Hitachi Advanced Server HA800 G2 Series

Error Message Guide

This guide provides a list of error messages associated with Hitachi Advanced Server HA800 Series. This document is intended for the person who installs, administers, and troubleshoots Hitachi Advanced Server components. Hitachi Vantara assumes that you are qualified in the servicing of computer equipment and trained in recognizing hazards in products with hazardous energy levels.

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Preface

This document describes common procedures and solutions for the many levels of troubleshooting servers. This document is intended for the person who installs, administers, and troubleshoots servers and server blades. Hitachi Vantara assumes you are qualified to service computer equipment and are trained in recognizing hazards in products with hazardous energy levels.
Please read this document carefully to understand how to use these products, and maintain a copy for your reference.

Accessing product documentation

Product user documentation is available on Hitachi Vantara Support Connect: https://knowledge.hitachivantara.com/Documents. Check this site for the most current documentation, including important updates that may have been made after the release of the product.

Getting help

Hitachi Vantara Support Connect is the destination for technical support of products and solutions sold by Hitachi Vantara. To contact technical support, log on to Hitachi Vantara Support Connect for contact information: https://support.hitachivantara.com/en_us/contact-us.html.
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Comments

Please send us your comments on this document to doc.comments@hitachivantara.com. Include the document title and number, including the revision level (for example, -07), and refer to specific sections and paragraphs whenever possible. All comments become the property of Hitachi Vantara LLC.

Thank you!

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Introduction

Overview

This guide provides information to assist with interpreting and resolving error messages on and HA800 G2 server components. Use these messages to troubleshoot and optimize the operation of your Hitachi Vantara equipment.

Before beginning to troubleshoot an error message, review "**Troubleshooting preparation**."

For common troubleshooting procedures, the term "server" is used to mean server, and the term "enclosure" is used to mean enclosure, chassis, and frame.

To locate supporting documentation for specific HA800 G2 components, see **Documentation and troubleshooting resources for HA800 G2 servers.**

Troubleshooting preparation

Prerequisites for troubleshooting

WARNING: To avoid potential issues, ALWAYS read the warnings and cautionary information in the product documentation before removing, replacing, reseating, or modifying system components.

IMPORTANT: This guide provides troubleshooting information using various software tools that support multiple Hitachi Advanced Server products. In some sections of this document and in the software tools, server and enclosure are used as generic terms to support multiple products. For more information, see the user guide for your server.

Procedure

1. Review the important safety information.
2. Before you change the server, gather and record symptom information. If the server powers on or if auxiliary power is available, download the Active Health System Log and obtain the OS logs.

   The OS logs are available only when the system has power.

   For more information about the Active Health System Log, see the iLO user guide on the **Hitachi Vantara website** To obtain OS logs, see the OS documentation.

   If you choose to not download the Active Health System Log, you must gather all symptom information, including the following:

   - POST error messages
   - OS logs
   - Physical symptoms (LED behavior, physical state, and so on)

   For more information about gathering symptom information, see Symptom information checklist.
3. Gather all error information, such as the full POST error message displayed.
4. If it is necessary to contact Hitachi Vantara, download the Active Health System log.
5. Prepare the server for diagnosis.

Important safety information

Symbols on equipment

The following symbols might be found on the equipment to indicate the presence of potentially hazardous conditions.

This symbol indicates the presence of hazardous energy circuits or electric shock hazards. Refer all servicing to qualified personnel.

WARNING: To reduce the risk of injury from electric shock hazards, do not open this enclosure. Refer all maintenance, upgrades, and servicing to qualified personnel.

This symbol indicates the presence of electric shock hazards. The area contains no user or field serviceable parts. Do not open for any reason.

WARNING: To reduce the risk of injury from electric shock hazards, do not open this enclosure.

This symbol on an RJ-45 receptacle indicates a network interface connection.

WARNING: To reduce the risk of electric shock, fire, or damage to the equipment, do not plug telephone or telecommunications connectors into this receptacle.

This symbol indicates the presence of a hot surface or hot component. If this surface is contacted, the potential for injury exists.

WARNING: To reduce the risk of injury from a hot component, allow the surface to cool before touching.

This symbol indicates that the component exceeds the recommended weight for one individual to handle safely.

weight in

kg weight

in lb

WARNING: To reduce the risk of personal injury or damage to the equipment, observe local occupational health and safety requirements and guidelines for manual material handling.

These symbols, on power supplies or systems, indicate that the equipment is supplied by multiple sources of power.

WARNING: To reduce the risk of injury from electric shock, remove all power cords to disconnect power from the system completely.

Warnings and cautions

WARNING: Only authorized technicians trained by Hitachi Vantara should attempt to repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly/module-level repair. Because of the complexity of the individual boards and subassemblies, no one should attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create a safety hazard.

WARNING: To reduce the risk of personal injury or damage to the equipment, consult the safety information and user documentation provided with the server before attempting the installation.

Some servers contain high energy circuits, high current circuits, moving parts (such as fan blades), or any combination of these hazards, that may be exposed if covers and access panels are removed while the product is connected to a power source. These products are intended to be serviced only by qualified personnel who have been trained to deal with these hazards. Do not remove enclosures or attempt to bypass any interlocks designed to guard against these hazardous conditions.

WARNING: To reduce the risk of personal injury or damage to the equipment, be sure that:

- The leveling feet are extended to the floor.
- The full weight of the rack rests on the leveling feet.
- The stabilizing feet are attached to the rack if it is a single-rack installation.
- The racks are coupled together in multiple-rack installations.
- Only one component is extended at a time. A rack may become unstable if more than one component is extended for any reason.

WARNING: To reduce the risk of electric shock or damage to the equipment:

- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Unplug the power cord from the power supply to disconnect power to the equipment.
- Do not route the power cord where it can be walked on or pinched by items placed against it. Pay attention to the plug, electrical outlet, and the point where the cord extends from the server.

weight in kg weight in lb

WARNING: To reduce the risk of personal injury or damage to the equipment:

- Observe local occupation health and safety requirements and guidelines for manual handling.
- Obtain adequate assistance to lift and stabilize the chassis during installation or removal.
- The server is unstable when not fastened to the rails.
- When mounting the server in a rack, remove the power supplies and any other removable module to reduce the overall weight of the product.

CAUTION: To properly ventilate the system, you must provide at least 7.6 cm (3.0 in) of clearance at the front and back of the server.

CAUTION: The server is designed to be electrically grounded (earthed). To ensure proper operation, plug the AC power cord into a properly grounded AC outlet only.

Electrostatic discharge

Be aware of the precautions you must follow when setting up the system or handling components. A discharge of static electricity from a finger or other conductor may damage system boards or other static-sensitive devices. This type of damage may reduce the life expectancy of the system or component.

To prevent electrostatic damage:

- Avoid hand contact by transporting and storing products in static-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free workstations.
- Place parts on a grounded surface before removing them from their containers.
- Avoid touching pins, leads, or circuitry.
- Always be properly grounded when touching a static-sensitive component or assembly. Use one or more of the following methods when handling or installing electrostatic-sensitive parts:
  - Use a wrist strap connected by a ground cord to a grounded workstation or computer chassis. Wrist straps are flexible straps with a minimum of 1 megohm ±10 percent resistance in the ground cords. To provide proper ground, wear the strap snug against the skin.
  - Use heel straps, toe straps, or boot straps at standing workstations. Wear the straps on both feet when standing on conductive floors or dissipating floor mats.
  - Use conductive field service tools.
  - Use a portable field service kit with a folding static-dissipating work mat.

  If you do not have any of the suggested equipment for proper grounding, have an authorized reseller install the part.

For more information on static electricity or assistance with product installation, contact an authorized reseller.

Gather important information before you begin

Before you begin troubleshooting the issue, gather the following information for use during troubleshooting and for use if the issue requires contacting Hitachi Vantara support:

- Active Health System log
- OS logs
- Symptom information
- POST error messages
- Other

Collecting symptom information

Before troubleshooting a server issue, collect the symptom information. Download the Active Health System Log, if possible.

For more information about collecting symptom information, use the Symptom information checklist.

POST error messages

Introduction to POST error messages

The error messages and codes in this section include all messages generated by HA800 G2 servers. Some messages are informational only and do not indicate any error. A server generates only those codes that are applicable to its configuration and options.

For common troubleshooting procedures, the term "server" is used to mean server, and the term "enclosure" is used to mean enclosure, chassis, and frame.

WARNING: To avoid potential issues, **always** read the warnings and cautionary information in the product documentation before removing, replacing, reseating, or modifying system components.

IMPORTANT: This guide provides information for multiple system components. Some information might not apply to the product you are troubleshooting. See the product documentation for information on procedures, hardware options, software tools, and operating systems supported.

100 Series

101-Option ROM Error

Symptom

101-Option ROM Error. An option ROM for a PCIe device is invalid.

Cause

An option ROM for a PCIe device is invalid.

Action

Update the option ROM or firmware for the option card or embedded device.
For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website.**

- HA800 G2 —"Keeping the system current"

104-ASR Timer Failure

Symptom

104-ASR Timer Failure.

Cause

An issue exists with the system board.

CAUTION: Only authorized technicians trained by Hitachi Vantara should attempt to remove the system board. If you believe the system board requires replacement, contact customer support before proceeding. For more information, see Accessing Hitachi Vantara Support.

Action

If the issue persists, contact customer support.

120-A Critical Error Event that has kept the system from booting

Symptom

120-A Critical Error Event that has kept the system from

booting. System Halted!

Cause

A critical error occurred.

Action

If the issue persists, contact customer support.

121-A Critical Error occurred prior to this power-up

Symptom

121-A Critical Error occurred prior to this power-up.

System Halted!

Cause

A critical error occurred.

Action

1. Reboot the server.
2. If the issue persists, contact customer support.

163-Time and date not set

Symptom

163-Time and date not set.

Cause

The time or date in the configuration memory is invalid.

Action

1. Press the **F9** key to enter UEFI System Utilities.
2. Update the time and date settings.

200 Series

209-Unsupported DIMM configuration detected

Symptom

209-Unsupported DIMM configuration detected - Installed DIMM configuration does NOT support configured AMP Mode. System will operate in Advanced ECC Mode.

Cause

The DIMM configuration does not match the configured AMP mode.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs in a supported configuration.

For additional information, see the server user guide for your product or contact customer support.

210-Unsupported DIMM Configuration Detected

Symptom

210-Unsupported DIMM Configuration Detected – Installed DIMMs could not support the currently configured interleave mode. (Major code: A, Minor code: B)

Cause

The system BIOS detected conflicting interleave settings for the installed NVDIMMs.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs in a supported configuration.

For additional information, see the server user guide for your product.

211-Unsupported DIMM Configuration Detected

Symptom

211-Unsupported DIMM Configuration Detected – Processor X DIMM Y. The DIMM does not support ECC. (Major Code:A, Minor Code:B).

Cause

The installed DIMM does not support ECC. The system requires that all installed DIMMs support ECC.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Replace the specified DIMM with a DIMM that supports ECC.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

212-Processor UPI Initialization Error

Symptom

212-Processor UPI Initialization Error. A processor UPI initialization error was detected. (Major Code:X, Minor Code:Y).

Cause

The processor is not fully seated.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. Remove and then reinstall processors.

   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

213-Unsupported DIMM Configuration Detected

Symptom

213-Unsupported DIMM Configuration Detected – Processor X DIMM Y. The DIMM has more ranks than is supported by this system. (Major Code:A, Minor Code:B).

Cause

The total number of DIMM ranks supported in the memory channel have been exceeded.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board

connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Remove DIMMs from the channel, or replace with DIMMs having fewer ranks per DIMM.

For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

For more information on the types of DIMMs supported, see the server user guide for your product.

214-Unsupported DIMM Configuration Detected

Symptom

214-Unsupported DIMM Configuration Detected – Processor X DIMM Y. The DIMM requires a frequency not supported by the system. (Major Code:A, Minor Code:B).

Cause

One or more DIMMs installed in the server are not compatible with the supported memory frequencies.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Replace the specified DIMM with a supported DIMM.

For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

For more information on the types of DIMMs supported, see the server user guide for your product.

215-DIMM Initialization Error

Symptom

215-DIMM Initialization Error – Processor X DIMM Y. The identified processor and memory failed to initialize properly. (Major Code:A, Minor Code:B).

Cause

A DIMM has failed or is not usable.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended

guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. Verify that the system has the latest available BIOS version.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**

2. Remove and then reinstall the specified DIMMs and processors.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

216-DIMM Initialization Error

Symptom

216-DIMM Initialization Error. A fatal error was detected while initializing memory. (Major Code:X, Minor Code:Y).

Cause

The processors or DIMMs are incorrectly seated.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. Remove and then reinstall the specified DIMMs and processors.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

217-DIMM Initialization Error

Symptom

217-DIMM Initialization Error – Processor X DIMM Y. The identified processor and memory are operating at an incorrect voltage. (Major Code:A, Minor Code:B).

Cause

The processors or DIMMs are incorrectly seated.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. Remove and then reinstall the specified DIMMs and processors.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

218-DIMM Initialization Error

Symptom

218-DIMM Initialization Error – All DIMMs are mapped out due to memory errors except for one to allow the system to boot. Additional errors may be present on the remaining DIMM. System is booting in a degraded state.

Cause

All the DIMMs in the system have exceeded the acceptable threshold of uncorrectable errors due to one of the following:

- Faulty DIMM module
- An issue with one or more system board components

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. Remove and then reinstall the DIMMs and processors.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, replace the DIMMs.
3. If the issue persists, contact customer support.

219-Memory Configuration Error

Symptom

219-Memory Configuration Error. One or more of the installed processors has a total amount of memory installed which exceeds the amount supported by that processor. (Major Code:X, Minor Code:Y).

Cause

- The total amount of memory installed on a processor socket exceeds the maximum amount supported by the processor.
- The DIMMs are not installed properly.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Remove DIMMs to reduce the amount of memory installed on the processor to a supported amount.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

For additional information, see the server user guide for your product.

220-UPI Initialization Error - A fatal UPI initialization error has been detected

Symptom

220-UPI Initialization Error - A fatal UPI initialization error has been detected.

Cause

The processor interconnect link did not initialize or train properly. Multiprocessor communication may be limited.

Action

1. Update the system firmware to the latest revision.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

221-Unknown Initialization Error

Symptom

221-Unknown Initialization Error. The system has experienced a fatal initialization error. (Major Code: X, Minor Code: Y).

Cause

The system encountered an unknown fatal system error during early memory and chipset initialization.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. Inspect all installed processors and memory modules to verify that they are properly seated.
2. Check for any damage or bent pins in the processor and DIMM sockets.
3. If the issue persists, contact customer support.

223-DIMM Initialization Error – A memory error occurred

Symptom

223-DIMM Initialization Error - Processor X Channel Y. The identified memory channel could not be properly trained and has been mapped out. (Major Code: A, Minor Code: B).

Cause

One or more memory modules failed to initialize properly and has been disabled.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Reseat the DIMMs in the specified channel.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.
2. Update the System ROM.

   For more information, see the troubleshooting guide for your product.
3. If the issue persists, contact customer support.

224-Power fault detected – FlexLOM X

Symptom

224-Power fault detected – FlexLOM

Cause

The FlexibleLOM is not fully seated on the connector.

Action

1. Power down the server.
2. Locate and reseat the indicated FlexibleLOM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

225-Power fault detected – Mezzanine X

Symptom

225-Power fault detected – Mezzanine X.

Cause

The mezzanine option is not fully seated on the connector.

Action

Locate and reseat the indicated mezzanine option.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

226-Power fault detected – Embedded storage controller

Symptom

226-Power fault detected – Embedded storage controller.

Cause

The storage controller is not fully seated.

Action

- If the storage controller is embedded on the system board, contact customer support.
- If the storage controller is on a removable board, locate and reseat the indicated storage controller option. For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

227-Power fault detected – M.2 riser

Symptom

227-Power fault detected – M.2 riser.

Cause

The M.2 riser is not fully seated.

Action

- If the M.2 riser is embedded on the system board, contact customer support.
- If the M.2 riser is on a removable board, locate and reseat the indicated M.2 riser option. For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

228-Unsupported DIMM Configuration Detected - Processor X, Channel Y

Symptom

228-Unsupported DIMM Configuration Detected – Processor X, Channel Y. DIMM population rule violation. The Memory channel has been mapped out. The indicated DIMMs will not be available. (Major Code:A, Minor Code:B).

Cause

DIMMs are installed in an unsupported configuration.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs in a supported configuration.

For additional information, see the server user guide for your product.

229-Unsupported DIMM Configuration Detected – Processor X, DIMM Y

Symptom

229-Unsupported DIMM Configuration Detected - Processor X DIMM Y. The identified DIMM is not supported in the system. (Major Code: A, Minor Code: B).

Cause

An unsupported DIMM was detected.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install only supported DIMMs into the server.

For additional information, see the server user guide for your product.

230-Unsupported DIMM Configuration Detected – Processor X, Channel Y

Symptom

230-Unsupported DIMM Configuration Detected – Processor X, Channel Y. The number of installed DIMM ranks exceeds the number supported by the channel. (Major Code: A, Minor Code: B)

Cause

The number of installed DIMM ranks exceeds the number supported by the channel.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs in a supported configuration.

For additional information, see the user guide for your server.

231-Memory Configuration Error – No memory is available

Symptom

231-Memory Configuration Error – No memory is available. If DIMMs are installed, verify that the corresponding processor is installed. (Major Code: X, Minor Code:Y).

Solution 1

Cause

- The server could not configure the installed memory.
- The installed memory is unusable.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs in a supported configuration.

For additional information, see the server user guide for your product.

Solution 2

Cause

DIMMS are installed but the corresponding processor is not installed.

Action

Install the DIMMs and processors in a supported configuration.

For additional information, see the user guide for your server.

232-DIMM Initialization Error - A memory initialization error was detected

Symptom

232-DIMM Initialization Error - A memory initialization error was detected. (Major Code: A, Minor Code: B).

Cause

Installed DIMMs did not pass the memory test.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Remove and then reinstall the DIMMs.
   For more information, see the server maintenance and service guide for your production the **Hitachi Vantara website**.

