmware for a compute node by using the Setup utility (see “Using the Setup utility” on page 28) or the Advanced Setup Utility (ASU) (see <https://support.lenovo.com/us/en/documents/LNVO-ASU>).

For more information about firmware configuration options, see <http://www.ibm.com/support/entry/portal/docdisplay?Indocid=MIGR-5083207>.

- Step 2. Set the boot protocol by using the Setup utility (see “Setting the boot protocol to boot from legacy devices using the Setup utility” on page 34).

You can temporarily redefine the boot order by using the Boot Selection menu program (see “Using the Boot Selection Menu program” on page 35).

- Step 3. Configure the RAID array.

You can configure RAID level-0 (striping) on a compute node with a single hard disk drive installed. You can install up to two 1.8-inch solid state drives (SSDs) in the compute node and implement RAID level-0 (striping) or RAID level-1 (mirroring) arrays. You can configure RAID arrays only for operating systems that are listed on the ServerProven list at <http://www.lenovo.com/serverproven/>. Configure RAID for a compute node using the integrated ServeRAID C100 controller program (see “Configuring a RAID array” on page 39).

Important: You must create the RAID array *before* you install the operating system on the compute node.

Note: The RAID feature is not supported by some earlier versions of Flex System x222 Compute Node firmware. Upgrade your compute node to the latest level of firmware to access this feature.

- Step 4. Configure the integrated management module II (IMM2), using the Setup utility or the Advanced Settings Utility (ASU).

- Step 5. Update the compute node firmware (see “Updating firmware and device drivers” on page 25).

Notes:

1. If you use Flex System Manager Update Manager to update the firmware, you can optionally start the operating-system installation while the firmware updates are installed. It is normal operation for the initial firmware updates to take an unusual length of time.
2. If the Chassis Management Module (CMM) and the compute nodes are set up to use DHCP and the CMM loses connectivity to the network, the CMM attempts to acquire a new IP address when network connectivity is restored. The compute nodes will not attempt to acquire an IP address again; they will continue to use their original IP addresses. Therefore, if you experience network problems on compute nodes after connectivity between the CMM and the network is restored, you might have to reset the system-management processor in each of the compute nodes in the chassis (including the management node). See “Connectivity problems” on page 469 for more information.

After you configure a compute node, you can install the operating system and update device drivers (see Chapter 3 “Installing the operating system” on page 43 for more information).

Using the Setup utility

Use these instructions to start the Setup utility on the upper or lower compute node.

You can access the Setup utility remotely through the CMM web interface. From the CMM web interface, select **Launch Compute Node Console**. For more information, see the . All fields and options are described in the CMM web interface online help.

To start the Setup utility locally, complete the following steps:

- Step 1. If the compute node is turned on, turn off the compute node (see “Turning off a compute node” on page 17).

Attention:

- The KVM connectors on the upper and lower compute nodes are rotated 180-degrees from each other. Make sure that the connector on the console breakout cable is correctly oriented before connecting it.
 - Use only the console breakout cable that comes with the compute node. Attempting to connect other console breakout cable types might damage the console breakout cable and the compute node.
- Step 2. If necessary, connect a keyboard, monitor, and mouse to the console breakout cable and connect the console breakout cable to the compute node.
- Step 3. Turn on the compute node (see “Turning on a compute node” on page 16).
- Step 4. When the prompt Press <F1> Setup is displayed, press F1.
- If you have set an administrator password, you must type the administrator password to access the full Setup utility menu. If you do not type the administrator password, a limited Setup utility menu is available.
 - If you have *not* set an administrator password, the full Setup utility menu is available to all users.
- Step 5. The Setup utility is organized in a menu structure where you can view and change the settings. The keyboard characters used to navigate the Setup utility screen and change settings are shown at the bottom of the Setup utility screens.

The following menu items are on the Setup utility main menu. Depending on the version of the Unified Extensible Firmware Interface (UEFI), some menu items might differ slightly from these descriptions.

- **System Information**

Select this choice to view information about the compute node. When you make changes through other choices in the Setup utility, some of those changes are reflected in the system information; you cannot change settings directly in the system information. This choice is on the full Setup utility menu only.

- **System Summary**

Select this choice to view configuration information, including the ID, speed, and cache size of the microprocessors, machine type and model of the compute node, the serial number, the system Universally Unique Identifier (UUID), and the amount of installed memory.

- **Product Data**

Select this choice to view the system-board identifier, the revision level or issue date of the firmware, the integrated management module II and diagnostics code, and the version and date.

This choice is on the full UEFI Setup utility menu only.

- **System Settings**

Select this choice to view or change the compute node component settings.

- **Adapters and UEFI Drivers**

Select this choice to view information about the adapters and UEFI device drivers in the compute node.

Note: Before you configure a UEFI-compatible device, update the firmware for your compute node. See “Updating firmware and device drivers” on page 25 for information about how to update the firmware for your compute node.

To configure a UEFI-compatible expansion adapter, complete the following steps:

1. Select **Please refresh this page first** and press Enter.
2. Select the device driver that you want to configure, and press Enter.
3. When you have finished changing settings, press Esc to exit from the program; select **Save** to save the settings that you have changed.

- **Processors**

Select this choice to view or change the microprocessor settings.

– **Memory**

Select this choice to view or change the memory settings.

If a memory error is detected during POST or memory configuration, the compute node automatically disables the failing pair of memory connectors and continues operating with reduced memory. After the problem is corrected, you must manually enable the memory connectors. Select **System Memory Details** and use the arrow keys to highlight the pair of memory connectors that you want to enable; then, set the connectors to **Enable**.

Select **Memory Mode** and use the arrow keys to highlight the memory mode that you want:

- **Independent**
- **Mirroring**
- **Sparing**

– **Devices and I/O Ports**

Select this choice to view or change assignments for devices and input/output (I/O) ports. You can configure the remote console redirection and enable or disable integrated Ethernet controllers. If you disable a device, it cannot be configured, and the operating system cannot detect it (disabling a device is equivalent to disconnecting the device).

You can also choose to enable or disable adapter option ROM support. Disabling support can potentially improve the time it takes the compute node to start.

– **Power**

Select this choice to view or change the power scheme settings.

Notes:

- The choice to enable or disable the S3 standby state (minimal power, suspend to RAM) for the compute node will only be visible after this capability has been enabled for the compute node using the set `Power.S3Enable enable` command as part of a batch file called by the Advanced Setup Utility (ASU) (see <https://support.lenovo.com/us/en/documents/LNVO-ASU>). S3 standby capability is disabled for the compute node using the set `Power.S3Enable disable` command as part of a batch file called by the ASU. See the *Advanced Settings Utility User's Guide* for additional information about ASU commands and batch files.
- To use the S3 standby state with compute nodes that have a Linux operating system installed, a file named `suspend.config` must be placed in the directory `/etc/pm/config.d/` with the following content: `S2RAM_OPTS="--force --vbe_save --vbe_post --vbe_mode"`.

– **Operating Modes**

Select this choice to determine operational settings, such as operating mode (acoustic, efficiency, or performance) and memory speed.

– **Legacy Support**

Select this choice to view or set legacy support.

Notes:

- In the legacy mode, the system has limited ROM space for installed options. Legacy PXE boot supports up to four network interface card (NIC) ports. If more than four NIC ports are occupied, legacy PXE boot will not be attempted on the fifth NIC port and following ports. There are two ways to enable legacy PXE boot on the desired NIC ports:

1. Prioritize the desired NIC connectors by changing the **ROM execution Order**.

- The path to **ROM execution Order: Main menu>System Settings>Devices and I/O Ports>Set Option ROM Execution Order>ROM execution Order**

2. Disable the NIC connector's legacy option ROM that you do not use from the **Enable/Disable Adapter Option ROM Support** menu to prioritize the desired NIC port to be functional 4 ports.
 - The path to **Enable/Disable Adapter Option ROM Support: Main menu>System Settings>Devices and I/O Ports>Enable/Disable Adapter Option ROM support**
- **Force Legacy Video on Boot**
Select this choice to enable or disable force INT video support, if the operating system does not support UEFI video output standards. The default is **Enable**.
 - **Rehook INT**
Select this choice to enable or disable devices from taking control of the boot process. The default is **Disable**.
 - **Legacy Thunk Support**
Select this choice to enable or disable UEFI to interact with PCI mass storage devices that are not UEFI compliant. The default is **Enable**.
 - **Infinite Boot Retry**
Select this choice to enable or disable UEFI to infinitely retry the legacy boot order.
 - **BBS Boot**
Select this choice to enable or disable legacy boot in accordance with the BIOS Boot Specification (BBS).
 - **Non-Planar PXE**
Select this choice to enable or disable non-system-board PXE for legacy mode.
 - **System Security**
Select this choice to view or change the security options for Trusted Platform Module (TPM).
 - **Integrated Management Module**
Select this choice to view or change the settings for the integrated management module II (IMM2).
 - **Commands on USB Interface**
Select this choice to specify whether the Ethernet over USB interface is enabled or disabled.

Notes: This option is primarily for older operating systems that have problems with USB communications device class (CDC) Ethernet interfaces. Disabling this option will cause the following issues:
 - Online update packages will not work.
 - Updates that use Bootable Media Creator (BoMC) will not work because BoMC uses the LAN over USB interface.
 - You must install the IPMI device driver to use the Advanced Settings Utility (ASU) to change the IMM2 or UEFI configuration.
 - You cannot set the IMM2 OS loader watchdog.
 - **Network Configuration**
Select this choice to view the system-management network interface port, IMM2 MAC address, current IMM2 IP address, and host name; define the static IMM2 IP address, subnet mask, and gateway address; specify whether to use the static IP address or have DHCP assign the IMM2 IP address; save the network changes; and reset the IMM2.
 - **Reset IMM to Defaults**
Select this choice to restore the IMM2 to the manufacturing default settings. The IMM2 controller restarts after you restore the settings.
 - **Reset IMM**

Select this choice to restart the IMM2 controller.

– **Recovery**

Select this choice to view or change the system recovery parameters.

– **POST Attempts**

Select this choice to define the number of times to attempt POST before invoking the recovery procedures. For more information, see “Nx boot failure” on page 34.

– **System Recovery**

Select this choice to configure the recovery settings.

• **POST Watchdog Timer**

Select this choice to view or enable the POST watchdog timer.

• **POST Watchdog Timer Value**

Select this choice to view or set the POST loader watchdog timer value.

• **Reboot System on NMI**

Select this choice to enable or disable restarting the system whenever a nonmaskable interrupt (NMI) occurs. The default is **Disable**.

• **Halt On Severe Error**

Select this choice to enable or disable the system starting the operating system whenever a severe error is detected during POST. A setting of **Enable** prevents the system from starting the operating system when a severe POST error occurs, instead starting the POST Event Viewer. The default is **Disable**.

– **Backup Bank Management**

Select this choice to configure the backup bank management settings.

– **Storage**

Select this choice to view or change the storage device settings (enable and configure RAID).

– **Network**

Select this choice to view or change the network device options, such as iSCSI.

– **Driver Health**

Select this choice to view the health status of the controllers as reported by the device drivers. You can select to perform a repair action on a device driver.

• **Date and Time**

Select this choice to set the date and time for the compute node. The date is set in *month/day/year* format. The time is set in 24-hour format (*hour:minute:second*).

This choice is on the full UEFI Setup utility menu only.

• **Start Options**

Select this choice to view or change the startup sequence. The startup sequence specifies the order in which the compute node checks devices to find a boot record. The compute node starts from the first boot record that it finds. If the compute node has Wake on LAN hardware and software and the operating system supports Wake on LAN functions, you can specify a startup sequence for the Wake on LAN functions. For example, you can define a startup sequence that checks for a disc in the CD or DVD drive, then checks the hard disk drive, and then checks a network adapter.

This choice is on the full UEFI Setup utility menu only.

• **Boot Manager**

Select this choice to view, add, delete, or change the device boot priority, boot from a file, select a one-time boot, or reset the boot order to the default setting.

Select **Boot Modes** to view or change the boot settings. You can set the boot mode and choose UEFI operating-system support only, legacy operating-system support only, or UEFI and legacy operating-system support.

Note: If you select the legacy-only boot mode (which makes boot time much faster), you will not be able to activate any Features on Demand (FoD) keys.

- **System Event Logs**

Select this choice to access the System Event Manager, where you can view the POST event log and the system-event log.

The POST event log contains the three most recent error codes and messages that were generated during POST.

The system-event log contains POST and system management interrupt (SMI) events and all events that are generated by the baseboard management controller that is embedded in the integrated management module II.

Important: If the system-error LED on the front of the compute node is lit but there are no other error indications, clear the system-event log. Also, after you complete a repair or correct an error, clear the system-event log to turn off the system-error LED on the front of the compute node.

- **POST Event Viewer**

- Select this choice to enter the POST event viewer to view the UEFI diagnostic codes.

- **System Event Log**

- Select this choice to view the system-event log.

- **Clear System Event Log**

- Select this choice to clear the system-event log.

- **User Security**

Select this choice to set, change, or clear passwords.

You can set, change, and delete a power-on password and an administrator password through this selection.

- If you set a power-on password, you must type the power-on password to complete the system startup and to have access to the Configuration/Setup utility menu.

- If you set an administrator password, you must type the administrator password to have access to the full Configuration/Setup utility menu. If you do not type the administrator password when one is set, a limited Setup utility menu is available.

You can use any combination of up to from 6 to 20 characters (A - Z, a - z, and 0 - 9) for passwords. Keep a record of your password in a secure place.

If you forget the power-on password, you can regain access to the compute node by using the power-on password override switch (see “System-board switches” on page 20).

Attention: If you set an administrator password and then forget it, there is no way to change, override, or remove it. You must replace the system board.

You can also regain access to the compute node by removing the CMOS battery and then reinstalling it (see “Removing a CMOS battery” on page 507 and “Installing a CMOS battery” on page 507).

Important: Removing the CMOS battery clears the settings in CMOS memory.

- **Save Settings**

Select this choice to save the changes that you have made in the settings.

- **Restore Settings**

Select this choice to cancel the changes that you have made in the settings and restore the previous settings.

- **Load Default Settings**

Select this choice to cancel the changes that you have made in the settings and restore the manufacturing default settings.

- **Exit Setup**

Select this choice to exit from the Setup utility. If you have not saved the changes that you have made in the settings, you are asked whether you want to save the changes or exit without saving them.

Nx boot failure

Configuration changes, such as added devices or adapter firmware updates, and firmware or application code problems can cause a compute node to fail the power-on self-test (POST).

If a compute node fails POST, it responds in either of the following ways:

- The compute node restarts automatically and attempts POST again.
- The compute node hangs and you must manually restart the compute node for the compute node to attempt POST again.

After a specified number of consecutive attempts (automatic or manual), the Nx boot failure feature causes the compute node to revert to the default UEFI configuration and start the Setup utility, so that you can make the necessary corrections to the configuration and restart the compute node. If the compute node is unable to successfully complete POST with the default configuration, there might be a problem with the system board.

To specify the number of consecutive restart attempts that will trigger the Nx boot failure feature in the Setup utility, click **System Settings** → **Recovery** → **Post Attempts**. The available options are 3, 6, 9 and Disable.

Setting the boot protocol to boot from legacy devices using the Setup utility

To use the Setup utility to configure the boot protocol for the upper or lower compute node to boot from a non-UEFI legacy network device for all PXE boot attempts, complete the following steps.

Attention:

- The KVM connectors on the upper and lower compute nodes are rotated 180-degrees from each other. Make sure that the connector on the console breakout cable is correctly oriented before connecting it.
- Use only the console breakout cable that comes with the compute node. Attempting to connect other console breakout cable types might damage the console breakout cable and the compute node.

Note: This option disables UEFI ROMs from loading and enables the upper or lower compute node to boot in legacy mode only.

1. Connect a keyboard, monitor, and mouse to the console breakout cable and connect the console breakout cable to the compute node.
2. Turn on the compute node (see “Turning on a compute node” on page 16).
3. When the prompt Press <F1> Setup is displayed, press F1. If you have set an administrator password, you must type the administrator password to access the full Setup utility menu. If you do not type the administrator password, a limited Setup utility menu is available.
4. From the Setup utility main menu, select **Boot Manager**.
5. Select **Boot Modes**; then select **Legacy Only**.
6. Press Esc twice to return to the Boot Manager menu.

7. Select **Change Boot Order** and move the non-UEFI legacy network device to the top of the boot order.
8. Press Esc twice to return to the Setup utility main menu.
9. Select **Save Settings** and then select **Exit Setup**.

To use the Setup utility to configure the boot protocol to boot from a non-UEFI legacy network device for the next boot only, complete the following steps.

Attention:

- The KVM connectors on the upper and lower compute nodes are rotated 180-degrees from each other. Make sure that the connector on the console breakout cable is correctly oriented before connecting it.
 - Use only the console breakout cable that comes with the compute node. Attempting to connect other console breakout cable types might damage the console breakout cable and the compute node.
1. Connect a keyboard, monitor, and mouse to the console breakout cable and connect the console breakout cable to the compute node.
 2. Turn on the compute node (see “Turning on a compute node” on page 16).
 3. When the prompt Press <F1> Setup is displayed, press F1. If you have set an administrator password, you must type the administrator password to access the full Setup utility menu. If you do not type the administrator password, a limited Setup utility menu is available.
 4. From the Setup utility main menu, select **Boot Manager**.
 5. Select **Add Boot Option**; then select **Generic Boot Option**.
 6. Select **Legacy Only**.
 7. Press Esc three times to return to the Setup utility main menu.
 8. Select **Save Settings** and then select **Exit Setup**.

Using the Boot Selection Menu program

The Boot Selection Menu program is a built-in, menu-driven configuration utility program that you can use to temporarily redefine the first startup device for the upper or lower compute node without changing settings in the Setup utility.

To use the Boot Selection Menu program, complete the following steps.

- Step 1. Connect a keyboard, monitor, and mouse to the console breakout cable, and connect the console breakout cable to the upper or lower compute node.

Attention:

- The KVM connectors on the upper and lower compute nodes are rotated 180-degrees from each other. Make sure that the connector on the console breakout cable is correctly oriented before connecting it.
- Use only the console breakout cable that comes with the compute node. Attempting to connect other console breakout cable types might damage the console breakout cable and the compute node.

- Step 2. Turn on the upper or lower compute node (see “Turning on a compute node” on page 16).

- Step 3. Press F12 (**Select Boot Device**). If a bootable USB mass storage device is installed, a submenu item (**USB Key/Disk**) is displayed.

- Step 4. Use the Up Arrow and Down Arrow keys to select an item from the Boot Selection Menu and press **Enter**.

The next time the upper or lower compute node that has had its first startup device redefined starts, it returns to the startup sequence that is set in the Setup utility.

Updating the Universally Unique Identifier (UUID) and DMI/SMBIOS data with vital product data

After an upper or lower system board is replaced, you must update its Universally Unique Identifier (UUID) and DMI/SMBIOS data with vital product data (VPD).

You can use the Advanced Settings Utility (ASU) and any of the following access methods:

- Locally (in-band)
 - Through the Keyboard Controller Style (KCS) interface
 - Through the LAN over USB interface
- Remotely over a LAN

You can use the ASU under any supported operating system, or you can use the Bootable Media Creator or a Windows- or Linux-based toolkit to create bootable media that contains the ASU. For information about the ASU and instructions for downloading and unpacking the ASU code, see <https://support.lenovo.com/us/en/documents/LNVO-ASU> and the *Advanced Settings Utility User's Guide*.

The following sections provide instructions for updating the UUID and DMI/SMBIOS data, using the different methods for accessing the IMM2. The following conventions apply to the command syntax:

- Variables are shown in *italics*.
- Optional parameters are enclosed in brackets ([]). Do not type the brackets in the commands. If you omit an optional parameter, the default is used.
- Although the command syntax is shown in mixed case, the commands are not case sensitive.

Locally: Keyboard Controller Style (KCS)

This access method uses the IPMI/KCS interface. The IPMI driver must be installed in the upper or lower compute node being accessed; with some operating systems, the IPMI driver is installed by default. The ASU provides the corresponding mapping layer.

To update the UUID, in the ASU command-line interface, enter the following command:

```
asu set SYSTEM_PROD_DATA.SysInfoUUID uuid
```

where *uuid* is the user-assigned hexadecimal value, up to 16 bytes, that identifies the compute node.

To update the DMI/SMBIOS data, complete the following steps:

Step 1. In the ASU command-line interface, enter the following command:

```
asu set SYSTEM_PROD_DATA.SysInfoProdName xxxxyyy
```

Important: The default machine type and model number in the system-board firmware might not be the machine type and model number of the compute node. Make sure that you enter the correct machine type and model number.

where:

xxxx

is the 4-digit machine type of the compute node.

yyy

is the 3-digit model number of the compute node.

Step 2. Enter the following command:

```
asu set SYSTEM_PROD_DATA.SysInfoSerialNum zzzzzzz
```

where *zzzzzzz* is the 7-character serial number of the compute node.

Step 3. Enter the following command:

```
asu set SYSTEM_PROD_DATA.SysEncloseAssetTagaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
```

where `aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa` is the 33-character asset tag number of the compute node.

Locally: LAN over USB

If you omit any optional parameter, the default value is used. If one or more default values are used and the ASU cannot access the IMM2 of the upper or lower compute node by using the LAN over USB access method, the ASU automatically uses the KCS access method.

To update the UUID, in the ASU command-line interface, enter the following command:

```
asu set SYSTEM_PROD_DATA.SysInfoUUID uuid [--host ipaddress] [--user userid][--password password]
```

where:

uuid

is the user-assigned hexadecimal value, up to 16 bytes, that identifies the compute node.

ipaddress

is the internal LAN/USB IP address of the IMM2. The default is 169.254.95.118.

userid

is the IMM2 account name (1 of 12 accounts). The default is USERID.

password

is the IMM2 account password (1 of 12 accounts). The default is PASSWORD (with a zero, not the letter O).

To update the DMI/SMBIOS data, complete the following steps:

Step 1. In the ASU command-line interface, enter the following command:

```
asu set SYSTEM_PROD_DATA.SysInfoProdName xxxxyyy [--host ipaddress] [--user userid][--password password]
```

Important: The default machine type and model number in the system-board firmware might not be the machine type and model number of the compute node. Make sure that you enter the correct machine type and model number.

where:

xxxx

is the 4-digit machine type of the compute node.

yyy

is the 3-digit model number of the compute node.

ipaddress

is the internal LAN/USB IP address of the IMM2. The default is 169.254.95.118.

userid

is the IMM2 account name (1 of 12 accounts). The default is USERID.

password

is the IMM2 account password (1 of 12 accounts). The default is PASSWORD (with a zero, not the letter O).

Step 2. Enter the following command:

```
asu set SYSTEM_PROD_DATA.SysInfoSerialNum zzzzzzz [--host ipaddress] [--user userid][--password password]
```

where *zzzzzzz* is the 7-character serial number of the compute node.

Step 3. Enter the following command:

```
asu set SYSTEM_PROD_DATA.SysEncloseAssetTag aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa [--host ipaddress] [ - -
```

where *aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa* is the 33-character asset tag number of the compute node.

Remotely over a LAN

If you omit any optional parameter, the default value is used.

To update the UUID, in the ASU command-line interface, enter the following command:

```
asu set SYSTEM_PROD_DATA.SysInfoUUID uuid --host ipaddress [--user userid][--password password]
```

where:

uuid

is the user-assigned hexadecimal value, up to 16 bytes, that identifies the compute node.

ipaddress

is the external LAN IP address of the IMM2.

userid

is the IMM2 account name (1 of 12 accounts). The default is USERID.

password

is the IMM2 account password (1 of 12 accounts). The default is PASSWORD (with a zero, not the letter O).

To update the DMI/SMBIOS data, complete the following steps:

Step 1. In the ASU command-line interface, enter the following command:

```
asu set SYSTEM_PROD_DATA.SysInfoProdName xxxxyyy --host ipaddress [--user userid][--password password]
```

Important: The default machine type and model number in the system-board firmware might not be the machine type and model number of the compute node. Make sure that you enter the correct machine type and model number.

where:

xxxx

is the 4-digit machine type of the compute node.

yyy

is the 3-digit model number of the compute node.

ipaddress

is the external LAN IP address of the IMM2.

userid

is the IMM2 account name (1 of 12 accounts). The default is USERID.

password

is the IMM2 account password (1 or 12 accounts). The default is PASSWORD (with a zero, not the letter O).

Step 2. Enter the following command:

```
asu set SYSTEM_PROD_DATA.SysInfoSerialNum zzzzzzz --host ipaddress [--user userid][--password password]
```

where *zzzzzzz* is the 7-character serial number of the compute node.

Step 3. Enter the following command:

```
asu set SYSTEM_PROD_DATA.SysEncloseAssetTagaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa --host ipaddress [--user
```

where *aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa* is the 33-character asset tag number of the compute node.

Configuring a RAID array

Use this information to configure a RAID array on your compute node.

Note: The RAID feature is not supported by some earlier versions of Flex System x222 Compute Node firmware. Upgrade your compute node to the latest level of firmware to access this feature.

RAID level-0 (striping) can be configured on a compute node with a single hard disk drive installed. A minimum of two disk drives must be installed to implement and manage RAID level-1 (mirroring) arrays in operating systems that are listed on the ServerProven list at <http://www.lenovo.com/serverproven/>. Each drive must have the same type of interface and speed and if drives of differing capacity are used, the controller will treat them all as if they have the capacity of the smallest drive. If you are configuring RAID for a compute node with multiple drives, both drives must be included in the RAID array.

The compute node comes with an integrated ServeRAID C100 controller integrated on the system board: no additional hardware is required. The ServeRAID C100 controls all devices that are connected to the system board SATA ports, with RAID functions disabled by default.

Important: You must create the software RAID array *before* you install the operating system on the compute node.

Notes:

- ServeRAID C100 RAID configuration is not supported in VMware 5 and VMware 4.1.
- You must download and install the device drivers for your operating system that are required for RAID operation (see “Updating firmware and device drivers” on page 25).
- The Flex System Manager management software (if installed) provides limited support for RAID arrays using the integrated ServeRAID C100 controller. For more information about Flex System Manager management software, see the .

To create a software RAID array using the integrated ServeRAID C100 controller, complete the following steps:

- Step 1. Configure the SATA hard disk drives for RAID operation, if you have not already done so:
 - a. Start the compute node Setup utility. See “Using the Setup utility” on page 28 for instructions.
 - b. Under **System Settings**, select **Devices and I/O Ports**.
 - c. Under **Configure the onboard SATA**, select **RAID**.
 - d. Press Esc twice to return to the Setup utility main menu.
 - e. Select **Save Settings** and then select **Exit Setup**.

The compute node restarts with the SATA hard disk drives configured for RAID operation.

Step 2. Start the compute node Setup utility. See “Using the Setup utility” on page 28 for instructions.

Step 3. Under **System Settings**, select **Storage**.

Step 4. Under **Storage**, select **LSI Software RAID Configuration Utility**.

Step 5. Select **Virtual Drive Management** → **Create Configuration**.

Step 6. Under **Select RAID Level**, select the RAID level for the array that you want to create:

- **RAID0** is the only option available if there is just one hard disk drive installed.
- **RAID0** and **RAID1** are available if two hard disk drives are installed.

Step 7. On the **Create Configuration** screen, select **Select Drives**. The **Select Drives** screen is displayed.

- Step 8. On the **Select Drives** screen, scroll down to **Choose Unconfigured Drives** and highlight the drive you want to use. Press the spacebar to select a drive. An X appears to indicate that the drive has been selected. Repeat this step for a second drive if you are configuring a RAID1 array.
- Step 9. On the **Select Drives** screen, select **Apply Changes** to create the array.
- Step 10. When the Success prompt is displayed, select **OK** to continue.
- Step 11. After the system returns to the **Create Configuration** screen, select **Save Configuration**.

Notes:

1. You must save the virtual drive configuration before exiting the Setup utility.
2. If you return to the Select Drives screen, your drive selections will be deleted.

- Step 12. When the prompt Creating Virtual Drives will cause the data lost on the associated Drives to be permanently deleted. is displayed, select **Yes** to continue.
- Step 13. When the Success prompt is displayed, select **OK** to continue.
- Step 14. RAID1 only: To initialize the virtual disk, select **ServeRAID C100** → **Virtual Drive Management** → **Select Virtual Drive Operations**.

Note: These steps are not required for RAID0.

- a. Under **Virtual Drive Operation**, choose **Select Operation**. Select the type of initialization you want to use.
 - b. Select **Start Operation**.
 - c. Select **Yes** to confirm.
 - d. When the Success prompt is displayed, select **OK** to continue.
- The status of RAID drives is shown by the LEDs on the front of each compute node (see “Compute node controls, connectors, and LEDs” on page 13).
 - For information about using the ServeRAID C100 program, see the *ServeRAID C100 and ServeRAID C105 User's Guide* at <http://www-947.ibm.com/support/entry/portal/docdisplay?Indocid=MIGR-5089068&brandind=5000008>.

Features on Demand

This topic provides information about Features on Demand. Features on Demand are applied separately to the upper and lower compute nodes.

Features on Demand provides optional software that is available for the compute nodes and other Flex System resources. Features on Demand provides a convenient way for you to activate optional software through the optional Flex System Manager management software (see), the IMM2 interface (see http://publib.boulder.ibm.com/infocenter/systemx/documentation/topic/com.lenovo.sysx.imm2.doc/printable_doc.html, you might need to register to access this content), or the CMM web interface (see "[Flex System Chassis Management Module: User's Guide](http://pic.dhe.ibm.com/infocenter/flexsys/information/topic/com.lenovo.acc.cmm.doc/cmm_user_guide.html)" at http://pic.dhe.ibm.com/infocenter/flexsys/information/topic/com.lenovo.acc.cmm.doc/cmm_user_guide.html). Any Features on Demand software that you ordered with your compute node is preactivated and does not require manual activation.

Note: If the optional Flex System Manager management software is installed, Features on Demand should be activated using the Flex System Manager management software so that these features are properly cataloged.

If you did not order Features on Demand software when you ordered the compute node, you can purchase Features on Demand as you would any other optional software or hardware. Instructions for obtaining an activation key are provided with your purchase of a Features on Demand authorization code.

For information about Features on Demand, see <https://fod.lenovo.com/lkms>.

Important:

1. If the compute node is configured in the Setup utility to boot in legacy mode, you must leave UEFI option ROM initialization enabled for devices for which Features on Demand feature keys are installed.
2. After you install an activation key for the first time, you might have to restart the compute node for the Feature on Demand to become active. See the documentation that comes with the software for specific activation instructions.
3. Make sure that the UEFI code, IMM2 firmware, and all other firmware in the compute node is at the level that supports the Feature on Demand software.

Setting up the LAN-on-motherboard (LOM) feature

This topic provides information about setting up the LAN-on-motherboard (LOM) feature.

The upper and lower compute nodes each have an Ethernet LAN-on-motherboard (LOM) controller integrated on the system board. The LOM provides the following features:

- Two operational mode choices:
 - One-port physical NIC mode (pNIC), multichannel disabled, which is the default.
 - Virtual NIC mode (vNIC), multichannel enabled. vNIC mode enables up to 4 virtual NIC interfaces per 10 Gb physical port (8 total for the LOM).

For more information about how LOM ports are mapped to switch modules in the chassis, see .

- Two options for vNIC linking:
 - VNIC1, Virtual Fabric mode.
 - VNIC2, Switch Independent mode.

You can select these options using the Setup utility (F1).

- Link auto negotiation 10 Gb/1 Gb full duplex.
- Bus-mastering support.
- Direct memory access (DMA) support.
- Interoperability with existing FC SAN infrastructures, such as switches, arrays, SRM tools (including Emulex utilities), SAN practices, and other infrastructures.
- Unified Ethernet-to-FC SAN connectivity provided by an FCoE switch.
- 10 Gb MAC features such as MSI-X support, jumbo frames (8 KB) support, VLAN tagging (802.1Q, PER priority pause/priority flow control), and advanced packet filtering.
- NIC failover support.
- Support for IBM Fabric Manager (IFM).
- Preboot Execution Environment, UEFI, and Legacy PXE.
- Wake on LAN (WOL).
- SRIOV support.
- iSCSI or FCoE capabilities, which can be enabled through Features on Demand. When enabled, the iSCSI or FCoE operations are supported on the second vNIC of the physical port.

Separate NIC, iSCSI, and FCoE drivers are provided to support all configurations. To obtain the device drivers, go to <http://www.emulex.com/downloads/ibm/vfa-software-kits.html>.

No host operating system changes are required for you to use the LOM features. NIC and HBA functionality (including device management, utilities, and other functions) are transparent to the host operating system.

For more information about using the LOM feature, go to <http://www.emulex.com/support.html>.

Chapter 3. Installing the operating system

Use these instructions to install the operating system on an upper or lower compute node.

Note: The upper and lower compute nodes operate independently and each must have its own operating system installed.

Provisioning is the set of actions that you take to install the operating system. To install the operating system on a compute node, you can use any of the following methods:

- **IBM ServerGuide Setup and Installation CD**

Use the *ServerGuide Setup and Installation* CD to install a supported Microsoft Windows operating system only. To provision a compute node with an operating system by using the *ServerGuide Setup and Installation* CD, complete the following steps:

1. Download the *ServerGuide Setup and Installation* CD ISO image to a computer that is connected over the management network to the Flex System Manager management software (if installed) that is managing the compute node.
2. Connect to the Flex System Manager management software that is managing the Flex System chassis in which the compute node is installed.
3. From Flex System Manager Chassis Manager, select the compute node. In the Actions column, select **Remote Control**.

Note: The user ID that you use to log in to Flex System Manager management software must have sufficient user permissions to manage the compute node.

4. From the Remote Control session, mount the *ServerGuide Setup and Installation* CD bootable media (using Remote Media). When the ServerGuide program prompts you to mount the operating-system image, unmount the *ServerGuide Setup and Installation* CD and mount the operating-system image. You can also install an ISO image of the operating system from an external or portable storage device, such as a USB device, by using Remote Media. For more information, see .
5. Start the compute node to boot the media and install the operating system.

- **IBM ToolsCenter Bootable Media Creator**

Use IBM ToolsCenter Bootable Media Creator to create an *IBM ServerGuide Setup and Installation* CD for deploying Windows operating systems and updates from UpdateXpress System Packs. For more information about the IBM Bootable Media Creator, see <https://support.lenovo.com/us/en/documents/LNVO-BOMC>.

To provision a compute node with an operating system by using IBM ToolsCenter Bootable Media Creator, complete the following steps:

1. Download IBM ToolsCenter Bootable Media Creator to a computer that is connected over the management network to the Flex System Manager management software (if installed) that is managing the compute node.
2. Connect to the Flex System Manager management software that is managing the Flex System chassis in which the compute node is installed.
3. From Flex System Manager Chassis Manager, select the compute node. In the Actions column, select **Remote Control**.

Note: The user ID that you use to log in to Flex System Manager management software must have sufficient user permissions to manage the compute node.

4. From the Remote Control session, mount the *ServerGuide Setup and Installation* CD bootable media (using Remote Media). When the ServerGuide program prompts you to mount the operating-system

image, unmount the *ServerGuide Setup and Installation* CD and mount the operating-system image. You can also install an ISO image of the operating system from an external or portable storage device, such as a USB device, by using Remote Media. For more information, see .

5. Start the compute node to boot the media and install the operating system.

- **Flex System Manager management software**

You can use Flex System Manager management software (if installed) to deploy operating system and virtual images to multiple compute nodes that do not already have an operating system installed. This function is limited to deploying VMware ESXi and RHEL Kernel-based Virtual Machine (KVM) hypervisors to X-Architecture compute nodes. For more information, see .

- **IBM ServerGuide Scripting Toolkit**

The ServerGuide Scripting Toolkit is a collection of system-configuration tools and installation scripts that you can use to deploy software to your compute node in a repeatable, predictable manner (see “Using Lenovo ServerGuide Scripting Toolkit” on page 45).

- **Operating-system installation instructions**

Download the latest operating-system installation instructions and install the operating system.

Important: The operating system in the compute node must provide USB support for the compute node to recognize and use the keyboard, mouse, and removable-media drives.

Using the ServerGuide Setup and Installation CD

The *ServerGuide Setup and Installation* CD provides software setup tools and installation tools that are designed for your compute node. The ServerGuide program detects the compute node model and optional hardware devices that are installed and uses that information during setup to configure the hardware. The ServerGuide program simplifies operating-system installations by providing updated device drivers and, in some cases, installing them automatically.

You can download a free image of the *ServerGuide Setup and Installation* CD from <http://www.ibm.com/support/entry/portal/docdisplay?Indocid=SERV-GUIDE>.

In addition to the *ServerGuide Setup and Installation* CD, you must have your operating-system CD to install the operating system.

ServerGuide features

This information provides an overview of the ServerGuide features.

Features and functions can vary slightly with different versions of the ServerGuide program. To learn more about the version that you have, start the *ServerGuide Setup and Installation* CD and view the online overview. Not all features are supported on all compute node models.

The ServerGuide program has the following features:

- An easy-to-use interface
- Diskette-free setup, and configuration programs that are based on detected hardware
- Device drivers that are provided for the compute node model and detected hardware
- Operating-system partition size and file-system type that are selectable during setup

The ServerGuide program performs the following tasks:

- Sets system date and time

- Detects installed optional hardware devices and provides updated device drivers for most adapters and devices
- Provides diskette-free installation for supported Windows operating systems
- Includes an online readme file with links to tips for hardware and operating-system installation

Typical operating-system installation

This topic provides information about a typical ServerGuide operating-system installation.

The ServerGuide program can reduce the time it takes to install an operating system. It provides the device drivers that are required for your hardware and for the operating system that you are installing. This section describes a typical ServerGuide operating-system installation.

Note: Features and functions can vary slightly with different versions of the ServerGuide program.

1. After you have completed the setup process, the operating-system installation program starts. (You will need your operating-system CD to complete the installation.)
2. The ServerGuide program stores information about the compute node model, IMM2, hard disk drive controllers, and network adapters. Then, the program checks the CD for newer device drivers. This information is stored and then passed to the operating-system installation program.
3. The ServerGuide program presents operating-system partition options that are based on your operating-system selection and the installed hard disk drives.
4. The ServerGuide program prompts you to insert your operating-system CD and restart the compute node. At this point, the installation program for the operating system takes control to complete the installation.

Installing the operating system without using ServerGuide

Use this information to install the operating system on an upper or lower compute node without using ServerGuide.

If you have already configured the compute node hardware and you are not using the ServerGuide program to install your operating system, you can download operating-system installation instructions for the compute node from <http://www.lenovo.com/support>.

Using Lenovo ServerGuide Scripting Toolkit

The ServerGuide Scripting Toolkit is a collection of system-configuration tools and installation scripts that you can use to deploy software to your Flex System compute node in a repeatable, predictable manner. When the ServerGuide Scripting Toolkit is used with Lenovo ServerGuide, it provides a total solution for deploying Flex System compute nodes in an unattended mode.

Note: The upper and lower compute nodes operate independently and each must have its own operating system and software installed.

For more information about using the Lenovo ServerGuide Scripting Toolkit, see <https://support.lenovo.com/us/en/documents/LNVO-CENTER>.

Chapter 4. Accessing the IMM2

Use this information to access the IMM2 in the upper or lower compute node remotely using the command-line interface, serial over LAN, or web interface; or locally through the LAN over USB interface.

The integrated management module II (IMM2) is a second generation hardware control device that provides enhanced systems-management processor functions, video controller, and remote presence function in a single chip. The upper and lower compute nodes operate independently and each has its own IMM2.

For more information about the IMM2, see http://publib.boulder.ibm.com/infocenter/systemx/documentation/topic/com.lenovo.sysx.imm2.doc/printable_doc.html (you might need to register to access this content).

Accessing the IMM2 remotely

This topic provides information about the remote systems-management capabilities.

The integrated management module II (IMM2) provides the following remote systems-management capabilities:

- **Command-line interface**

The command-line interface provides direct access to systems-management functions through the IPMI 2.0 protocol. Use the command-line interface to issue commands to control the compute node power, view system information, and identify the compute node. You can also save one or more commands as a text file and run the file as a script.

For more information about the command-line interface, see http://publib.boulder.ibm.com/infocenter/systemx/documentation/topic/com.lenovo.sysx.imm2.doc/printable_doc.html.

- **Serial over LAN**

Establish a Serial over LAN (SOL) connection to manage compute nodes from a remote location. You can remotely view and change the UEFI settings, restart the compute node, identify the compute node, and perform other management functions. Any standard Telnet client application can access the SOL connection.

See your operating-system documentation for information about SOL commands that you can enter by using the command-line interface.

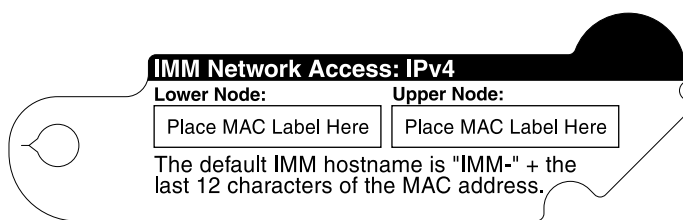
- **Web interface**

Use the secure IMM2 web interface to perform systems-management activities within a web browser. For information about accessing the web interface, see “Logging on to the web interface” on page 48.

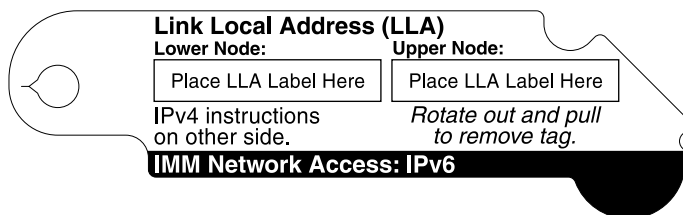
Viewing the network access tag

Use this information to locate the IP address by viewing the network access tag, or by using the Setup utility or systems-management software.

To access the web interface, you need the IP address of the IMM2. You can locate the IP address by viewing the network access tag. The network access tag is attached to the front of the compute node. The front of the network access tag lists the IMM MAC addresses for the lower and upper compute nodes, as shown in the following illustration.



The rear of the network access tag lists the IPv6 link local addresses (LLA) for the lower and upper compute nodes, as shown in the following illustration.



The MAC address is also available through the Setup utility, the CMM **cinstatus** command, and the CMM web interface.

- For more information about the Setup utility, see “Using the Setup utility” on page 28.
- For more information about the CMM **cinstatus** command, see the .
- From the CMM web interface, select **Compute Nodes** from the Chassis Management menu. For more information, see the . All fields and options are described in the CMM web interface online help.

Note: If the network access tag is missing from the front of the compute node, you can also locate the MAC address on a label located on the bottom of the compute node.

Logging on to the web interface

To log on to the IMM2 web interface, complete the following steps.

Notes:

- If you are logging on to the IMM2 for the first time after installation, the IMM2 defaults to Dynamic Host Configuration Protocol (DHCP). If a DHCP host is not available, the IMM2 assigns a static IP address between 192.168.70.101 and 192.168.70.114, for the lower compute node, and between 192.168.70.131 and 192.168.70.144, for the upper compute node, depending on the bay in which the Flex System x222 Compute Node is installed.
- You can also assign IP addresses through the CMM **ifconfig** command. For more information about the CMM **ifconfig** command, see the .
- To assign IP addresses from the CMM web interface, click **Mgt Module Management → Network → Ethernet**.
- If the CMM and compute nodes are set to use DHCP, and the CMM loses connectivity to the network, the CMM attempts to acquire a new IP address when network connectivity is restored. The compute nodes will not attempt to acquire an IP address again and the compute node continues to use their existing IP addresses. Therefore, if you experience network problems on compute nodes after connectivity between the CMM and the network has been restored, you might need to reset the system-management processor on each of the compute nodes in the chassis (including Flex System Manager management software, if it is installed).
- The IMM2 user name and password are provisioned through the CMM. To use tools such as Advanced Settings Utility (ASU) for out-of-band communications, you must define local user accounts from the IMM

web interface. To define local user accounts from the IMM web interface, click **IMM Management** → **Users**. The local user accounts are valid only for accessing the IMM web interface on this compute node. However, if you back up the IMM configuration, that backup will not contain the local user accounts that were created from the IMM user interface.

- The IMM2 logs you out of the web interface if your browser is inactive for the number of minutes that you have specified for the timeout period. To modify the timeout period, from the IMM web interface, click **IMM Management > User > Global Login Settings > General**.
 1. Open a web browser and in the **Address** or **URL** field, type the IP address or host name of the IMM2 to which you want to connect. You can determine the IP address or host name by viewing the network access tag (see “Viewing the network access tag” on page 47). The IP address and host name can also be determined by viewing the **Integrated Management Module > Network Configuration** section of the Setup utility (see “Using the Setup utility” on page 28).
 2. On the Login page, type the CMM user name and CMM password. You are then directed to the main page of the IMM2 web interface. If you are using the IMM2 for the first time, you can obtain the user name and password from your system administrator. All login attempts are documented in the IMM event log.

IMM2 action descriptions

This topic provides information about the IMM2 functions available from the web interface.

Navigate to activities you perform with the IMM at the top of the IMM window. The title bar identifies the user name that is logged in, allows you to configure **Settings** for the status screen refresh rate and a custom trespass message, and **Log out** of the IMM web interface. Beneath the title bar are tabs that allow you to access various IMM2 functions, as listed in Table 4 “IMM2 actions” on page 49.

For more information about the IMM2 actions, see http://publib.boulder.ibm.com/infocenter/systemx/documentation/topic/com.lenovo.sysx.imm2.doc/printable_doc.html.

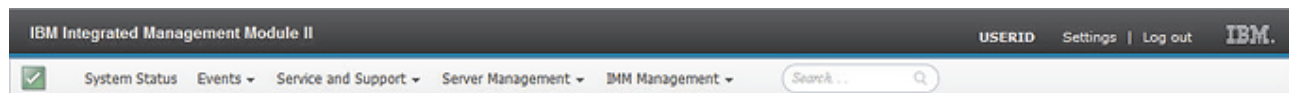


Table 4. IMM2 actions

Tab	Selection	Description
System Status		The System Status page allows you to view system status, active system events, and hardware health information. It provides quick links to the Server Power Actions, and Remote Control functions of the Server Management tab, and allows you to view an image of the last operating-system-failure screen capture.
Events	Event Log	The Event Log page displays entries that are currently stored in the IMM event log. The log includes a text description of system events that are reported, including information about all remote access attempts and configuration changes. All events in the log are time stamped, using the IMM2 date and time settings. Some events also generate alerts, if they are configured to do so. You can sort and filter events in the event log and export them to a text file.
	Event Recipients	The Event Recipients page allows you to manage who will be notified of system events. It allows you to configure each recipient, and manage settings that apply to all event recipients. You can also generate a test event to verify notification feature operation.
Service and Support	Download Service Data	The Download Service Data page creates a compressed file of information that can be used by Support to assist you.

Table 4. IMM2 actions (continued)

Tab	Selection	Description
Server Management	Server Firmware	The Server Firmware page displays firmware levels and allows you to update the IMM2 firmware, compute node firmware, and DSA firmware.
	Remote Control	The Remote Control page allows you to control the compute node at the operating system level. It provides access to both Remote Disk and Remote Console functionality. You can view and operate the compute node console from your computer, and you can mount one of your computer disk drives, such as the CD-ROM drive or the diskette drive, on the compute node. When you have mounted a disk, you can use it to restart the compute node and to update firmware on the compute node. The mounted disk appears as a USB disk drive that is attached to the compute node.
	Server Properties	The Server Properties page provides access to various properties, status, and settings for your compute node: <ul style="list-style-type: none"> • The General Settings tab displays information that identifies the system to operations and support personnel. • The LEDs tab displays the status of all system LEDs. It also allows you to change the state of the location LED. • The Hardware Information tab displays compute node vital product data (VPD). The IMM2 collects compute node information, compute node component information, and network hardware information. • The Environmentals tab displays voltage and temperature information for the compute node and its components. • The Hardware Activity tab displays a history of Field Replacable Unit (FRU) components that have been added to or removed from the system.
	Server Power Actions	The Server Power Actions page provides full remote power control over your compute node with power-on, power-off, and restart actions.
	Disks	The Disks page displays the status of hard disk drives in the system. You can click on a drive name to display active events for the hard disk drive.
Server Management	Processors	The Processors page displays the microprocessors in the system, along with their status and rated speed. You can click on a microprocessor name to display events and additional hardware information for the microprocessor.
	Server Timeouts	The Server Timeouts page allows you to manage compute node start timeouts to detect and recover from compute node hang occurrences.
	PXE Network Boot	The PXE Network Boot page allows you to change the host compute node startup (boot) sequence for the next restart to attempt a Preboot Execution Environment (PXE)/Dynamic Host Configuration Protocol (DHCP) network startup. The host startup sequence will be altered only if the host is not under Privileged Access Protection (PAP).
	Latest OS Failure Screen	The Latest OS Failure Screen page displays a screen image, when available, of the most recent operating system failure on the compute node. For your IMM to capture operating system failure screens, the operating system watchdog must be enabled.

Table 4. IMM2 actions (continued)

Tab	Selection	Description
IMM Management	IMM Properties	<p>The IMM Properties page provides access to various properties, status, and settings for your IMM2:</p> <ul style="list-style-type: none"> • The Firmware tab provides a link to the Server Firmware section of Server Management. • The IMM Date and Time Settings tab allows you to view and configure date and time settings for the IMM2. • The Serial Port tab configures the IMM2 serial port settings. These settings include the serial port baud rate used by the serial port redirection function and the key sequence to switch between the serial redirection and command-line interface (CLI) modes.
	Users	<p>The Users page allows you to configure the IMM2 login profiles and global login settings, and to view users that are currently logged in to the IMM2. Global login settings include enabling Lightweight Directory Access Protocol (LDAP) compute node authentication, setting the web inactivity timeout, and customizing the account security settings.</p>
	Network	<p>The Network Protocol Properties page provides access to networking properties, status, and settings for your IMM2:</p> <ul style="list-style-type: none"> • The Ethernet tab manages how the IMM2 communicates using Ethernet. • The SNMP tab configures the SNMPv1 and SNMPv3 agents. • The DNS tab configures the DNS compute nodes that the IMM2 interacts with. • The DDNS tab enables or disables and configures Dynamic DNS for the IMM2. • The SMTP tab configures SMTP compute node information used for alerts sent via email. • The LDAP tab configures user authentication for use with one or more LDAP compute nodes. • The Telnet tab manages Telnet access to the IMM2. • The USB tab controls the USB interface used for in-band communication between the compute node and the IMM2. These settings do not affect the USB remote control functions (keyboard, mouse, and mass storage). • The Port Assignments tab allows you to change the port numbers used by some services on the IMM2.
IMM Management	Security	<p>The IMM Security page provides access to security properties, status, and settings for your IMM2:</p> <ul style="list-style-type: none"> • The HTTPS Server tab allows you to enable or disable the HTTPS compute node and manage its certificates. • The CIM Over HTTPS tab allows you to enable or disable CIM over HTTPS and manage its certificates. • The LDAP Client tab allows you to enable or disable LDAP security and manage its certificates. • The SSH Server tab allows you to enable or disable the SSH compute node and manage its certificates.

Table 4. IMM2 actions (continued)

Tab	Selection	Description
	IMM Configuration	<p>The IMM Configuration page displays a summary of the current IMM2 configuration settings. It also provides the following functions:</p> <ul style="list-style-type: none"> • Backup the current IMM2 configuration • Restore a saved IMM2 configuration • Display backup and restoration status • Reset the configuration of the IMM2 to the factory defaults. • Access the IMM2 initial setup wizard <p>Note: Backups that you make from the IMM user interface will not contain any local user accounts that were created from the IMM user interface.</p>
	Restart IMM	The Restart IMM page allows you to reset the IMM.
	Reset IMM to factory defaults...	<p>The Reset IMM to factory defaults... page allows you to reset the configuration of the IMM2 to the factory defaults.</p> <p>Attention: When you click Reset IMM to factory defaults..., all of the modifications that you made to the IMM2 are lost.</p>
	Activation Key Management	The Activation Key Management page allows you to manage activation keys for optional IMM2 or compute node Features on Demand (FoD) features.

Accessing the IMM2 using the LAN over USB interface

Unlike a baseboard management controller, the IMM2 does not require IPMI device drivers or USB daemons for in-band IMM2 communication. Instead, a LAN over USB interface enables in-band communication to the IMM2; the IMM2 hardware on the system board presents an internal Ethernet interface from the IMM2 to the operating system. LAN over USB is also called the *USB in-band interface* in the IMM2 web interface.

The following table shows the IP addresses for the IMM2 and the host.

Table 5. LAN over USB addresses

IMM2 IP address	IMM2 IP subnet mask	Host address	Host subnet	Host subnet mask	Keyboard Controller Style (KCS) address
169.254.95.118	255.255.255.0	169.254.95.120	169.254.95.0/24	255.255.255.0	0x8C80

Potential conflicts with the LAN over USB interface

In some situations, the LAN over USB interface can conflict with certain network configurations, applications, or both. For example, Open MPI attempts to use all the available network interfaces on a server or compute node. Open MPI detects the IMM2 LAN over USB interface and attempts to use it to communicate with other systems in a clustered environment. The LAN over USB interface is an internal interface, so this interface does not work for external communication with other systems in the cluster.

Resolving conflicts with the IMM2 LAN over USB interface

Use any of the following actions to resolve LAN over USB conflicts with network configurations and applications.

Use one of the following methods to resolve LAN over USB conflicts.

Note: For conflicts with Open MPI, configure the application so that it does not attempt to use this interface.

- Take down the interface (run **ifdown** under Linux).
- Remove the device driver (run **rmmod** under Linux).
- Disable the LAN over USB interface from the CMM web interface. To disable the LAN over USB interface from the CMM web interface, complete the following steps.

Note: You cannot update the firmware for a compute node while the LAN over USB interface is disabled. Before updating the firmware, you must re-enable the interface. After updating the firmware, you can disable the interface again.

1. Log in to the CMM web interface.
2. From the CMM web interface homepage click **Chassis Management → Compute Nodes**.
3. Click the compute node ID.
4. Click the **General** tab.
5. Uncheck **Enable Ethernet Over USB** to disable the LAN over USB interface.

Configuring the LAN over USB interface manually

An IMM2 must be configured to use the LAN over USB interface. The firmware update package or Advanced Settings Utility attempts to perform the setup automatically, if needed. If the automatic setup fails or if you prefer to set up the LAN over USB manually, use one of the following processes.

For more information about LAN over USB configuration on different operating systems, see <http://www.ibm.com/support/entry/portal/docdisplay?Indocid=MIGR-5083207>.

Installing the LAN over USB Windows device driver

When you install a Windows operating system, there might be an unknown RNDIS device in the Device Manager. Lenovo provides a Windows INF file that identifies this device. The signed version of the INF file is included in all of the Windows versions of the IMM2, UEFI, and DSA update packages. Complete the following steps to install `ibm_rndis_server_os.inf`.

To install the LAN over USB device driver for Windows, complete the following steps.

Note: You only have to perform these steps if the compute node is running a Windows operating system and the `ibm_rndis_server_os.inf` file has not been previously installed. The file only has to be installed once. It is required by Windows operating systems to detect and use the LAN over USB functionality.

Step 1. Obtain a Windows version of the server or compute node UEFI code package (see “Updating firmware and device drivers” on page 25 for more information).

Step 2. Extract the `ibm_rndis_server_os.inf` and `device.cat` files from the firmware update package and copy them to the `\WINDOWS\inf` subdirectory.

Note: You can use the `-x path` command-line interface option to extract the files. For more information about this option, see the readme file that comes with the update package.

Step 3. (Windows 2003) Install the `ibm_rndis_server_os.inf` file by right-clicking the file and clicking **Install**. This generates a PNF file of the same name in `\WINDOWS\inf`.

(Windows 2008) Click **Computer Management → Device Manager** and find the RNDIS Device. Click **Properties → Driver → Reinstall driver**. Point the server or compute node to the `\Windows\inf` directory where it can find the `ibm_rndis_server_os.inf` file and install the device.

Step 4. Click **Computer Management → Device Manager**. Right-click **Network adapters** and select **Scan for hardware changes**. A small pop-up confirms that the Ethernet device is found and installed. The New Hardware Wizard starts automatically.

Step 5. When you are prompted Can Windows connect to Windows Update to search for software?, select **No, not this time**. Click **Next** to continue.

- Step 6. When you are prompted What do you want the wizard to do?, select **Install from a list or specific location (Advanced)**. Click **Next** to continue.
- Step 7. When you are prompted Please choose your search and installation options, select **Don't search. I will choose the driver to install**. Click **Next** to continue.
- Step 8. When you are prompted Select a hardware type, and then click Next, select **Network adapters**. Click **Next** to continue.
- Step 9. When you are prompted with the statement Completing the Found New Hardware Wizard, click **Finish**. A new local area connection appears. If the message This connection has limited or no connectivity is displayed, ignore this message.
- Step 10. Return to the Device Manager. **IBM USB Remote NDIS Network Device** or **Lenovo USB Remote NDIS Network Device** appears under **Network Adapters**.
- Step 11. Use the Setup utility to view or set the IP address. See Table 5 “LAN over USB addresses” on page 52 for information about the IP addresses.

Attention:

- The KVM connectors on the upper and lower compute nodes are rotated 180-degrees from each other. Make sure that the connector on the console breakout cable is correctly oriented before connecting it.
- Use only the console breakout cable that comes with the compute node. Attempting to connect other console breakout cable types might damage the console breakout cable and the compute node.
 - a. Connect a keyboard, monitor, and mouse to the console breakout cable and connect the console breakout cable to the compute node.
 - b. Turn on the compute node (see “Turning on a compute node” on page 16).
 - c. When the prompt Press <F1> Setup is displayed, press F1. If you have set an administrator password, you must type the administrator password to access the full Setup utility menu. If you do not type the administrator password, a limited Setup utility menu is available.
 - d. Select **System Settings** → **Integrated Management Module** → **Network Configuration**.
 - e. Locate the IP address.
 - f. Exit from the Setup utility.

Installing the LAN over USB Linux device driver

Versions of Linux since RHEL5 Update 3 and SLES10 Service Pack 2 support the LAN over USB interface by default. This interface is detected and displayed during the installation of these operating systems.

See Table 5 “LAN over USB addresses” on page 52 for information about the IP addresses.

Note: Older Linux distributions might not detect the LAN over USB interface, and might require manual configuration. For information about configuring LAN over USB on specific Linux distributions, see <http://www.ibm.com/support/entry/portal/docdisplay?Indocid=MIGR-5083207>.

The IMM2 LAN over USB interface requires that the `usbnet` and `cdc_ether` device drivers be loaded. If the drivers have not been installed, use **modprobe** to install them. When these drivers are installed, the IMM2 USB network interface is shown as a network device in the operating system. To discover the name that the operating system has assigned to the IMM2 USB network interface, type:

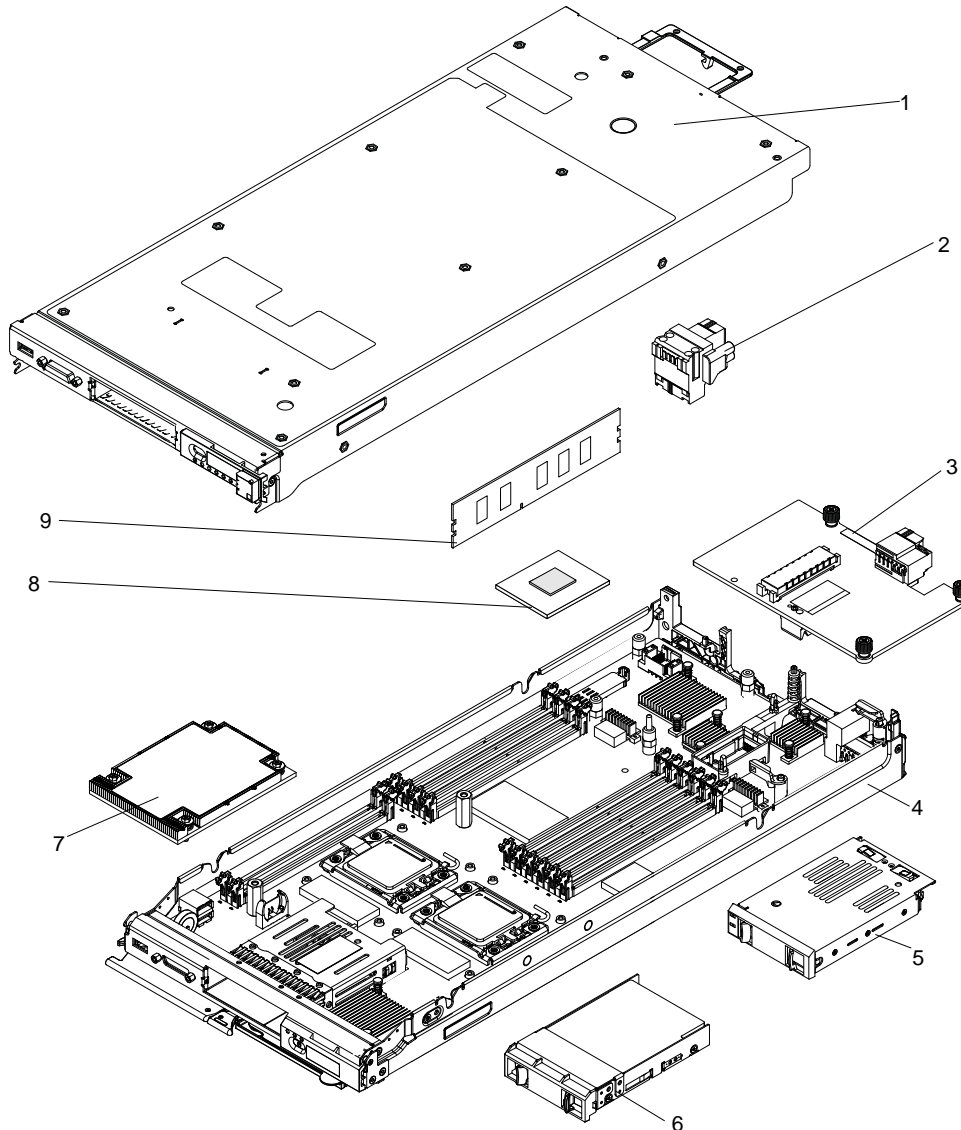
```
dmesg | grep -i cdc_ether
```

Chapter 5. Parts listing, Types 7916 and 2589

The following replaceable components are available for the Flex System x222 Compute Node Types 7916 and 2589.

For an updated parts listing on the web, go to <http://www.lenovo.com/support>.

Note: The illustrations in this document might differ slightly from your hardware.



Replaceable components consist of consumable parts, structural parts, and customer replaceable units (CRUs):

- **Consumable parts:** Purchase and replacement of consumable parts (components such as printer cartridges, that have depletable life) is your responsibility. If Lenovo acquires or installs a consumable part at your request, you will be charged for the installation.

- **Structural parts:** Purchase and replacement of structural parts (components such as the top cover) is your responsibility. If Lenovo acquires or installs a structural part at your request, you will be charged for the installation.
- **Tier 1 customer replaceable unit (CRU):** Replacement of Tier 1 CRUs is your responsibility. If Lenovo installs a Tier 1 CRU at your request without a service contract, you will be charged for the installation.
- **Tier 2 customer replaceable unit:** You may install a Tier 2 CRU yourself or request Lenovo to install it, at no additional charge, under the type of warranty service that is designated for your compute node.

For information about the terms of the warranty and getting service and assistance, see the *Warranty Information* document.

Table 6. Parts listing, Types 7916 and 2589

Index	Description	CRU part number (Tier 1)	CRU part number (Tier 2)
1	System-board assembly, upper (includes chassis and system board) <ul style="list-style-type: none"> • Air baffle, DIMMs, upper node • Microprocessor installation tool • Filler, microprocessor socket • Filler, hard disk drive bay • Repair ID (RID) tag 		00D4868
2	Fabric connector	81Y5175	
3	Flex System IB6132D 2-port FDR InfiniBand Adapter (option)	90Y3489	
3	Flex System FC5024D 4-port 16Gb FC Adapter (option)	95Y2382	
4	System-board assembly, lower (includes chassis and system board) <ul style="list-style-type: none"> • Air baffle, DIMMs, lower node • Microprocessor installation tool • Filler, microprocessor socket • Filler, hard disk drive bay • Repair ID (RID) tag 		00D4867
5	Mounting sleeve, 1.8 inch solid-state drive (option)	00W0300	
	Hard disk drive, 1.8 inch SATA 100 GB MLC SSD (option)	00W1121	
	Hard disk drive, 1.8 inch SATA 200 GB MLC SSD (option)	49Y6120	
6	Hard disk drive, 2.5 inch slim simple-swap SATA 500 GB 7200 6 Gbit NL (option)	90Y8975	
6	Hard disk drive, 2.5 inch slim simple-swap SATA 1 TB 7200 6 Gbit NL (option)	90Y8980	
6	Hard disk drive, 2.5 inch SATA 100 GB MLC SS SSD (option)	90Y8995	
6	Hard disk drive, 2.5 inch SATA 120 GB MLC SS SSD (option)	00AJ415	
6	Hard disk drive, 2.5 inch SATA 128 GB MLC SS SSD (option)	90Y8985	
6	Hard disk drive, 2.5 inch SATA 240 GB MLC SS SSD (option)	00AJ420	
6	Hard disk drive, 2.5 inch SATA 256 GB MLC SS SSD (option)	90Y8990	
6	Hard disk drive, 2.5 inch SATA 400 GB MLC SS SSD (option)	00AJ321	

Table 6. Parts listing, Types 7916 and 2589 (continued)

Index	Description	CRU part number (Tier 1)	CRU part number (Tier 2)
6	Hard disk drive, 2.5 inch SATA 480 GB MLC SS SSD (option)	00AJ425	
6	Hard disk drive, 2.5 inch SATA 800 GB MLC SS SSD (option)	00AJ430	
6	Hard disk drive, 1.8 inch hot-swap SATA, 120 GB SSD (option)	00AJ336	
6	Hard disk drive, 1.8 inch hot-swap SATA, 240 GB SSD (option)	00AJ341	
6	Hard disk drive, 1.8 inch hot-swap SATA, 480 GB SSD (option)	00AJ346	
6	Hard disk drive, 1.8 inch hot-swap SATA, 800 GB SSD (option)	00AJ351	
6	Hard disk drive, hot-swap SATA, 120 GB SSD (option)	00AJ416	
6	Hard disk drive, hot-swap SATA, 240 GB SSD (option)	00AJ421	
6	Hard disk drive, hot-swap SATA, 480 GB SSD (option)	00AJ426	
6	Hard disk drive, hot-swap SATA, 800 GB SSD (option)	00AJ431	
7	Heat sink, microprocessor		00D4925
8	Intel Xeon Processor E5-2403 4C 1.8 GHz 10 MB Cache 1066 MHz 80W		90Y4744
8	Intel Xeon Processor E5-2428L 6C 1.8 GHz 15 MB Cache 60W (option)		00D8760
8	Intel Xeon Processor E5-2448L 8C 1.8 GHz 20 MB Cache 70W		00D8761
8	Intel Xeon Processor E5-2450L 8C 1.8 GHz 20 MB Cache 1600 MHz 70W		90Y4747
8	Intel Xeon Processor E5-2420 6C 1.9 GHz 15 MB Cache 1333 MHz 95W		90Y4742
8	Intel Xeon Processor E5-2418L 4C 2.0 GHz 10 MB Cache 50W (option)		00D8762
8	Intel Xeon Processor E5-2430L 6C 2.0 GHz 15 MB Cache 1333 MHz 60W		90Y4748
8	Intel Xeon Processor E5-2450 8C 2.1 GHz 20 MB Cache 1600 MHz 95W		90Y4738
8	Intel Xeon Processor E5-2407 4C 2.2 GHz 10 MB Cache 1066 MHz 80W		90Y4743
8	Intel Xeon Processor E5-2430 6C 2.2 GHz 15 MB Cache 1333 MHz 95W		90Y4740
8	Intel Xeon Processor E5-2470 8C 2.3 GHz 20 MB Cache 1600 MHz 95W		90Y4736
8	Intel Xeon Processor E5-2440 6C 2.4 GHz 15 MB Cache 1333 MHz 95W		90Y4739
9	Memory, 4 GB 1R x 4 2 Gbit DDR-3 1333 MHz LP RDIMM (option)	49Y1424	
9	Memory, 4 GB 1R x 4 2 Gbit DDR-3 1600 MHz LP DIMM (option)	49Y1561	
9	Memory, 4 GB 2R x 8 2 Gbit DDR-3 1333 MHz LP RDIMM	49Y1425	
9	Memory, 4 GB 2R x 8 2 Gbit DDR-3 1600 MHz LP RDIMM (option)	90Y3180	
9	Memory, 8 GB 2R x 4 2 Gbit DDR-3 1333 MHz LP RDIMM (option)	49Y1415	
9	Memory, 8 GB 2R x 4 2 Gbit DDR-3 1600 MHz LP RDIMM (option)	90Y3111	
9	Memory, 16 GB 2R x 4 4 Gbit DDR-3 1333 MHz LP DIMM	49Y1565	
9	Memory, 16 GB 2R x 4 4 Gbit DDR-3 1600 MHz LP RDIMM (option)	00D4970	
9	Memory, 32 GB 2R x 4 4 Gbit DDR-3 1333 MHz LP LR-DIMM (option)	90Y3107	
	2 GB USB Flash Key (includes VMWare 5.0) (option)	42D0545	

Table 6. Parts listing, Types 7916 and 2589 (continued)

Index	Description	CRU part number (Tier 1)	CRU part number (Tier 2)
	Flex System console breakout cable (option)	81Y5287	
	CMOS battery, 3.0 volt (all models)	33F8354	
	System service label kit <ul style="list-style-type: none"> • System service label • FRU/CRU labels 	00D4921	
	Quebec label sheet (option) <ul style="list-style-type: none"> • System service label (French language) • FRU/CRU labels (French language) 	00W0389	
	Microprocessor-retention assembly		00AK005
	Microprocessor installation tool		81Y9398
	Alcohol wipes		00MP352
	Thermal grease		41Y9292
	RFID label tag assembly (EMEA) (option)	00E6323	
	RFID label tag assembly (US) (option)	74Y8800	

Consumable and structural parts

Consumable and structural parts are not covered by the Lenovo Statement of Limited Warranty.