2. If the issue persists, update the System ROM.
   For more information, see the troubleshooting guide for your product on the Hitachi Vantara website.

3. If the issue persists, contact customer support.

233-DIMM Initialization Error – Processor X Channel Y

Symptom

233-DIMM Initialization Error – Processor X Channel Y. The identified memory channel could not be properly trained and has been mapped out. (Major Code: A, Minor Code: B).

Cause

One or more DIMMs failed to initialize properly and has been disabled by the memory initialization code.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Remove and then reinstall the DIMMs in the specified channel.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Inspect the DIMM sockets and system board for bent pins or damaged traces.

3. If the issue persists, update the System ROM.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

4. If the issue persists, contact customer support.

234-DIMM Initialization Error – Processor X DIMM Y

Symptom

234-DIMM Initialization Error – Processor X DIMM Y. The identified DIMM could not be properly trained and has been mapped out. (Major Code: A, Minor Code: B).

Cause

- DIMMs are not seated correctly.
- Processors are not seated correctly.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. Remove, and then reinstall the specified DIMMs.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.
2. If the issue persists, reseat the processors.
3. If the issue persists, update the System ROM.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
4. If the issue persists, contact customer support.

235-Unsupported DIMM Configuration Detected – Mixed DIMM configurations are not supported on this system

Symptom

235-Unsupported DIMM Configuration Detected – Mixed DIMM configurations are not supported on this system. (Major Code: X, Minor Code: Y).

Cause

DIMMs are installed in an unsupported configuration.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs in a supported configuration.

For additional information, see the server user guide for your product.

236-Unsupported DIMM Configuration Detected - Processor X DIMM Y

Symptom

236-Unsupported DIMM Configuration Detected – Processor X DIMM Y. The DIMM does not support the required voltage. (Major Code: A, Minor Code: B).

Cause

The installed DIMM does not support the required voltage.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Remove the specified DIMM from the server and install a supported DIMM.

For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

237-Unsupported DIMM Configuration Detected

Symptom

237-Unsupported DIMM Configuration Detected – Octal and Quad Rank DIMMs are not supported on the same memory channel. (Major Code: X, Minor Code: Y).

Cause

DIMMs are installed in an unsupported configuration.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs in a supported configuration.

238-Unsupported DIMM Configuration Detected

Symptom

238-Unsupported DIMM Configuration Detected - Mixing 3DS LRDIMMs with non-3DS LRDIMMs is not supported. (Major Code: X, Minor Code: Y).

Cause

DIMMS are installed in an unsupported configuration.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs in a supported configuration.
For additional information, see the server user guide for your product.

239-Unsupported DIMM Configuration Detected

Symptom

239-Unsupported DIMM Configuration Detected - Mixed DIMM configurations are not supported on this system. The system can only have one DIMM type (such as RDIMM or LRDIMM) installed at a time. (Major Code: X, Minor Code: Y).

Cause

Mixed DIMM types are installed in the server. All memory on the socket has been disabled.

Action

Install only a single DIMM type in the server.

240-DIMM Initialization Warning – A memory error occurred

Symptom

240-DIMM Initialization Warning - Processor X DIMM Y. A correctable memory initialization error was detected. (Major Code: A, Minor Code: B).

Cause

The specified DIMM experienced an error during the memory training process. The error was automatically corrected and the DIMM was initialized successfully.

⚠ **CAUTION:** Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. No action is required.
2. If the issue persists, remove and then reinstall the specified DIMMs.

For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

3. Update the System ROM

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

4. If the issue persists, contact customer support.

241- Unsupported DIMM Configuration Detected

Symptom

241-Unsupported DIMM Configuration Detected - Processor X DIMM Y. Mixing DIMM vendors on the same memory channel is not supported in this configuration. The indicated DIMMs have been mapped out and will not be available.

(Major Code: A, Minor Code: B).

Cause

A DIMM configuration error was detected. In this system, one or more of the DIMM vendors cannot be used together in the same memory channel.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs from the same vendor in the specified memory channel.

For additional information, see the server user guide for your product.

242-Unsupported Processor Configuration Detected

Symptom

242-Unsupported Processor Configuration Detected - System does not support booting with three processors installed.

Cause

The server does not support booting with three processors.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

- Install an additional processor.

  For more information, see the server user guide for your product on the **Hitachi Vantara website**.

- Remove one of the processors.

  For more information, see the server maintenance and service guide for your product on **Hitachi Vantara website.**

243-Unsupported processor configuration detected

Symptom

243-Unsupported Processor Configuration Detected – The installed processors are not 4-socket capable and this server only supports 4-socket capable processors.

Cause

An unsupported processor is installed.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

Remove the unsupported processor and replace it with a supported processor.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

244- The device in PCIe Slot X is installed in a slot that does NOT support SRIOV

Symptom

244- he device in PCIe Slot X is SRIOV capable but is installed in a slot that does NOT support SRIOV.

Cause

The PCIe slot or the installed processor does not have ARI (Alternative Routing ID Interpretation) capability to support SRIOV.

Action

To use SRIOV functionality, move the expansion card to an available slot that supports SRIOV.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

251- Switches SW1 and SW3 are ON

Symptom

251- Switches SW1 and SW3 are ON. This is only used to recover iLO functionality.

Cause

SW1 in the ON position disables iLO Security.

Action

1. Power down the server.
2. Set switches SW1 and SW3 to the OFF position.

   To locate the system maintenance switch bank, see the user guide for your server.

253-One or more embedded PCIe Devices are attached to a noninstalled processor

Symptom

253- One or more embedded PCIe Devices are attached to a noninstalled processor and will not function.

Cause

A processor is not installed as expected.

Action

Install the specified processor.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

254-The PCIe Device installed in Slot X has no corresponding processor installed

Symptom

254- The PCIe Device installed in Slot X has no corresponding processor installed and will not function.

Cause

The PCI device is installed in a slot which has no corresponding processor installed.

Action

- Move the PCIe device to another slot.
- Install the specified processor.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

255-The NVMe Device installed in Slot X has no corresponding processor installed

Symptom

255-The NVMe Device installed in Slot X has no corresponding processor installed and will not function.

Cause

The NVMe device is installed in a slot that has no corresponding processor installed.

Action

- Move the NVMe device to another slot.
- Install the specified processor.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

259-Unsupported Processor Configuration Detected

Symptom

259-Unsupported Processor Configuration Detected. All installed processors do not have the same model number.

Cause

Processors with different model numbers are installed.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

Replace any processors that are not of the same model number.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

264-Server Platform Services Firmware in Recovery Mode

Symptom

264-Server Platform Services Firmware in Recovery Mode. SPS Firmware Update Switch 12 of the Maintenance Switch is in the ON position.

Cause

Switch 12 is in the ON position.

Action

1. Power down the server.
2. Set switch SW12 to the OFF position.

   To locate the system maintenance switch bank, see the server user guide for your product.

265-System configuration error

Symptom

265-System configuration error. The system configuration has exceeded the nonvolatile storage capacity of the server and certain settings may be lost.

Cause

The system configuration has exceeded the nonvolatile storage capacity of the server.

266-Non-Volatile Memory Corruption Detected

Symptom

266-Non-Volatile Memory Corruption Detected. Configuration settings restored to defaults. If enabled, Secure Boot security settings may be lost.

Cause

A server was interrupted while writing to NVRAM by one of the following:

- A sudden removal of power
- Pressing the power button
- Pressing the iLO virtual power button

Action

1. Reset any configuration settings that differ from the default settings.
2. If the issue persists, contact customer support.

267-Default configuration settings have been restored

Symptom

267- Default configuration settings have been restored at the request of the user.

Cause

Configuration settings were reset to the default settings.

Action

Reset any configuration settings that differ from the default settings.

268-UEFI Non-Volatile Variable Store Corruption Detected

Symptom

268-UEFI Non-Volatile Variable Store Corruption Detected. If enabled, Secure Boot security settings may be lost.

Cause

A server was interrupted while writing to NVRAM by one of the following:

- A sudden removal of power
- Pressing the power button
- Pressing the iLO virtual power button

Action

1. Reset any configuration settings that differ from the default settings.
2. If the issue persists, contact customer support.

269-Default configuration settings have been restored

Symptom

269-Default configuration settings have been restored per user request. If Secure Boot was enabled, related security settings may have been lost.

Cause

Configuration settings were reset to the default settings.

Action

Restore any desired configuration settings.

270-iLO FW Communication Issue

Symptom

270-iLO FW Communication Issue – Unable to communicate with iLO FW. Certain management functionality is not available.

Cause

The system cannot communicate with the iLO firmware.

Action

1. Remove and then reapply power to the server.
2. If the issue persists, update the iLO firmware.

   For more information, see the iLO user guide on the **Hitachi Vantara website**

   If the issue persists, contact customer support.

271-Processor/Board X, DIMM Y could not be authenticated as genuine

Symptom

271-Processor/Board X, DIMM Y could not be authenticated as genuine Hitachi Vantara. Enhanced and extended features will not be active.

Cause

The DIMM could not be authenticated as a genuine Hitachi Vantara DIMM.

Action

If the DIMM is supplied by Hitachi Vantara, contact customer support.

272-Processor X, DIMM Y may not be a genuine DIMM

Symptom

272-Processor X, DIMM Y may not be a genuine DIMM.

Cause

A DIMM installed in the server might not be genuine.

Action

If the issue persists, contact customer support.

275-Unsupported Processor Detected

Symptom

275-Unsupported Processor Detected - Processor stepping not supported.

Cause

The current system ROM version does not support processor stepping.

Action

If available, update the System ROM to a version supporting processor stepping.
For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

276-Option Card Configuration Error

Symptom

276-Option Card Configuration Error. An option card is requesting more memory mapped I/O than is available.

Cause

An option card is requesting more memory mapped I/O than is available.

Action

Disable Option ROMs that are not required for the system configuration. For embedded devices, such as the network controller, the Option ROM can be disabled from within UEFI System Utilities.

277-Secure Boot Authentication Failure

Symptom

277-Secure Boot Authentication Failure - The image on X failed authentication and was not executed.

Cause

- The image is not signed and the image hash is not found in Secure Boot allowed database (DB).
- The image is signed but the signature and image hash are not found in Secure Boot allowed database (DB).

Action

1. Update the image to a known good trusted version.
2. If the current image is trusted, then update the Secure Boot allowed database (DB) with the certificate or image hash.

278-Secure Boot Authentication Failure

Symptom

278-Secure Boot Authentication Failure. The image on X was not authorized due to revoked certificates and was not executed.

Cause

- The image is signed with a certificate that has been specifically excluded and is found in the Secure Boot forbidden database (DBX).
- The image hash is found in the Secure Boot forbidden database (DBX). The image is no longer trusted.

Action

Update the image to a new version in which the certificate used to sign the image and the image hash are not in the Secure Boot forbidden database (DBX).

For more information, see the troubleshooting guide for your product

281-SW12 is ON indicating physical presence

Symptom

281-SW12 is ON indicating physical presence. This switch should only be ON to override certain security protections.

Cause

The SW12 switch is set to ON. SW12 might have been left on for debugging and diagnostic purposes that required establishing that the user was physically present. The switch must only be set to the ON position temporarily.

Action

If physical presence is not required, power down the server and set the SW12 switch to the OFF position.

To locate the system maintenance switch bank, see the server user guide for your product.

282-Invalid Server Serial Number and Product ID

Symptom

282-Invalid Server Serial Number and Product ID. The Serial Number and/or Product ID have been corrupted or lost.

Cause

The serial number, the Product ID, or both are invalid, corrupted, or lost.

Action

Re-enter the serial number and Product ID in the UEFI System Utilities.

284-DIMM Failure - Uncorrectable memory error

Symptom

284-DIMM Failure - Uncorrectable memory error.

Cause

A DIMM has failed.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Replace the DIMM.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

286-The removal of a storage device has been detected

Symptom

286-The removal of a storage device has been detected. The device has been removed from the Boot Controller Order.

Cause

A storage device was removed from the server.

Action

No action is required.

287-The removal of a network device has been detected

Symptom

287- The removal of a network device has been detected. The device has been removed from the Standard Boot Order (IPL).

Cause

A network device was removed.

Action

No action is required.

288-A new storage device has been detected

Symptom

288- A new storage device has been detected and has been added to the end of the Boot Controller Order.

Cause

A new storage device was connected to the server.

Action

No action is required.

289-A new network or storage device has been detected

Symptom

289- A new network or storage device has been detected. This device will not be shown in the Legacy BIOS Boot Order options in RBSU until the system has booted once.

Cause

A new network or storage device has been connected to the server.

Action

No action is required.

291-The Standard Boot Order (IPL) has been detected as corrupted

Symptom

291- The Standard Boot Order (IPL) has been detected as corrupted and has been restored to default values.

Cause

The Standard Boot Order (IPL) is corrupted.

Action
No action is required.

292-Invalid Software RAID Configuration

Symptom

292-Invalid Software RAID Configuration. {Device} SW RAID Mode is NOT supported when the Boot Mode is configured for Legacy BIOS Mode.

Cause

The server is configured for Legacy BIOS Mode.

Action

1. Change the Boot Mode to UEFI Mode.
   a. From the System Utilities screen, select **System Configuration** > **BIOS/Platform Configuration (RBSU)** > **Boot Options** > **Boot Mode.**
   b. Select **UEFI Mode (default)-Configures the system to boot to a UEFI compatible operating system.**
   c. Save your settings.
   d. Reboot the server.

297-The iLO Security switch is set to the ON position

Symptom

297- The iLO Security is disabled by the associated switch being set to the ON position. Platform security is DISABLED.

Cause

The iLO Security switch is set to ON.

Action

Set the switch to the OFF position for normal operation.

To locate the system maintenance switch bank, see the label on the access panel, or the server user guide for your product.

298-The Boot Mode has been changed to Legacy Boot Mode for this boot only

Symptom

298- The Boot Mode has been changed to Legacy Boot Mode for this boot only. On the next reboot, the Boot Mode will return to UEFI Boot Mode.

Cause

The one-time boot override was used to select a Legacy Mode boot option. This operation does not affect the permanent boot order.

Action

No action is required.

299-The Boot Mode has been changed to UEFI Boot Mode for this boot only

Symptom

299- The Boot Mode has been changed to UEFI Boot Mode for this boot only. On the next reboot, the Boot Mode will return to Legacy Boot Mode.

Cause

The server is temporarily configured to boot in UEFI Boot Mode.

Action

No action is required.

300 Series

311-Configuration Error

Symptom

311-Configuration Error – The system has exceeded the installed energy pack capacity.

Cause

- There are too many controllers, NVDIMMs, or both for the energy pack to support.
- The energy pack is unsupported on this server.
- The energy pack is faulty.

Action

1. Verify that the storage controller and NVDIMM configuration are supported in the server.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

2. Update the System ROM, smart array firmware, and iLO firmware.

   For more information, see the troubleshooting guide for your product on the Hitachi Vantara website:

3. Confirm the status of the energy pack in iLO.

   For more information, see the iLO user guide on the **Hitachi Vantara website.**

312-Energy pack failure

Symptom

312-Energy pack failure – Communication with the energy pack failed and its output may not be enabled.

Cause

- The energy pack is not installed correctly.
- System ROM and/or iLO firmware is out of date.
- The energy pack has failed.

Action

1. Verify that the energy pack is installed correctly.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

2. Reseat the energy pack.
3. Update the System ROM and iLO firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

4. Confirm the status of the energy pack in iLO.

   For more information, see the iLO user guide on the **Hitachi Vantara website.**

5. Reboot the server.
6. If the issue persists, contact customer support.

315-An uncorrectable memory error was detected prior to this system boot

Symptom

315-An uncorrectable memory error was detected prior to this system boot.

Cause

An uncorrectable memory error occurred.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your

product.

Action

1. Reseat the DIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Update the system ROM to the latest version.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. Replace the DIMM.

316-Configuration Error

Symptom

316-Configuration Error - The installed smart storage energy pack does not support NVDIMMs.

Cause

The energy pack does not support NVDIMMs.

Action

Do one of the following:

- Install a smart storage energy pack with the capacity to support all installed energy source-backed devices, such as array controllers and NVDIMMs.

  For more information, see the server user guide for your product on the **Hitachi Vantara website**.

- Remove the NVDIMMs.

  For more information, see the server maintenance and service guide for your product on the Hitachi Vantara website.

318-Trusted Platform Module (TPM) Self-Test Error

Symptom

318-Trusted Platform Module (TPM) Self-Test Error.

Cause

- The TPM has failed.
- The boot mode is not configured for the TPM installed on the server.

Action

1. Reboot the server.

2. Be sure that the TPM is configured for a mode that is compatible with the OS running on the server.

3. Verify that the OS supports the version of TPM installed and configured on the server.
4. When a TPM 2.0 is installed, verify that the server is configured for UEFI boot mode:

   From the System Utilities screen, select **System Configuration** > **BIOS/Platform Configuration (RBSU)** > **Boot Options** > **Boot Mode**.
5. If the issue persists, contact customer support.

319-An unexpected shutdown was detected prior to this boot

Symptom

319-An unexpected shutdown was detected prior to this boot.

Cause

The server shut down unexpectedly.

Action

No action is required.

320-Enclosure Power Event detected

Symptom

320-Enclosure Power Event detected. Boot delayed until condition resolved.

Cause

A power event occurred within the enclosure.

Action

For more information, see the enclosure user guide for your product on the **Hitachi Vantara website** or contact customer support.

321-Dual microSD Device Unsupported Configuration

Symptom

321-Dual microSD Device Unsupported Configuration – A microSD card is not installed in Slot X.

Cause

- A microSD card is missing.
- The microSD device has failed.

Action

1. Install the microSD card that came with the device.

2. If the issue persists, replace the dual microSD device.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

322-Dual microSD Device Unsupported Configuration

Symptom

322-Dual microSD Device Unsupported Configuration – No microSD cards are installed.

Cause

- A microSD card is missing.
- The microSD device has failed.

Action

1. Install both the microSD cards that came with the device.
2. If the issue persists, replace the dual microSD device.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

323-Dual microSD Device Error

Symptom

323-Dual microSD Device Error – The microSD card in Slot X has failed.

Cause

The microSD device has failed.

Action

1. Replace the dual microSD device.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.
2. Install the good microSD card from the original device in the new device to preserve data.

324-Dual microSD Device Error

Symptom

324-Dual microSD Device Error – Both microSD cards have failed.

Cause

The microSD device has failed.

Action

Replace the dual microSD device.

For more information, see the server maintenance and service guide for your product on the

Hitachi Vantara website.

325-Dual microSD Device Error

Symptom

325-Dual microSD Device Error – microSD cards have conflicting metadata. Configuration required.

Cause

A microSD card is not configured correctly.

Action

Enter the UEFI System Utilities and configure the primary microSD card using the System Configuration options.

326-Dual microSD Device Error

Symptom

326-Dual microSD Device Error – The microSD card in Slot X has failed. A microSD card is not installed in Slot Y.

Cause

The microSD device has failed.

Action

Replace the dual microSD device.

For more information, see the server maintenance and service guide for your product on the

Hitachi Vantara website.

327-AMP Configuration Error

Symptom

327-AMP Configuration Error – An installed processor does NOT support the configured AMP Mode. System will operate in Advanced ECC Mode.

Cause

The processor installed does not support the current AMP mode.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

Install a processor that supports the configured AMP mode.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

328-Power Management Controller Firmware Error

Symptom

328-Power Management Controller Firmware Error - The firmware is in Recovery Mode.

Cause

The Power Management Controller Firmware is corrupt.

Action

Update the power management controller firmware.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

329-Power Management Controller Firmware Error

Symptom

329-Power Management Controller Firmware Error - Unable to communicate with the firmware.

Action

1. Reset the power management controller firmware.
2. If the issue persists, remove AC power to reset the Power Management Controller firmware.
3. If the issue persists, update the firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

330-Unsupported Processor Configuration Detected

Symptom

330–Unsupported Processor Configuration Detected – Processors are installed in the incorrect order.

Cause

Processors are not installed in the correct order.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

Install the processors sequentially starting with Processor 1.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

333-RESTful API Error

Symptom

333-RESTful API Error – Unable to communicate with iLO FW. BIOS configuration resources may not be up-to-date.

Cause

A file transfer to or from iLO timed out, causing an error during the communication.

Action

1. Reset the iLO firmware.

   For more information, see the iLO user guide on the **Hitachi Vantara website.**

2. Reboot the server.
3. If the issue persists, remove the server from the enclosure, and reinstall it.

334-RESTful API Error

Symptom

334-RESTful API Error – RESTful API GET request failed (HTTP Status Code: NNN). BIOS configuration resources were not consumed.

Cause

The iLO RESTful API returned an HTTP Error Status (other than 200-Success, 204-No Content, 304-Not Modified, or 401- Unauthorized) as a response to a GET request from the BIOS.

Action

1. Restore manufacturing defaults in RBSU:

   a. From the System Utilities screen, select **System Configuration** > **BIOS/Platform Configuration (RBSU)** > **System Default Options** > **Restore Default Manufacturing Settings**.

   b. Press **Enter**.

   c. Select **Yes, restore the default settings**.

2. Reboot the server.

335-RESTful API Error

Symptom

335-RESTful API Error – RESTful API PUT request failed (HTTP Status Code: NNN). BIOS configuration resources may not be up-to-date.

Cause

The iLO RESTful API returned an HTTP Error Status (other than 200-Success, 412-Precondition Failed, or 401-Unauthorized) as a response to a PUT request from the BIOS.

Action

1. Reset the RESTful API.
2. If the issue persists, reset the iLO API.

   To learn more about the iLO RESTful API, contact customer support
3. If the issue persists, contact customer support.

336-RESTful API Error

Symptom

336-RESTful API Error – One or more configuration settings could not be applied.

Cause

The BIOS configuration change was consumed through the RESTful API, and one or more of the requested changes resulted in an error. For example, attempting to set an attribute to an invalid or unsupported value.

Action

For more information, see the `SettingsResult` property in the RESTful API.

https://knowledge.hitachivantara.com/Documents/Servers
To learn more about the iLO RESTful API, contact customer support.

337-RESTful API Error

Symptom

337-RESTful API Error – Unable to communicate with iLO FW due to data center configuration lock being enabled. BIOS configuration resources may not be up-to-date.

Cause

The iLO RESTful API returns an HTTP Error Status of 401-Unauthorized for any BIOS GET or PUT request. This occurs when the iLO security settings prevent BIOS communication with iLO.

Action

1. Restore manufacturing defaults in RBSU:
   a. From the System Utilities screen, select **System Configuration** > **BIOS/Platform Configuration (RBSU)** > **System Default Options** > **Restore Default Manufacturing Settings**.
   b. Press **Enter**.
   c. Select **Yes, restore the default settings**.
2. Reboot the server.

338-RESTful API Error

Symptom

338-RESTful API Error – Unable to communicate with iLO FW. BIOS configuration resources may not be up-to-date.

Cause

The iLO RESTful API returned an HTTP Error Status other than 200-OK or 201-Created for a BIOS POST request to register or refresh the BIOS REST provider.

Action

1. Restore manufacturing defaults in RBSU:
   a. From the System Utilities screen, select **System Configuration** > **BIOS/Platform Configuration (RBSU)** > **System Default Options** > **Restore Default Manufacturing Settings**.
   b. Press **Enter**.
   c. Select **Yes, restore the default settings**.
2. Reboot the server.

340-NVDIMM Error – Backup Error

Symptom

340-NVDIMM Error – Backup Error – Processor X, DIMM Y (SN:). Persistent data backup failed and data is irrecoverably lost.

Cause

- The DIMMs are not seated correctly.
- The DIMMs need to be cleaned.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board

connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Sanitize the NVDIMM.

   For more information, contact customer support.

2. If the issue persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

341-NVDIMM Error – Restore Error

Symptom

341-NVDIMM Error – Restore Error - Processor X, DIMM Y. Persistent data restore failed and data is not available. Data is not lost unless the issue persists.

Cause

The data failed to load from the back-up non-volatile storage on the device to the regular, volatile memory storage.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

If the issue persists, replace the NVDIMM.

For more information, see the server maintenance and service guide for your product.

342-NVDIMM Error – Uncorrectable Memory Error

Symptom

342-NVDIMM Error – Uncorrectable Memory Error - Processor X, DIMM Y. This NVDIMM will not be available to the operating system and data may have been lost.

Cause

Back up data on the NVDIMM contains uncorrectable memory errors. The uncorrected information in the NVDIMM is persistent across the system reboot.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Use the Persistent Memory Address Range Scrub option to attempt data recovery and sanitize the NVDIMM.

   For more information, customer support.

2. If the issue persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

343-NVDIMM Error – Backup Power Error

Symptom

343-IMPORTANT: NVDIMM Backup power has been lost and a future backup is not possible. Data from the last successful backup is intact, but data modified after the last successful backup will be lost if power cannot be restored.

Cause

- The energy pack has not fully recharged in a server with an NVDIMM-N Backup Power Policy of Continue Boot Without Backup Power.
- The energy pack is disconnected, has lost charge, or has failed.

The energy pack provides power to the NVDIMM-N modules in the case of system power loss. Data in the NVDIMM-N volatile memory must be backed up to the nonvolatile flash storage prior to removing power to the NVDIMM-N. If the energy pack fails or becomes disconnected, the backup is not performed. Any modified data since the last backup is lost.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Back up the contents of the NVDIMM to other media to preserve data.

   For more information, contact customer support.

2. Be sure that the energy pack is installed and functioning.

   For more information, see the server troubleshooting guide for your product on the **Hitachi Vantara website**.

3. Reseat the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

4. If the error persists, reseat all NVDIMMs and DIMMs.
5. If the error persists, replace the NVDIMM.

344-NVDIMM Error – NVDIMM Controller Error

Symptom

344-NVDIMM Error – NVDIMM Controller Error - Processor X, DIMM Y. An error was found with the NVDIMM controller. The OS will not use the NVDIMM. Data from last successful backup is still available, but will be lost if controller error persists.

Cause

- An NVDIMM controller firmware is not operating properly.
- The NVDIMM has failed.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Back up the contents of the NVDIMM to other media to preserve data.

   For more information, contact customer.

2. Update the NVDIMM firmware.

   For more information, see the troubleshooting guide for your product.

3. If the error persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

345-NVDIMM Error – Erase Error

Symptom

345-NVDIMM Error – Erase Error - Processor X, DIMM Y. NVDIMM could not be erased by the NVDIMM controller FW and future backups are not possible.

Cause

The NVDIMM erase operation failed.

CAUTION: Contents of the NVDIMM must be saved to another media source immediately. If the server is reset or powered down prior to preserving the data, the data will be lost.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Back up the contents of the NVDIMM to other media to preserve data.

   For more information, contact customer support.

2. Replace the NVDIMM.

   For more information, see the server troubleshooting guide for your product on the **Hitachi Vantara website**.

3. Sanitize the new NVDIMM.

   For more information, contact customer support.

4. Copy the preserved data to the new NVDIMM.

346-NVDIMM Error – Arming Error

Symptom

346-NVDIMM Error – Arming Error - Processor X, DIMM Y. NVDIMM could not be armed and future backups are not possible.

Cause

The restore operation succeeded but the NVDIMM cannot be armed for backup due to an NVDIMM controller failure. As a result, the NVDIMM is reported to the operating system as read-only.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. To preserve the data, save the contents of the NVDIMM to other media.

   For more information, contact customer support.

2. Replace the NVDIMM.

   For more information, see the server troubleshooting guide for your product on the **Hitachi Vantara website**.

3. Sanitize the new NVDIMM.

   For more information, contact customer support.

4. Copy the preserved data to the new NVDIMM.

347-NVDIMM Population Error

Symptom

347-NVDIMM Population Error – X NVDIMMs are present in the system. Only Y NVDIMMs are supported.

Cause

An unsupported number of NVDIMMs are installed in the server.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product on the **Hitachi Vantara website**.

Action

Reduce the number of NVDIMMs in the server to maximum number of supported NVDIMMs or fewer.

For more information, contact customer support.

349-NVDIMM Population Error

Symptom

349-NVDIMM Population Error – NVDIMMs and LRDIMMs are installed in this system. NVDIMMs are only supported with RDIMMs on this system.

Cause

The server contains an unsupported mixture of DIMM types.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Do one of the following:

- Remove all LRDIMMs from the server.
- Remove all NVDIMMs from the server.

350-NVDIMM Population Error

Symptom

350-NVDIMM Population Error – Processor X, DIMM Y. NVDIMMs and RDIMMs are in the incorrect order on Channel Z. NVDIMMs on the channel should be closest to the CPU.

Cause

NVDIMMs and RDIMMs are not installed in the correct order.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Follow the population guidelines for installing DIMMs and NVDIMMs in a server.

For more information, contact customer support.

351-X is not charged sufficiently to support the energy-backed persistent memory installed

Symptom

351-IMPORTANT: X is not charged sufficiently to support the energy-backed persistent memory installed in the system. The system will wait for the energy pack to charge sufficiently before continuing boot.

Cause

The energy pack is not sufficiently charged.

Action

1. Allow sufficient time for the energy pack to charge.

2. Confirm the energy pack status in iLO.
3. Confirm that the number of NVDIMMs installed in the server is supported.

352-X is not charged sufficiently to support the energy-backed persistent memory installed

Symptom

352-IMPORTANT: X is not charged sufficiently to support the energy-backed persistent memory installed in the system. System configured to not wait for the energy pack to charge. Persistent memory regions may not be available in the OS.

Cause

The energy pack is not sufficiently charged.

Action

1. Confirm the energy pack status in iLO.
2. Confirm that the number of NVDIMMs installed in the server is supported.
3. To make the memory available to the OS, reboot the server when the backup energy source is sufficiently charged.

353-IMPORTANT: Possible Password Corruption

Symptom

353- Possible Password Corruption. The PW authentication algorithm detected an issue which has been corrected.

Cause

A password was lost or corrupted.

Action

To remove the password, set the Password Disable Switch (S5) to the ON position.

To locate the system maintenance switch bank, see the server user guide for your product.

354-Unsupported NVDIMM-N Configuration Detected

Symptom

354-Unsupported NVDIMM-N Configuration Detected – Processor X DIMM Y. The installed NVDIMM-N is not supported.

Cause

An unsupported NVDIMM-N is installed.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Remove the specified NVDIMM-N.
   For more information, see the server maintenance and service guide for your product on the

Hitachi Vantara website.

2. Install a supported NVDIMM-N.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

355-Processor X, DIMM Y

Symptom

355-IMPORTANT: Processor X, DIMM Y – This NVDIMM-N was selected for Sanitizing/Erasing. All data saved in the NVDIMM has been erased.

Cause

NVDIMM sanitization was successful.

Action
No action is required.

356-NVDIMM Sanitization Error – Processor X, DIMM Y

Symptom

356-NVDIMM Error - Sanitization Error – Processor X, DIMM Y {Serial number}. This NVDIMM-N was selected for Sanitizing/ Erasing, but this process was not successful.

Cause

The NVDIMM controller firmware is unable to perform the sanitize operation on the NVDIMM. Either the error happened temporarily or the NVDIMM has failed.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Retry sanitizing the NVDIMM. The data on the NVDIMM will not be available after sanitization.

   For more information, contact customer support.

2. If the issue persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

357-Processor X, DIMM Y – This NVDIMM is NOT a smart memory NVDIMM

Symptom

357-IMPORTANT: Processor X, DIMM Y – This NVDIMM is NOT a smart memory NVDIMM. Only smart memory NVDIMMs are supported. NVDIMM will be used as a standard DIMM.

Cause

An unsupported NVDIMM is installed. The operating system will recognize the unsupported NVDIMM only as a standard DIMM.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

For persistency, replace the unsupported NVDIMM with a smart memory NVDIMM.

358-The installed NVDIMM has a Supercap attached

Symptom

358-IMPORTANT: Processor X, DIMM Y – The installed NVDIMM has a Supercap attached. This is not supported.

Cause

An unsupported capacitor pack is attached to an installed NVDIMM. The smart storage battery provides power to the NVDIMMs in a Hitachi Vantara Server.

Action

Remove the unsupported capacitor pack from the NVDIMM in Processor X, slot Y.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

359-NVDIMM Population Error

Symptom

359-NVDIMM Population Error – Processor 1 must have at least one RDIMM installed when NVDIMMs are present in the system.

Cause

At least one standard DIMM is not installed on Processor 1, as required in the population guidelines.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install a regular DIMM on Processor 1.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

360-The System Programmable Logic Device revision in this system does not meet minimum requirements

Symptom

360- The System Programmable Logic Device revision in this system does not meet minimum requirements for operation with NVDIMMs. All NVDIMM functionality has been disabled.

Cause

The System Programmable Logic Device revision does support NVDIMM functionality.

Action

Contact customer support.

361-The Processor RAPL wattage value is configured to an invalid value

Symptom

361-The Processor RAPL wattage value is configured to an invalid value. User provided value was X, but Y has been assigned since it is closest to Z.

Cause

The processor running average power limit (RAPL) wattage value is incorrect or invalid.

362-The DRAM RAPL wattage value is configured to an invalid value

Symptom

362-IMPORTANT: The DRAM RAPL wattage value is configured to an invalid value. User provided value was X, but Y has been assigned since it is closest to Z.

Cause

The DRAM running average power limit wattage value is incorrect or invalid.

363-New NVDIMMs detected on processor

Symptom

363-IMPORTANT: New NVDIMMs detected on Processor X. All NVDIMMs on Processor Y have been disabled.

Cause

New NVDIMMs were installed in an existing interleaved set. Addition of any new NVDIMM to the existing functional interleaved set breaks the functionality of the entire set.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

- To continue using the existing interleaved set, remove the newly installed NVDIMMs.
- To use the new NVDIMMs, sanitize all NVDIMMs on the processor to form a new interleave set.

  For more information, contact customer support.

364-NVDIMM Controller Error

Symptom

364-NVDIMM Error – NVDIMM Controller Error - Processor X, DIMM Y. The NVDIMM controller firmware has been corrupted. The OS will not use the NVDIMM.

Cause

- The NVDIMM controller firmware is corrupt.
- The NVDIMM has failed.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Update the NVDIMM firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the error persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

365-Unsupported NVDIMM-N Configuration Detected

Symptom

365-Unsupported NVDIMM-N Configuration Detected – The installed NVDIMM-Ns are not compatible with each other. (Major Code: X, Minor Code: Y).

Cause

Incompatible NVDIMM-Ns are installed.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Remove the specified NVDIMM-N.
   For more information, see the server maintenance and service guide for your product on the

Hitachi Vantara website.

2. Install a supported NVDIMM-N.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

367-System ROM Authentication Error

Symptom

367-System ROM Authentication Error – The System ROM image could not be authenticated or recovered.

Cause

The System ROM image is corrupt or invalid.

Action

Update the System ROM to restore system operation.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

368-System ROM Authentication Error

Symptom

368-System ROM Authentication Error – The BIOS image could not be authenticated.

Cause

The BIOS image is corrupt or invalid.

Action

1. The system will attempt to automatically recover.
2. If the issue persists, update the System ROM to restore system operation.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

369-System ROM Authentication Error

Symptom

369-System ROM Authentication Error – The system is operating on a recovered or redundant image. Redundant ROM functionality is NOT available.

Cause

The primary System ROM image is corrupt or invalid.

Action

To restore redundancy, update the System ROM.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

370-Redundant ROM Authentication Error

Symptom

370-Redundant ROM Authentication Error – The Redundant ROM image could not be authenticated. Redundant ROM functionality is NOT available.

Cause

The redundant ROM image is corrupt or invalid.

Action

To restore redundancy, update the System ROM.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

371-New NVDIMM detected and has been disabled

Symptom

371-IMPORTANT: Processor X, DIMM Y. New NVDIMM detected and has been disabled.

Cause

The NVDIMM is new to this server and the server has NVDIMM-N Memory Interleaving enabled.

Action

Sanitize all NVDIMMs on the specified processor.

For more information, contact customer support.

372-New NVDIMM detected and has been disabled

Symptom

372-IMPORTANT: Processor X, DIMM Y. New NVDIMM detected and has been disabled.