Table 7. Consumable and structural parts, Types 7916 and 2589

Index	Description	Part number
	Filler, DIMM	81Y4297
	Filler, hard disk drive bay	00AK085
	Filler, microprocessor socket	00AK084
	Front handle assembly	81Y5203
	Miscellaneous parts kit <ul style="list-style-type: none"> • Chassis bulkhead • Bezel, front assembly, lower node • Bezel, front assembly, upper node • Air baffle, DIMMs, lower node • Air baffle, DIMMs, upper node • Lightbox cover, lower node • Lightbox cover, upper node • Support posts • Screws 	00D4923

To order a consumable or structural part, complete the following steps:

1. Go to <http://www.ibm.com>.

2. From the **Products** menu, select **Upgrades, accessories & parts**.
3. Click **Obtain maintenance parts**; then, follow the instructions to order the part from the retail store.

If you need help with your order, call the toll-free number that is listed on the retail parts page, or contact your local Lenovo representative for assistance.

Chapter 6. Troubleshooting

Use this information to diagnose and correct problems that might occur in your Flex System x222 Compute Node.

The information in this section describes tools and procedures for solving hardware and software problems. If you cannot diagnose and correct a problem by using the information, see Appendix A “Getting help and technical assistance” on page 549 for more information.

Service bulletins

Lenovo continually updates the support website with tips and techniques that you can use to solve problems that you might have with the Flex System x222 Compute Node.

To find service bulletins that are available for the Flex System x222 Compute Node, go to <http://www.lenovo.com/support> and search for the terms 7916 and retain.

Diagnostic tools

Use this information to review the diagnostic tools to diagnose and solve hardware-related problems.

Light path diagnostics

Use this information as an overview of light path diagnostics.

Light path diagnostics is a system of LEDs on the right side of the compute node and on various internal components of the compute node. When an error occurs, LEDs can be lit throughout the compute node to help identify the source of the error.

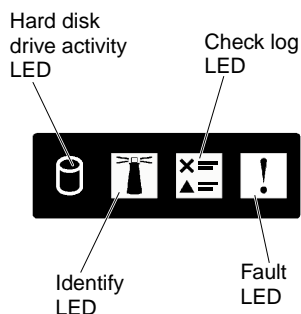
Viewing the light path diagnostics LEDs

Use this information to locate and identify the light path diagnostics LEDs.

Before you work inside the compute node to view light path diagnostics LEDs, read “Safety” on page iii and “Installation guidelines” on page 491.

If an error occurs, view the light path diagnostics LEDs in the following order:

1. Look at the control panel on the front of the compute node. There is a control panel on both the upper and lower compute nodes.



- If the check log LED is lit, it indicates that a condition that causes an event to log in the IMM event log has occurred.

- If the fault LED is lit, it indicates that an error has occurred; view the light path diagnostics panel and LEDs to isolate the failing component.
2. Note which compute node, the upper or the lower, is indicating the error.
 3. To view the light path diagnostics LEDs, select one of the following procedures:
 - You can view the LEDs through the CMM **led** command, the CMM web interface, or Flex System Manager management software (if installed).
 - For more information about the CMM **led** command, see the .
 - From the CMM web interface, select **Compute Nodes** from the Chassis Management menu. For more information, see the . All fields and options are described in the CMM web interface online help. See for information about starting the CMM web interface.
 - For more information about Flex System Manager management software, see the .
 - If you are in the same location as the compute node, you can complete the following steps:
 - a. Remove the Flex System x222 Compute Node from the Flex System chassis, (see “Removing a compute node from a chassis” on page 493 for instructions).
 - b. Carefully lay the compute node on a flat, static-protective surface.
 - c. Remove the upper compute node (see “Removing the upper compute node” on page 495 for instructions).

Note: The following steps are performed on the compute node that is indicating an error. If both compute nodes are indicating an error, troubleshoot the upper and lower compute nodes one at a time.

- d. Press and hold the power button of the compute node that is indicating an error. When you press the power button, LEDs on the light path diagnostics panel and the system board will be lit if there are any hardware-related issues.

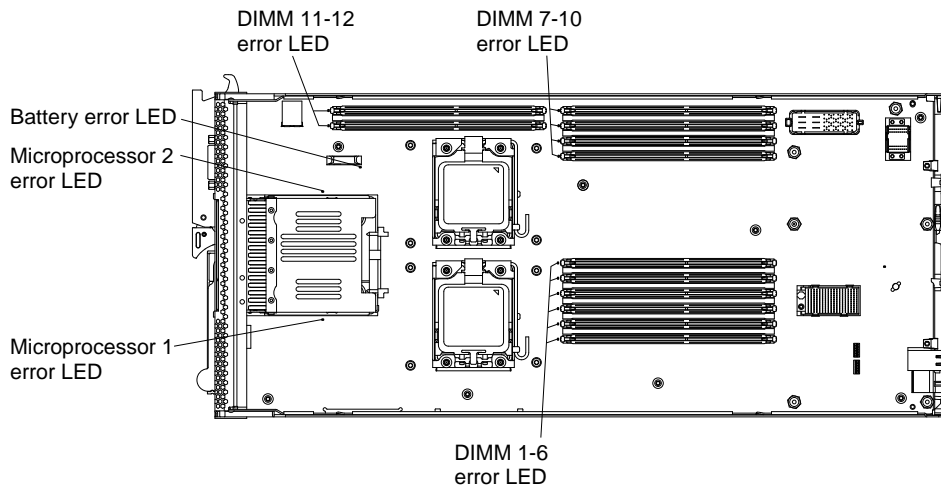
Note: The power source for light path diagnostics is designed only to last a short time. If you press the power button and the light path diagnostics LED lights, light path diagnostics is charged to light the LEDs.

The following illustration shows the LEDs on the light path diagnostics panel that is on the right side of each compute node. The light path diagnostic panels on the upper and lower compute nodes are the same.

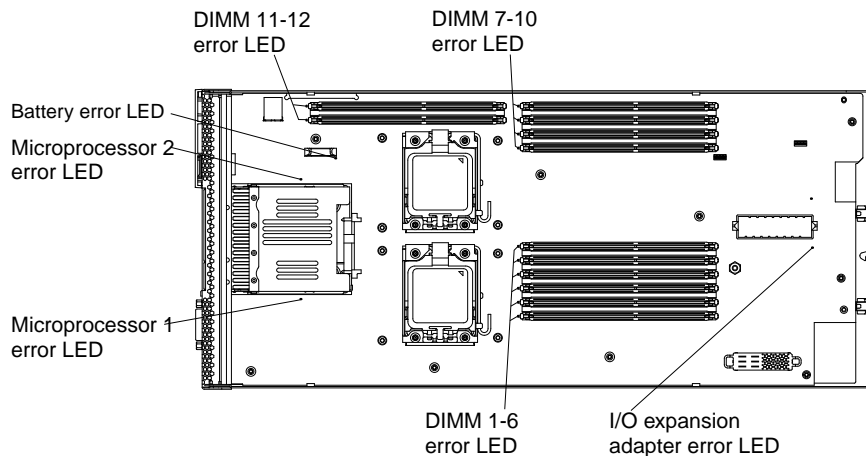


The following illustrations show the locations of the light path diagnostics LEDs on the upper and lower system boards. Light path diagnostics LEDs on the upper and lower system boards are in different locations.

The following illustration shows the locations of the light path diagnostics LEDs on the lower system board.



The following illustration shows the locations of the light path diagnostics LEDs on the upper system board.



Light path diagnostics LEDs

Use this information to diagnose possible errors that are indicated by the light path diagnostics LEDs.

The following table describes the LEDs on the light path diagnostics panel and the light path diagnostics LEDs on each system board. See “Viewing the light path diagnostics LEDs” on page 61 for information about viewing the condition of the LEDs.

Table 8. Light path diagnostics LEDs

Lit light path diagnostics LED	Description
None	The compute node is not sufficiently charged to display the LEDs on the system board.
Battery error	The system CMOS battery is not installed or is not working.
BMC error	Future use.
DC power error	Future use.
DIMM x error	A memory error occurred.
I/O expansion adapter (upper compute node only)	An error has occurred with the I/O expansion adapter installed in the lower compute node.

Table 8. Light path diagnostics LEDs (continued)

Lit light path diagnostics LED	Description
I/O expansion unit	Future use.
Light path diagnostics	The power source for the light path diagnostics LEDs is charged.
Light path diagnostics only	No errors have occurred.
Memory	A memory error has occurred.
Microprocessor x error	The IMM2 lights this LED when a microprocessor has failed or overheated or the start microprocessor (CPU 1) is missing. The fault LED on the front panel is also lit.
Mismatch	The microprocessors are mismatched. If the Memory LED is also lit, the DIMMs are mismatched.
NMI	The system board has failed.
SAS/SATA backplane error	A hard disk drive backplane error has occurred.
System board	The system board has failed.
Temperature	The system temperature has exceeded a threshold level.

IMM event log

Use this information as an overview of the IMM event log.

The integrated management module II (IMM2) consolidates the system-management processor functionality, video controller, and remote presence capabilities in a single chip on the system board. The IMM2 monitors all components of the compute node and posts events in the IMM event log. In addition, most events are also sent to the Chassis Management Module event log. You can view the IMM event log through the Dynamic System Analysis (DSA) program (as the ASM event log).

To diagnose and resolve IMM error codes, see “IMM messages” on page 199.

Viewing event logs through the Setup utility

You can view the IMM and POST events through the Setup utility.

To view the POST event log or system-event log, complete the following steps:

Step 1. Connect a keyboard, monitor, and mouse to the console breakout cable and connect the console breakout cable to the compute node.

Attention:

- The KVM connectors on the upper and lower compute nodes are rotated 180-degrees from each other. Make sure that the connector on the console breakout cable is correctly oriented before connecting it.
- Use only the console breakout cable that comes with the compute node. Attempting to connect other console breakout cable types might damage the console breakout cable and the compute node.

Step 2. Turn on the compute node.

Step 3. When the prompt <F1> Set up is displayed, press F1. If you have set both a power-on password and an administrator password, you must type the administrator password to view the event logs.

Step 4. Select **System Event Logs** and use one of the following procedures:

- To view the POST event log, select **POST Event Viewer**.

- To view the system-event log, select **System Event Log**.

Important: In event messages that reference a specific Flex System x222 compute node, upper or lower, 'node 1' indicates the lower compute node and 'node 2' indicates the upper compute node.

Viewing event logs without restarting the compute node

If the compute node is not hung, methods are available for you to view one or more event logs without having to restart the compute node.

You can view the Chassis Management Module event log in the Flex System Manager Chassis Manager, or through the **Event Log** link in Flex System Manager management software (if installed). For more information about Flex System Manager management software, see the .

You can also view the Chassis Management Module event log through the **Event Log** link by using the CMM **displaylog** command or the CMM web interface.

- For more information about the CMM **displaylog** command, see the .
- From the CMM web interface, select **Event Log** from the Events menu. You can also view events and their messages by clicking the **Active Events** tab on the System Status page. For more information, see the . All fields and options are described in the CMM web interface online help.

Important: In event messages that reference a specific Flex System x222 compute node, upper or lower, 'node 1' indicates the lower compute node and 'node 2' indicates the upper compute node.

Note: If event IDs are not currently displayed in the Event Log page, you can enable them. To do so, click **Filter Events** and select the **Event ID** check box under **Visible columns**.

If you have installed DSA Portable Edition, you can use it to view the system-event log (as the IPMI event log), the operating-system event logs, or the merged DSA log. You can also use DSA Preboot to view these logs, although you must restart the compute node to use DSA Preboot. To install Portable DSA or DSA Preboot or to download a DSA Preboot CD image, go to <https://support.lenovo.com/us/en/documents/LNVO-DSA>.

If IPMItool is installed in the compute node, you can use it to view the system-event log. Most recent versions of the Linux operating system come with a current version of IPMItool. For information about IPMItool, complete the following steps.

Note: Changes are made periodically to the Lenovo website. The actual procedure might vary slightly from what is described in this document.

1. Go to <http://www.ibm.com/developerworks>.
2. Click **Linux**.
3. Click the **Linux blueprints** tab.
4. Click **Blueprints for Linux on IBM systems** or **Blueprints for Linux on Lenovo systems**, and then click **Using Intelligent Platform Management Interface (IPMI) on IBM Linux platforms** or **Using Intelligent Platform Management Interface (IPMI) on Lenovo Linux platforms**.

The following table describes the methods that you can use to view the event logs, depending on the condition of the compute node. The first two conditions generally do not require that you restart the compute node.

Table 9. Methods for viewing event logs

Condition	Action
The compute node is not hung and is connected to a network.	Use any of the following methods: <ul style="list-style-type: none"> • In a web browser, type the IP address of the Chassis Management Module and go to the Event Log page. • Run Portable or Installable DSA to view the event logs or create an output file that you can send to Support. • Use IPMItool to view the system-event log.
The compute node is not hung and is not connected to a network.	Use IPMItool locally to view the system-event log.
The compute node is hung.	Use any of the following methods: <ul style="list-style-type: none"> • If DSA Preboot is installed, restart the compute node and press F2 to start DSA Preboot and view the event logs. • If DSA Preboot is not installed, insert the DSA Preboot CD and restart the compute node to start DSA Preboot and view the event logs. • Alternatively, you can restart the compute node and press F1 to start the Setup utility and view the POST event log or system-event log. For more information, see “Viewing event logs through the Setup utility” on page 64.

Lenovo Dynamic System Analysis

Lenovo Dynamic System Analysis (DSA) collects and analyzes system information to aid in diagnosing compute node problems.

DSA collects the following information about the compute node:

- Drive health information for drives that are not part of RAID arrays.
- Event logs for ServeRAID controllers and system-management processors
- Hardware inventory, including PCI and USB information
- Installed applications and hot fixes
- Kernel modules
- Light path diagnostics status
- Network interfaces and settings
- Performance data and details about processes that are running
- Integrated management module 2 status and configuration
- System configuration
- Vital product data and firmware information

DSA creates a DSA log, which is a chronologically ordered merge of the system-event log (as the IPMI event log), the IMM event log (as the ASM event log), and the operating-system event logs. You can send the DSA log as a file to a support representative or view the information as a text file or HTML file.

In a multi-node environment, each node has a unique DSA interface. You can view node-specific information, such as error logs, from these unique DSA interfaces.

To obtain DSA code and the *Dynamic System Analysis Installation and User's Guide*, go to <https://support.lenovo.com/us/en/documents/LNVO-DSA>.

DSA editions

Two editions of Dynamic System Analysis are available:

- **DSA Portable**

DSA Portable Edition runs within the operating system; you do not have to restart the compute node to run it. It is packaged as a self-extracting file that you download from the Web. When you run the file, it self-extracts to a temporary folder and performs comprehensive collection of hardware and operating-system information. After it runs, it automatically deletes the temporary files and folder and leaves the results of the data collection and diagnostics on the compute node.

If you are able to start the compute node, use DSA Portable.

- **DSA Preboot**

DSA Preboot runs outside of the operating system; you must restart the compute node to run it. It is packaged as an ISO image that you download from the Web, or it is provided in flash memory on the compute node. In addition to the capabilities of the other editions of DSA, DSA Preboot includes diagnostic routines that would be disruptive to run within the operating-system environment (such as resetting devices and causing loss of network connectivity). It has a graphical user interface that you can use to specify which diagnostics to run and to view the diagnostic and data collection results.

If you are unable to restart the compute node or if you need comprehensive diagnostics, use DSA Preboot.

DSA Preboot performs the following tasks:

- Collects system information into a compressed XML file that you can send to Support
- Provides a bootable image that you can use to run extended hardware tests independent of the operating system or applications
- Collects the version and license information from local VMware ESXi hypervisor software

Running DSA Preboot

Use this information to run DSA Preboot.

To run the DSA Preboot diagnostic programs, complete the following steps:

1. If the compute node is turned on, turn off the compute node (see “Turning off a compute node” on page 17).

Attention:

- The KVM connectors on the upper and lower compute nodes are rotated 180-degrees from each other. Make sure that the connector on the console breakout cable is correctly oriented before connecting it.
 - Use only the console breakout cable that comes with the compute node. Attempting to connect other console breakout cable types might damage the console breakout cable and the compute node.
2. If necessary, connect a keyboard, monitor, and mouse to the console breakout cable and connect the console breakout cable to the compute node.
 3. Turn on the compute node (see “Turning on a compute node” on page 16).
 4. When the prompt <F2> Diagnostics is displayed, press F2.
 5. Select **Quit** from the actions available on the Memory Test screen. You must exit the Memory Test screen before you can restart the compute node and start DSA.

Note: After you exit the Memory Test screen, you must restart the compute node to access the stand-alone memory diagnostic environment again.

6. Enter `gui` to start the DSA graphical user interface, or select `cmd` to display the DSA interactive menu.
7. From the diagnostic programs screen, select the test that you want to run, and follow the instructions on the screen. For additional information, see the *Dynamic System Analysis Installation and User's Guide*, which is available at <https://support.lenovo.com/us/en/documents/LNVO-DSA>.

Help for DSA is available. For help about the DSA CLI, enter `help` in the command line. For help about the DSA user interface, press F1. Pressing F1 within a help panel displays additional online documentation.

Diagnostic text messages

Use this information to understand the diagnostic text messages that are displayed while the tests are running.

A diagnostic text message contains one of the following results:

- **Passed:** The test was completed without any errors.
- **Failed:** The test detected an error.
- **User Aborted:** You stopped the test before it was completed.
- **Not Applicable:** You attempted to test a device that is not present in the compute node.
- **Aborted:** The test could not proceed because of the compute node configuration.
- **Warning:** The test could not be run. There was no failure of the hardware that was being tested, but there might be a hardware failure elsewhere, or another problem prevented the test from running; for example, there might be a configuration problem, or the hardware might be missing or is not being recognized.

The result is followed by an error code or other additional information about the error.

Viewing the test results

Use this information to view the test results.

You can use one of the following methods to access the test log when the tests are completed:

- From the DSA command line, issue the DSA CLI `View` command or select the **Diagnostic Event Log** option from the DSA graphical user interface (GUI).
- From the DSA interactive menu, select the `getextendedresults` option.
- From the DSA interactive menu, select the **View** option to view all of the collected results and error log data.
- In the DSA GUI, select **DSA Error Log** from the System Information page.

You can send the DSA error log file to Support to aid in diagnosing the compute node problems, or you can use the DSA CLI `copy` command to copy the log to an external USB device.

DSA diagnostic test results

After running the DSA diagnostic tests, use this information to resolve any issues that were found.

DSA CPU stress test results

The following messages can result when you run the CPU stress test.

Test results for the DSA CPU stress test

The following messages can result when you run the DSA CPU stress test.

- **089-000-000 : CPU Stress Test Passed**

CPU Stress Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **089-801-000 : CPU Stress Test Aborted**

CPU Stress Test Aborted. Internal Program Error.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Turn off and restart the system.
2. Make sure that the DSA Diagnostic code is at the latest level.
3. Run the test again.
4. Check system firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component. The latest level firmware for this component can be found in reference to this system type at the IBM Support website: <https://www.ibm.com/support/entry/portal/docdisplay?Indocid=MIGR-4JTS2T>.
5. Run the test again.
6. If the system has stopped responding, turn off and restart the system and then run the test again.
7. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **089-802-000 : CPU Stress Test Aborted**

CPU Stress Test Aborted. System resource unavailability error.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Turn off and restart the system.
2. Make sure that the DSA Diagnostic code is at the latest level.
3. Run the test again.
4. Check system firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
5. Run the test again.
6. If the system has stopped responding, turn off and restart the system and then run the test again.
7. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• 089-803-000 : CPU Stress Test Aborted

CPU Stress Test Aborted. Memory size is insufficient to run the test. At least 1GB is required.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• 089-804-000 : CPU Stress Test Aborted

CPU Stress Test Aborted. User pressed Ctrl-C.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)
- **089-901-000 : CPU Stress Test Failed**

CPU Stress Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. If the system has stopped responding, turn off and restart the system and then run the test again.
2. Make sure that the DSA Diagnostic code is at the latest level.
3. Run the test again.
4. Check system firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
5. Run the test again.
6. If the system has stopped responding, turn off and restart the system and then run the test again.
7. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA memory stress test results

The following messages can result when you run the memory stress test.

Test results for the DSA memory stress test

The following messages can result when you run the DSA memory stress test.

- **202-000-000 : MemStr Test Passed**

Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)

- [Latest level of DSA](#)
- **202-801-000 : MemStr Test Aborted**

Internal program error.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Turn off and restart the system.
2. Make sure that the DSA Diagnostic code is at the latest level.
3. Run the test again.
4. If the system has stopped responding, turn off and restart the system.
5. Check the system firmware level and upgrade if necessary.
6. Run the memory diagnostic to identify the specific failing DIMM.
7. If the failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)
- **202-802-000 : MemStr Test Aborted**

Memory size is insufficient to run the test. At least 1 GB is required.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)
- **202-803-000 : MemStr Test Aborted**

User pressed Ctrl-C.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **202-901-000 : MemStr Test Failed**

Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Execute the standard DSA memory diagnostics to validate all memory.
2. Make sure that the DSA Diagnostic code is at the latest level.
3. Turn off the system and disconnect it from power.
4. Reseat the memory cards and DIMMs.
5. Reconnect the system to power and turn the system on.
6. Run the test again.
7. Execute the standard DSA memory diagnostics to validate all memory.
8. If the failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **202-902-000 : MemStr Test Failed**

Memory size is insufficient to run the test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Ensure that all memory is enabled by checking the "Available System Memory" in the "Resource Utilization" section of the DSA Diagnostic Event log.
2. If necessary, access the Configuration/Setup Utility program by pressing F1 during system boot and enable all memory.
3. Make sure that the DSA Diagnostic code is at the latest level.
4. Run the test again.
5. Execute the standard DSA memory diagnostics to validate all memory.
6. If the failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA memory isolation test results

The following messages can result when you run the memory isolation test.

Test results for the DSA memory isolation test

The following messages can result when you run the DSA memory isolation test.

- **201-000-000 : Standalone Memory Test Passed**

Quick/Full Memory Test All CPUs Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-000-001 : Standalone Memory Test Passed**

Quick/Full Memory Test CPU 1 Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-000-002 : Standalone Memory Test Passed**

Quick/Full Memory Test CPU 2 Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-000-003 : Standalone Memory Test Passed**

Quick/Full Memory Test CPU 3 Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-000-004 : Standalone Memory Test Passed**

Quick/Full Memory Test CPU 4 Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-811-000 : Standalone Memory Test Aborted**

Unable to Locate SMBIOS key "_SM_".

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-811-001 : Standalone Memory Test Aborted**

Unable to Locate SMBIOS key "_SM_".

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-811-002 : Standalone Memory Test Aborted**

Unable to Locate SMBIOS key "_SM_".

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-811-003 : Standalone Memory Test Aborted**

Unable to Locate SMBIOS key "_SM_".

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-812-000 : Standalone Memory Test Aborted**

Memory test is not supported for this system.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• 201-812-001 : Standalone Memory Test Aborted

Memory test is not supported for this system.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• 201-812-002 : Standalone Memory Test Aborted

Memory test is not supported for this system.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.

4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-812-003 : Standalone Memory Test Aborted**

Memory test is not supported for this system.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-813-000 : Standalone Memory Test Aborted**

Chipset Error: Can not turn OFF ECC error reporting in CPU.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-813-001 : Standalone Memory Test Aborted**

Chipset Error: Can not turn OFF ECC error reporting in CPU.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-813-002 : Standalone Memory Test Aborted**

Chipset Error: Can not turn OFF ECC error reporting in CPU.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-813-003 : Standalone Memory Test Aborted**

Chipset Error: Can not turn OFF ECC error reporting in CPU.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-814-000 : Standalone Memory Test Aborted**

Chipset Error: Can not disable Scubbing feature for CPU.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-814-001 : Standalone Memory Test Aborted**

Chipset Error: Can not disable Scubbing feature for CPU.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-814-002 : Standalone Memory Test Aborted**

Chipset Error: Can not disable Scubbing feature for CPU.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-814-003 : Standalone Memory Test Aborted**

Chipset Error: Can not disable Scubbing feature for CPU.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-815-000 : Standalone Memory Test Aborted**

Program Error with Quick Memory Menu Option Selection.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-815-001 : Standalone Memory Test Aborted**

Program Error with Quick Memory Menu Option Selection.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-815-002 : Standalone Memory Test Aborted**

Program Error with Quick Memory Menu Option Selection.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-815-003 : Standalone Memory Test Aborted**

Program Error with Quick Memory Menu Option Selection.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-816-000 : Standalone Memory Test Aborted**

Program Error with Full Memory Menu Option Selection.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-816-001 : Standalone Memory Test Aborted**

Program Error with Full Memory Menu Option Selection.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-816-002 : Standalone Memory Test Aborted**

Program Error with Full Memory Menu Option Selection.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-816-003 : Standalone Memory Test Aborted**

Program Error with Full Memory Menu Option Selection.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-818-000 : Standalone Memory Test Aborted**

Unable to Locate SMBIOS key "_SM_".

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-818-001 : Standalone Memory Test Aborted**

Unable to Locate SMBIOS key "_SM_".

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-818-002 : Standalone Memory Test Aborted**

Unable to Locate SMBIOS key "_SM_".

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-818-003 : Standalone Memory Test Aborted**

Unable to Locate SMBIOS key "_SM_".

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-819-000 : Standalone Memory Test Aborted**

The start-end address ranges in the restricted area of the memory.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-819-001 : Standalone Memory Test Aborted**

The start-end address ranges in the restricted area of the memory.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-819-002 : Standalone Memory Test Aborted**

The start-end address ranges in the restricted area of the memory.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-819-003 : Standalone Memory Test Aborted**

The start-end address ranges in the restricted area of the memory.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-820-000 : Standalone Memory Test Aborted**

Memory Upper limit is less than 16 Mbytes.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-820-001 : Standalone Memory Test Aborted**

Memory Upper limit is less than 16 Mbytes.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-820-002 : Standalone Memory Test Aborted**

Memory Upper limit is less than 16 Mbytes.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-820-003 : Standalone Memory Test Aborted**

Memory Upper limit is less than 16 Mbytes.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-821-000 : Standalone Memory Test Aborted**

Variable range MTRR registers are larger than fixed range MTRR registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-821-001 : Standalone Memory Test Aborted**

Variable range MTRR registers are larger than fixed range MTRR registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-821-002 : Standalone Memory Test Aborted**

Variable range MTRR registers are larger than fixed range MTRR registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-821-003 : Standalone Memory Test Aborted**

Variable range MTRR registers are larger than fixed range MTRR registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-822-000 : Standalone Memory Test Aborted**

Invalid MTRR service request.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-822-001 : Standalone Memory Test Aborted**

Invalid MTRR service request.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-822-002 : Standalone Memory Test Aborted**

Invalid MTRR service request.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-822-003 : Standalone Memory Test Aborted**

Invalid MTRR service request.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-824-000 : Standalone Memory Test Aborted**

Node Interleave feature must be OFF. Go to Setup and disable Node Interleave option and then re-run the test.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-824-001 : Standalone Memory Test Aborted**

Node Interleave feature must be OFF. Go to Setup and disable Node Interleave option and then re-run the test.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-824-002 : Standalone Memory Test Aborted**

Node Interleave feature must be OFF. Go to Setup and disable Node Interleave option and then re-run the test.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-824-003 : Standalone Memory Test Aborted**

Node Interleave feature must be OFF. Go to Setup and disable Node Interleave option and then re-run the test.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-826-000 : Standalone Memory Test Aborted**

BIOS: Memory Controller has been disabled. Go to Setup and Enable Memory Controller.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-826-001 : Standalone Memory Test Aborted**

BIOS: Memory Controller has been disabled. Go to Setup and Enable Memory Controller.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-826-002 : Standalone Memory Test Aborted**

BIOS: Memory Controller has been disabled. Go to Setup and Enable Memory Controller.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-826-003 : Standalone Memory Test Aborted**

BIOS: Memory Controller has been disabled. Go to Setup and Enable Memory Controller.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-827-000 : Standalone Memory Test Aborted**

BIOS: ECC function has been disabled by BIOS. Go to Setup and enable ECC generation.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• 201-827-001 : Standalone Memory Test Aborted

BIOS: ECC function has been disabled by BIOS. Go to Setup and enable ECC generation.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• 201-827-002 : Standalone Memory Test Aborted

BIOS: ECC function has been disabled by BIOS. Go to Setup and enable ECC generation.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.

4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-827-003 : Standalone Memory Test Aborted**

BIOS: ECC function has been disabled by BIOS. Go to Setup and enable ECC generation.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-844-000 : Standalone Memory Test Aborted**

Chipset Error: Problem in masking MSR machine check control MASK registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-844-001 : Standalone Memory Test Aborted**

Chipset Error: Problem in masking MSR machine check control MASK registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-844-002 : Standalone Memory Test Aborted**

Chipset Error: Problem in masking MSR machine check control MASK registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-844-003 : Standalone Memory Test Aborted**

Chipset Error: Problem in masking MSR machine check control MASK registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-845-000 : Standalone Memory Test Aborted**

Chipset Error: Problem clearing MSR machine check control registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-845-001 : Standalone Memory Test Aborted**

Chipset Error: Problem clearing MSR machine check control registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-845-002 : Standalone Memory Test Aborted**

Chipset Error: Problem clearing MSR machine check control registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-845-003 : Standalone Memory Test Aborted**

Chipset Error: Problem clearing MSR machine check control registers.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-859-000 : Standalone Memory Test Aborted**

INVALID XSECSRAT type.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-859-001 : Standalone Memory Test Aborted**

INVALID XSECSRAT type.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-859-002 : Standalone Memory Test Aborted**

INVALID XSECSRAT type.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-859-003 : Standalone Memory Test Aborted**

INVALID XSECSRAT type.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-860-000 : Standalone Memory Test Aborted**

No OEM0 type 1 found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-860-001 : Standalone Memory Test Aborted**

No OEM0 type 1 found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-860-002 : Standalone Memory Test Aborted**

No OEM0 type 1 found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-860-003 : Standalone Memory Test Aborted**

No OEM0 type 1 found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-861-000 : Standalone Memory Test Aborted**

No SRAT type 1 found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-861-001 : Standalone Memory Test Aborted**

No SRAT type 1 found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-861-002 : Standalone Memory Test Aborted**

No SRAT type 1 found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-861-003 : Standalone Memory Test Aborted**

No SRAT type 1 found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-862-000 : Standalone Memory Test Aborted**

No OEM1 structure found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-862-001 : Standalone Memory Test Aborted**

No OEM1 structure found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-862-002 : Standalone Memory Test Aborted**

No OEM1 structure found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-862-003 : Standalone Memory Test Aborted**

No OEM1 structure found.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-863-000 : Standalone Memory Test Aborted**

No IBMERROR key in OEM1 structure.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-863-001 : Standalone Memory Test Aborted**

No IBMERROR key in OEM1 structure.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-863-002 : Standalone Memory Test Aborted**

No IBMERROR key in OEM1 structure.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-863-003 : Standalone Memory Test Aborted**

No IBMERROR key in OEM1 structure.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-864-000 : Standalone Memory Test Aborted**

No GAS located in OEM1.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-864-001 : Standalone Memory Test Aborted**

No GAS located in OEM1.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-864-002 : Standalone Memory Test Aborted**

No GAS located in OEM1.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-864-003 : Standalone Memory Test Aborted**

No GAS located in OEM1.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-865-000 : Standalone Memory Test Aborted**

No XSECSRAT key in OEM0 structure.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-865-001 : Standalone Memory Test Aborted**

No XSECSRAT key in OEM0 structure.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-865-002 : Standalone Memory Test Aborted**

No XSECSRAT key in OEM0 structure.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-865-003 : Standalone Memory Test Aborted**

No XSECSRAT key in OEM0 structure.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-866-000 : Standalone Memory Test Aborted**

EFI-SAL Invalid parameter from GetMemoryMap function.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-866-001 : Standalone Memory Test Aborted**

EFI-SAL Invalid parameter from GetMemoryMap function.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-866-002 : Standalone Memory Test Aborted**

EFI-SAL Invalid parameter from GetMemoryMap function.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-866-003 : Standalone Memory Test Aborted**

EFI-SAL Invalid parameter from GetMemoryMap function.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-867-000 : Standalone Memory Test Aborted**

EFI/SAL: Buffer not allocated.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-867-001 : Standalone Memory Test Aborted**

EFI/SAL: Buffer not allocated.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-867-002 : Standalone Memory Test Aborted**

EFI/SAL: Buffer not allocated.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-867-003 : Standalone Memory Test Aborted**

EFI/SAL: Buffer not allocated.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-868-000 : Standalone Memory Test Aborted**

EFI/SAL: Buffer allocated in GetMemoryMap too small.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-868-001 : Standalone Memory Test Aborted**

EFI/SAL: Buffer allocated in GetMemoryMap too small.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-868-002 : Standalone Memory Test Aborted**

EFI/SAL: Buffer allocated in GetMemoryMap too small.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-868-003 : Standalone Memory Test Aborted**

EFI/SAL: Buffer allocated in GetMemoryMap too small.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-869-000 : Standalone Memory Test Aborted**

EFI/SAL Invalid parameter from GetMemoryMap function.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-869-001 : Standalone Memory Test Aborted**

EFI/SAL Invalid parameter from GetMemoryMap function.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-869-002 : Standalone Memory Test Aborted**

EFI/SAL Invalid parameter from GetMemoryMap function.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-869-003 : Standalone Memory Test Aborted**

EFI/SAL Invalid parameter from GetMemoryMap function.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-870-000 : Standalone Memory Test Aborted**

CPU Doamin in ACPI not valid.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-870-001 : Standalone Memory Test Aborted**

CPU Doamin in ACPI not valid.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-870-002 : Standalone Memory Test Aborted**

CPU Doamin in ACPI not valid.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-870-003 : Standalone Memory Test Aborted**

CPU Doamin in ACPI not valid.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-871-000 : Standalone Memory Test Aborted**

Data Mis-compare encountered.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-871-001 : Standalone Memory Test Aborted**

Data Mis-compare encountered.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-871-002 : Standalone Memory Test Aborted**

Data Mis-compare encountered.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-871-003 : Standalone Memory Test Aborted**

Data Mis-compare encountered.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-877-000 : Standalone Memory Test Aborted**

BIOS: Sparing in Extended PCI reg. must be OFF. Go to setup and disable sparing.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-877-001 : Standalone Memory Test Aborted**

BIOS: Sparing in Extended PCI reg. must be OFF. Go to setup and disable sparing.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-877-002 : Standalone Memory Test Aborted**

BIOS: Sparing in Extended PCI reg. must be OFF. Go to setup and disable sparing.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-877-003 : Standalone Memory Test Aborted**

BIOS: Sparing in Extended PCI reg. must be OFF. Go to setup and disable sparing.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-878-000 : Standalone Memory Test Aborted**

Sparing feature must be turned OFF. Go to setup and turn the sparing feature OFF.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-878-001 : Standalone Memory Test Aborted**

Sparing feature must be turned OFF. Go to setup and turn the sparing feature OFF.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-878-002 : Standalone Memory Test Aborted**

Sparing feature must be turned OFF. Go to setup and turn the sparing feature OFF.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-878-003 : Standalone Memory Test Aborted**

Sparing feature must be turned OFF. Go to setup and turn the sparing feature OFF.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-885-000 : Standalone Memory Test Aborted**

Processor does not support MTRR register manipulation. Can not write to memory without cache.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-885-001 : Standalone Memory Test Aborted**

Processor does not support MTRR register manipulation. Can not write to memory without cache.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-885-002 : Standalone Memory Test Aborted**

Processor does not support MTRR register manipulation. Can not write to memory without cache.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-885-003 : Standalone Memory Test Aborted**

Processor does not support MTRR register manipulation. Can not write to memory without cache.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-886-000 : Standalone Memory Test Aborted**

Memory Upper limit is less than 16 Mbytes.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-886-001 : Standalone Memory Test Aborted**

Memory Upper limit is less than 16 Mbytes.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-886-002 : Standalone Memory Test Aborted**

Memory Upper limit is less than 16 Mbytes.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-886-003 : Standalone Memory Test Aborted**

Memory Upper limit is less than 16 Mbytes.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.

3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-899-000 : Standalone Memory Test Aborted**

Memory Diagnostics Test Aborted by user.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-899-001 : Standalone Memory Test Aborted**

Memory Diagnostics Test Aborted by user.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **201-899-002 : Standalone Memory Test Aborted**

Memory Diagnostics Test Aborted by user.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)

- [Latest level of DSA](#)
- **201-899-003 : Standalone Memory Test Aborted**
Memory Diagnostics Test Aborted by user.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)
- **201-901-000 : Standalone Memory Test Failed**
Memory Diagnostics Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.
5. Replace any DIMMS(s) mentioned in error, one by one.
6. Make sure that all DIMMs are enabled in the Configuration/Setup Utility program.
7. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)
- **201-901-001 : Standalone Memory Test Failed**
Memory Diagnostics Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.
5. Replace any DIMMS(s) mentioned in error, one by one.
6. Make sure that all DIMMs are enabled in the Configuration/Setup Utility program.
7. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-901-002 : Standalone Memory Test Failed**

Memory Diagnostics Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.
5. Replace any DIMMS(s) mentioned in error, one by one.
6. Make sure that all DIMMs are enabled in the Configuration/Setup Utility program.
7. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **201-901-003 : Standalone Memory Test Failed**

Memory Diagnostics Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Perform the actions mentioned one at a time and try the test after each action.
2. If the problem remains, contact your technical-service representative.
3. Turn off the system and disconnect it from power. Wait for 45 seconds. Reseat DIMM(s). Reconnect it to power.
4. Make sure that DSA and BIOS/uEFI are at the latest level.
5. Replace any DIMMS(s) mentioned in error, one by one.
6. Make sure that all DIMMs are enabled in the Configuration/Setup Utility program.
7. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA optical drive test results

The following messages can result when you run the optical drive test.

Test results for the DSA optical drive test

The following messages can result when you run the DSA optical drive test.

- **215-000-000 : Optical Drive Test Passed**

Optical Drive Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **215-801-000 : Optical Drive Test Aborted**

Optical Drive Test Aborted. Unable to communicate with driver.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Make sure that the DSA Diagnostic code is at the latest level.
2. Run the test again.
3. Check the drive cabling for loose or broken connections at both ends or damage to the cable. Replace the cable if damage is present.
4. Run the test again.
5. Check system firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
6. Run the test again.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **215-802-000 : Optical Drive Test Aborted**

Optical Drive Test Aborted. A read error was encountered.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Insert a new CD or DVD into the drive and wait for 15 seconds for the media to be recognized. Rerun the test.
2. Check the drive cabling for loose or broken connections at both ends or damage to the cable. Replace the cable if damage is present.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **215-803-000 : Optical Drive Test Failed**

Optical Drive Test Failed. Disk may be in use by the operating system.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Wait for the system activity to cease
2. Run the test again
3. Turn off and restart the system.
4. Run the test again.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **215-804-000 : Optical Drive Test Aborted**

Optical Drive Test Aborted. The media tray is open.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Close the media tray and wait for 15 seconds for the media to be recognized. Run the test again.
2. Insert a new CD or DVD into the drive and wait for 15 seconds for the media to be recognized. Rerun the test.
3. Check the drive cabling for loose or broken connections at both ends or damage to the cable. Replace the cable if damage is present.
4. Run the test again.
5. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **215-901-000 : Optical Drive Test Aborted**

Optical Drive Test Aborted. Drive media is not detected.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Insert a new CD or DVD into the drive and wait for 15 seconds for the media to be recognized. Rerun the test.
2. Check the drive cabling for loose or broken connections at both ends or damage to the cable. Replace the cable if damage is present.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **215-902-000 : Optical Drive Test Failed**

Optical Drive Test Failed. Read miscompare.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Insert a new CD or DVD into the drive and wait for 15 seconds for the media to be recognized. Rerun the test.
2. Check the drive cabling for loose or broken connections at both ends or damage to the cable. Replace the cable if damage is present.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **215-903-000 : Optical Drive Test Aborted**

Optical Drive Test Aborted. Could not access the device.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Insert a new CD or DVD into the drive and wait for 15 seconds for the media to be recognized. Rerun the test.
2. Check the drive cabling for loose or broken connections at both ends or damage to the cable. Replace the cable if damage is present.
3. Run the test again.
4. Check system firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
5. Run the test again.
6. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA tape drive test results

The following messages can result when you run the tape drive test.

Test results for the DSA tape drive test

The following messages can result when you run the DSA tape drive test.

- **264-000-000 : Tape Test Passed**

Tape Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **264-901-000 : Tape Test Failed**

An error was found in the tape alert log.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Clean the tape drive using the appropriate cleaning media and install new media.
2. Run the test again.
3. Clear the error log.
4. Run the test again.
5. Make sure that the drive firmware is at the latest level.
6. Rerun the test after upgrading to the latest firmware level.
7. If the failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **264-902-000 : Tape Test Failed**

Tape Test Failed. Media is not detected.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Clean the tape drive using the appropriate cleaning media and install new media.
2. Run the test again.
3. Make sure that the drive firmware is at the latest level.
4. Rerun the test after upgrading to the latest firmware level.
5. If the failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **264-903-000 : Tape Test Failed**

Tape Test Failed. Media is not detected.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Clean the tape drive using the appropriate cleaning media and install new media.
2. Run the test again.
3. Make sure that the drive firmware is at the latest level.
4. Rerun the test after upgrading to the latest firmware level.
5. If the failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **264-904-000 : Tape Test Failed**

Tape Test Failed. Drive hardware error.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check the tape drive cabling for loose or broken connections or damage to the cable. Replace the cable if damage is present.
2. Clean the tape drive using the appropriate cleaning media and install new media.
3. Run the test again.
4. Make sure that the drive firmware is at the latest level.
5. Rerun the test after upgrading to the latest firmware level.
6. If the failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **264-905-000 : Tape Test Failed**

Tape Test Failed. Software error: invalid request.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. If the system has stopped responding, turn off and restart the system.
2. Check the system firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
3. Run the test again.
4. If the system has stopped responding, turn off and restart the system.
5. Make sure that the drive firmware is at the latest level.
6. Run the test again.
7. If the failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• 264-906-000 : Tape Test Failed

Tape Test Failed. Unrecognized error.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Clean the tape drive using the appropriate cleaning media and install new media.
2. Run the test again.
3. Make sure that the drive firmware is at the latest level.
4. Rerun the test after upgrading to the latest firmware level.
5. Make sure that the DSA Diagnostic code is at the latest level.
6. Run the test again.
7. Check the system firmware level and upgrade if necessary.
8. Run the test again.
9. If the failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **264-907-000 : Tape Test Failed**

An error was found in the block address somewhere.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Clean the tape drive using the appropriate cleaning media and install new media.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **264-908-000 : Tape Test Failed**

An error was found in getting tape capacity.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Make sure that medium is present.
2. Clean the tape drive using the appropriate cleaning media and install new media.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA hard drive test results

The following messages can result when you run the hard drive test.

Test results for the DSA hard drive test

The following messages can result when you run the DSA hard drive test.

- **217-000-000 : HDD Test Passed**

HDD Stress Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **217-800-000 : HDD Test Aborted**

HDD Test Aborted. The test was canceled.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check cable connections.
2. Rerun the test.
3. Verify that Hard drive supports self test and self test logging.
4. If the problem remains, contact your technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **217-900-000 : HDD Test Failed**

HDD Test Failed. The hard drive self-test detected a failure.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check cable connections.
2. Rerun the test.

3. Verify the firmware is at the latest level.
4. Rerun the test.
5. If the problem remains, contact your technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA LSI hard drive test results

The following messages can result when you run the LSI hard drive test.

Test results for the DSA LSI hard drive test

The following messages can result when you run the DSA LSI hard drive test.

- **407-000-000 : LSIESG:DiskDefaultDiagnostic Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **407-800-000 : LSIESG:DiskDefaultDiagnostic Test Aborted**

The test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **407-900-000 : LSIESG:DiskDefaultDiagnostic Test Failed**

The hard drive self-test detected a failure.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check cable connections.
2. Rerun the test.
3. Verify whether the firmware is at the latest level.
4. Rerun the test.
5. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA Nvidia GPU test results

The following messages can result when you run the Nvidia GPU test.

Test results for the DSA Nvidia GPU test

The following messages can result when you run the DSA Nvidia GPU test.

- **409-000-000 : NVIDIA User Diagnostic Test Passed**

NVIDIA User Diagnostic test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **409-003-000 : Nvidia::DiagnosticServiceProvider::Bandwidth Test Passed**

Nvidia GPU Bandwidth test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
 - [Latest level of DSA](#)
- **409-004-000 : Nvidia::DiagnosticServiceProvider::Query Test Passed**
Nvidia GPU Query test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
 - [Latest level of DSA](#)
- **409-005-000 : Nvidia::DiagnosticServiceProvider::Matrix Test Passed**
Nvidia GPU Matrix test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
 - [Latest level of DSA](#)
- **409-006-000 : Nvidia::DiagnosticServiceProvider::Binomial Test Passed**
Nvidia GPU Binomial test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
 - [Latest level of DSA](#)
- **409-800-000 : NVIDIA User Diagnostic Test Aborted**
NVIDIA User Diagnostic test was canceled.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **409-803-000 : Nvidia::DiagnosticServiceProvider::Bandwidth Test Aborted**

Nvidia GPU Bandwidth test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **409-804-000 : Nvidia::DiagnosticServiceProvider::Query Test Aborted**

Nvidia GPU Query test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **409-805-000 : Nvidia::DiagnosticServiceProvider::Matrix Test Aborted**

Nvidia GPU Matrix test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **409-806-000 : Nvidia::DiagnosticServiceProvider::Binomial Test Aborted**

Nvidia GPU Binomial test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **409-900-000 : NVIDIA User Diagnostic Test Failed**

NVIDIA User Diagnostic Test Failed.

Recoverable

No

Severity

Event

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Verify that the GPU is seated in the PCIe slot correctly by reseating the GPU. Then power cycle the system.
2. Verify that the power connectors to the GPU are connected firmly. Then power cycle the system.
3. Run nvidia-smi -q In some cases this will report a poorly connected power cable.
4. Rerun the diagnostics, using the same GPU, on system that is known to be working. A variety of system issues can cause diagnostic failure.
5. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **409-903-000 : Nvidia::DiagnosticServiceProvider::Bandwidth Test Failed**

Nvidia GPU Bandwidth Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Verify that the GPU is seated in the PCIe slot correctly by reseating the GPU. Then power cycle the system.
2. Verify that the power connectors to the GPU are connected firmly. Then power cycle the system.
3. Run `nvidia-smi -q` In some cases this will report a poorly connected power cable.
4. Rerun the diagnostics, using the same GPU, on system that is known to be working. A variety of system issues can cause diagnostic failure.
5. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **409-904-000 : Nvidia::DiagnosticServiceProvider::Query Test Failed**

Nvidia GPU Query Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Verify that the GPU is seated in the PCIe slot correctly by reseating the GPU. Then power cycle the system.
2. Verify that the power connectors to the GPU are connected firmly. Then power cycle the system.
3. Run `nvidia-smi -q` In some cases this will report a poorly connected power cable.
4. Rerun the diagnostics, using the same GPU, on system that is known to be working. A variety of system issues can cause diagnostic failure.
5. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **409-905-000 : Nvidia::DiagnosticServiceProvider::Matrix Test Failed**

Nvidia GPU Matrix Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Verify that the GPU is seated in the PCIe slot correctly by reseating the GPU. Then power cycle the system.
2. Verify that the power connectors to the GPU are connected firmly. Then power cycle the system.
3. Run `nvidia-smi -q` In some cases this will report a poorly connected power cable.
4. Rerun the diagnostics, using the same GPU, on system that is known to be working. A variety of system issues can cause diagnostic failure.
5. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **409-906-000 : Nvidia::DiagnosticServiceProvider::Binomial Test Failed**

Nvidia GPU Binomial Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Verify that the GPU is seated in the PCIe slot correctly by reseating the GPU. Then power cycle the system.
2. Verify that the power connectors to the GPU are connected firmly. Then power cycle the system.
3. Run `nvidia-smi -q` In some cases this will report a poorly connected power cable.
4. Rerun the diagnostics, using the same GPU, on system that is known to be working. A variety of system issues can cause diagnostic failure.
5. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA system management test results

The following messages can result when you run the system management test.

Test results for the DSA system management test

The following messages can result when you run the DSA system management test.

- **166-000-001 : IMM I2C Test Passed**

IMM I2C Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-801-001 : IMM I2C Test Aborted**

IMM returned incorrect response length.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-802-001 : IMM I2C Test Aborted**

Test cannot be completed for unknown reason.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-803-001 : IMM I2C Test Aborted**

Node Busy. Try later.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-804-001 : IMM I2C Test Aborted**

Invalid Command.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)

- [Latest level of BMC/IMM](#)
- **166-805-001 : IMM I2C Test Aborted**

Invalid Command for given LUN.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-806-001 : IMM I2C Test Aborted**

Timeout while processing command.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-807-001 : IMM I2C Test Aborted**

Out of space.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-808-001 : IMM I2C Test Aborted**

Reservation Canceled or Invalid Reservation ID.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-809-001 : IMM I2C Test Aborted**

Request data truncated.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-810-001 : IMM I2C Test Aborted**

Request data length invalid.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-811-001 : IMM I2C Test Aborted**

Request data field length limit exceeded.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-812-001 : IMM I2C Test Aborted**

Parameter out of range.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-813-001 : IMM I2C Test Aborted**

Cannot return number of requested data bytes.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-814-001 : IMM I2C Test Aborted**

Requested Sensor, data, or record not present.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.

2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-815-001 : IMM I2C Test Aborted**

Invalid data field in Request.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-816-001 : IMM I2C Test Aborted**

Command illegal for specified sensor or record type.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-817-001 : IMM I2C Test Aborted**

Command response could not be provided.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-818-001 : IMM I2C Test Aborted**

Cannot execute duplicated request.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-819-001 : IMM I2C Test Aborted**

Command response could not be provided. SDR Repository in?update mode.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-820-001 : IMM I2C Test Aborted**

Command response could not be provided. Device in firmware update mode.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-821-001 : IMM I2C Test Aborted**

Command response could not be provided. BMC initialization in progress.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-822-001 : IMM I2C Test Aborted**

Destination unavailable.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-823-001 : IMM I2C Test Aborted**

Cannot execute command. Insufficient privilege level.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

• **166-824-001 : IMM I2C Test Aborted**

Cannot execute command.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-901-001 : IMM I2C Test Failed**

IMM Indicates failure in RTMM bus (BUS 0).

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-902-001 : IMM I2C Test Failed**

IMM Indicates failure in TPM bus (BUS 1).

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.

2. Make sure that DSA and BMC/IMM are at the latest level.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-903-001 : IMM I2C Test Failed**

IMM Indicates failure in FPGA bus (BUS 2).

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-904-001 : IMM I2C Test Failed**

IMM Indicates failure in Lightpath bus (BUS 3).

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.
3. Run the test again.

4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-905-001 : IMM I2C Test Failed**

IMM Indicates failure in SAS/SEP/BP bus (BUS 4).

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-906-001 : IMM I2C Test Failed**

IMM Indicates failure in Patsburg bus (BUS 5).

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

- **166-907-001 : IMM I2C Test Failed**

IMM Indicates failure in Mezz card bus (BUS 6).

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Perform the actions mentioned one at a time and try the test after each action:

1. Turn off the system and disconnect it from power. Wait for 45 seconds. Reconnect it to power.
2. Make sure that DSA and BMC/IMM are at the latest level.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [IBM Support website](#)
- [Latest level of DSA](#)
- [Latest level of BMC/IMM](#)

DSA checkpoint panel test results

The following messages can result when you run the checkpoint panel test.

Test results for the DSA checkpoint panel test

The following messages can result when you run the DSA checkpoint panel test.

- **180-000-000 : Check-point Panel Test Passed**

Check-point Panel Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **180-801-000 : Check-point Panel Test Aborted**

Check-point Panel Test Aborted. BMC is unable to verify that the operator information panel cable is connected.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Inspect and reseat operator information panel cable at both ends.
2. Verify that the Baseboard Management Controller (BMC) is working.
3. Run the test again.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **180-901-000 : Check-point Panel Test Failed**

Check-point Panel Test Failed. Operator reported incorrect display.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check the operator information panel cabling for loose or broken connections at both ends or damage to the cable.
2. Replace the information panel cable if damage is present.
3. Run the test again.
4. Replace the operator information panel assembly.
5. Run the test again.
6. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA Broadcom network test results

The following messages can result when you run the Broadcom network test.

Test results for the DSA Broadcom network test

The following messages can result when you run the DSA Broadcom network test.

- **405-000-000 : BRCM:TestControlRegisters Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **405-001-000 : BRCM:TestMIIRegisters Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **405-002-000 : BRCM:TestEEPROM Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **405-003-000 : BRCM:TestInternalMemory Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

– [Lenovo Support website](#)

– [Latest level of DSA](#)

- **405-004-000 : BRCM:TestInterrupt Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

– [Lenovo Support website](#)

– [Latest level of DSA](#)

- **405-005-000 : BRCM:TestLoopbackMAC Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

– [Lenovo Support website](#)

– [Latest level of DSA](#)

- **405-006-000 : BRCM:TestLoopbackPhysical Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **405-007-000 : BRCM:TestLEDs Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **405-800-000 : BRCM:TestControlRegisters Test Aborted**

The control registers test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **405-801-000 : BRCM:TestMIIRegisters Test Aborted**

The MII register test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-802-000 : BRCM:TestEEPROM Test Aborted**

The EEPROM test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-803-000 : BRCM:TestInternalMemory Test Aborted**

The internal memory test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-804-000 : BRCM:TestInterrupt Test Aborted**

The interrupt test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-805-000 : BRCM:TestLoopbackMAC Test Aborted**

Loopback testing at the MAC layer was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-806-000 : BRCM:TestLoopbackPhysical Test Aborted**

Loopback testing at the physical layer was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-807-000 : BRCM:TestLEDs Test Aborted**

Verification of status LEDs was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-900-000 : BRCM:TestControlRegisters Test Failed**

A failure was detected while testing internal MAC registers

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-901-000 : BRCM:TestMIRegisters Test Failed**

A failure was detected while testing internal PHY registers.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-902-000 : BRCM:TestEEPROM Test Failed**

A failure was detected while testing non-volatile RAM.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-903-000 : BRCM:TestInternalMemory Test Failed**

A failure was detected while testing internal memory.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **405-904-000 : BRCM:TestInterrupt Test Failed**

A failure was detected while testing interrupts.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **405-905-000 : BRCM:TestLoopbackMAC Test Failed**

BRCM:TestLoopbackMAC Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **405-906-000 : BRCM:TestLoopbackPhysical Test Failed**

A failure was detected during the loopback test at the physical layer.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.

3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **405-907-000 : BRCM:TestLEDs Test Failed**

A failure was detected while verifying operation of the status LEDs.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA Brocade test results

The following messages can result when you run the Brocade test.

Test results for the DSA Brocade test

The following messages can result when you run the DSA Brocade test.

- **218-000-000 : Brocade:MemoryTest Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **218-001-000 : Brocade:ExternalLoopbackTest Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-002-000 : Brocade:SerdesLoopbackTest Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-003-000 : Brocade:PCILoopbackTest Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-004-000 : Brocade:ExternalEthLoopbackTest Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-005-000 : Brocade:SerdesEthLoopbackTest Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-006-000 : Brocade:InternalLoopbackTest Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-800-000 : Brocade:MemoryTest Aborted**

The test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **218-801-000 : Brocade:ExternalLoopbackTest Aborted**

The test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **218-802-000 : Brocade:SerdesLoopbackTest Aborted**

The test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **218-803-000 : Brocade:PCILoopbackTest Aborted**

The test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **218-804-000 : Brocade:ExternalEthLoopbackTest Aborted**

The test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **218-805-000 : Brocade:SerdesEthLoopbackTest Aborted**

The test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **218-806-000 : Brocade:InternalLoopbackTest Aborted**

The test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **218-900-000 : Brocade:MemoryTest Failed**

A failure was detected while testing the adapter memory.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Rerun the test.
2. Verify whether the firmware is at proper level.
3. Rerun the test.
4. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-901-000 : Brocade:ExternalLoopbackTest Failed**

A failure was detected during the Loopback test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check cable connections.
2. Rerun the test.
3. Verify whether the firmware is at proper level.
4. Rerun the test.
5. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-902-000 : Brocade:SerdesLoopbackTest Failed**

A failure was detected during the Loopback test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Rerun the test.
2. Verify whether the firmware is at proper level.
3. Rerun the test.
4. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-903-000 : Brocade:PCILoopbackTest Failed**

A failure was detected during the Loopback test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Rerun the test.
2. Verify whether the firmware is at proper level.
3. Rerun the test.
4. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-904-000 : Brocade:ExternalEthLoopbackTest Failed**

A failure was detected during the Loopback test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check or replace SFP/cable.
2. Rerun the test.
3. Verify whether the firmware is at proper level.
4. Rerun the test.

5. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-905-000 : Brocade:SerdesEthLoopbackTest Failed**

A failure was detected during the Loopback test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Rerun the test.
2. Verify whether the firmware is at proper level.
3. Rerun the test.
4. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **218-906-000 : Brocade:InternalLoopbackTest Failed**

A failure was detected during the Loopback test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Rerun the test.
2. Verify whether the firmware is at proper level.
3. Rerun the test.
4. If the problem remains, contact your IBM technical-support representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA Emulex adapter test results

The following messages can result when you run the Emulex adapter test.

Test results for the DSA Emulex adapter test

The following messages can result when you run the DSA Emulex adapter test.

- **516-000-000 : ELXUCNA: NIC MAC LoopBackTest Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **516-001-000 : ELXUCNA: NIC PHY LoopBackTest Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **516-002-000 : ELXUCNA: ELXUCNA: NIC LED(Beacon)Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **516-800-000 : ELXUCNA: NIC MAC LoopBackTest Aborted**

Loopback testing at the MAC layer was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **516-801-000 : ELXUCNA: NIC PHY LoopBackTest Aborted**

Loopback testing at the physical layer was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **516-802-000 : ELXUCNA: ELXUCNA: NIC LED(Beacon)Test Aborted**

Verification of status LEDs was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **516-900-000 : ELXUCNA: NIC MAC LoopBackTest Failed**

A failure was detected during the loopback test at the MAC layer.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
 - [Latest level of DSA](#)
- **516-901-000 : ELXUCNA: NIC PHY LoopBackTest Failed**

A failure was detected during the loopback test at the physical layer.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
 - [Latest level of DSA](#)
- **516-902-000 : ELXUCNA: ELXUCNA: NIC LED(Beacon)Test Failed**

A failure was detected while verifying operation of the status LEDs.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA Mellanox adapter test results

The following messages can result when you run the Mellanox adapter test.

Test results for the DSA Mellanox adapter test

The following messages can result when you run the DSA Mellanox adapter test.

- **408-000-000 : MLNX:MLNX_DiagnosticTestEthernetPort Test Passed**

Port Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **408-001-000 : MLNX:MLNX_DiagnosticTestIBPort Test Passed**

Port Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **408-800-000 : MLNX:MLNX_DiagnosticTestEthernetPort Test Aborted**

Port Test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **408-801-000 : MLNX:MLNX_DiagnosticTestIBPort Test Aborted**

Port Test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **408-900-000 : MLNX:MLNX_DiagnosticTestEthernetPort Test Failed**

Port Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Make sure that the physical link of the port under test is in the active state.
2. If these conditions were met but the test keeps failing, the port's adapter might be faulty.
3. Try replacing the adapter and repeating the test.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **408-901-000 : MLNX:MLNX_DiagnosticTestIBPort Test Failed**

Port Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Make sure that the physical link of the port under test is in the active state and a subnet manager running on the fabric to which the port is attached.
2. If these conditions were met but the test keeps failing, the port's adapter might be faulty.
3. Try replacing the adapter and repeating the test.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA EXA port ping test results

The following messages can result when you run the EXA port ping test.

Test results for the DSA EXA port ping test

The following messages can result when you run the DSA EXA port ping test.

- **401-000-000 : EXA Port Ping Test Passed**

EXA Port Ping Test Passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **401-801-000 : EXA Port Ping Test Aborted**

EXA Port Ping Test Aborted. Unable to get device base address.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Remove power cables, wait for 45 seconds, reconnect and rerun the test.
2. Make sure that the scalability cable connections are as per specification.
3. Make sure that DSA and BIOS/uEFI are at the latest level.
4. If the problem remains, contact your technical-service representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **401-802-000 : EXA Port Ping Test Aborted**

EXA Port Ping Test Aborted. Port connections may not be correct.

Recoverable

No

Severity

Warning

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Remove power cables, wait for 45 seconds, reconnect and rerun the test.
2. Make sure that the scalability cable connections are as per specification.
3. Make sure that DSA and BIOS/uEFI are at the latest level.
4. If the problem remains, contact your technical-service representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **401-901-001 : EXA Port Ping Test Failed**

EXA Port Ping Test Failed.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Remove power cables, wait for 45 seconds, reconnect and rerun the test.
2. Make sure that the scalability cable connections are as per specification.
3. Check scalability cables for loose connections.
4. Replace the scalability cable(s) for specified port(s).
5. If the problem remains, contact your technical-service representative.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

DSA Intel network test results

The following messages can result when you run the Intel network test.

Test results for the DSA Intel network test

The following messages can result when you run the DSA Intel network test.

- **406-000-000 : IANet:Registers Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **406-001-000 : IANet:EEPROM Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **406-002-000 : IANet:FIFO Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **406-003-000 : IANet:Interrupts Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **406-004-000 : IANet:Loopback Test Passed**

The test passed.

Recoverable

No

Severity

Event

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **406-800-000 : IANet:Registers Test Aborted**

Registers test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **406-801-000 : IANet:EEPROM Test Aborted**

EEPROM test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **406-802-000 : IANet:FIFO Test Aborted**

FIFO test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• **406-803-000 : IANet:Interrupts Test Aborted**

Interrupt test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)

- [Latest level of DSA](#)
- **406-804-000 : IANet:Loopback Test Aborted**
Loopback test was canceled.

Recoverable

No

Severity

Warning

Serviceable

No

Automatically notify support

No

Related links

- [Lenovo Support website](#)
 - [Latest level of DSA](#)
- **406-900-000 : IANet:Registers Test Failed**
A failure was detected during the Registers test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
 - [Latest level of DSA](#)
- **406-901-000 : IANet:EEPROM Test Failed**
A failure was detected during the EEPROM test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• 406-902-000 : IANet:FIFO Test Failed

A failure was detected during the FIFO test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
2. Rerun the test.
3. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

• 406-903-000 : IANet:Interrupts Test Failed

A failure was detected during the Interrupt test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.

2. Rerun the test.
3. Check interrupt assignments in the PCI Hardware section of the DSA Diagnostic Log. If the ethernet device is sharing interrupts, if possible modify the interrupt assignments using F1 Setup to assign a unique interrupt to the device.
4. Rerun the test.
5. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

- **406-904-000 : IANet:Loopback Test Failed**

A failure was detected during the Loopback test.

Recoverable

No

Severity

Error

Serviceable

Yes

Automatically notify support

No

User Response

Complete the following steps:

1. Check the Ethernet cable for damage and ensure correct cable type and attachment.
2. Check component firmware level and upgrade if necessary. The installed firmware level can be found in the DSA Diagnostic Event Log within the Firmware/VPD section for this component.
3. Rerun the test.
4. If failure remains, refer to "Troubleshooting by symptom" in the system "Installation and Service Guide" for the next corrective action.

Related links

- [Lenovo Support website](#)
- [Latest level of DSA](#)

Event messages

Use this information to review event messages and resolve many errors.

IMM messages

When a hardware event is detected by the IMM on the upper or lower compute node of a Flex System x222 Compute Node, the IMM logs that event in the system-event log in the affected compute node. In addition, the IMM sends that event to the CMM and to the Flex System Manager management software (if installed).

Important: In event messages that reference a specific Flex System x222 compute node, upper or lower, 'node 1' indicates the lower compute node and 'node 2' indicates the upper compute node.

For each event code, the following fields are displayed:

Event identifier

A hexadecimal identifier that uniquely identifies an event or class of events. In this documentation, the event identifiers are prefixed with 0x and followed by eight characters.

Event description

The logged message string that appears for an event. When the event string is displayed in the system-event log, information such as a specific component is displayed. In this documentation, that additional information appears as variables, such as [arg1] or [arg2].

Explanation

Additional information to explain why the event occurred.

Severity

An indication of the level of concern for the condition. In the system-event log, the severity is abbreviated to the first character. The following severities can be displayed:

- **Info:** The event was recorded for audit purposes. This is usually a user action or a change of states that is normal behavior.
- **Warning:** The event is not as severe as an error, but if possible, the condition should be corrected before it becomes an error. It might also be a condition that requires additional monitoring or maintenance.
- **Error:** The event is a failure or critical condition that impairs service or an expected function.

Alert Category

Similar events are grouped in categories. The alert category is in the following format:

severity - device component

severity is one of the following severity levels:

- **Critical:** A key component in the server is no longer functioning.
- **Warning:** The event might progress to a critical level.
- **System:** The event is the result of a system error or a configuration change.

device component is the specific device in the compute node that caused the event to be generated.

Serviceable

Whether user action is required to correct the problem.

CIM Information

The prefix of the message ID and the sequence number that is used by the CIM message registry.

SNMP Trap ID

The SNMP trap ID that is found in the SNMP alert management information base (MIB).

Automatically notify Support

If this field is set to **Yes** and you have enabled Electronic Service Agent (ESA) on Flex System Manager management software (if installed), Support will be notified automatically if the event is generated.

If Flex System Manager management software is not installed, you can enable Support from the CMM web interface.

While you wait for Support to call, you can perform the recommended actions for the event.

User response

The actions that you should perform to solve the event.

Perform the steps listed in this section in the order shown until the problem is solved. After you perform all of the actions that are described in this field, if you cannot solve the problem, contact Support.

Note: This list includes error codes and messages that might not apply to this machine type and model.