Cause

The NVDIMM is new to this server and the server has NVDIMM-N Memory Interleaving disabled.

Action

Sanitize all NVDIMMs on the specified processor.

For more information, contact customer support.

373-NVDIMMs have been removed from Processor X

Symptom

373-NVDIMM Error – NVDIMMs have been removed from Processor X. All NVDIMMs on Processor X have been disabled.

Solution 1

Cause

One or more NVDIMMs were removed from this server and the server has NVDIMM-N Memory Interleaving enabled.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

To continue to use the previously functioning interleaved set, reinstall the NVDIMMs.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

Solution 2

Cause

One or more NVDIMMs were removed from this server and the server has NVDIMM-N Memory Interleaving enabled.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

To begin using the smaller interleaved set, sanitize all NVDIMMs on the processor.

For more information, contact customer support.

374-NVDIMM Error – Processor X, DIMM Y received a memory initialization or uncorrectable error

Symptom

374-NVDIMM Error – Processor X, DIMM Y received a memory initialization or uncorrectable error. All NVDIMMs on Processor X are disabled. Data on NVDIMM has been lost.

Cause

The server has NVDIMM-N Memory Interleaving enabled and one of the following occurred:

- The NVDIMM experienced an uncorrectable error and caused the server to reboot.
- The server could not initialize the NVDIMM during POST.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Reseat all DIMMs and NVDIMMs in the server.
2. Sanitize the NVDIMM.

   For more information, contact customer support.
3. If the error persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the

Hitachi Vantara website.

375-NVDIMM Error – NVDIMM has received a memory initialization or uncorrectable error

Symptom

375-NVDIMM Error – Processor X, DIMM Y (Serial number). NVDIMM has received a memory initialization or uncorrectable error. NVDIMM has been disabled. Data on NVDIMM has been lost.

Cause

The server has NVDIMM-N Memory Interleaving disabled and one of the following occurred:

- The NVDIMM experienced an uncorrectable error and caused the server to reboot.
- The server could not initialize the NVDIMM during POST.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Reseat all DIMMs and NVDIMMs in the server.
2. Sanitize all NVDIMMs on the specified processor.

   For more information, contact customer support.
3. If the error persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

376-NVDIMM Error – NVDIMM set for interleaving disabled

Symptom

376-NVDIMM Error – Processor X, DIMM Y. NVDIMM set for interleaving disabled but system configured for interleaving enabled. All NVDIMMs on Processor X are disabled.

Solution 1

Cause

The NVDIMM was previously being used in a server with NVDIMM-N Memory Interleaving disabled, but this server is configured for NVDIMM-N Memory Interleaving enabled.

Action

Disable NVDIMM-N Memory Interleaving and reboot the server. Data on the NVDIMM will be available after rebooting.

For more information, contact customer support.

Solution 2

Action

Sanitize all NVDIMMs on Processor X. The data on the NVDIMM will not be available after sanitization.

For more information, contact customer support.

377-NVDIMM Error – Processor X, DIMM Y

Symptom

377-NVDIMM Error – Processor X, DIMM Y. NVDIMM set for interleaving enabled but system configured for interleaving disabled. NVDIMM has been disabled.

Solution 1

Cause

The NVDIMM configuration does not match the server configuration.

Action

Enable NVDIMM-N Memory Interleaving, and then reboot the server.

If all the other NVDIMMs in the interleaved set are still installed, the data on the NVDIMM will be available after rebooting. If any of the other NVDIMMs in the interleaved set are missing, a different error message might occur.

For more information, contact customer support.

Solution 2

Action

Sanitize the NVDIMM. The data on the NVDIMM will not be available after sanitization.

For more information, contact customer support.

378-NVDIMM Error – NVDIMM is configured for a different processor type

Symptom

378-NVDIMM Error – Processor X, DIMM Y. NVDIMM is configured for a different processor type. All NVDIMMs on Processor X are disabled.

Cause

The server does not match the original server in which the NVDIMM was used, and NVDIMM-N Memory Interleaving is enabled.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. To preserve the data, save the contents of the NVDIMM to other media.

   For more information, contact customer support.

2. Remove the processor and replace it with the previously installed processor type.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

3. Restore data to the NVDIMM.

4. If the error persists, sanitize the NVDIMM. The data on the NVDIMM will not be available after sanitization.

379-NVDIMM Error – Processor X, DIMM Y

Symptom

379-NVDIMM Error – Processor X, DIMM Y. NVDIMM is configured for a different processor type. NVDIMM has been disabled.

Cause

The server does not match the original server in which the NVDIMM was used, and NVDIMM-N Memory Interleaving is disabled.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. To preserve the data, save the contents of the NVDIMM to other media.

   For more information, contact customer support.

2. Remove the processor and replace it with the previously installed processor type.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

3. Restore data to the NVDIMM.

4. If the error persists, sanitize the NVDIMM. The data on the NVDIMM will not be available after sanitization.

380-NVDIMM Error – Processor X, DIMM Y

Symptom

380-NVDIMM Error – Processor X, DIMM Y. NVDIMM location changed. All NVDIMMs on Processor X are disabled.

Solution 1

Cause

The NVDIMM was moved or installed in the wrong location, and NVDIMM-N Memory Interleaving is enabled.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

To preserve data, return the NVDIMM to its original location.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

Solution 2

Action

Sanitize all NVDIMMs on the processor. The data on the NVDIMM will not be available after sanitization.

For more information, contact customer support.

381-NVDIMM Error – NVDIMM location changed

Symptom

381-NVDIMM Error – Processor X, DIMM Y. NVDIMM location changed. NVDIMM has been disabled.

Solution 1

Cause

The NVDIMM was moved or installed in the wrong location, and NVDIMM-N Memory Interleaving is disabled.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

To preserve data, return the NVDIMM to its original location.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

Solution 2

Action

Sanitize the NVDIMM. The data on the NVDIMM will not be available after sanitization.
For more information, contact customer support.

382-VDIMM Error – DIMM is NOT configured for Sub-NUMA Clustering

Symptom

382-NVDIMM Error – Processor X, DIMM Y is NOT configured for Sub-NUMA Clustering but system is configured for Sub- NUMA Clustering. All NVDIMMs on Processor X are disabled.

Solution 1

Cause

The NVDIMM was previously used in a server that was configured for Sub-NUMA Clustering. The current server has a different setting.

Action

Disable Sub-NUMA clustering.

For more information, contact customer support.

Solution 2

Action

Sanitize all NVDIMMs on the specified processor.

For more information, contact customer support.

383-NVDIMM Error – DIMM is configured for Sub-NUMA Clustering

Symptom

383-NVDIMM Error – Processor X, DIMM Y is configured for Sub-NUMA clustering but system is NOT configured for Sub-NUMA clustering. All NVDIMMs on Processor X are disabled.

Solution 1

Cause

The NVDIMM was previously used in a server that was not configured for Sub-NUMA clustering. The current server has a different setting.

Action

Enable Sub-NUMA clustering.
For more information, contact customer support.

Solution 2

Action

Sanitize all NVDIMMs on Processor X.

For more information, contact customer support.

384-NVDIMM Error – Processor X, DIMM Y

Symptom

NVDIMM Error – Processor X, DIMM Y. NVDIMM set for Channel Interleaving disabled but system configured for enabled. All NVDIMMs on Processor X are disabled.

Solution 1

Cause

The NVDIMM was previously installed in a server that had Channel Interleaving disabled. The current server has Channel Interleaving enabled.

Action

For more information, contact customer support.

Solution 2

Action

Sanitize all NVDIMMs on the processor.

For more information, contact customer support.

385-NVDIMM Error – Processor X, DIMM Y

Symptom

385-NVDIMM Error – Processor X, DIMM Y. NVDIMM set for Channel Interleaving enabled but system configured for disabled. All NVDIMMs on Processor X are disabled.

Solution 1

Cause

The NVDIMM was previously installed in a server that had Channel Interleaving enabled. The current server has Channel Interleaving disabled.

Action

To enable the NVDIMM, enable Channel Interleaving in System Utilities.

For more information, contact customer support.

Solution 2

Action

Sanitize all NVDIMMs on the processor.

For more information, contact customer support.

386-NVDIMM Error – NVDIMM Metadata is corrupted

Symptom

386-NVDIMM Error – Processor X, DIMM Y. NVDIMM Metadata is corrupted. All NVDIMMs on Processor X are disabled.

Cause

The data on the NVDIMM metadata that defines how the NVDIMM is used in the server is corrupt, and the server has NVDIMM-N Memory Interleaving enabled.

Action

Sanitize all NVDIMMs on the processor.

For more information, contact customer support.

387-NVDIMM Error – NVDIMM Metadata is corrupted

Symptom

387-NVDIMM Error – Processor X, DIMM Y. NVDIMM Metadata is corrupted. NVDIMM is disabled.

Cause

The data on the NVDIMM metadata that defines how the NVDIMM is used in the server is corrupt in a server with NVDIMM-N Memory Interleaving disabled.

Action

Sanitize the NVDIMM.

For more information, contact customer support.

388-Uncorrectable Memory Error

Symptom

388-Uncorrectable Memory Error – The failed memory module could not be determined.

Cause

An uncorrectable error occurred on a DIMM or NVDIMM.

Action

If unable to determine which memory module has failed, or, if the issue persists, contact customer support.

389-Unexpected Shutdown and Restart

Symptom

389-Unexpected Shutdown and Restart – An undetermined error type resulted in a reboot of the server.

Cause

A fatal error resulted in a system reset. However, the MCA banks contained no information to determine the error source.

Action

1. Update the system firmware.
   For more information, see the following in the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

391-NVDIMM Configuration Error

Symptom

391-NVDIMM Configuration Error – Node Interleaving is Enabled. This is NOT supported with NVDIMMs installed. All NVDIMMs are disabled.

Cause

Node interleaving is enabled.

Action

For more information, contact customer support.

392-NVDIMM Configuration Error

Symptom

392-NVDIMM Configuration Error – The Advanced Memory Protection mode is not Advanced ECC. Only Advanced ECC is supported with NVDIMMs. All NVDIMMs are disabled.

Cause

The current AMP mode is unsupported when NVDIMMs are installed.

393-IMPORTANT: New NVDIMMs detected

Symptom

393-IMPORTANT: New NVDIMMs detected and all NVDIMMs have been disabled.

Cause

A new NVDIMMM-N device has been installed. Due to interleaving requirements, all NVDIMMs have been disabled until they have been sanitized.

Action

To enable use, sanitize all NVDIMMs.

For more information, contact customer support.

394-NVDIMM Error – Unable to set event notification for this NVDIMM

Symptom

394-NVDIMM Error – Processor X, DIMM Y (Serial number). Unable to set event notification for this NVDIMM to generate alerts for health changes, including a loss of data persistency.

Cause

- The system ROM and Innovation Engine firmware are not updated with the latest versions.
- An Innovation Engine firmware error is preventing setup of the health alert for NVDIMM.

Action

1. Update the System ROM and Innovation Engine Firmware to the latest supported revisions.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

395-NVDIMM Error – Processor X, DIMM Y

Symptom

395-NVDIMM Error – Processor X, DIMM Y (Serial number). NVDIMM Persistency is lost and future data backup is not available.

Cause

- The NVDIMM hardware has failed.
- The NVDIMM controller firmware is not operating properly to support future data backup operations.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Back up NVDIMM contents to other media to preserve data.

   For more information, contact customer support.

2. Replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

396-IMPORTANT: Processor X, DIMM Y - NVDIMM Persistency is restored and future data backup is available

Symptom

396-IMPORTANT: Processor X, DIMM Y - NVDIMM Persistency is restored and future data backup is available.

Cause

Persistency was restored on the specified NVDIMM.

Action

No action is required.

397-WARNING: NVDIMM lifetime has reached

Symptom

397-WARNING: Processor X, DIMM Y (Serial number). NVDIMM lifetime has reached.

Cause

NVDIMM lifetime has been reached, and future data backup operations might fail.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Back up NVDIMM contents to other media to preserve data.

   For more information, contact customer support.

2. Replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

398-NVDIMM Configuration Error

Symptom

398-NVDIMM Configuration Error – Backup power is not available to this DIMM slot. NVDIMM is disabled.

Cause

The NVDIMM is installed in a slot that does not have backup power available.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Remove the NVDIMM and install it into a slot that supports NVDIMMs.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

400 Series

402-Intrusion Alert Detection

Symptom

402-Intrusion Alert Detection – The required intrusion detection cable is missing.

Cause

The intrusion detection switch cable is missing.

Action

1. Verify that the intrusion detection switch is properly installed or intentionally missing.
2. If this feature is desired, install the missing intrusion detection switch.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

400-Intrusion Alert Configuration Error

Symptom

403-Intrusion Alert Configuration Error – Intrusion Alert Detection cable is installed but the feature is not enabled.

Cause

The intrusion detection feature is not enabled.

410-The Innovation Engine is not operating properly

Symptom

410-Innovation Engine Error - The Innovation Engine is not operating properly. (Error Code X).

Cause

Innovation Engine firmware and system firmware are not the current versions.

Action

Update the system ROM firmware and the Innovation Engine firmware.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

411-The Innovation Engine is operating in recovery mode

Symptom

411-Innovation Engine Error - The Innovation Engine is operating in recovery mode.

Cause

The system maintenance switch SW12 is set to ON.

Action

1. Set switch SW12 to OFF.

To locate the system maintenance switch bank, see the label on the access panel, or the server user guide for your product:

2. If the issue persists, contact customer support.

412-The Server Platform Services firmware is operating in factory mode

Symptom

412-Server Platform Services Firmware Error - The Server Platform Services firmware is operating in factory mode.

Cause

Innovation Engine firmware and system firmware are not the current versions.

Action

1. Update the system ROM firmware and Server Platform Services firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

413-The Innovation Engine image could not be authenticated

Symptom

413-Innovation Engine Image Authentication Error - The Innovation Engine image could not be authenticated.

Cause

The firmware is not the latest version.

Action

Update the Innovation Engine firmware.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

414-The SPS Firmware is not operating properly

Symptom

414-Server Platform Services Firmware Error - The SPS Firmware is not operating properly. (Error Code X).

Cause

The firmware is not the current version.

Action

1. Update the Server Platform Services firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

415-The Innovation Engine Firmware revision in this system does not meet minimum requirements

Symptom

415-IMPORTANT: The Innovation Engine Firmware revision in this system does not meet minimum requirements for

operation with NVDIMMs. All NVDIMM functionality has been disabled.

Cause

The firmware is not the latest version.

Action

Update the Innovation Engine firmware.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

420-TLS certificate verification error

Symptom

420-TLS certificate verification error 0xX while downloading from Y.

Cause

Invalid or missing certificate for the TLS server.

Action

Verify that there is a valid certificate for the TLS server installed, and review all TLS settings.

421-TLS certificate verification failed due to hostname mismatch

Symptom

421-TLS certificate verification failed due to hostname mismatch.

Cause

The TLS certificate verification failed because it did not match the hostname specified in the given URL, and the "hostname" TLS verification feature is enabled.

Action

1. Verify that the specified target URL matches either the Common Name or Subject Alternative Name field of the TLS server certificate:
   a. Open Internet Explorer.
   b. Go to the URL that caused the failure.
   c. In the URL box, at the right, click the lock icon.
   d. Click **View certificates**, click the **Details** tab, and then click **Subject Alternative Name**.
   e. Verify that the target URL matches the name in the **Subject Alternative Name** box.

422-TLS certificate verification failed

Symptom

422-TLS certificate verification failed. The passed certificate is self-signed, and the same certificate cannot be found in the list of trusted certificates.

Cause

The TLS certificate is not installed in the TLS certificate repository.

Action

Install the TLS server's self-signed certificate into the TLS certificate repository.

423-TLS certificate verification failed

Symptom

423-TLS certificate verification failed. The issuer certificate of a looked up certificate could not be found. This normally means the list of trusted certificates is not complete.

Cause

The list of trusted certificates is not complete.

Action

1. Verify that the correct Certificate Authority certificate is installed into the TLS certificate repository.
   a. Open Internet Explorer.
   b. Go to the URL that caused the failure.
   c. In the URL box, at the right, click the lock icon.
   d. Click **View certificates**, click the **Details** tab, and then click **Issuer**.
   e. Verify that the correct Certificate Authority certificate is in the **Issuer** box.

424-No TLS certificate enrolled

Symptom

424-No TLS certificate enrolled. At least one certificate authority must be enrolled when TLS verification mode is set to PEER.

Cause

The TLS certificate is not enrolled in the TLS certificate repository.

Action

Enroll the certificate into the TLS certificate repository.

440-Scalable Persistent Memory uncorrectable memory error

Symptom

440-Persistent Memory Address Range Scrub has detected an error {followed by location information}.

Cause

An uncorrectable memory error was detected in persistent memory ranges, and the Address Range Scrub functionality is enabled in RBSU.

Action

If the issue persists, contact customer support.

447-X is not charged sufficiently to support the energy-backed persistent memory

Symptom

447- X is not charged sufficiently to support the energy-backed persistent memory installed in the system. The charging process was skipped by the user. Persistent memory regions may not be available in the OS.

Cause

The backup energy source is not sufficiently charged, and the charging process was skipped by the user.

Action

Reboot the system and wait for the backup energy source to sufficiently charge.

448- X is not charged sufficiently to support the energy-backed persistent memory

Symptom

448- X is not charged sufficiently to support the energy-backed persistent memory installed in the system. The charging process timed out and did not complete. Persistent memory regions may not be available in the OS.

Cause

The backup energy source is not sufficiently charged, and the charging process timed out.

Action

If the issue persists, replace the backup energy source.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

444-Scalable Persistent Memory Address Range Scrub error threshold exceeded

Symptom

449-Scalable Persistent Memory Address Range Scrub error threshold exceeded on X, Logical NVDIMM Y. Logical NVDIMM Persistency is lost and future data backups are not possible.

Cause

The Address Range Scrub error threshold was exceeded.

Action

1. Back up Persistent Memory contents to other media to preserve data.

   For more information, contact customer support.

2. Use UEFI System Utilities to reinitialize the backup storage devices:

a. Access UEFI System Utilities.

b. From the **System Utilities** screen, select **System Configuration** > **BIOS/Platform Configuration (RBSU)** > **Memory Options** > **Persistent Memory Options** > **Scalable Persistent Memory Options** > **Recovery Options**.

c. Enable **Initialize Backup Storage Devices**.

d. Save your changes.

450-iLO is in High Security Mode

Symptom

450-iLO is in High Security Mode and there is no System ROM Admin Password set.

Cause

High Security mode requires the System ROM admin password to be set.

For more information, see the UEFI System Utilities user guide for your product on the Hitachi Vantara website (**https://knowledge.hitachivantara.com/Documents/Servers**)

451-Unsupported NVDIMM-N Configuration Detected

Symptom

451-Unsupported NVDIMM-N Configuration Detected - Processor X DIMM Y. The installed NVDIMM-N is not supported.

Cause

The NVDIMM is not supported by the system, or not supported with the installed firmware revisions.

Action

1. Update the system ROM to the latest supported revision.

   For more information, see the troubleshooting guide for your product on **Hitachi Vantara website**.

2. If the issue persists, the installed NVDIMM is not supported and must be removed.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

452-iLO FW Communication Issue - Unable to communicate with X firmware

Symptom

452-iLO FW Communication Issue - Unable to communicate with X firmware. One or more configuration settings may be used from the last system boot. One or more configuration changes since the last boot may not have taken effect.

Cause

Firmware communication issue

Action

1. Remove power.

2. If the issue persists, update the iLO firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

454- NVDIMM Error - Persistent Memory Address Range Scrub error threshold exceeded

Symptom

454-NVDIMM Error - Persistent Memory Address Range Scrub error threshold exceeded on Processor X, DIMM Y (Serial Number). NVDIMM Persistency is lost and future data backups are not possible.

Cause

A large number of uncorrectable errors have occurred on this NVDIMM. NVDIMM persistency is lost and future data backup may fail.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Back up the NVDIMM contents to other media to preserve data.

   For more information, see **Hitachi Vantara website**.

2. Sanitize the NVDIMM.
3. If the issue persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

457-FW Communication Issue

Symptom

457-FW Communication Issue - Unable to communicate with FW (Error Code 0xX). Unexpected behavior may occur.

Cause

The communication interface between the System ROM and the specified firmware failed. This can be caused by an intermittent, transient communication failure. If the issue occurs consistently, there might be an interface incompatibility between the System ROM and the specified firmware.

Action

1. Reboot the server.
2. Remove and then reapply power to the server.
3. Update the system ROM and the specified firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

4. If the issue persists, contact customer support.

460-Correctable Memory Error Threshold Exceeded

Symptom

460-Correctable Memory Error Threshold Exceeded.

Cause

- Systemic anomalies, such as poor electrical contact between the DIMM and its socket and power rail fluctuations.
- Component electrical degradation, for example, a DRAM cell fails to meet electrical specifications.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Do one of the following:
   - Reboot the server.
   - Remove, and then reinstall the DIMM.
     For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.
2. Update the system firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
3. If the issue persists, replace the DIMM.
4. If the issue persists, contact customer support.

461-High rate of corrected memory errors, performance may be degraded

Symptom

461-High rate of corrected memory errors, performance may be degraded.

Cause

- Systemic anomalies, such as poor electrical contact between the DIMM and its socket and power rail fluctuations.
- Component electrical degradation, for example, a DRAM cell fails to meet electrical specifications.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Remove, and then reinstall the DIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Update the system firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, replace the DIMM.

4. If the issue persists, contact customer support.

462-Uncorrectable Memory Error Threshold Exceeded

Symptom

462-Uncorrectable Memory Error Threshold Exceeded. The DIMM is mapped out and is currently not available.

Cause

The DIMM is failing or has failed.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Replace the DIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Access the **UEFI System Utilities System Configuration** > **BIOS/Platform Configuration (RBSU)** > **Memory Options and select Memory Remap** to remap the system memory.

   For more information, see the UEFI System Utilities user guide for your product on the Hitachi Vantara website (**https://knowledge.hitachivantara.com/Documents/Servers**).

3. If the issue persists, contact customer support.

463-Mirrored Memory Engaged

Symptom

463-Mirrored Memory Engaged due to an Uncorrectable Memory Error.

Cause

The Advanced Memory Protection subsystem has detected a memory fault. Mirrored Memory has been activated.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Remove and then reinstall the DIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Update the system firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

464-Online Spare Memory Copy Process Started for Faulty Module

Symptom

464-Online Spare Memory Copy Process Started for Faulty Module.

Cause

The specified DIMM exceeded a correctable error threshold. Memory accesses targeting the affected rank are redirected to a spare rank on the same channel.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Remove, and then reinstall the DIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Update the system firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**

3. If the issue persists, contact customer support.

465-Online Spare Memory Switchover Complete

Symptom

465- Online Spare Memory Switchover Complete

Cause

Spare complete operations are signaled with an SMI when the sparing engine has completed the copy/ECC correction operation between a rank exhibiting excessive correctable errors and the previously reserved spare rank.

Action

No action is required.

466-Correctable Memory Error Threshold Exceeded

Symptom

466-Memory Channel Error - Correctable Memory Error Threshold Exceeded.

Cause

Excessive number of single bit errors were detected on the Memory Channel.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Remove, and then reinstall the DIMM in the specified channel.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Update the system ROM.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

467-Uncorrectable Error was detected on Processor X

Symptom

467-Uncorrectable Error was detected on Processor X.

Cause

An uncorrectable error was detected on the specified processor.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. Reseat the processor.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, update to the latest firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

469-Uncorrectable Error Detected on the Previous Boot

Symptom

469-Uncorrectable Error Detected on the Previous Boot.

Cause

An uncorrectable error was detected on the previous boot.

Action

If the issue persists, contact customer support.

470-SATA device on Controller X Port Y is unresponsive

Symptom

470-SATA device on Controller X Port Y is unresponsive.

Cause

- Incorrect or disconnected cabling
- Failed SATA device

Action

1. Verify that the device is cabled correctly.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, replace the SATA device.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

471- UEFI Variable space is close to exceeding the nonvolatile storage capacity

Symptom

471- The UEFI Variable space is close to exceeding the nonvolatile storage capacity. This may impact OS installations and may limit the ability to configure certain options.

Cause

The nonvolatile storage where UEFI Variables are stored for use by the system firmware, device firmware, and UEFI-aware operating systems is close to reaching the maximum capacity.

Action

1. To reduce the UEFI Variable space, restore manufacturing defaults in the UEFI System Utilities:
   a. From the System Utilities screen, select **System Configuration** > **BIOS/Platform Configuration (RBSU)** > **System Default Options** > **Restore Default Manufacturing Settings**.
   b. Press **Enter**.
   c. Select **Yes, restore the default settings**.

      For more information, see the UEFI System Utilities user guide for your product on the Hitachi Vantara website (**https://knowledge.hitachivantara.com/Documents/Servers**).

480-NVDIMM-N firmware updated

Symptom

480-IMPORTANT: Processor X, DIMM Y - NVDIMM-N firmware updated. Current version is Z.

Cause

Successful firmware update.

Action

No action is required.

481-NVDIMM Error - Firmware Update Error

Symptom

481-NVDIMM Error - Firmware Update Error - Processor X, DIMM Y (Serial Number). NVDIMM-N firmware was not updated. Current version is Z.

Cause

The firmware update operation aborted or timed out due to one of the following:

- Hardware issue with the NVDIMM controller.
- The firmware is corrupt.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Retry the firmware update.
2. If the issue persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

482-NVDIMM Error - Invalid Firmware Image Detected

Symptom

482-NVDIMM Error - Invalid Firmware Image Detected - Processor X, DIMM Y (Serial Number). NVDIMM-N switching to back up image if available. Current version is Z.

Cause

- The firmware image is corrupt.
- The firmware image is not the correct image.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Retry the firmware update.
2. If the issue persists, replace the NVDIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

483-NVDIMM Error - NVDIMMs cannot be initialized due to internal error

Symptom

483-NVDIMM Error - NVDIMMs cannot be initialized due to internal error (Code = X). NVDIMM functionality might be impacted.

Cause

An internal error occurred while initializing the NVDIMM. NVDIMM functionality might not be fully enabled.

Action

1. Update the System ROM and the Innovation Engine firmware to the latest revision.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
2. If the issue persists, contact customer support.

490-A critical system health error requires the system to be shut down

Symptom

490-System Health Error. A critical system health error requires the system to be shut down.

Cause

A critical condition detected by the iLO firmware requires the system to be shut down.

Action

If the issue persists, contact customer support.

491-A critical system health error has kept the system from booting

Symptom

491-System health error. A critical system health error has kept the system from booting.

System Halted!

Cause

A critical system health error has kept the system from booting.

Action

If the issue persists, contact customer support.

500 Series

500-ASR NMI Detected - The Automatic Server Recovery (ASR) NMI has been signaled

Symptom

500-ASR NMI Detected - The Automatic Server Recovery (ASR) NMI has been signaled (per the system configuration policy).

Cause

The server has been configured to generate an NMI a specified number of seconds before an ASR expires.

Action

1. Examine the operating system logs to determine why the system is unresponsive.
2. If the issue persists, contact customer support.

501-IPMI Watchdog NMI Detected - The IPMI Watchdog NMI has been signaled

Symptom

501-IPMI Watchdog NMI Detected - The IPMI Watchdog NMI has been signaled (per the system configuration policy).

Cause

The server has been configured to generate an NMI a specified number of seconds before an IPMI Watchdog Timer expires.

Action

1. Examine the operating system logs to determine why the system is unresponsive.
2. If the issue persists, contact customer support.

502-Application Watchdog NMI Detected - The Application Watchdog NMI has been signaled

Symptom

502-Application Watchdog NMI Detected - The Application Watchdog NMI has been signaled (per the system configuration policy).

Cause

The server has been configured to generate an NMI a specified number of seconds before an Application Watchdog Timer expires.

Action

1. Examine the operating system logs to determine why the system is unresponsive.
2. If the issue persists, contact customer support.

510-The installed number of DIMMs on one or more processors results in an unbalanced memory configuration

Symptom

510-The installed number of DIMMs on one or more processors results in an unbalanced memory configuration across memory controllers. This may result in nonoptimal memory performance.

Cause

Certain DIMM configurations result in unbalanced memory populations across the memory controllers within the processor. The BIOS will detect these configurations and warn the user of the possible performance impact of these configurations.

Action

Hitachi Vantara recommends installing DIMMs in a balanced configuration for optimum performance.

511-One or more DIMMs have been mapped out due to a memory error

Symptom

511-One or more DIMMs have been mapped out due to a memory error, resulting in an unbalanced memory configuration across memory controllers. This may result in nonoptimal memory performance.

Cause

One or more DIMMs have been removed from the system memory map due to error conditions. This results in a DIMM configuration with an unbalanced memory population across the memory controllers within the processor. The BIOS will detect these conditions and warn the user of the possible performance impact.

Action

Hitachi Vantara recommends installing DIMMs in a balanced configuration for optimum performance.

520-Backplane Configuration Error

Symptom

520-Backplane Configuration Error: A storage controller is installed in the incorrect drive backplane. The controller will not be usable.

Cause

An unsupported backplane configuration is detected.

Action

- Install the storage controller on the specified backplane.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

- Replace the backplane with a supported backplane.

520-Backplane Configuration Error

Symptom

520-Backplane Configuration Error: Unsupported drive backplane configuration detected.

Cause

An unsupported backplane configuration is detected.

Action

Install the drive backplane in a supported configuration.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

530-Core Boost Technology Disabled

Symptom

530-Core Boost Technology Disabled

Cause

The BIOS has detected a processor capable of using Core Boosting for enhanced performance, but the option is disabled.

Action

- Enable the Core Boost Technology option in UEFI System Utilities.
- Restore the system to Manufacturing Defaults.

531-Core Boost Technology missing required iLO License

Symptom

531-Core Boost Technology missing required iLO License.

Cause

The BIOS has detected a processor capable of using Core Boosting for enhanced performance, but the required iLO licensing is not installed.

Action

Install an iLO Advanced license to enable Core Boost Technology.

For more information, see the *iLO Licensing Guide* on the **Hitachi Vantara website**

550-Box X, Bay Y - NVMe firmware updated

Symptom

550-Box X, Bay Y - NVMe firmware updated from version A to version B.

Cause

The firmware update to the specified device completed successfully.

Action

No action is required.

551-Firmware Update Error - Box X, Bay Y

Symptom

551-Firmware Update Error - Box X, Bay Y - NVMe firmware was not updated. Current version is Z.

Cause

The firmware update encountered an error and did not complete successfully.

Action

1. Retry the firmware update.
2. If the issue persists, replace the specified device.

   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.
3. If the issue persists, contact customer support.

554-X firmware updated

Symptom

554-X firmware updated from version A to version B.

Cause

The firmware update to the specified device completed successfully.

Action

No action is required.

555-Firmware Update Error - Trusted Platform Module

Symptom

555-Firmware Update Error - Trusted Platform Module firmware not updated. Current version is Z.

Cause

The firmware update encountered an error and did not complete successfully.

Action

1. Retry the firmware update.
2. If the issue persists, contact customer support.

557-Firmware Update Error - Server Platform Services

Symptom

557-Firmware Update Error - Server Platform Services firmware not updated. Current version is Z.

Cause

The firmware update encountered an error and did not complete successfully.

Action

1. Retry the firmware update.
2. If the issue persists, contact customer support.

558-X PCIe device firmware updated

Symptom

558-X PCIe device firmware updated from version A to version B.

Cause

The firmware update to the specified device completed successfully.

Action

No action is required.

559-Firmware Update Error - PCIe device firmware not updated

Symptom

559-Firmware Update Error - X Y - PCIe device firmware not updated. Current version is Z.

Cause

The firmware update encountered an error and did not complete successfully.

Action

1. Retry the firmware update.
2. Confirm that the firmware image is valid for the specified device.
3. If the issue persists, contact customer support.

600 Series

600-Hardware installation error

Symptom

600-Hardware installation error - One or more front expansion bay OCP device(s) cannot be enabled because the connector cables to the system board are not installed correctly.

Cause

The connector cables for the OCP devices are connected to the system board incorrectly.

Action

Swap the order of the cable connection at the system board.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

601-Hardware installation error

Symptom

601-Hardware installation error - Mezzanine X is not correctly installed.

Cause

Only one PCIe connection of the doublewide mezzanine is detected. Two are expected.

Action

Remove and then reinstall the mezzanine, ensuring that it is fully seated at all connector locations.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

602-Hardware installation error

Symptom

602-Hardware installation error - Cabling to riser X is not correctly installed. Riser functionality may be impaired.

Cause

An expected cable connection was not detected on the indicated riser.

Action

Confirm that the riser is installed and cabled correctly.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

603-Unsupported Hardware Detected

Symptom

603-Unsupported Hardware Detected – The system has components not qualified for deployment. Error Code 0xX.

Cause

The system has detected components that are not supported by the system firmware.

Action

Contact customer support.

1600 Series

1626-Unsupported Power Supply Configuration

Symptom

1626-Unsupported Power Supply Configuration – Unsupported Power Supply detected.

Cause

An unsupported power supply is installed in the enclosure.

Action

Remove the power supply and replace it with a supported model.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1636-Trusted Platform Module Error

Symptom

1636-Trusted Platform Module Error

Cause

- The TPM is unavailable to the server.
- The TPM has failed.

Action

1. Reboot the server.
2. Request a new system board and TPM board from an authorized service provider.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**

1637-Unsupported option enabled

Symptom

1637-Unsupported Option Enabled - Platform Trust Technology (PTT) is not supported on this server. Earlier System ROM revisions allow enabling this option, but a chipset issue results in this feature not working reliably. PTT should be disabled.

Cause

Platform Trust Technology (PTT) is not supported on this server.

Action

1. Disable any TPM-reliant features at the BIOS/OS level.
2. Disable PTT.

   To access the option to disable PTT, press **CTRL-A** in the UEFI System Utilities.

1700 Series

1703-Slot X Drive Array controller - Memory Self-Test Error

Symptom

1703-Slot X Drive Array controller - Memory Self-Test Error. Access to all storage has been disabled.

Cause

- The controller firmware is outdated.
- The controller firmware has failed.

Action

1. Upgrade to the latest firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, replace the cache module or controller.

   For more information, see the server maintenance and service guide for your product on the

   Hitachi Vantara website.

1707-Slot X Drive Array Controller

Symptom

1707-Slot X Drive Array Controller - Bootstrap NVRAM checksum invalid.

Cause

The Bootstrap NVRAM on the specified controller is corrupt or invalid.

Action

1. Update the controller firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, replace the controller.

   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1708-Slot X Drive Array Controller

Symptom

1708-Slot X Drive Array Controller - Bootstrap NVRAM restored from backup. System restart required.

Cause

The specified controller Bootstrap NVRAM was restored in one of the following ways:

- It was detected as corrupt, and the backup copy was restored.
- It was automatically updated because a newer version was available.

Action

1. Reboot the server.
2. If the issue persists, update the controller firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

1715-Slot # Drive Array Controller – Memory errors occurred

Symptom

1715-Slot # Drive Array Controller – Memory Errors Occurred during controller cache self-test.

Cause

- The controller firmware is outdated.
- The controller has failed.

Action

1. Update the firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, replace the controller.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1716-Slot # Drive Array – Unrecoverable Media Errors Detected on Drives

Symptom

1716-Slot # Drive Array – Unrecoverable Media Errors Detected on Drives during previous Rebuild or Background Surface Analysis (ARM) scan. Errors will be fixed automatically when the sector(s) are overwritten. Backup and Restore recommended.

Cause

A media error is detected on a drive and cannot be corrected because of degraded fault tolerance or a media error at the same location on another drive in the same array. An unrecoverable read error is returned to the operating system when this block address is read.

Action

Back up and restore the data on the drive. Sequential write operations to the affected blocks should resolve the media errors.

1717-Slot X Drive Array – Disk Drives Reporting OVERHEATED Condition

Symptom

1717-Slot X Drive Array – Disk Drives Reporting OVERHEATED Condition: (followed by a list of drives).