IMM Events that automatically notify Support

You can configure the IBM Flex System Manager or the CMM to automatically notify Support (also known as *call home*) if certain types of errors are encountered. If you have configured this function, see the table for a list of events that automatically notify Support.

Table 10. Events that automatically notify Support

Event ID	Message String	Automatically Notify Support
40000086-00000000	Test Call Home Generated by user [arg1].	Yes
40000087-00000000	Manual Call Home by user [arg1]: [arg2].	Yes
80010202-0701ffff	Numeric sensor [NumericSensorElementName] going low (lower critical) has asserted.	Yes
80010902-0701ffff	Sensor [NumericSensorElementName] has detected high voltage.	Yes
8007021b-2584ffff	Sensor QPI Link Error has transitioned to critical from a less severe state.	Yes
806f0021-22010900	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f0021-22010901	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f0021-22010902	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f0021-22010903	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f0021-22010904	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f0021-25820900	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f0021-25820901	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f0021-25820902	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f0021-25820903	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f0021-2582ffff	Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName].	Yes
806f010c-2001ffff	Uncorrectable error detected for DIMM 1 on Subsystem [MemoryElementName].	Yes
806f010c-2002ffff	Uncorrectable error detected for DIMM 2 on Subsystem [MemoryElementName].	Yes
806f010c-2003ffff	Uncorrectable error detected for DIMM 3 on Subsystem [MemoryElementName].	Yes
806f010c-2004ffff	Uncorrectable error detected for DIMM 4 on Subsystem [MemoryElementName].	Yes

Table 10. Events that automatically notify Support (continued)

Event ID	Message String	Automatically Notify Support
806f010c-2005ffff	Uncorrectable error detected for DIMM 5 on Subsystem [MemoryElementName].	Yes
806f010c-2006ffff	Uncorrectable error detected for DIMM 6 on Subsystem [MemoryElementName].	Yes
806f010c-2007ffff	Uncorrectable error detected for DIMM 7 on Subsystem [MemoryElementName].	Yes
806f010c-2008ffff	Uncorrectable error detected for DIMM 8 on Subsystem [MemoryElementName].	Yes
806f010c-2009ffff	Uncorrectable error detected for DIMM 9 on Subsystem [MemoryElementName].	Yes
806f010c-200affff	Uncorrectable error detected for DIMM 10 on Subsystem [MemoryElementName].	Yes
806f010c-200bffff	Uncorrectable error detected for DIMM 11 on Subsystem [MemoryElementName].	Yes
806f010c-200cffff	Uncorrectable error detected for DIMM 12 on Subsystem [MemoryElementName].	Yes
806f010c-2581ffff	Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName].	Yes
806f010d-0400ffff	The Drive Drive 0 has been disabled due to a detected fault.	Yes
806f010d-0401ffff	The Drive Drive 1 has been disabled due to a detected fault.	Yes
806f0207-0301ffff	CPU 1 has Failed with FRB1/BIST condition.	Yes
806f0207-0302ffff	CPU 2 has Failed with FRB1/BIST condition.	Yes
806f0207-2584ffff	[ProcessorElementName] has Failed with FRB1/BIST condition.	Yes
806f020d-0400ffff	Failure Predicted on drive Drive 0 for array [ComputerSystemElementName].	Yes
806f020d-0401ffff	Failure Predicted on drive Drive 1 for array [ComputerSystemElementName].	Yes
806f050c-2001ffff	Memory Logging Limit Reached for DIMM 1 on Subsystem [MemoryElementName].	Yes
806f050c-2002ffff	Memory Logging Limit Reached for DIMM 2 on Subsystem [MemoryElementName].	Yes
806f050c-2003ffff	Memory Logging Limit Reached for DIMM 3 on Subsystem [MemoryElementName].	Yes
806f050c-2004ffff	Memory Logging Limit Reached for DIMM 4 on Subsystem [MemoryElementName].	Yes
806f050c-2005ffff	Memory Logging Limit Reached for DIMM 5 on Subsystem [MemoryElementName].	Yes

Table 10. Events that automatically notify Support (continued)

Event ID	Message String	Automatically Notify Support
806f050c-2006ffff	Memory Logging Limit Reached for DIMM 6 on Subsystem [MemoryElementName].	Yes
806f050c-2007ffff	Memory Logging Limit Reached for DIMM 7 on Subsystem [MemoryElementName].	Yes
806f050c-2008ffff	Memory Logging Limit Reached for DIMM 8 on Subsystem [MemoryElementName].	Yes
806f050c-2009ffff	Memory Logging Limit Reached for DIMM 9 on Subsystem [MemoryElementName].	Yes
806f050c-200affff	Memory Logging Limit Reached for DIMM 10 on Subsystem [MemoryElementName].	Yes
806f050c-200bffff	Memory Logging Limit Reached for DIMM 11 on Subsystem [MemoryElementName].	Yes
806f050c-200cffff	Memory Logging Limit Reached for DIMM 12 on Subsystem [MemoryElementName].	Yes
806f050c-2581ffff	Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName].	Yes
806f060d-0400ffff	Array [ComputerSystemElementName] has failed.	Yes
806f060d-0401ffff	Array [ComputerSystemElementName] has failed.	Yes
806f0813-2581ffff	A Uncorrectable Bus Error has occurred on system [ComputerSystemElementName].	Yes
806f0813-2582ffff	An Uncorrectable Bus Error has occurred on bus [SensorElementName].	Yes
806f0813-2584ffff	A Uncorrectable Bus Error has occurred on system [ComputerSystemElementName].	Yes

List of IMM events

This section lists all messages that can be sent from the IMM.

- **40000001-00000000 : Management Controller [arg1] Network Initialization Complete. ()**

This message is for the use case where a Management Controller network has completed initialization.

May also be shown as 4000000100000000 or 0x4000000100000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - IMM Network event

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0001

User Response

Information only; no action is required.

- **40000002-00000000 : Certificate Authority [arg1] has detected a [arg2] Certificate Error. ()**

This message is for the use case when there is an error with an SSL Server, SSL Client, or SSL Trusted CA Certificate.

May also be shown as 4000000200000000 or 0x4000000200000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - SSL certification

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0002

User Response

Make sure that the certificate that you are importing is correct and properly generated.

- **40000003-00000000 : Ethernet Data Rate modified from [arg1] to [arg2] by user [arg3]. ()**

This message is for the use case where a user modifies the Ethernet Port data rate.

May also be shown as 4000000300000000 or 0x4000000300000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0003

User Response

Information only; no action is required.

- **40000004-00000000 : Ethernet Duplex setting modified from [arg1] to [arg2] by user [arg3]. ()**

This message is for the use case where A user modifies the Ethernet Port duplex setting.

May also be shown as 4000000400000000 or 0x4000000400000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0004

User Response

Information only; no action is required.

- **40000005-00000000 : Ethernet MTU setting modified from [arg1] to [arg2] by user [arg3]. ()**

This message is for the use case where a user modifies the Ethernet Port MTU setting.

May also be shown as 4000000500000000 or 0x4000000500000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0005

User Response

Information only; no action is required.

- **40000006-00000000 : Ethernet locally administered MAC address modified from [arg1] to [arg2] by user [arg3]. ()**

This message is for the use case where a user modifies the Ethernet Port MAC address setting.

May also be shown as 4000000600000000 or 0x4000000600000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0006

User Response

Information only; no action is required.

- **40000007-00000000 : Ethernet interface [arg1] by user [arg2]. ()**

This message is for the use case where a user enables or disabled the ethernet interface.

May also be shown as 4000000700000000 or 0x4000000700000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0007

User Response

Information only; no action is required.

- **40000008-00000000 : Hostname set to [arg1] by user [arg2]. ()**

This message is for the use case where user modifies the Hostname of a Management Controller.

May also be shown as 4000000800000000 or 0x4000000800000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - IMM Network event

SNMP Trap ID

37

CIM Information

Prefix: IMM ID: 0008

User Response

Information only; no action is required.

- **40000009-00000000 : IP address of network interface modified from [arg1] to [arg2] by user [arg3]. ()**

This message is for the use case where user modifies the IP address of a Management Controller.

May also be shown as 4000000900000000 or 0x4000000900000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - IMM Network event

SNMP Trap ID

37

CIM Information

Prefix: IMM ID: 0009

User Response

Information only; no action is required.

- **4000000a-00000000 : IP subnet mask of network interface modified from [arg1] to [arg2] by user [arg3]. ()**

This message is for the use case where a user modifies the IP subnet mask of a Management Controller.

May also be shown as 4000000a00000000 or 0x4000000a00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0010

User Response

Information only; no action is required.

- **4000000b-00000000 : IP address of default gateway modified from [arg1] to [arg2] by user [arg3]. ()**

This message is for the use case where a user modifies the default gateway IP address of a Management Controller.

May also be shown as 4000000b00000000 or 0x4000000b00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0011

User Response

Information only; no action is required.

- **4000000c-00000000 : OS Watchdog response [arg1] by [arg2] . ()**

This message is for the use case where an OS Watchdog has been enabled or disabled by a user.

May also be shown as 4000000c00000000 or 0x4000000c00000000

Severity

Warning

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0012

User Response

Information only; no action is required.

- **4000000d-00000000 : DHCP[[arg1]] failure, no IP address assigned. ()**

This message is for the use case where a DHCP server fails to assign an IP address to a Management Controller.

May also be shown as 4000000d00000000 or 0x4000000d00000000

Severity

Warning

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0013

User Response

Complete the following steps until the problem is solved:

1. Make sure that the IMM network cable is connected.
2. Make sure that there is a DHCP server on the network that can assign an IP address to the IMM.

- **4000000e-00000000 : Remote Login Successful. Login ID: [arg1] from [arg2] at IP address [arg3]. ()**

This message is for the use case where a user successfully logs in to a Management Controller.
May also be shown as 4000000e00000000 or 0x4000000e00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Remote Login

SNMP Trap ID

30

CIM Information

Prefix: IMM ID: 0014

User Response

Information only; no action is required.

- **4000000f-00000000 : Attempting to [arg1] server [arg2] by user [arg3]. ()**

This message is for the use case where a user is using the Management Controller to perform a power function on the system.

May also be shown as 4000000f00000000 or 0x4000000f00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0015

User Response

Information only; no action is required.

- **40000010-00000000 : Security: Userid: [arg1] had [arg2] login failures from WEB client at IP address [arg3]. ()**

This message is for the use case where a user has failed to log in to a Management Controller from a web browser.

May also be shown as 4000001000000000 or 0x4000001000000000

Severity

Warning

Serviceable

No

Automatically notify support

No

Alert Category

System - Remote Login

SNMP Trap ID

30

CIM Information

Prefix: IMM ID: 0016

User Response

Complete the following steps until the problem is solved:

1. Make sure that the correct login ID and password are being used.
2. Have the system administrator reset the login ID or password.

- **40000011-00000000 : Security: Login ID: [arg1] had [arg2] login failures from CLI at [arg3]. ()**

This message is for the use case where a user has failed to log in to a Management Controller from the Legacy CLI.

May also be shown as 4000001100000000 or 0x4000001100000000

Severity

Warning

Serviceable

No

Automatically notify support

No

Alert Category

System - Remote Login

SNMP Trap ID

30

CIM Information

Prefix: IMM ID: 0017

User Response

Complete the following steps until the problem is solved:

1. Make sure that the correct login ID and password are being used.
2. Have the system administrator reset the login ID or password.

- **40000012-00000000 : Remote access attempt failed. Invalid userid or password received. Userid is [arg1] from WEB browser at IP address [arg2]. ()**

This message is for the use case where a remote user has failed to establish a remote control session from a Web browser session.

May also be shown as 4000001200000000 or 0x4000001200000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Remote Login

SNMP Trap ID

30

CIM Information

Prefix: IMM ID: 0018

User Response

Make sure that the correct login ID and password are being used.

- **40000013-00000000 : Remote access attempt failed. Invalid userid or password received. Userid is [arg1] from TELNET client at IP address [arg2]. ()**

This message is for the use case where a user has failed to log in to a Management Controller from a telnet session.

May also be shown as 4000001300000000 or 0x4000001300000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Remote Login

SNMP Trap ID

30

CIM Information

Prefix: IMM ID: 0019

User Response

Make sure that the correct login ID and password are being used.

- **40000014-00000000 : The [arg1] on system [arg2] cleared by user [arg3]. ()**

This message is for the use case where a Management Controller Event Log on a system is cleared by a user.

May also be shown as 4000001400000000 or 0x4000001400000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0020

User Response

Information only; no action is required.

- **40000015-00000000 : Management Controller [arg1] reset was initiated by user [arg2]. ()**

This message is for the use case where a Management Controller reset is initiated by a user.

May also be shown as 4000001500000000 or 0x4000001500000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0021

User Response

Information only; no action is required.

- **40000016-00000000 : ENET[[arg1]] DHCP-HSTN=[arg2], DN=[arg3], IP@=[arg4], SN=[arg5], GW@=[arg6], DNS1@=[arg7] . ()**

This message is for the use case where a Management Controller IP address and configuration has been assigned by the DHCP server.

May also be shown as 4000001600000000 or 0x4000001600000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0022

User Response

Information only; no action is required.

- **40000017-00000000 : ENET[[arg1]] IP-Cfg:HstName=[arg2], IP@=[arg3] ,NetMsk=[arg4], GW@=[arg5] . ()**

This message is for the use case where a Management Controller IP address and configuration has been assigned statically using user data.

May also be shown as 4000001700000000 or 0x4000001700000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0023

User Response

Information only; no action is required.

- **40000018-00000000 : LAN: Ethernet[[arg1]] interface is no longer active. ()**

This message is for the use case where a Management Controller ethernet interface is no longer active.

May also be shown as 4000001800000000 or 0x4000001800000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0024

User Response

Information only; no action is required.

- **40000019-00000000 : LAN: Ethernet[[arg1]] interface is now active. ()**

This message is for the use case where a Management Controller ethernet interface is now active.

May also be shown as 4000001900000000 or 0x4000001900000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0025

User Response

Information only; no action is required.

- **4000001a-00000000 : DHCP setting changed to [arg1] by user [arg2]. ()**

This message is for the use case where a user changes the DHCP setting.

May also be shown as 4000001a00000000 or 0x4000001a00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0026

User Response

Information only; no action is required.

- **4000001b-00000000 : Management Controller [arg1]: Configuration restored from a file by user [arg2]. ()**

This message is for the use case where a user restores a Management Controller configuration from a file.

May also be shown as 4000001b00000000 or 0x4000001b00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0027

User Response

Information only; no action is required.

- **4000001c-00000000 : Watchdog [arg1] Screen Capture Occurred . ()**

This message is for the use case where an operating system error has occurred and the screen was captured.

May also be shown as 4000001c00000000 or 0x4000001c00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0028

User Response

If there was no operating-system error, complete the following steps until the problem is solved:

1. Reconfigure the watchdog timer to a higher value.
2. Make sure that the IMM Ethernet-over-USB interface is enabled.
3. Reinstall the RNDIS or cdc_ether device driver for the operating system.
4. Disable the watchdog.

If there was an operating-system error, check the integrity of the installed operating system.

- **4000001d-00000000 : Watchdog [arg1] Failed to Capture Screen. ()**

This message is for the use case where an operating system error has occurred and the screen capture failed.

May also be shown as 4000001d00000000 or 0x4000001d00000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0029

User Response

Complete the following steps until the problem is solved:

1. Reconfigure the watchdog timer to a higher value.
2. Make sure that the IMM Ethernet over USB interface is enabled.
3. Reinstall the RNDIS or cdc_ether device driver for the operating system.
4. Disable the watchdog. Check the integrity of the installed operating system.
5. Update the IMM firmware. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.

- **4000001e-00000000 : Running the backup Management Controller [arg1] main application. ()**

This message is for the use case where a Management Controller has resorted to running the backup main application.

May also be shown as 4000001e00000000 or 0x4000001e00000000

Severity

Warning

Serviceable

No

Automatically notify support

No

Alert Category

System - other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0030

User Response

Update the IMM firmware. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.

- **4000001f-00000000 : Please ensure that the Management Controller [arg1] is flashed with the correct firmware. The Management Controller is unable to match its firmware to the server. ()**

This message is for the use case where a Management Controller firmware version does not match the server.

May also be shown as 4000001f00000000 or 0x4000001f00000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0031

User Response

Update the IMM firmware to a version that the server supports. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.

- **40000020-00000000 : Management Controller [arg1] Reset was caused by restoring default values. ()**

This message is for the use case where a Management Controller has been reset due to a user restoring the configuration to default values.

May also be shown as 4000002000000000 or 0x4000002000000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0032

User Response

Information only; no action is required.

- **40000021-00000000 : Management Controller [arg1] clock has been set from NTP server [arg2]. ()**

This message is for the use case where a Management Controller clock has been set from the Network Time Protocol server.

May also be shown as 4000002100000000 or 0x4000002100000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0033

User Response

Information only; no action is required.

- **40000022-00000000 : SSL data in the Management Controller [arg1] configuration data is invalid. Clearing configuration data region and disabling SSL. ()**

This message is for the use case where a Management Controller has detected invalid SSL data in the configuration data and is clearing the configuration data region and disabling the SSL.

May also be shown as 4000002200000000 or 0x4000002200000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0034

User Response

Complete the following steps until the problem is solved:

1. Make sure that the certificate that you are importing is correct.
2. Try to import the certificate again.

• **4000023-00000000 : Flash of [arg1] from [arg2] succeeded for user [arg3] . ()**

This message is for the use case where a user has successfully flashed the firmware component (MC Main Application, MC Boot ROM, BIOS, Diagnostics, System Power Backplane, Remote Expansion Enclosure Power Backplane, Integrated System Managem

May also be shown as 4000002300000000 or 0x4000002300000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0035

User Response

Information only; no action is required.

• **4000024-00000000 : Flash of [arg1] from [arg2] failed for user [arg3]. ()**

This message is for the use case where a user has not flashed the firmware component from the interface and IP address due to a failure.

May also be shown as 4000002400000000 or 0x4000002400000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0036

User Response

Information only; no action is required.

- **40000025-00000000 : The [arg1] on system [arg2] is 75% full. ()**

This message is for the use case where a Management Controller Event Log on a system is 75% full.

May also be shown as 4000002500000000 or 0x4000002500000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Event Log 75% full

SNMP Trap ID

35

CIM Information

Prefix: IMM ID: 0037

User Response

Information only; no action is required.

- **40000026-00000000 : The [arg1] on system [arg2] is 100% full. ()**

This message is for the use case where a Management Controller Event Log on a system is 100% full.

May also be shown as 4000002600000000 or 0x4000002600000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Event Log 75% full

SNMP Trap ID

35

CIM Information

Prefix: IMM ID: 0038

User Response

To avoid losing older log entries, save the log as a text file and clear the log.

- **40000027-00000000 : Platform Watchdog Timer expired for [arg1]. ()**

This message is for the use case when an implementation has detected a Platform Watchdog Timer Expired

May also be shown as 4000002700000000 or 0x4000002700000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - OS Timeout

SNMP Trap ID

21

CIM Information

Prefix: IMM ID: 0039

User Response

Complete the following steps until the problem is solved:

1. Reconfigure the watchdog timer to a higher value.
2. Make sure that the IMM Ethernet-over-USB interface is enabled.
3. Reinstall the RNDIS or cdc_ether device driver for the operating system.
4. Disable the watchdog.
5. Check the integrity of the installed operating system.

• **40000028-00000000 : Management Controller Test Alert Generated by [arg1]. ()**

This message is for the use case where a user has generated a Test Alert.

May also be shown as 4000002800000000 or 0x4000002800000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0040

User Response

Information only; no action is required.

• **40000029-00000000 : Security: Userid: [arg1] had [arg2] login failures from an SSH client at IP address [arg3]. ()**

This message is for the use case where a user has failed to log in to a Management Controller from SSH.

May also be shown as 4000002900000000 or 0x4000002900000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Remote Login

SNMP Trap ID

30

CIM Information

Prefix: IMM ID: 0041

User Response

Complete the following steps until the problem is solved:

1. Make sure that the correct login ID and password are being used.
 2. Have the system administrator reset the login ID or password.
- **4000002a-00000000 : [arg1] firmware mismatch internal to system [arg2]. Please attempt to flash the [arg3] firmware. ()**

This message is for the use case where a specific type of firmware mismatch has been detected.

May also be shown as 4000002a00000000 or 0x4000002a00000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0042

User Response

Reflash the IMM firmware to the latest version.

- **4000002b-00000000 : Domain name set to [arg1]. ()**

Domain name set by user

May also be shown as 4000002b00000000 or 0x4000002b00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0043

User Response

Information only; no action is required.

- **4000002c-00000000 : Domain Source changed to [arg1] by user [arg2]. ()**

Domain source changed by user

May also be shown as 4000002c00000000 or 0x4000002c00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0044

User Response

Information only; no action is required.

- **4000002d-00000000 : DDNS setting changed to [arg1] by user [arg2]. ()**

DDNS setting changed by user

May also be shown as 4000002d00000000 or 0x4000002d00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0045

User Response

Information only; no action is required.

- **4000002e-00000000 : DDNS registration successful. The domain name is [arg1]. ()**

DDNS registration and values

May also be shown as 4000002e00000000 or 0x4000002e00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0046

User Response

Information only; no action is required.

- **4000002f-00000000 : IPv6 enabled by user [arg1] . ()**

IPv6 protocol is enabled by user

May also be shown as 4000002f00000000 or 0x4000002f00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0047

User Response

Information only; no action is required.

- **40000030-00000000 : IPv6 disabled by user [arg1] . ()**

IPv6 protocol is disabled by user

May also be shown as 4000003000000000 or 0x4000003000000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0048

User Response

Information only; no action is required.

- **40000031-00000000 : IPv6 static IP configuration enabled by user [arg1]. ()**

IPv6 static address assignment method is enabled by user

May also be shown as 4000003100000000 or 0x4000003100000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0049

User Response

Information only; no action is required.

- **40000032-00000000 : IPv6 DHCP enabled by user [arg1]. ()**

IPv6 DHCP assignment method is enabled by user

May also be shown as 4000003200000000 or 0x4000003200000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0050

User Response

Information only; no action is required.

- **40000033-00000000 : IPv6 stateless auto-configuration enabled by user [arg1]. ()**

IPv6 statless auto-assignment method is enabled by user

May also be shown as 4000003300000000 or 0x4000003300000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0051

User Response

Information only; no action is required.

- **40000034-00000000 : IPv6 static IP configuration disabled by user [arg1]. ()**

IPv6 static assignment method is disabled by user

May also be shown as 4000003400000000 or 0x4000003400000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0052

User Response

Information only; no action is required.

- **40000035-00000000 : IPv6 DHCP disabled by user [arg1]. ()**

IPv6 DHCP assignment method is disabled by user

May also be shown as 4000003500000000 or 0x4000003500000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0053

User Response

Information only; no action is required.

- **40000036-00000000 : IPv6 stateless auto-configuration disabled by user [arg1]. ()**

IPv6 statless auto-assignment method is disabled by user

May also be shown as 4000003600000000 or 0x4000003600000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0054

User Response

Information only; no action is required.

- **40000037-00000000 : ENET[[arg1]] IPv6-LinkLocal:HstName=[arg2], IP@[arg3] ,Pref=[arg4] . ()**

IPv6 Link Local address is active

May also be shown as 4000003700000000 or 0x4000003700000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0055

User Response

Information only; no action is required.

- **40000038-00000000 : ENET[[arg1]] IPv6-Static:HstName=[arg2], IP@[arg3] ,Pref=[arg4], GW@[arg5] . ()**

IPv6 Static address is active

May also be shown as 4000003800000000 or 0x4000003800000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0056

User Response

Information only; no action is required.

- **40000039-00000000 : ENET[[arg1]] DHCPv6-HSTN=[arg2], DN=[arg3], IP@=[arg4], Pref=[arg5]. ()**

IPv6 DHCP-assigned address is active

May also be shown as 4000003900000000 or 0x4000003900000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0057

User Response

Information only; no action is required.

- **4000003a-00000000 : IPv6 static address of network interface modified from [arg1] to [arg2] by user [arg3]. ()**

A user modifies the IPv6 static address of a Management Controller

May also be shown as 4000003a00000000 or 0x4000003a00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0058

User Response

Information only; no action is required.

- **4000003b-00000000 : DHCPv6 failure, no IP address assigned. ()**

S DHCP6 server fails to assign an IP address to a Management Controller.

May also be shown as 4000003b00000000 or 0x4000003b00000000

Severity

Warning

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0059

User Response

Complete the following steps until the problem is solved:

1. Make sure that the IMM network cable is connected.
2. Make sure that there is a DHCPv6 server on the network that can assign an IP address to the IMM.

- **4000003c-00000000 : Platform Watchdog Timer expired for [arg1]. ()**

An implementation has detected an OS Loader Watchdog Timer Expired

May also be shown as 4000003c00000000 or 0x4000003c00000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - Loader timeout

SNMP Trap ID

26

CIM Information

Prefix: IMM ID: 0060

User Response

1. Reconfigure the watchdog timer to a higher value.
2. Make sure that the IMM Ethernet over USB interface is enabled.
3. Reinstall the RNDIS or cdc_ether device driver for the operating system.
4. Disable the watchdog.
5. Check the integrity of the installed operating system.

- **4000003d-00000000 : Telnet port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the telnet port number

May also be shown as 4000003d00000000 or 0x4000003d00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0061

User Response

Information only; no action is required.

- **4000003e-00000000 : SSH port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the SSH port number

May also be shown as 4000003e00000000 or 0x4000003e00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0062

User Response

Information only; no action is required.

- **4000003f-00000000 : Web-HTTP port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the Web HTTP port number

May also be shown as 4000003f00000000 or 0x4000003f00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0063

User Response

Information only; no action is required.

- **40000040-00000000 : Web-HTTPS port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the Web HTTPS port number

May also be shown as 4000004000000000 or 0x4000004000000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0064

User Response

Information only; no action is required.

- **40000041-00000000 : CIM/XML HTTP port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the CIM HTTP port number

May also be shown as 4000004100000000 or 0x4000004100000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0065

User Response

Information only; no action is required.

- **40000042-00000000 : CIM/XML HTTPS port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the CIM HTTPS port number

May also be shown as 4000004200000000 or 0x4000004200000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0066

User Response

Information only; no action is required.

- **40000043-00000000 : SNMP Agent port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the SNMP Agent port number

May also be shown as 4000004300000000 or 0x4000004300000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0067

User Response

Information only; no action is required.

- **40000044-00000000 : SNMP Traps port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the SNMP Traps port number

May also be shown as 4000004400000000 or 0x4000004400000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0068

User Response

Information only; no action is required.

- **40000045-00000000 : Syslog port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the Syslog receiver port number

May also be shown as 4000004500000000 or 0x4000004500000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0069

User Response

Information only; no action is required.

- **40000046-00000000 : Remote Presence port number changed from [arg1] to [arg2] by user [arg3]. ()**

A user has modified the Remote Presence port number

May also be shown as 4000004600000000 or 0x4000004600000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0070

User Response

Information only; no action is required.

- **40000047-00000000 : LED [arg1] state changed to [arg2] by [arg3]. ()**

A user has modified the state of an LED

May also be shown as 4000004700000000 or 0x4000004700000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0071

User Response

Information only; no action is required.

- **40000048-00000000 : Inventory data changed for device [arg1], new device data hash=[arg2], new master data hash=[arg3] . ()**

Something has caused the physical inventory to change

May also be shown as 4000004800000000 or 0x4000004800000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0072

User Response

Information only; no action is required.

- **40000049-00000000 : SNMP [arg1] enabled by user [arg2] . ()**

A user enabled SNMPv1 or SNMPv3 or Traps

May also be shown as 4000004900000000 or 0x4000004900000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0073

User Response

Information only; no action is required.

- **4000004a-00000000 : SNMP [arg1] disabled by user [arg2] . ()**

A user disabled SNMPv1 or SNMPv3 or Traps

May also be shown as 4000004a00000000 or 0x4000004a00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0074

User Response

Information only; no action is required.

- **4000004b-00000000 : SNMPv1 [arg1] set by user [arg2]: Name=[arg3], AccessType=[arg4], Address=[arg5], . ()**

A user changed the SNMP community string

May also be shown as 4000004b00000000 or 0x4000004b00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0075

User Response

Information only; no action is required.

- **4000004c-00000000 : LDAP Server configuration set by user [arg1]: SelectionMethod=[arg2], DomainName=[arg3], Server1=[arg4], Server2=[arg5], Server3=[arg6], Server4=[arg7]. ()**

A user changed the LDAP server configuration

May also be shown as 4000004c00000000 or 0x4000004c00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0076

User Response

Information only; no action is required.

- **4000004d-00000000 : LDAP set by user [arg1]: RootDN=[arg2], UIDSearchAttribute=[arg3], BindingMethod=[arg4], EnhancedRBS=[arg5], TargetName=[arg6], GroupFilter=[arg7], GroupAttribute=[arg8], LoginAttribute=[arg9]. ()**

A user configured an LDAP Miscellaneous setting

May also be shown as 4000004d00000000 or 0x4000004d00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0077

User Response

Information only; no action is required.

- **4000004e-00000000 : Serial Redirection set by user [arg1]: Mode=[arg2], BaudRate=[arg3], StopBits=[arg4], Parity=[arg5], SessionTerminateSequence=[arg6]. ()**

A user configured the Serial Port mode

May also be shown as 4000004e00000000 or 0x4000004e00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0078

User Response

Information only; no action is required.

- **4000004f-00000000 : Date and Time set by user [arg1]: Date=[arg2], Time=[arg3], DST Auto-adjust=[arg4], Timezone=[arg5]. ()**

A user configured the Date and Time settings

May also be shown as 4000004f00000000 or 0x4000004f00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0079

User Response

Information only; no action is required.

- **40000050-00000000 : Server General Settings set by user [arg1]: Name=[arg2], Contact=[arg3], Location=[arg4], Room=[arg5], RackID=[arg6], Rack U-position=[arg7]. ()**

A user configured the Location setting

May also be shown as 4000005000000000 or 0x4000005000000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0080

User Response

Information only; no action is required.

- **40000051-00000000 : Server Power Off Delay set to [arg1] by user [arg2]. ()**

A user configured the Server Power Off Delay

May also be shown as 4000005100000000 or 0x4000005100000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0081

User Response

Information only; no action is required.

- **40000052-00000000 : Server [arg1] scheduled for [arg2] at [arg3] by user [arg4]. ()**

A user configured a Server Power action at a specific time

May also be shown as 4000005200000000 or 0x4000005200000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0082

User Response

Information only; no action is required.

- **40000053-00000000 : Server [arg1] scheduled for every [arg2] at [arg3] by user [arg4]. ()**

A user configured a recurring Server Power Action

May also be shown as 4000005300000000 or 0x4000005300000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0083

User Response

Information only; no action is required.

- **40000054-00000000 : Server [arg1] [arg2] cleared by user [arg3]. ()**

A user cleared a Server Power Action.

May also be shown as 4000005400000000 or 0x4000005400000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0084

User Response

Information only; no action is required.

- **40000055-00000000 : Synchronize time setting by user [arg1]: Mode=[arg2], NTPServerHost1=[arg3]:[arg4],NTPServerHost2=[arg5]:[arg6],NTPServerHost3=[arg7]:[arg8],NTPServerHost4=[arg9]:[arg10],NTPUpdateFrequency=[arg11]. ()**

A user configured the Date and Time synchronize settings

May also be shown as 4000005500000000 or 0x4000005500000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0085

User Response

Information only; no action is required.

- **40000056-00000000 : SMTP Server set by user [arg1] to [arg2]:[arg3]. ()**

A user configured the SMTP server

May also be shown as 4000005600000000 or 0x4000005600000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0086

User Response

Information only; no action is required.

- **40000057-00000000 : Telnet [arg1] by user [arg2]. ()**

A user enables or disables Telnet services

May also be shown as 4000005700000000 or 0x4000005700000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0087

User Response

Information only; no action is required.

- **40000058-00000000 : DNS servers set by user [arg1]: UseAdditionalServers=[arg2], PreferredDNStype=[arg3], IPv4Server1=[arg4], IPv4Server2=[arg5], IPv4Server3=[arg6], IPv6Server1=[arg7], IPv6Server2=[arg8], IPv6Server3=[arg9]. ()**

A user configures the DNS servers

May also be shown as 4000005800000000 or 0x4000005800000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0088

User Response

Information only; no action is required.

- **40000059-00000000 : LAN over USB [arg1] by user [arg2]. ()**

A user configured USB-LAN

May also be shown as 4000005900000000 or 0x4000005900000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0089

User Response

Information only; no action is required.

- **4000005a-00000000 : LAN over USB Port Forwarding set by user [arg1]: ExternalPort=[arg2], USB-LAN port=[arg3]. ()**

A user configured USB-LAN port forwarding

May also be shown as 4000005a00000000 or 0x4000005a00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0090

User Response

Information only; no action is required.

- **4000005b-00000000 : Secure Web services (HTTPS) [arg1] by user [arg2]. ()**

A user enables or disables Secure web services

May also be shown as 4000005b00000000 or 0x4000005b00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0091

User Response

Information only; no action is required.

- **4000005c-00000000 : Secure CIM/XML(HTTPS) [arg1] by user [arg2]. ()**

A user enables or disables Secure CIM/XML services

May also be shown as 4000005c00000000 or 0x4000005c00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0092

User Response

Information only; no action is required.

- **4000005d-00000000 : Secure LDAP [arg1] by user [arg2]. ()**

A user enables or disables Secure LDAP services

May also be shown as 4000005d00000000 or 0x4000005d00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0093

User Response

Information only; no action is required.

- **4000005e-00000000 : SSH [arg1] by user [arg2]. ()**

A user enables or disables SSH services

May also be shown as 4000005e00000000 or 0x4000005e00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0094

User Response

Information only; no action is required.

- **4000005f-00000000 : Server timeouts set by user [arg1]: EnableOSWatchdog=[arg2], OSWatchdogTimeout=[arg3], EnableLoaderWatchdog=[arg4], LoaderTimeout=[arg5]. ()**

A user configures Server Timeouts

May also be shown as 4000005f00000000 or 0x4000005f00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0095

User Response

Information only; no action is required.

- **40000060-00000000 : License key for [arg1] added by user [arg2]. ()**

A user installs License Key

May also be shown as 4000006000000000 or 0x4000006000000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0096

User Response

Information only; no action is required.

- **40000061-00000000 : License key for [arg1] removed by user [arg2]. ()**

A user removes a License Key

May also be shown as 4000006100000000 or 0x4000006100000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0097

User Response

Information only; no action is required.

- **40000062-00000000 : Global Login General Settings set by user [arg1]: AuthenticationMethod=[arg2], LockoutPeriod=[arg3], SessionTimeout=[arg4]. ()**

A user changes the Global Login General Settings

May also be shown as 4000006200000000 or 0x4000006200000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0098

User Response

Information only; no action is required.

- **40000063-00000000 : Global Login Account Security set by user [arg1]: PasswordRequired=[arg2], PasswordExpirationPeriod=[arg3], MinimumPasswordReuseCycle=[arg4], MinimumPasswordLength=[arg5], MinimumPasswordChangeInterval=[arg6], MaxmumLoginFailures=[arg7], LockoutAfterMaxFailures=[arg8]. ()**

A user changes the Global Login Account Security Settings to Legacy

May also be shown as 4000006300000000 or 0x4000006300000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0099

User Response

Information only; no action is required.

- **40000064-00000000 : User [arg1] created. ()**

A user account was created

May also be shown as 4000006400000000 or 0x4000006400000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0100

User Response

Information only; no action is required.

- **40000065-00000000 : User [arg1] removed. ()**

A user account was deleted

May also be shown as 4000006500000000 or 0x4000006500000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0101

User Response

Information only; no action is required.

- **40000066-00000000 : User [arg1] password modified. ()**

A user account was changed

May also be shown as 4000006600000000 or 0x4000006600000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0102

User Response

Information only; no action is required.

- **40000067-00000000 : User [arg1] role set to [arg2]. ()**

A user account role assigned

May also be shown as 4000006700000000 or 0x4000006700000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0103

User Response

Information only; no action is required.

- **40000068-00000000 : User [arg1] custom privileges set: [arg2]. ()**

User account privileges assigned

May also be shown as 4000006800000000 or 0x4000006800000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0104

User Response

Information only; no action is required.

- **40000069-00000000 : User [arg1] for SNMPv3 set: AuthenticationProtocol=[arg2], PrivacyProtocol=[arg3], AccessType=[arg4], HostforTraps=[arg5]. ()**

User account SNMPv3 settings changed

May also be shown as 4000006900000000 or 0x4000006900000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0105

User Response

Information only; no action is required.

- **4000006a-00000000 : SSH Client key added for user [arg1]. ()**

User locally defined an SSH Client key

May also be shown as 4000006a00000000 or 0x4000006a00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0106

User Response

Information only; no action is required.

- **4000006b-00000000 : SSH Client key imported for user [arg1] from [arg2]. ()**

User imported an SSH Client key

May also be shown as 4000006b00000000 or 0x4000006b00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0107

User Response

Information only; no action is required.

- **4000006c-00000000 : SSH Client key removed from user [arg1]. ()**

User removed an SSH Client key

May also be shown as 4000006c00000000 or 0x4000006c00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0108

User Response

Information only; no action is required.

- **4000006d-00000000 : Management Controller [arg1]: Configuration saved to a file by user [arg2]. ()**

A user saves a Management Controller configuration to a file.

May also be shown as 4000006d00000000 or 0x4000006d00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0109

User Response

Information only; no action is required.

- **4000006e-00000000 : Alert Configuration Global Event Notification set by user [arg1]: RetryLimit=[arg2], RetryInterval=[arg3], EntryInterval=[arg4]. ()**

A user changes the Global Event Notification settings.

May also be shown as 4000006e00000000 or 0x4000006e00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0110

User Response

Information only; no action is required.

- **4000006f-00000000 : Alert Recipient Number [arg1] updated: Name=[arg2], DeliveryMethod=[arg3], Address=[arg4], IncludeLog=[arg5], Enabled=[arg6], EnabledAlerts=[arg7], AllowedFilters=[arg8]. ()**

A user adds or updates an Alert Recipient

May also be shown as 4000006f00000000 or 0x4000006f00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0111

User Response

Information only; no action is required.

- **40000070-00000000 : SNMP Traps enabled by user [arg1]: EnabledAlerts=[arg2], AllowedFilters=[arg3] . ()**

A user enabled the SNMP Traps configuration

May also be shown as 4000007000000000 or 0x4000007000000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0112

User Response

Information only; no action is required.

- **40000071-00000000 : The power cap value changed from [arg1] watts to [arg2] watts by user [arg3]. ()**

Power Cap values changed by user

May also be shown as 4000007100000000 or 0x4000007100000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0113

User Response

Information only; no action is required.

- **40000072-00000000 : The minimum power cap value changed from [arg1] watts to [arg2] watts. ()**

Minimum Power Cap value changed

May also be shown as 4000007200000000 or 0x4000007200000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0114

User Response

Information only; no action is required.

- **40000073-00000000 : The maximum power cap value changed from [arg1] watts to [arg2] watts. ()**

Maximum Power Cap value changed

May also be shown as 4000007300000000 or 0x4000007300000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0115

User Response

Information only; no action is required.

- **40000074-00000000 : The soft minimum power cap value changed from [arg1] watts to [arg2] watts. ()**

Soft Minimum Power Cap value changed

May also be shown as 4000007400000000 or 0x4000007400000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0116

User Response

Information only; no action is required.

- **40000075-00000000 : The measured power value exceeded the power cap value. ()**

Power exceeded cap

May also be shown as 4000007500000000 or 0x4000007500000000

Severity

Warning

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Power

SNMP Trap ID

164

CIM Information

Prefix: IMM ID: 0117

User Response

Information only; no action is required.

- **40000076-00000000 : The new minimum power cap value exceeded the power cap value. ()**

Minimum Power Cap exceeds Power Cap

May also be shown as 4000007600000000 or 0x4000007600000000

Severity

Warning

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Power

SNMP Trap ID

164

CIM Information

Prefix: IMM ID: 0118

User Response

Information only; no action is required.

- **40000077-00000000 : Power capping was activated by user [arg1]. ()**

Power capping activated by user

May also be shown as 4000007700000000 or 0x4000007700000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0119

User Response

Information only; no action is required.

- **40000078-00000000 : Power capping was deactivated by user [arg1]. ()**

Power capping deactivated by user

May also be shown as 4000007800000000 or 0x4000007800000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0120

User Response

Information only; no action is required.

- **40000079-00000000 : Static Power Savings mode has been turned on by user [arg1]. ()**

Static Power Savings mode turned on by user

May also be shown as 4000007900000000 or 0x4000007900000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0121

User Response

Information only; no action is required.

- **4000007a-00000000 : Static Power Savings mode has been turned off by user [arg1]. ()**

Static Power Savings mode turned off by user

May also be shown as 4000007a00000000 or 0x4000007a00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0122

User Response

Information only; no action is required.

- **4000007b-00000000 : Dynamic Power Savings mode has been turned on by user [arg1]. ()**

Dynamic Power Savings mode turned on by user

May also be shown as 4000007b00000000 or 0x4000007b00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0123

User Response

Information only; no action is required.

- **4000007c-00000000 : Dynamic Power Savings mode has been turned off by user [arg1]. ()**

Dynamic Power Savings mode turned off by user

May also be shown as 4000007c00000000 or 0x4000007c00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0124

User Response

Information only; no action is required.

- **4000007d-00000000 : Power cap and external throttling occurred. ()**

Power cap and external throttling occurred

May also be shown as 4000007d00000000 or 0x4000007d00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0125

User Response

Information only; no action is required.

- **4000007e-00000000 : External throttling occurred . ()**

External throttling occurred

May also be shown as 4000007e00000000 or 0x4000007e00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0126

User Response

Information only; no action is required.

- **4000007f-00000000 : Power cap throttling occurred. ()**

Power cap throttling occurred

May also be shown as 4000007f00000000 or 0x4000007f00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0127

User Response

Information only; no action is required.

- **40000080-00000000 : Remote Control session started by user [arg1] in [arg2] mode. ()**

Remote Control session started

May also be shown as 4000008000000000 or 0x4000008000000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0128

User Response

Information only; no action is required.

- **40000081-00000000 : PXE boot requested by user [arg1]. ()**

PXE boot requested

May also be shown as 4000008100000000 or 0x4000008100000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0129

User Response

Information only; no action is required.

- **40000082-00000000 : The measured power value has returned below the power cap value. ()**

Power exceeded cap recovered

May also be shown as 4000008200000000 or 0x4000008200000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Power

SNMP Trap ID

164

CIM Information

Prefix: IMM ID: 0130

User Response

Information only; no action is required.

- **40000083-00000000** : The new minimum power cap value has returned below the power cap value. ()

Minimum Power Cap exceeds Power Cap recovered

May also be shown as 4000008300000000 or 0x4000008300000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Power

SNMP Trap ID

164

CIM Information

Prefix: IMM ID: 0131

User Response

Information only; no action is required.

- **40000084-00000000** : IMM firmware mismatch between nodes [arg1] and [arg2]. Please attempt to flash the IMM firmware to the same level on all nodes. ()

A mismatch of IMM firmware has been detected between nodes

May also be shown as 4000008400000000 or 0x4000008400000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0132

User Response

Attempt to flash the IMM firmware to the same level on all nodes.

- **40000085-00000000** : FPGA firmware mismatch between nodes [arg1] and [arg2]. Please attempt to flash the FPGA firmware to the same level on all nodes. ()

A mismatch of FPGA firmware has been detected between nodes

May also be shown as 4000008500000000 or 0x4000008500000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0133

User Response

Attempt to flash the FPGA firmware to the same level on all nodes.

- **40000086-00000000 : Test Call Home Generated by user [arg1]. ()**

Test Call Home generated by user.

May also be shown as 4000008600000000 or 0x4000008600000000

Severity

Info

Serviceable

No

Automatically notify support

Yes

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0134

User Response

Information only; no action is required.

- **40000087-00000000 : Manual Call Home by user [arg1]: [arg2]. ()**

Manual Call Home by user.

May also be shown as 4000008700000000 or 0x4000008700000000

Severity

Info

Serviceable

No

Automatically notify support

Yes

Alert Category

none

SNMP Trap ID

CIM Information

Prefix: IMM ID: 0135

User Response

IBM Support will address the problem.

- **40000088-00000000 : Management Controller [arg1]: Configuration restoration from a file by user [arg2] completed. ()**

This message is for the use case where a user restores a Management Controller configuration from a file and it completes.

May also be shown as 4000008800000000 or 0x4000008800000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

none

SNMP Trap ID**CIM Information**

Prefix: IMM ID: 0136

User Response

Information only; no action is required.

- **40000089-00000000 : Management Controller [arg1]: Configuration restoration from a file by user [arg2] failed to complete. ()**

This message is for the use case where a user restores a Management Controller configuration from a file and the restoration fails to complete.

May also be shown as 4000008900000000 or 0x4000008900000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0137

User Response

1. Turn off the server and disconnect it from the power source. You must disconnect the server from ac power to reset the IMM.
2. After 45 seconds, reconnect the server to the power source and turn on the server.
3. Retry the operation.

- **4000008a-00000000 : Management Controller [arg1]: Configuration restoration from a file by user [arg2] failed to start. ()**

This message is for the use case where a user restores a Management Controller configuration from a file and the restoration fails to start.

May also be shown as 4000008a00000000 or 0x4000008a00000000

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: IMM ID: 0138

User Response

1. Turn off the server and disconnect it from the power source. You must disconnect the server from ac power to reset the IMM.
2. After 45 seconds, reconnect the server to the power source and turn on the server.
3. Retry the operation.

- **4000008b-00000000 : Storage [arg1] has changed. ()**

This message is for the use case where an IP address for the Storage Management has changed

May also be shown as 4000008b00000000 or 0x4000008b00000000

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - IMM Network event

SNMP Trap ID

37

CIM Information

Prefix: IMM ID: 0139

User Response

Information only; no action is required.

- **80010202-0701ffff : Numeric sensor [NumericSensorElementName] going low (lower critical) has asserted. (SysBrd 12V)**

This message is for the use case when an implementation has detected a Lower Critical sensor going low has asserted.

May also be shown as 800102020701ffff or 0x800102020701ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Voltage

SNMP Trap ID

1

CIM Information**Prefix: PLAT ID:** 0480**User Response**

If the specified sensor is CMOS battery, replace the system battery. If the specified sensor is Planar 3.3V or Planar 5V, (trained technician only) replace the system board. If the specified sensor is Planar 12V, complete the following steps until the problem is solved:

1. Check power supply n LED.
2. Remove the failing power supply.
3. Follow actions in "Power Problems and Solving Power Problems".
4. (Trained technician only) Replace the system board. (n = power supply number)

SysBrd 3.3V : SysBrd 5V :

- **80010202-2801ffff : Numeric sensor [NumericSensorElementName] going low (lower critical) has asserted. (CMOS Battery)**

This message is for the use case when an implementation has detected a Lower Critical sensor going low has asserted.

May also be shown as 800102022801ffff or 0x800102022801ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Voltage

SNMP Trap ID

1

CIM Information**Prefix: PLAT ID:** 0480**User Response**

If the specified sensor is CMOS battery, replace the system battery. If the specified sensor is Planar 3.3V or Planar 5V, (trained technician only) replace the system board. If the specified sensor is Planar 12V, complete the following steps until the problem is solved:

1. Check power supply n LED.
2. Remove the failing power supply.

3. Follow actions in "Power Problems and Solving Power Problems".

4. (Trained technician only) Replace the system board. (n = power supply number)

- **80010701-3701ffff : Numeric sensor [NumericSensorElementName] going high (upper non-critical) has asserted. (Inlet Temp)**

This message is for the use case when an implementation has detected an Upper Non-critical sensor going high has asserted.

May also be shown as 800107013701ffff or 0x800107013701ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0490

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffle is in place and correctly installed, and that the server cover is installed and completely closed.
2. Check the ambient temperature. You must be operating within the specifications (see Server Features and specifications for more information).
3. Make sure that the heat sink for microprocessor n.
4. (Trained technician only) Replace system board.

- **80010901-3701ffff : Numeric sensor [NumericSensorElementName] going high (upper critical) has asserted. (Inlet Temp)**

This message is for the use case when an implementation has detected an Upper Critical sensor going high has asserted.

May also be shown as 800109013701ffff or 0x800109013701ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0494

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffle is in place and correctly installed, and that the server cover is installed and completely closed.
 2. Check the ambient temperature. You must be operating within the specifications (see Server Features and specifications for more information).
 3. Make sure that the heat sink for microprocessor n.
 4. (Trained technician only) Replace system board.
- **80010902-0701ffff : Numeric sensor [NumericSensorElementName] going high (upper critical) has asserted. (SysBrd 12V)**

This message is for the use case when an implementation has detected an Upper Critical sensor going high has asserted.

May also be shown as 800109020701ffff or 0x800109020701ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Voltage

SNMP Trap ID

1

CIM Information

Prefix: PLAT ID: 0494

User Response

If the specified sensor is Planar 3.3V or Planar 5V, (Trained technician only) replace the system board.

If the specified sensor is Planar 12V, complete the following steps until the problem is solved:

1. Check power supply n LED.
2. Remove the failing power supply.
3. (Trained technician only) Replace the system board. (n = power supply number)

SysBrd 3.3V : SysBrd 5V :

- **80010b01-3701ffff : Numeric sensor [NumericSensorElementName] going high (upper non-recoverable) has asserted. (Inlet Temp)**

This message is for the use case when an implementation has detected an Upper Non-recoverable sensor going high has asserted.

May also be shown as 80010b013701ffff or 0x80010b013701ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0498

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffle is in place and correctly installed, and that the server cover is installed and completely closed.
 2. Check the ambient temperature. You must be operating within the specifications (see Server Features and specifications for more information).
 3. Make sure that the heat sink for microprocessor n.
 4. (Trained technician only) Replace system board.
- **80030006-2101ffff : Sensor [SensorElementName] has deasserted. (Sig Verify Fail)**

This message is for the use case when an implementation has detected a Sensor has deasserted.

May also be shown as 800300062101ffff or 0x800300062101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0509

User Response

No action; information only.

- **8003010c-2581ffff : Sensor [SensorElementName] has asserted. (Mem Lane Spared)**

This message is for the use case when an implementation has detected a Sensor has asserted.

May also be shown as 8003010c2581ffff or 0x8003010c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0508

User Response

1. Replace the power supply with higher rated power.
 2. Reduce the total power consumption by removing newly added or unused option like drives or adapters.
- **8003010e-2581ffff : Sensor [SensorElementName] has asserted. (Memory Resized)**

This message is for the use case when an implementation has detected a Sensor has asserted.

May also be shown as 8003010e2581ffff or 0x8003010e2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0508

User Response

1. Replace the power supply with higher rated power.
 2. Reduce the total power consumption by removing newly added or unused option like drives or adapters.
- **8003010f-2101ffff : Sensor [SensorElementName] has asserted. (IMM FW Corrupted)**

This message is for the use case when an implementation has detected a Sensor has asserted.

May also be shown as 8003010f2101ffff or 0x8003010f2101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0508

User Response

1. Replace the power supply with higher rated power.

2. Reduce the total power consumption by removing newly added or unused option like drives or adapters.

- **80030112-0601ffff : Sensor [SensorElementName] has asserted. (SMM Mode)**

This message is for the use case when an implementation has detected a Sensor has asserted.

May also be shown as 800301120601ffff or 0x800301120601ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0508

User Response

1. Replace the power supply with higher rated power.
2. Reduce the total power consumption by removing newly added or unused option like drives or adapters.

SMM Monitor :

- **80070101-0301ffff : Sensor [SensorElementName] has transitioned from normal to non-critical state. (CPU 1 Overtemp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-critical from normal.

May also be shown as 800701010301ffff or 0x800701010301ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0520

User Response

1. Check the microprocessor installed is Intel E5-2690.
2. Reduce the ambient temperature under 27 Celsius degree.

- **80070101-0302ffff : Sensor [SensorElementName] has transitioned from normal to non-critical state. (CPU 2 Overtemp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-critical from normal.

May also be shown as 800701010302ffff or 0x800701010302ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0520

User Response

1. Check the microprocessor installed is Intel E5-2690.
 2. Reduce the ambient temperature under 27 Celsius degree.
- **80070101-2c02ffff : Sensor [SensorElementName] has transitioned from normal to non-critical state. (Mezz Exp 2 Temp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-critical from normal.

May also be shown as 800701012c02ffff or 0x800701012c02ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0520

User Response

1. Check the microprocessor installed is Intel E5-2690.
 2. Reduce the ambient temperature under 27 Celsius degree.
- **80070101-2d01ffff : Sensor [SensorElementName] has transitioned from normal to non-critical state. (PCH Overtemp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-critical from normal.

May also be shown as 800701012d01ffff or 0x800701012d01ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0520

User Response

1. Check the microprocessor installed is Intel E5-2690.
 2. Reduce the ambient temperature under 27 Celsius degree.
- **8007010f-2201ffff : Sensor [SensorElementName] has transitioned from normal to non-critical state. (GPT Status)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-critical from normal.

May also be shown as 8007010f2201ffff or 0x8007010f2201ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Other

SNMP Trap ID

60

CIM Information

Prefix: PLAT ID: 0520

User Response

1. Check the IBM support site for service bulletins or firmware updates that apply to this GPT error.
 2. Set the UEFI setting DISK GPT Recovery to Automatic.
 3. Replace the corrupt disk.
- Sec Rollback Err : Secure Boot Err :
- **8007010f-2582ffff : Sensor [SensorElementName] has transitioned from normal to non-critical state. (I/O Resources)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-critical from normal.

May also be shown as 8007010f2582ffff or 0x8007010f2582ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Other

SNMP Trap ID

60

CIM Information

Prefix: PLAT ID: 0520

User Response

1. Check the IBM support site for service bulletins or firmware updates that apply to this GPT error.
 2. Set the UEFI setting DISK GPT Recovery to Automatic.
 3. Replace the corrupt disk.
- **80070114-2201ffff : Sensor [SensorElementName] has transitioned from normal to non-critical state. (TPM Lock)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-critical from normal.

May also be shown as 800701142201ffff or 0x800701142201ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Other

SNMP Trap ID

60

CIM Information

Prefix: PLAT ID: 0520

User Response

1. Complete the administrative tasks that require the TPM physical presence switch to be in the ON position.
2. Restore the physical presence switch to the OFF position.
3. Reboot the system.
4. (Trained technician only) If the error continues, replace the planar.

TPM Phy Pres Set :

- **80070201-2d01ffff : Sensor [SensorElementName] has transitioned to critical from a less severe state. (PCH Overtemp)**

This message is for the use case when an implementation has detected a Sensor transitioned to critical from less severe.

May also be shown as 800702012d01ffff or 0x800702012d01ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0522

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffles are in place and correctly installed, and that the server cover is installed and completely closes.
 2. Check the ambient temperature. You must be operating within the specifications (see Features and specifications for more information).
 3. Make sure that the heat sink for microprocessor n is installed correctly.
 4. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
- **80070202-0701ffff : Sensor [SensorElementName] has transitioned to critical from a less severe state. (SysBrd Vol Fault)**

This message is for the use case when an implementation has detected a Sensor transitioned to critical from less severe.

May also be shown as 800702020701ffff or 0x800702020701ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Voltage

SNMP Trap ID

1

CIM Information

Prefix: PLAT ID: 0522

User Response

1. Check the system-event log.
2. Check for an error LED on the system board.
3. Replace any failing device.
4. Check for a server firmware update. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.

5. (Trained technician only) Replace the system board.

- **8007020c-2581ffff : Sensor [SensorElementName] has transitioned to critical from a less severe state. (Mem Lane)**

This message is for the use case when an implementation has detected a Sensor transitioned to critical from less severe.

May also be shown as 8007020c2581ffff or 0x8007020c2581ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0522

User Response

None

- **8007020f-2201ffff : Sensor [SensorElementName] has transitioned to critical from a less severe state. (Drive Key Fault)**

This message is for the use case when an implementation has detected a Sensor transitioned to critical from less severe.

May also be shown as 8007020f2201ffff or 0x8007020f2201ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0522

User Response

1. If enabling TXT is not required, disable TXT from the Setup Utility.
2. If enabling TXT is required, verify that the TPM is enabled and activated from the Setup Utility.
3. If the problem remains, contact your service representative.

TXT ACM Module :

- **8007020f-2582ffff : Sensor [SensorElementName] has transitioned to critical from a less severe state. (I/O Resources)**

This message is for the use case when an implementation has detected a Sensor transitioned to critical from less severe.

May also be shown as 8007020f2582ffff or 0x8007020f2582ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0522

User Response

1. If enabling TXT is not required, disable TXT from the Setup Utility.
 2. If enabling TXT is required, verify that the TPM is enabled and activated from the Setup Utility.
 3. If the problem remains, contact your service representative.
- **80070217-2c02ffff : Sensor [SensorElementName] has transitioned to critical from a less severe state. (Mezz Exp 2 Fault)**

This message is for the use case when an implementation has detected a Sensor transitioned to critical from less severe.

May also be shown as 800702172c02ffff or 0x800702172c02ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0522

User Response

None

- **80070219-0701ffff : Sensor [SensorElementName] has transitioned to critical from a less severe state. (Sys Board Fault)**

This message is for the use case when an implementation has detected a Sensor transitioned to critical from less severe.

May also be shown as 800702190701ffff or 0x800702190701ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information**Prefix:** PLAT ID: 0522**User Response**

1. Check for an error LED on the system board.
 2. Check the system-event log.
 3. Check for the system firmware version and update to the latest version. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 4. Unplug and restore AC power cord, then, perform step 1 and 2 again.
 5. If problems still occurred, (trained technician only) replace the system board.
- **8007021b-2584ffff : Sensor [SensorElementName] has transitioned to critical from a less severe state. (QPI Link Error)**

This message is for the use case when an implementation has detected a Sensor transitioned to critical from less severe.

May also be shown as 8007021b2584ffff or 0x8007021b2584ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information**Prefix:** PLAT ID: 0522**User Response**

1. Check for a server firmware update.
2. Make sure that the installed microprocessors are compatible.
3. Make sure the microprocessor 2 expansion board is installed correctly (see Installing the microprocessor 2 expansion board).
4. (Trained technician only) Replace microprocessor

5. (Trained technician only) Replace microprocessor 2 expansion board.

- **80070301-0301ffff : Sensor [SensorElementName] has transitioned to non-recoverable from a less severe state. (CPU 1 Overtemp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-recoverable from less severe.

May also be shown as 800703010301ffff or 0x800703010301ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0524

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffle is in place and correctly installed, and that the server cover is installed and completely closed.
2. Check the ambient temperature. You must be operating within the specifications (see Server Features and specifications for more information).
3. Make sure that the heat sink for microprocessor n.
4. (Trained technician only) Replace microprocessor n. (n = microprocessor number)

- **80070301-0302ffff : Sensor [SensorElementName] has transitioned to non-recoverable from a less severe state. (CPU 2 Overtemp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-recoverable from less severe.

May also be shown as 800703010302ffff or 0x800703010302ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0524

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffle is in place and correctly installed, and that the server cover is installed and completely closed.
 2. Check the ambient temperature. You must be operating within the specifications (see Server Features and specifications for more information).
 3. Make sure that the heat sink for microprocessor n.
 4. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
- **80070301-2c02ffff : Sensor [SensorElementName] has transitioned to non-recoverable from a less severe state. (Mezz Exp 2 Temp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-recoverable from less severe.

May also be shown as 800703012c02ffff or 0x800703012c02ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0524

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffle is in place and correctly installed, and that the server cover is installed and completely closed.
 2. Check the ambient temperature. You must be operating within the specifications (see Server Features and specifications for more information).
 3. Make sure that the heat sink for microprocessor n.
 4. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
- **80070301-2d01ffff : Sensor [SensorElementName] has transitioned to non-recoverable from a less severe state. (PCH Overtemp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-recoverable from less severe.

May also be shown as 800703012d01ffff or 0x800703012d01ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0524

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffle is in place and correctly installed, and that the server cover is installed and completely closed.
 2. Check the ambient temperature. You must be operating within the specifications (see Server Features and specifications for more information).
 3. Make sure that the heat sink for microprocessor n.
 4. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
- **80070319-2201ffff : Sensor [SensorElementName] has transitioned to non-recoverable from a less severe state. (S3 Resume Fail)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-recoverable from less severe.

May also be shown as 800703192201ffff or 0x800703192201ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0524

User Response

None

- **80070401-2c02ffff : Sensor [SensorElementName] has transitioned to non-critical from a more severe state. (Mezz Exp 2 Temp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-critical from more severe.

May also be shown as 800704012c02ffff or 0x800704012c02ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0526

User Response

No action; information only.

- **80070601-2c02ffff : Sensor [SensorElementName] has transitioned to non-recoverable. (Mezz Exp 2 Temp)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-recoverable.

May also be shown as 800706012c02ffff or 0x800706012c02ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0530

User Response

None

- **8007060f-2201ffff : Sensor [SensorElementName] has transitioned to non-recoverable. (BOFM Config Err)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-recoverable.

May also be shown as 8007060f2201ffff or 0x8007060f2201ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0530

User Response

None

- **80070614-2201ffff : Sensor [SensorElementName] has transitioned to non-recoverable. (TPM Phy Pres Set)**

This message is for the use case when an implementation has detected a Sensor transitioned to non-recoverable.

May also be shown as 800706142201ffff or 0x800706142201ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0530

User Response

1. Update the server firmware (see Recovering the server firmware).
2. If the problem persists, (trained technician only) replace the system board (see Removing the system board and Installing the system board).

- **80080017-0f01ffff : Device [LogicalDeviceElementName] has been removed from unit [PhysicalPackageElementName]. (SAS BP)**

Hard-disk drive backplane is missing. The system could not detect a hard-disk drive backplane installed.

May also be shown as 800800170f01ffff or 0x800800170f01ffff

Severity

Error

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0537

User Response

Install a hard-disk drive backplane.

- **8008010f-2101ffff : Device [LogicalDeviceElementName] has been added. (Phy Presence Jmp)**

This message is for the use case when an implementation has detected a Device was inserted.

May also be shown as 8008010f2101ffff or 0x8008010f2101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information****Prefix:** PLAT ID: 0536**User Response**

No action; information only.

- **80080128-2101ffff : Device [LogicalDeviceElementName] has been added. (Low Security Jmp)**

This message is for the use case when an implementation has detected a Device was inserted.

May also be shown as 800801282101ffff or 0x800801282101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information****Prefix:** PLAT ID: 0536**User Response**

No action; information only.

- **8009000c-0701ffff : Device [LogicalDeviceElementName] has been disabled. (Performance Mode)**

This message is for the use case when an implementation has detected a Device was disabled.

May also be shown as 8009000c0701ffff or 0x8009000c0701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0539

User Response

No action; information only.

- **8009010c-0701ffff : Device [LogicalDeviceElementName] has been enabled. (Performance Mode)**

This message is for the use case when an implementation has detected a Device was enabled.

May also be shown as 8009010c0701ffff or 0x8009010c0701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0538

User Response

No action; information only.

- **80090112-2101ffff : Device [LogicalDeviceElementName] has been enabled. (IPMI/SNMP Accts)**

This message is for the use case when an implementation has detected a Device was enabled.

May also be shown as 800901122101ffff or 0x800901122101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0538

User Response

No action; information only.

- **800b010c-2581ffff : Redundancy Lost for [RedundancySetElementName] has asserted. (Backup Memory)**

This message is for the use case when Redundancy Lost has asserted.

May also be shown as 800b010c2581ffff or 0x800b010c2581ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0802

User Response

1. Check the system-event log for DIMM failure events (uncorrectable or PFA) and correct the failures.
 2. Re-enable mirroring in the Setup utility.
- **800b030c-2581ffff : Non-redundant:Sufficient Resources from Redundancy Degraded or Fully Redundant for [RedundancySetElementName] has asserted. (Backup Memory)**

This message is for the use case when a Redundancy Set has transitioned from Redundancy Degraded or Fully Redundant to Non-redundant:Sufficient.

May also be shown as 800b030c2581ffff or 0x800b030c2581ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0806

User Response

1. Check the system-event log for DIMM failure events (uncorrectable or PFA) and correct the failures.
 2. Re-enable mirroring in the Setup utility.
- **800b050c-2581ffff : Non-redundant:Insufficient Resources for [RedundancySetElementName] has asserted. (Backup Memory)**

This message is for the use case when a Redundancy Set has transitioned to Non-redundant:Insufficient Resources.

May also be shown as 800b050c2581ffff or 0x800b050c2581ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0810

User Response

1. Check the system-event log for DIMM failure events (uncorrectable or PFA) and correct the failures.
 2. Re-enable mirroring in the Setup utility.
- **806f0007-0301ffff : [ProcessorElementName] has Failed with IERR. (CPU 1)**

This message is for the use case when an implementation has detected a Processor Failed - IERR Condition.

May also be shown as 806f00070301ffff or 0x806f00070301ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0042

User Response

1. Update the latest level of system firmware and device drivers are installed for all adapters and standard devices, such as UEFI, IMM Ethernet, and SAS. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 2. Run the DSA program.
 3. Reseat the adapter.
 4. Replace the adapter.
 5. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
 6. (Trained technician only) Replace the system board.
- **806f0007-0302ffff : [ProcessorElementName] has Failed with IERR. (CPU 2)**

This message is for the use case when an implementation has detected a Processor Failed - IERR Condition.

May also be shown as 806f00070302ffff or 0x806f00070302ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information**Prefix:** PLAT ID: 0042**User Response**

1. Update the latest level of system firmware and device drivers are installed for all adapters and standard devices, such as UEFI, IMM Ethernet, and SAS. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 2. Run the DSA program.
 3. Reseat the adapter.
 4. Replace the adapter.
 5. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
 6. (Trained technician only) Replace the system board.
- **806f0007-2584ffff : [ProcessorElementName] has Failed with IERR. (All CPUs)**

This message is for the use case when an implementation has detected a Processor Failed - IERR Condition.

May also be shown as 806f00072584ffff or 0x806f00072584ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information**Prefix:** PLAT ID: 0042**User Response**

1. Update the latest level of system firmware and device drivers are installed for all adapters and standard devices, such as UEFI, IMM Ethernet, and SAS. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.

2. Run the DSA program.
3. Reseat the adapter.
4. Replace the adapter.
5. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
6. (Trained technician only) Replace the system board.

One of CPUs :

- **806f0009-0701ffff : [PowerSupplyElementName] has been turned off. (Host Power)**

This message is for the use case when an implementation has detected a Power Unit that has been Disabled.

May also be shown as 806f00090701ffff or 0x806f00090701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Power Off

SNMP Trap ID

23

CIM Information

Prefix: PLAT ID: 0106

User Response

No action; information only.

- **806f000d-0400ffff : The [StorageVolumeElementName] has been added. (Drive 0)**

This message is for the use case when an implementation has detected a Drive has been Added.

May also be shown as 806f000d0400ffff or 0x806f000d0400ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0162

User Response

No action; information only.

- **806f000d-0401ffff : The [StorageVolumeElementName] has been added. (Drive 1)**

This message is for the use case when an implementation has detected a Drive has been Added.

May also be shown as 806f000d0401ffff or 0x806f000d0401ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0162

User Response

No action; information only.

- **806f000f-220101ff : The System [ComputerSystemElementName] has detected no memory in the system. (ABR Status)**

This message is for the use case when an implementation has detected that memory was detected in the system.

May also be shown as 806f000f220101ff or 0x806f000f220101ff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0794

User Response

This is a UEFI detected event. The UEFI(POST) error code for this event can be found in the logged IMM message text. Please refer to the UEFI(POST) error code in the "UEFI(POST) error code" section of the Information Center for the appropriate user response. Firmware Error : Sys Boot Status :

- **806f000f-220102ff : Subsystem [MemoryElementName] has insufficient memory for operation. (ABR Status)**

This message is for the use case when an implementation has detected that the usable Memory is insufficient for operation.

May also be shown as 806f000f220102ff or 0x806f000f220102ff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0132

User Response

This is a UEFI detected event. The UEFI(POST) error code for this event can be found in the logged IMM message text. Please refer to the UEFI(POST) error code in the "UEFI(POST) error code" section of the Information Center for the appropriate user response. Firmware Error : Sys Boot Status :

- **806f000f-220103ff : The System [ComputerSystemElementName] encountered firmware error - unrecoverable boot device failure. (ABR Status)**

This message is for the use case when an implementation has detected that System Firmware Error Unrecoverable boot device failure has occurred.