Cause

The drives listed in this message are currently in an overheated state.

Action

1. Check the fans and be sure the air flows over the drive.
   For more information, see "General fan issues" in the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. Install the access panel, if removed.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

1719-A controller failure event occurred

Symptom

1719–A controller failure event occurred prior to this power-up. (Previous lock up code = 0x####)

Cause

A controller failure event occurred before the server powered up.

Action

1. Update the controller to the latest firmware version.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, replace the controller.

   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1720-Slot X Drive Array – S.M.A.R.T. Hard Drives Detect imminent failure

Symptom

1720-Slot X Drive Array – S.M.A.R.T. Hard Drives Detect imminent failure: (followed by a list of dries). Do not replace drive unless all other drives in the array are online! Back up data before replacing drives if using RAID 0.

Solution 1

Cause

A hard drive SMART predictive failure condition was detected. The drive might need to be replaced in the future.

Action

If this drive is part of a non-fault-tolerant configuration, back up all data before replacing the drive and restore all data afterward.

Solution 2

Action

If this drive is part of a fault-tolerant configuration, do not replace this drive unless the logical drive status is OK.

1727-Slot X Drive Array – New (or Previously Failed) Logical Drives Attachment Detected

Symptom

1727-Slot X Drive Array - New (or Previously Failed) Logical Drives Attachment Detected.

(Sometimes followed by:)

- Auto-configuration failed: Too many logical drives
- Auto-configuration failed: RAID 5/6 Drive Array migrated

Cause

The controller has detected an additional array of drives that was connected when the power was off. The logical drive configuration information has been updated to add the new logical drives. The maximum number of logical drives supported is
64. Additional logical drives cannot be added to the configuration.

Action

Verify the logical drive configuration using SSA.

For more information, see the Smart storage administrator User Guide on the **Hitachi Vantara website**

1733-Slot # Drive Array – Storage Enclosure Firmware Upgrade Problem Detected

Symptom

1733-Slot # Drive Array – Storage Enclosure Firmware Upgrade Problem Detected. Port #

Box # (Followed by one of the following:)

- Enclosure firmware upgrade needed - run Flash Components.
- Unable to read firmware version of one or more components.

Cause

- An incorrect enclosure firmware version is installed.
- An enclosure firmware upgrade is needed.
- An enclosure component has failed.

Action

1. Upgrade the storage enclosure firmware and the controller firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, replace the affected enclosure components.

   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1735-Slot # Drive Array – Unsupported Redundant Cabling Configuration Detected

Symptom

1735-Slot # Drive Array – Unsupported Redundant Cabling Configuration Detected. Multiple paths to the same enclosure/ drives are not supported by this smart array firmware version. Access to all drives has been disabled until redundant SAS cables are detached, or firmware is updated to a version that supports dual domain.

Solution 1

Cause

The smart array firmware version does not support the redundant cabling configuration.

Action

Disconnect the redundant SAS cables.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

Solution 2

Action

Update the firmware.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

1754-Slot X Drive Array – One or more RAID levels are configured

Symptom

1754-Slot X Drive Array – One or more RAID levels are configured but are not supported due to controller model or an inactive/missing license key. Please re-attach drives to original controller or enter license key.

Cause

- The controller model does not support the configuration on the drives.
- The license key is inactive or missing.

Action

Do one of the following:

- Re-attach the drives to the original controller.
- Enter a valid license key.

1769-Slot X Drive Array – Drive(s) Disabled

Symptom

1769- Slot X Drive Array – Drive(s) Disabled due to Failure During Expansion

(Possibly followed by one of the following additional details):

- Cache Module Removed or Failed; Expansion Progress Data Lost.
- Expansion Progress Data Could Not Be Read From Cache Module.
- Expansion Aborted due to Unrecoverable Drive Errors.
- Expansion Aborted due to Cache Module Errors.

Select "F1" to continue with logical drives disabled

Select "F2" to accept data loss and to re-enable logical drives

Cause

Data was lost while the array was expanded; therefore, the drives have been temporarily disabled. Capacity expansion failed as:

- Cache module or hard drive failed or was removed; expansion progress data was lost.
- Expansion was aborted due to unrecoverable drive errors.

Action

Do one of the following:

- Press the **F1** key to continue with the logical drives disabled.
- Press the **F2** key to accept the data loss and re-enable the logical drives. Restore data from backup, if necessary.

Additional actions for specific errors

- **Cache Module Removed or Failed; Expansion Progress Data Lost.** Verify that the cache module is seated correctly. Replace if necessary.
- **Expansion Aborted due to Unrecoverable Drive Errors.** Verify failed disks using SSA and replace as necessary.

  Restore data from backup, if necessary.

1777-Slot X Drive Array – Storage Enclosure Problem Detected

Symptom

1777-Slot X Drive Array – Storage Enclosure Problem Detected

(followed by one or more of the following):

- Cooling Fan Malfunction Detected
- Overheated Condition Detected
- Side-Panel must be Closed to Prevent Overheating
- Redundant Power Supply Malfunction Detected
- Unsupported ROM Type Installed on Backplane
- Enclosure Processor Not Detected or Responding – Turn system and storage enclosure power OFF and turn them

back ON to retry. If this error persists, upgrade the enclosure firmware or replace the I/O module.

- Link Errors Detected by Expander
- Incorrect Bay Information Received from Enclosure
- Installed drives not detected, only I/O module 2 present

Solution 1

Cause

Cooling fan malfunction detected.

Action

1. Check the cooling fan operation by placing a hand over the fan.
2. Reseat the fan.
3. Close the side panel.
4. If the issue persists, replace the fan.

Solution 2

Cause

Overheated condition detected.

Action

1. Check for obstructions.
2. Check all internal connections.
3. Check the cooling fan operation by placing a hand over the fan.
4. Reseat the fan.
5. Close the side panel.
6. If the issue persists, replace the fan.

Solution 3

Cause

Side panel must be closed to prevent overheating.

Action

1. Check for obstructions.
2. Check all internal connections.
3. Close the side panel.

Solution 4

Cause

Redundant power supply malfunction detected.

Action

1. Check the LEDs. If the power LED is amber instead of green, a redundant power supply has failed.
2. Reseat the power supply.
3. If the issue persists, replace the power supply.

Solution 5

Cause

Unsupported ROM type installed on backplane.

Action

1. Reseat the controller.
2. Update the controller firmware.
3. If the issue persists, replace the controller.
4. If the issue persists, update the firmware.

Solution 6

Cause

Enclosure processor not detected or responding.

Action

1. Power off the system and storage enclosure.
2. Power on the system and storage enclosure.
3. If the issue persists, upgrade the storage enclosure firmware.
4. If the issue still persists, replace the I/O module.

Solution 7

Cause

Link errors detected by expander.

Action

1. Reseat the I/O modules.

2. Reseat the I/O module cables.
3. Replace the cables, if damaged.
4. If the issue persists, replace the I/O modules.

Solution 8

Cause

Incorrect bay information received from enclosure.

Action

1. Reseat the I/O modules.
2. Reseat the I/O module cables.
3. Replace the cables, if damaged.
4. If the issue persists, replace the I/O modules.

Solution 9

Cause

Installed drives not detected, only I/O module 2 present.

Action

1. Reseat the I/O modules.
2. Reseat the I/O module cables.
3. Replace cables, if damaged.
4. If the issue persists, replace I/O module 1.

1779-Slot X Drive Array – Logical drive(s) previously failed

Symptom

1779-Slot X Drive Array – Logical drive(s) previously

failed. Select "F1" to continue with logical drives disabled

Select "F2" to accept data loss and to re-enable logical drives

(Followed by one of the following:)

- Logical drive(s) disabled due to possible data loss.
- Logical drive(s) reenabled.

Restore data from backup if replacement drive(s) have been installed.

Cause

- More drives failed (or were replaced) than what the fault-tolerance level allows. The array cannot be rebuilt. If drives have not been replaced, this message indicates an intermittent drive failure.
- The system was not powered up or down correctly.

Action

1. Do one of the following:
   - Press the **F1** key to continue with logical drives disabled.
   - Press the **F2** key to accept data loss and re-enable logical drives.
2. Resolve any issues that disabled the drive.
3. If the drive is replaced, restore data from the backup.

1783-Slot X Drive Array Controller Failure

Symptom

1783-Slot X Drive Array Controller Failure

(followed by one of the following:)

- [Board ID not programmed (replace ROMs or replace controller)]
- [I2C read error]
- [Image checksum error]
- [Inconsistent volume count2
- [Inconsistent volume count (B)]
- [Unexpected hardware revision – hardware rework needed]
- [Unsupported Flash ROM type installed]
- [iLO communication mechanism self-test error]
- [PROGRAM BUG! Insufficient padding bytes (cmd=##h)]
- [Incorrect EEPROM type]
- [Init failure (cmd=##h, err=##h)]
- [Command failure (cmd=##h, err=##h)]
- [Self-test failure (ErrCode=####h)]
- [I2C NVRAM reconfiguration failure]
- [PCI bridge missing]
- [PCI bridge disabled; check System ROM version]
- [PDPI not found]
- [PDPI disabled; check System ROM version]
- [Board ID not programmed]

Cause

- The controller is not installed correctly.
- The controller firmware is outdated.
- The controller has failed.

Action

1. Reseat the controller in the PCI slot.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Update the controller to the latest firmware version.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, replace the controller.

1784-Slot X Drive Array – Drive Failure

Symptom

1784-Slot X Drive Array – Drive Failure. The following disk drive(s) should be

replaced: Port X Box Y Bay(s) Z

Cause

- A cable is not installed correctly.
- A drive is not installed correctly or has failed.

Action

Procedure

1. Be sure that all cables are connected properly and securely.

   For more information, see "Resolving loose connections" in the troubleshooting guide for your product on the Hitachi Vantara website.

2. Be sure that all drives are fully seated.
3. Determine which drive is defective using SSA.

   For more information, see the Smart storage administrator User Guide on the **Hitachi Vantara website**

4. Replace the defective components.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1786-Slot X Drive Array Recovery Needed

Symptom

1786-Slot X Drive Array Recovery Needed. The following drive(s) need Automatic Data Recovery (Rebuild): Port x Box y Bay(s) z

Select F1 to continue with recovery of data to drive. Select F2 to continue without recovery of data to drive.

Cause

A failed or replacement drive has not yet been rebuilt.

Action

1. Do one of the following:
   - Press the **F1** key to continue with recovery of data to the drive. Data will be automatically restored to the drive when a failed drive has been replaced, or to the original drive if it is working again without errors.
   - Press the **F2** key to continue without recovery of data to the drive. The failed drive will not be rebuilt and the system will continue to operate in a failed state of Interim Data Recovery Mode.
2. Replace the failed drive and press the **F1** key to rebuild the array. If the drive rebuild is not successful or is aborted because the system rebooted before the rebuild of the drive completed, another version of the 1786 POST error message is displayed.

1788-Slot X Drive Array Reports Incorrect Drive Replacement

Symptom

1788-Slot X Drive Array Reports Incorrect Drive Replacement. The following drives should have been replaced: (followed by a list of drives).

The following drives were incorrectly replaced: (followed by a list of

drives). Select "F1" to continue – drive array will remain disabled.

Select "F2" to reset configuration – all data will be lost.

Solution 1

Cause

- Replacement drives installed in incorrect drive bays
- Replacement drive is the wrong drive type or capacity

Action

1. If replacement drives are installed in the wrong bays, correctly reinstall the drives as indicated, and then do one of the following:
   - Press the **F1** key to restart the server with the drive array disabled.
   - Press the **F2** key to use the drives as configured and lose all the data on them.
     For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.
2. Verify that the replacement drives are the correct drive type and capacity.

Solution 2

Cause

- Bad power cable connection
- Defective SAS cable

Action

1. If a bad power cable connection exists:
   - Repair the connection, and then press the **F2** key.
   - If the issue persists, run SSA.

     For more information, see the Smart storage administrator User Guide on the **Hitachi Vantara website**
2. Be sure that the cable is routed correctly.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

1789-Slot X Drive Array Disk Drives Not Responding

Symptom

1789-Slot X Drive Array Disk Drives Not Responding. Check cables or replace the following drives: Port x Box y

Bays z. Select "F1" to continue - drive array will remain disabled

Select "F2" to fail drives that are not responding - Interim Recovery Mode will be enabled if configured for fault tolerance.

Cause

- A drive is not installed correctly or has failed.
- A cable is not installed correctly.
- A cable has failed.
- The system was not powered up or down correctly.
- External storage enclosures might be powered off.

Action

1. Power down the system.
2. Be sure that all cables are correctly connected.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.
3. Be sure that all drives are fully seated.
4. Power cycle any external enclosures while the system is off.
5. Power up the system to check if the issue still exists.
6. Replace the drives.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1792-Slot X Drive Array – Valid Data Found in Write-Back Cache

Symptom

1792-Slot X Drive Array – Valid Data Found in Write-Back Cache. Data will automatically be written to drive array.

Cause

Power was interrupted while data was in the write-back cache. Power was then restored within several days, and the data in the write-back cache was flushed to the drive array.

Action

No action is required. No data has been lost. Perform orderly system shutdowns to avoid leaving data in the write-back cache.

1793-Slot X Drive Array – Data in Cache has been lost

Symptom

1793-Slot X Drive Array – Data in Cache has been lost.

(Followed by one of the following:)

- Cache Module Battery Depleted
- Cache Module Battery Disconnected
- Cache Data Backup Failed
- Cache Backup Data Restore Failed

Cause

Backup power is unavailable.

Action

1. No action is required if forced write back cache feature is enabled.
2. Check for loose controller and power source cables inside the server.
3. Update the controller firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
4. If the issue persists, contact customer support.

1795-Slot X Drive Array – Cache Module Configuration Error

Symptom

1795-Slot X Drive Array – Cache Module Configuration Error. Data does not correspond to this drive array. Caching is temporarily disabled.

Cause

- Power was interrupted while data was in the cache.
- The controller was ungracefully shut down, moved to another server, and then attached to a new volume.

Action

1. To discard this data, select the **F9** key to access System Utilities while the system ROM is booting.
2. From the **System Utilities** menu, select **System Health View** > **System Health**.
3. Select the smart array controller.
4. Select **Health Status: Configuration Required**.
5. Under **Select logical drives operation**, choose **Repair. Erase data held in Write-Back Cache**.

1796-Slot X Drive Array – Flash Backed Write Cache module is not

Symptom

1796-Slot X Drive Array - Flash Backed Write Cache module is not responding. Action: Turn off power and reseat the Flash Backed Write Cache Module. If error persists, replace module.

Cause

- The cache module is missing.
- The cache module has failed.

Depending on the array controller model, the cache might be disabled, or the controller might not be usable until the issue is corrected.

Action

1. Reseat the cache module.
2. If the issue persists, replace the cache module.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1797-Slot X Drive Array – Write-Back Cache Read Error Occurred

Symptom

1797-Slot X Drive Array – Write-Back Cache Read Error Occurred. Data in Cache has been lost. Caching is disabled.

Cause

- The energy pack was not sufficiently charged to provide backup power for the cache module.
- The data could not be copied to the Write-Back Cache.
- The metadata stored in the Write-Back Cache could not be read or written.

Action

1. Confirm data integrity.
2. Verify that the energy pack is installed properly.
   For more information, see the server user guide for your product on the **Hitachi Vantara website**.
3. If the controller is a PCIe card, verify that the controller backup power cable is installed properly.
4. Use iLO to confirm the status of the energy pack.
   For more information, see the iLO user guide on the **Hitachi Vantara website**
5. If the issue persists, contact customer support.

1798-Slot X Drive Array – Cache Module Self-Test Error Occurred

Symptom

1798-Slot X Drive Array - Flash Backed Write Cache Self-Test Error Occurred.

Cause

The cache module failed self-test. Depending on the array controller model, the cache might be disabled, or the controller might not be usable until the issue is corrected.

Action

Replace the controller.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1799-Slot X Drive Array – Drives Disabled due to Cache Data Loss

Symptom

1799-Slot # Drive Array - Drives Disabled due to Cache Data

Loss. Select “F1” to continue with logical drives disabled.

Select “F2” to accept data loss and to re-enable logical drives.

Cause

One or more logical drives failed due to loss of data in posted-writes memory.

Action

1. Do one of the following:
   - Press the **F1** key to continue with the logical drives disabled.
   - Press the **F2** key to accept data loss and re-enable logical drives.

   After pressing the **F2** key, check the integrity of the file system and restore lost data from backup.
2. If the problem persists, replace the battery or controller.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1800 Series

1804-Slot X Drive Array – Cache Module critical error

Symptom

1804-Slot X Drive Array – Cache Module critical error.

Cause

The cache module has failed. The controller is disabled until the issue is resolved.

Action

Replace the cache module.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1808-Slot X Drive Array – Cache Module critical error

Symptom

1808-Slot X Drive Array – Cache Module critical error. IMPORTANT: Access to all storage has been disabled.

Cause

The cache module has failed.

Action

Replace the cache module to reenable all storage.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1809-Slot X Encryption Failure

Symptom

1809-Slot X Encryption Failure-Communication issue prevents drive keys from being retrieved. Encrypted logical drives are offline. System may not boot.

Cause

iLO is unable to communicate with the Remote Key License Server due to a network or configuration issue. Smart array drive encryption cannot get the authentication keys to decrypt the drives.

Action

1. Check the network connection between the iLO management port and the remote key manager.
2. Verify that the remote key manager configuration settings in iLO are properly configured.
3. If the issue persists, update the iLO, smart array, and System ROM to the latest versions.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

1810-Slot X Encryption Failure

Symptom

1810-Slot X Encryption Failure-Master Key is incorrect or not retrieved from Remote Key Manager. Encrypted logical drives may be offline. System may not boot.

Cause

iLO is unable to communicate with the Remote Key License Server due to a network or configuration issue. Smart array drive encryption cannot get the authentication keys to decrypt the drives.

Action

1. Check the network connection between the iLO management port and the remote key manager.
2. Verify that the remote key manager configuration settings in iLO are properly configured.
3. If the issue persists, update the iLO, smart array, and System ROM to the latest versions.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

1811-Slot X Encryption Failure

Symptom

1811-Slot X Encryption Failure-Drive Keys not retrieved from the Remote Key Manager. Dependent encrypted logical drives are offline. System may not boot.

Cause

iLO is unable to communicate with the Remote Key License Server due to a network or configuration issue. Smart array drive encryption cannot get the authentication keys to decrypt the drives.

Action

1. Check the network connection between the iLO management port and the remote key manager.
2. Verify that the remote key manager configuration settings in iLO are properly configured.
3. If the issue persists, update the iLO, smart array, and System ROM to the latest versions.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website.**

1812-Slot X Encryption Failure

Symptom

1812-Slot X Encryption Failure-Invalid Drive Keys on Remote Key Manager. Encrypted logical drives may be offline. System may not boot.

Cause

Previously encrypted drives added to the smart array controller are not found in the remote key manager database. The drives cannot be decrypted.

Action

Restore the correct version of the drive keys in the Key Manager.

1814-Slot X Encryption Failure

Symptom

1814-Slot X Encryption Failure-Communication issue prevents keys from being retrieved. Dependent encrypted logical drives are offline. System may not boot.

Cause

Previously encrypted drives added to the smart array controller are not found in the remote key manager database. The drives cannot be decrypted.

Action

1. Check the network connection between the iLO management port and the remote key manager.
2. Verify that the remote key manager configuration settings in iLO are properly configured.
3. If the issue persists, update the iLO, smart array, and System ROM to the latest versions.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

1815-Slot X Encryption Failure

Symptom

1815-Slot X Encryption Failure – All encrypted logical drives are offline due to failure to enter proper Controller Password.

Cause

Incorrect controller password entered.

Action

1. Do one of the following:
   - Reboot the server, and then enter the correct controller password.
   - Use SSA to unlock the controller.

     For more information, see the Smart storage administrator User Guide on the **Hitachi Vantara website**

1816-Slot X Encryption Failure

Symptom

1816-Slot X Encryption Failure-Encrypted logical drives are present but encryption is not yet enabled. Encrypted logical drives are offline.

Cause

Controller encryption is not enabled.

Action

Use SSA to enable encryption.

For more information, see the *Smart storage administrator User Guide* on the **Hitachi Vantara website**

1817-Slot X Encryption Failure

Symptom

1817-Slot X Encryption Failure-Encryption is enabled for the controller, but the Master Key name is not set.

Cause

The controller master key name is not set.

Action

1. Set the controller master key name in Encryption Manager.
2. Reboot the server.

1818-Slot X Encryption Failure

Symptom

1818-Slot X Encryption Failure-Key Management Mode mismatch between controller and drives. Dependent encrypted drives offline.

Cause

There is a mismatch between key management modes.

Action

Use Encryption Manager to match the key management modes.

1819-Slot X Encryption Failure

Symptom

1819-Slot X Encryption Failure-Unsupported System ROM detected. Encrypted logical drives may be offline. System may not boot.

Cause

The server is running an unsupported system ROM.

Action

Update the system ROM to a version that supports encryption.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

1820-Slot X Encryption Failure

Symptom

1820-Slot X Encryption Failure-Encrypted logical drives are offline. Encryption feature is not available on this controller.

Cause

Drives are connected to a controller that does not support encryption.

Action

Do one of the following:

- Move drives to a controller with encryption.
- Delete the logical drives.

1821-Slot X Encryption Failure

Symptom

1821–Slot X Encryption Failure – FW version for this controller does not support Secure Encryption. Encrypted logical drives are offline. System may not boot.

Cause

The firmware installed does not support Secure Encryption.

Action

Upgrade the firmware on this controller.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

1822-Slot X Encryption Failure

Symptom

1822-Slot X Encryption Failure – Imported encrypted logical drives are offline. Matching Local Master Key required. System may not boot.

Cause

Previously encrypted drives added to the smart array controller are not found in the remote key manager database. The drives cannot be decrypted.

Action

Use SSA to enter the Local Master Key.

For more information, see the *Smart storage administrator User Guide* on the **Hitachi Vantara website**

1823-Slot X Encryption Failure

Symptom

1823-Slot X Encryption Failure-Unsupported iLO FW detected. Encrypted logical drives may be offline. System may not boot.

Cause

Current version of iLO firmware does not support encryption.

Action

Update the iLO firmware to a version supporting encryption.

For more information, see the iLO user guide on the **Hitachi Vantara website**

1824-Slot X One or more storage cables have failed

Symptom

1824-Slot X One or more storage cables have failed, preventing discovery of attached storage.

Cause

- A cable is not installed correctly.
- A cable has failed.

Action

1. Use SSA to determine which cables must be reattached.

   For more information, see the *Smart storage administrator User Guide* on the **Hitachi Vantara website**

2. Power down the server.
3. Reattach the cables.
4. If the issue persists, replace the cables.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1825-Slot X Encryption Failure

Symptom

1825-Slot X Encryption Failure – Nonvolatile storage corrupted: Critical Security Parameters erased per policy. Encrypted drives offline.

Cause

Nonvolatile storage is corrupt.

Action

Use SSA to re-establish Critical Security Parameters.

For more information, see the Smart storage administrator User Guide on the **Hitachi Vantara website**

1826-Slot X Encryption Failure

Symptom

1826-Slot X Encryption Failure – Encryption engine hardware failure. Encrypted logical drives offline. Encrypted logical drives are offline until the problem is corrected.

Cause

The controller has failed.

Action

1. Replace the controller.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website.**
2. Update the firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
3. Configure the controller encryption to bring the encrypted drives online.

1831-Slot X Drive Array – Data in Write-Back smart cache has been lost

Symptom

1831- Slot X Drive Array – Data in Write-Back smart cache has been lost.

Cause

Power was interrupted while data was in the cache.

Action

Restore data from backup.

1833-Slot X Drive Array – Unsupported Array Configuration Detected

Symptom

1833-Slot X Drive Array – Unsupported Array Configuration Detected. One or more logical drives are configured for RAID fault tolerance levels that are not supported.

Cause

An array is configured with an unsupported RAID fault-tolerance level.

Action

Use SSA to update the array configuration with a supported RAID fault-tolerance level.

For more information, see the Smart storage administrator User Guide on the **Hitachi Vantara website.**

1900 series

1900-Slot X smart array - Controller Failure

Symptom

1900-Slot X smart array - Controller Failure.

Cause

- The controller is not installed correctly.
- The controller firmware is outdated.
- The controller has failed.

Action

1. Reseat the controller in the specified PCIe slot.
2. Update the controller to the latest firmware version.

   For more information, see the user guide for your controller series on the **Hitachi Vantara website**
3. If the issue persists, replace the controller.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1901-Slot X smart array - Controller failed on previous power up due to lock up code

Symptom

1901-Slot X smart array - Controller failed on previous power up due to lock up code X.

Cause

A controller failure event occurred before the server powered up.

Action

1. Update the controller to the latest firmware version.

   For more information, see the user guide for your controller series on the **Hitachi Vantara website**
2. If the issue persists, replace the controller.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1902-Slot X smart array - Controller not configured

Symptom

1902-Slot X smart array - Controller not configured.

Cause

- Controller has not been configured.
- Connections between the drives or controllers are missing or incorrect.

Action

1. Configure the controller.

   For more information, see the user guide for your controller series on the **Hitachi Vantara website**
2. Verify that the connections between the drive backplanes and controllers are connected properly.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

1903-Slot X smart array - Memory error occurred during self-test

Symptom

1903-Slot X smart array - Memory error occurred during self-test.

Cause

- The controller firmware is outdated.
- The controller has failed.

Action

1. Update the controller to the latest firmware version.

   For more information, see the user guide for your controller series on the **Hitachi Vantara website**

2. If the issue persists, replace the controller.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1904-Slot X smart array - Redundant ROM programming failure

Symptom

1904-Slot X smart array - Redundant ROM programming failure.

Cause

Flash ROM is failing. The controller detects a checksum failure, but is unable to reprogram the backup ROM.

Action

1. Update the controller to the latest firmware version.

   For more information, see the user guide for your controller series on the **Hitachi Vantara website**

2. If the issue persists, replace the controller.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1905-Slot X smart array - Redundant ROM image checksum error

Symptom

1905-Slot X smart array - Redundant ROM image checksum error. Backup ROM activated

Cause

The controller flash operation is interrupted by a power cycle, or flash ROM is failing. The controller detects a ROM checksum error and automatically switches to the backup ROM image.

Action

If this backup ROM image is a lower version than the originally running image, update the controller to the latest firmware version. Flash the controller firmware using the latest firmware version with the force update option selected.

For more information, see the user guide for your controller series on the **Hitachi Vantara website**

1906-Slot X smart array - Last configuration not committed

Symptom

1906-Slot X smart array - Last configuration not committed.

Cause

Power was interrupted before the controller could commit the configuration.

Action

1. Retry the operation.
2. If the issue persists, contact customer support.

1907-Slot X smart array - Controller degraded

Symptom

1907-Slot X smart array - Controller degraded.

Cause

The controller is operating in a degraded state.

Action

1. Reboot the server.
2. Update the controller to the latest firmware version.

   For more information, see the user guide for your controller series on the **Hitachi Vantara website**
3. If the issue persists, replace the controller.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1908-Slot X smart array - Controller boot password required

Symptom

1908-Slot X smart array - Controller boot password required.

Cause

The controller has been configured to pause for password at boot time. Data access is restricted unless a valid controller boot time password is entered.

Action

1. During system boot, press F9 to enter System Utilities.
2. Select System Configuration.
3. Select the storage controller.
4. Select Main Menu.
5. Enter the boot time password.
6. Click Apply Changes.
7. Select Exit without Rebooting.

1910-Slot X smart array - One or more drives could not be authenticated

Symptom

1910-Slot X smart array - One or more drives could not be authenticated as genuine drives. Smart array will not control the LEDs to these drives.

Cause

One or more physical drives could not be validated as genuine.

Action

To determine which drives cannot be validated as genuine, run the storage administrator.

For more information, see the storage administrator user guide for your controller series on the **Hitachi Vantara website.**

1911-Slot X smart array - Drives are failed

Symptom

1911-Slot X smart array - Drives are failed: (followed by a list of drives).

Cause

- A drive is not installed correctly or has failed.
- A cable is not installed correctly.

Action

1. Be sure that no loose connections exist.

   For more information, see "Resolving loose connections" in the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. Verify that all cables are connected properly.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.

3. Be sure that all drives are fully seated.
4. Verify that the drive data cable is working by replacing it with a known, functional cable.
5. Replace the defective components.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

6. Be sure that replacement drives within an array are the same size or larger, and of the same type.
7. Cycle power to the server. If the drive appears, check if a drive firmware update is available.
8. If the issue persists, contact customer support.

1912-Slot X smart array - Drives are overheated

Symptom

1912-Slot X smart array - Drives are overheated: (followed by a list of drives).

Cause

The specified drives are in an overheated state.

Action

1. Verify that all fan slots have fans or fan blanks installed, and that air flows over the drives.
   For more information, see "General fan issues" in the troubleshooting guide for your product on the **Hitachi Vantara website.**

2. Install the access panel, if removed.
3. Verify that all bays have a drive or drive blank installed and install any missing drive blanks.
4. If the issue persists, contact customer support.

1913-Slot X smart array - Drive Erase Operation In Progress (or Queued)

Symptom

1913-Slot X smart array - Drive Erase Operation In Progress (or Queued). The following drives will be erased upon completion: (followed by a list of drives).

Cause

A drive erase operation was previously initiated by the user and is in progress or is scheduled for all drives in the list.

Action

No action is required.

1914-Slot X smart array - Predictive drive failure

Symptom

1914-Slot X smart array - Predictive drive failure: (followed by a list of drives).

Cause

A drive predictive failure condition was detected. The drive must be replaced in the future.

Action

- If this drive is part of a non-fault-tolerant configuration, back up all data before replacing the drive, and then restore all data afterward.
- If this drive is part of a fault-tolerant configuration, do not replace this drive unless the logical drive status is OK.

1915-Slot X smart array - Drive media errors could not be recovered by RAID protection

Symptom

1915-Slot X smart array - Drive media errors could not be recovered by RAID protection.

Cause

A media error was detected on a drive during a background task and cannot be corrected. An unrecoverable read error is returned to the operating system when this block address is read.

Action

Back up and restore the data. Overwriting the affected blocks should resolve the media errors.

1920-Slot X smart array - Storage enclosure problem detected

Symptom

1920-Slot X smart array - Storage enclosure problem detected: (followed by the component)

Solution 1

Cause

A fan-related environmental threshold was violated on the drive enclosure.

Action

1. Verify that the fans are working properly.
2. Reseat the fan.
3. If the issue persists, replace the fan.

   For more information, see the maintenance and service guide for your product on the **Hitachi Vantara website**

Solution 2

Cause

A power supply-related environmental threshold was violated on the drive enclosure.

Action

Replace the power supply.

For more information, see the maintenance and service guide for your product on the **Hitachi Vantara website**

Solution 3

Cause

An enclosure processor-related environmental threshold was violated on the drive enclosure.

Action

1. Cycle power to the storage enclosure.
2. If the issue persists, update the enclosure firmware.

   For more information, see the user guide for your product on the **Hitachi Vantara website**

Solution 4

Cause

An environmental threshold was violated on the drive enclosure.

Action

1. Reseat the I/O modules.

   For more information, see the maintenance and service guide for your product on the **Hitachi Vantara website**
2. Reseat the I/O module cables.
3. Replace the cables, if damaged.
4. If the issue persists, replace the I/O modules.

1921-Slot X smart array – Storage enclosure firmware problem detected

Symptom

1921-Slot X smart array – Storage enclosure firmware problem detected.

Cause

- The previous firmware upgrade was not successful.
- Power was interrupted in the middle of the upgrade.
- The replacement unit contains the wrong firmware version.

Action

1. Upgrade the storage enclosure firmware and the controller firmware.

   For more information, see the user guide for your controller series on the **Hitachi Vantara website**

2. If the issue persists, replace the affected enclosure components.
   For more information, see the server maintenance and service guide for your production the **Hitachi Vantara website**.

1922-Slot X smart array – More devices attached than this controller supports

Symptom

1922-Slot X smart array – More devices attached than this controller supports. Some devices are ignored.

Cause

The firmware does not support the number of devices currently attached to the controller.

Action

- If release notes indicate that support for additional devices has been added, upgrade to the latest version of controller firmware.

  For more information, see the user guide for your controller series on the **Hitachi Vantara website**

- Remove some of the devices attached to the controller.
  For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1923-Slot X smart array - Storage link errors detected

Symptom

1923-Slot X smart array - Storage link errors detected (followed by additional information, such as box and port location).

Cause

Link errors between the controller and drive exceeded the threshold.

Action

1. Depending on the location of the errors, replace the following components as required:

- SAS cable
- Backplane
- Controller
- Drive

For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1930-Slot X smart array - Valid data found in write-back cache

Symptom

1930-Slot X smart array - Valid data found in write-back cache. Data will automatically be written to the logical drives.

Cause

Power was interrupted while data was in the write-back cache. Power was then restored and the data in the write-back cache was flushed to the drive array.

Action

No action is required. No data has been lost. To avoid leaving data in the write-back cache, perform orderly system shutdowns in the future.

1931-Slot X smart array - Data in write-back cache has been lost

Symptom

1931-Slot X smart array - Data in write-back cache has been lost.

Cause

- Backup power is unavailable.
- The **Always write back** option is enabled but no energy pack is installed.
- SSD Caching Enabled and the cache volume failed

Action

1. If the **Always write back** option is enabled, no action is required.
2. Look for loose energy pack or controller backup power cables inside the server.

   For more information, see "Resolving loose connections" in the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. Update the controller firmware.

   For more information, see the user guide for your controller series on the **Hitachi Vantara website**

4. Replace the energy pack if it has failed.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1932-Slot X smart array - Cache Status: Disabled

Symptom

1932-Slot X smart array - Cache Status: Disabled (Error Code: X)

Cause

- The system ROM or iLO firmware does not recognize the energy pack.
- The energy pack has failed.
- The controller experienced a previous backup or restore failure.

Action

1. Update the system ROM and iLO firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. Replace the energy pack.

   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website.**

3. Replace the controller.

1933-Slot X smart array - Consecutive power loss during I/O transactions on degraded write-back volumes

Symptom

1933-Slot X smart array - Consecutive power loss during I/O transactions on degraded write-back volumes. This might have resulted in data integrity issues.

Cause

Power was interrupted while performing a write to a degraded logical drive.

Action

1. Properly shut down the server.
2. Verify that the power supply and energy pack are functioning properly.

   For more information, see "Power supply issues" and "Energy pack issues" in the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

1934-Slot X smart array - Cache Status: Disabled

Symptom

1934-Slot X smart array - Cache Status: Disabled (Error Code: Missing energy pack)

Cause

- The energy pack is missing.
- The number of controllers, NVDIMMs, or both are not supported with the installed energy pack.

Action

- Install a supported energy pack.

  In servers that support installing more than one energy pack, verify that the energy pack is connected to the correct connector on the system board.

  For more information, see the server user guide for your product on the **Hitachi Vantara website**.

- Match the energy pack to the number of loads.

1935-Slot X smart array - Cache Status: Temporary Disabled

Symptom

1935-Slot X smart array - Cache Status: Temporary Disabled (Error Code: Energy pack charging)

Cause

The energy pack is required and charging.

Action

No action is required. Caching will be enabled after the energy pack is charged.

1936-Slot X smart array - Cache Self-Test Error Occurred

Symptom

1936-Slot X smart array - Cache Self-Test Error Occurred.

Cause

The cache failed self-test.

Action

1. Replace the controller.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1937-Slot X smart array - Cache Status: Disabled

Symptom

1937-Slot X smart array - Cache Status: Disabled (Error code: Missing Controller Backup Power Cable)

Cause

The energy pack is present, but the controller backup power cable is either not connected or faulty.

Action

Verify that the controller backup power cable is attached from the server to the smart array controller, and that the connectors are seated properly.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

1940-Slot X smart array - The following logical drives are failed

Symptom

1940-Slot X smart array - The following logical drives are failed: (followed by a list of logical drives).