May also be shown as 806f000f220103ff or 0x806f000f220103ff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0770

User Response

This is a UEFI detected event. The UEFI(POST) error code for this event can be found in the logged IMM message text. Please refer to the UEFI(POST) error code in the "UEFI(POST) error code" section of the Information Center for the appropriate user response. Firmware Error : Sys Boot Status :

- **806f000f-220104ff : The System [ComputerSystemElementName]has encountered a motherboard failure. (ABR Status)**

This message is for the use case when an implementation has detected that a fatal motherboard failure in the system.

May also be shown as 806f000f220104ff or 0x806f000f220104ff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0795

User Response

This is a UEFI detected event. The UEFI(POST) error code for this event can be found in the logged IMM message text. Please refer to the UEFI(POST) error code in the "UEFI(POST) error code" section of the Information Center for the appropriate user response. Firmware Error : Sys Boot Status :

- **806f000f-220107ff : The System [ComputerSystemElementName] encountered firmware error - unrecoverable keyboard failure. (ABR Status)**

This message is for the use case when an implementation has detected that System Firmware Error Unrecoverable Keyboard failure has occurred.

May also be shown as 806f000f220107ff or 0x806f000f220107ff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0764

User Response

This is a UEFI detected event. The UEFI(POST) error code for this event can be found in the logged IMM message text. Please refer to the UEFI(POST) error code in the "UEFI(POST) error code" section of the Information Center for the appropriate user response. Firmware Error : Sys Boot Status :

- **806f000f-22010aff : The System [ComputerSystemElementName] encountered firmware error - no video device detected. (ABR Status)**

This message is for the use case when an implementation has detected that System Firmware Error No video device detected has occurred.

May also be shown as 806f000f22010aff or 0x806f000f22010aff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0766

User Response

This is a UEFI detected event. The UEFI(POST) error code for this event can be found in the logged IMM message text. Please refer to the UEFI(POST) error code in the "UEFI(POST) error code" section of the Information Center for the appropriate user response. Firmware Error : Sys Boot Status :

- **806f000f-22010bff : Firmware BIOS (ROM) corruption was detected on system [ComputerSystemElementName] during POST. (ABR Status)**

Firmware BIOS (ROM) corruption was detected on the system during POST.

May also be shown as 806f000f22010bff or 0x806f000f22010bff

Severity

Info

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0850

User Response

1. Make sure the server meets the minimum configuration to start (see Power-supply LEDs).
2. Recover the server firmware from the backup page: a.Restart the server. b.At the prompt, press F3 to recover the firmware.
3. Update the server firmware to the latest level (see Updating the firmware). Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
4. Remove components one at a time, restarting the server each time, to see if the problem goes away.
5. If the problem remains, (trained service technician) replace the system board.

Firmware Error : Sys Boot Status :

- **806f000f-22010cff : CPU voltage mismatch detected on [ProcessorElementName]. (ABR Status)**

This message is for the use case when an implementation has detected a CPU voltage mismatch with the socket voltage.

May also be shown as 806f000f22010cff or 0x806f000f22010cff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0050

User Response

This is a UEFI detected event. The UEFI(POST) error code for this event can be found in the logged IMM message text. Please refer to the UEFI(POST) error code in the "UEFI(POST) error code" section of the Information Center for the appropriate user response. Firmware Error : Sys Boot Status :

- **806f000f-2201ffff : The System [ComputerSystemElementName] encountered a POST Error. (ABR Status)**

This message is for the use case when an implementation has detected a Post Error.

May also be shown as 806f000f2201ffff or 0x806f000f2201ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0184

User Response

This is a UEFI detected event. The UEFI(POST) error code for this event can be found in the logged IMM message text. Please refer to the UEFI(POST) error code in the "UEFI(POST) error code" section of the Information Center for the appropriate user response. Firmware Error : Sys Boot Status :

- **806f0013-1701ffff : A diagnostic interrupt has occurred on system [ComputerSystemElementName]. (NMI State)**

This message is for the use case when an implementation has detected a Front Panel NMI / Diagnostic Interrupt.

May also be shown as 806f00131701ffff or 0x806f00131701ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information**Prefix:** PLAT ID: 0222**User Response**

If the NMI button has not been pressed, complete the following steps:

1. Make sure that the NMI button is not pressed.
2. Replace the operator information panel cable.
3. Replace the operator information panel.

- **806f001e-2201ffff : No bootable media available for system [ComputerSystemElementName]. (No Boot Device)**

This message is for the use case when an implementation has detected a System with No Bootable Media.

May also be shown as 806f001e2201ffff or 0x806f001e2201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information****Prefix:** PLAT ID: 0286**User Response**

No action; information only.

- **806f0021-2201ffff : Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName]. (No Op ROM Space)**

This message is for the use case when an implementation has detected a Fault in a slot.

May also be shown as 806f00212201ffff or 0x806f00212201ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information**Prefix:** PLAT ID: 0330

User Response

1. Check the PCI LED.
 2. Reseat the affected adapters and riser card.
 3. Update the server firmware (UEFI and IMM) and adapter firmware. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 4. Replace the affected adapters.
 5. Replace the riser card.
 6. (Trained service technicians only) Replace the system board.
- **806f0021-2582ffff : Fault in slot [PhysicalConnectorSystemElementName] on system [ComputerSystemElementName]. (PCIe Error)**

This message is for the use case when an implementation has detected a Fault in a slot.

May also be shown as 806f00212582ffff or 0x806f00212582ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0330

User Response

1. Check the PCI LED.
 2. Reseat the affected adapters and riser card.
 3. Update the server firmware (UEFI and IMM) and adapter firmware. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 4. Replace the affected adapters.
 5. Replace the riser card.
 6. (Trained service technicians only) Replace the system board.
- **806f0023-2101ffff : Watchdog Timer expired for [WatchdogElementName]. (IPMI Watchdog)**

This message is for the use case when an implementation has detected a Watchdog Timer Expired.

May also be shown as 806f00232101ffff or 0x806f00232101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0368

User Response

No action; information only.

- **806f0028-2101ffff : Sensor [SensorElementName] is unavailable or degraded on management system [ComputerSystemElementName]. (TPM Cmd Failures)**

This message is for the use case when an implementation has detected a Sensor is Unavailable or degraded.

May also be shown as 806f00282101ffff or 0x806f00282101ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - Other

SNMP Trap ID

60

CIM Information

Prefix: PLAT ID: 0398

User Response

1. Turn off the server and disconnect the power cords. Reconnect the power cords and restart the server.
 2. If the problem remains, (trained technician only) replace the system board.
- **806f0107-0301ffff : An Over-Temperature Condition has been detected on [ProcessorElementName]. (CPU 1)**

This message is for the use case when an implementation has detected an Over-Temperature Condition Detected for Processor.

May also be shown as 806f01070301ffff or 0x806f01070301ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information**Prefix:** PLAT ID: 0036**User Response**

1. Make sure that the fans are operating. There are no obstructions to the airflow (front and rear of the server), the air baffles are in place and correctly installed, and the server cover is installed and completely closed.
 2. Make sure that the heat sink for microprocessor n is installed correctly.
 3. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
- **806f0107-0302ffff : An Over-Temperature Condition has been detected on [ProcessorElementName]. (CPU 2)**

This message is for the use case when an implementation has detected an Over-Temperature Condition Detected for Processor.

May also be shown as 806f01070302ffff or 0x806f01070302ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information**Prefix:** PLAT ID: 0036**User Response**

1. Make sure that the fans are operating. There are no obstructions to the airflow (front and rear of the server), the air baffles are in place and correctly installed, and the server cover is installed and completely closed.
 2. Make sure that the heat sink for microprocessor n is installed correctly.
 3. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
- **806f0107-2584ffff : An Over-Temperature Condition has been detected on [ProcessorElementName]. (All CPUs)**

This message is for the use case when an implementation has detected an Over-Temperature Condition Detected for Processor.

May also be shown as 806f01072584ffff or 0x806f01072584ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0036

User Response

1. Make sure that the fans are operating. There are no obstructions to the airflow (front and rear of the server), the air baffles are in place and correctly installed, and the server cover is installed and completely closed.
2. Make sure that the heat sink for microprocessor n is installed correctly.
3. (Trained technician only) Replace microprocessor n. (n = microprocessor number)

One of CPUs :

- **806f0109-0701ffff : [PowerSupplyElementName] has been Power Cycled. (Host Power)**

This message is for the use case when an implementation has detected a Power Unit that has been power cycled.

May also be shown as 806f01090701ffff or 0x806f01090701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0108

User Response

No action; information only.

- **806f010c-2001ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 1)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c2001ffff or 0x806f010c2001ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

CIM Information**Prefix:** PLAT ID: 0138**User Response**

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f010c-2002ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c2002ffff or 0x806f010c2002ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information**Prefix:** PLAT ID: 0138**User Response**

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.

3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f010c-2003ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected a Memory uncorrectable error. May also be shown as 806f010c2003ffff or 0x806f010c2003ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.

8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

- **806f010c-2004ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c2004ffff or 0x806f010c2004ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

- **806f010c-2005ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c2005ffff or 0x806f010c2005ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f010c-2006ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c2006ffff or 0x806f010c2006ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f010c-2007ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c2007ffff or 0x806f010c2007ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.

5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

- **806f010c-2008ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c2008ffff or 0x806f010c2008ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

- **806f010c-2009ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c2009ffff or 0x806f010c2009ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f010c-200affff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c200affff or 0x806f010c200affff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f010c-200bffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected a Memory uncorrectable error.

May also be shown as 806f010c200bffff or 0x806f010c200bffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f010c-200cffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected a Memory uncorrectable error. May also be shown as 806f010c200cffff or 0x806f010c200cffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.

6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f010c-2581ffff : Uncorrectable error detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (All DIMMs)**

This message is for the use case when an implementation has detected a Memory uncorrectable error. May also be shown as 806f010c2581ffff or 0x806f010c2581ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0138

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

One of the DIMMs :

- **806f010d-0400ffff : The [StorageVolumeElementName] has been disabled due to a detected fault. (Drive 0)**

This message is for the use case when an implementation has detected a Drive was Disabled due to fault.
May also be shown as 806f010d0400ffff or 0x806f010d0400ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0164

User Response

1. Run the hard disk drive diagnostic test on drive n.
 2. Reseat the following components: a. Hard disk drive (wait 1 minute or more before reinstalling the drive) b. Cable from the system board to the backplane
 3. Replace the following components one at a time, in the order shown, restarting the server each time: a. Hard disk drive b. Cable from the system board to the backplane c. Hard disk drive backplane (n = hard disk drive number)
- **806f010d-0401ffff : The [StorageVolumeElementName] has been disabled due to a detected fault. (Drive 1)**

This message is for the use case when an implementation has detected a Drive was Disabled due to fault.
May also be shown as 806f010d0401ffff or 0x806f010d0401ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0164

User Response

1. Run the hard disk drive diagnostic test on drive n.
2. Reseat the following components: a. Hard disk drive (wait 1 minute or more before reinstalling the drive) b. Cable from the system board to the backplane
3. Replace the following components one at a time, in the order shown, restarting the server each time: a. Hard disk drive b. Cable from the system board to the backplane c. Hard disk drive backplane (n = hard disk drive number)

- **806f010f-2201ffff : The System [ComputerSystemElementName] encountered a firmware hang. (Firmware Error)**

This message is for the use case when an implementation has detected a System Firmware Hang.

May also be shown as 806f010f2201ffff or 0x806f010f2201ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Boot failure

SNMP Trap ID

25

CIM Information

Prefix: PLAT ID: 0186

User Response

1. Make sure the server meets the minimum configuration to start (see Power-supply LEDs).
 2. Update the server firmware on the primary page. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 3. (Trained technician only) Replace the system board.
- **806f0123-2101ffff : Reboot of system [ComputerSystemElementName] initiated by [WatchdogElementName]. (IPMI Watchdog)**

This message is for the use case when an implementation has detected a Reboot by a Watchdog occurred.

May also be shown as 806f01232101ffff or 0x806f01232101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0370

User Response

No action; information only.

- **806f0125-1f05ffff : [ManagedElementName] detected as absent. (LOM)**

This message is for the use case when an implementation has detected a Managed Element is Absent.

May also be shown as 806f01251f05ffff or 0x806f01251f05ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information****Prefix:** PLAT ID: 0392**User Response**

Please ensure the PCI riser 1 has been installed correctly.

- **806f0207-0301ffff : [ProcessorElementName] has Failed with FRB1/BIST condition. (CPU 1)**

This message is for the use case when an implementation has detected a Processor Failed - FRB1/BIST condition.

May also be shown as 806f02070301ffff or 0x806f02070301ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information**Prefix:** PLAT ID: 0044**User Response**

1. Update the latest level of system firmware and device drivers are installed for all adapters and standard devices, such as UEFI, IMM Ethernet, and SAS. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 2. Run the DSA program.
 3. Reseat the adapter.
 4. Replace the adapter.
 5. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
 6. (Trained technician only) Replace the system board.
- **806f0207-0302ffff : [ProcessorElementName] has Failed with FRB1/BIST condition. (CPU 2)**

This message is for the use case when an implementation has detected a Processor Failed - FRB1/BIST condition.

May also be shown as 806f02070302ffff or 0x806f02070302ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0044

User Response

1. Update the latest level of system firmware and device drivers are installed for all adapters and standard devices, such as UEFI, IMM Ethernet, and SAS. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 2. Run the DSA program.
 3. Reseat the adapter.
 4. Replace the adapter.
 5. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
 6. (Trained technician only) Replace the system board.
- **806f0207-2584ffff : [ProcessorElementName] has Failed with FRB1/BIST condition. (All CPUs)**

This message is for the use case when an implementation has detected a Processor Failed - FRB1/BIST condition.

May also be shown as 806f02072584ffff or 0x806f02072584ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0044

User Response

1. Update the latest level of system firmware and device drivers are installed for all adapters and standard devices, such as UEFI, IMM Ethernet, and SAS. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster

solution, verify that the latest level of code is supported for the cluster solution before you update the code.

2. Run the DSA program.
3. Reseat the adapter.
4. Replace the adapter.
5. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
6. (Trained technician only) Replace the system board.

One of CPUs :

- **806f020d-0400ffff : Failure Predicted on [StorageVolumeElementName] for array [ComputerSystemElementName]. (Drive 0)**

This message is for the use case when an implementation has detected an Array Failure is Predicted.

May also be shown as 806f020d0400ffff or 0x806f020d0400ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

System - Predicted Failure

SNMP Trap ID

27

CIM Information

Prefix: PLAT ID: 0168

User Response

1. Run the hard disk drive diagnostic test on drive n.
 2. Reseat the following components: a. Hard disk drive (wait 1 minute or more before reinstalling the drive) b. Cable from the system board to the backplane
 3. Replace the following components one at a time, in the order shown, restarting the server each time: a. Hard disk drive b. Cable from the system board to the backplane c. Hard disk drive backplane (n = hard disk drive number)
- **806f020d-0401ffff : Failure Predicted on [StorageVolumeElementName] for array [ComputerSystemElementName]. (Drive 1)**

This message is for the use case when an implementation has detected an Array Failure is Predicted.

May also be shown as 806f020d0401ffff or 0x806f020d0401ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

System - Predicted Failure

SNMP Trap ID

27

CIM Information

Prefix: PLAT ID: 0168

User Response

1. Run the hard disk drive diagnostic test on drive n.
 2. Reseat the following components: a. Hard disk drive (wait 1 minute or more before reinstalling the drive) b. Cable from the system board to the backplane
 3. Replace the following components one at a time, in the order shown, restarting the server each time: a. Hard disk drive b. Cable from the system board to the backplane c. Hard disk drive backplane (n = hard disk drive number)
- **806f0223-2101ffff : Powering off system [ComputerSystemElementName] initiated by [WatchdogElementName]. (IPMI Watchdog)**

This message is for the use case when an implementation has detected a Poweroff by Watchdog has occurred.

May also be shown as 806f02232101ffff or 0x806f02232101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0372

User Response

No action; information only.

- **806f030c-2001ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 1)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2001ffff or 0x806f030c2001ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Manually re-enable all affected DIMMs.
 4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 5. If the problem follows the DIMM, replace the failing DIMM.
 6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 8. (Trained technician only) Replace the affected microprocessor.
- **806f030c-2002ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2002ffff or 0x806f030c2002ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Manually re-enable all affected DIMMs.
4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
5. If the problem follows the DIMM, replace the failing DIMM.

6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
8. (Trained technician only) Replace the affected microprocessor.

- **806f030c-2003ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2003ffff or 0x806f030c2003ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Manually re-enable all affected DIMMs.
 4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 5. If the problem follows the DIMM, replace the failing DIMM.
 6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 8. (Trained technician only) Replace the affected microprocessor.
- **806f030c-2004ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2004ffff or 0x806f030c2004ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Manually re-enable all affected DIMMs.
4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
5. If the problem follows the DIMM, replace the failing DIMM.
6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
8. (Trained technician only) Replace the affected microprocessor.

• **806f030c-2005ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2005ffff or 0x806f030c2005ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.

2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Manually re-enable all affected DIMMs.
4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
5. If the problem follows the DIMM, replace the failing DIMM.
6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
8. (Trained technician only) Replace the affected microprocessor.

- **806f030c-2006ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2006ffff or 0x806f030c2006ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Manually re-enable all affected DIMMs.
4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
5. If the problem follows the DIMM, replace the failing DIMM.
6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
8. (Trained technician only) Replace the affected microprocessor.

- **806f030c-2007ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2007ffff or 0x806f030c2007ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Manually re-enable all affected DIMMs.
4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
5. If the problem follows the DIMM, replace the failing DIMM.
6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
8. (Trained technician only) Replace the affected microprocessor.

- **806f030c-2008ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2008ffff or 0x806f030c2008ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information**Prefix:** PLAT ID: 0136**User Response**

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Manually re-enable all affected DIMMs.
 4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 5. If the problem follows the DIMM, replace the failing DIMM.
 6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 8. (Trained technician only) Replace the affected microprocessor.
- **806f030c-2009ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2009ffff or 0x806f030c2009ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information**Prefix:** PLAT ID: 0136**User Response**

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Manually re-enable all affected DIMMs.
4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.

5. If the problem follows the DIMM, replace the failing DIMM.
 6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 8. (Trained technician only) Replace the affected microprocessor.
- **806f030c-200affff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c200affff or 0x806f030c200affff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Manually re-enable all affected DIMMs.
 4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 5. If the problem follows the DIMM, replace the failing DIMM.
 6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 8. (Trained technician only) Replace the affected microprocessor.
- **806f030c-200bffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c200bffff or 0x806f030c200bffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Manually re-enable all affected DIMMs.
4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
5. If the problem follows the DIMM, replace the failing DIMM.
6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
8. (Trained technician only) Replace the affected microprocessor.

- **806f030c-200cffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c200cffff or 0x806f030c200cffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Manually re-enable all affected DIMMs.
 4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 5. If the problem follows the DIMM, replace the failing DIMM.
 6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 8. (Trained technician only) Replace the affected microprocessor.
- **806f030c-2581ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (All DIMMs)**

This message is for the use case when an implementation has detected a Memory Scrub failure.

May also be shown as 806f030c2581ffff or 0x806f030c2581ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0136

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Manually re-enable all affected DIMMs.
4. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
5. If the problem follows the DIMM, replace the failing DIMM.
6. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
7. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
8. (Trained technician only) Replace the affected microprocessor.

One of the DIMMs :

- **806f0313-1701ffff : A software NMI has occurred on system [ComputerSystemElementName]. (NMI State)**

This message is for the use case when an implementation has detected a Software NMI.

May also be shown as 806f03131701ffff or 0x806f03131701ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0228

User Response

1. Check the device driver.
2. Reinstall the device driver.
3. Update all device drivers to the latest level.
4. Update the firmware (UEFI and IMM).

- **806f0323-2101ffff : Power cycle of system [ComputerSystemElementName] initiated by watchdog [WatchdogElementName]. (IPMI Watchdog)**

This message is for the use case when an implementation has detected a Power Cycle by Watchdog occurred.

May also be shown as 806f03232101ffff or 0x806f03232101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0374

User Response

No action; information only.

- **806f040c-2001ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 1)**

This message is for the use case when an implementation has detected that Memory has been Disabled.

May also be shown as 806f040c2001ffff or 0x806f040c2001ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
 2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
 3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
- **806f040c-2002ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected that Memory has been Disabled.

May also be shown as 806f040c2002ffff or 0x806f040c2002ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).

- **806f040c-2003ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected that Memory has been Disabled.
May also be shown as 806f040c2003ffff or 0x806f040c2003ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).

- **806f040c-2004ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected that Memory has been Disabled.
May also be shown as 806f040c2004ffff or 0x806f040c2004ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.

3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).

- **806f040c-2005ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected that Memory has been Disabled.

May also be shown as 806f040c2005ffff or 0x806f040c2005ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).

- **806f040c-2006ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected that Memory has been Disabled.

May also be shown as 806f040c2006ffff or 0x806f040c2006ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.

2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
 3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
- **806f040c-2007ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected that Memory has been Disabled.
May also be shown as 806f040c2007ffff or 0x806f040c2007ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
 2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
 3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
- **806f040c-2008ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected that Memory has been Disabled.
May also be shown as 806f040c2008ffff or 0x806f040c2008ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
 2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
 3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
- **806f040c-2009ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected that Memory has been Disabled. May also be shown as 806f040c2009ffff or 0x806f040c2009ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
 2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
 3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
- **806f040c-200affff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected that Memory has been Disabled. May also be shown as 806f040c200affff or 0x806f040c200affff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
 2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
 3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
- **806f040c-200bffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected that Memory has been Disabled.

May also be shown as 806f040c200bffff or 0x806f040c200bffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
 2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
 3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
- **806f040c-200cffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected that Memory has been Disabled.

May also be shown as 806f040c200cffff or 0x806f040c200cffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
 2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
 3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
- **806f040c-2581ffff : [PhysicalMemoryElementName] Disabled on Subsystem [MemoryElementName]. (All DIMMs)**

This message is for the use case when an implementation has detected that Memory has been Disabled. May also be shown as 806f040c2581ffff or 0x806f040c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0131

User Response

1. Make sure the DIMM is installed correctly.
 2. If the DIMM was disabled because of a memory fault (memory uncorrectable error or memory logging limit reached), follow the suggested actions for that error event and restart the server.
 3. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory event. If no memory fault is recorded in the logs and no DIMM connector error LED is lit, you can re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
- One of the DIMMs :
- **806f0413-2582ffff : A PCI PERR has occurred on system [ComputerSystemElementName]. (All PCI Error)**

This message is for the use case when an implementation has detected a PCI PERR.

May also be shown as 806f04132582ffff or 0x806f04132582ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0232

User Response

1. Check the PCI LED.
2. Reseat the affected adapters and riser cards.
3. Update the server firmware (UEFI and IMM) and adapter firmware. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
4. Remove both adapters.
5. Replace the PCIe adapters.
6. Replace the riser card.

One of PCI Error : PCIs :

- **806f0507-0301ffff : [ProcessorElementName] has a Configuration Mismatch. (CPU 1)**

This message is for the use case when an implementation has detected a Processor Configuration Mismatch has occurred.

May also be shown as 806f05070301ffff or 0x806f05070301ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0062

User Response

1. Make sure that the installed microprocessors are compatible with each other.
2. (Trained technician only) Reseat microprocessor n.
3. (Trained technician only) Replace microprocessor n. (n = microprocessor number)

- **806f0507-0302ffff : [ProcessorElementName] has a Configuration Mismatch. (CPU 2)**

This message is for the use case when an implementation has detected a Processor Configuration Mismatch has occurred.

May also be shown as 806f05070302ffff or 0x806f05070302ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0062

User Response

1. Make sure that the installed microprocessors are compatible with each other.
 2. (Trained technician only) Reseat microprocessor n.
 3. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
- **806f0507-2584ffff : [ProcessorElementName] has a Configuration Mismatch. (All CPUs)**
- This message is for the use case when an implementation has detected a Processor Configuration Mismatch has occurred.

May also be shown as 806f05072584ffff or 0x806f05072584ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0062

User Response

1. Make sure that the installed microprocessors are compatible with each other.
 2. (Trained technician only) Reseat microprocessor n.
 3. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
- One of CPUs :
- **806f050c-2001ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 1)**
- This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2001ffff or 0x806f050c2001ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information**Prefix:** PLAT ID: 0144**User Response**

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f050c-2002ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2002ffff or 0x806f050c2002ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f050c-2003ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2003ffff or 0x806f050c2003ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.

4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

- **806f050c-2004ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2004ffff or 0x806f050c2004ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.

9. (Trained Service technician only) Replace the affected microprocessor.
- **806f050c-2005ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2005ffff or 0x806f050c2005ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f050c-2006ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2006ffff or 0x806f050c2006ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f050c-2007ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2007ffff or 0x806f050c2007ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f050c-2008ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2008ffff or 0x806f050c2008ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.

5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f050c-2009ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2009ffff or 0x806f050c2009ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

- **806f050c-200afff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c200afff or 0x806f050c200afff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

- **806f050c-200bfff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c200bfff or 0x806f050c200bfff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.
5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

- **806f050c-200cffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c200cffff or 0x806f050c200cffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
 2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
 3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
 4. If the problem follows the DIMM, replace the failing DIMM.
 5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
 6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
 7. (Trained technician only) Replace the affected microprocessor.
 8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
 9. (Trained Service technician only) Replace the affected microprocessor.
- **806f050c-2581ffff : Memory Logging Limit Reached for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (All DIMMs)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Reached.

May also be shown as 806f050c2581ffff or 0x806f050c2581ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0144

User Response

Note: Each time you install or remove a DIMM, you must disconnect the server from the power source; then, wait 10 seconds before restarting the server.

1. Refer to TIP H212293 for minimum code level.
2. Check the IBM support website for an applicable retain tip or firmware update that applies to this memory error.
3. Swap the affected DIMMs (as indicated by the error LEDs on the system board or the event logs) to a different memory channel or microprocessor.
4. If the problem follows the DIMM, replace the failing DIMM.

5. (Trained technician only) If the problem occurs on the same DIMM connector, check the DIMM connector. If the connector contains any foreign material or is damaged, replace the system board.
6. (Trained technician only) Remove the affected microprocessor and check the microprocessor socket pins for any damaged pins. If a damage is found, replace the system board.
7. (Trained technician only) Replace the affected microprocessor.
8. Manually re-enable all affected DIMMs if the server firmware version is older than UEFI v1.10. If the server firmware version is UEFI v1.10 or newer, disconnect and reconnect the server to the power source and restart the server.
9. (Trained Service technician only) Replace the affected microprocessor.

One of the DIMMs :

- **806f050d-0400ffff : Array [ComputerSystemElementName] is in critical condition. (Drive 0)**

This message is for the use case when an implementation has detected that an Array is Critical.

May also be shown as 806f050d0400ffff or 0x806f050d0400ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0174

User Response

1. Make sure that the RAID adapter firmware and hard disk drive firmware are at the latest level.
2. Make sure that the SAS cable is connected correctly.
3. Replace the SAS cable.
4. Check backplane cable connection.
5. Replace the RAID adapter.
6. Replace the hard disk drive that is indicated by a lit status LED.

- **806f050d-0401ffff : Array [ComputerSystemElementName] is in critical condition. (Drive 1)**

This message is for the use case when an implementation has detected that an Array is Critical.

May also be shown as 806f050d0401ffff or 0x806f050d0401ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0174

User Response

1. Make sure that the RAID adapter firmware and hard disk drive firmware are at the latest level.
 2. Make sure that the SAS cable is connected correctly.
 3. Replace the SAS cable.
 4. Check backplane cable connection.
 5. Replace the RAID adapter.
 6. Replace the hard disk drive that is indicated by a lit status LED.
- **806f0513-2582ffff : A PCI SERR has occurred on system [ComputerSystemElementName]. (All PCI Error)**

This message is for the use case when an implementation has detected a PCI SERR.

May also be shown as 806f05132582ffff or 0x806f05132582ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0234

User Response

1. Check the PCI LED.
 2. Reseat the affected adapters and riser card.
 3. Update the server firmware (UEFI and IMM) and adapter firmware. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 4. Make sure that the adapter is supported. For a list of supported optional devices, see <http://www.ibm.com/systems/info/x86servers/serverproven/compat/us/>.
 5. Remove both adapters.
 6. Replace the PCIe adapters.
 7. Replace the riser card.
- One of PCI Error : PCIs :
- **806f052b-2101ffff : Invalid or Unsupported firmware or software was detected on system [ComputerSystemElementName]. (IMM2 FW Failover)**

This message is for the use case when an implementation has detected an Invalid/Unsupported Firmware/ Software Version.

May also be shown as 806f052b2101ffff or 0x806f052b2101ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0446

User Response

1. Make sure the server meets the minimum configuration to start (see Power-supply LEDs).
 2. Recover the server firmware from the backup page by restarting the server.
 3. Update the server firmware to the latest level (see Updating the firmware). Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 4. Remove components one at a time, restarting the server each time, to see if the problem goes away.
 5. If the problem remains, (trained service technician) replace the system board.
- **806f0607-0301ffff : An SM BIOS Uncorrectable CPU complex error for [ProcessorElementName] has asserted. (CPU 1)**

This message is for the use case when an SM BIOS Uncorrectable CPU complex error has asserted.

May also be shown as 806f06070301ffff or 0x806f06070301ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0816

User Response

1. Update the latest level of system firmware and device drivers are installed for all adapters and standard devices, such as UEFI, IMM Ethernet, and SAS. Important: Some cluster solutions

require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.

2. Run the DSA program.
 3. Reseat the adapter.
 4. Replace the adapter.
 5. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
 6. (Trained technician only) Replace the system board.
- **806f0607-0302ffff : An SM BIOS Uncorrectable CPU complex error for [ProcessorElementName] has asserted. (CPU 2)**

This message is for the use case when an SM BIOS Uncorrectable CPU complex error has asserted.

May also be shown as 806f06070302ffff or 0x806f06070302ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0816

User Response

1. Update the latest level of system firmware and device drivers are installed for all adapters and standard devices, such as UEFI, IMM Ethernet, and SAS. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 2. Run the DSA program.
 3. Reseat the adapter.
 4. Replace the adapter.
 5. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
 6. (Trained technician only) Replace the system board.
- **806f0607-2584ffff : An SM BIOS Uncorrectable CPU complex error for [ProcessorElementName] has asserted. (All CPUs)**

This message is for the use case when an SM BIOS Uncorrectable CPU complex error has asserted.

May also be shown as 806f06072584ffff or 0x806f06072584ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0816

User Response

1. Update the latest level of system firmware and device drivers are installed for all adapters and standard devices, such as UEFI, IMM Ethernet, and SAS. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
2. Run the DSA program.
3. Reseat the adapter.
4. Replace the adapter.
5. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
6. (Trained technician only) Replace the system board.

One of CPUs :

- **806f060d-0400ffff : Array [ComputerSystemElementName] has failed. (Drive 0)**

This message is for the use case when an implementation has detected that an Array Failed.

May also be shown as 806f060d0400ffff or 0x806f060d0400ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0176

User Response

1. Make sure that the RAID adapter firmware and hard disk drive firmware are at the latest level.
2. Make sure that the SAS cable is connected correctly.
3. Replace the SAS cable.
4. Replace the RAID adapter.
5. Replace the hard disk drive that is indicated by a lit status LED.

- **806f060d-0401ffff : Array [ComputerSystemElementName] has failed. (Drive 1)**

This message is for the use case when an implementation has detected that an Array Failed.

May also be shown as 806f060d0401ffff or 0x806f060d0401ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0176

User Response

1. Make sure that the RAID adapter firmware and hard disk drive firmware are at the latest level.
 2. Make sure that the SAS cable is connected correctly.
 3. Replace the SAS cable.
 4. Replace the RAID adapter.
 5. Replace the hard disk drive that is indicated by a lit status LED.
- **806f070c-2001ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 1)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2001ffff or 0x806f070c2001ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-2002ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2002ffff or 0x806f070c2002ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-2003ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2003ffff or 0x806f070c2003ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-2004ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2004ffff or 0x806f070c2004ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-2005ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2005ffff or 0x806f070c2005ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-2006ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2006ffff or 0x806f070c2006ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-2007ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2007ffff or 0x806f070c2007ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-2008ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2008ffff or 0x806f070c2008ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-2009ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2009ffff or 0x806f070c2009ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-200affff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c200affff or 0x806f070c200affff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-200bffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c200bffff or 0x806f070c200bffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-200cffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c200cffff or 0x806f070c200cffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication.

- **806f070c-2581ffff : Configuration Error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (All DIMMs)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has been corrected.

May also be shown as 806f070c2581ffff or 0x806f070c2581ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0126

User Response

Make sure that DIMMs are installed and following the memory population chart in the system publication. One of the DIMMs :

- **806f070d-0400ffff : Rebuild in progress for Array in system [ComputerSystemElementName]. (Drive 0)**

This message is for the use case when an implementation has detected that an Array Rebuild is in Progress.

May also be shown as 806f070d0400ffff or 0x806f070d0400ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0178

User Response

No action; information only.

- **806f070d-0401ffff : Rebuild in progress for Array in system [ComputerSystemElementName]. (Drive 1)**

This message is for the use case when an implementation has detected that an Array Rebuild is in Progress.

May also be shown as 806f070d0401ffff or 0x806f070d0401ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0178

User Response

No action; information only.

- **806f072b-2101ffff : A successful software or firmware change was detected on system [ComputerSystemElementName]. (IMM Promotion)**

This message is for the use case when an implementation has detected a Successful Software or Firmware Change.

May also be shown as 806f072b2101ffff or 0x806f072b2101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0450

User Response

No action; information only. IMM Recovery :

- **806f072b-2201ffff : A successful software or firmware change was detected on system [ComputerSystemElementName]. (Bkup Auto Update)**

This message is for the use case when an implementation has detected a Successful Software or Firmware Change.

May also be shown as 806f072b2201ffff or 0x806f072b2201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0450

User Response

No action; information only. ROM Recovery :

- **806f0807-0301ffff : [ProcessorElementName] has been Disabled. (CPU 1)**

This message is for the use case when an implementation has detected a Processor has been Disabled.

May also be shown as 806f08070301ffff or 0x806f08070301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0061

User Response

No action; information only.

- **806f0807-0302ffff : [ProcessorElementName] has been Disabled. (CPU 2)**

This message is for the use case when an implementation has detected a Processor has been Disabled.

May also be shown as 806f08070302ffff or 0x806f08070302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0061

User Response

No action; information only.

- **806f0807-2584ffff : [ProcessorElementName] has been Disabled. (All CPUs)**

This message is for the use case when an implementation has detected a Processor has been Disabled.

May also be shown as 806f08072584ffff or 0x806f08072584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0061

User Response

No action; information only. One of CPUs :

- **806f0813-2581ffff : An Uncorrectable Error has occurred on [SensorElementName]. (DIMMs)**

This message is for the use case when an implementation has detected a Bus Uncorrectable Error.

May also be shown as 806f08132581ffff or 0x806f08132581ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0240

User Response

1. Check the system-event log.
2. (Trained technician only) Remove the failing microprocessor from the system board (see Removing a microprocessor and heat sink).
3. Check for a server firmware update. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
4. Make sure that the two microprocessors are matching.
5. (Trained technician only) Replace the system board.

- **806f0813-2584ffff : An Uncorrectable Error has occurred on [SensorElementName]. (CPUs)**

This message is for the use case when an implementation has detected a Bus Uncorrectable Error.

May also be shown as 806f08132584ffff or 0x806f08132584ffff

Severity

Error

Serviceable

Yes

Automatically notify support

Yes

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0240

User Response

1. Check the system-event log.
 2. (Trained technician only) Remove the failing microprocessor from the system board (see Removing a microprocessor and heat sink).
 3. Check for a server firmware update. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
 4. Make sure that the two microprocessors are matching.
 5. (Trained technician only) Replace the system board.
- **806f0823-2101ffff : Watchdog Timer interrupt occurred for [WatchdogElementName]. (IPMI Watchdog)**

This message is for the use case when an implementation has detected a Watchdog Timer interrupt occurred.

May also be shown as 806f08232101ffff or 0x806f08232101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0376

User Response

No action; information only.

- **806f090c-2001ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 1)**

This message is for the use case when an implementation has detected Memory has been Throttled.

May also be shown as 806f090c2001ffff or 0x806f090c2001ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
 2. Replace DIMM n. (n = DIMM number)
- **806f090c-2002ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 2)**

This message is for the use case when an implementation has detected Memory has been Throttled.

May also be shown as 806f090c2002ffff or 0x806f090c2002ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
 2. Replace DIMM n. (n = DIMM number)
- **806f090c-2003ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 3)**

This message is for the use case when an implementation has detected Memory has been Throttled.

May also be shown as 806f090c2003ffff or 0x806f090c2003ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
2. Replace DIMM n. (n = DIMM number)

- **806f090c-2004ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 4)**

This message is for the use case when an implementation has detected Memory has been Throttled.
May also be shown as 806f090c2004ffff or 0x806f090c2004ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
2. Replace DIMM n. (n = DIMM number)

- **806f090c-2005ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 5)**

This message is for the use case when an implementation has detected Memory has been Throttled.
May also be shown as 806f090c2005ffff or 0x806f090c2005ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
2. Replace DIMM n. (n = DIMM number)

- **806f090c-2006ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 6)**

This message is for the use case when an implementation has detected Memory has been Throttled.
May also be shown as 806f090c2006ffff or 0x806f090c2006ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
 2. Replace DIMM n. (n = DIMM number)
- **806f090c-2007ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 7)**

This message is for the use case when an implementation has detected Memory has been Throttled.

May also be shown as 806f090c2007ffff or 0x806f090c2007ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
 2. Replace DIMM n. (n = DIMM number)
- **806f090c-2008ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 8)**

This message is for the use case when an implementation has detected Memory has been Throttled.

May also be shown as 806f090c2008ffff or 0x806f090c2008ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
 2. Replace DIMM n. (n = DIMM number)
- **806f090c-2009ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 9)**

This message is for the use case when an implementation has detected Memory has been Throttled. May also be shown as 806f090c2009ffff or 0x806f090c2009ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
 2. Replace DIMM n. (n = DIMM number)
- **806f090c-200affff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 10)**

This message is for the use case when an implementation has detected Memory has been Throttled. May also be shown as 806f090c200affff or 0x806f090c200affff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
 2. Replace DIMM n. (n = DIMM number)
- **806f090c-200bffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 11)**

This message is for the use case when an implementation has detected Memory has been Throttled.

May also be shown as 806f090c200bffff or 0x806f090c200bffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
 2. Replace DIMM n. (n = DIMM number)
- **806f090c-200cffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] Throttled. (DIMM 12)**

This message is for the use case when an implementation has detected Memory has been Throttled.

May also be shown as 806f090c200cffff or 0x806f090c200cffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

22

CIM Information

Prefix: PLAT ID: 0142

User Response

1. Reseat the DIMM, and then restart the server.
2. Replace DIMM n. (n = DIMM number)

- **806f0a07-0301ffff : [ProcessorElementName] is operating in a Degraded State. (CPU 1)**

This message is for the use case when an implementation has detected a Processor is running in the Degraded state.

May also be shown as 806f0a070301ffff or 0x806f0a070301ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - CPU

SNMP Trap ID

42

CIM Information

Prefix: PLAT ID: 0038

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
2. Check the ambient temperature. You must be operating within the specifications.
3. Make sure that the heat sink for microprocessor n is installed correctly.
4. (Trained technician only) Replace microprocessor n. (n = microprocessor number)

- **806f0a07-0302ffff : [ProcessorElementName] is operating in a Degraded State. (CPU 2)**

This message is for the use case when an implementation has detected a Processor is running in the Degraded state.

May also be shown as 806f0a070302ffff or 0x806f0a070302ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - CPU

SNMP Trap ID

42

CIM Information

Prefix: PLAT ID: 0038

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.

2. Check the ambient temperature. You must be operating within the specifications.
 3. Make sure that the heat sink for microprocessor n is installed correctly.
 4. (Trained technician only) Replace microprocessor n. (n = microprocessor number)
- **806f0a07-2584ffff : [ProcessorElementName] is operating in a Degraded State. (All CPUs)**

This message is for the use case when an implementation has detected a Processor is running in the Degraded state.

May also be shown as 806f0a072584ffff or 0x806f0a072584ffff

Severity

Warning

Serviceable

Yes

Automatically notify support

No

Alert Category

Warning - CPU

SNMP Trap ID

42

CIM Information

Prefix: PLAT ID: 0038

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow (front and rear of the server), that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
2. Check the ambient temperature. You must be operating within the specifications.
3. Make sure that the heat sink for microprocessor n is installed correctly.
4. (Trained technician only) Replace microprocessor n. (n = microprocessor number)

One of CPUs :

- **806f0a0c-2001ffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 1)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c2001ffff or 0x806f0a0c2001ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
 2. Make sure that ambient temperature is within the specifications.
 3. If a fan has failed, complete the action for a fan failure.
 4. Replace DIMM n. (n = DIMM number)
- **806f0a0c-2002ffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c2002ffff or 0x806f0a0c2002ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
 2. Make sure that ambient temperature is within the specifications.
 3. If a fan has failed, complete the action for a fan failure.
 4. Replace DIMM n. (n = DIMM number)
- **806f0a0c-2003ffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c2003ffff or 0x806f0a0c2003ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information**Prefix:** PLAT ID: 0146**User Response**

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
 2. Make sure that ambient temperature is within the specifications.
 3. If a fan has failed, complete the action for a fan failure.
 4. Replace DIMM n. (n = DIMM number)
- **806f0a0c-2004ffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c2004ffff or 0x806f0a0c2004ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information**Prefix:** PLAT ID: 0146**User Response**

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
 2. Make sure that ambient temperature is within the specifications.
 3. If a fan has failed, complete the action for a fan failure.
 4. Replace DIMM n. (n = DIMM number)
- **806f0a0c-2005ffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c2005ffff or 0x806f0a0c2005ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
 2. Make sure that ambient temperature is within the specifications.
 3. If a fan has failed, complete the action for a fan failure.
 4. Replace DIMM n. (n = DIMM number)
- **806f0a0c-2006ffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c2006ffff or 0x806f0a0c2006ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
 2. Make sure that ambient temperature is within the specifications.
 3. If a fan has failed, complete the action for a fan failure.
 4. Replace DIMM n. (n = DIMM number)
- **806f0a0c-2007ffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c2007ffff or 0x806f0a0c2007ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
 2. Make sure that ambient temperature is within the specifications.
 3. If a fan has failed, complete the action for a fan failure.
 4. Replace DIMM n. (n = DIMM number)
- **806f0a0c-2008ffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c2008ffff or 0x806f0a0c2008ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
2. Make sure that ambient temperature is within the specifications.
3. If a fan has failed, complete the action for a fan failure.
4. Replace DIMM n. (n = DIMM number)

- **806f0a0c-2009ffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c2009ffff or 0x806f0a0c2009ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
 2. Make sure that ambient temperature is within the specifications.
 3. If a fan has failed, complete the action for a fan failure.
 4. Replace DIMM n. (n = DIMM number)
- **806f0a0c-200affff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c200affff or 0x806f0a0c200affff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
2. Make sure that ambient temperature is within the specifications.
3. If a fan has failed, complete the action for a fan failure.
4. Replace DIMM n. (n = DIMM number)

- **806f0a0c-200bffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c200bffff or 0x806f0a0c200bffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
2. Make sure that ambient temperature is within the specifications.
3. If a fan has failed, complete the action for a fan failure.
4. Replace DIMM n. (n = DIMM number)

- **806f0a0c-200cffff : An Over-Temperature Condition has been detected on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Detected.

May also be shown as 806f0a0c200cffff or 0x806f0a0c200cffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0146

User Response

1. Make sure that the fans are operating, that there are no obstructions to the airflow, that the air baffles are in place and correctly installed, and that the server cover is installed and completely closed.
 2. Make sure that ambient temperature is within the specifications.
 3. If a fan has failed, complete the action for a fan failure.
 4. Replace DIMM n. (n = DIMM number)
- **806f0a13-2401ffff : A Fatal Bus Error has occurred on bus [SensorElementName]. (SMBus)**

This message is for the use case when an implementation has detected a Bus Fatal Error.

May also be shown as 806f0a132401ffff or 0x806f0a132401ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0244

User Response

1. (Trained technician only)Reseat the microprocessor, and then restart the server.
 2. (Trained technician only)Replace microprocessor n. (n = microprocessor number)
- **806f0a13-2582ffff : A Fatal Bus Error has occurred on bus [SensorElementName]. (All PCI Error)**

This message is for the use case when an implementation has detected a Bus Fatal Error.

May also be shown as 806f0a132582ffff or 0x806f0a132582ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0244

User Response

1. (Trained technician only)Reseat the microprocessor, and then restart the server.
2. (Trained technician only)Replace microprocessor n. (n = microprocessor number)

One of PCI Error : PCIs :

- **81010202-0701ffff : Numeric sensor [NumericSensorElementName] going low (lower critical) has deasserted. (SysBrd 12V)**

This message is for the use case when an implementation has detected a Lower Critical sensor going low has deasserted.

May also be shown as 810102020701ffff or 0x810102020701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Voltage

SNMP Trap ID

1

CIM Information

Prefix: PLAT ID: 0481

User Response

No action; information only. SysBrd 3.3V : SysBrd 5V :

- **81010202-2801ffff : Numeric sensor [NumericSensorElementName] going low (lower critical) has deasserted. (CMOS Battery)**

This message is for the use case when an implementation has detected a Lower Critical sensor going low has deasserted.

May also be shown as 810102022801ffff or 0x810102022801ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Voltage

SNMP Trap ID

1

CIM Information

Prefix: PLAT ID: 0481

User Response

No action; information only.

- **81010701-3701ffff : Numeric sensor [NumericSensorElementName] going high (upper non-critical) has deasserted. (Inlet Temp)**

This message is for the use case when an implementation has detected an Upper Non-critical sensor going high has deasserted.

May also be shown as 810107013701ffff or 0x810107013701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0491

User Response

No action; information only.

- **81010901-3701ffff : Numeric sensor [NumericSensorElementName] going high (upper critical) has deasserted. (Inlet Temp)**

This message is for the use case when an implementation has detected an Upper Critical sensor going high has deasserted.

May also be shown as 810109013701ffff or 0x810109013701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0495

User Response

No action; information only.

- **81010902-0701ffff : Numeric sensor [NumericSensorElementName] going high (upper critical) has deasserted. (SysBrd 12V)**

This message is for the use case when an implementation has detected an Upper Critical sensor going high has deasserted.

May also be shown as 810109020701ffff or 0x810109020701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Voltage

SNMP Trap ID

1

CIM Information

Prefix: PLAT ID: 0495

User Response

No action; information only. SysBrd 3.3V : SysBrd 5V :

- **81010b01-3701ffff : Numeric sensor [NumericSensorElementName] going high (upper non-recoverable) has deasserted. (Inlet Temp)**

This message is for the use case when an implementation has detected an Upper Non-recoverable sensor going high has deasserted.

May also be shown as 81010b013701ffff or 0x81010b013701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0499

User Response

No action; information only.

- **81030006-2101ffff : Sensor [SensorElementName] has asserted. (Sig Verify Fail)**

This message is for the use case when an implementation has detected a Sensor has asserted.

May also be shown as 810300062101ffff or 0x810300062101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0508

User Response

No action; information only.

- **8103000f-2101ffff : Sensor [SensorElementName] has asserted. (IMM FW Corrupted)**

This message is for the use case when an implementation has detected a Sensor has asserted.

May also be shown as 8103000f2101ffff or 0x8103000f2101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0508

User Response

No action; information only.

- **8103010c-2581ffff : Sensor [SensorElementName] has deasserted. (Mem Lane Spared)**

This message is for the use case when an implementation has detected a Sensor has deasserted.

May also be shown as 8103010c2581ffff or 0x8103010c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0509

User Response

No action; information only.

- **8103010e-2581ffff : Sensor [SensorElementName] has deasserted. (Memory Resized)**

This message is for the use case when an implementation has detected a Sensor has deasserted.

May also be shown as 8103010e2581ffff or 0x8103010e2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0509

User Response

No action; information only.

- **81030112-0601ffff : Sensor [SensorElementName] has deasserted. (SMM Mode)**

This message is for the use case when an implementation has detected a Sensor has deasserted.

May also be shown as 810301120601ffff or 0x810301120601ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0509

User Response

No action; information only. SMM Monitor :

- **81070101-0301ffff : Sensor [SensorElementName] has deasserted the transition from normal to non-critical state. (CPU 1 Overtemp)**

This message is for the use case when an implementation has detected that a Sensor has deasserted a transition to non-critical from normal.

May also be shown as 810701010301ffff or 0x810701010301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0521

User Response

No action; information only.

- **81070101-0302ffff : Sensor [SensorElementName] has deasserted the transition from normal to non-critical state. (CPU 2 Overtemp)**

This message is for the use case when an implementation has detected that a Sensor has deasserted a transition to non-critical from normal.

May also be shown as 810701010302ffff or 0x810701010302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0521

User Response

No action; information only.

- **81070101-2c02ffff : Sensor [SensorElementName] has deasserted the transition from normal to non-critical state. (Mezz Exp 2 Temp)**

This message is for the use case when an implementation has detected that a Sensor has deasserted a transition to non-critical from normal.

May also be shown as 810701012c02ffff or 0x810701012c02ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0521

User Response

No action; information only.

- **81070101-2d01ffff : Sensor [SensorElementName] has deasserted the transition from normal to non-critical state. (PCH Overtemp)**

This message is for the use case when an implementation has detected that a Sensor has deasserted a transition to non-critical from normal.

May also be shown as 810701012d01ffff or 0x810701012d01ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Temperature

SNMP Trap ID

12

CIM Information

Prefix: PLAT ID: 0521

User Response

No action; information only.

- **8107010f-2201ffff : Sensor [SensorElementName] has deasserted the transition from normal to non-critical state. (GPT Status)**

This message is for the use case when an implementation has detected that a Sensor has deasserted a transition to non-critical from normal.

May also be shown as 8107010f2201ffff or 0x8107010f2201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Other

SNMP Trap ID

60

CIM Information

Prefix: PLAT ID: 0521

User Response

No action; information only. Sec Rollback Err : Secure Boot Err :

- **8107010f-2582ffff : Sensor [SensorElementName] has deasserted the transition from normal to non-critical state. (I/O Resources)**

This message is for the use case when an implementation has detected that a Sensor has deasserted a transition to non-critical from normal.

May also be shown as 8107010f2582ffff or 0x8107010f2582ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Other

SNMP Trap ID

60

CIM Information

Prefix: PLAT ID: 0521

User Response

No action; information only.

- **81070114-2201ffff : Sensor [SensorElementName] has deasserted the transition from normal to non-critical state. (TPM Lock)**

This message is for the use case when an implementation has detected that a Sensor has deasserted a transition to non-critical from normal.

May also be shown as 810701142201ffff or 0x810701142201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Other

SNMP Trap ID

60

CIM Information

Prefix: PLAT ID: 0521

User Response

No action; information only. TPM Phy Pres Set :

- **81070201-2d01ffff : Sensor [SensorElementName] has transitioned to a less severe state from critical. (PCH Overtemp)**

This message is for the use case when an implementation has detected a Sensor transition to less severe from critical.

May also be shown as 810702012d01ffff or 0x810702012d01ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0523

User Response

No action; information only.

- **81070202-0701ffff : Sensor [SensorElementName] has transitioned to a less severe state from critical. (SysBrd Vol Fault)**

This message is for the use case when an implementation has detected a Sensor transition to less severe from critical.

May also be shown as 810702020701ffff or 0x810702020701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Voltage

SNMP Trap ID

1

CIM Information

Prefix: PLAT ID: 0523

User Response

No action; information only.

- **8107020c-2581ffff : Sensor [SensorElementName] has transitioned to a less severe state from critical. (Mem Lane)**

This message is for the use case when an implementation has detected a Sensor transition to less severe from critical.

May also be shown as 8107020c2581ffff or 0x8107020c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0523

User Response

No action; information only.

- **8107020f-2201ffff : Sensor [SensorElementName] has transitioned to a less severe state from critical. (Drive Key Fault)**

This message is for the use case when an implementation has detected a Sensor transition to less severe from critical.

May also be shown as 8107020f2201ffff or 0x8107020f2201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0523

User Response

No action; information only. TXT ACM Module :

- **8107020f-2582ffff : Sensor [SensorElementName] has transitioned to a less severe state from critical. (I/O Resources)**

This message is for the use case when an implementation has detected a Sensor transition to less severe from critical.

May also be shown as 8107020f2582ffff or 0x8107020f2582ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0523

User Response

No action; information only.

- **81070217-2c02ffff : Sensor [SensorElementName] has transitioned to a less severe state from critical. (Mezz Exp 2 Fault)**

This message is for the use case when an implementation has detected a Sensor transition to less severe from critical.

May also be shown as 810702172c02ffff or 0x810702172c02ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0523

User Response

No action; information only.

- **81070219-0701ffff : Sensor [SensorElementName] has transitioned to a less severe state from critical. (Sys Board Fault)**

This message is for the use case when an implementation has detected a Sensor transition to less severe from critical.

May also be shown as 810702190701ffff or 0x810702190701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0523

User Response

No action; information only.

- **8107021b-2584ffff : Sensor [SensorElementName] has transitioned to a less severe state from critical. (QPI Link Error)**

This message is for the use case when an implementation has detected a Sensor transition to less severe from critical.

May also be shown as 8107021b2584ffff or 0x8107021b2584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0523

User Response

No action; information only.

- **81070301-0301ffff : Sensor [SensorElementName] has deasserted the transition to non-recoverable from a less severe state. (CPU 1 Overtemp)**

This message is for the use case when an implementation has detected that the Sensor transition to non-recoverable from less severe has deasserted.

May also be shown as 810703010301ffff or 0x810703010301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0525

User Response

No action; information only.

- **81070301-0302ffff : Sensor [SensorElementName] has deasserted the transition to non-recoverable from a less severe state. (CPU 2 Overtemp)**

This message is for the use case when an implementation has detected that the Sensor transition to non-recoverable from less severe has deasserted.

May also be shown as 810703010302ffff or 0x810703010302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0525

User Response

No action; information only.

- **81070301-2c02ffff : Sensor [SensorElementName] has deasserted the transition to non-recoverable from a less severe state. (Mezz Exp 2 Temp)**

This message is for the use case when an implementation has detected that the Sensor transition to non-recoverable from less severe has deasserted.

May also be shown as 810703012c02ffff or 0x810703012c02ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0525

User Response

No action; information only.

- **81070301-2d01ffff : Sensor [SensorElementName] has deasserted the transition to non-recoverable from a less severe state. (PCH Overtemp)**

This message is for the use case when an implementation has detected that the Sensor transition to non-recoverable from less severe has deasserted.

May also be shown as 810703012d01ffff or 0x810703012d01ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0525

User Response

No action; information only.

- **81070601-2c02ffff : Sensor [SensorElementName] has deasserted the transition to non-recoverable. (Mezz Exp 2 Temp)**

This message is for the use case when an implementation has detected that the Sensor transition to non-recoverable has deasserted.

May also be shown as 810706012c02ffff or 0x810706012c02ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0531

User Response

No action; information only.

- **8107060f-2201ffff : Sensor [SensorElementName] has deasserted the transition to non-recoverable. (BOFM Config Err)**

This message is for the use case when an implementation has detected that the Sensor transition to non-recoverable has deasserted.

May also be shown as 8107060f2201ffff or 0x8107060f2201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0531

User Response

No action; information only.

- **81070614-2201ffff : Sensor [SensorElementName] has deasserted the transition to non-recoverable. (TPM Phy Pres Set)**

This message is for the use case when an implementation has detected that the Sensor transition to non-recoverable has deasserted.

May also be shown as 810706142201ffff or 0x810706142201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0531

User Response

No action; information only.

- **81080017-0f01ffff : Device [LogicalDeviceElementName] has been added. (SAS BP)**

This message is for the use case when an implementation has detected a Device was inserted.

May also be shown as 810800170f01ffff or 0x810800170f01ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0536

User Response

No action; information only.

- **81090112-2101ffff : Device [LogicalDeviceElementName] has been disabled. (IPMI/SNMP Accts)**

This message is for the use case when an implementation has detected a Device was disabled.

May also be shown as 810901122101ffff or 0x810901122101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0539

User Response

No action; information only.

- **810b010c-2581ffff : Redundancy Lost for [RedundancySetElementName] has deasserted. (Backup Memory)**

This message is for the use case when Redundacy Lost has deasserted.

May also be shown as 810b010c2581ffff or 0x810b010c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0803

User Response

No action; information only.

- **810b030c-2581ffff : Non-redundant:Sufficient Resources from Redundancy Degraded or Fully Redundant for [RedundancySetElementName] has deasserted. (Backup Memory)**

This message is for the use case when a Redundancy Set has transitioned from Non-redundant:Sufficient Resources.

May also be shown as 810b030c2581ffff or 0x810b030c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0807

User Response

No action; information only.

- **810b050c-2581ffff : Non-redundant:Insufficient Resources for [RedundancySetElementName] has deasserted. (Backup Memory)**

This message is for the use case when a Redundancy Set has transitioned from Non-redundant: Insufficient Resources.

May also be shown as 810b050c2581ffff or 0x810b050c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0811

User Response

No action; information only.

- **816f0007-0301ffff : [ProcessorElementName] has Recovered from IERR. (CPU 1)**

This message is for the use case when an implementation has detected a Processor Recovered - IERR Condition.

May also be shown as 816f00070301ffff or 0x816f00070301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0043

User Response

No action; information only.

- **816f0007-0302ffff : [ProcessorElementName] has Recovered from IERR. (CPU 2)**

This message is for the use case when an implementation has detected a Processor Recovered - IERR Condition.

May also be shown as 816f00070302ffff or 0x816f00070302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0043

User Response

No action; information only.

- **816f0007-2584ffff : [ProcessorElementName] has Recovered from IERR. (All CPUs)**

This message is for the use case when an implementation has detected a Processor Recovered - IERR Condition.

May also be shown as 816f00072584ffff or 0x816f00072584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0043

User Response

No action; information only. One of CPUs :

- **816f0009-0701ffff : [PowerSupplyElementName] has been turned on. (Host Power)**

This message is for the use case when an implementation has detected a Power Unit that has been Enabled.

May also be shown as 816f00090701ffff or 0x816f00090701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Power On

SNMP Trap ID

24

CIM Information

Prefix: PLAT ID: 0107

User Response

No action; information only.

- **816f000d-0400ffff : The [StorageVolumeElementName] has been removed from unit [PhysicalPackageElementName]. (Drive 0)**

This message is for the use case when an implementation has detected a Drive has been Removed.

May also be shown as 816f000d0400ffff or 0x816f000d0400ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0163

User Response

1. Reseat hard disk drive n.(n = hard disk drive number). Wait 1 minute or more before reinstalling the drive.
 2. Make sure that the disk firmware and RAID controller and backplane firmware are at the latest level.
 3. Check the SAS cable.
 4. Replace the hard disk drive.
- **816f000d-0401ffff : The [StorageVolumeElementName] has been removed from unit [PhysicalPackageElementName]. (Drive 1)**

This message is for the use case when an implementation has detected a Drive has been Removed.

May also be shown as 816f000d0401ffff or 0x816f000d0401ffff

Severity

Error

Serviceable

Yes

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0163

User Response

1. Reseat hard disk drive n.(n = hard disk drive number). Wait 1 minute or more before reinstalling the drive.
 2. Make sure that the disk firmware and RAID controller and backplane firmware are at the latest level.
 3. Check the SAS cable.
 4. Replace the hard disk drive.
- **816f000f-2201ffff : The System [ComputerSystemElementName] has detected a POST Error deassertion. (ABR Status)**

This message is for the use case when an implementation has detected that Post Error has deasserted.

May also be shown as 816f000f2201ffff or 0x816f000f2201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information**Prefix: PLAT ID:** 0185**User Response**

No action; information only. Firmware Error : Sys Boot Status :

- **816f0013-1701ffff : System [ComputerSystemElementName] has recovered from a diagnostic interrupt. (NMI State)**

This message is for the use case when an implementation has detected a recovery from a Front Panel NMI / Diagnostic Interrupt

May also be shown as 816f00131701ffff or 0x816f00131701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information**Prefix: PLAT ID:** 0223**User Response**

No action; information only.

- **816f0021-2201ffff : Fault condition removed on slot [PhysicalConnectorElementName] on system [ComputerSystemElementName]. (No Op ROM Space)**

This message is for the use case when an implementation has detected a Fault condition in a slot has been removed.

May also be shown as 816f00212201ffff or 0x816f00212201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0331

User Response

No action; information only.

- **816f0021-2582ffff : Fault condition removed on slot [PhysicalConnectorElementName] on system [ComputerSystemElementName]. (PCIe Error)**

This message is for the use case when an implementation has detected a Fault condition in a slot has been removed.

May also be shown as 816f00212582ffff or 0x816f00212582ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0331

User Response

No action; information only.

- **816f0028-2101ffff : Sensor [SensorElementName] has returned to normal on management system [ComputerSystemElementName]. (TPM Cmd Failures)**

This message is for the use case when an implementation has detected a Sensor returned from degraded/unavailable/failure.

May also be shown as 816f00282101ffff or 0x816f00282101ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Other

SNMP Trap ID

60

CIM Information

Prefix: PLAT ID: 0399

User Response

No action; information only.

- **816f0107-0301ffff : An Over-Temperature Condition has been removed on [ProcessorElementName]. (CPU 1)**

This message is for the use case when an implementation has detected a Over-Temperature Condition has been Removed for Processor.

May also be shown as 816f01070301ffff or 0x816f01070301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0037

User Response

No action; information only.

- **816f0107-0302ffff : An Over-Temperature Condition has been removed on [ProcessorElementName]. (CPU 2)**

This message is for the use case when an implementation has detected a Over-Temperature Condition has been Removed for Processor.

May also be shown as 816f01070302ffff or 0x816f01070302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0037

User Response

No action; information only.

- **816f0107-2584ffff : An Over-Temperature Condition has been removed on [ProcessorElementName]. (All CPUs)**

This message is for the use case when an implementation has detected a Over-Temperature Condition has been Removed for Processor.

May also be shown as 816f01072584ffff or 0x816f01072584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information**Prefix: PLAT ID: 0037****User Response**

No action; information only. One of CPUs :

- **816f010c-2001ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 1)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2001ffff or 0x816f010c2001ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information**Prefix: PLAT ID: 0139****User Response**

No action; information only.

- **816f010c-2002ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2002ffff or 0x816f010c2002ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only.

- **816f010c-2003ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2003ffff or 0x816f010c2003ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only.

- **816f010c-2004ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2004ffff or 0x816f010c2004ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only.

- **816f010c-2005ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2005ffff or 0x816f010c2005ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only.

- **816f010c-2006ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2006ffff or 0x816f010c2006ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only.

- **816f010c-2007ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2007ffff or 0x816f010c2007ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information**Prefix: PLAT ID:** 0139**User Response**

No action; information only.

- **816f010c-2008ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2008ffff or 0x816f010c2008ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information**Prefix: PLAT ID:** 0139**User Response**

No action; information only.

- **816f010c-2009ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2009ffff or 0x816f010c2009ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only.

- **816f010c-200affff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c200affff or 0x816f010c200affff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only.

- **816f010c-200bffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c200bffff or 0x816f010c200bffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only.

- **816f010c-200cffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c200cffff or 0x816f010c200cffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only.

- **816f010c-2581ffff : Uncorrectable error recovery detected for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (All DIMMs)**

This message is for the use case when an implementation has detected a Memory uncorrectable error recovery.

May also be shown as 816f010c2581ffff or 0x816f010c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0139

User Response

No action; information only. One of the DIMMs :

- **816f010d-0400ffff : The [StorageVolumeElementName] has been enabled. (Drive 0)**

This message is for the use case when an implementation has detected a Drive was Enabled.

May also be shown as 816f010d0400ffff or 0x816f010d0400ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0167

User Response

No action; information only.

- **816f010d-0401ffff : The [StorageVolumeElementName] has been enabled. (Drive 1)**

This message is for the use case when an implementation has detected a Drive was Enabled.

May also be shown as 816f010d0401ffff or 0x816f010d0401ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0167

User Response

No action; information only.

- **816f010f-2201ffff : The System [ComputerSystemElementName] has recovered from a firmware hang. (Firmware Error)**

This message is for the use case when an implementation has recovered from a System Firmware Hang.

May also be shown as 816f010f2201ffff or 0x816f010f2201ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0187

User Response

No action; information only.

- **816f0125-1f05ffff : [ManagedElementName] detected as present. (LOM)**

This message is for the use case when an implementation has detected a Managed Element is now Present.

May also be shown as 816f01251f05ffff or 0x816f01251f05ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0390

User Response

No action; information only.

- **816f0207-0301ffff : [ProcessorElementName] has Recovered from FRB1/BIST condition. (CPU 1)**

This message is for the use case when an implementation has detected a Processor Recovered - FRB1/BIST condition.

May also be shown as 816f02070301ffff or 0x816f02070301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0045

User Response

No action; information only.

- **816f0207-0302ffff : [ProcessorElementName] has Recovered from FRB1/BIST condition. (CPU 2)**

This message is for the use case when an implementation has detected a Processor Recovered - FRB1/BIST condition.

May also be shown as 816f02070302ffff or 0x816f02070302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information**Prefix: PLAT ID: 0045****User Response**

No action; information only.

- **816f0207-2584ffff : [ProcessorElementName] has Recovered from FRB1/BIST condition. (All CPUs)**

This message is for the use case when an implementation has detected a Processor Recovered - FRB1/BIST condition.

May also be shown as 816f02072584ffff or 0x816f02072584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information**Prefix: PLAT ID: 0045****User Response**

No action; information only. One of CPUs :

- **816f020d-0400ffff : Failure no longer Predicted on [StorageVolumeElementName] for array [ComputerSystemElementName]. (Drive 0)**

This message is for the use case when an implementation has detected an Array Failure is no longer Predicted.

May also be shown as 816f020d0400ffff or 0x816f020d0400ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Predicted Failure

SNMP Trap ID

27

CIM Information

Prefix: PLAT ID: 0169

User Response

No action; information only.

- **816f020d-0401ffff : Failure no longer Predicted on [StorageVolumeElementName] for array [ComputerSystemElementName]. (Drive 1)**

This message is for the use case when an implementation has detected an Array Failure is no longer Predicted.

May also be shown as 816f020d0401ffff or 0x816f020d0401ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Predicted Failure

SNMP Trap ID

27

CIM Information

Prefix: PLAT ID: 0169

User Response

No action; information only.

- **816f030c-2001ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 1)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c2001ffff or 0x816f030c2001ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-2002ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 2)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.
May also be shown as 816f030c2002ffff or 0x816f030c2002ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-2003ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 3)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.
May also be shown as 816f030c2003ffff or 0x816f030c2003ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-2004ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 4)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.
May also be shown as 816f030c2004ffff or 0x816f030c2004ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-2005ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 5)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c2005ffff or 0x816f030c2005ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-2006ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 6)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c2006ffff or 0x816f030c2006ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-2007ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 7)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c2007ffff or 0x816f030c2007ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-2008ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 8)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c2008ffff or 0x816f030c2008ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-2009ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 9)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c2009ffff or 0x816f030c2009ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-200affff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 10)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c200affff or 0x816f030c200affff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-200bffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 11)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c200bffff or 0x816f030c200bffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-200cffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (DIMM 12)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c200cffff or 0x816f030c200cffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only.

- **816f030c-2581ffff : Scrub Failure for [PhysicalMemoryElementName] on Subsystem [MemoryElementName] has recovered. (All DIMMs)**

This message is for the use case when an implementation has detected a Memory Scrub failure recovery.

May also be shown as 816f030c2581ffff or 0x816f030c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0137

User Response

No action; information only. One of the DIMMs :

- **816f0313-1701ffff : System [ComputerSystemElementName] has recovered from an NMI. (NMI State)**

This message is for the use case when an implementation has detected a Software NMI has been Recovered from.

May also be shown as 816f03131701ffff or 0x816f03131701ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0230

User Response

No action; information only.

- **816f040c-2001ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 1)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2001ffff or 0x816f040c2001ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-2002ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2002ffff or 0x816f040c2002ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-2003ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2003ffff or 0x816f040c2003ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-2004ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2004ffff or 0x816f040c2004ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-2005ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2005ffff or 0x816f040c2005ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-2006ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2006ffff or 0x816f040c2006ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-2007ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2007ffff or 0x816f040c2007ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-2008ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2008ffff or 0x816f040c2008ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-2009ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2009ffff or 0x816f040c2009ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-200affff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c200affff or 0x816f040c200affff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-200bffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c200bffff or 0x816f040c200bffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-200cffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c200cffff or 0x816f040c200cffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only.

- **816f040c-2581ffff : [PhysicalMemoryElementName] Enabled on Subsystem [MemoryElementName]. (All DIMMs)**

This message is for the use case when an implementation has detected that Memory has been Enabled.

May also be shown as 816f040c2581ffff or 0x816f040c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0130

User Response

No action; information only. One of the DIMMs :

- **816f0413-2582ffff : A PCI PERR recovery has occurred on system [ComputerSystemElementName]. (All PCI Error)**

This message is for the use case when an implementation has detected a PCI PERR recovered.

May also be shown as 816f04132582ffff or 0x816f04132582ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information**Prefix:** PLAT ID: 0233**User Response**

No action; information only. One of PCI Error : PCIs :

- **816f0507-0301ffff : [ProcessorElementName] has Recovered from a Configuration Mismatch. (CPU 1)**

This message is for the use case when an implementation has Recovered from a Processor Configuration Mismatch.

May also be shown as 816f05070301ffff or 0x816f05070301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information**Prefix:** PLAT ID: 0063**User Response**

No action; information only.

- **816f0507-0302ffff : [ProcessorElementName] has Recovered from a Configuration Mismatch. (CPU 2)**

This message is for the use case when an implementation has Recovered from a Processor Configuration Mismatch.

May also be shown as 816f05070302ffff or 0x816f05070302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information**Prefix:** PLAT ID: 0063**User Response**

No action; information only.

- **816f0507-2584ffff : [ProcessorElementName] has Recovered from a Configuration Mismatch. (All CPUs)**

This message is for the use case when an implementation has Recovered from a Processor Configuration Mismatch.

May also be shown as 816f05072584ffff or 0x816f05072584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0063

User Response

No action; information only. One of CPUs :

- **816f050c-2001ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 1)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2001ffff or 0x816f050c2001ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-2002ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2002ffff or 0x816f050c2002ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-2003ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2003ffff or 0x816f050c2003ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-2004ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2004ffff or 0x816f050c2004ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-2005ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2005ffff or 0x816f050c2005ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-2006ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2006ffff or 0x816f050c2006ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-2007ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2007ffff or 0x816f050c2007ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-2008ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2008ffff or 0x816f050c2008ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-2009ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2009ffff or 0x816f050c2009ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-200afff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c200afff or 0x816f050c200afff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-200bfff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c200bfff or 0x816f050c200bfff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-200cffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c200cffff or 0x816f050c200cffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only.

- **816f050c-2581ffff : Memory Logging Limit Removed for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (All DIMMs)**

This message is for the use case when an implementation has detected that the Memory Logging Limit has been Removed.

May also be shown as 816f050c2581ffff or 0x816f050c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - Memory

SNMP Trap ID

43

CIM Information

Prefix: PLAT ID: 0145

User Response

No action; information only. One of the DIMMs :

- **816f050d-0400ffff : Critical Array [ComputerSystemElementName] has deasserted. (Drive 0)**

This message is for the use case when an implementation has detected that an Critical Array has deasserted.

May also be shown as 816f050d0400ffff or 0x816f050d0400ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0175

User Response

No action; information only.

- **816f050d-0401ffff : Critical Array [ComputerSystemElementName] has deasserted. (Drive 1)**

This message is for the use case when an implementation has detected that an Critical Array has deasserted.

May also be shown as 816f050d0401ffff or 0x816f050d0401ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0175

User Response

No action; information only.

- **816f0607-0301ffff : An SM BIOS Uncorrectable CPU complex error for [ProcessorElementName] has deasserted. (CPU 1)**

This message is for the use case when an SM BIOS Uncorrectable CPU complex error has deasserted.

May also be shown as 816f06070301ffff or 0x816f06070301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0817

User Response

No action; information only.

- **816f0607-0302ffff : An SM BIOS Uncorrectable CPU complex error for [ProcessorElementName] has deasserted. (CPU 2)**

This message is for the use case when an SM BIOS Uncorrectable CPU complex error has deasserted.

May also be shown as 816f06070302ffff or 0x816f06070302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0817

User Response

No action; information only.

- **816f0607-2584ffff : An SM BIOS Uncorrectable CPU complex error for [ProcessorElementName] has deasserted. (All CPUs)**

This message is for the use case when an SM BIOS Uncorrectable CPU complex error has deasserted.

May also be shown as 816f06072584ffff or 0x816f06072584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - CPU

SNMP Trap ID

40

CIM Information

Prefix: PLAT ID: 0817

User Response

No action; information only. One of CPUs :

- **816f060d-0400ffff : Array in system [ComputerSystemElementName] has been restored. (Drive 0)**

This message is for the use case when an implementation has detected that a Failed Array has been Restored.

May also be shown as 816f060d0400ffff or 0x816f060d0400ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0177

User Response

No action; information only.

- **816f060d-0401ffff : Array in system [ComputerSystemElementName] has been restored. (Drive 1)**

This message is for the use case when an implementation has detected that a Failed Array has been Restored.

May also be shown as 816f060d0401ffff or 0x816f060d0401ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Hard Disk drive

SNMP Trap ID

5

CIM Information

Prefix: PLAT ID: 0177

User Response

No action; information only.

- **816f070c-2001ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 1)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2001ffff or 0x816f070c2001ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-2002ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 2)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2002ffff or 0x816f070c2002ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-2003ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 3)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2003ffff or 0x816f070c2003ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-2004ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 4)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2004ffff or 0x816f070c2004ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-2005ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 5)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2005ffff or 0x816f070c2005ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-2006ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 6)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2006ffff or 0x816f070c2006ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-2007ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 7)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2007ffff or 0x816f070c2007ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-2008ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 8)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2008ffff or 0x816f070c2008ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-2009ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 9)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2009ffff or 0x816f070c2009ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-200affff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 10)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c200affff or 0x816f070c200affff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-200bfff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 11)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c200bfff or 0x816f070c200bfff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-200cfff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (DIMM 12)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c200cfff or 0x816f070c200cfff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only.

- **816f070c-2581ffff : Configuration error for [PhysicalMemoryElementName] on Subsystem [MemoryElementName]has deasserted. (All DIMMs)**

This message is for the use case when an implementation has detected a Memory DIMM configuration error has deasserted.

May also be shown as 816f070c2581ffff or 0x816f070c2581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Memory

SNMP Trap ID

41

CIM Information

Prefix: PLAT ID: 0127

User Response

No action; information only. One of the DIMMs :

- **816f070d-0400ffff : Rebuild completed for Array in system [ComputerSystemElementName]. (Drive 0)**

This message is for the use case when an implementation has detected that an Array Rebuild has Completed.

May also be shown as 816f070d0400ffff or 0x816f070d0400ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0179

User Response

No action; information only.

- **816f070d-0401ffff : Rebuild completed for Array in system [ComputerSystemElementName]. (Drive 1)**

This message is for the use case when an implementation has detected that an Array Rebuild has Completed.

May also be shown as 816f070d0401ffff or 0x816f070d0401ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0179

User Response

No action; information only.

- **816f0807-0301ffff : [ProcessorElementName] has been Enabled. (CPU 1)**

This message is for the use case when an implementation has detected a Processor has been Enabled.

May also be shown as 816f08070301ffff or 0x816f08070301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0060

User Response

No action; information only.

- **816f0807-0302ffff : [ProcessorElementName] has been Enabled. (CPU 2)**

This message is for the use case when an implementation has detected a Processor has been Enabled.

May also be shown as 816f08070302ffff or 0x816f08070302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0060

User Response

No action; information only.

- **816f0807-2584ffff : [ProcessorElementName] has been Enabled. (All CPUs)**

This message is for the use case when an implementation has detected a Processor has been Enabled.

May also be shown as 816f08072584ffff or 0x816f08072584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0060

User Response

No action; information only. One of CPUs :

- **816f0813-2581ffff : Bus [SensorElementName] has recovered from an Uncorrectable Error. (DIMMs)**

This message is for the use case when an implementation has detected a that a system has recovered from a Bus Uncorrectable Error.

May also be shown as 816f08132581ffff or 0x816f08132581ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0241

User Response

No action; information only.

- **816f0813-2584ffff : Bus [SensorElementName] has recovered from an Uncorrectable Error. (CPUs)**

This message is for the use case when an implementation has detected a that a system has recovered from a Bus Uncorrectable Error.

May also be shown as 816f08132584ffff or 0x816f08132584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0241

User Response

No action; information only.

- **816f090c-2001ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 1)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c2001ffff or 0x816f090c2001ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-2002ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 2)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c2002ffff or 0x816f090c2002ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-2003ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 3)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c2003ffff or 0x816f090c2003ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-2004ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 4)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c2004ffff or 0x816f090c2004ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-2005ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 5)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c2005ffff or 0x816f090c2005ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-2006ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 6)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c2006ffff or 0x816f090c2006ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-2007ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 7)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c2007ffff or 0x816f090c2007ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-2008ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 8)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c2008ffff or 0x816f090c2008ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID**CIM Information**

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-2009ffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 9)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c2009ffff or 0x816f090c2009ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-200affff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 10)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c200affff or 0x816f090c200affff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-200bffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 11)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.

May also be shown as 816f090c200bffff or 0x816f090c200bffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f090c-200cffff : [PhysicalMemoryElementName] on Subsystem [MemoryElementName] is no longer Throttled. (DIMM 12)**

This message is for the use case when an implementation has detected Memory is no longer Throttled.
May also be shown as 816f090c200cffff or 0x816f090c200cffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

System - Other

SNMP Trap ID

CIM Information

Prefix: PLAT ID: 0143

User Response

No action; information only.

- **816f0a07-0301ffff : The Processor [ProcessorElementName] is no longer operating in a Degraded State. (CPU 1)**

This message is for the use case when an implementation has detected a Processor is no longer running in the Degraded state.

May also be shown as 816f0a070301ffff or 0x816f0a070301ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - CPU

SNMP Trap ID

42

CIM Information

Prefix: PLAT ID: 0039

User Response

No action; information only.

- **816f0a07-0302ffff : The Processor [ProcessorElementName] is no longer operating in a Degraded State. (CPU 2)**

This message is for the use case when an implementation has detected a Processor is no longer running in the Degraded state.

May also be shown as 816f0a070302ffff or 0x816f0a070302ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - CPU

SNMP Trap ID

42

CIM Information

Prefix: PLAT ID: 0039

User Response

No action; information only.

- **816f0a07-2584ffff : The Processor [ProcessorElementName] is no longer operating in a Degraded State. (All CPUs)**

This message is for the use case when an implementation has detected a Processor is no longer running in the Degraded state.

May also be shown as 816f0a072584ffff or 0x816f0a072584ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Warning - CPU

SNMP Trap ID

42

CIM Information

Prefix: PLAT ID: 0039

User Response

No action; information only. One of CPUs :

- **816f0a0c-2001ffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 1)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c2001ffff or 0x816f0a0c2001ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-2002ffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 2)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c2002ffff or 0x816f0a0c2002ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-2003ffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 3)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c2003ffff or 0x816f0a0c2003ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-2004ffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 4)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c2004ffff or 0x816f0a0c2004ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-2005ffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 5)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c2005ffff or 0x816f0a0c2005ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-2006ffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 6)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c2006ffff or 0x816f0a0c2006ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-2007ffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 7)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c2007ffff or 0x816f0a0c2007ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-2008ffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 8)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c2008ffff or 0x816f0a0c2008ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-2009ffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 9)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c2009ffff or 0x816f0a0c2009ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-200affff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 10)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c200affff or 0x816f0a0c200affff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-200bffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 11)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c200bffff or 0x816f0a0c200bffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a0c-200cffff : An Over-Temperature Condition has been removed on the [PhysicalMemoryElementName] on Subsystem [MemoryElementName]. (DIMM 12)**

This message is for the use case when an implementation has detected an Over Temperature Condition for Memory that has been Removed.

May also be shown as 816f0a0c200cffff or 0x816f0a0c200cffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Temperature

SNMP Trap ID

0

CIM Information

Prefix: PLAT ID: 0147

User Response

No action; information only.

- **816f0a13-2401ffff : Bus [SensorElementName] has recovered from a Fatal Bus Error. (SMBus)**

This message is for the use case when an implementation has detected that a system has recovered from a Bus Fatal Error.

May also be shown as 816f0a132401ffff or 0x816f0a132401ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0245

User Response

1. (Trained technician only) Replace microprocessor n (see Removing a microprocessor and heat sink and Replacing a microprocessor and heat sink).
 2. If the problem persists and there is no other CPU with the same error indication, replace the system board.
 3. (Trained technician only) Replace the system board (see Removing the system board and Replacing the system board). (n = microprocessor number)
- **816f0a13-2582ffff : Bus [SensorElementName] has recovered from a Fatal Bus Error. (All PCI Error)**

This message is for the use case when an implementation has detected that a system has recovered from a Bus Fatal Error.

May also be shown as 816f0a132582ffff or 0x816f0a132582ffff

Severity

Info

Serviceable

No

Automatically notify support

No

Alert Category

Critical - Other

SNMP Trap ID

50

CIM Information

Prefix: PLAT ID: 0245

User Response

1. (Trained technician only) Replace microprocessor n (see Removing a microprocessor and heat sink and Replacing a microprocessor and heat sink).
2. If the problem persists and there is no other CPU with the same error indication, replace the system board.
3. (Trained technician only) Replace the system board (see Removing the system board and Replacing the system board). (n = microprocessor number)

One of PCI Error : PCIs :

UEFI diagnostic codes

UEFI diagnostic codes can be generated when a compute node starts up or while a compute node is running. UEFI diagnostic codes are logged in the IMM event log in the compute node.

UEFI diagnostic code fields

For each event code, the following fields are displayed.

Important: In event messages that reference a specific Flex System x222 compute node, upper or lower, 'node 1' indicates the lower compute node and 'node 2' indicates the upper compute node.

Note: For information about how to locate the UEFI diagnostic code for your systems-management platform, see “Finding the UEFI diagnostic code” on page 444. Not all events have a UEFI diagnostic code associated with the event.

Event identifier

An identifier that uniquely identifies an event.

Event description

The logged message string that appears for an event.

Explanation

Additional information to explain why the event occurred.

Severity

An indication of the level of concern for the condition. The severity is abbreviated in the event log to the first character. The following severities can be displayed.

Table 11. Severity levels

Severity	Description
Informational	An informational message is something that was recorded for audit purposes, usually a user action or a change of states that is normal behavior.
Warning	A warning is not as severe as an error, but if possible, the condition should be corrected before it becomes an error. It might also be a condition that requires additional monitoring or maintenance.
Error	An error typically indicates a failure or critical condition that impairs service or an expected function.

User response

Indicates what actions you should perform to resolve the event.

Perform the steps listed in this section in the order shown until the problem is solved. After you perform all of the actions that are described in this field, if you cannot solve the problem, contact Support.

Finding the UEFI diagnostic code

This topic provides information about finding the UEFI diagnostic code.

Several methods are available to locate the UEFI diagnostic code based on the systems-management platform you are using or if you are viewing test results generated by the DSA Preboot diagnostic program.

Note: Not all events have a UEFI diagnostic code associated with the event.

Table 12. Finding the UEFI diagnostic code

Interface to the UEFI diagnostic code	Action
Logged on to Flex System Manager management software (if installed)	<ol style="list-style-type: none"> 1. Go to the Problems (Active Status) view and click the name of the problem. 2. Click on the Recommendations tab and locate the UEFI diagnostic code.
Logged on to the IMM or CMM web interface	<ol style="list-style-type: none"> 1. Open the Events menu and click Event Log. 2. Click more next to the event message and locate the UEFI diagnostic code.
Viewing the DSA Preboot diagnostic program test results	<ol style="list-style-type: none"> 1. Go to the Chassis Event log. 2. Scroll to the right and look in the Auxillary Data Column to find the UEFI diagnostic code.

List of UEFI events

This section lists all messages that can be sent from UEFI.

- **I.11002 [I.11002] A processor mismatch has been detected between one or more processors in the system. : One or More Mismatched Processors Detected**

Severity

Info

User Response

Complete the following steps:

1. This message could occur with messages about other processor configuration problems. Resolve those messages first.
2. If the problem persists, ensure that matching processors are installed (i.e., matching option part numbers, etc)
3. Verify that the processors are installed in the correct sockets. If not, correct that problem.
4. Check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
5. Replace mismatching processor. Inspect the processor socket and replace the system board first if the socket is damaged.

Related links

- “Removing a microprocessor and heat sink” on page 532
 - “Installing a microprocessor and heat sink” on page 535
 - “Removing a system-board assembly” on page 543
 - “Installing a system-board assembly” on page 545
- **I.18005 [I.18005] A discrepancy has been detected in the number of cores reported by one or more processor packages within the system. : Processors have mismatched number of cores**

Severity

Info

User Response

Complete the following steps:

1. If this is a newly installed option, ensure that matching processors are installed in the correct processor sockets.

2. Check the IBM support site for an applicable service bulletin that applies to this processor error.
3. Replace the processor. Inspect the processor socket and replace the system board first if the socket is damaged.

Related links

- “Removing a microprocessor and heat sink” on page 532
 - “Installing a microprocessor and heat sink” on page 535
 - “Removing a system-board assembly” on page 543
 - “Installing a system-board assembly” on page 545
- **I.18006 [I.18006] A mismatch between the maximum allowed QPI link speed has been detected for one or more processor packages. : Processors have mismatched QPI Speed**

Severity

Info

User Response

Complete the following steps:

1. If this is a newly installed option, ensure that matching processors are installed in the correct processor sockets.
2. Check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
3. Replace the processor. Inspect the processor socket and replace the system board first if the socket is damaged.

Related links

- “Removing a microprocessor and heat sink” on page 532
 - “Installing a microprocessor and heat sink” on page 535
 - “Removing a system-board assembly” on page 543
 - “Installing a system-board assembly” on page 545
- **I.18007 [I.18007] A power segment mismatch has been detected for one or more processor packages. : Processors have mismatched Power Segments**

Severity

Info

User Response

Complete the following steps:

1. Processors installed do not have the same power requirements
2. Ensure that all Processors have matching power requirements (such as 65, 95, or 130 Watts)
3. If power requirements match, check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
4. Replace the processor. Inspect the processor socket and replace the system board first if the socket is damaged

Related links

- “Removing a microprocessor and heat sink” on page 532
 - “Installing a microprocessor and heat sink” on page 535
 - “Removing a system-board assembly” on page 543
 - “Installing a system-board assembly” on page 545
- **I.18008 [I.18008] Currently, there is no additional information for this event. : Processors have mismatched Internal DDR3 Frequency**

Severity

Info

User Response

Complete the following steps:

1. Verify that matching DIMMs are installed in the correct population sequence. Correct any configuration issues found.
2. Replace the associated processor. Inspect the processor socket and replace the system board first if the socket is damaged

Related links

- “Installing a DIMM ” on page 510
- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.18009 [I.18009] A core speed mismatch has been detected for one or more processor packages. : Processors have mismatched Core Speed**

Severity

Info

User Response

Complete the following steps:

1. Verify that matching processors are installed in the correct processor sockets. Correct any mismatch issues found.
2. Check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
3. Replace the processor. Inspect the processor socket and replace the system board first if the socket is damaged.

Related links

- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.1800A [I.1800A] A mismatch has been detected between the speed at which a QPI link has trained between two or more processor packages. : Processors have mismatched Bus Speed**

Severity

Info

User Response

Complete the following steps:

1. Verify that the processor is a valid option that is listed as a Server Proven device for this system. If not, remove the Processor and install one listed on the Server Proven website.
2. Verify that matching processors are installed in the correct processor sockets. Correct any mismatch found.
3. Check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
4. Replace the processor. Inspect the processor socket and replace the system board first if the socket is damaged

Related links

- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.1800B [I.1800B] A cache size mismatch has been detected for one or more processor packages. : Processors have one or more cache levels with mismatched size**

Severity

Info

User Response

Complete the following steps:

1. Verify that matching processors are installed in the correct processor sockets. Correct any mismatch found.
2. Check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
3. Replace the system board.

Related links

- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.1800C [I.1800C] A cache type mismatch has been detected for one or more processor packages. : Processors have one or more cache levels with mismatched type**

Severity

Info

User Response

Complete the following steps:

1. Verify that matching processors are installed in the correct processor sockets.
2. Check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
3. Replace the system board.

Related links

- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.1800D [I.1800D] A cache associativity mismatch has been detected for one or more processor packages. : Processors have one or more cache levels with mismatched associativity**

Severity

Info

User Response

Complete the following steps:

1. Verify that matching processors are installed in the correct processor sockets.
2. Check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
3. Replace the system board.

Related links

- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.1800E [I.1800E] A processor model mismatch has been detected for one or more processor packages. : Processors have mismatched Model Number**

Severity

Info

User Response

Complete the following steps:

1. Verify that matching processors are installed in the correct processor sockets.
2. Check the IBM support site for an applicable service bulletin or firmware update that applies to this Processor error.
3. Replace the system board.

Related links

- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.1800F [I.1800F] A processor family mismatch has been detected for one or more processor packages. : Processors have mismatched Family**

Severity

Info

User Response

Complete the following steps:

1. Verify that matching processors are installed in the correct processor sockets.
2. Check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
3. Replace the system board.

Related links

- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.18010 [I.18010] A processor stepping mismatch has been detected for one or more processor packages. : Processors of the same model have mismatched Stepping ID**

Severity

Info

User Response

Complete the following steps:

1. Verify that matching processors are installed in the correct processor sockets.
2. Check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
3. Replace the system board.

Related links

- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.2018002 [I.2018002] The device found at Bus % Device % Function % could not be configured due to resource constraints. The Vendor ID for the device is % and the Device ID is %. : OUT_OF_RESOURCES (PCI Option ROM)**

Severity

Info

User Response

Complete the following steps:

1. If this PCIe device and/or any attached cables were recently installed, moved, serviced or upgraded, reseal the adapter and any attached cables.
2. Check the IBM support site for any applicable service bulletin or UEFI or adapter firmware update that applies to this error. NOTE: It may be necessary to disable unused option ROMs from UEFI F1 setup or ASU or using adapter manufacturer utilities so that adapter firmware can be updated.
3. Move the adapter to a different slot. If a slot is not available or error recurs, replace the adapter.
4. If the adapter was moved to a different slot and the error did not recur, verify that this is not a system limitation. Then replace the system board. Also, if this is not the initial installation and the error persists after adapter replacement, replace the system board.

Related links

- "Removing an I/O expansion adapter" on page 526
 - "Installing an I/O expansion adapter" on page 527
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **I.2018003 [I.2018003] A bad option ROM checksum was detected for the device found at Bus % Device % Function %. The Vendor ID for the device is % and the Device ID is %. : ROM CHECKSUM ERROR**

Severity

Info

User Response

Complete the following steps:

1. If this PCIe device and/or any attached cables were recently installed, moved, serviced or upgraded, reseal the adapter and any attached cables.
2. Move the adapter to a different system slot, if available.
3. Check the IBM support site for any applicable service bulletin or UEFI or adapter firmware update that applies to this error. NOTE: It may be necessary to configure slot to Gen1 or to use special utility software so that adapter firmware can be upgraded. Gen1/Gen2 settings can be configured via F1 Setup -> System Settings -> Devices and I/O Ports -> PCIe Gen1/Gen2/Gen3 Speed Selection, or the ASU Utility.
4. Replace the adapter.

Related links

- "Removing an I/O expansion adapter" on page 526
 - "Installing an I/O expansion adapter" on page 527
 - "Using the Setup utility" on page 28
- **I.3048005 [I.3048005] UEFI has booted from the backup flash bank. : Booting Backup UEFI Image**

Severity

Info

User Response

Complete the following steps:

Return the system to primary bank.

Related links

– “Recovering a UEFI image” on page 26

- **I.3808004 [I.3808004] The IMM System Event log (SEL) is full. : IPMI System Event Log is Full**

Severity

Info

User Response

Complete the following steps:

1. Use the IMM Web Interface to clear the event log.
2. If IMM communication is unavailable, use the Setup Utility to access the System Event Logs Menu and choose Clear IMM System Event Log and Restart Server.

Related links

– “Using the Setup utility” on page 28

- **I.3818001 [I.3818001] The firmware image capsule signature for the currently booted flash bank is invalid. : Current Bank CRTM Capsule Update Signature Invalid**

Severity

Info

User Response

Complete the following steps:

1. Reboot the system. Will come up on backup UEFI image. Update the primary UEFI image.
2. If error does not persist no additional recovery action is required.
3. If error persists, or boot is unsuccessful, replace the system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.3818002 [I.3818002] The firmware image capsule signature for the non-booted flash bank is invalid. : Opposite Bank CRTM Capsule Update Signature Invalid**

Severity

Info

User Response

Complete the following steps:

1. Update the backup UEFI image.
2. If error does not persist, no additional recovery action is required.
3. If error persists, or boot is unsuccessful, replace the system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.3818003 [I.3818003] The CRTM flash driver could not lock the secure flash region. : CRTM Could not lock secure flash region**

Severity

Info

User Response

Complete the following steps:

1. If system failed to boot successfully, DC cycle the system.
2. If system boots to F1 setup, update the UEFI image and reset bank to primary (if required). If the system boots without error, recovery is complete and no additional action is required.
3. If system fails to boot, or if the firmware update attempt fails, replace the system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **I.3868000 [I.3868000] BOFM: System reset performed to reset adapters. : BOFM: System reset performed to reset adapters**

Severity

Info

User Response

Complete the following steps:

Information only; no action is required.

- **I.3868003 [I.3868003] BOFM: Configuration too large for compatibility mode. : BOFM: Configuration too large for compatibility mode**

Severity

Info

User Response

Complete the following steps:

Information only; no action is required.

- **I.58015 [I.58015] Memory spare copy initiated. : Spare Copy Started**

Severity

Info

User Response

Complete the following steps:

Information only; no action is required.

- **I.580A4 [I.580A4] Memory population change detected. : DIMM Population Change Detected**

Severity

Info

User Response

Complete the following steps:

Check system event log for uncorrected DIMM failures and replace those DIMMs.

Related links

- “Removing a DIMM” on page 508
- “Installing a DIMM ” on page 510

- **I.580A5 [I.580A5] Mirror Fail-over complete. DIMM number % has failed over to to the mirrored copy. : DIMM Mirror Fail-over Detected**

Severity

Info

User Response

Complete the following steps:

Check the system-event log for uncorrected DIMM failures and replace those DIMMs.

Related links

- "Removing a DIMM" on page 508
- "Installing a DIMM " on page 510

- **I.580A6 [I.580A6] Memory spare copy has completed successfully. : Spare Copy Complete**

Severity

Info

User Response

Complete the following steps:

Check system log for related DIMM failures and replace those DIMMs.

Related links

- "Removing a DIMM" on page 508
- "Installing a DIMM " on page 510

- **S.1100C [S.1100C] An uncorrectable error has been detected on processor %. : Uncorrectable processor error detected**

Severity

Error

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Reboot the system. If problem persists, contact Support.

- **S.2011001 [S.2011001] An Uncorrected PCIe Error has Occurred at Bus % Device % Function %. The Vendor ID for the device is % and the Device ID is %. : PCI SERR Detected**

Severity

Error

User Response

Complete the following steps:

1. If this compute node and/or any attached cables were recently installed, moved, serviced or upgraded,
 - a. Reseat the adapter and any attached cables.
 - b. Reload the device driver.
 - c. If device is not recognized, reconfiguring slot to Gen1 or Gen2 may be required. Gen1/Gen2 settings can be configured via F1 Setup -> System Settings -> Devices and I/O Ports -> PCIe Gen1/Gen2/Gen3 Speed Selection, or the ASU Utility.
2. Check the IBM support site for an applicable device driver, firmware update, or other information that applies to this error. Load the new device driver and install any required firmware updates.
3. If the problem persists, remove the adapter. If system reboots successfully without the adapter, replace that adapter.
4. Replace the processor.

Related links

- "Removing an I/O expansion adapter" on page 526
 - "Installing an I/O expansion adapter" on page 527
 - "Using the Setup utility" on page 28
 - "Updating firmware and device drivers" on page 25
 - "Removing a microprocessor and heat sink" on page 532
 - "Installing a microprocessor and heat sink" on page 535
- **S.2018001 [S.2018001] An Uncorrected PCIe Error has Occurred at Bus % Device % Function %. The Vendor ID for the device is % and the Device ID is %. : PCIe Uncorrected Error Detected**

Severity

Error

User Response

Complete the following steps:

1. If this compute node and/or any attached cables were recently installed, moved, serviced or upgraded:
 - a. Reseat the adapter and any attached cables.
 - b. Reload the device driver.
 - c. If device is not recognized, reconfiguring slot to Gen1 or Gen2 may be required. Gen1/Gen2 settings can be configured via F1 Setup -> System Settings -> Devices and I/O Ports -> PCIe Gen1/Gen2/Gen3 Speed Selection, or the ASU Utility.
2. Check the IBM support site for an applicable device driver, firmware update, or other information that applies to this error. Load the new device driver and install any required firmware updates.
3. If the problem persists, remove the adapter. If the system reboots successfully without the adapter, replace that adapter.
4. Replace the processor.

Related links

- "Removing an I/O expansion adapter" on page 526
 - "Installing an I/O expansion adapter" on page 527
 - "Using the Setup utility" on page 28
 - "Updating firmware and device drivers" on page 25
 - "Removing a microprocessor and heat sink" on page 532
 - "Installing a microprocessor and heat sink" on page 535
- **S.3020007 [S.3020007] A firmware fault has been detected in the UEFI image. : Internal UEFI Firmware Fault Detected, System halted**

Severity

Error

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Update the UEFI image.
3. Replace the system board.

Related links

- "Updating firmware and device drivers" on page 25
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **S.3028002 [S.3028002] Boot permission timeout detected. : Boot Permission Negotiation Timeout**

Severity

Error

User Response

Complete the following steps:

1. Check CMM/IMM logs for communication errors and resolve.
 2. Reseat the system.
 3. If problem persists, contact Support.
- **S.3030007 [S.3030007] A firmware fault has been detected in the UEFI image. : Internal UEFI Firmware Fault Detected, System halted**

Severity

Error

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Update the UEFI image.
3. Replace the system board.

Related links

- "Updating firmware and device drivers" on page 25
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **S.3040007 [S.3040007] A firmware fault has been detected in the UEFI image. : Internal UEFI Firmware Fault Detected, System halted**

Severity

Error

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Update the UEFI image.
3. Replace the system board.

Related links

- "Updating firmware and device drivers" on page 25
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **S.3050007 [S.3050007] A firmware fault has been detected in the UEFI image. : Internal UEFI Firmware Fault Detected, System halted**

Severity

Error

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Update the UEFI image.
3. Replace the system board.

Related links

- "Updating firmware and device drivers" on page 25
- "Removing a system-board assembly" on page 543
- "Installing a system-board assembly" on page 545
- **S.3058004 [S.3058004] A Three Strike boot failure has occurred. The system has booted with default UEFI settings. : POST failure has occurred! System booted with default settings.**

Severity

Error

User Response

Complete the following steps:

1. This event resets UEFI to the default settings for the next boot. If successful, the Setup Utility is displayed. The original UEFI settings are still present.
2. If you did not intentionally trigger the reboots, check logs for probable cause.
3. Undo recent system changes (settings or devices added). If there were no recent system changes, remove all options, and then remove the CMOS battery for 30 seconds to clear CMOS contents. Verify that the system boots. Then, re-install the options one at a time to locate the problem.
4. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
5. Update the UEFI firmware.
6. Remove and re-install CMOS battery for 30 seconds to clear CMOS contents
7. Replace the system board.

Related links

- "Removing a CMOS battery" on page 507
- "Installing a CMOS battery" on page 507
- "Updating firmware and device drivers" on page 25
- "Using the Setup utility" on page 28
- "Removing a system-board assembly" on page 543
- "Installing a system-board assembly" on page 545
- **S.3060007 [S.3060007] A firmware fault has been detected in the UEFI image. : Internal UEFI Firmware Fault Detected, System halted**

Severity

Error

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Update the UEFI image.
3. Replace the system board.

Related links

- "Updating firmware and device drivers" on page 25
- "Removing a system-board assembly" on page 543
- "Installing a system-board assembly" on page 545
- **S.3070007 [S.3070007] A firmware fault has been detected in the UEFI image. : Internal UEFI Firmware Fault Detected, System halted**

Severity

Error

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Update the UEFI image.
3. Replace the system board.

Related links

- "Updating firmware and device drivers" on page 25
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **S.3108007 [S.3108007] The default system settings have been restored. : System Configuration Restored to Defaults**

Severity

Error

User Response

Complete the following steps:

Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.

Related links

- "Updating firmware and device drivers" on page 25
- **S.3818004 [S.3818004] The CRTM flash driver could not successfully flash the staging area. A failure occurred. : CRTM Update Failed**

Severity

Error

User Response

Complete the following steps:

1. Continue booting the system. If the system does not reset, manually reset the system.
2. If the error is not reported on the subsequent boot, no additional recovery action is required.
3. If the error persists, continue booting system and update the UEFI image.
4. Replace the system board.

Related links

- "Updating firmware and device drivers" on page 25
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **S.3818007 [S.3818007] The firmware image capsules for both flash banks could not be verified. : CRTM image capsule could not be verified**

Severity

Error

User Response

Complete the following steps:

1. If system failed to boot successfully, DC cycle system.
2. If system boots to F1 setup, update the UEFI image and reset bank to primary (if required). If the system boots without error, recovery is complete and no additional action is required.

3. If system fails to boot, or if the firmware update attempt fails, replace the system board.

Related links

- "Updating firmware and device drivers" on page 25
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **S.51003 [S.51003] An uncorrectable memory error was detected in DIMM slot % on rank % . : [S.51003] An uncorrectable memory error was detected on processor % channel %. The failing DIMM within the channel could not be determined.[S.51003] An uncorrectable memory error has been detected during POST. Fatal Memory Error Occurred**

Severity

Error

User Response

Complete the following steps:

1. If the compute node has recently been installed, moved, serviced, or upgraded, verify that the DIMM is properly seated and visually verify that there is no foreign material in any DIMM connector on that memory channel. If either of these conditions is found, correct and retry with the same DIMM. (Note: The event Log might contain a recent 00580A4 event denoting detected change in DIMM population that could be related to this problem.)
2. If no problem is observed on the DIMM connectors or the problem persists, replace the DIMM identified by LightPath and/or event log entry.
3. If problem recurs on the same DIMM connector, replace the other DIMMs on the same memory channel.
4. Check the IBM support site for an applicable service bulletin or firmware update that applies to this memory error.
5. If problem recurs on the same DIMM connector, inspect connector for damage. If found, replace the system board.
6. Replace the affected Processor.
7. Replace system board.

Related links

- "Removing a DIMM" on page 508
 - "Installing a DIMM " on page 510
 - "Removing a microprocessor and heat sink" on page 532
 - "Installing a microprocessor and heat sink" on page 535
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **S.51006 [S.51006] A memory mismatch has been detected. Please verify that the memory configuration is valid. : One or More Mismatched DIMMs Detected**

Severity

Error

User Response

Complete the following steps:

1. Could follow an uncorrectable memory error or failed memory test. Check the log and service that event first. DIMMs disabled by other errors or actions could cause this event.
2. Verify that the DIMMs are installed in the correct population sequence.
3. Disable memory mirroring and sparing. If this action eliminates the mismatch, check the IBM Support site for information related to this problem.
4. Update UEFI firmware.

5. Replace the DIMM
6. Replace the processor.

Related links

- “Removing a DIMM” on page 508
- “Installing a DIMM ” on page 510
- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535

- **S.51009 [S.51009] No system memory has been detected. : No Memory Detected**

Severity

Error

User Response

Complete the following steps:

1. If any memory errors are logged other than this one, take actions indicated for those codes first.
2. If no other memory diagnostic codes appear in the logs, verify that all DIMM connectors are enabled using the Setup utility or the Advanced Settings Utility (ASU).
3. If the problem remains, shut down and remove node from chassis and physically verify that one or more DIMMs are installed and that all DIMMs are installed in the correct population sequence.
4. If DIMMs are present and properly installed, check for any lit DIMM-connector LEDs, and if found, reseat those DIMMs.
5. Reinstall node in chassis, power on node, then check logs for memory diagnostic codes.
6. If the problem remains, replace the processor.
7. If the problem remains, replace the system board.

Related links

- “Removing a DIMM” on page 508
- “Installing a DIMM ” on page 510
- “Using the Setup utility” on page 28
- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **S.58008 [S.58008] A DIMM has failed the POST memory test. : DIMM Failed Memory Test**

Severity

Error

User Response

Complete the following steps:

1. You must AC-cycle the system to re-enable the affected DIMM connector or re-enable manually using the Setup utility.
2. If the compute node has been recently installed, serviced, moved, or upgraded, check to ensure that DIMMs are firmly seated and that no foreign material can be seen in the DIMM connector. If either condition is observed, correct and retry with the same DIMM. (Note: The event Log might contain a recent 00580A4 event denoting detected change in DIMM population that could be related to this problem.)
3. If problem persists, replace the DIMM identified by LightPath and/or event log entry.
4. If problem recurs on the same DIMM connector, swap the other DIMMs on the same memory channel across channels one at a time to a different memory channel or processor. If problem follows a moved DIMM to a different memory channel, replace that DIMM.

5. Check the IBM support site for an applicable service bulletin or firmware update that applies to this memory error.
6. If problem stays with the original DIMM connector, re-inspect DIMM connector for foreign material and remove, if found. If connector is damaged, replace system board.
7. Remove the affected processor and inspect the processor socket pins for damaged or mis-aligned pins. If damage is found, or this is an upgrade processor, replace the system board. If there are multiple processors, swap them to move affected processor to another processor socket and retry. If problem follows the affected processor (or there is only one processor), replace the affected processor.
8. Replace the system board.

Related links

- "Removing a DIMM" on page 508
 - "Installing a DIMM " on page 510
 - "Using the Setup utility" on page 28
 - "Removing a microprocessor and heat sink" on page 532
 - "Installing a microprocessor and heat sink" on page 535
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **S.68005 [S.68005] An error has been detected by the the IIO core logic on Bus %. The Global Fatal Error Status register contains %. The Global Non-Fatal Error Status register contains %. Please check error logs for the presence of additional downstream device error data. : Critical IOH-PCI Error**

Severity

Error

User Response

Complete the following steps:

1. Check the log for a separate error related to an associated PCIe device and resolve that error.
2. Check the IBM support site for an applicable service bulletin or firmware update for the system or adapter that applies to this error.
3. Replace the system board.

Related links

- "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **S.680B8 [S.680B8] Internal QPI Link Failure Detected. : Internal QPI Link Failure Detected**

Severity

Error

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Inspect the processor socket for foreign debris or damage. If debris is found, remove the debris.
3. If error recurs, or socket damage is found, replace the system board.

Related links

- "Removing a microprocessor and heat sink" on page 532
- "Installing a microprocessor and heat sink" on page 535
- "Removing a system-board assembly" on page 543
- "Installing a system-board assembly" on page 545

- **S.680B9 [S.680B9] External QPI Link Failure Detected. : External QPI Link Failure Detected**

Severity

Error

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Inspect the processor socket for foreign debris or damage. If debris is found, remove the debris.
3. If error recurs, or socket damage is found, replace the system board.

Related links

- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **W.11004 [W.11004] A processor within the system has failed the BIST. : Processor Self Test Failure Detected**

Severity

Warning

User Response

Complete the following steps:

1. If the processor or firmware was just updated, check the IBM support site for an applicable service bulletin or firmware update that applies to this processor error.
2. If there are multiple Processors, swap Processors to move affected processor to another processor socket and retry. If problem follows the affected processor, or this is a single processor system, replace the processor. Inspect the processor socket on each processor removal and replace system board first if the processor socket is damaged or mis-aligned pins are found.
3. Replace the system board.

Related links

- “Removing a microprocessor and heat sink” on page 532
- “Installing a microprocessor and heat sink” on page 535
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **W.3048006 [W.3048006] UEFI has booted from the backup flash bank due to an Automatic Boot Recovery (ABR) event. : Automated Boot Recovery, Booting Backup UEFI Image**

Severity

Warning

User Response

Complete the following steps:

1. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
2. Update the primary UEFI image.
3. Replace the system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543

- “Installing a system-board assembly” on page 545
- **W.305000A [W.305000A] An invalid date and time have been detected. : RTC Date and Time Incorrect**

Severity

Warning

User Response

Complete the following steps:

1. Check IMM/chassis event log. This event should immediately precede 0068002 error. Resolve that event or any other battery related errors.
2. Use F1 Setup to reset date and time. If problem returns after a system reset, replace CMOS battery.
3. If problem persists then check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
4. Replace the system board.

Related links

- “Removing a CMOS battery” on page 507
- “Installing a CMOS battery” on page 507
- “Updating firmware and device drivers” on page 25
- “Using the Setup utility” on page 28
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545
- **W.3058009 [W.3058009] DRIVER HEALTH PROTOCOL: Missing Configuraiton. Requires Change Settings From F1. : DRIVER HEALTH PROTOCOL: Missing Configuration. Requires Change Settings From F1**

Severity

Warning

User Response

Complete the following steps:

1. Go to the Setup Utility (System Settings -> Settings -> Driver Health Status List) and find a driver/controller reporting Configuration Required status.
2. Search for the driver menu from System Settings and change settings appropriately.
3. Save settings and restart system.

Related links

- “Using the Setup utility” on page 28
- **W.305800A [W.305800A] DRIVER HEALTH PROTOCOL: Reports 'Failed' Status Controller. : DRIVER HEALTH PROTOCOL: Reports 'Failed' Status Controller**

Severity

Warning

User Response

Complete the following steps:

1. Reboot the system.
2. If problem persists, switch to backup UEFI or update the current UEFI image.
3. Replace the system board.

Related links

- “Updating firmware and device drivers” on page 25

- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545
- **W.305800B [W.305800B] DRIVER HEALTH PROTOCOL: Reports 'Reboot' Required Controller. : DRIVER HEALTH PROTOCOL: Reports 'Reboot' Required Controller**

Severity

Warning

User Response

Complete the following steps:

1. No action required. The system will reboot at the end of POST.
2. If the problem persists, switch to the backup UEFI image or update the current UEFI image.
3. Replace the system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545
- **W.305800C [W.305800C] DRIVER HEALTH PROTOCOL: Reports 'System Shutdown' Required Controller. : DRIVER HEALTH PROTOCOL: Reports 'System Shutdown' Required Controller**

Severity

Warning

User Response

Complete the following steps:

1. Reboot the system.
2. If problem persists, switch to the backup UEFI image or update the current UEFI image.
3. Replace system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545
- **W.305800D [W.305800D] DRIVER HEALTH PROTOCOL: Disconnect Controller Failed. Requires 'Reboot'. : DRIVER HEALTH PROTOCOL: Disconnect Controller Failed. Requires 'Reboot'**

Severity

Warning

User Response

Complete the following steps:

1. Reboot the system to reconnect the controller.
2. If problem persists, switch to the backup UEFI image or update the current UEFI image.
3. Replace the system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545
- **W.305800E [W.305800E] DRIVER HEALTH PROTOCOL: Reports Invalid Health Status Driver. : DRIVER HEALTH PROTOCOL: Reports Invalid Health Status Driver**

Severity

Warning

User Response

Complete the following steps:

1. Reboot the system.
2. If problem persists, switch to the backup UEFI image or update the current UEFI image.
3. Replace the system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **W.3808000 [W.3808000] An IMM communication failure has occurred. : IMM Communication Failure**

Severity

Warning

User Response

Complete the following steps:

1. Reset the IMM from the CMM.
2. Use the CMM to remove auxiliary power from the compute node. This will reboot the compute node.
3. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
4. Update the UEFI Firmware.
5. Replace the system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

- **W.3808002 [W.3808002] An error occurred while saving UEFI settings to the IMM. : Error Updating System Configuration to IMM**

Severity

Warning

User Response

Complete the following steps:

1. Use the Setup Utility to verify and save the settings (which will recover the settings).
2. Reset the IMM from the CMM.
3. Use CMM to remove auxiliary power from the compute node. This will reboot the compute node.
4. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
5. Update the IMM Firmware.
6. Remove and re-install CMOS battery for 30 seconds to clear CMOS contents.
7. Replace the system board.

Related links

- “Removing a CMOS battery” on page 507
- “Installing a CMOS battery” on page 507
- “Updating firmware and device drivers” on page 25

- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545
- **W.3808003 [W.3808003] Unable to retrieve the system configuration from the IMM. : Error Retrieving System Configuration from IMM**

Severity

Warning

User Response

Complete the following steps:

1. Use the Setup Utility to verify and save the settings (which will recover the settings).
2. Reset the IMM from the CMM.
3. Use CMM to remove auxilliary power from the compute node. This will reboot the compute node.
4. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
5. Update the IMM Firmware.
6. Remove and re-install CMOS battery for 30 seconds to clear CMOS contents.
7. Replace the system board.

Related links

- “Removing a CMOS battery” on page 507
- “Installing a CMOS battery” on page 507
- “Updating firmware and device drivers” on page 25
- “Using the Setup utility” on page 28
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545
- **W.3818005 [W.3818005] The CRTM flash driver could not successfully flash the staging area. The update was aborted : CRTM Update Aborted**

Severity

Warning

User Response

Complete the following steps:

1. Continue booting system. If system does not reset, manually reset the system.
2. If the error is not reported on the subsequent boot, no additional recovery action is required.
3. If the event persists, continue booting system and update the UEFI image.
4. Replace the system board.

Related links

- “Updating firmware and device drivers” on page 25
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545
- **W.3868001 [W.3868001] BOFM: Reset loop avoided - Multiple resets not allowed. : BOFM: Reset loop avoided - Multiple resets not allowed**

Severity

Warning

User Response

Complete the following steps:

1. Update all firmware (including adapter firmware) to the latest levels.

2. If problem persists, contact Support.

Related links

- "Updating firmware and device drivers" on page 25
- **W.3868002 [W.3868002] BOFM: Error communicating with the IMM - BOFM may not be deployed correctly. : BOFM: Error communicating with the IMM - BOFM may not be deployed correctly**

Severity

Warning

User Response

Complete the following steps:

1. Update all firmware (including adapter firmware) to the latest levels.
2. If problem persists, contact Support.

Related links

- "Updating firmware and device drivers" on page 25
- "Removing a system-board assembly" on page 543
- "Installing a system-board assembly" on page 545
- **W.3938002 [W.3938002] A boot configuration error has been detected. : Boot Configuration Error**

Severity

Warning

User Response

Complete the following steps:

1. F1 Setup -> Save Settings.
2. Retry the configuration update.

Related links

- "Using the Setup utility" on page 28
- **W.50001 [W.50001] A DIMM has been disabled due to an error detected during POST. : DIMM Disabled**

Severity

Warning

User Response

Complete the following steps:

1. If the DIMM was disabled because of a memory fault, follow the procedure for that event.
2. If no memory fault is recorded in the logs and no DIMM connector error LEDs are lit, re-enable the DIMM through the Setup utility or the Advanced Settings Utility (ASU).
3. If the problem persists, Power cycle the compute node from the management console.
4. Reset the IMM to default settings.
5. Reset UEFI to default settings.
6. Update IMM and UEFI firmware.
7. Replace the system board.

Related links

- "Updating firmware and device drivers" on page 25
- "Removing a system-board assembly" on page 543
- "Installing a system-board assembly" on page 545
- **W.58001 [W.58001] The PFA Threshold limit (correctable error logging limit) has been exceeded on DIMM number % at address %. MC5 Status contains % and MC5 Misc contains %. : DIMM PFA Threshold Exceeded**

Severity

Warning

User Response

Complete the following steps:

1. If the compute node has recently been installed, moved, serviced, or upgraded, verify that the DIMM is properly seated and visually verify that there is no foreign material in any DIMM connector on that memory channel. If either of these conditions is found, correct and retry with the same DIMM. (Note: The event Log might contain a recent 00580A4 event denoting detected change in DIMM population that could be related to this problem.)
2. Check the IBM support site for an applicable firmware update that applies to this memory error. The release notes will list the known problems the update addresses.
3. If the previous steps do not resolve the problem, at the next maintenance opportunity, replace the affected DIMM (as indicated by LightPath and/or failure log entry).
4. If PFA re-occurs on the same DIMM connector, swap the other DIMMs on the same memory channel one at a time to a different memory channel or processor. If PFA follows a moved DIMM to any DIMM connector on the different memory channel, replace the moved DIMM.
5. Check the IBM support site for an applicable Service Bulletins (Service bulletins) that applies to this memory error. (Link to IBM support service bulletins)
6. If problem continues to re-occur on the same DIMM connector, inspect DIMM connector for foreign material and remove, if found. If connector is damaged, replace system board.
7. Remove the affected processor and inspect the processor socket pins for damaged or mis-aligned pins. If damage is found or the processor is an upgrade part, replace the system board.
8. Replace affected processor.
9. Replace the system board.

Related links

- "Removing a DIMM" on page 508
 - "Installing a DIMM " on page 510
 - "Removing a microprocessor and heat sink" on page 532
 - "Installing a microprocessor and heat sink" on page 535
 - "Removing a system-board assembly" on page 543
 - "Installing a system-board assembly" on page 545
- **W.58007 [W.58007] Invalid memory configuration (Unsupported DIMM Population) detected. Please verify memory configuration is valid. : Unsupported DIMM Population**

Severity

Warning

User Response

Complete the following steps:

1. This event could follow an uncorrectable memory error or failed memory test. Check the log and resolve that event first. DIMMs disabled by other errors or actions could cause this event.
2. Ensure that the DIMM connectors are populated in the correct sequence.

Related links

- "Removing a DIMM" on page 508
 - "Installing a DIMM " on page 510
- **W.580A1 [W.580A1] Invalid memory configuration for Mirror Mode. Please correct memory configuration. : Unsupported DIMM Population for Mirror Mode**

Severity

Warning

User Response

Complete the following steps:

1. If a DIMM connector error LED is lit, resolve the failure.
2. Make sure that the DIMM connectors are correctly populated for mirroring mode.

Related links

- “Removing a DIMM” on page 508
- “Installing a DIMM ” on page 510
- **W.580A2 [W.580A2] Invalid memory configuration for Sparing Mode. Please correct memory configuration. : Unsupported DIMM Population for Spare Mode**

Severity

Warning

User Response

Complete the following steps:

Make sure that the DIMM connectors are correctly populated for sparing mode.

Related links

- “Removing a DIMM” on page 508
- “Installing a DIMM ” on page 510
- **W.68002 [W.68002] A CMOS battery error has been detected : CMOS Battery Fault**

Severity

Warning

User Response

Complete the following steps:

1. If the system was recently installed, moved, or serviced, make sure the battery is properly seated.
2. Check the IBM support site for an applicable service bulletin or firmware update that applies to this error.
3. Replace the CMOS battery
4. Replace the system board.

Related links

- “Removing a CMOS battery” on page 507
- “Installing a CMOS battery” on page 507
- “Removing a system-board assembly” on page 543
- “Installing a system-board assembly” on page 545

Troubleshooting by symptom

Use this information to find solutions to problems that have identifiable symptoms.

To use the symptom-based troubleshooting information in this section, complete the following steps:

1. Check the IMM event log and follow the suggested actions to resolve any event codes (see “IMM event log” on page 64).
2. Find the symptoms that you are experiencing in the troubleshooting tables in this section and follow the suggested actions to resolve any problems.
3. If the problem remains, submit a service request (see Appendix A “Getting help and technical assistance” on page 549).

Compute node start problems

Use this information to resolve compute node start problems.

Embedded hypervisor is not in the boot list

Complete the following steps until the problem is solved.

1. If the compute node has recently been installed, moved, or serviced, or if this is the first time the embedded hypervisor is being used, make sure that the device is connected properly and that there is no physical damage to the connectors.
2. Check <http://www.lenovo.com/serverproven/> to validate that the embedded hypervisor device is supported for the compute node.
3. Use the Setup utility to make sure that the embedded hypervisor device (USB key) is in the startup sequence. From the Setup utility, select **Start Options**.
4. Check <http://www.ibm.com> for any service bulletins related to the embedded hypervisor and the compute node.
5. Make sure that other software works on the compute node to ensure that the compute node is working properly.

Connectivity problems

Use this information to solve connectivity problems.

Cannot communicate with the Flex System Manager management node

Use the information in this section to troubleshoot the compute node when you cannot communicate with the Flex System Manager management node on the data network.

Complete the following steps until the problem is solved:

1. Make sure that all ports for the connection path are enabled and that you can ping the Flex System Manager management node. If you are unable to ping the Flex System Manager management node, see “Cannot ping the Flex System Manager management node on the data network” on page 476.
2. Make sure that the protocols you are using are enabled.

Note: By default, only secure protocols are enabled, for example, SSH and HTTPS.

3. If you cannot log into the Flex System Manager management node, see “Cannot log in to the Flex System Manager management node” on page 472.

Cannot communicate with the CMM

Use the information in this section to troubleshoot the compute node when you cannot communicate with the CMM on the data network.

Complete the following steps until the problem is solved:

1. Make sure that all ports in the connection path are enabled and that you can ping the CMM. If you are unable to ping the CMM, see “Cannot ping the CMM on the management network” on page 473.
2. Make sure that the protocols that you are using are enabled.

Note: By default, only secure protocols are enabled, for example, SSH and HTTPS.

3. Make sure that you can log into the CMM. If you are unable to log in to the CMM, see “Cannot log in to the CMM” on page 472.
4. Reset the CMM to the default settings by pressing the reset button on the CMM.

Note: Press and hold the button for 10 seconds to reset the CMM configuration settings. All user modified configuration settings are reset to the factory default values.

Cannot communicate with the I/O module

Use the information in this section to troubleshoot the compute node when you cannot communicate with the I/O module.

Complete the following steps until the problem is solved:

1. Make sure that all ports in the connection path are enabled and that you can ping the I/O module. If you are unable to ping the I/O module, see “Cannot ping the I/O module” on page 475.
2. Make sure that the protocols that you are using are enabled.

Note: By default, only secure protocols are enabled, for example, SSH and HTTPS.

3. Make sure that you can log into the I/O module. If you are unable to log into the I/O module, see “Cannot log in to the I/O module” on page 472.
4. Use a serial cable to connect to the I/O module to further isolate the problem. You can also link to the I/O module through an external Ethernet port.

One or more compute nodes are unable to communicate with SAN

Use the information in this section to troubleshoot one or more compute nodes are unable to communicate with SAN.

Complete the following steps until the problem is solved:

1. Make sure that:
 - a. The I/O module is powered on and the appropriate ports are enabled on the I/O module.
 - b. The CMM has reported that the I/O module has completed POST and that no errors have been reported in the logs.
 - c. The SAN device is powered on and is functional.
 - d. All cables between the I/O module and the SAN device are properly connected and secure, and that the activity LEDs are lit on the appropriate ports.
2. See the documentation for the I/O module for additional information about troubleshooting SAN connectivity or network connectivity issues.

Cannot connect to the data network (Ethernet)

Use the information in this section to troubleshoot the compute node when you cannot connect to the data network (Ethernet).

One compute node is unable to connect to the data network (Ethernet) during initial setup

Use the information in this section to troubleshoot one Flex System x222 Compute Node that is unable to connect to the data network (Ethernet) during initial setup.

Complete the following steps until the problem is solved:

1. Make sure that:
 - a. The I/O module is powered on and the appropriate ports are enabled on the I/O module.
 - b. All cables between the I/O module and the network device (switch or router) are properly connected and secure, and that the activity LEDs are lit on the appropriate ports.
2. Make sure that a scalable Ethernet switch is installed in the Flex System Enterprise Chassis and that Features on Demand are enabled for this switch.

3. From the compute node operating system, verify the network settings, such as IP address, subnet mask (if using IPv4), DHCP settings, and vLAN settings, to ensure that the settings match the settings of the network device. See the documentation for the operating system for information about checking network settings. Make sure that you verify the network settings for both the upper and lower compute nodes.
4. From the compute node operating system, make sure that the network device is active. See the documentation for the operating system for information about viewing network devices. Make sure that the network devices are active for both the upper and lower compute nodes.
5. Make sure that the proper device drivers are installed for the Ethernet devices in both compute nodes.
6. Check the Support Web site for any firmware updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues addressed by the update.
7. Remove the Flex System x222 Compute Node from the chassis and check the connectors at the back of the node for bent pins. If the pins are bent, contact Support. See “Removing a compute node from a chassis” on page 493.
8. Install the Flex System x222 Compute Node in another compute node bay to see if the problem persists. See “Installing a compute node in a chassis” on page 493. If the problem persists, make sure that the upper and lower compute nodes are connected to a port that has been enabled and that the vLAN settings enable that port to connect to the network.
9. Check the Support Web site for any service bulletins that are related to network connectivity.
10. (Trained service technician only) Perform the following steps:
 - a. Force the Link/duplex speed.
 - b. Check the connectors on the I/O module to ensure that there are no bent pins.
 - c. Check the connectors on the chassis midplane to ensure there are no bent pins. See the .
 - d. Remove the I/O module and install a working I/O module in the same I/O module bay.
 - e. If the problem is resolved, replace the I/O module that you removed.

One compute node experiences a sudden loss of network (Ethernet) connectivity

Use the information in this section to troubleshoot one compute node that experiences a sudden loss of network (Ethernet) connectivity.

The event is logged in the event log. See the event log for the Flex System Manager management node (if installed) or see the event log of the CMM to determine what actions might be required to resolve this issue. See “IMM event log” on page 64.

Two or more compute nodes are unable to connect to the data network (Ethernet) during initial setup

Use the information in this section to troubleshoot two or more compute nodes that are unable to connect to the data network (Ethernet) during initial setup.

Complete the following steps until the problem is solved:

1. If you have just updated the firmware for one or more devices in the chassis (I/O module, CMM, etc), install the previous level of firmware.
2. Make sure that:
 - a. The I/O module is powered on and the appropriate ports are enabled on the I/O module.
 - b. All cables between the I/O module and the network device (switch or router) are properly connected and secure, and that the activity LEDs are lit on the appropriate ports.
3. From the compute node operating system, verify the network settings, such as IP address, subnet mask (if using IPv4), DHCP settings, and vLAN settings, to ensure that the settings match the settings of the network device. See the documentation for the operating system for information about checking network settings.

4. From the compute node operating system, make sure that the network device is active. See the documentation for the operating system for information about viewing network devices.
5. Check the Support Web site for any firmware updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues addressed by the update.
6. Check the Support Web site for any service bulletins that are related to network connectivity.
7. (Trained service technician only) Perform the following steps:
 - a. Force the Link/duplex speed.
 - b. Check the connectors on the I/O module to ensure that there are no bent pins.
 - c. Check the connectors on the chassis midplane to ensure there are no bent pins. See the .
 - d. Remove the I/O module and install a working I/O module in the same I/O module bay.
 - e. If the problem is resolved, replace the I/O module that you removed.

Two or more compute nodes experience a sudden loss of network (Ethernet) connectivity

Use the information in this section to troubleshoot two or more compute nodes that experience a sudden loss of network (Ethernet) connectivity.

The event is logged in the event log. See the event log for the Flex System Manager management node (if installed) or see the event log of the CMM to determine what actions might be required to resolve this issue. See “IMM event log” on page 64.

Cannot log in

Use the information in this section to troubleshoot the compute node when you cannot log in to the management node, the CMM, or the I/O module.

Cannot log in to the Flex System Manager management node

Use the information in this section to troubleshoot the compute node when you cannot log in to the management node.

Complete the following steps until the problem is solved:

1. Make sure that you are using the correct password and that the capitals lock is off.
2. Contact Support for further assistance if you have forgotten the password.

For additional information about Login problems, see [Login problems at http://pic.dhe.ibm.com/infocenter/flexsys/information/index.jsp?topic=%2Fcom.ibm.acc.8731.doc%2Ftroubleshooting_web_interface_problems.html](http://pic.dhe.ibm.com/infocenter/flexsys/information/index.jsp?topic=%2Fcom.ibm.acc.8731.doc%2Ftroubleshooting_web_interface_problems.html) in the “Lenovo Flex System Chassis Management Module User’s Guide”.

Cannot log in to the CMM

Use the information in this section to troubleshoot the compute node when you cannot log in to the CMM.

Complete the following steps until the problem is solved:

1. Make sure that you are using the correct password and that the capitals lock is off.
2. Restore the CMM default settings by pressing the reset button on the CMM.

Cannot log in to the I/O module

Use the information in this section to troubleshoot the compute node when you cannot log in to the I/O module.

Complete the following steps until the problem is solved:

1. Make sure that you are using the correct password and that the capitals lock is off.
2. Contact Support for further assistance if you have forgotten the password.

Cannot ping the CMM on the management network

Use the information in this section to troubleshoot the Flex System x222 Compute Node when one or more compute nodes cannot ping the CMM on the management network.

Single node cannot ping the CMM in the same chassis

Use the information in this section to troubleshoot a single Flex System x222 Compute Node that cannot ping the CMM on the management network in the same chassis.

Complete the following steps until the problem is solved:

1. Make sure that the Chassis Management Module is powered on and the applicable ports are enabled on the CMM.
2. Make sure that both the upper and lower compute node IMMs in the Flex System x222 Compute Node have acquired IP addresses from the CMM by using the Setup utility on each compute node.

Note: If the CMM recently lost connection to the DHCP server, you must reset the IMMs by using the CMM interface so that new IP addresses can be acquired.

3. In the CMM user interface, click **Chassis Management > Component IP Configuration** and make sure that the IP addresses that are listed are the same as the IP addresses that are displayed in the Setup utility. If the same IP addresses are not listed, configure the IMM network settings correctly or reset the IMMs to automatically acquire new IP addresses.
4. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this problem. You can view the release notes for a firmware update to determine the issues that the update addresses.
5. Remove the Flex System x222 Compute Node from the chassis and check the connectors on the back of the node for bent pins. If the pins are bent, contact Support.
6. Install the Flex System x222 Compute Node in another node bay to determine whether the problem remains. If the problem remains, make sure that the compute nodes are connected to ports that have been enabled and that the vLAN settings allow the ports to connect to the network.
7. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
8. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the I/O module to make sure that no pins are bent.
 - c. Check the connectors on the chassis midplane to make sure that no pins are bent.
 - d. Remove the CMM and install a working CMM in the same bay.
 - e. If the problem is solved, replace the CMM that you removed.

Multiple nodes cannot ping the CMM in the same chassis

Use the information in this section to troubleshoot multiple nodes that cannot ping the CMM on the management network in the same chassis.

Complete the following steps until the problem is solved:

1. Make sure that the Chassis Management Module is powered on and the applicable ports are enabled on the CMM. If the CMM is hung, reset the CMM.
2. Reset the CMM.
3. Check for firmware updates for the CMM.
4. Reset the CMM to factory defaults and attempt to discover the nodes again. Allow enough time for the IMMs to acquire a network address.
5. Replace the CMM.

6. Make sure that the compute node IMM has acquired IP addresses from the CMM by using the Setup utility on the node.

Note: If the CMM recently lost connection to the DHCP server, you must reset the IMM by using the CMM interface so that new IP addresses can be acquired.

7. In the CMM user interface, click **Chassis Management > Component IP Configuration** and make sure that the IP addresses that are listed are the same as the IP addresses that are displayed in the Setup utility. If the same IP addresses are not listed, configure the IMM network settings correctly or reset the IMM to automatically acquire new IP addresses.
8. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this problem. You can view the release notes for a firmware update to determine the issues that the update addresses.
9. Remove the Flex System x222 Compute Node from the chassis and check the connectors on the back of the node for bent pins. If the pins are bent, contact Support.
10. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
11. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the CMM to make sure that no pins are bent.
 - c. Check the connectors on the chassis midplane to make sure that no pins are bent.
 - d. Remove the CMM and install a working CMM in the same bay.
 - e. If the problem is solved, replace the CMM that you removed.

CMM cannot ping the CMM in a different chassis

Use the information in this section to troubleshoot a CMM that cannot ping the CMM in a different chassis.

Complete the following steps until the problem is solved:

1. Make sure that the Chassis Management Modules are powered on and the applicable ports are enabled.
 - a. If the CMM is powered on and hung, reset the CMM.
 - b. Make sure that the IMM, the management node, and the CMMs are all on the same subnet.
2. Verify that the cables between the CMMs and the top-of-rack switch are correctly connected and that the activity LEDs are lit on the applicable ports.
3. Make sure that the management node has a correct IP address and is on the same subnet as the CMMs.
4. Make sure that the compute node IMM has acquired IP addresses from the CMM by using the Setup utility on each node.

Note: If the CMM recently lost connection to the DHCP server, you must reset the IMM by using the CMM interface so that new IP addresses can be acquired.

5. In the CMM user interface, click **Chassis Management > Component IP Configuration** and make sure that the IP address that is listed is the same as the IP address that is displayed in the Setup utility. If it is not the same IP address, configure the IMM network settings correctly or reset the IMM to automatically acquire a new IP address.
6. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this problem. You can view the release notes for a firmware update to determine the issues that the update addresses.
7. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
8. Remove the Flex System x222 Compute Node from the chassis and check the connectors on the back of the node and on the midplane for bent pins. If the pins are bent, contact Support.
9. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.

- b. Check the connectors on the nodes and on the midplane to make sure that no pins are bent.
- c. Replace the I/O expansion card in the management node.
- d. Replace the management node.

Cannot ping the I/O module

Use the information in this section to troubleshoot the compute node when one or more compute nodes cannot ping the I/O module.

Single node cannot ping the I/O module

Use the information in this section to troubleshoot a single Flex System x222 Compute Node that cannot ping the I/O module.

Complete the following steps until the problem is solved:

1. If you have recently updated the firmware for one or more devices in the chassis (I/O module) and have verified the network settings, install the previous level of firmware.
2. Make sure that the I/O module is powered on and the applicable ports are enabled on the I/O module.
3. Make sure that all network cables are correctly connected and that the activity LEDs are lit. If the cables are correctly connected and the LEDs are not lit, replace the cable.
4. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this problem. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
5. Remove the Flex System x222 Compute Node from the chassis and check the connectors at the back of the node for bent pins. If the pins are bent, go to <http://www.lenovo.com/support> to submit a service request.
6. Install the Flex System x222 Compute Node in another node bay, if one is available. If the problem remains, make sure that the compute nodes are connected to ports that have been enabled and that the vLAN settings allow these ports to connect to the network.
7. Check <http://www.lenovo.com/support> for any service bulletins that are related to I/O-module connectivity.
8. If the problem remains, replace the I/O module, and go to <http://www.lenovo.com/support> to submit a service request.
9. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the I/O module to make sure that no pins are bent.
 - c. Check the connectors on the chassis midplane to make sure that no pins are bent.
 - d. Remove the I/O module and install a working I/O module in the same I/O bay.
 - e. If the problem is solved, replace the I/O module that you removed.

Multiple nodes cannot ping the I/O module

Use the information in this section to troubleshoot multiple nodes that cannot ping the I/O module.

Complete the following steps until the problem is solved:

1. If you have recently updated the firmware for one or more devices in the chassis (I/O module or CMM), install the previous level of firmware.
2. Make sure that the I/O module is powered on and the applicable ports are enabled on the I/O module.
3. Make sure that all network cables are correctly connected and that the activity LEDs are lit.

4. From the compute node operating system, verify that the network device is active. Check also the network settings, such as IP address, subnet mask (if you are using IPv4), DNS, DHCP settings, and vLAN settings to make sure that the settings match the settings of the network device. See the documentation that comes with the operating system for information about viewing network devices and checking the network settings.
5. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this problem. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
6. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
7. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the I/O module to make sure that no pins are bent.
 - c. Check the connectors on the chassis midplane to make sure that no pins are bent.
 - d. Remove the I/O module and install a working I/O module in the same I/O bay.
 - e. If the problem is solved, replace the I/O module that you removed.

Cannot ping the Flex System Manager management node on the data network

Use the information in this section to troubleshoot the compute node when one or more compute nodes cannot ping the management node on the data network.

Single node cannot ping the management node in the same chassis

Use the information in this section to troubleshoot a single Flex System x222 Compute Node that cannot ping the Flex System Manager management node in the same chassis on the data network.

Complete the following steps until the problem is solved:

1. Make sure that the management node is powered on and is not hung, by logging in to the management node. If you are unable to log in from the management network, attempt to log in from the data network. If the management node is powered on and hung, perform a virtual reset of the management node from the CMM.
2. Make sure that the I/O module is powered on and is not hung, by pinging the I/O module from the management node. If the I/O module is powered on and hung, reset the I/O module. Make sure that the correct ports are enabled for the node on the I/O module.
3. Make sure that the upper and lower compute nodes in the Flex System x222 Compute Node are the only ones in the chassis that the management node cannot ping. If it is not, follow the steps in “Multiple nodes cannot ping the management node in the same chassis” on page 477.
4. Make sure that the configuration settings in the node are correct and that the port is enabled.
5. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
6. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
7. Remove the Flex System x222 Compute Node and make sure that the connectors on the chassis midplane and the compute node are not damaged.
8. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the node and the chassis midplane to make sure that no pins are bent.

Single node cannot ping the management node in a different chassis

Use the information in this section to troubleshoot a single Flex System x222 Compute Node that cannot ping the Flex System Manager management node in a different chassis on the data network.

Complete the following steps until the problem is solved:

1. Make sure that the management node is powered on and is not hung, by logging in to the management node. If you are unable to log in from the management network, attempt to log in from the data network. If the management node is powered on and hung, perform a virtual reset of the management node from the CMM.
2. Make sure that the I/O module is powered on and is not hung, by pinging the I/O module from the management node. If the I/O module is powered on and hung, reset the I/O module. Make sure that the correct ports are enabled for the node on the I/O module.
3. Make sure that the upper and lower compute node in the Flex System x222 Compute Node are the only ones in the chassis that the management node cannot ping. If they are not, follow the steps in “Multiple nodes cannot ping the management node in the same chassis” on page 477.
4. Make sure that the IP configuration settings on the node are correct and that the port is enabled.
5. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
6. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
7. Remove the node and make sure that the connectors on the chassis midplane and the node are not damaged.
8. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the node and the chassis midplane to make sure that no pins are bent.

Multiple nodes cannot ping the management node in the same chassis

Use the information in this section to troubleshoot multiple nodes that cannot ping the Flex System Manager management node in the same chassis on the data network.

Complete the following steps until the problem is solved:

1. Make sure that the management node is powered on and is not hung, by logging in to the management node. If you are unable to log in from the management network, attempt to log in from the data network. If the management node is powered on and hung, perform a virtual reset of the management node from the CMM.
2. Make sure that the I/O module is powered on and is not hung, by pinging the I/O module from the management node. If the I/O module is powered on and hung, reset the I/O module. Make sure that the correct ports are enabled for the node on the I/O module.
3. Make sure that the management network port (eth1) is enabled in the management node. Make sure that the port configuration settings are correct for the data network.
4. Make sure that the configuration settings for each node are correct and that the data network ports are enabled.
5. Make sure that the configuration settings in the I/O module are correct and that the appropriate ports are enabled for your compute nodes and the management node on the I/O module. If the problem remains, complete the following steps:
 - a. Restart the I/O module.
 - b. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
 - c. Perform a virtual reset of the I/O module.
 - d. Replace the I/O module.
6. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.

7. Remove the management node and make sure that the connectors on the chassis midplane and the management node are not damaged.
8. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the nodes and the chassis midplane to make sure that no pins are bent.
 - c. Replace the I/O expansion card in the management node.

Multiple nodes cannot ping the management node in a different chassis

Use the information in this section to troubleshoot multiple nodes that cannot ping the Flex System Manager management node in a different chassis on the data network.

Complete the following steps until the problem is solved:

1. Make sure that the management node is powered on and is not hung, by logging in to the management node. If you are unable to log in from the management network, attempt to log in from the data network. If the management node is powered on and hung, perform a virtual reseal of the management node from the CMM.
2. Make sure that the I/O module is powered on and is not hung, by pinging the I/O module from the management node. If the I/O module is powered on and hung, reset the I/O module. Make sure that the correct ports are enabled for the node on the I/O module.
3. Make sure that the management network port (eth1) in the management node is enabled. Make sure that the port configuration settings are correct for the data network.
4. Make sure that the configuration settings for each node are correct and that the data network ports are enabled.
5. Make sure that the configuration settings in the I/O module are correct and that the applicable ports are enabled for your compute nodes and the management node on the I/O module. If the problem remains, complete the following steps:
 - a. Restart the I/O module.
 - b. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
 - c. Perform a virtual reseal of the I/O module.
 - d. Replace the I/O module.
6. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
7. Remove the management node and make sure that the connectors on the chassis midplane and the node are not damaged.
8. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the nodes and the chassis midplane to make sure that no pins are bent.
 - c. Replace the I/O expansion card in the management node.

Multiple nodes cannot ping the management node in the same chassis or a different chassis

Use the information in this section to troubleshoot multiple nodes that cannot ping the Flex System Manager management node in the same chassis or a different chassis on the data network.

Complete the following steps until the problem is solved:

1. Follow the steps in “Multiple nodes cannot ping the management node in the same chassis” on page 477.

2. Follow the steps in “Multiple nodes cannot ping the management node in a different chassis” on page 478.

Cannot ping the Flex System Manager management node on the management network

Use the information in this section to troubleshoot the compute node when one or more compute nodes cannot ping the management node on the management network.

Single node cannot ping the management node in the same chassis

Use the information in this section to troubleshoot a single Flex System x222 Compute Node that cannot ping the Flex System Manager management node in the same chassis on the management network.

Complete the following steps until the problem is solved:

1. Make sure that the management node is powered on and is not hung, by logging in to the management node. If you are unable to log in from the management network, attempt to log in from the data network. If the management node is powered on and hung, perform a virtual reset of the management node from the CMM.
2. Make sure that the CMM is powered on and is not hung, by pinging the CMM from the management node. If the CMM is powered on and hung, reset the CMM. Make sure that the IMM, the management node, and CMM are all on the same subnet.
3. Make sure that the upper and lower compute nodes in the Flex System x222 Compute Node are the only ones in the chassis that the management node cannot ping. If they are not, follow the steps in “Multiple nodes cannot ping the management node in the same chassis” on page 480. Make sure that the compute nodes appear on the chassis map (it might not be fully discovered by the management node software).
4. Make sure that the system-management processor in each compute node has a valid IP address by checking the chassis map of the remote chassis.

Note: If the CMM recently lost connection to the DHCP server, you must reset the IMM by using the CMM interface so that a new IP address can be acquired.

5. In the CMM user interface, click **Chassis Management > Component IP Configuration** and make sure that the IP addresses that are listed are the same as the IP addresses that are displayed in the Setup utility. If the IP addresses listed are not the same, configure the IMM network settings correctly.
6. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
7. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
8. Remove the compute node and make sure that the connectors on the chassis midplane and the node are not damaged.
9. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the node and the chassis midplane to make sure that no pins are bent.
 - c. Replace the system-board assembly (see “Removing a system-board assembly” on page 543 and “Installing a system-board assembly” on page 545).

Single node cannot ping the management node in a different chassis

Use the information in this section to troubleshoot a single Flex System x222 Compute Node that cannot ping the Flex System Manager management node in a different chassis on the management network.

Complete the following steps until the problem is solved:

1. Make sure that the management node is powered on and is not hung, by logging in to the management node. If you are unable to log in from the management network, attempt to log in from the data network. If the management node is powered on and hung, perform a virtual reset of the management node from the CMM.
2. Make sure that the CMM is powered on and is not hung, by pinging the CMM from the management node:
 - a. If the CMM is powered on and hung, reset the CMM
 - b. Make sure that the Flex System x222 Compute Node IMM, the management node, and CMM are all on the same subnet.
3. Make sure that the upper and lower compute nodes in the Flex System x222 Compute Node are the only ones in the chassis that the management node cannot ping. If it is not, follow the steps in “Multiple nodes cannot ping the management node in the same chassis” on page 480. Make sure that the compute nodes appear on the chassis map (it might not be fully discovered by the management node software).
4. Make sure that the IMM has acquired IP addresses from the CMM by using the Setup utility on the compute nodes.

Note: If the CMM recently lost connection to the DHCP server, you must reset the IMM by using the CMM interface so that new IP addresses can be acquired.

5. Make sure that the system-management processor in each compute node has a valid IP address by checking the chassis map of the remote chassis.

Note: If the CMM recently lost connection to the DHCP server, you must reset the IMM by using the CMM interface so that new IP addresses can be acquired.

6. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
7. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
8. Remove the Flex System x222 Compute Node and make sure that the connectors on the midplane and the node are not damaged.
9. (Trained service technician only) Check the connectors on the compute node and the chassis midplane to make sure that no pins are bent.

Multiple nodes cannot ping the management node in the same chassis

Use the information in this section to troubleshoot multiple nodes that cannot ping the Flex System Manager management node in the same chassis on the management network.

Complete the following steps until the problem is solved:

1. Make sure that the management node is powered on and is not hung, by logging in to the management node. If you are unable to log in from the management network, attempt to log in from the data network. If the management node is powered on and hung, perform a virtual reset of the management node from the CMM.
2. Make sure that the CMM is powered on and is not hung, by pinging the CMM from the management node:
 - a. If the CMM is powered on and hung, reset the CMM.
 - b. Make sure that the IMM, the management node, and CMM are all on the same subnet.
3. Make sure that the management network port (eth0) in the management node is enabled.
4. Make sure that the management node has an IP address, is on the same subnet as the CMM, and is able to ping the CMM.

5. Make sure that the system-management processor in each compute node has a valid IP address by checking the chassis map of the remote chassis.

Note: If the CMM recently lost connection to the DHCP server, you must reset the IMM by using the CMM interface so that new IP addresses can be acquired.

If a system-management processor does not have a valid IP address, complete the following steps:

- a. Restart the CMM.
 - b. Check <http://www.lenovo.com/support> for any firmware or software updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
 - c. Remove and reinstall CMM.
 - d. Replace the CMM.
6. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
 7. Remove the management node and make sure that the connectors on the chassis midplane and the management node are not damaged.
 8. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the nodes and the chassis midplane to make sure that no pins are bent.
 - c. Replace the I/O expansion card in the management node.
 - d. Replace the management node.

Multiple nodes cannot ping the management node in a different chassis

Use the information in this section to troubleshoot multiple nodes that cannot ping the Flex System Manager management node in a different chassis on the management network.

Complete the following steps until the problem is solved:

1. Make sure that the management node is powered on and is not hung, by logging in to the management node. If you are unable to log in from the management network, attempt to log in from the data network. If the management node is powered on and hung, perform a virtual reset of the management node from the CMM.
2. Make sure that the CMM is powered on and is not hung by pinging the CMM from the management node:
 - a. If the CMM is powered on and hung, reset the CMM.
 - b. Make sure that the IMM, the management node, and the CMM are all on the same subnet.
3. Make sure that all cables between the CMMs and the top-of-rack switch are correctly connected and secure and that the activity LEDs are lit on the applicable ports
4. Make sure that the CMMs (the CMM in the same chassis as the management node and the CMM in the remote chassis) have the same subnet address and can ping one another. If they cannot, make sure that the ports on the top-of-rack switch are enabled. Attempt to connect the CMMs directly if possible.
5. Make sure that the management node has fully discovered the nodes within its chassis by viewing the chassis map. If it has not fully discovered the nodes, follow the steps in “Multiple nodes cannot ping the management node in the same chassis” on page 480.
6. Make sure that the management processor for each compute node has a valid IP address by checking the chassis map of the remote chassis.

Note: If the CMM recently lost connection to the DHCP server, you must reset the IMM by using the CMM interface so that new IP addresses can be acquired.

If a system-management processor does not have a valid IP address, complete the following steps:

- a. Restart the CMM in the remote chassis.
 - b. Check <http://www.lenovo.com/support> for any firmware or software updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
 - c. Remove and reinstall CMM.
 - d. Replace the CMM.
7. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.
 8. Remove the node and make sure that the connectors on the chassis midplane and the node are not damaged.
 9. (Trained service technician only) Complete the following steps:
 - a. Force the link/duplex speed.
 - b. Check the connectors on the nodes and the chassis midplane to make sure that no pins are bent.
 - c. Replace the I/O expansion card in the management node.

Multiple nodes cannot ping the management node in the same chassis or a different chassis

Use the information in this section to troubleshoot multiple nodes that cannot ping the Flex System Manager management node in the same chassis or a different chassis on the management network.

Complete the following steps until the problem is solved:

1. Follow the steps in “Multiple nodes cannot ping the management node in the same chassis” on page 480.
2. Follow the steps in “Multiple nodes cannot ping the management node in a different chassis” on page 481.

Hard disk drive problems

Use this information to resolve hard disk drive problems.

Compute node fails to recognize drive

Complete the following steps until the problem is solved.

1. Verify that the drive is supported for this compute node. See <http://www.lenovo.com/serverproven/> for a list of supported hard drives.
2. Make sure that the drive is seated in the drive bay properly and that there is no physical damage to the drive connectors.
3. Run the DSA Hard Drive: Self Test diagnostic test (see “Lenovo Dynamic System Analysis ” on page 66).
 - a. If the drive fails the diagnostic test, replace the drive.
 - b. If the drive passes the diagnostic tests but is still not recognized, complete the following steps:
 - 1) Replace the drive.
 - 2) Replace the system-board assembly (see “Removing a system-board assembly” on page 543 and “Installing a system-board assembly” on page 545).

Intermittent problems

Use this information to solve intermittent problems.

Intermittent external device problems

Complete the following steps until the problem is solved.

1. Make sure that the correct device drivers are installed. See the manufacturer's website for documentation.
2. For a USB device:
 - a. Make sure that the device is configured correctly (see "Using the Setup utility" on page 28).
 - b. Connect the device to another port. If using a USB hub, remove the hub and connect the device directly to the compute node. Make sure that the device is configured correctly for the port (see "Using the Setup utility" on page 28).
 - c. Run DSA Preboot USB diagnostics (see "Lenovo Dynamic System Analysis " on page 66).

Intermittent KVM problems

Complete the following steps until the problem is solved.

Video problems:

1. Make sure that all cables and the console breakout cable are properly connected and secure.
2. Make sure that the monitor is working properly by testing it on another compute node.
3. Test the console breakout cable on a working compute node to ensure that it is operating properly. Replace the console breakout cable if it is defective.

Keyboard problems:

Make sure that all cables and the console breakout cable are properly connected and secure.

Mouse problems:

Make sure that all cables and the console breakout cable are properly connected and secure.

Intermittent unexpected reboots

Check for an event code that indicates a reboot. See the event log for the Flex System Manager management software (if installed) or see the event log of the CMM to determine what actions might be required to resolve this issue. See "IMM event log" on page 64. Some correctable errors require that the compute node reboot so that it can disable a device, such as a memory DIMM or a microprocessor to allow the machine to boot up properly.

Intermittent connectivity problems

Use this information to solve intermittent connectivity problems.

Single compute node cannot connect intermittently

Complete the following steps until the problem is solved.

1. Make sure that the network cables are correctly connected in the switch module ports and the switch module is correctly seated.
2. Update the NIC device driver, or the storage device controller device driver.
3. See the documentation for the I/O module for resolving connectivity issues.

Two or more compute nodes cannot connect intermittently

Complete the following steps until the problem is solved.

1. Using the diagnostic tools that are provided by the device manufacturer, test the I/O module that the devices are connected to.

2. Attempt to connect one compute node to the network first, and connect other compute nodes, one by one, to try to isolate the problem.
3. Update the I/O module firmware, if necessary.

Note: Restarting the compute node and running POST diagnostics on the I/O module might also help isolate the problem; however, this might have other ramifications to the network.

Memory problems

Use this information to solve memory problems.

The amount of system memory that is displayed is less than the amount of installed physical memory

Complete the following steps until the problem is solved.

1. Make sure that:
 - a. You have installed the correct type of memory (see “Installing a DIMM ” on page 510).
 - b. Memory mirroring or memory sparring mode does not account for the discrepancy. You can check the memory configuration in the Setup utility (see “Using the Setup utility” on page 28).
2. If new memory has recently been installed, make sure that no configuration events are reported in the event log. If there are any events, resolve them using the information provided with the event. You might also need to check the light path diagnostics LEDs in the compute node. For more information, see “Viewing event logs without restarting the compute node” on page 65 and “Light path diagnostics LEDs” on page 63.
3. If the compute node was recently installed, moved, or serviced, make sure that the DIMMs are correctly seated in the connectors (see “Installing a DIMM ” on page 510).
4. Make sure that all DIMMs are enabled. The compute node might have automatically disabled a DIMM when it detected a problem, or a DIMM might have been manually disabled (see “Using the Setup utility” on page 28).
5. Run memory diagnostics (see “Lenovo Dynamic System Analysis ” on page 66).
6. Remove DIMMs until the compute node is showing the correct amount of memory. Install one DIMM at a time until you can determine which DIMM is not working properly. Remove that DIMM and replace it with a good DIMM (see “Removing a DIMM” on page 508, and “Installing a DIMM ” on page 510).

Note: After you install or remove a DIMM, you must change and save the new configuration information by using the Setup utility. When you turn on the compute node, a message indicates that the memory configuration has changed. Start the Setup utility and select **Save Settings** (see “Using the Setup utility” on page 28 for more information) to save changes.

7. If the problem remains, contact Support.

Observable problems

Use this information to solve observable problems.

Compute node is unresponsive (POST is complete and operating system is running)

Complete the following steps until the problem is solved.

If you are in the same location as the compute node, complete the following steps:

1. If you are using a KVM connection, make sure that the connection is operating correctly. Otherwise, make sure that the keyboard and mouse are operating correctly.
2. If possible, log in to the compute node and verify that all applications are running (no applications are hung).

3. Restart the compute node.
4. If the problem remains, make sure that any new software has been installed and configured correctly.
5. Contact your place of purchase of the software or your software provider.

If you are accessing the compute node from a remote location, complete the following steps:

1. Make sure that all applications are running (no applications are hung).
2. Attempt to log out of the system and log back in.
3. Validate the network access by pinging or running a trace route to the compute node from a command line.
 - a. If you are unable to get a response during a ping test, attempt to ping another compute node in the chassis to determine whether it is a connection problem or compute node problem.
 - b. Run a trace route to determine where the connection breaks down. Attempt to resolve a connection issue with either the VPN or the point at which the connection breaks down.
4. Restart the compute node remotely through the management interface.
5. If the problem remains, verify that any new software has been installed and configured correctly.
6. Contact your place of purchase of the software or your software provider.

Unusual smell

Complete the following steps until the problem is solved.

1. An unusual smell might be coming from newly installed equipment.
2. If the problem remains, contact Support.

Compute node seems to be running hot

Complete the following steps until the problem is solved.

Multiple compute nodes or chassis:

1. Make sure that the room temperature is within the specified range (see “Features and specifications” on page 5).
2. Check the Flex System Manager management software (if installed) or CMM log for rising temperature events. If there are no events, the compute node is running within normal operating temperatures. Note that you can expect some variation in temperature.

Single compute node:

Check the Flex System Manager management software (if installed) or CMM log for rising temperature events. If there are no events, the compute node is running within normal operating temperatures. Note that you can expect some variation in temperature.

Cracked parts or cracked chassis

Contact Support.

Optional device and replaceable component installation problems

Use this information to resolve optional device and replaceable component installation problems.

External USB device not recognized

Complete the following steps until the problem is solved.

1. Make sure that the proper drivers are installed on the compute node. See the product documentation for the USB device for information about device drivers.

2. Use the Setup utility to make sure that the device is configured correctly.
3. If the USB device is plugged into a hub or the console breakout cable, unplug the device and plug it directly into the USB port on the front of the compute node.
4. Run the DSA USB diagnostic tests

PCIe adapters not recognized/functioning

Complete the following steps until the problem is solved.

1. Check the event log and resolve any issues related to the device.
2. See <http://www.lenovo.com/serverproven/> to validate that the adapter is supported.
3. Make sure that the adapter is installed in a correct slot.
4. Make sure that the proper device drivers are installed for the device.
5. Resolve any resource conflicts if running legacy mode (UEFI).
6. Check <http://www.ibm.com> for any service bulletins.
7. Ensure any adapter external connections are correct and that the connectors are not physically damaged.

Performance problems

Use this information to solve performance problems.

Poor or slow network performance

Complete the following steps until the problem is solved.

1. Isolate which network is operating slowly (such as storage, data, and management). You might find it helpful to use ping tools or operating-system tools such as task manager or resource manager.
2. Check for traffic congestion on the network.
3. Update the NIC device driver, or the storage device controller device driver.
4. Use the traffic-diagnostic tools that are provided by the IO-module manufacturer.

Operating system performance

Complete the following steps until the problem is solved.

1. If you have recently made changes to the compute node (for example updated device drivers or installed software applications) remove the changes.
2. Check for any networking issues.
3. Check the operating system logs for performance related errors.
4. Check for events related to high temperatures and power issues as the compute node might be throttled to help with cooling. If it is throttled, reduce the workload on the compute node to help improve performance.
5. Check for events related to disabled DIMMs. If you do not have enough memory for the application workload, your operating system will have poor performance.
6. Ensure that the workload is not too high for the configuration.

Power-on problems

Use this information to resolve power-on problems.

Single node in Flex System x222 Compute Node does not power on

Use the information in this section to troubleshoot a single node in the Flex System x222 Compute Node that does not power on.

Complete the following steps until the problem is solved.

1. If you recently installed, moved, or serviced the upper or lower compute node in the Flex System x222 Compute Node, reseal the Flex System x222 Compute Node in the bay. If neither of the compute nodes in the Flex System x222 Compute Node was not recently installed, moved, or serviced, perform a virtual reseal through the CMM **service** command. For more information about the CMM **service** command, see the .
2. Check the event logs for any events that are related to the compute node, and solve them. If an Flex System Manager management node is installed, check the event log on the management node. Otherwise, check the event log on the Chassis Management Module.
3. Make sure that the CMM can recognize the upper and lower compute nodes. Log in to the CMM user interface and verify that the compute node appears in the chassis view. If the CMM cannot recognize a compute node, remove the Flex System x222 Compute Node and inspect the Flex System x222 Compute Node and the back of the node bay to make sure there is no physical damage to the connectors.
4. Make sure that the power policy that is implemented on the CMM is sufficient to enable the compute nodes to power on. You can view the power policy from the CMM **pmpolicy** command and the CMM web interface.
 - For more information about the CMM **pmpolicy** command, see the .
 - From the CMM web interface, select **Power Modules and Management** from the Chassis Management menu. For more information, see the . All fields and options are described in the CMM web interface online help.
5. Make sure that the Flex System Manager management node has completed the discovery of the compute node. Log in to the Flex System Manager user interface and verify that the compute node appears in the chassis view from the CMM.
6. Replace the upper or lower system-board assembly that does not power on (see “Removing a system-board assembly” on page 543 and “Installing a system-board assembly” on page 545).

Note: Until you are able to replace the system-board assembly, you can attempt to power on the upper or lower compute node from the CMM or from the Flex System Manager user interface.

For additional information, see [UEFI Compliant Firmware on System x® and BladeCenter® Servers](#) and the [Flex System Quick start guides](#).

Multiple nodes do not power on

Use the information in this section to troubleshoot multiple compute nodes that does not power on.

Complete the following steps until the problem is solved.

1. If you recently installed, moved, or serviced the computer nodes, reseal the compute nodes in the bays. If the compute nodes were not recently installed, moved, or serviced, perform a virtual reseal through the CMM **service** command. For more information about the CMM **service** command, see the .
2. Check the event logs for any events that are related to the compute nodes, and solve them. If a Flex System Manager management node is installed, check the event log on the management node. Otherwise, check the event log on the Chassis Management Module.

Compute node does not power off

Use the information in this section to troubleshoot a compute node that does not power off.

1. Complete the following steps until the problem is solved.
2. Attempt to power off the compute node through the Flex System Manager user interface, if an Flex System Manager management node is installed. Otherwise, attempt to power off the compute node through the CMM user interface.
3. Attempt to restart the system-management processor for the compute node. You can restart the system-management processor through the CMM user interface. Click the compute node in the chassis view and then click **Restart System Mgmt Processor**. After the system-management processor has been restarted, attempt to power off the compute node from the CMM.
4. Attempt to power off the compute node by using the power button on the front of the node.
5. Attempt to reset the compute node from the CMM command-line interface (CLI) by using the **reset** command.
6. Reseat the CMM; then, perform steps 1-5 again.

Software problems

Use this information to solve software problems.

1. To determine whether the problem is caused by the software, make sure that:
 - The compute node has the minimum memory that is needed to use the software. For memory requirements, see the information that comes with the software.

Note: If you have just installed an adapter or memory, the compute node might have a memory-address conflict.

 - The software is designed to operate on the compute node.
 - Other software works on the compute node.
 - The software works on another compute node.
2. If you receive any error messages while you use the software, see the information that comes with the software for a description of the messages and suggested solutions to the problem.
3. Contact your place of purchase of the software.

Solving undetermined problems

Use this information to solve undetermined problems.

Isolating problem to the Flex System x222 Compute Node

Notes: When you are diagnosing a problem in the compute node, you must determine whether the problem is in the Flex System x222 Compute Node or in the Flex System chassis.

- If all of the compute nodes have the same symptom, the problem is probably in the Flex System chassis. For more information, see the documentation for your Flex System chassis.
- If the Flex System chassis contains more than one compute node and only one of the compute nodes has the problem, troubleshoot the compute node that has the problem.

If DSA did not diagnose the failure or if the Flex System x222 Compute Node is inoperative, use the information in this topic.

If you suspect that a software problem is causing failures (continuous or intermittent), see “Software problems” on page 488.

Corrupted data in CMOS memory or corrupted UEFI code can cause undetermined problems. To reset the CMOS data in the upper or lower compute node, remove and replace the CMOS battery in the upper or lower compute node to override the power-on password and clear the CMOS memory; see “Removing a

CMOS battery” on page 507. If you suspect that the UEFI code is corrupted, see “Recovering a UEFI image” on page 26.

Check the LEDs on all the power supplies of the Flex System chassis in which the Flex System x222 Compute Node is installed. If the LEDs indicate that the power supplies are working correctly and reseating the Flex System x222 Compute Node does not correct the problem, complete the following steps:

1. If no LEDs on the control panel of the Flex System x222 Compute Node are working, try to turn on the upper or lower compute node from the Chassis Management Module (see the documentation for the Flex System chassis and Chassis Management Module for more information).
2. Turn off the upper and lower compute nodes.
3. Remove the Flex System x222 Compute Node from the Flex System chassis and remove the upper compute node.
4. Remove or disconnect the following devices in the upper and lower compute nodes, one at a time, until you find the failure. Reinstall, turn on, and reconfigure the upper and lower compute nodes each time.
 - I/O expansion adapter.
 - Hard disk drives.
 - DIMMs. The minimum configuration requirement is 4 GB for each compute node (one 4 GB DIMM each on the upper and lower system boards).

The following minimum configuration is required for the upper or lower compute node to start:

- System board
 - One microprocessor
 - One 4 GB DIMM
 - A functioning Flex System chassis
5. Install and turn on the Flex System x222 Compute Node. If the problem remains, suspect the following components in the following order:
 - a. DIMM
 - b. System board
 - c. Microprocessor

If the problem is solved when you remove an I/O expansion adapter from the compute node but the problem recurs when you reinstall the same adapter, suspect the I/O expansion adapter; if the problem recurs when you replace the adapter with a different one, suspect the system board.

If you suspect a networking problem and the compute node passes all the system tests, suspect a network cabling problem that is external to the system.

Any undetermined problem

Complete the following steps until the problem is solved.

1. Check the IMM event log and follow the suggested actions to resolve any event codes (see “IMM event log” on page 64).
2. Try to find the symptoms that you are experiencing in “Troubleshooting by symptom” on page 468 and follow the suggested actions to resolve any problems.
3. If the problem remains, submit a service request (see Appendix A “Getting help and technical assistance” on page 549).

Compute nodes are not discovered by the Flex System Manager management node or the CMM

Complete the following steps until the problem is solved.

1. Make sure that the compute node is recognized by the Flex System Manager management node (if installed) or the CMM. It may appear as an unknown device in the chassis map. If it is not recognized, perform the following steps.

- a. Remove the Flex System x222 Compute Node and inspect both the compute node and the back of the compute node bay to ensure there is no physical damage to connectors.
 - b. Move the Flex System x222 Compute Node to another bay.
 - c. Replace the system-board assembly that is not discoverable (see “Removing a system-board assembly” on page 543 and “Installing a system-board assembly” on page 545).
2. Make sure that the Flex System Manager management node or the CMM can ping the compute nodes, if they cannot, see “Cannot ping the Flex System Manager management node on the management network” on page 479.
 3. If the compute nodes are in another chassis, make sure that you have the proper software entitlements to manage that chassis with the Flex System Manager management node.
 4. Check <http://www.lenovo.com/support> for any firmware updates that might apply to this issue. You can view the release notes for a firmware update to determine the issues that are addressed by the update.
 5. Check <http://www.lenovo.com/support> for any service bulletins that are related to network connectivity.

Collecting service data

The Electronic Service Agent monitors, tracks, and captures system hardware errors and hardware and software inventory information, and reports serviceable problems directly to Support. You can also choose to collect data manually. This tool is integrated into the Flex System Manager Service and Support Manager. All information sent is encrypted and stored in a secure database and used for improved problem determination.

Note: Establishing a management connection to the Flex System chassis using the optional Flex System Manager management software initiates an inventory of components installed in the chassis. An inventory can also be manually initiated. The results of an inventory will not be visible until the inventory completes. If many Flex System x222 Compute Nodes are installed in the chassis, the inventory process is slowed due to the dual-node architecture of the Flex System x222 Compute Node and could take 45 minutes to complete. Additional inventories running at the same time could cause the chassis inventory to exceed 45 minutes. For more information about the optional Flex System Manager management software, see the .

For more information about the Electronic Service Agen and how to set it up, see the documentation at .

Chapter 7. Installing, removing, and replacing compute node components

Use this information to install, remove, and replace replaceable components and optional devices in the compute node.

See Chapter 5 “Parts listing, Types 7916 and 2589” on page 55 to determine whether a component is a consumable part, structural part, Tier 1 CRU, or Tier 2 CRU.

For information about the terms of the warranty and getting service and assistance, see the *Warranty Information* document.

Installing an optional device

Some compute node components are available as both an optional device and a replaceable component. The installation procedure is the same for the optional device and the replaceable component.

Installation guidelines

Before you remove or replace a replaceable component or install an optional device, read the following information:

- Before you begin, read “Safety” on page iii and “Handling static-sensitive devices” on page 492. This information will help you work safely.
- When you install your new compute node, take the opportunity to download and apply the most recent firmware updates. This step will help to ensure that any known issues are addressed and that your compute node is ready to function at maximum levels of performance. To download the latest firmware and device drivers, go to <http://www.ibm.com/support/fixcentral> and select **Flex System x222 Compute Node**.
- Observe good housekeeping in the area where you are working. Place removed covers and other parts in a safe place.
- Back up all important data before you make changes to hard disk drives.
- Before you remove a Flex System x222 Compute Node from the Flex System chassis, you must shut down the operating systems and turn off both compute nodes. You do not have to shut down the chassis itself.
- Blue on a component indicates touch points, where you can grip the component to remove it from or install it in the compute node, open or close a latch, and so on.
- For a list of supported optional devices for the compute node, see <http://www.lenovo.com/serverproven/>.

System reliability guidelines

Use these guidelines to ensure that the compute node meets the cooling and system reliability requirements:

- The Flex System chassis is not operated without a compute node or node bay filler in each node bay. See for additional information.
- Each microprocessor socket always contains a socket cover and heat-sink filler or a microprocessor and heat sink. If the upper or lower compute node has only one microprocessor, it must be installed in microprocessor socket 1.
- The air baffles are installed over the DIMM connectors.

- The ventilation holes on the compute node are not blocked.

Handling static-sensitive devices

To reduce the possibility of damage from electrostatic discharge, observe these precautions.

Attention: Static electricity can damage the compute node and other electronic devices. To avoid damage, keep static-sensitive devices in their static-protective packages until you are ready to install them.

- When you work on a Flex System chassis that has an electrostatic discharge (ESD) connector, use a wrist strap, especially when you handle modules, optional devices, or compute nodes. To work correctly, the wrist strap must have a good contact at both ends (touching your skin at one end and firmly connected to the ESD connector on the front or back of the Flex System chassis).
- Limit your movement. Movement can cause static electricity to build up around you.
- Handle the device carefully, holding it by its edges or its frame.
- Do not touch solder joints, pins, or exposed circuitry.
- Do not leave the device where others can handle and damage it.
- While the device is still in its static-protective package, touch it to an *unpainted* metal part of the Flex System chassis or any *unpainted* metal surface on any other grounded rack component in the rack in which you are installing the device for at least 2 seconds. This drains static electricity from the package and from your body.
- Remove the device from its package and install it directly into the compute node without setting down the device. If it is necessary to set down the device, put it back into its static-protective package. Do not place the device on the compute node cover or on a metal surface.
- Take additional care when you handle devices during cold weather. Heating reduces indoor humidity and increases static electricity.

Returning a device or component

If you are instructed to return a device or component, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Updating a compute node configuration

Use this information to update a compute node configuration.

Note: The upper and lower compute nodes in the Flex System x222 Compute Node are configured and operated independently.

When a compute node starts for the first time after you add or remove an internal device, you might receive a message that the configuration has changed. The Setup utility automatically starts so that you can save the new configuration settings. See “Using the Setup utility” on page 28 for more information about the Setup utility.

Some devices have device drivers that you must install. See the documentation that comes with each device for information about installing device drivers.

The upper and lower compute nodes operate as symmetric multiprocessing (SMP) compute nodes, regardless of how many microprocessors are installed. For optimum performance, you must upgrade the operating system to support SMP. See Chapter 3 “Installing the operating system” on page 43 and your operating-system documentation for additional information.

Removing a compute node from a chassis

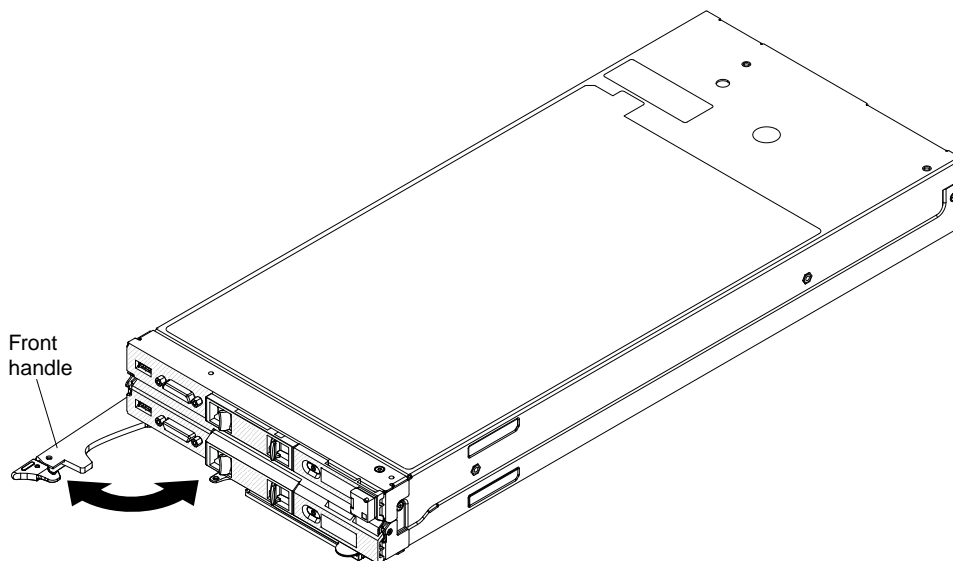
Use this information to remove an Flex System x222 Compute Node from a Flex System chassis.

Before you remove an Flex System x222 Compute Node, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If either the upper or lower compute node is operating, shut down its operating system.
3. Press the power buttons to turn off the upper and lower compute nodes (see “Turning off a compute node” on page 17 for more information).

To remove the Flex System x222 Compute Node from a chassis, complete the following steps:

- Step 1. Open the front handle as shown in the illustration. The Flex System x222 Compute Node moves out of the node bay approximately 0.6 cm (0.25 inch).



Attention:

- To maintain proper system cooling, do not operate the Flex System chassis without a compute node or node bay filler installed in each node bay.
- When you remove the compute node, note the node bay number. Reinstalling a compute node into a different node bay from the one it was removed from can have unintended consequences. Some configuration information and update options are established according to node bay number. If you reinstall the compute node into a different node bay, you might have to reconfigure the compute node.

Step 2. Pull the Flex System x222 Compute Node out of the node bay.

Step 3. Install either a node bay filler or another compute node in the node bay.

If you are instructed to return the Flex System x222 Compute Node, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing a compute node in a chassis

Use this information to install a Flex System x222 Compute Node in a Flex System chassis.

Before you install the Flex System x222 Compute Node in a chassis, read “Safety” on page iii and “Installation guidelines” on page 491.

Statement 21



CAUTION:

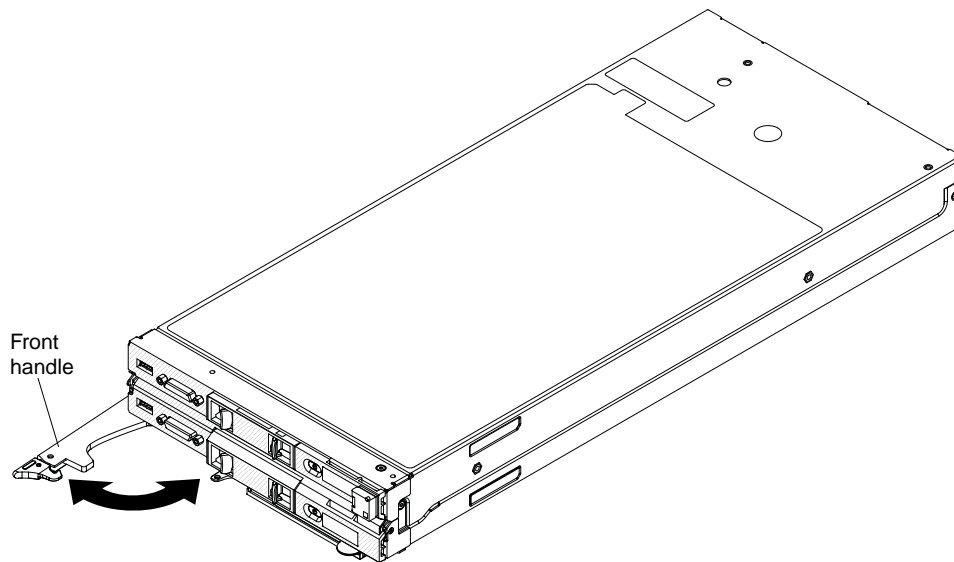
Hazardous energy is present when the compute node is connected to the power source. Always replace the compute node cover before installing the compute node.

Notes:

- The upper compute node acts as the cover for the Flex System x222 Compute Node. You can not install the Flex System x222 Compute Node in a chassis unless the upper compute node is installed.
- Although the upper and lower compute nodes are configured and operated independently, they must be installed together as a complete Flex System x222 Compute Node unit.

If you are using Flex System Manager management software to manage an operating system, you must have either an integrated Ethernet controller or a network interface adapter for management network communication. For a list of supported optional devices for the Flex System x222 Compute Node, see <http://www.lenovo.com/serverproven/>.

To install the Flex System x222 Compute Node in a chassis, complete the following steps.



Step 1. Select the node bay.

Notes:

1. If you are reinstalling a Flex System x222 Compute Node that you removed, you must install it in the same node bay from which you removed it. Some compute node configuration information and update options are established according to node bay number. Reinstalling a Flex System x222 Compute Node into a different node bay can have unintended consequences. If you reinstall the Flex System x222 Compute Node into a different node bay, you might have to reconfigure the upper and lower compute nodes.

2. To maintain proper system cooling, do not operate the Flex System chassis without a compute node, or node bay filler in each node bay.

Step 2. Make sure that the front handle on the Flex System x222 Compute Node is in the open position.

Step 3. Slide the Flex System x222 Compute Node into the node bay until it stops.

Step 4. Push the front handle on the front of the Flex System x222 Compute Node to the closed position.

Note: After the Flex System x222 Compute Node is installed, the IMM2s in the upper and lower compute nodes initialize and synchronize with the Chassis Management Module. This process takes approximately 90 seconds to complete. The power LED on each compute node flashes rapidly while the compute node is initializing, and the power button on each compute node does not respond until this process is complete. After initialization, the power LED on each compute node flashes slowly (approximately once per second). Once the power LED is flashing slowly, you can press the power button to turn on the compute node.

Step 5. Turn on the upper and lower compute nodes (see “Turning on a compute node” on page 16 for instructions).

Step 6. Make sure that the power LED on each compute node control panel is lit continuously, indicating that the compute node is receiving power and is turned on.

Step 7. If you have other compute nodes to install, do so now.

Step 8. You can place identifying information on the label tabs that are accessible from the front of the compute node.

If this is the initial installation of the Flex System x222 Compute Node in the chassis, you must configure the upper and lower compute nodes through the Setup utility and install the compute node operating systems. See for details.

If you have changed the configuration of the upper or lower compute node or if you are installing a different Flex System x222 Compute Node from the one that you removed, you must configure the upper and lower compute nodes through the Setup utility, and you might have to install the compute node operating systems (see “Using the Setup utility” on page 28). The upper and lower compute nodes are configured independently.

Removing and replacing consumable and structural parts

Use this information to remove and replace consumable and structural parts.

Replacement of the consumable and structural parts that are described in this section is your responsibility. If Lenovo installs a consumable and structural part at your request, you will be charged for the installation.

Removing the upper compute node

Use this information to separate the upper and lower compute nodes of the Flex System x222 Compute Node.

Before you remove the upper compute node, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.
4. Remove any USB devices or console breakout cables that are connected to the upper or lower compute nodes.

Attention: Make sure that all devices plugged in to the front of the Flex System x222 Compute Node have been removed before opening the upper compute node.

Statement 12



CAUTION:
The following label indicates a hot surface nearby.



Statement 21



CAUTION:
Hazardous energy is present when the compute node is connected to the power source. Always replace the compute node cover before installing the compute node.

Notes:

- The upper compute node acts as the cover for the Flex System x222 Compute Node. You can not install the Flex System x222 Compute Node in a chassis unless the upper compute node is installed.
- Although the upper and lower compute nodes are configured and operated independently, they must be installed together as a complete Flex System x222 Compute Node unit.

To remove the upper compute node, complete the following steps:

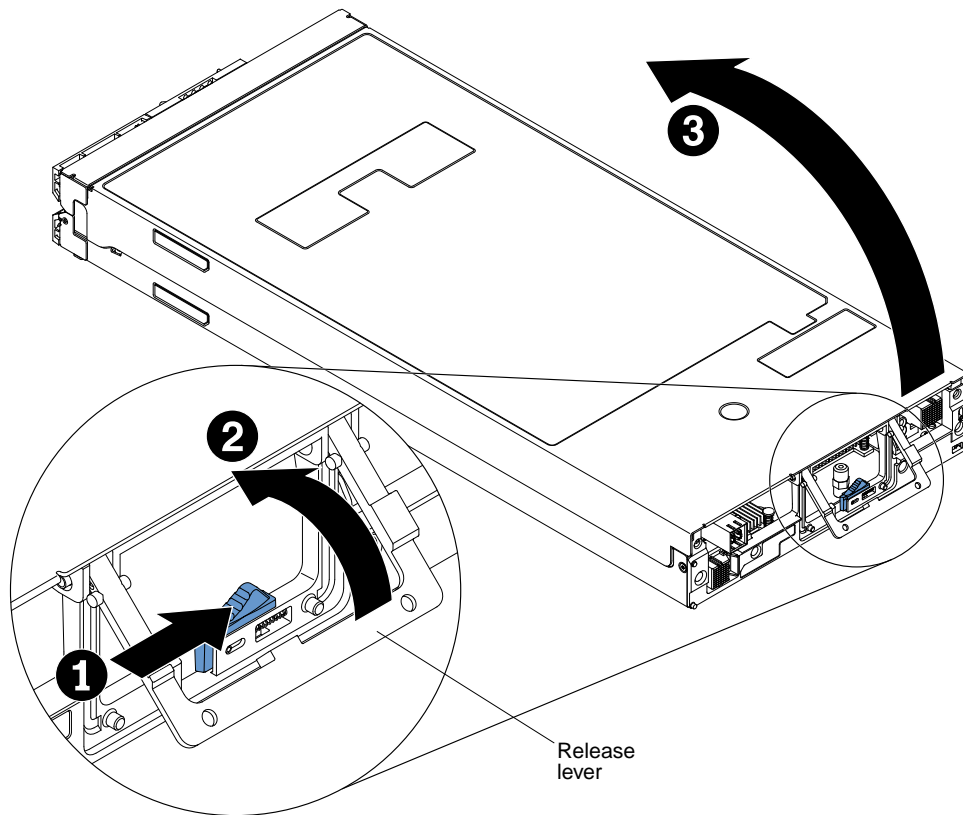
- Step 1. Locate the release lever at the rear of the compute node.
- Step 2. Slide the release latch and rotate the release lever to open it.

Attention: Make sure that all devices connected to the front of the Flex System x222 Compute Node are removed before opening the upper compute node.

- Step 3. Lift up on the rear edge of the upper compute node and rotate it open until it is nearly vertical (open between 70-degrees and 80-degrees).

Attention: Rotating the upper compute node open past 90-degrees can cause it to slip from the pins on the lower compute node.

- Step 4. Lift the upper compute node away from the lower compute node.



Step 5. Lay the upper compute node flat.

Installing the upper compute node

Use this information to install the upper compute node on the lower compute node.

Before you install the upper compute node, read “Safety” on page iii and “Installation guidelines” on page 491.

Attention: You cannot insert the Flex System x222 Compute Node into the Flex System chassis until the upper compute node is installed and closed. Do not attempt to override this protection.

Statement 21



CAUTION:

Hazardous energy is present when the compute node is connected to the power source. Always replace the compute node cover before installing the compute node.

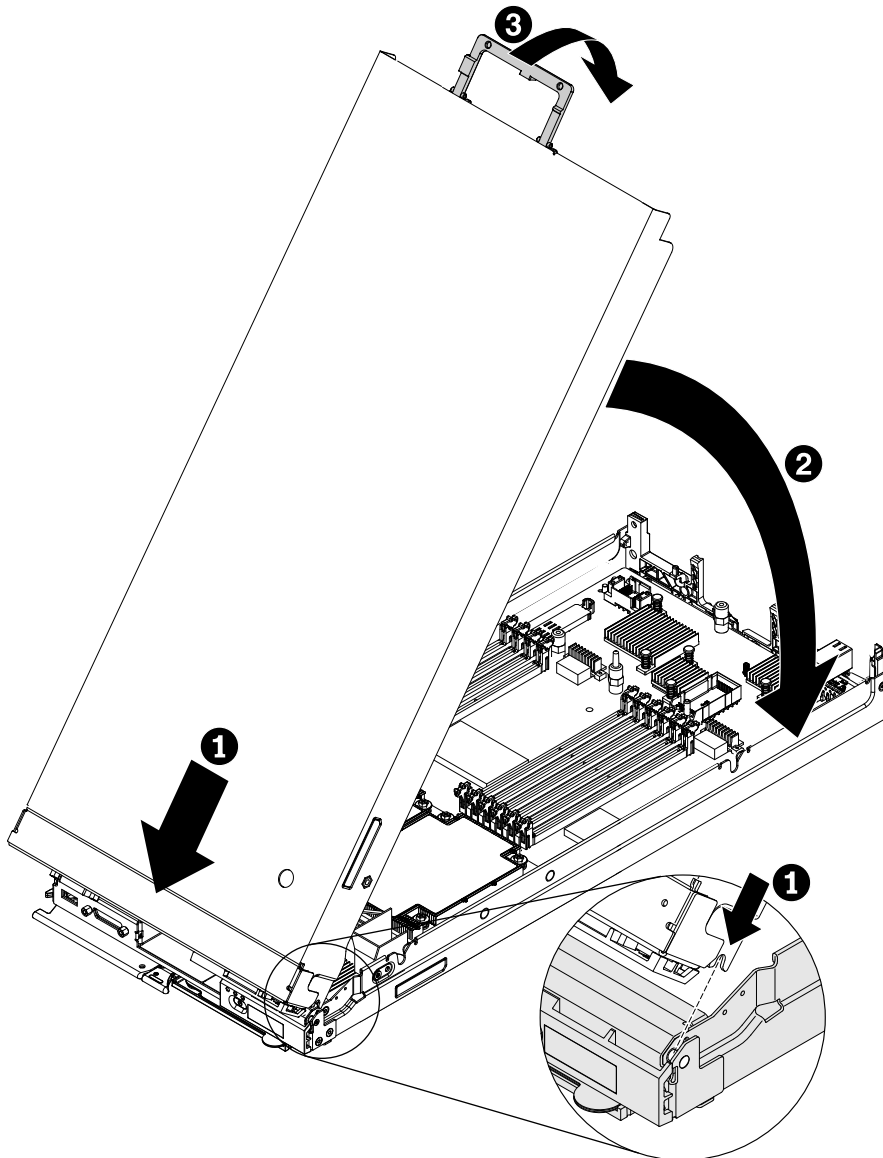
Notes:

- The upper compute node acts as the cover for the Flex System x222 Compute Node. You can not install the Flex System x222 Compute Node in a chassis unless the upper compute node is installed.
- Although the upper and lower compute nodes are configured and operated independently, they must be installed together as a complete Flex System x222 Compute Node unit.

To install the upper compute node, complete the following steps:

- Step 1. Carefully lay the lower compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward you.
- Step 2. Orient the upper compute node so that it is nearly vertical (between 70-degrees and 80-degrees from horizontal) with the slots on the front edge of the upper compute node slid onto the pins on the lower compute node.

Note: Before you close the upper compute node, make sure that the air baffles and all components are installed and seated correctly and that you have not left loose tools or parts inside the compute node.



- Step 3. Rotate the rear of the upper compute node down. When it stops, press on the indicated location to fully seat the connectors.
- Step 4. Rotate the release lever on the rear of the compute node closed until it clicks..

After you install the upper compute node, install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).

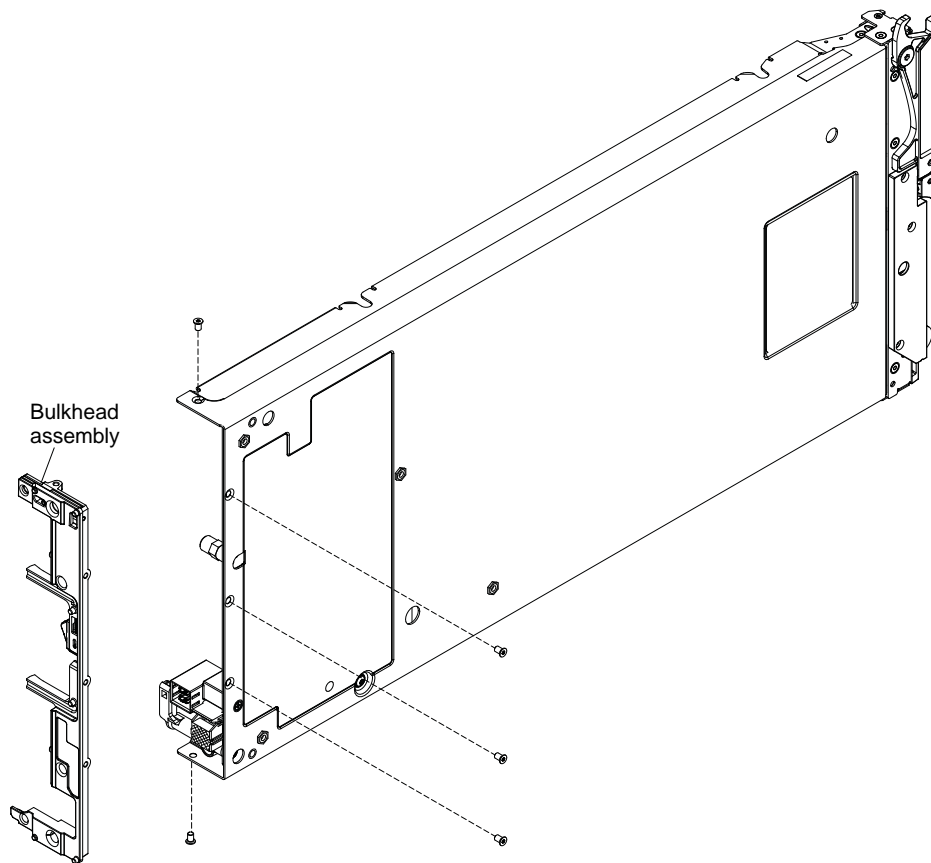
Removing the chassis bulkhead

Use this information to remove the chassis bulkhead. The chassis bulkhead is installed on the lower compute node of the Flex System x222 Compute Node.

Before you remove the chassis bulkhead, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

To remove the chassis bulkhead, complete the following steps.



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Remove the I/O expansion adapter, if one is installed in the lower compute node (see “Removing an I/O expansion adapter” on page 526).
- Step 3. Remove the fabric connector from the lower compute node (see “Removing the fabric connector” on page 514).
- Step 4. Carefully place the lower compute node on its side with the front handle side up.
- Step 5. Using a T8 Torx screwdriver, remove the screws that secure the bulkhead from the bottom of the lower compute node.
- Step 6. Carefully return the chassis to the bottom-side-down orientation.
- Step 7. Using a T8 Torx screwdriver, remove the screws that secure the bulkhead from the sides of the lower compute node.

Step 8. Lift the chassis bulkhead from the lower compute node.

If you are instructed to return the chassis bulkhead, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

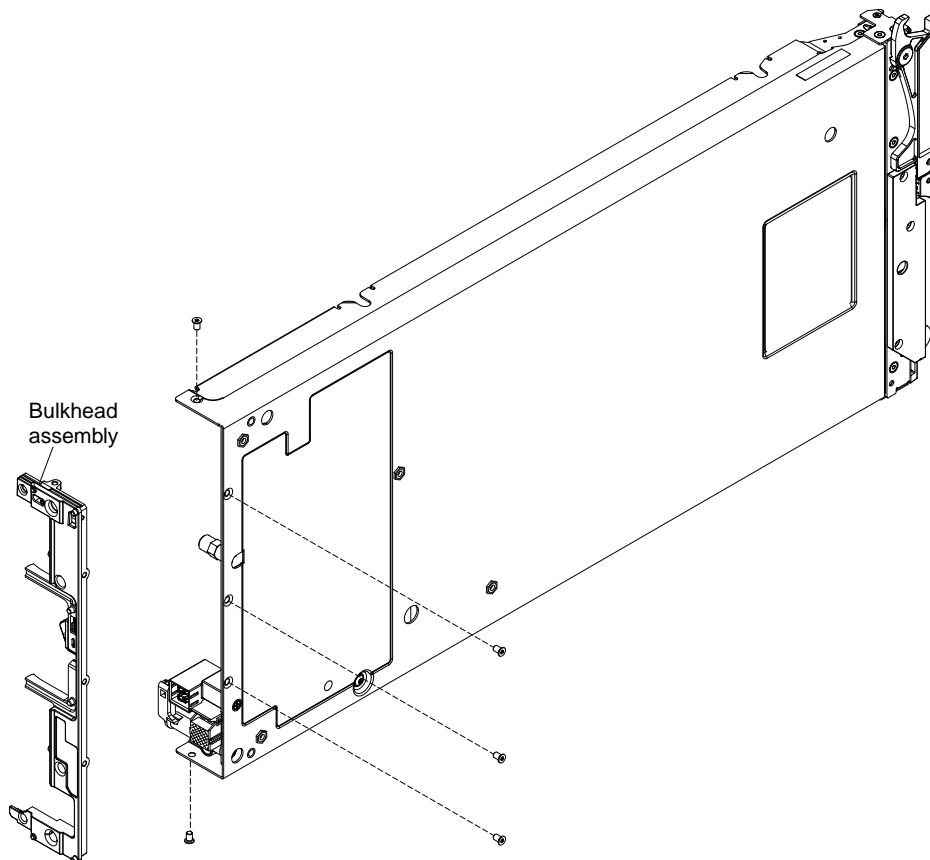
Installing the chassis bulkhead

Use this information to install the chassis bulkhead. The chassis bulkhead is installed on the lower compute node of the Flex System x222 Compute Node.

Before you install the chassis bulkhead, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. Carefully lay the lower compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing away from you.

To install the chassis bulkhead, complete the following steps.



- Step 1. Position the bulkhead in the lower compute node.
- Step 2. Using a T8 Torx screwdriver, install the screws that secure the bulkhead to the sides of the lower compute node.
- Step 3. Carefully place the lower compute node on its side with the front handle side up.
- Step 4. Using a T8 Torx screwdriver, install the screws that secure the bulkhead to the bottom of the lower compute node.
- Step 5. Carefully return the lower compute node to the bottom-side-down orientation.

- Step 6. Install the fabric connector in the lower compute node (see “Installing the fabric connector” on page 515).
- Step 7. Install the I/O expansion adapter in the lower compute node, if you removed one (see “Installing an I/O expansion adapter” on page 527).

After you install the chassis bulkhead, complete the following steps:

1. Install the upper compute node onto the lower compute node (see “Installing the upper compute node” on page 497 for instructions).
2. Install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).

Removing the front handle

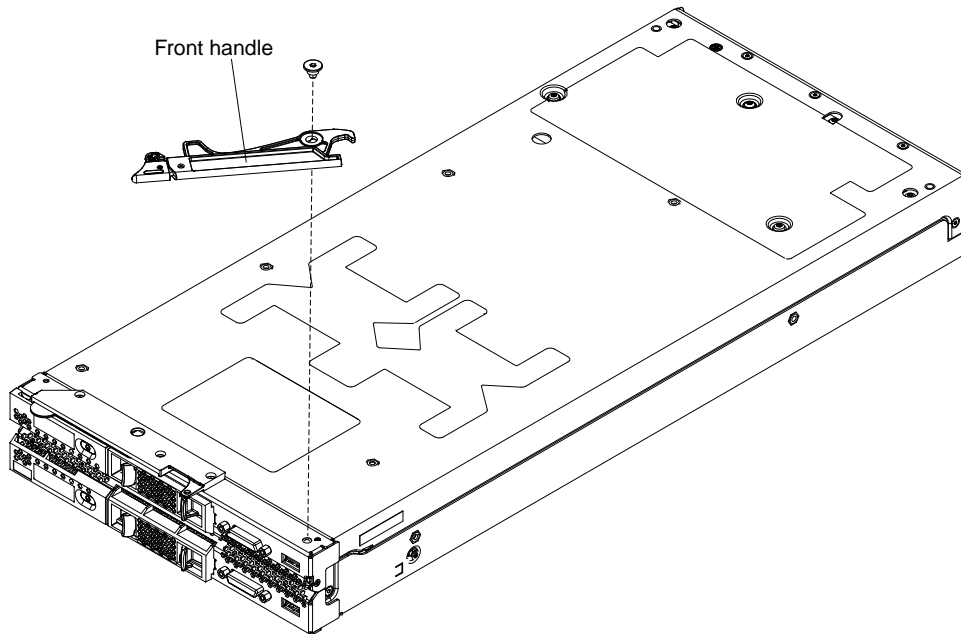
Use this information to remove the front handle from the lower compute node.

Attention: Do not install the Flex System x222 Compute Node into the chassis with the front handle removed.

Before you remove the front handle, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface with the upper compute node side down, orienting the compute node with the bezel pointing toward the left.

To remove the front handle, complete the following steps.



- Step 1. Locate the screw that attaches the handle to the lower compute node.
- Step 2. Using a T15 Torx screwdriver, remove the screw from the front handle and save the screw in a safe place. Use the same screw when you install a front handle.

If you are instructed to return the front handle, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

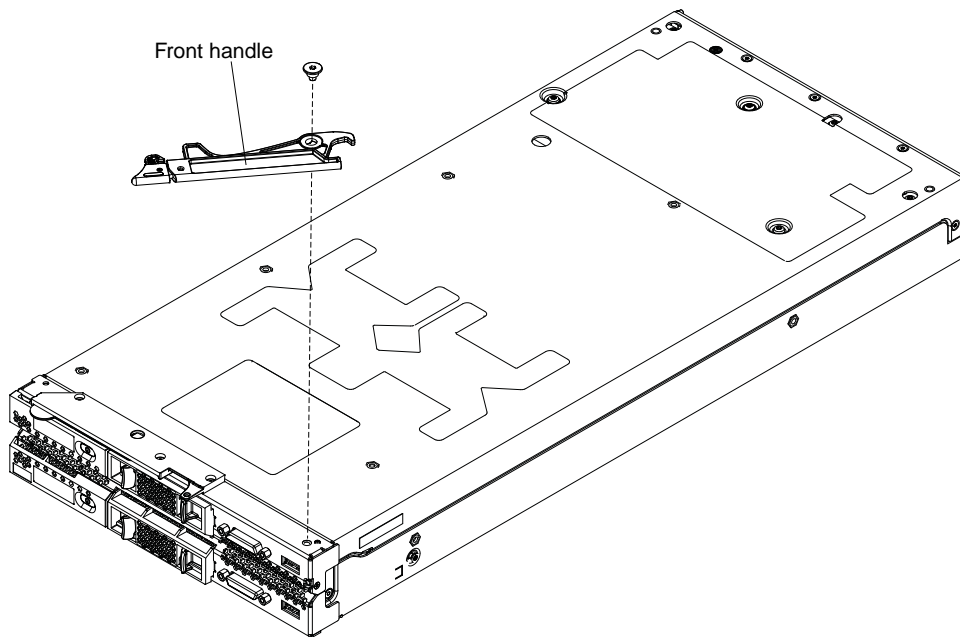
Installing the front handle

Use this information to install the front handle on the lower compute node.

Before you install the front handle, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface with the upper compute node side down, orienting the compute node with the bezel pointing toward the left.

To install the front handle, complete the following steps.



- Step 1. Orient the front handle so that the blue release latch is toward the middle of the compute node.
- Step 2. Align the hole in the handle with the hole on the lower compute node where the handle is installed.
- Step 3. Using a T15 Torx screwdriver, install the screw that secures the handle. Install the screw that you removed when you removed the handle.

After you install the front handle, install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).

Removing and replacing Tier 1 customer replaceable units (CRUs)

Use this information for removing and replacing Tier 1 CRUs.

Replacement of Tier 1 CRUs is your responsibility. If Lenovo installs a Tier 1 CRU at your request, you will be charged for the installation.

Removing an adapter-retention assembly

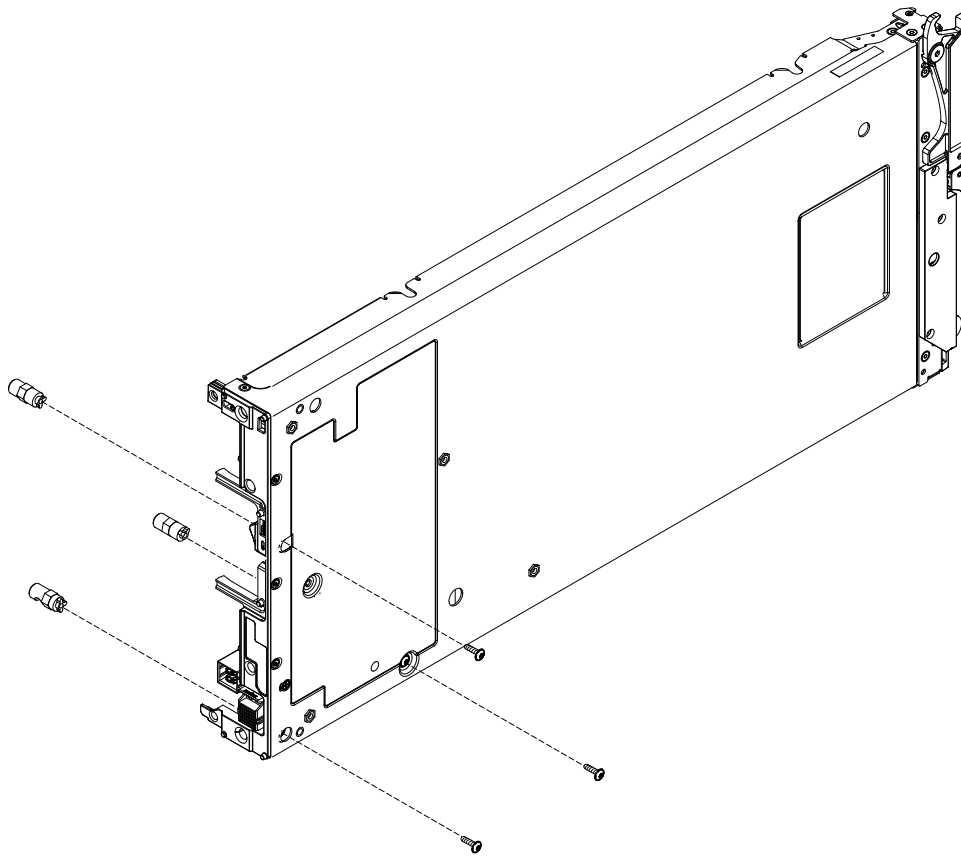
Use this information to remove an adapter-retention assembly. The adapter-retention assembly is in the lower compute node.

Before you remove an adapter-retention assembly, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

The adapter-retention assembly consists of multiple separate parts. You can replace only the parts that you choose and save the unused parts for future use.

To remove an adapter-retention assembly, complete the following steps.



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Using a T10 Torx screwdriver, remove the screws that secure each part of the adapter-retention assembly to the compute node.
- Step 3. Lift each part of the adapter-retention assembly from the lower system board.
- Step 4. Carefully return the compute node to the bottom-side-down orientation.

If you are instructed to return an adapter-retention assembly, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing an adapter-retention assembly

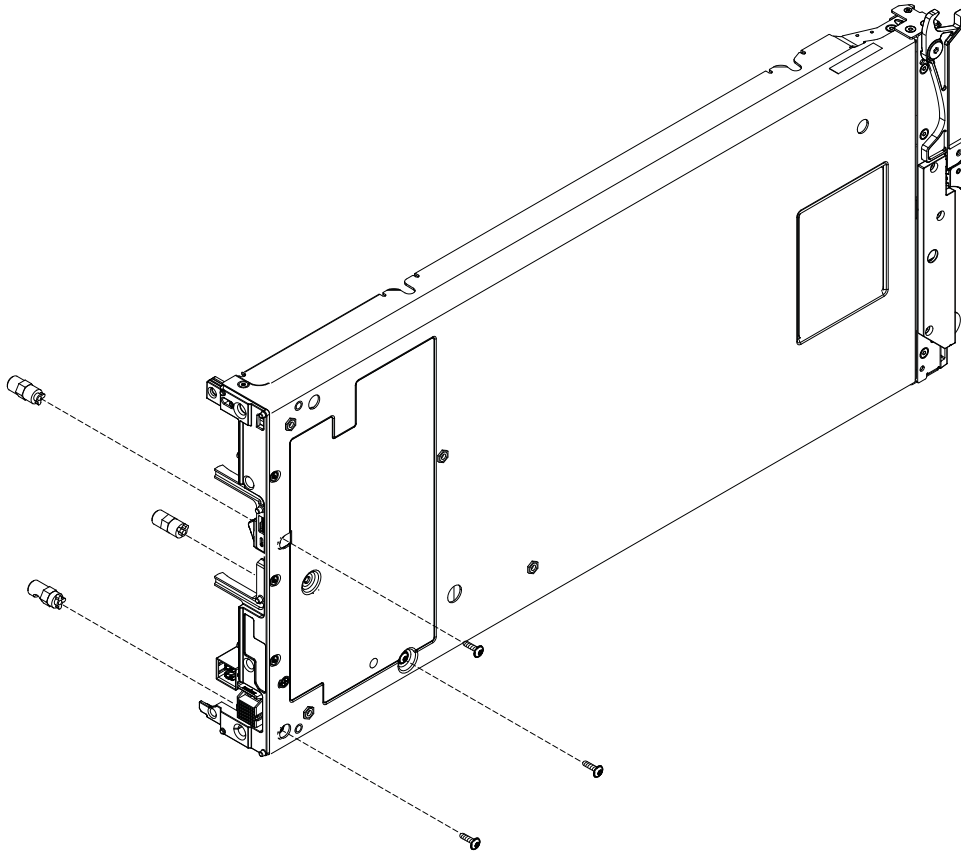
Use this information to install an adapter-retention assembly in the lower compute node.

Before you install an adapter-retention assembly, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

The adapter-retention assembly consists of multiple separate parts. You can replace only the parts that you choose and save the unused parts for future use.

To install an adapter-retention assembly, complete the following steps.



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Carefully place the lower compute node on its side with the front handle side up.
- Step 3. Align each part of the adapter-retention assembly on the lower system board.
- Step 4. Using a T10 Torx screwdriver, install the screws that secure each part of the adapter-retention assembly.
- Step 5. Carefully return the compute node to the bottom-side-down orientation.
- Step 6. Install the I/O expansion adapters, if you removed them (see “Installing an I/O expansion adapter” on page 527).

After you install an adapter-retention assembly, complete the following steps:

1. Install the upper compute node (see “Installing the upper compute node” on page 497 for instructions).
2. Install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).

Removing a bezel

Use this information to remove a bezel. There is a bezel on both the upper and lower compute nodes.

Before you remove a bezel from a compute node, complete the following steps:

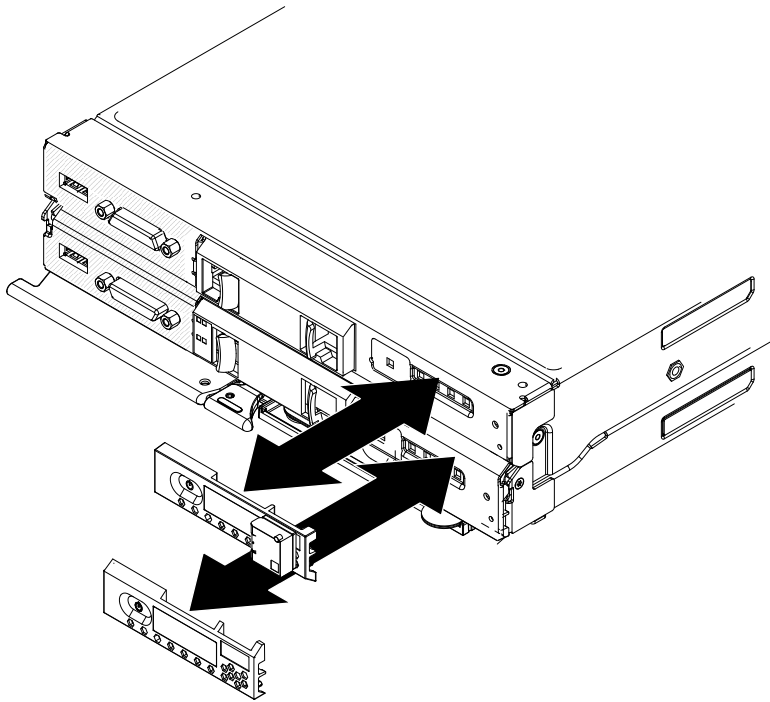
1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

The upper and lower compute nodes come with separate bezels. Bezels for the upper and lower compute nodes are not interchangeable.

If an upper compute node that you are replacing came with an RFID tag attached to the bezel, you must obtain and install a replacement RFID tag.

- To obtain an RFID tag, see Chapter 5 “Parts listing, Types 7916 and 2589” on page 55
- For installation instructions, see “Installing an RFID tag” on page 530

To remove a bezel, complete the following steps.



Step 1. Use a flat-blade screwdriver to carefully pull the bezel from the upper or lower compute node.

Step 2. Lift the bezel from the compute node.

If you are instructed to return a bezel, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you. If you are replacing a bezel, do not discard the old bezel until you are sure that it is no longer needed.

Installing a bezel

Use this information to install a bezel. There is a bezel on both the upper and lower compute nodes.

Before you install a bezel, complete the following steps:

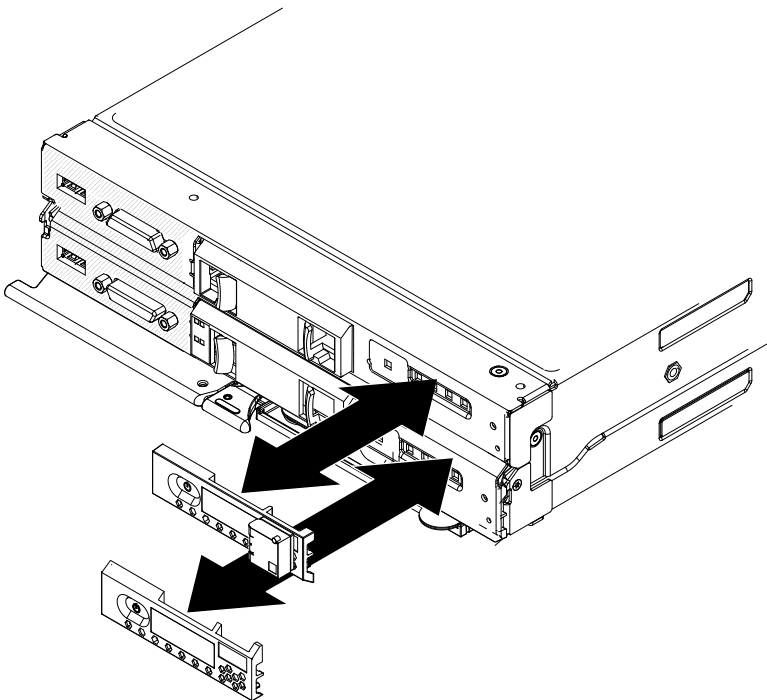
1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

The upper and lower compute nodes come with separate bezels. Bezels for the upper and lower compute nodes are not interchangeable.

If an upper compute node that you are replacing came with an RFID tag attached to the bezel, you must obtain and install a replacement RFID tag.

- To obtain an RFID tag, see Chapter 5 “Parts listing, Types 7916 and 2589” on page 55
- For installation instructions, see “Installing an RFID tag” on page 530

To install a bezel, complete the following steps.



Step 1. Position the bezel on the front of the upper or lower compute node. The upper and lower compute node bezels are not interchangeable.

Step 2. Press the bezel securely against the chassis.

Note: Make sure that the bezel is pressed flat against the chassis around the power button, to maintain access to the power button.

If the upper compute node bezel that you are replacing came with an RFID tag attached to it, install a replacement RFID tag (see “Installing an RFID tag” on page 530).

Removing a CMOS battery

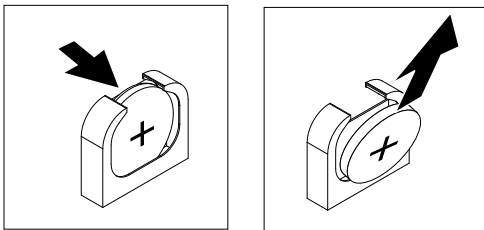
Use this information to remove a CMOS battery. The upper compute node and lower compute node each has its own CMOS battery.

Before you remove a CMOS battery, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

To remove a CMOS battery, complete the following steps:

- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the CMOS battery on the upper or lower system board (see “System-board connectors” on page 18).
- Step 3. If a cover is over the CMOS battery, remove the cover.
- Step 4. Pivot the CMOS battery toward the middle of the compute node.



- Step 5. Lift the CMOS battery from the socket.

After you remove a CMOS battery, dispose of the CMOS battery as required by local ordinances or regulations.

Installing a CMOS battery

Use this information to install a CMOS battery. The upper compute node and lower compute node each has its own battery.

Before you install a CMOS battery, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

The following notes describe information that you must consider when you are replacing a CMOS battery in a compute node:

- You must replace the CMOS battery with a lithium CMOS battery of the same type.
- To order replacement batteries, call 1-800-426-7378 within the United States, and 1-800-465-7999 or 1-800-465-6666 within Canada. Outside the U.S. and Canada, call your sales representative or reseller.
- After you replace a CMOS battery, you must reconfigure the compute node where it is installed and reset the system date and time.

- To avoid possible danger, read and follow the following safety statement.

Statement 2



CAUTION:

When replacing the lithium battery, use only Part Number 33F8354 or an equivalent type battery recommended by the manufacturer. If your system has a module containing a lithium battery, replace it only with the same module type made by the same manufacturer. The battery contains lithium and can explode if not properly used, handled, or disposed of. *Do not:*

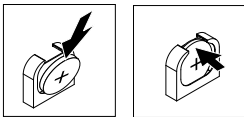
- Throw or immerse into water
- Heat to more than 100° C (212° F)
- Repair or disassemble

Dispose of the battery as required by local ordinances or regulations.

Attention: Touching the CMOS battery on a metal surface, such as the side of the compute node, when you replace the CMOS battery can cause it to fail.

To install a CMOS battery, complete the following steps:

- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Follow any special handling and installation instructions that come with the CMOS battery.
- Step 3. Locate the CMOS battery socket on the upper or lower system board (see “System-board connectors” on page 18).
- Step 4. Orient the CMOS battery so that the positive (+) side faces in toward the center of the compute node.



- Step 5. Pivot the CMOS battery so that you can insert it into the bottom of the socket.
- Step 6. As you slide the CMOS battery into place, press the top of the CMOS battery into the socket.
- Step 7. If you removed a cover from the battery, replace the cover.

After you install a CMOS battery, complete the following steps:

1. Install the upper compute node (see “Installing the upper compute node” on page 497 for instructions).
2. Install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).
3. Turn on the upper or lower compute node where you replaced the CMOS battery, start the Setup utility, and reset the configuration (see “Using the Setup utility” on page 28 for instructions).

Removing a DIMM

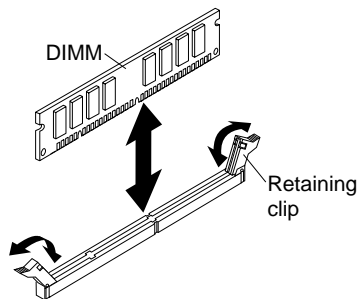
Use this information to remove a dual inline memory module (DIMM). The upper and lower compute nodes each have their own dedicated DIMMs.

Before you remove a DIMM, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

After you install or remove a DIMM in the upper or lower compute node, you must change and save the new configuration information for that compute node by using the Setup utility. When you turn on the compute node where DIMMs have been installed or removed, a message indicates that the memory configuration has changed. Start the Setup utility and select **Save Settings** (see “Using the Setup utility” on page 28 for more information) to save changes.

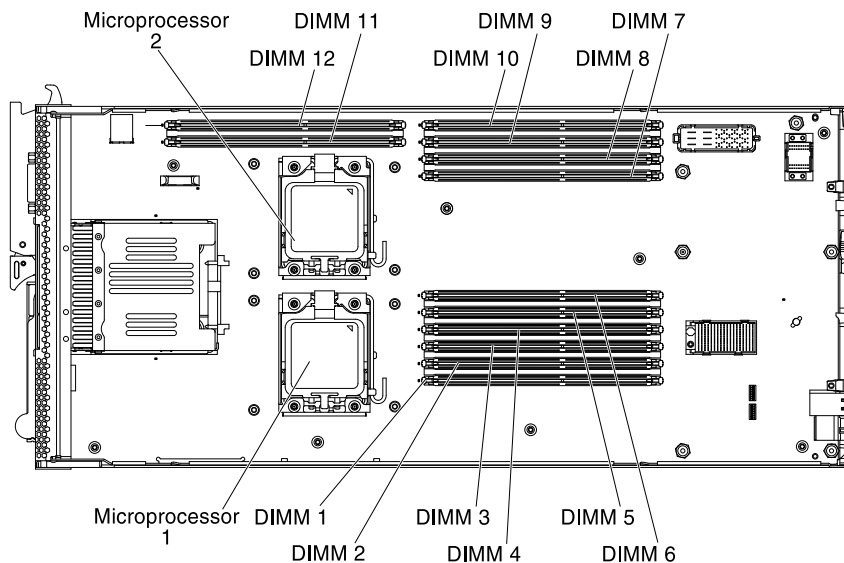
To remove a DIMM, complete the following steps.



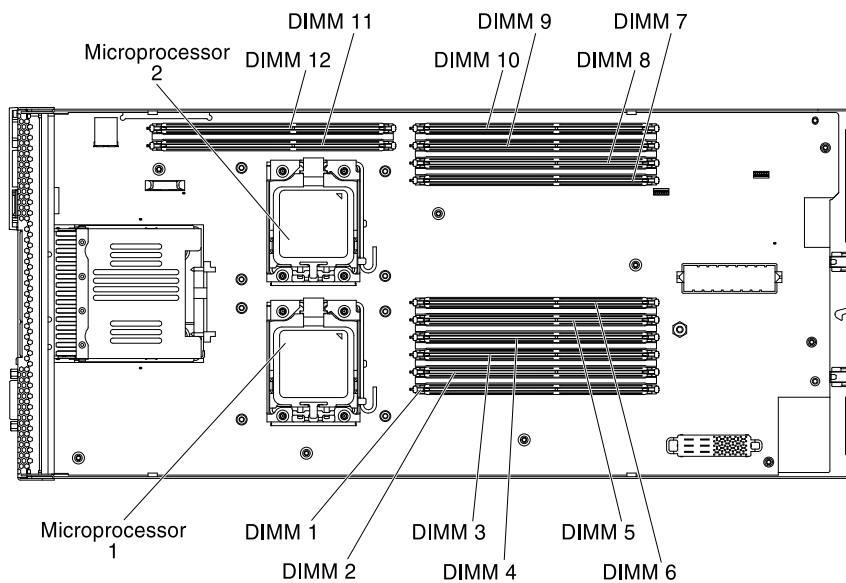
- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the DIMM connectors (see “System-board connectors” on page 18). Determine which DIMM you want to remove from the compute node.

Attention: To avoid breaking the retaining clips or damaging the DIMM connectors, handle the clips gently.

The following illustration shows the DIMM connectors, in the lower compute node.



The following illustration shows the DIMM connectors, in the upper compute node.



- Step 3. Make sure that both retaining clips on the DIMM connector from which you are removing the DIMM are in the open position.
- Step 4. Pull the DIMM out of the connector.

Attention: To maintain proper system cooling, do not operate the compute node without DIMMs or DIMM fillers installed in the DIMM connectors.

If you are instructed to return the DIMM, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing a DIMM

Use this information to install a DIMM. The upper and lower compute nodes each have their own dedicated DIMMs.

Before you install a DIMM, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. Read the documentation that comes with the DIMMs.
3. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
4. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

This component can be installed as an optional device or as a CRU. The installation procedure is the same for the optional device and the CRU.

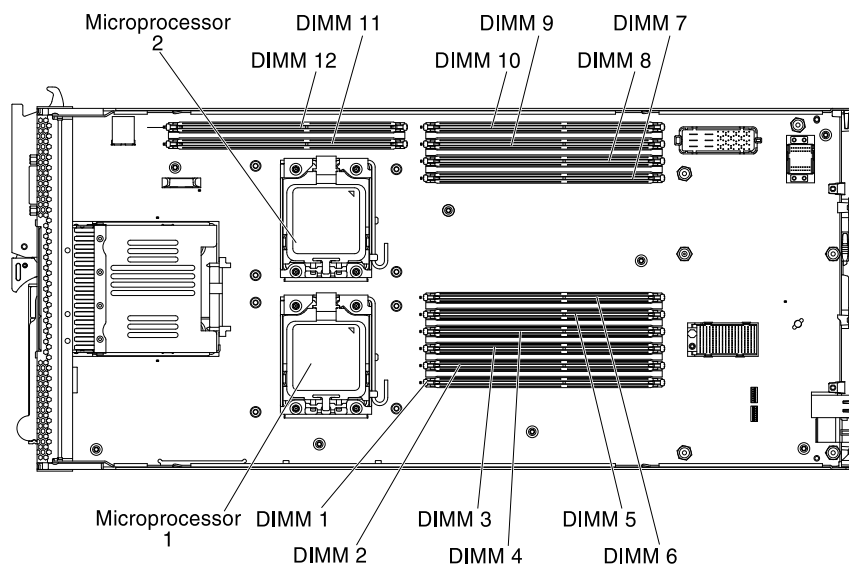
After you install or remove a DIMM in the upper or lower compute node, you must change and save the new configuration information for that compute node by using the Setup utility. When you turn on the compute node where DIMMs have been installed or removed, a message indicates that the memory configuration has changed. Start the Setup utility and select **Save Settings** (see “Using the Setup utility” on page 28 for more information) to save changes.

If you are installing a DIMM as a result of a DIMM failure, you might have to reenble the DIMM. To re-enable the DIMM, complete the following steps:

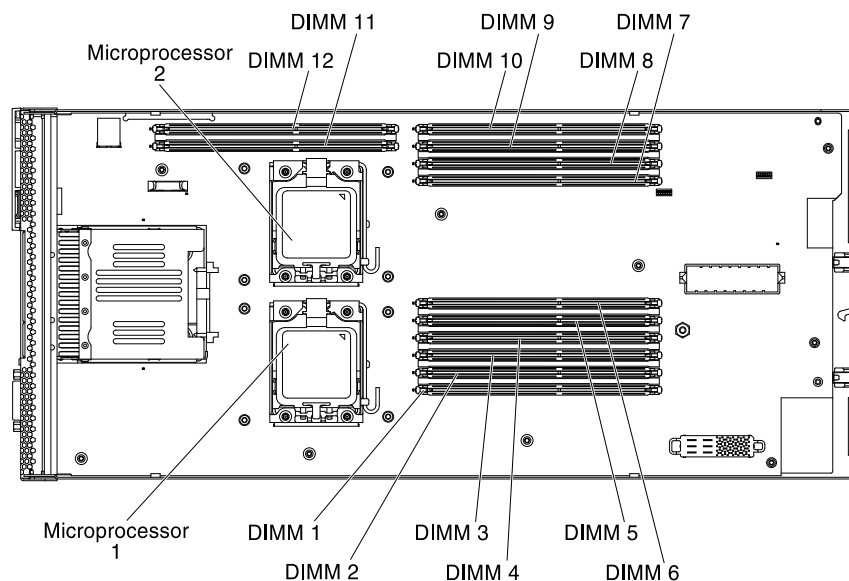
1. Verify that the amount of installed memory is the expected amount of memory through the operating system in the upper or lower compute node where you installed the DIMM, by watching the monitor as the compute node starts, by using the CMM `sol` command, or through Flex System Manager management software (if installed).
 - For more information about the CMM `sol` command, see the .
 - For more information about Flex System Manager management software, see the .
2. Run the Setup utility in the upper or lower compute node where you installed the DIMM to reenble the DIMMs (see “Using the Setup utility” on page 28 for more information).

The upper and lower compute nodes each have a total of 12 dual inline memory module (DIMM) connectors. The compute node supports low-profile (LP) DDR3 DIMMs with error-correcting code (ECC) in 4 GB, 8 GB, 16 GB, and 32 GB capacities.

The following illustration shows the DIMM connectors, in the lower compute node.



The following illustration shows the DIMM connectors, in the upper compute node.



The memory is accessed internally through six channels, with three channels for each microprocessor. Each channel contains two DIMM connectors. Each channel can have one, two, or four ranks. The following tables list each channel for the upper and lower system boards and show which DIMM connectors are in the channel. Memory channel configuration for the upper and lower system boards is the same.

Table 13. Memory-channel configuration

Microprocessor	Memory channel	DIMM connectors
Microprocessor 1	Channel A	6 and 5
	Channel B	4 and 3
	Channel C	2 and 1
Microprocessor 2	Channel D	12 and 11
	Channel E	8 and 7
	Channel F	10 and 9

Depending on the memory mode that is set in the Setup utility, the compute node can support a minimum of 4 GB and a maximum of 384 GB of system memory in each compute node with one microprocessor. If two microprocessors are installed, each compute node can support a minimum of 8 GB and a maximum of 384 GB of system memory.

The following notes describe information that you must consider when you install memory:

- You cannot mix RDIMMs and LRDIMMs in the same compute node.
- A total of two ranks on each of the three memory channels is supported.

There are three memory modes. You can set the memory mode for each compute node using the Setup utility (**System Settings > Memory > Memory Mode**). See the memory settings on page for more information.

- **Independent-channel mode:** Independent-channel mode provides a maximum of 192 GB of usable memory for each compute node with one installed microprocessor, and 384 GB of usable memory for each compute node with two installed microprocessors (using optional 32 GB DIMMs).
- **Rank-sparing mode:** In rank-sparing mode, one memory DIMM rank serves as a spare of the other ranks on the same channel. The spare rank is held in reserve and is not used as active memory. The spare rank must have identical or larger memory capacity than all the other active DIMM ranks on the same channel. After an error threshold is surpassed, the contents of that rank is copied to the spare rank. The failed rank of DIMMs is taken offline, and the spare rank is put online and used as active memory in place of the failed rank. The following notes describe additional information that you must consider when you select rank-sparing memory mode:
 - Rank-sparing on one channel is independent of the sparing on all other channels.
 - You can use the Setup utility to determine the status of the DIMM ranks.
- **Mirrored-channel mode:** In mirrored-channel mode, memory is installed in pairs. Each DIMM in a pair must be identical in size and architecture. The channels are grouped in pairs with each channel receiving the same data. One channel is used as a backup of the other, which provides redundancy. In mirrored-channel mode, only channels B and C are used, with the memory contents on channel B duplicated in channel C (channel A is not used in mirrored-channel mode). When mirroring, the effective memory that is available to the system is only half of what is installed.

One DIMM for each microprocessor is the minimum requirement. However, for optimal performance, install DIMMs in sets of three so that you distribute memory equally across all channels. If two microprocessors are

installed, distribute memory across all channels and equally between the microprocessors. Install DIMMs in order as indicated in the following table for independent-channel mode and rank-sparing mode.

Table 14. DIMM population sequence for independent-channel mode and rank-sparing mode

One installed microprocessor	Two installed microprocessors
DIMM connectors 6, 4, 2, 5, 3, and 1	DIMM connectors 6, 12, 4, 8, 2, 10, 5, 11, 3, 7, 1, and 9

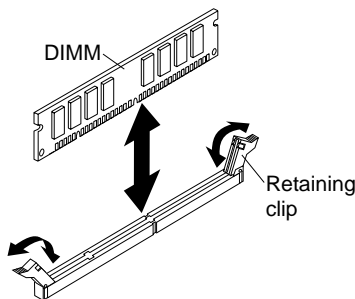
Install DIMM pairs in order as indicated in the following table for mirrored-channel mode.

Table 15. DIMM population sequence for mirrored-channel mode

DIMM pair	1 microprocessor installed	2 microprocessors installed	DIMMs per channel
1	DIMMs 4 and 2 ¹	DIMMs 4 and 2 ¹	1
2	DIMMs 3 and 1 ¹	DIMMs 8 and 10 ¹	
3	none	DIMMs 3 and 1 ¹	
4	none	DIMMs 7 and 9 ¹	
1. For mirrored-channel mode, the DIMM pair must be identical in size, type, and rank count. The two DIMMs in a channel do not need to be the same.			

To install a DIMM, complete the following steps:

- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Read the documentation that comes with the DIMM.
- Step 3. Locate the DIMM connectors (see “lower DIMM connector locations” on page and “upper DIMM connector locations” on page). Determine in which DIMM connector you want to install the DIMM.
- Step 4. Remove the DIMM filler, if one is present.
- Step 5. Touch the static-protective package that contains the DIMM to any *unpainted* metal surface on the Flex System chassis or any *unpainted* metal surface on any other grounded rack component in the rack in which you are installing the DIMM for at least 2 seconds; then, remove the DIMM from its package.



- Step 6. Make sure that both retaining clips on the DIMM connector are in the open position.
- Step 7. Turn the DIMM so that the DIMM keys align correctly with the DIMM connector on the system board.

Attention: To avoid breaking the retaining clips or damaging the DIMM connector, handle the clips gently.

- Step 8. Press the DIMM into the DIMM connector. The retaining clips lock the DIMM into the connector.

Step 9. Make sure that the small tabs on the retaining clips engage the notches on the DIMM. If there is a gap between the DIMM and the retaining clips, the DIMM has not been correctly installed. Press the DIMM firmly into the connector, and then press the retaining clips toward the DIMM until the tabs are fully seated. When the DIMM is correctly installed, the retaining clips are parallel to the sides of the DIMM.

Attention: To maintain proper system cooling, do not operate the compute node without DIMMs or DIMM fillers installed in the DIMM connectors.

After you install the DIMM, complete the following steps:

1. Install the upper compute node (see “Installing the upper compute node” on page 497 for instructions).
2. Install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).

Removing the fabric connector

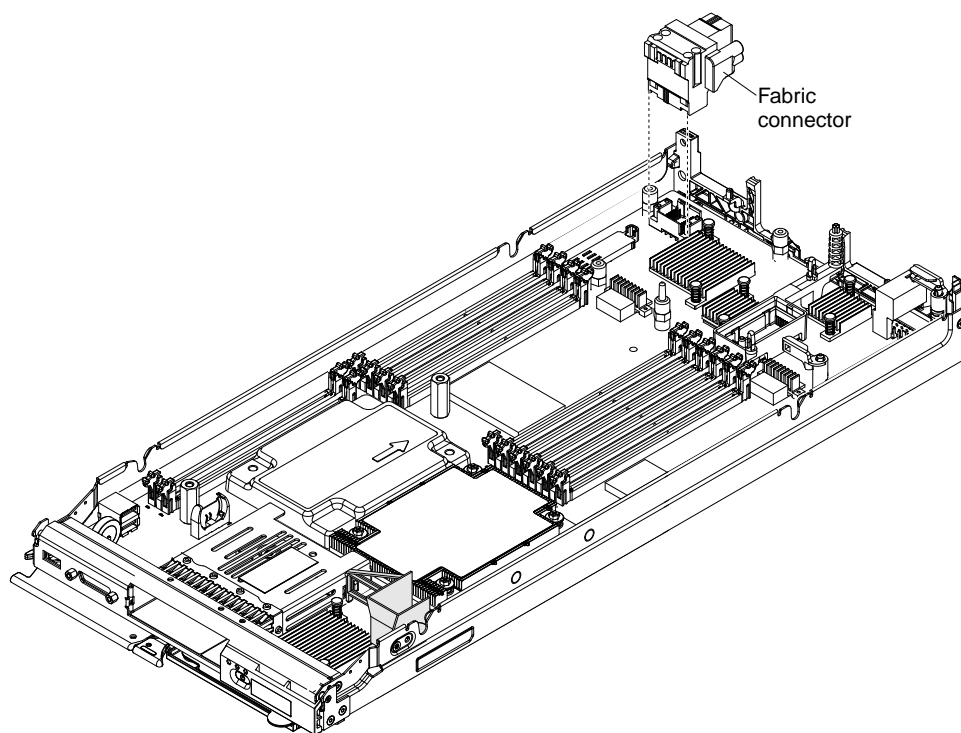
Use this information to remove the fabric connector from the lower compute node. There is no fabric connector in the upper compute node; the upper and lower compute nodes share the fabric connector in the lower compute node.

Before you remove the fabric connector from the lower compute node, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

When you remove the fabric connector, the UEFI firmware holds the Ethernet controller in reset and displays a warning message, if an I/O expansion adapter is not installed in the I/O expansion connector to provide connectivity to the chassis.

To remove the fabric connector, complete the following steps.



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the fabric connector in the lower system board (see “System-board layouts” on page 18).
- Step 3. Using a long-shank P1 Phillips screwdriver, loosen the four captive screws that secure the fabric connector.
- Step 4. Lift the fabric connector from the lower system board and store it in a safe place.

If you are instructed to return the fabric connector, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

If you have removed the fabric connector to install an I/O expansion adapter in I/O expansion connector of the lower compute node, keep the fabric connector in a safe place for future use.

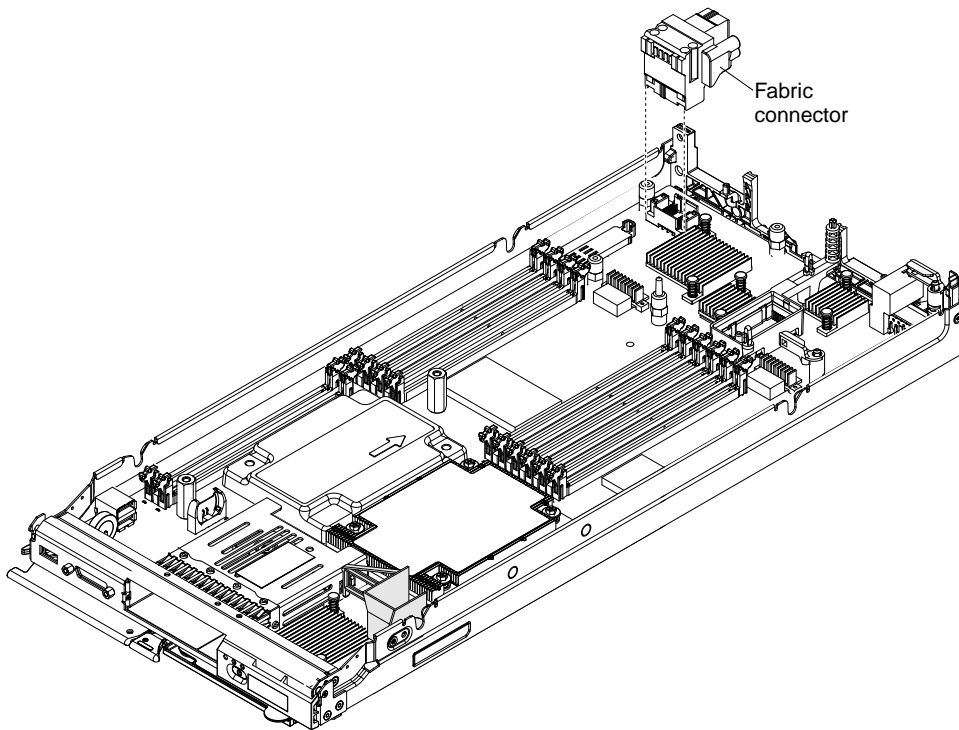
Installing the fabric connector

Use this information to install the fabric connector. There is no fabric connector in the upper compute node; the upper and lower compute nodes share the fabric connector in the lower compute node.

Before you install the fabric connector in the lower compute node, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

To install the fabric connector, complete the following steps.



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the fabric connector location in the lower compute node (see “System-board layouts” on page 18).
- Step 3. Orient the fabric connector on the lower system board.

Attention: Make sure that the fabric connector is secure, but do not overtighten the screws to avoid damaging the connector.

- Step 4. Using a long-shank P1 Phillips screwdriver, tighten the four captive screws to secure the fabric connector.

After you install the fabric connector, complete the following steps:

1. Install the upper compute node (see “Installing the upper compute node” on page 497 for instructions).
2. Install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).

Removing a simple-swap hard disk drive

Use this information to remove a simple-swap hard disk drive. The Flex System x222 Compute Node can use 2.5-inch simple-swap hard disk drives of either the standard or solid-state drive (SSD) design. Simple-swap hard disk drives can be installed in both the upper and lower compute nodes.

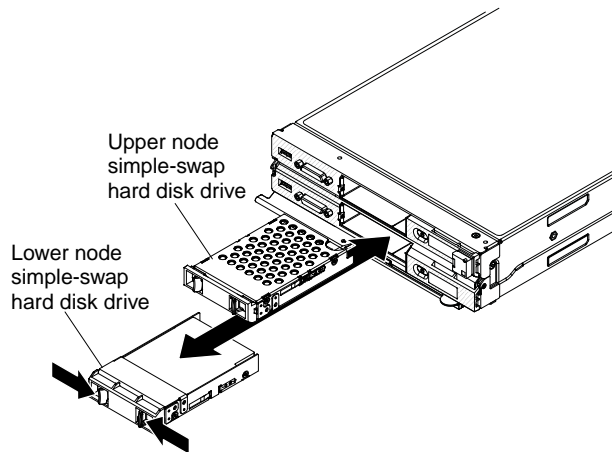
Important: Simple-swap hard disk drives are not hot-swap devices and must be removed or installed with the compute node turned off. For information about removing optional 1.8-inch hot-swap solid-state drives, see “Removing a solid state drive” on page 520.

Before you remove a simple-swap hard disk drive, complete the following steps.

1. Back up all important data before you make changes to hard disk drives.
2. Read “Safety” on page iii and “Installation guidelines” on page 491.

3. If the compute node where you are removing the simple-swap hard disk drive is operating, shut down its operating system.
4. Press the power button to turn off the compute node where you are removing the simple-swap hard disk drive (see “Turning off a compute node” on page 17 for more information).

To remove a simple-swap hard disk drive, complete the following steps.



- Step 1. Press the release latches toward the center of the hard disk drive.
- Step 2. Slide the drive away from the compute node and remove it from the bay.

If you are instructed to return a hard disk drive, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing a simple-swap hard disk drive

Use this information to install a simple-swap hard disk drive. The Flex System x222 Compute Node can use 2.5-inch simple-swap hard disk drives of either the standard or solid-state drive (SSD) design. Simple-swap hard disk drives can be installed in both the upper and lower compute nodes.

Important: Simple-swap hard disk drives are not hot-swap devices and must be removed or installed with the compute node turned off. For information about installing optional 1.8-inch hot-swap solid-state drives, see “Installing a solid state drive” on page 523.

Before you remove a simple-swap hard disk drive, complete the following steps.

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the compute node where you are installing the simple-swap hard disk drive is operating, shut down its operating system.
3. Press the power button to turn off the compute node where you are installing the simple-swap hard disk drive (see “Turning off a compute node” on page 17 for more information).

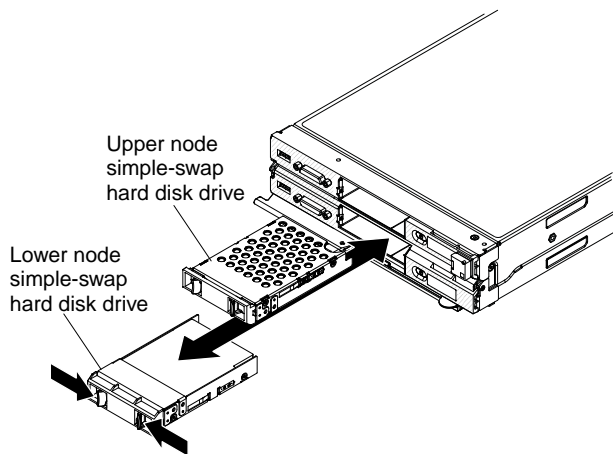
The upper and lower compute nodes each have one SATA hard disk drive bay for installing a simple-swap hard disk drive.

Notes:

- You can install multiple solid state drives (SSDs) in an upper or lower compute node if an optional solid state drive mounting sleeve is installed in the upper or lower compute node.
- Each compute node can support RAID level-0 (striping), when a single hard disk drive is installed in an upper or lower compute node, or RAID level-1 (mirroring), when two 1.8-inch solid-state drives are

installed in an upper or lower compute node. See “Configuring a RAID array” on page 39 for information about RAID configuration.

To install a simple-swap hard disk drive or hard disk drive bay filler, complete the following steps.



- Step 1. Identify the hard disk drive bay in which you plan to install the simple-swap hard disk drive.
- Step 2. If a hard disk drive bay filler is installed, remove it from the compute node by pressing the release latches toward the center of the filler and sliding the filler away from the compute node.
- Step 3. Touch the static-protective package that contains the hard disk drive to any *unpainted* metal surface on the Flex System chassis or any *unpainted* metal surface on any other grounded rack component; then, remove the hard disk drive from the package.

Note: The hard disk drives in the upper and lower compute nodes are installed in opposite orientation to each other.
- Step 4. Orient the hard disk drive so that the beveled edge of the drive bezel is toward the center of the Flex System x222 Compute Node.
- Step 5. Slide the hard disk drive into the bay until it is firmly seated in the connector. The release latches will click when the drive is fully seated.

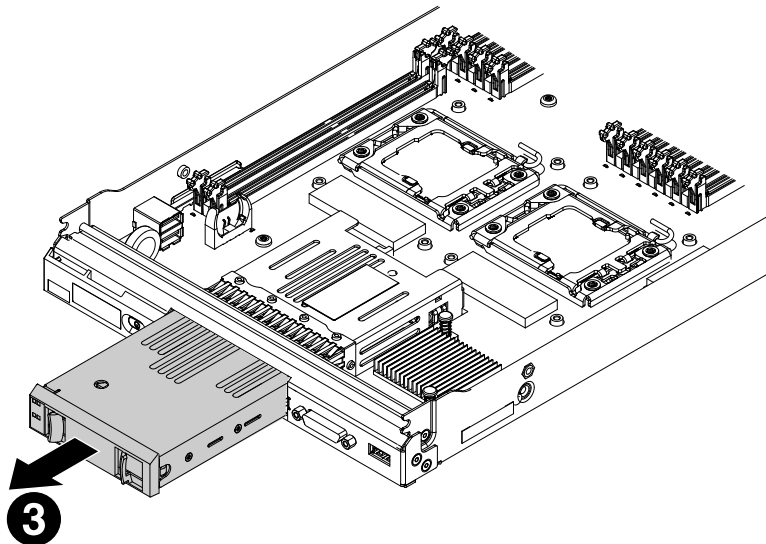
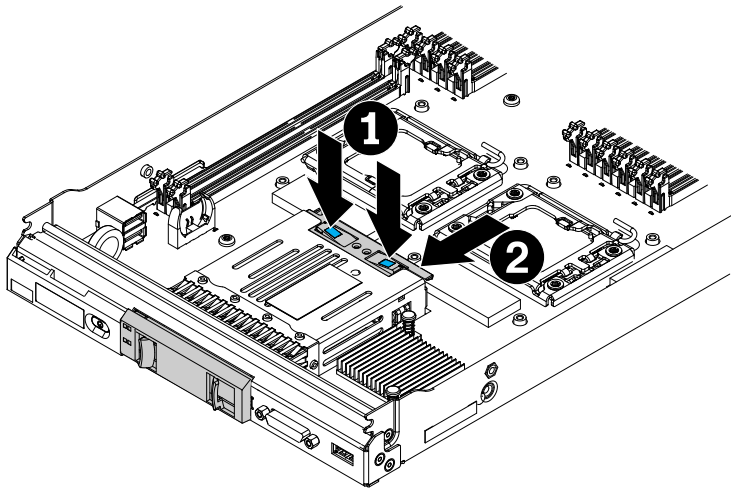
Removing a solid state drive mounting sleeve

Use this information to remove an optional solid state drive mounting sleeve. A solid state drive mounting sleeve can be installed in the upper and lower compute nodes. The solid state drive mounting sleeve is required to install optional 1.8-inch hot-swap solid-state drives (SSDs).

Before you remove a solid state drive mounting sleeve, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

To remove a solid state drive mounting sleeve, complete the following steps.



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the solid state drive mounting sleeve on the upper or lower compute node.
- Step 3. Remove any SSD disk drives (see “Removing a solid state drive” on page 520).
- Step 4. Press the release tabs at the rear of the solid state drive mounting sleeve.
- Step 5. Slide the solid state drive mounting sleeve forward, away from the compute node, and remove it from the bay.

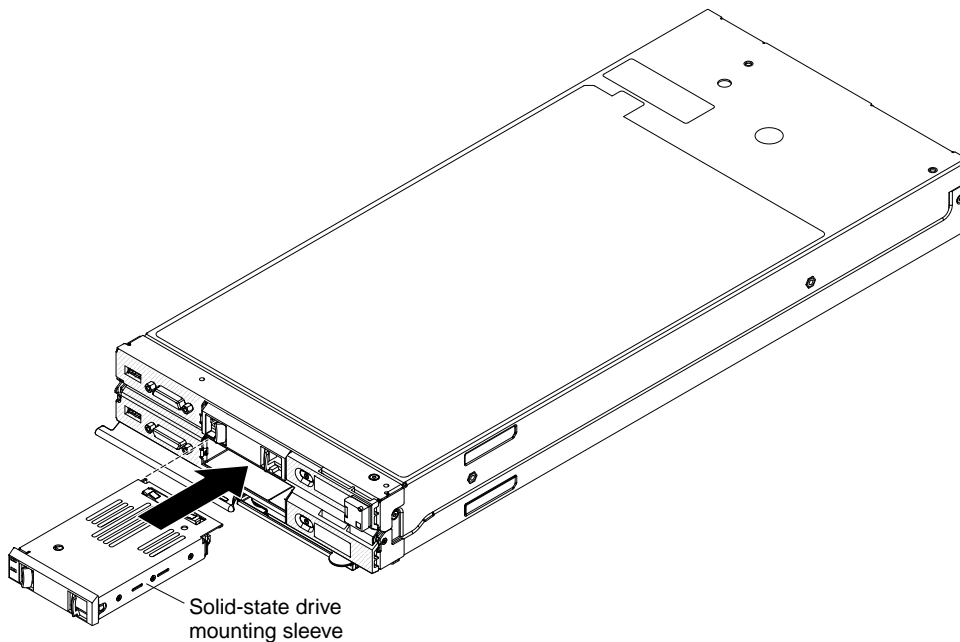
If you are instructed to return a solid state drive mounting sleeve, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing a solid state drive mounting sleeve

Use this information to install an optional solid state drive mounting sleeve. A solid state drive mounting sleeve can be installed in the upper and lower compute nodes. The solid state drive mounting sleeve is required to install optional 1.8-inch hot-swap solid-state drives (SSDs).

Before you install a hot-swap hard disk drive, read “Safety” on page iii and “Installation guidelines” on page 491.

To install a solid state drive mounting sleeve, complete the following steps.



- Step 1. Identify the hard disk drive bay in which you plan to install the solid state drive mounting sleeve.
- Step 2. If a simple-swap hard disk drive or hard disk drive bay filler is installed, remove it from the compute node by pressing the release latches toward the center of the drive or filler and sliding the drive or filler away from the compute node (see “Removing a simple-swap hard disk drive” on page 516).
- Step 3. Touch the static-protective package that contains the solid state drive mounting sleeve to any *unpainted* metal surface on the Flex System chassis or any *unpainted* metal surface on any other grounded rack component; then, remove the solid state drive mounting sleeve from the package.

Note: The solid state drive mounting sleeves in the upper and lower compute nodes are installed in opposite orientation to each other.

- Step 4. Orient the solid state drive mounting sleeve so that the connector side of the sleeve is toward the outer edge of the Flex System x222 Compute Node. The connector will be up when installing the sleeve in the upper compute node and the connector will be down when installing the sleeve in the lower compute node.
- Step 5. Slide the solid state drive mounting sleeve into the bay until it is firmly seated in the connector. The release tabs will click when the sleeve is fully seated.
- Step 6. Install any SSD disk drives (see “Installing a solid state drive” on page 523).

Removing a solid state drive

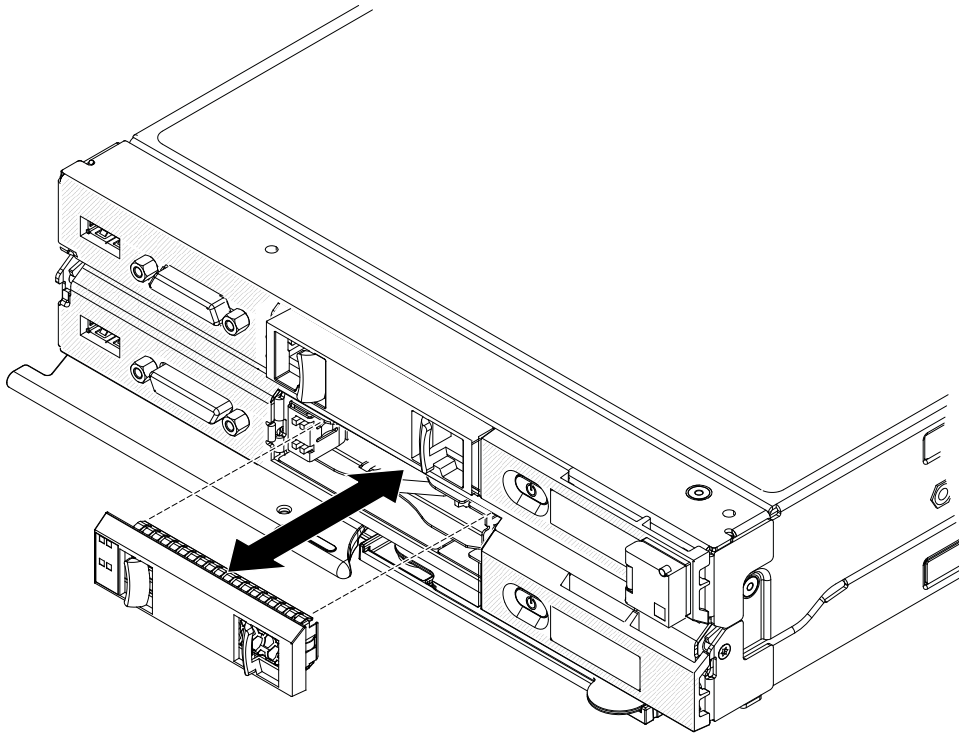
Use this information to remove a 1.8-inch hot-swap solid state drive (SSD). Solid state drives can be installed in both the upper and lower compute nodes, if an SSD enablement kit is installed.

Note: For information about removing 2.5-inch simple-swap hard disk drives, see “Removing a simple-swap hard disk drive” on page 516.

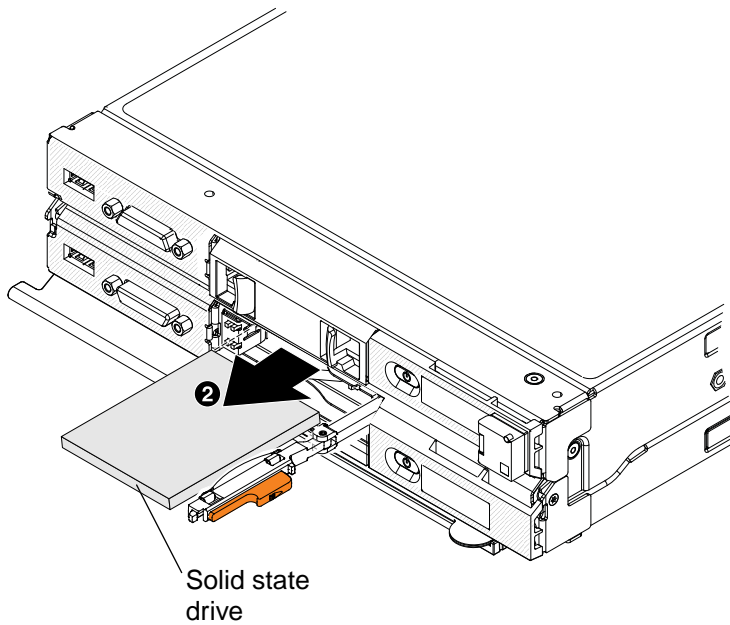
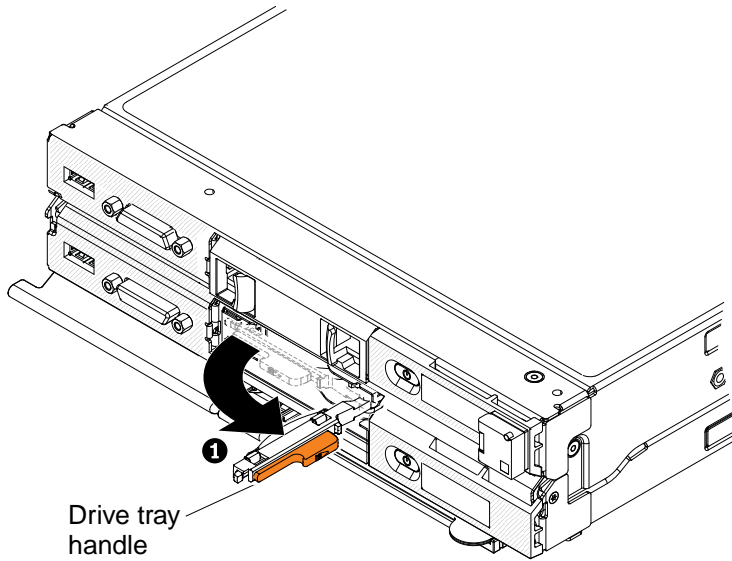
Before you remove a hot-swap solid state drive, complete the following steps:

1. Back up all important data before you make changes to solid state drives.
2. Read “Safety” on page iii and “Installation guidelines” on page 491.

To remove a hot-swap solid state drive, complete the following steps:



Step 1. Remove the solid state drive bezel from the front of the upper or lower compute node.

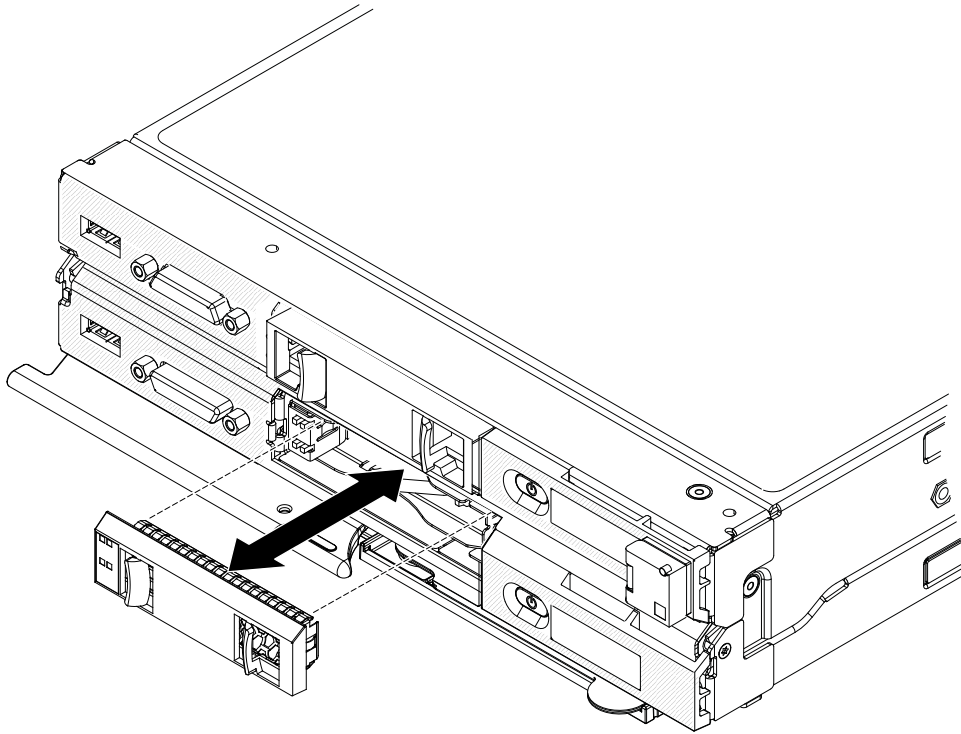


- Step 2. For the solid state drive that you want to remove, slide the release latch and rotate the loose end of the drive tray handle away from the compute node.
- Step 3. Pull forward on the drive tray handle to disengage the solid state drive; then, slide the solid state drive out of the drive bay.

Note: When you remove a drive from the compute node, consider labeling the drive to indicate the drive bay from which the drive was removed so that you can install the drive back in to the same drive bay.

- Step 4. Close the drive tray handle and secure it with the latch.

Note: You might have to press the latch before you close the drive tray handle.



Note: The solid state drive bezels in the upper and lower compute nodes are installed in opposite orientation to each other.

- Step 5. Orient the solid state drive bezel so that the beveled edge of the bezel is toward the center of the Flex System x222 Compute Node.
- Step 6. Press the solid state drive bezel into the front of the upper or lower compute node until it is firmly seated.

If you are instructed to return the solid state drive, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing a solid state drive

Use this information to install a 1.8-inch hot-swap solid state drive (SSD). Solid state drives can be installed in both the upper and lower compute nodes, if an SSD enablement kit is installed.

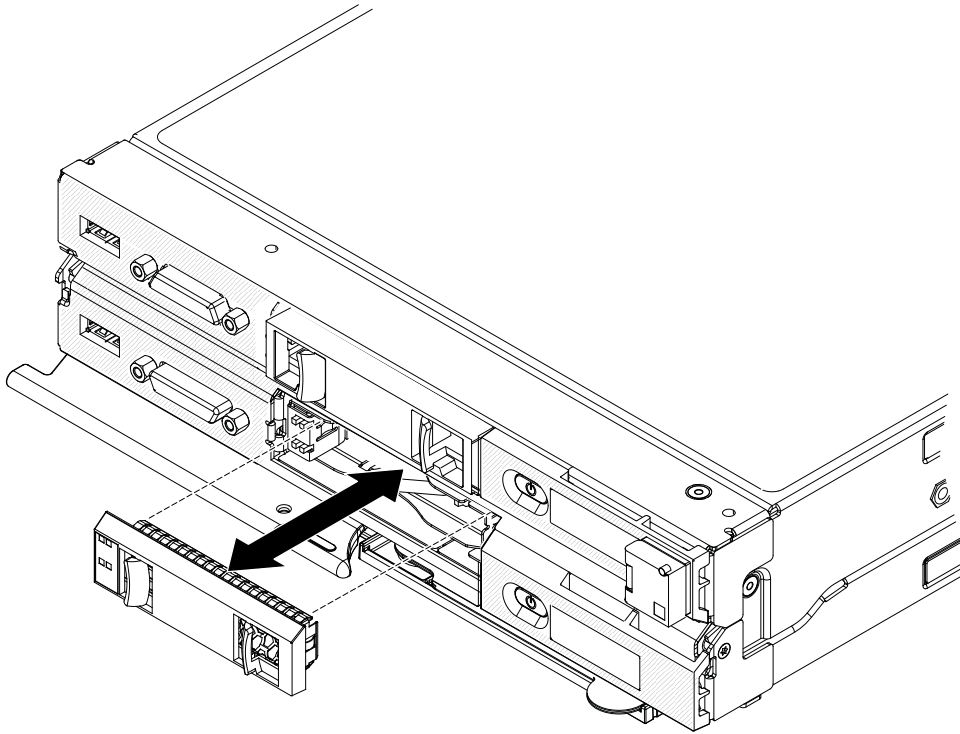
Note: For information about installing 2.5-inch simple-swap hard disk drives, see “Installing a simple-swap hard disk drive” on page 517.

You can install multiple 1.8-inch solid state drives (SSDs) in an upper or lower compute node if an optional SSD enablement kit is installed in the upper or lower compute node. At least one 1.8-inch solid state drive must be installed in the SSD enablement kit. If the upper or lower compute node is equipped with one 1.8-inch solid state drive, you can install an additional 1.8-inch solid state drive. The 1.8-inch solid-state drives used in the Flex System x222 Compute Node are hot-swap drives.

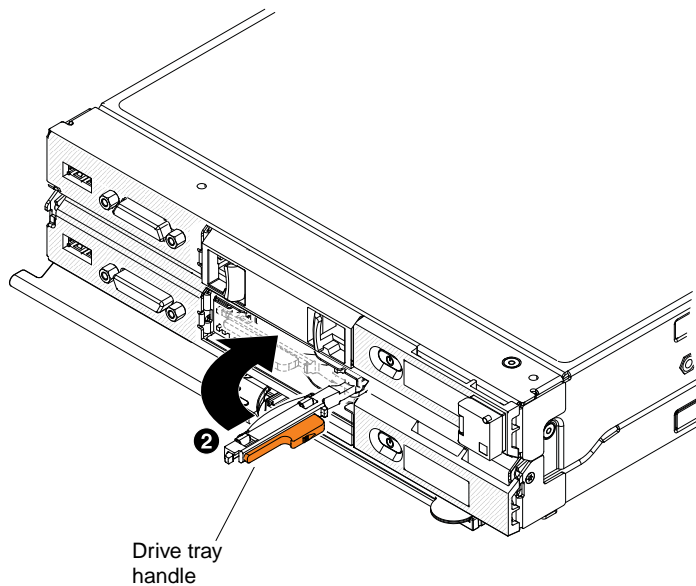
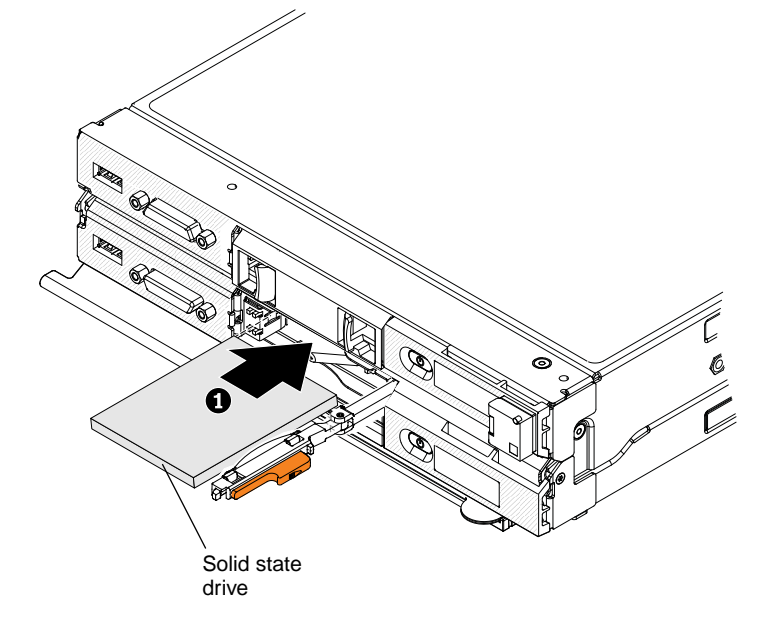
The compute node supports using RAID 0 or RAID 1 when two 1.8-inch solid state drives are installed. See “Configuring a RAID array” on page 39 for information about RAID configuration.

Before you remove a 1.8-inch hot-swap solid state drive, read “Safety” on page iii and “Installation guidelines” on page 491.

To install a 1.8-inch hot-swap solid state drive, complete the following steps:



- Step 1. Remove the solid state drive bezel from the front of the upper or lower compute node.
- Step 2. For the solid state drive that you want to install, slide the release latch and rotate the loose end of the drive tray handle away from the compute node.



Step 3. Touch the static-protective package that contains the solid state drive to any *unpainted* metal surface on the chassis or any *unpainted* metal surface on any other grounded rack component; then, remove the solid state drive from the package.

Note: The solid state drives in the upper and lower compute nodes are installed in opposite orientation to each other.

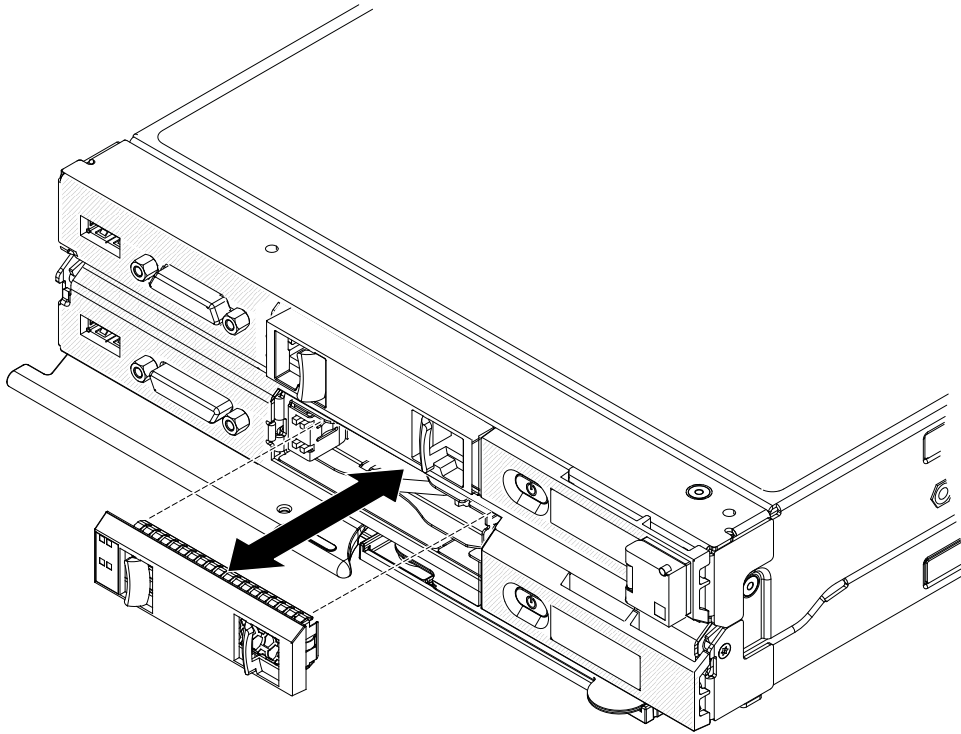
Step 4. Orient the solid state drive so that the pins on the solid state drive connector are facing the outer edge of the compute node (top edge for the upper compute node and bottom edge for the lower compute node).

Step 5. Slide the solid state drive into the drive bay until it is firmly seated in the connector.

Step 6. Close the drive tray handle and secure it with the latch.

Note: You might have to press the latch before you close the drive tray handle.

Step 7. If you have a second solid state drive to install, repeat steps 4 through 7.



Note: The solid state drive bezels in the upper and lower compute nodes are installed in opposite orientation to each other.

- Step 8. Orient the solid state drive bezel so that the beveled edge of the bezel is toward the center of the Flex System x222 Compute Node.
- Step 9. Press the solid state drive bezel into the front of the upper or lower compute node until it is firmly seated.

See “Configuring a RAID array” on page 39 for information about RAID configuration.

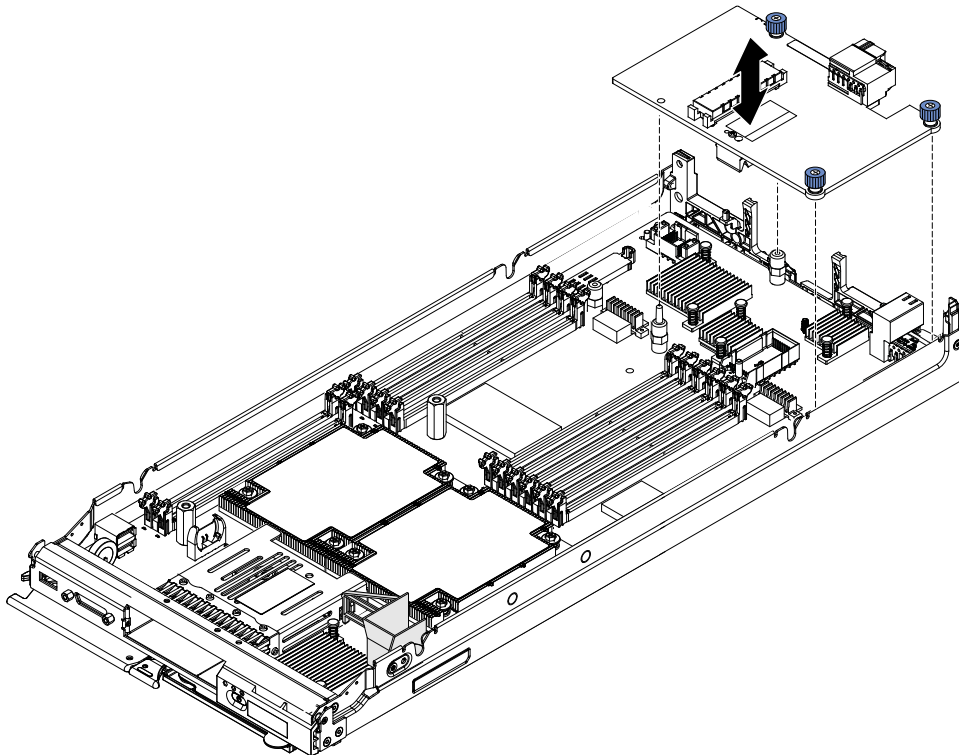
Removing an I/O expansion adapter

Use this information to remove an I/O expansion adapter from the lower compute node. Expansion adapters can not be installed in the upper compute node; the upper and lower compute nodes share the I/O expansion adapter in the lower compute node.

Before you remove an I/O expansion adapter, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

To remove an I/O expansion adapter, complete the following steps.



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the I/O expansion adapter in the lower compute node (see “System-board layouts” on page 18).
- Step 3. Loosen the captive adapter-retention thumb screws. You can loosen these screws by hand or by using a P1 Phillips screwdriver.
- Step 4. Lift the I/O expansion adapter from the connector and remove the I/O expansion adapter from the compute node. You might find it helpful to rock the adapter back and forth to disengage the adapter.

If you are instructed to return an I/O expansion adapter, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing an I/O expansion adapter

Use this information to install an I/O expansion adapter in the lower compute node. Expansion adapters can not be installed in the upper compute node; the upper and lower compute nodes share the I/O expansion adapter in the lower compute node.

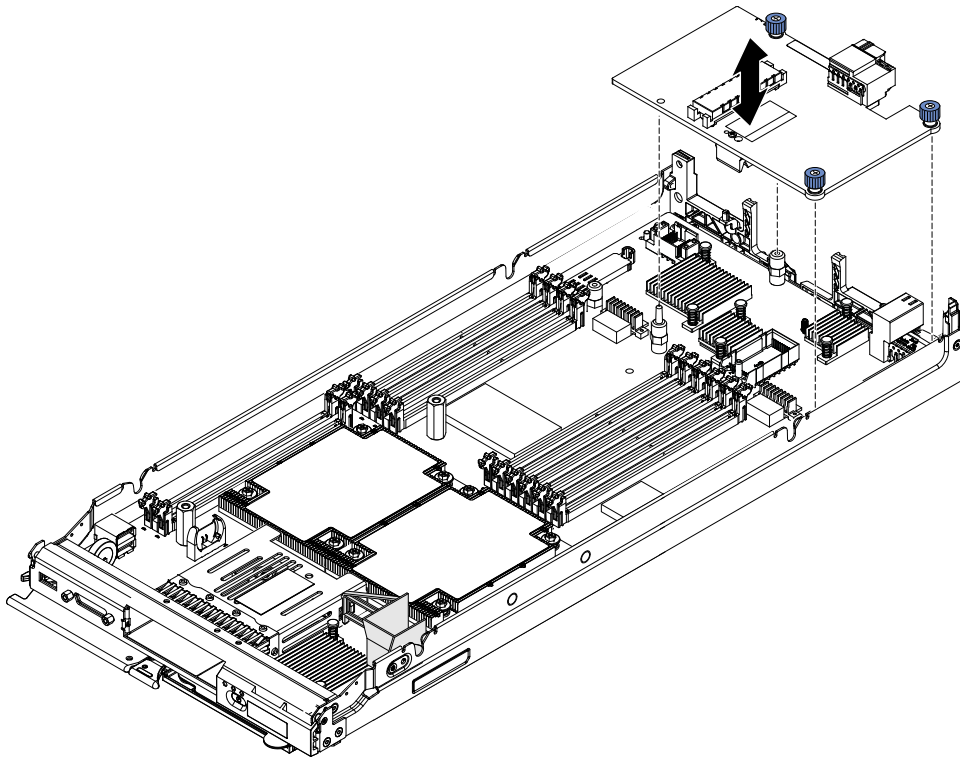
Before you install an I/O expansion adapter, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

Note: If your adapter was previously configured, backup or record its configuration information, if possible, before replacing the adapter. See the documentation for your adapter for information and instructions.

This component can be installed as an optional device or as a CRU. The installation procedure is the same for the optional device and the CRU.

To install an I/O expansion adapter, complete the following steps:



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the I/O expansion connectors in the lower compute node (see “System-board connectors” on page 18).
- Step 3. Remove the cover from the lower compute node I/O-expansion connector, if one is present.
- Step 4. Remove the cover from the upper compute node I/O-fabric connector, if one is present.
- Step 5. Touch the static-protective package that contains the expansion adapter to any *unpainted* metal surface on the Flex System chassis or any *unpainted* metal surface on any other grounded rack component; then, remove the expansion adapter from the package.
- Step 6. Firmly press on the indicated locations to seat the expansion adapter in the connector and over the alignment pins.
- Step 7. Tighten the captive adapter-retention thumb screws. You can tighten these screws by hand or by using a P1 Phillips screwdriver.
- Step 8. If you are replacing a ServeRAID adapter, import your RAID configuration to the replacement adapter as a foreign configuration. See the ServeRAID-M Software User Guide at <https://support.lenovo.com/us/en/documents/migr-5086126> for instructions.

After you install an I/O expansion adapter, complete the following steps:

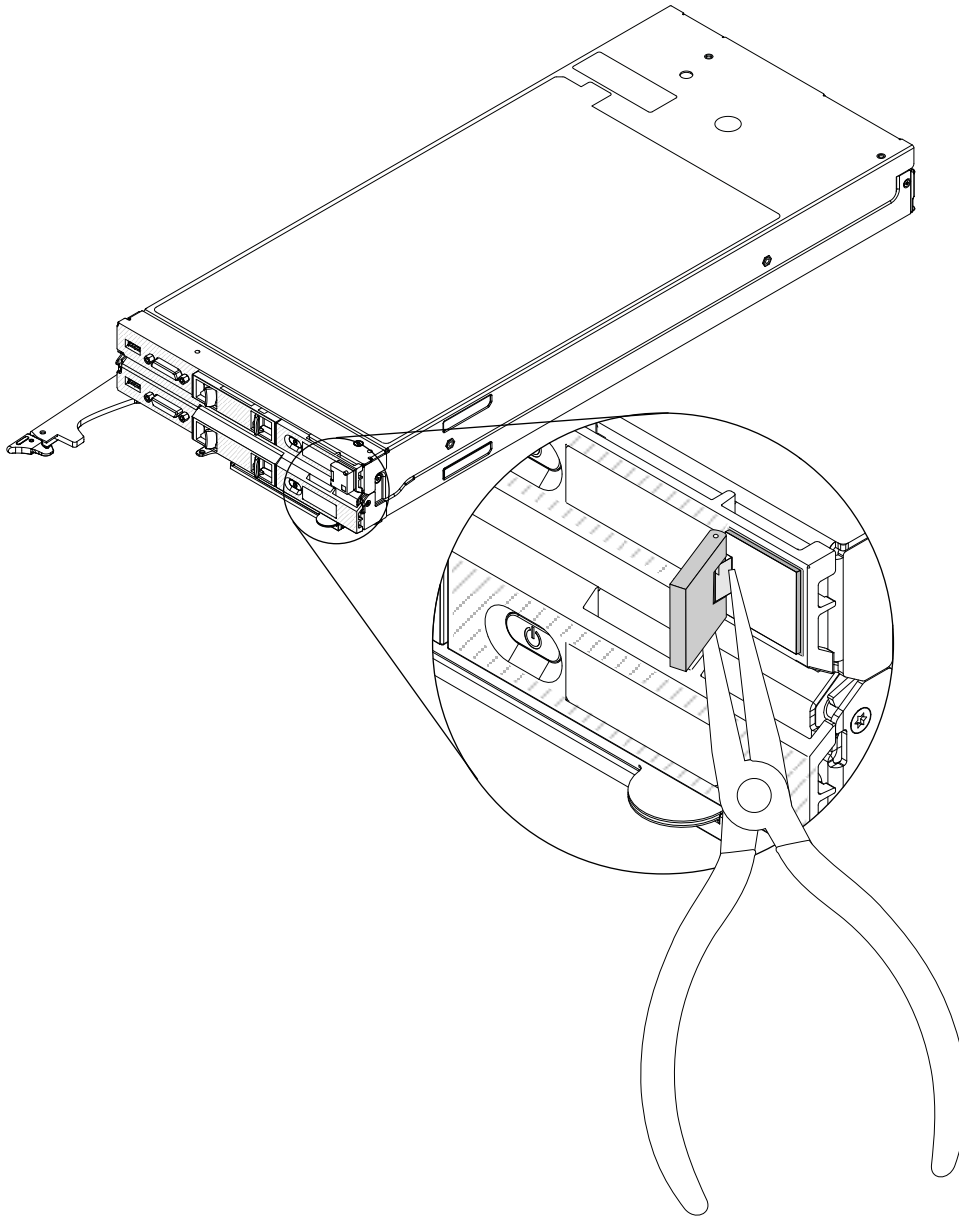
1. Install the upper compute node (see “Installing the upper compute node” on page 497 for instructions).
2. Install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).
3. See the documentation that comes with the expansion adapter for device-driver and configuration information to complete the installation.

Removing an RFID tag

Use this information to remove an RFID tag from the bezel. The RFID tag for the Flex System x222 Compute Node is installed on the upper compute node.

Before you remove an RFID tag, read “Safety” on page iii and “Installation guidelines” on page 491.

To remove an RFID tag, complete the following steps.



- Step 1. Locate the RFID tag on the upper compute node bezel.
- Step 2. If the RFID tag is attached to the hinge, open the RFID tag.
- Step 3. Use pliers to carefully grip the hinge and gently pull and twist the base from the bezel.

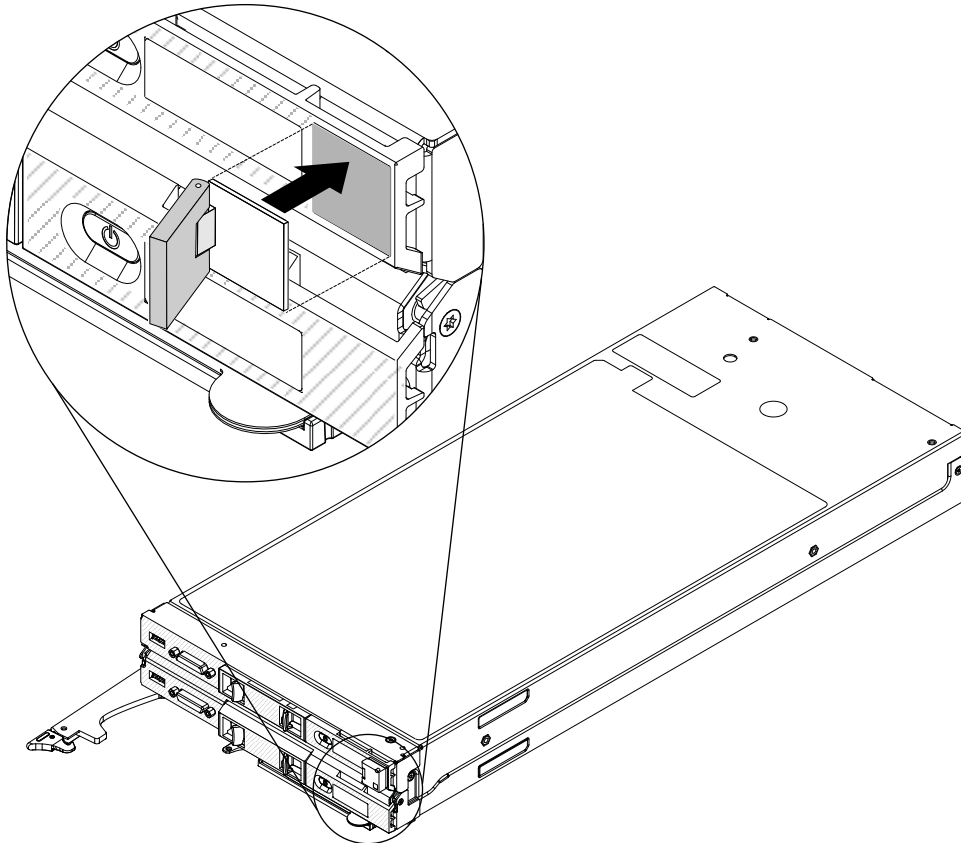
If you are instructed to return an RFID tag, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing an RFID tag

Use this information to install an RFID tag from the bezel. The RFID tag for the Flex System x222 Compute Node is installed on the upper compute node.

Before you install an RFID tag, read “Safety” on page iii and “Installation guidelines” on page 491.

To install an RFID tag, complete the following steps.



- Step 1. Locate the RFID tag location on the upper compute node bezel.
- Step 2. Make sure that the surface you are installing the tag on is thoroughly clean and dry.
- Step 3. Remove the backing from the base to expose the adhesive.
- Step 4. Position the RFID tag over the ID label on the front of the bezel.
- Step 5. Press the RFID tag securely against the bezel and hold firmly in place for 30 seconds.

Notes:

- Allow 30 minutes before pivoting the RFID tag.
- Allow 24 hours to achieve near maximum adhesion.

Removing a USB flash drive

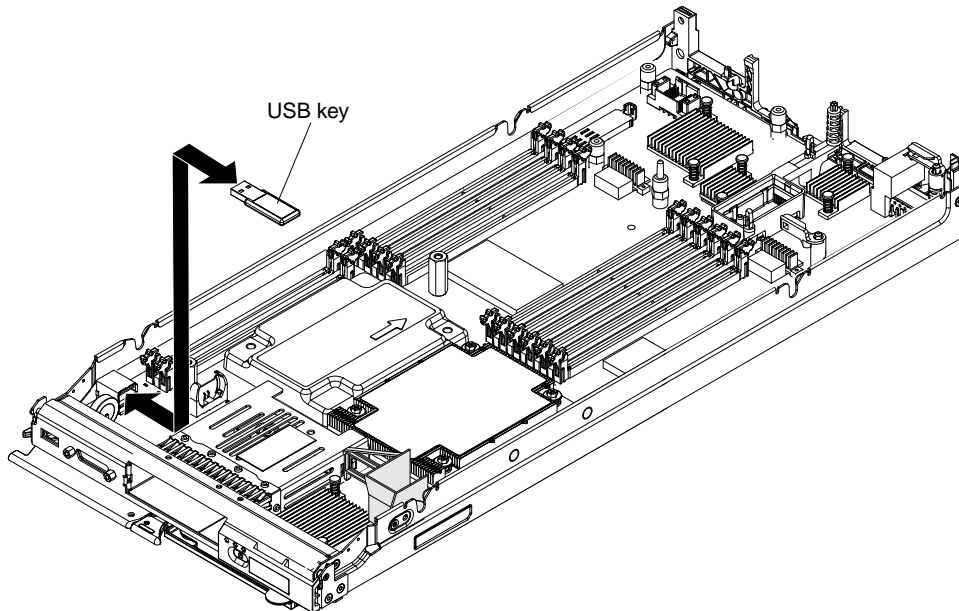
Use this information to remove a USB flash drive from the upper or lower compute node. USB flash drives can be installed in both the upper and lower compute nodes.

Before you remove a USB flash drive from the upper or lower compute node, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.

2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

To remove a USB flash drive, complete the following steps.



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the USB flash drive in the upper or lower compute node (see “System-board connectors” on page 18).

Note: You can install up to two USB flash drives each in the upper and lower compute nodes. If you are removing the USB flash drive that is closer to the system board, you might need to remove the upper USB flash drive to access it.

- Step 3. Pull the USB flash drive out of the connector.

If you are instructed to return a USB flash drive, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing a USB flash drive

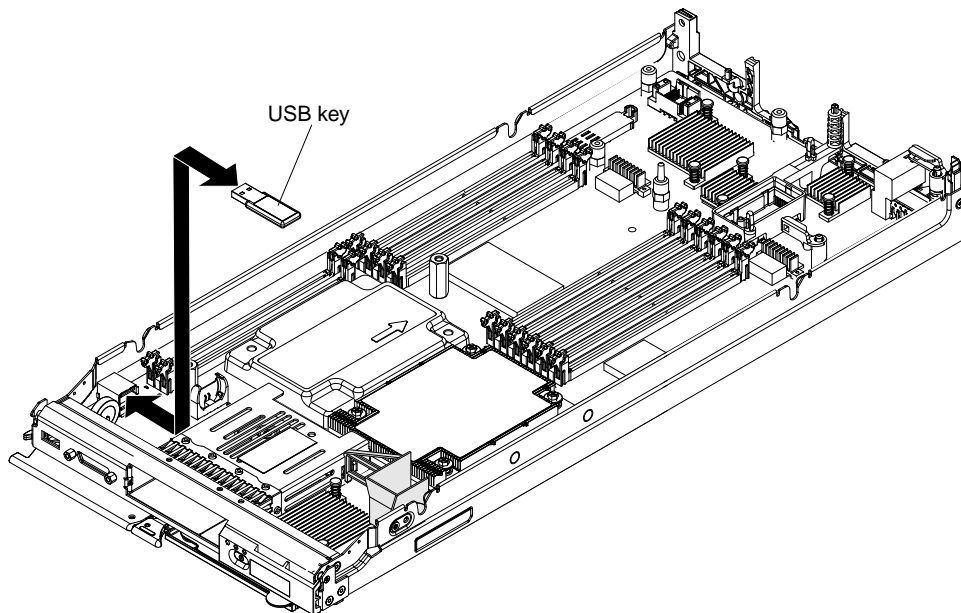
Use this information to install a USB flash drive in the upper or lower compute node. USB flash drives can be installed in both the upper and lower compute nodes.

Before you install a USB flash drive in the upper or lower compute node, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

This component can be installed as an optional device or as a CRU. The installation procedure is the same for the optional device and the CRU.

To install a USB flash drive, complete the following steps.



Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).

Step 2. Locate the USB flash drive connector in the upper or lower compute node (see “System-board connectors” on page 18).

Note: You can install up to two USB flash drives each in the upper and lower compute nodes. If you are installing the USB flash drive that is closer to the system board, you might need to remove the upper USB flash drive to access it.

Step 3. Push the USB flash drive into the connector.

After you install a USB flash drive, complete the following steps:

1. Install the upper compute node (see “Installing the upper compute node” on page 497 for instructions).
2. Install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).

Removing and replacing Tier 2 customer replaceable units (CRUs)

Use this information for removing and replacing Tier 2 CRUs.

You may install a Tier 2 CRU yourself or request Lenovo to install it, at no additional charge, under the type of warranty service that is designated for the compute node.

Removing a microprocessor and heat sink

Use this information to remove a microprocessor and heat sink. Microprocessors are installed in both the upper and lower compute nodes.

Note: This procedure should be performed only by trained service technicians.

Before you remove a microprocessor and heat sink, complete the following steps:

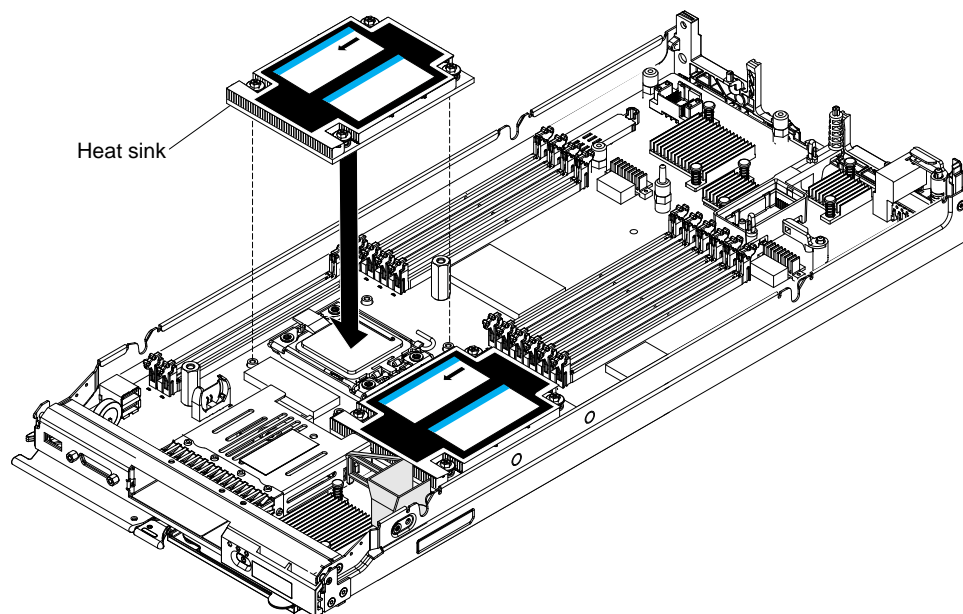
1. Read “Safety” on page iii and “Installation guidelines” on page 491.

2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

The following notes describe information that you must consider when you remove a microprocessor:

- Each microprocessor socket must always contain a socket cover and heat-sink filler or a microprocessor and heat sink. If the compute node has only one microprocessor, it must be installed in microprocessor socket 1.
- The microprocessor installation tool might become worn after several uses. Make sure that the tool can hold the microprocessor securely if you are reusing an existing microprocessor installation tool. Do not return the tool with other parts that you are returning.
- If you are installing a second microprocessor, the option kit comes with a microprocessor installation tool that you must use when you install a microprocessor. The microprocessor installation tool comes with the replacement microprocessor installed on it and a cover over the microprocessor.
- If you are replacing a defective microprocessor, the CRU kit comes with one installation tool with the replacement microprocessor installed on it and a cover over the microprocessor, and one empty installation tool without a cover.
- If you are replacing a defective microprocessor, you must obtain the following for use during the replacement procedure (see Chapter 5 “Parts listing, Types 7916 and 2589” on page 55).
 - Alcohol wipes
 - Thermal grease

To remove a microprocessor and heat sink, complete the following steps.



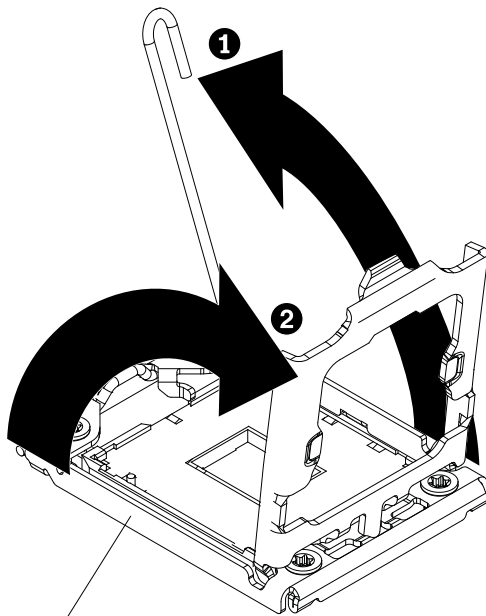
- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the microprocessor that is to be removed from the upper or lower compute node (see “System-board connectors” on page 18).
- Step 3. Remove the heat sink.

Attention: Do not touch the thermal material on the bottom of the heat sink. Touching the thermal material will contaminate it.

- a. Using a P1 Phillips screwdriver, loosen the screw on one side of the heat sink to break the seal with the microprocessor.
- b. Using a P1 Phillips screwdriver, loosen the screws on the heat sink, rotating each screw two full turns until each screw is loose.
- c. Gently pull the heat sink from the microprocessor.

Attention: Do not use any tools or sharp objects to lift the release levers on the microprocessor socket. Doing so might result in permanent damage to the system board.

Step 4. Open the microprocessor socket release lever and retainer.



Microprocessor-retention assembly

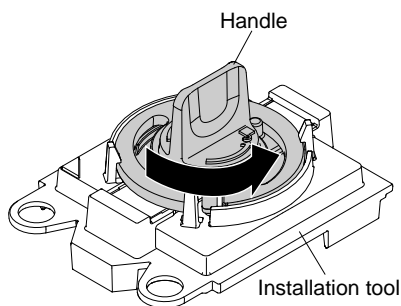
- a. Open the release lever on the microprocessor socket.
- b. Open the microprocessor retainer on the microprocessor socket.

Attention: Do not touch the connectors on the microprocessor and the microprocessor socket.

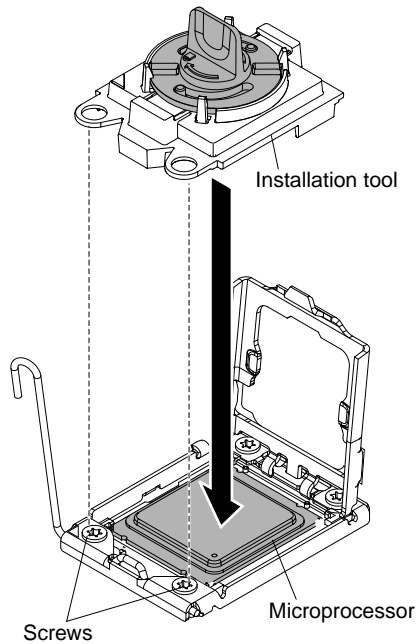
Step 5. Remove the microprocessor from the socket:

Note: If you are replacing a microprocessor, use the empty installation tool that comes with the CRU kit to remove the microprocessor.

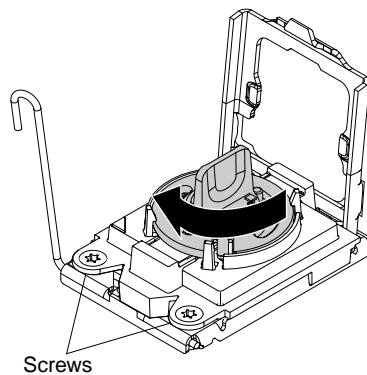
- a. Twist the handle on the microprocessor tool counterclockwise so that it is in the open position.



- b. Align the installation tool with the screws on the microprocessor socket, and lower the tool on the microprocessor. The installation tool rests flush on the socket only if it is aligned correctly.



- c. Twist the handle on the installation tool clockwise and lift the microprocessor out of the socket.



If you are instructed to return a microprocessor and heat sink, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing a microprocessor and heat sink

Use this information to install a microprocessor and heat sink. Microprocessors are installed in both the upper and lower compute nodes.

Note: This procedure should be performed only by trained service technicians.

Before you install a microprocessor and heat sink, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.

2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

The following notes describe the type of microprocessor that the compute node supports and other information that you must consider when you install a microprocessor:

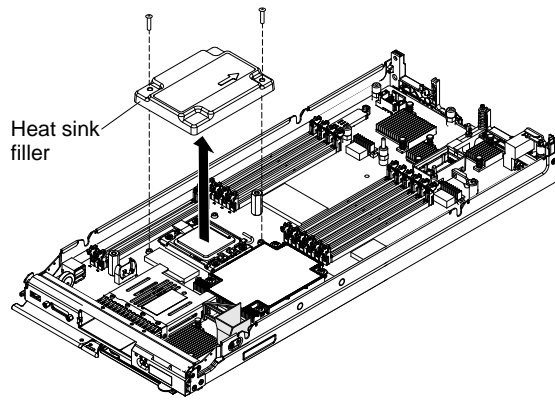
- This component can be installed as an optional device or as a CRU. The installation procedure is the same for the optional device and the CRU.
- The optional microprocessors are limited by the capacity and capability of the compute node. Any microprocessors that you install must have the same specifications as the microprocessors that came with the compute node.
- Each microprocessor socket must always contain a socket cover and heat-sink filler or a microprocessor and heat sink. If the compute node has only one microprocessor, it must be installed in microprocessor socket 1.
- If you are installing a second microprocessor, make sure that the microprocessors are identical.
- Before you install a new microprocessor, download and install the most current level of UEFI code (see “Updating firmware and device drivers” on page 25).
- When you install a second microprocessor, you might have to install additional memory or redistribute memory across the DIMM connectors. See “Installing a DIMM ” on page 510.
- The microprocessor installation tool might become worn after several uses. Make sure that the tool can hold the microprocessor securely if you are reusing an existing microprocessor installation tool. Do not return the tool with other parts that you are returning.
- If you are installing a second microprocessor, the microprocessor option kit comes with a microprocessor installation tool that you must use when you install a microprocessor. The microprocessor installation tool comes with the replacement microprocessor installed on it and a cover over the microprocessor.
- If you are replacing a defective microprocessor, the CRU kit comes with one installation tool with the replacement microprocessor installed on it and a cover over the microprocessor, and one empty installation tool without a cover.
- If you are replacing a defective microprocessor, you must obtain the following for use during the replacement procedure (see Chapter 5 “Parts listing, Types 7916 and 2589” on page 55).
 - Alcohol wipes
 - Thermal grease

Attention:

1. Do not use any tools or sharp objects to lift the locking levers on the microprocessor socket. Doing so might result in permanent damage to the system board.
2. Do not touch the contacts in the microprocessor socket. Touching these contacts might result in permanent damage to the system board.

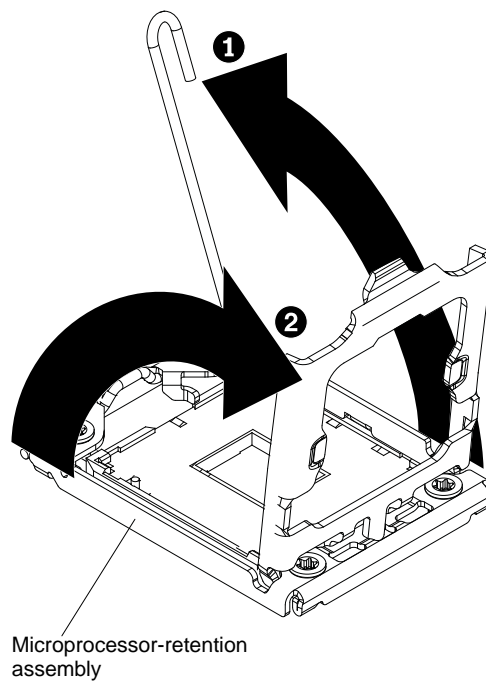
To install a microprocessor and heat sink, complete the following steps.

- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the microprocessor socket in the upper or lower compute node.
- Step 3. If you are not installing a new microprocessor and a new heat sink, remove the thermal grease from the heat sink and microprocessor; then, apply new thermal grease before installation (see “Thermal grease” on page 540).
- Step 4. Remove the heat-sink filler, if one is present.



Step 5. Lift up on tab and remove the microprocessor-socket cover, if one is present.

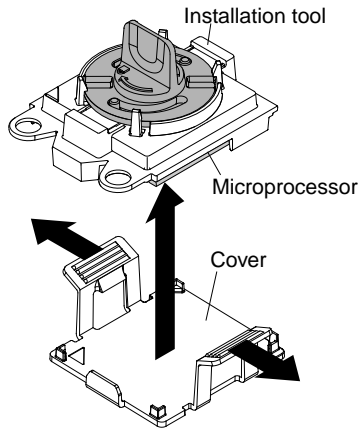
Step 6. Open the microprocessor socket release lever and retainer.



- a. Open the release lever on the microprocessor socket.
- b. Open the microprocessor retainer on the microprocessor socket.

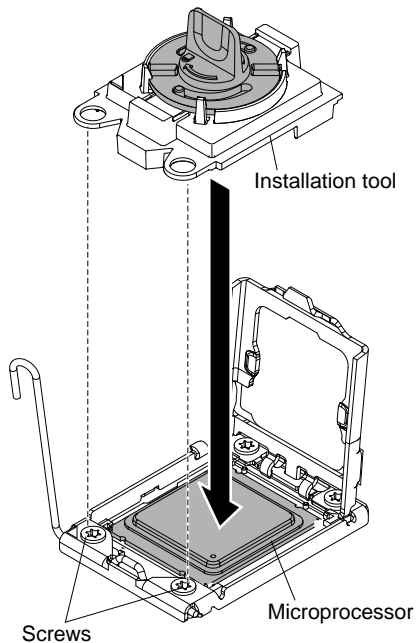
Step 7. Install the microprocessor on the microprocessor socket:

- a. Carefully remove the microprocessor and installation tool from the package.
- b. Release the sides of the cover and remove the cover from the installation tool. The microprocessor is preinstalled on the installation tool.



Note: Do not touch the microprocessor contacts. Contaminants on the microprocessor contacts, such as oil from your skin, can cause connection failures between the contacts and the socket.

- c. Align the installation tool with the microprocessor socket. The installation tool rests flush on the socket only if it is properly aligned.

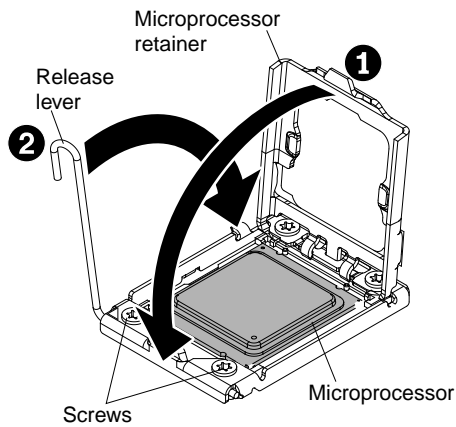


- d. Twist the handle on the microprocessor tool counterclockwise to insert the microprocessor into the socket. The microprocessor is keyed to ensure that the microprocessor is installed correctly. The microprocessor rests flush on the socket only if it is properly installed.

Attention:

- Do not press the microprocessor into the socket.
- Make sure that the microprocessor is oriented and aligned correctly in the socket before you try to close the microprocessor retainer.
- Do not touch the thermal material on the bottom of the heat sink or on top of the microprocessor. Touching the thermal material will contaminate it.

Step 8. Close the microprocessor socket release retainer and lever.

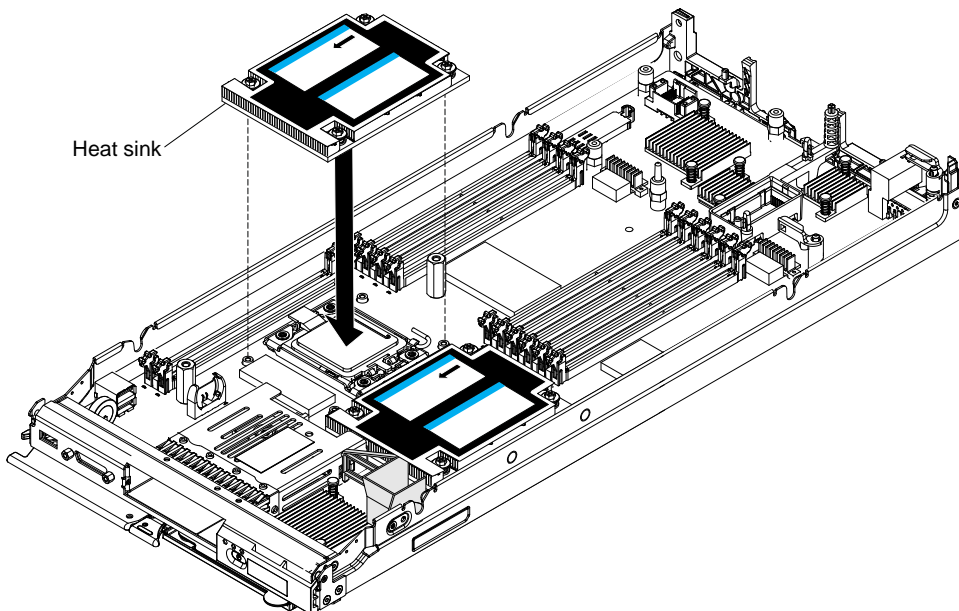


- a. If a socket dust cover is installed over the microprocessor retainer, remove the dust cover from the compute node and store it in a safe place.
- b. Close the microprocessor retainer on the microprocessor socket.
- c. Close the release lever on the microprocessor socket.

Attention:

- If you are installing a new heat sink, do not set down the heat sink after you remove the plastic cover.
- Do not touch the thermal material on the bottom of the heat sink. Touching the thermal material will contaminate it.

Step 9. If you are installing a new heat sink, remove the plastic protective cover from the bottom of the heat sink. If you are reinstalling a heat sink that you previously removed from the compute node, make sure that the thermal material is still on the bottom of the heat sink and on the top of the microprocessor.



Attention: Attempting to install the heat sink in an orientation other than described in this step might result in damage to the system board, microprocessor, or heat sink.

- a. Position the heat sink over the microprocessor, orienting the heat sink edge that has the most fins facing toward the compute node bezel. If the heat sink is correctly oriented, the start arrow on the heat sink label will point toward the compute node bezel.
- b. Align and place the heat sink on top of the microprocessor in the retention bracket, thermal material side down.
- c. Press firmly on the heat sink.
- d. Align the screws on the heat sink with the holes on the heat-sink retention module.
- e. Press firmly on the captive screws and tighten them using a P1 Phillips screwdriver, alternating among the screws using a figure-eight pattern. For the first turn of each screw, rotate it one full rotation; then, tighten each screw two to three rotations until they are tight. Do not overtighten the screws by using excessive force. If you are using a torque wrench, tighten the screws to 8 inch-pounds (in-lb) to 10 in-lb (0.9 Newton-meters (Nm) to 1.13 Nm). Refer to the label on the heat sink for more information.

After you install a microprocessor and heat sink, complete the following steps:

1. Install the upper compute node (see “Installing the upper compute node” on page 497).
2. Install the Flex System x222 Compute Node in a Flex System chassis (see “Installing a compute node in a chassis” on page 493 for instructions).

Thermal grease

Use this information to determine the guidelines for using thermal grease on a heat sink and microprocessor.

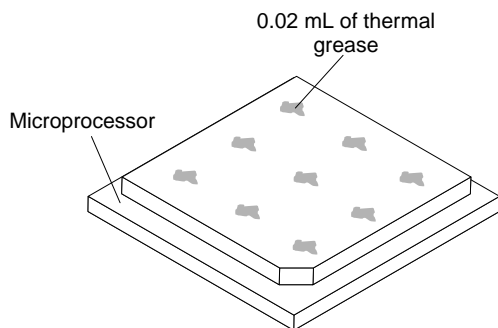
The thermal grease must be replaced whenever the heat sink has been removed from the top of the microprocessor and is going to be reused or when debris is found in the grease.

To replace damaged or contaminated thermal grease on the microprocessor and heat sink, complete the following steps:

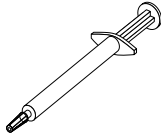
- Step 1. Place the heat-sink assembly on a clean work surface.
- Step 2. Remove the cleaning pad from its package and unfold it completely.
- Step 3. Use the cleaning pad to wipe the thermal grease from the bottom of the heat sink.

Note: Make sure that all of the thermal grease is removed.

- Step 4. Use a clean area of the cleaning pad to wipe the thermal grease from the microprocessor; then, dispose of the cleaning pad after all of the thermal grease is removed.



- Step 5. Use the thermal-grease syringe to place nine uniformly spaced dots of 0.02 mL each on the top of the microprocessor.



Note: 0.01 mL is one tick mark on the syringe. If the grease is properly applied, approximately half (0.22 mL) of the grease will remain in the syringe.

Step 6. Continue with the microprocessor installation instructions in “Installing a microprocessor and heat sink” on page 535.

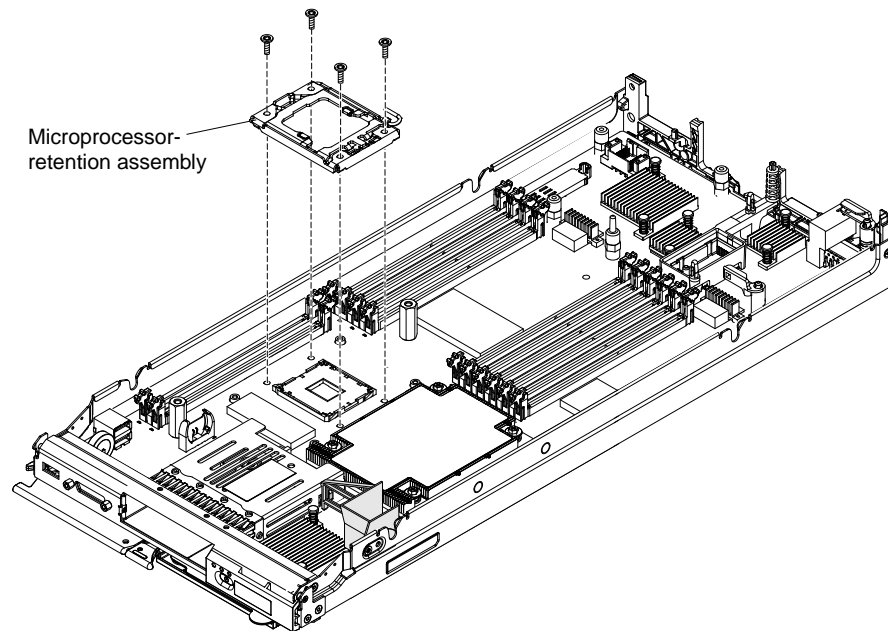
Removing a microprocessor-retention assembly

Use this information to remove a microprocessor-retention assembly. Microprocessor-retention assemblies are in both the upper and lower compute nodes.

Before you remove the microprocessor-retention assembly, complete the following steps.

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

To remove a microprocessor-retention assembly, complete the following steps.



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Locate the microprocessor connector in the upper or lower system board (see “System-board layouts” on page 18).
- Step 3. If a microprocessor and heat sink are installed, remove them (see “Removing a microprocessor and heat sink” on page 532).
- Step 4. Remove the heat-sink key from the microprocessor-retention assemblies and store it in a safe place.
- Step 5. Make sure that the microprocessor socket release levers are in the open position.

Step 6. Using a T20 Torx screwdriver, remove the four screws that secure the microprocessor-retention assembly.

Attention:

1. Do not allow the microprocessor-retention assembly to touch the microprocessor socket. Doing so might result in permanent damage to the system board.
2. Do not touch the contacts in the microprocessor socket. Touching these contacts might result in permanent damage to the system board.

Step 7. Lift the microprocessor-retention assembly from the upper or lower system board.

If you are instructed to return a microprocessor-retention assembly, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

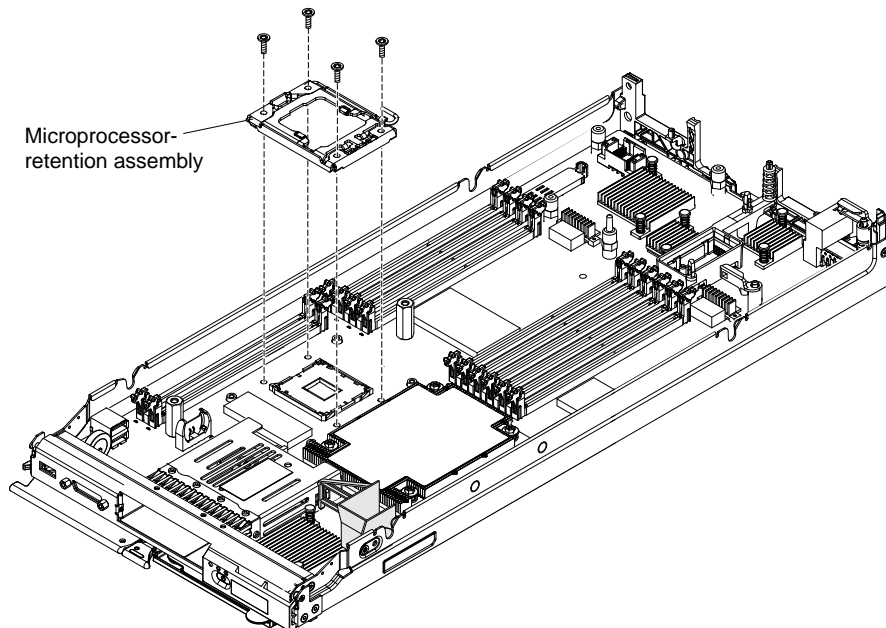
Installing a microprocessor-retention assembly

Use this information to install a microprocessor-retention assembly. Microprocessor-retention assemblies are in both the upper and lower compute nodes.

Before you install a microprocessor-retention assembly, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.

To install a microprocessor-retention assembly, complete the following steps.



Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).

Step 2. Locate the microprocessor connector in the upper or lower system board (see “System-board layouts” on page 18).

Step 3. Make sure that the microprocessor socket release levers are in the open position.

Step 4. Align the microprocessor-retention assembly on the system board.

Attention:

1. Do not allow the microprocessor-retention assembly to touch the microprocessor socket. Doing so might result in permanent damage to the system board.
2. Do not touch the contacts in the microprocessor socket. Touching these contacts might result in permanent damage to the system board.

Step 5. Using a T20 Torx screwdriver, install the four screws to secure the microprocessor-retention assembly.

Step 6. Install the heat-sink key on the microprocessor retention assemblies.

Step 7. If necessary, install the microprocessor and heat sink (see “Installing a microprocessor and heat sink” on page 535).

After you install a microprocessor-retention assembly, complete the following steps:

1. Install the upper compute node (see “Installing the upper compute node” on page 497 for instructions).
2. Install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).

Removing a system-board assembly

Use this information to remove a system-board assembly. There is a system-board assembly for both the upper and lower compute nodes. The upper and lower system-board assemblies are not the same and can not be interchanged. The procedure for removing both system-board assemblies is similar.

Notes:

- This procedure should be performed only by trained service technicians.
- If possible, back up all compute node settings, including the settings for any options installed in the compute node.

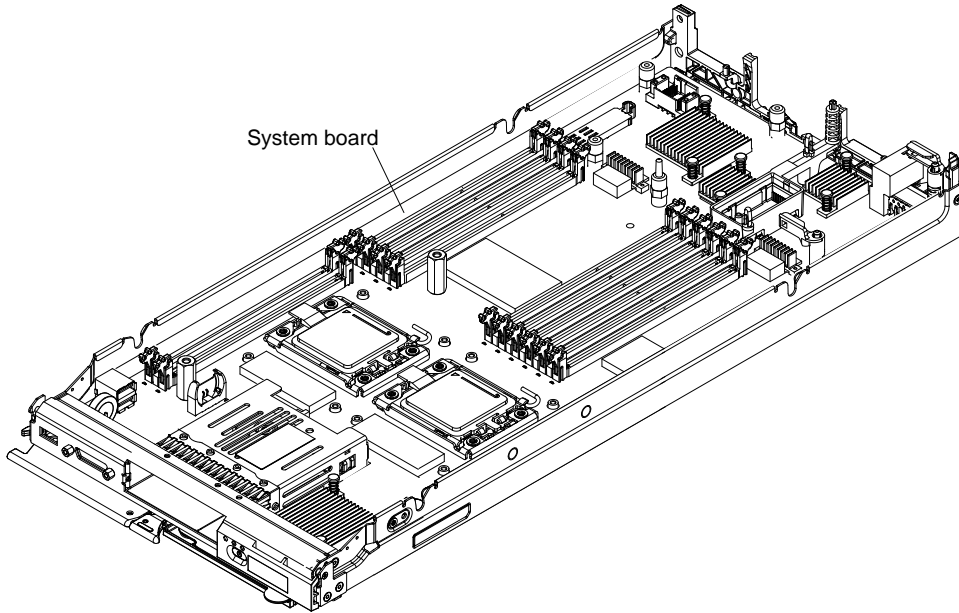
Before you remove a system-board assembly, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.
4. Obtain the following for use during the replacement procedure (see Chapter 5 “Parts listing, Types 7916 and 2589” on page 55).
 - Alcohol wipes
 - RFID tag (required only if replacing an upper compute node that came with an RFID tag attached to the bezel)
 - Thermal grease

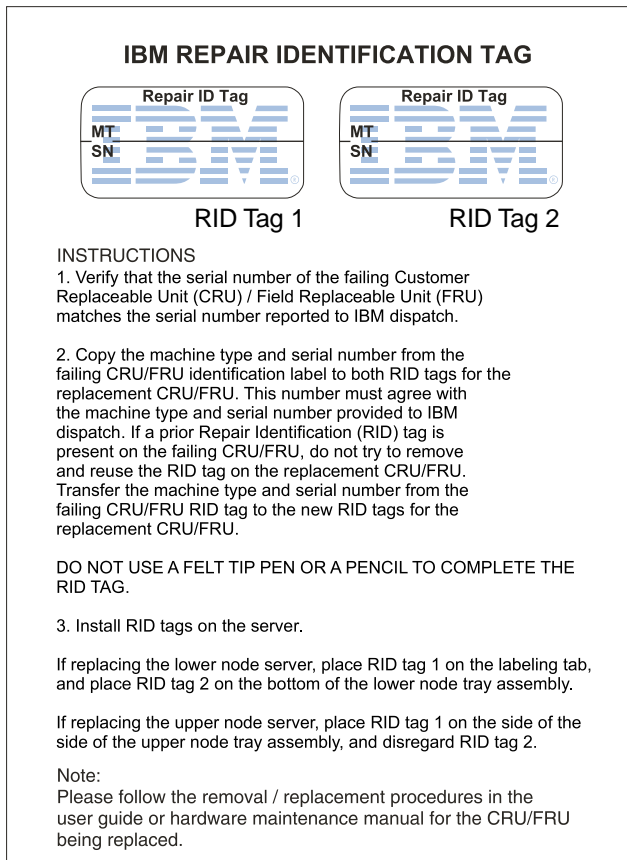
Important: When you replace a system-board assembly, you must update the compute node with the latest firmware or restore the preexisting firmware. Make sure that you have the latest firmware or a copy of the preexisting firmware before you proceed. See “Updating firmware and device drivers” on page 25 for more information.

See “System-board layouts” on page 18 for more information about the locations of the connectors, jumpers, and LEDs on the system board.

To remove a system-board assembly, complete the following steps:



- Step 1. Remove the upper compute node (see “Removing the upper compute node” on page 495).
- Step 2. Remove all of the installed components in the following list from the system-board assembly; then, place them on a static-protective surface or install them on the new system-board assembly.
- DIMMs and air baffles (see “Removing a DIMM” on page 508).
 - If you are removing the system-board assembly from the lower compute node, the fabric connector (see “Removing the fabric connector” on page 514).
 - USB flash drives (some models only) (see “Removing a USB flash drive” on page 530).
 - If you are removing the system-board assembly from the lower compute node, I/O expansion adapters (some models only) (see “Removing an I/O expansion adapter” on page 526).
 - Hard disk drives and hard disk drive bay fillers (see “Removing a simple-swap hard disk drive” on page 516 or “Removing a solid state drive” on page 520).
 - Solid state drive mounting sleeve (some models only) (see “Removing a solid state drive mounting sleeve” on page 518).
 - Microprocessors, heat sinks, and microprocessor heat sink fillers. Use the microprocessor installation tool that comes with the CRU kit to remove each microprocessor from the system-board assembly and install each one immediately in the new system-board assembly (see “Removing a microprocessor and heat sink” on page 532 and “Installing a microprocessor and heat sink” on page 535).
- Step 3. The new system-board assembly comes with an IBM Repair Identification (RID) tag. Using a ball point pen, transfer the machine type and serial number from the old system-board assembly to the two labels on the new IBM Repair Identification tag. If replacing the upper system-board assembly, place Tag 1 on the side of the upper tray assembly. If replacing the lower system-board assembly, place Tag 1 on the labeling tab and Tag 2 on the bottom of the lower tray assembly.



If you are instructed to return a system-board assembly, follow all packaging instructions, and use any packaging materials for shipping that are supplied to you.

Installing a system-board assembly

Use this information to install a system-board assembly. There is a system-board assembly for both the upper and lower compute nodes. The upper and lower system-board assemblies are not the same and can not be interchanged. The procedure for installing both system-board assemblies is similar.

Note: This procedure should be performed only by trained service technicians.

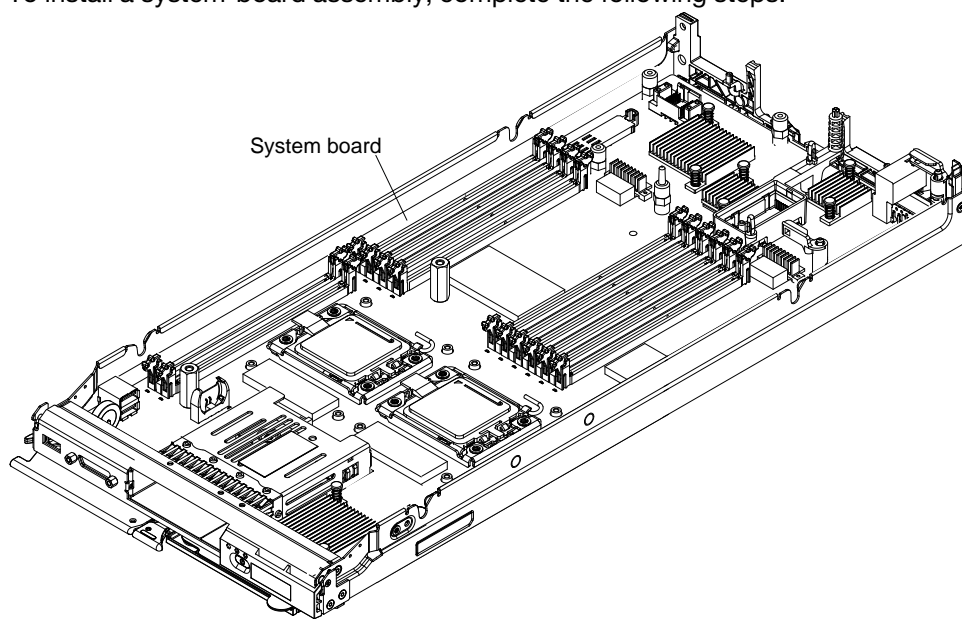
Before you install a system-board assembly, complete the following steps:

1. Read “Safety” on page iii and “Installation guidelines” on page 491.
2. If the Flex System x222 Compute Node is installed in a chassis, remove it (see “Removing a compute node from a chassis” on page 493 for instructions).
3. Carefully lay the compute node on a flat, static-protective surface, orienting the compute node with the bezel pointing toward the left.
4. Obtain the following for use during the replacement procedure (see Chapter 5 “Parts listing, Types 7916 and 2589” on page 55).
 - Alcohol wipes
 - RFID tag (required only if replacing an upper compute node that came with an RFID tag attached to the bezel)
 - Thermal grease

Important: When you replace a system-board assembly, you must update the compute node with the latest firmware or restore the preexisting firmware. Make sure that you have the latest firmware or a copy of the preexisting firmware before you proceed. See “Updating firmware and device drivers” on page 25 for more information.

Note: If you are replacing a system-board assembly, make sure that you attach a Repair Identification (RID) tag to the appropriate tray assembly (see “Removing a system-board assembly” on page 543 for information about using the RID tag with an Flex System x222 Compute Node).

To install a system-board assembly, complete the following steps:



Step 1. Install all of the components in the following list that you removed from the old system-board assembly onto the new system-board assembly.

- Microprocessors, heat sinks, and microprocessor heat sink fillers. Use the microprocessor installation tool that comes with the CRU kit to remove each microprocessor from the system-board assembly and install each one immediately in the new system-board assembly (see “Removing a microprocessor and heat sink” on page 532 and “Installing a microprocessor and heat sink” on page 535).
- Solid state drive mounting sleeve (some models only) (see “Installing a solid state drive mounting sleeve” on page 519).
- Hard disk drives and hard disk drive fillers (see “Installing a simple-swap hard disk drive” on page 517 or “Installing a solid state drive” on page 523).
- If you are installing the system-board assembly in the lower compute node, an I/O expansion adapter (some models only) (see “Installing an I/O expansion adapter” on page 527).
- USB flash drives (some models only) (see “Installing a USB flash drive” on page 531).
- If you are installing the system-board assembly in the lower compute node, the fabric connector (see “Installing the fabric connector” on page 515).
- DIMMs and air baffles (see “Installing a DIMM ” on page 510).

Step 2. If the upper compute node came with a RFID tag attached to the bezel, install a replacement RFID tag (see “Installing an RFID tag” on page 530).

After you install a system-board assembly, complete the following steps:

1. Install the upper compute node (see “Installing the upper compute node” on page 497 for instructions).

2. Install the Flex System x222 Compute Node into the chassis (see “Installing a compute node in a chassis” on page 493 for instructions).
 3. Use the CMM web interface or the CMM command-line interface to restore the IP address of the compute node IMM.
 - To assign a compute node IMM IP addresses from the CMM web interface, click **Mgt Module Management → Network → Ethernet**. For more information, see .
 - To assign a compute node IMM IP addresses from the CMM command-line interface, use the CMM **ifconfig** command. For more information about the CMM **ifconfig** command, see the .
- Note:** If you configured static IP addresses for the compute node IMM, you will not be able to access the IMM remotely or through the Flex System Manager management software (if installed) until the IP address of the IMM is restored.
4. Reactivate any Features on Demand features. Instructions for automating the activation of features and installing activation keys is in the *Features on Demand User's Guide*. To download the document, go to <https://fod.lenovo.com/lkms>, log in, and click **Help**.
 5. Update the Universally Unique Identifier (UUID) and DMI/SMBIOS data with new vital product data (VPD). Use the Advanced Settings Utility to update the UUID and DMI/SMBIOS data (see “Updating the Universally Unique Identifier (UUID) and DMI/SMBIOS data with vital product data” on page 36).
 6. Update the upper or lower compute node with the latest firmware or restore the preexisting firmware (see “Updating firmware and device drivers” on page 25 for more information).

Appendix A. Getting help and technical assistance

If you need help, service, or technical assistance or just want more information about Lenovo products, you will find a wide variety of sources available from Lenovo to assist you.

Use this information to obtain additional information about Lenovo and Lenovo products, and determine what to do if you experience a problem with your Lenovo system or optional device.

Note: This section includes references to IBM web sites and information about obtaining service. IBM is Lenovo's preferred service provider for the System x, Flex System, and NeXtScale System products.

Before you call

Before you call, make sure that you have taken these steps to try to solve the problem yourself.

If you believe that you require warranty service for your Lenovo product, the service technicians will be able to assist you more efficiently if you prepare before you call.

- Check all cables to make sure that they are connected.
- Check the power switches to make sure that the system and any optional devices are turned on.
- Check for updated software, firmware, and operating-system device drivers for your Lenovo product. The Lenovo Warranty terms and conditions state that you, the owner of the Lenovo product, are responsible for maintaining and updating all software and firmware for the product (unless it is covered by an additional maintenance contract). Your service technician will request that you upgrade your software and firmware if the problem has a documented solution within a software upgrade.
- If you have installed new hardware or software in your environment, check <http://www.lenovo.com/serverproven/> to make sure that the hardware and software is supported by your product.
- Go to <http://www.lenovo.com/support> to check for information to help you solve the problem.
- Gather the following information to provide to the service technician. This data will help the service technician quickly provide a solution to your problem and ensure that you receive the level of service for which you might have contracted.
 - Hardware and Software Maintenance agreement contract numbers, if applicable
 - Machine type number (Lenovo 4-digit machine identifier)
 - Model number
 - Serial number
 - Current system UEFI and firmware levels
 - Other pertinent information such as error messages and logs
- Go to http://www.ibm.com/support/entry/portal/Open_service_request to submit an Electronic Service Request. Submitting an Electronic Service Request will start the process of determining a solution to your problem by making the pertinent information available to the service technicians. The IBM service technicians can start working on your solution as soon as you have completed and submitted an Electronic Service Request.

You can solve many problems without outside assistance by following the troubleshooting procedures that Lenovo provides in the online help or in the Lenovo product documentation. The Lenovo product documentation also describes the diagnostic tests that you can perform. The documentation for most systems, operating systems, and programs contains troubleshooting procedures and explanations of error messages and error codes. If you suspect a software problem, see the documentation for the operating system or program.

Using the documentation

Information about your Lenovo system and preinstalled software, if any, or optional device is available in the product documentation. That documentation can include printed documents, online documents, readme files, and help files.

See the troubleshooting information in your system documentation for instructions for using the diagnostic programs. The troubleshooting information or the diagnostic programs might tell you that you need additional or updated device drivers or other software. Lenovo maintains pages on the World Wide Web where you can get the latest technical information and download device drivers and updates. To access these pages, go to <http://www.lenovo.com/support>.

Getting help and information from the World Wide Web

Up-to-date information about Lenovo products and support is available on the World Wide Web.

On the World Wide Web, up-to-date information about Lenovo systems, optional devices, services, and support is available at <http://www.lenovo.com/support>. The most current version of the product documentation is available in the following product-specific Information Centers:

Flex System products:<http://pic.dhe.ibm.com/infocenter/flexsys/information/index.jsp>

System x products:<http://shop.lenovo.com/us/en/systems/>

NeXtScale System products:<http://pic.dhe.ibm.com/infocenter/nxtscale/documentation/index.jsp>

How to send DSA data

You can use the Enhanced Customer Data Repository to send diagnostic data to IBM.

Before you send diagnostic data to IBM, read the terms of use at <http://www.ibm.com/de/support/ecurep/terms.html>.

You can use any of the following methods to send diagnostic data:

- **Standard upload:** http://www.ibm.com/de/support/ecurep/send_http.html
- **Standard upload with the system serial number:** http://www.ecurep.ibm.com/app/upload_hw
- **Secure upload:** http://www.ibm.com/de/support/ecurep/send_http.html#secure
- **Secure upload with the system serial number:** https://www.ecurep.ibm.com/app/upload_hw

Creating a personalized support web page

You can create a personalized support web page by identifying Lenovo products that are of interest to you.

To create a personalized support web page, go to <http://www.ibm.com/support/mynotifications>. From this personalized page, you can subscribe to weekly email notifications about new technical documents, search for information and downloads, and access various administrative services.

Software service and support

Through IBM Support Line, you can get telephone assistance, for a fee, with usage, configuration, and software problems with your Lenovo products.

For more information about Support Line and other IBM services, see <http://www.ibm.com/services> or see <http://www.ibm.com/planetwide> for support telephone numbers. In the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378).

Hardware service and support

IBM is Lenovo's preferred service provider for the System x, Flex System and NeXtScale System products.

You can receive hardware service through your Lenovo reseller or from IBM. To locate a reseller authorized by Lenovo to provide warranty service, go to <http://www.ibm.com/partnerworld> and click **Business Partner Locator**. For IBM support telephone numbers, see <http://www.ibm.com/planetwide>. In the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378).

In the U.S. and Canada, hardware service and support is available 24 hours a day, 7 days a week. In the U.K., these services are available Monday through Friday, from 9 a.m. to 6 p.m.

Taiwan product service

Use this information to contact product service for Taiwan.

委製商/進口商名稱: 荷蘭商聯想股份有限公司台灣分公司
進口商地址: 台北市內湖區堤頂大道2段89號5樓
進口商電話: 0800-000-702 (代表號)

Appendix B. Notices

Lenovo may not offer the products, services, or features discussed in this document in all countries. Consult your local Lenovo representative for information on the products and services currently available in your area.

Any reference to a Lenovo product, program, or service is not intended to state or imply that only that Lenovo product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any Lenovo intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any other product, program, or service.

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Any references in this publication to non-Lenovo Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this Lenovo product, and use of those Web sites is at your own risk.

Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Trademarks

Lenovo, the Lenovo logo, Flex System, System x, NeXtScale System, and x Architecture are trademarks of Lenovo in the United States, other countries, or both.

Intel and Intel Xeon are trademarks of Intel Corporation in the United States, other countries, or both.

Internet Explorer, Microsoft, and Windows are trademarks of the Microsoft group of companies.

Linux is a registered trademark of Linus Torvalds.

Other company, product, or service names may be trademarks or service marks of others.

Important notes

Processor speed indicates the internal clock speed of the microprocessor; other factors also affect application performance.

CD or DVD drive speed is the variable read rate. Actual speeds vary and are often less than the possible maximum.

When referring to processor storage, real and virtual storage, or channel volume, KB stands for 1 024 bytes, MB stands for 1 048 576 bytes, and GB stands for 1 073 741 824 bytes.

When referring to hard disk drive capacity or communications volume, MB stands for 1 000 000 bytes, and GB stands for 1 000 000 000 bytes. Total user-accessible capacity can vary depending on operating environments.

Maximum internal hard disk drive capacities assume the replacement of any standard hard disk drives and population of all hard-disk-drive bays with the largest currently supported drives that are available from Lenovo.

Maximum memory might require replacement of the standard memory with an optional memory module.

Each solid-state memory cell has an intrinsic, finite number of write cycles that the cell can incur. Therefore, a solid-state device has a maximum number of write cycles that it can be subjected to, expressed as total bytes written (TBW). A device that has exceeded this limit might fail to respond to system-generated commands or might be incapable of being written to. Lenovo is not responsible for replacement of a device that has exceeded its maximum guaranteed number of program/erase cycles, as documented in the Official Published Specifications for the device.

Lenovo makes no representations or warranties with respect to non-Lenovo products. Support (if any) for the non-Lenovo products is provided by the third party, not Lenovo.

Some software might differ from its retail version (if available) and might not include user manuals or all program functionality.

Recycling information

Lenovo encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed. Lenovo offers a variety of programs and services to assist equipment owners in recycling their IT products. For information on recycling Lenovo products, go to: <http://www.lenovo.com/recycling>.



US & Canada Only



US & Canada Only

Particulate contamination

Attention: Airborne particulates (including metal flakes or particles) and reactive gases acting alone or in combination with other environmental factors such as humidity or temperature might pose a risk to the device that is described in this document.

Risks that are posed by the presence of excessive particulate levels or concentrations of harmful gases include damage that might cause the device to malfunction or cease functioning altogether. This specification sets forth limits for particulates and gases that are intended to avoid such damage. The limits must not be viewed or used as definitive limits, because numerous other factors, such as temperature or moisture content of the air, can influence the impact of particulates or environmental corrosives and gaseous contaminant transfer. In the absence of specific limits that are set forth in this document, you must implement practices that maintain particulate and gas levels that are consistent with the protection of human health and safety. If Lenovo determines that the levels of particulates or gases in your environment have caused damage to the device, Lenovo may condition provision of repair or replacement of devices or parts on implementation of appropriate remedial measures to mitigate such environmental contamination. Implementation of such remedial measures is a customer responsibility.

Table 16. Limits for particulates and gases

Contaminant	Limits
Particulate	<ul style="list-style-type: none"> The room air must be continuously filtered with 40% atmospheric dust spot efficiency (MERV 9) according to ASHRAE Standard 52.2¹. Air that enters a data center must be filtered to 99.97% efficiency or greater, using high-efficiency particulate air (HEPA) filters that meet MIL-STD-282. The deliquescent relative humidity of the particulate contamination must be more than 60%². The room must be free of conductive contamination such as zinc whiskers.
Gaseous	<ul style="list-style-type: none"> Copper: Class G1 as per ANSI/ISA 71.04-1985³ Silver: Corrosion rate of less than 300 Å in 30 days
<p>¹ ASHRAE 52.2-2008 - <i>Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size</i>. Atlanta: American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.</p> <p>² The deliquescent relative humidity of particulate contamination is the relative humidity at which the dust absorbs enough water to become wet and promote ionic conduction.</p> <p>³ ANSI/ISA-71.04-1985. <i>Environmental conditions for process measurement and control systems: Airborne contaminants</i>. Instrument Society of America, Research Triangle Park, North Carolina, U.S.A.</p>	

Telecommunication regulatory statement

This product may not be certified in your country for connection by any means whatsoever to interfaces of public telecommunications networks. Further certification may be required by law prior to making any such connection. Contact a Lenovo representative or reseller for any questions.

Electronic emission notices

When you attach a monitor to the equipment, you must use the designated monitor cable and any interference suppression devices that are supplied with the monitor.

Federal Communications Commission (FCC) statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Lenovo is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that might cause undesired operation.

Industry Canada Class A emission compliance statement

This Class A digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Australia and New Zealand Class A statement

Attention: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

European Union EMC Directive conformance statement

This product is in conformity with the protection requirements of EU Council Directive 2014/30/EU on the approximation of the laws of the Member States relating to electromagnetic compatibility. Lenovo cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the installation of option cards from other manufacturers.

This product has been tested and found to comply with the limits for Class A equipment according to European Standards harmonized in the Directives in compliance. The limits for Class A equipment were derived for commercial and industrial environments to provide reasonable protection against interference with licensed communication equipment.

Lenovo, Einsteinova 21, 851 01 Bratislava, Slovakia



Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Germany Class A statement

Deutschsprachiger EU Hinweis: Hinweis für Geräte der Klasse A EU-Richtlinie zur Elektromagnetischen Verträglichkeit

Deutschsprachiger EU Hinweis: Hinweis für Geräte der Klasse A EU-Richtlinie zur Elektromagnetischen Verträglichkeit Dieses Produkt entspricht den Schutzanforderungen der EU-Richtlinie 2014/30/EU (früher 2004/108/EC) zur Angleichung der Rechtsvorschriften über die elektromagnetische Verträglichkeit in den EU-Mitgliedsstaaten und hält die Grenzwerte der Klasse A der Norm gemäß Richtlinie.

Um dieses sicherzustellen, sind die Geräte wie in den Handbüchern beschrieben zu installieren und zu betreiben. Des Weiteren dürfen auch nur von der Lenovo empfohlene Kabel angeschlossen werden. Lenovo übernimmt keine Verantwortung für die Einhaltung der Schutzanforderungen, wenn das Produkt ohne Zustimmung der Lenovo verändert bzw. wenn Erweiterungskomponenten von Fremdherstellern ohne Empfehlung der Lenovo gesteckt/eingebaut werden.

Deutschland:

Einhaltung des Gesetzes über die elektromagnetische Verträglichkeit von Betriebsmitteln Dieses Produkt entspricht dem „Gesetz über die elektromagnetische Verträglichkeit von Betriebsmitteln“ EMVG (früher „Gesetz über die elektromagnetische Verträglichkeit von Geräten“). Dies ist die Umsetzung der EU-Richtlinie 2014/30/EU (früher 2004/108/EC) in der Bundesrepublik Deutschland.

Zulassungsbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Betriebsmitteln, EMVG vom 20. Juli 2007 (früher Gesetz über die elektromagnetische Verträglichkeit von Geräten), bzw. der EMV EU Richtlinie 2014/30/EU (früher 2004/108/EC), für Geräte der Klasse A.

Dieses Gerät ist berechtigt, in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen. Verantwortlich für die Konformitätserklärung nach Paragraph 5 des EMVG ist die Lenovo (Deutschland) GmbH, Meitnerstr. 9, D-70563 Stuttgart.

Informationen in Hinsicht EMVG Paragraph 4 Abs. (1) 4: **Das Gerät erfüllt die Schutzanforderungen nach EN 55024 und EN 55022 Klasse A.**

Nach der EN 55022: „Dies ist eine Einrichtung der Klasse A. Diese Einrichtung kann im Wohnbereich Funkstörungen verursachen; in diesem Fall kann vom Betreiber verlangt werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.“

Nach dem EMVG: „Geräte dürfen an Orten, für die sie nicht ausreichend entstört sind, nur mit besonderer Genehmigung des Bundesministers für Post und Telekommunikation oder des Bundesamtes für Post und Telekommunikation betrieben werden. Die Genehmigung wird erteilt, wenn keine elektromagnetischen Störungen zu erwarten sind.“ (Auszug aus dem EMVG, Paragraph 3, Abs. 4). Dieses Genehmigungsverfahren ist nach Paragraph 9 EMVG in Verbindung mit der entsprechenden Kostenverordnung (Amtsblatt 14/93) kostenpflichtig.

Anmerkung: Um die Einhaltung des EMVG sicherzustellen sind die Geräte, wie in den Handbüchern angegeben, zu installieren und zu betreiben.

Japanese electromagnetic compatibility statements

Japan VCCI Class A statement

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波障害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 V C C I - A

This is a Class A product based on the standard of the Voluntary Control Council for Interference (VCCI). If this equipment is used in a domestic environment, radio interference may occur, in which case the user may be required to take corrective actions.

Korea Communications Commission (KCC) statement

이 기기는 업무용(A급)으로 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.

This is electromagnetic wave compatibility equipment for business (Type A). Sellers and users need to pay attention to it. This is for any areas other than home.

Russia Electromagnetic Interference (EMI) Class A statement

ВНИМАНИЕ!

Настоящее изделие относится к оборудованию класса А. При использовании в бытовой обстановке это оборудование может нарушать функционирование других технических средств в результате создаваемых промышленных радиопомех. В этом случае от пользователя может потребоваться принятие адекватных мер.

People's Republic of China Class A electronic emission statement

中华人民共和国“A类”警告声明

声明

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

Taiwan Class A compliance statement

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Taiwan BSMI RoHS declaration

單元 Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr ⁶⁺)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
機架	○	○	○	○	○	○
外部蓋板	○	○	○	○	○	○
機械組零件	-	○	○	○	○	○
空氣傳動設備	-	○	○	○	○	○
冷卻組零件	-	○	○	○	○	○
內存模塊	-	○	○	○	○	○
處理器模塊	-	○	○	○	○	○
鍵盤	-	○	○	○	○	○
調製解調器	-	○	○	○	○	○
監視器	-	○	○	○	○	○
滑鼠	-	○	○	○	○	○
電纜組零件	-	○	○	○	○	○
電源	-	○	○	○	○	○
儲備設備	-	○	○	○	○	○
電池匣組零件	-	○	○	○	○	○
電池	-	○	○	○	○	○
有mech的電路卡	-	○	○	○	○	○
無mech的電路卡	-	○	○	○	○	○
雷射器	-	○	○	○	○	○

備考1. “超出0.1 wt %” 及 “超出0.01 wt %” 係指限用物質之百分比含量超出百分比含量基準值。
 Note1: “exceeding 0.1wt%” and “exceeding 0.01 wt%” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考2. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。
 Note2: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考3. “-” 係指該項限用物質為排除項目。
 Note3: The “-” indicates that the restricted substance corresponds to the exemption.

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