Cause

- A cable is not installed correctly.
- A drive is not installed correctly or has failed.

Action

1. Verify that all cables are connected properly and securely.

   For more information, see "Resolving loose connections" in the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. Verify that all drives are fully seated.
3. Determine which drive is defective using the storage administrator.
   For more information, see the storage administrator user guide for your controller series on the **Hitachi Vantara website.**
4. Replace the defective cables, drive, or both.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1941-Slot X smart array - The following logical drives are missing

Symptom

1941-Slot X smart array - The following logical drives are missing: (followed by a list of drives)

Cause

The controller is unable to find the configured drives.

Action

1. Verify that the configured drives are present and are properly connected.
2. If there is a backplane, check the connector to verify that power is being supplied to the drive.
3. Delete missing logical drives if they are not required.

1942-Slot X smart array - Configured physical drives are missing

Symptom

1942-Slot X smart array - Configured physical drives are missing: (followed by a list of drives)

Cause

- A drive is not installed correctly or has failed.
- A cable is not installed correctly or has failed.
- External storage enclosures might be powered off.

Action

1. Power down the server.
2. Verify that the cables are connected.

   For more information, see the server user guide for your product on the **Hitachi Vantara website**.
3. Verify that all drives are fully seated.
4. While the system is off, cycle power to any external enclosures.
5. Power up the server.
6. If the error persists, replace the drives.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1943-Slot X smart array - Foreign configuration found on drive

Symptom

1943-Slot X smart array - Foreign configuration found on drive. Not able to import configuration to the controller.

Cause

The new controller model does not support the configuration on the drives.

Action

Reattach the drives to the original controller model, or clear the controller configurations.

1944-Slot X smart array - Foreign configuration found on drive

Symptom

1944-Slot X smart array - Foreign configuration found on drive. Configuration mis-match between controller and drives

Cause

A storage device was inserted with the metadata that does not belong to any RAID volumes recognized by the controller.

Action

- Import the configuration settings of the inserted storage device.
- Delete the RAID volume on the drives.

1945-Slot X smart array - The following logical drives are degraded

Symptom

1945-Slot X smart array - The following logical drives are degraded (followed by a list of drives).

Cause

RAID fault tolerance is degraded due to one of the following:

- Failed drive
- Missing drive
- Incorrect drive capacity
- Incorrect drive type
- Missing SAS cable
- Rebuilding

Action

For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1. Allow sufficient time for rebuild to complete.
2. Check the storage software for further details.

   For more information, see the storage software documentation on the **Hitachi Vantara website**

1946-Slot X smart array - The following logical drives are disabled

Symptom

1946-Slot X smart array - The following logical drives are disabled (followed by a list of drives and cause).

Cause

Logical drives are disabled due to one of the following:

- Previously failed drives are now operational
- Write-Back Cache Data loss
- Expansion failure

- Encryption password incorrect
- Encryption is not enabled but encrypted logical drives are present.
- Encryption key management mode mismatch between controller and drives
- Encryption security parameters erased per policy

Action

1. Press the **F9** key during POST to access the System Utilities.
2. Navigate to the System Health Menu and select the appropriate options to repair the specified condition.
3. Use the storage software to correct any encryption issues.

   For more information, see the storage software documentation on the **Hitachi Vantara website**
4. Reboot the server, and then enter the encryption password, if applicable.

2100 series

2100-Slot X SAN Error - SAN link is down

Symptom

2100-Slot X SAN Error - SAN link is down. SAN connection not possible.

Cause

The SAN link is down. While the link is down, connection to the SAN is not possible.

Action

1. Check switch and SAN configuration.
2. Reconnect the ports, or reboot the server.
3. If the issue persists, contact customer support.

2101-SAN Error - Fabric Login (FLOGI) failed

Symptom

2101-SAN Error - Fabric Login (FLOGI) failed. SAN connection not possible.

Cause

The system failed to login to the SAN Fabric. Connection to the SAN is not possible without a successful login.

Action

1. Check switch and SAN configuration.
2. Reconnect the ports or reboot the server.
3. If the issue persists, contact customer support.

2102-Slot X SAN Error - SAN link is down

Symptom

2102-Slot X SAN Error - SAN link is down. SAN connection not possible.

Cause

The system failed to login to the SAN server. Booting from the SAN is not possible without a successful login.

Action

1. Check switch and SAN configuration.
2. Reconnect the ports or reboot the server.
3. If the issue persists, contact customer support.

2103-Slot X SAN Error – Name Server login failed

Symptom

2103-Slot X SAN Error – Name Server login failed. Boot from SAN not possible.

Cause

No boot targets were found on the SAN. Booting from the SAN is not possible without a boot target.

Action

1. Check switch and SAN configuration.
2. Reconnect the ports or reboot the server.
3. If the issue persists, contact customer support.

2104-Slot X SAN Error – Adapter restart failed

Symptom

2104-Slot X SAN Error – Adapter restart failed. Firmware not ready. Boot from SAN not possible.

Cause

The adapter firmware is not ready. Booting from the SAN is not possible until the adapter restarts successfully.

Action

1. Reconnect the ports, and then reboot the server.
2. If the issue persists, contact customer support.

2105-Vital product data not available

Symptom

2105-Vital product data not available.

Cause

The Vital Product Data for the specified adapter is not available.

Action

Update the adapter firmware.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2106-Unable to change the network adapter's personality

Symptom

2106-Unable to change the network adapter's personality.

Cause

A personality change attempt on the adapter did not succeed because of a hardware problem or incorrect firmware version on the adapter.

Action

Reseat the card in the slot.
For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

1. Update the card firmware to the latest version.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. Reboot the server.
3. If the issue persists, contact customer support.

2107-Firmware update on the adapter failed

Symptom

2107-Firmware update on the adapter failed.

Cause

The firmware update failed.

Action

1. Verify that the firmware file supports the adapter.
2. Retry the update.
3. If the issue persists, contact customer support.

2108-Adapter failed to recover the firmware

Symptom

2108-Adapter failed to recover the firmware.

Cause

The adapter unsuccessfully attempted to recovery its firmware image.

Action

1. Reboot the server.
2. If the issue persists, contact customer support.

2110-Failure to respond to input/output operations

Symptom

2110-Failure to respond to input/output operations.

Cause

The controller experienced a timeout failure while performing input/output operations.

Action

1. Reboot the server.
2. If the issue persists, update the firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

2111-iSCSI Error - Failed to acquire DHCP Initiator Network Address

Symptom

2111-iSCSI Error - Failed to acquire DHCP Initiator Network Address.

Cause

- Missing or improperly connected network cable
- Incorrect configuration settings

Action

1. Verify that the network cable is connected to this port.
2. Verify that the DHCP server is reachable from the system.
3. Verify that the DHCP server is able to provide the settings required for the system, such as IP address, mask, and gateway settings.
4. Verify that the DHCP server is not busy.
5. Reboot the server, and try again.
6. If the issue persists, contact customer support.

2112-iSCSI Error - Failed to acquire DHCP Target Network Address

Symptom

2112-iSCSI Error - Failed to acquire DHCP Target Network Address.

Cause

- Missing or improperly connected network cable
- Incorrect configuration settings

Action

1. Verify that the network cable is connected to this port.
2. Verify that the DHCP server is reachable from the system.
3. Verify that the DHCP server is able to provide the target settings required for the system, such as: IP address, port number, and target IQN.
4. Verify that the DHCP server is not busy.
5. Reboot the server, and try again.
6. If the issue persists, contact customer support.

2113-iSCSI Error - Failed to acquire DHCP iSNS Server IP address

Symptom

2113-iSCSI Error - Failed to acquire DHCP iSNS Server IP address.

Cause

- Missing or improperly connected network cable
- Incorrect configuration settings

Action

1. Verify that the network cable is connected to this port.
2. Verify that the DHCP server is reachable from the system.
3. Verify that the DHCP server is configured to provide iSNS settings.
4. Verify that the DHCP server is not busy.
5. Reboot the server, and try again.
6. If the issue persists, contact customer support.

2114-iSCSI Error - iSCSI login failed

Symptom

2114-iSCSI Error - iSCSI login failed.

Cause

- Missing or improperly connected network cable
- Incorrect configuration settings

Action

1. Verify that the network cable is connected to this port.
2. If settings are configured to be provided by a DHCP server, verify that it is reachable from the system and not busy.
3. If settings on the system are provided manually, verify that the controller settings, initiator configuration, and target configuration, including any authentication settings, are correct.
4. Verify that the target is configured correctly.
5. Reboot the server, and try again.
6. If the issue persists, contact customer support.

2115-iSCSI Error - Boot LUN not available

Symptom

2115-iSCSI Error - Boot LUN not available.

Cause

Incorrect configuration settings

Action

1. Verify that the iSCSI configuration on the target is correct, and that the initiator has permissions to access the disk/LUN
2. Reboot the server.
3. If the issue persists, contact customer support.

2116-Error - Controller firmware not ready

Symptom

2116-Error - Controller firmware not ready.

Cause

The controller firmware did not initialize or is corrupt.

Action

1. Reboot the server, and try again.
2. Update the controller firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

2119-Slot X Error - Rx/Tx is disabled on this device

Symptom

2119-Slot X Error - Rx/Tx is disabled on this device because an unsupported SFP+ or QSFP module type was detected.

Cause

An unsupported transceiver module (SFP+ or QSFP) was connected to the adapter.

Action

Replace the transceiver module with a supported model.

2120-Slot X Error - The driver for the device detected an older version of the NVM image than expected

Symptom

2120-Slot X Error - The driver for the device detected an older version of the NVM image than expected.

Cause

Option ROM was updated to a newer version than the nominal version distributed with current NVM.

Action

Hitachi Vantara recommends updating the NVM image and option ROM on the adapter using the same firmware update bundle.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2121-A newer version of the NVM was detected than the original version

Symptom

2121-A newer version of the NVM was detected than the original version.

Cause

NVM was updated to a newer version than the original version distributed with the current version of the option ROM.

Action

Update both the NVM and option ROM firmware on the adapter.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2122-Slot X Error - The UEFI driver for the device stopped

Symptom

2122-Slot X Error - The UEFI driver for the device stopped because the NVM image is newer than expected.

Cause

The current NVM version is not supported by the UEFI driver.

Action

Install the most recent version of the UEFI driver. Hitachi Vantara recommends updating the NVM image and option ROM on the adapter using the same firmware update bundle.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2150-Corrected Memory Error

Symptom

2150-Corrected Memory Error (Processor/Board X, DIMM Y, Address 0x<SystemMemoryAddress>, Count Z).

Cause

Corrected memory error detected.

Action

No action is required.

2200 series

2200-Secure Boot - Secure Boot has been enabled

Symptom

2200-Secure Boot - Secure Boot has been enabled.

Cause

Secure Boot was enabled through RBSU, iLO RESTful API, or `sysconfig` command.

Action

No action is required.

2201-Secure Boot - Secure Boot has been disabled

Symptom

2201-Secure Boot - Secure Boot has been disabled.

Cause

Secure Boot was disabled through RBSU, iLO RESTful API, or `sysconfig` Shell command.

Action

No action is required.

2202-Secure Boot - A new Platform Key (PK) has been enrolled

Symptom

2202-Secure Boot - A new Platform Key (PK) has been enrolled.

Cause

A new Platform Key certificate was enrolled through RBSU or `secboot` Shell command.

Action

No action is required.

2203-Secure Boot - A new entry in the Key Exchange Key (KEK) security database has been enrolled

Symptom

2203-Secure Boot - A new entry in the Key Exchange Key (KEK) security database has been enrolled.

Cause

A new KEK certificate was enrolled through RBSU or `secboot` command.

Action

No action is required.

2204-Secure Boot - A new entry in the db security database has been enrolled

Symptom

2204-Secure Boot - A new entry in the db security database has been enrolled.

Cause

A db certificate was enrolled through RBSU or `secboot` Shell command.

Action

No action is required.

2205-Secure Boot - A new entry in the dbx security database has been enrolled

Symptom

2205-Secure Boot - A new entry in the dbx security database has been enrolled.

Cause

A dbx certificate was enrolled through RBSU or `secboot` Shell command.

Action

No action is required.

2206-Secure Boot - A new entry in the dbt security database has been enrolled

Symptom

2206-Secure Boot - A new entry in the dbt security database has been enrolled.

Cause

A dbt certificate was enrolled through RBSU or `secboot` Shell command.

Action

No action is required.

2207-Secure Boot - All of the keys have been reset to defaults

Symptom

2207-Secure Boot - All of the keys have been reset to defaults.

Cause

A request to reset all keys was sent through RBSU, iLO RESTful API, or `secboot` command.

Action

No action is required.

2208-Secure Boot - Key Exchange Keys (KEK) have been reset to the platform defaults

Symptom

2208-Secure Boot - Key Exchange Keys (KEK) have been reset to the platform defaults.

Cause

A request to reset Key Exchange Keys was sent through RBSU or `secboot` Shell command.

Action

No action is required.

2209-Secure Boot - Platform Keys (PK) have been reset to the platform defaults

Symptom

2209-Secure Boot - Platform Keys (PK) have been reset to the platform defaults.

Cause

A request to reset Platform Keys was sent through RBSU, iLO RESTful API, or `secboot` command.

Action

No action is required.

2210-Secure Boot - db keys have been reset to the platform defaults

Symptom

2210-Secure Boot - db keys have been reset to the platform defaults.

Cause

A request to reset db keys was sent through RBSU or `secboot` Shell command.

Action

No action is required.

2211-Secure Boot - dbx keys have been reset to the platform defaults

Symptom

2211-Secure Boot - dbx keys have been reset to the platform defaults.

Cause

A request to reset dbx keys was sent through RBSU or `secboot` Shell command.

Action

No action is required.

2212-Secure Boot - dbt keys have been reset to the platform defaults

Symptom

2212-Secure Boot - dbt keys have been reset to the platform defaults.

Cause

A request to reset dbt keys was sent through RBSU or `secboot` command.

Action

No action is required.

2213-Secure Boot - All of the keys in the platform have been deleted

Symptom

2213-Secure Boot - All of the keys in the platform have been deleted.

Cause

A request to delete keys was sent using RBSU, iLO RESTful API, or the `sysconfig` command.

Action

No action is required.

2214-Secure Boot - The Platform Key (PK) Secure Boot variable has been deleted

Symptom

2214-Secure Boot - The Platform Key (PK) Secure Boot variable has been deleted.

Cause

A request to delete the Platform Key Secure Boot variable was sent using RBSU, iLO RESTful API, or the `secboot` command.

Action

No action is required.

2215-Secure Boot - The Key Exchange Key (KEK) Secure Boot variable has been deleted

Symptom

2215-Secure Boot - The Key Exchange Key (KEK) Secure Boot variable has been deleted.

Cause

A request to delete the Key Exchange Key Secure Boot variable was sent using RBSU or the `secboot` command.

Action

No action is required.

2216-Secure Boot - The db Secure Boot variable has been deleted

Symptom

2216-Secure Boot - The db Secure Boot variable has been deleted.

Cause

A request to delete the db Secure Boot variable was sent using RBSU or the `secboot` command.

Action

No action is required.

2217-Secure Boot - The dbx Secure Boot variable has been deleted

Symptom

2217-Secure Boot - The dbx Secure Boot variable has been deleted.

Cause

A request to delete the dbx Secure Boot variable was sent using RBSU or the `secboot` command.

Action

No action is required.

2218-Secure Boot - The dbt Secure Boot variable has been deleted

Symptom

2218-Secure Boot - The dbt Secure Boot variable has been deleted.

Cause

A request to delete the dbt Secure Boot variable was sent through the RBSU menu.

Action

No action is required.

2219-Secure Boot - A Key Exchange Key (KEK) entry has been deleted from KEK database

Symptom

2219-Secure Boot - A Key Exchange Key (KEK) entry has been deleted from KEK database.

Cause

A request to delete a Key Exchange Key entry was sent using RBSU or the `secboot` command.

Action

No action is required.

2220-Secure Boot - A db entry has been deleted from db database

Symptom

2220-Secure Boot - A db entry has been deleted from db database.

Cause

A request to delete a db entry was sent using RBSU or the `secboot` command.

Action

No action is required.

2221-Secure Boot - A dbx entry has been deleted from dbx database

Symptom

2221-Secure Boot - A dbx entry has been deleted from dbx database.

Cause

A request to delete a dbx key entry was sent using RBSU or the `secboot` command.

Action

No action is required.

2222-Secure Boot - A dbt entry has been deleted from dbt database

Symptom

2222-Secure Boot - A dbt entry has been deleted from dbt database.

Cause

A request to delete a dbt entry was sent through the RBSU menu.

Action

No action is required.

2223-Secure Boot - Unable to enable/disable secure boot

Symptom

2223-Secure Boot - Unable to enable/disable secure boot. Only a physically present user can enable/disable Secure Boot.

Cause

A user attempted to change Secure Boot mode without being physically present.

Action

No action is required.

2224-Secure Boot - Unable to enroll a new entry

Symptom

2224-Secure Boot - Unable to enroll a new entry.

Cause

A user attempted to enroll an invalid type certificate.

Action

No action is required.

2225-Secure Boot - Unable to reset one or more keys

Symptom

2225-Secure Boot - Unable to reset one or more keys.

Cause

UEFI BIOS variable reset operation failed to reset one or more keys.

Action

No action is required.

2226-Secure Boot - Unable to delete one or more variables

Symptom

2226-Secure Boot - Unable to delete one or more variables.

Cause

- The variable does not exist.
- UEFI BIOS operation failure.

Action

No action is required.

2227-Secure Boot - Unable to delete one or more entries

Symptom

2227-Secure Boot - Unable to delete one or more entries.

Cause

UEFI BIOS operation failure.

Action

No action is required.

2400 series

2400-[Device Type] [Slot number] SAN Error - SAN link is down

Symptom

2400-[Device Type] [Slot number] SAN Error - SAN link is down. SAN connection not possible.

Cause

The SAN link is down. While the link is down, connection to the SAN is not possible.

Action

1. Check the switch and SAN configuration.
2. Reconnect the ports.
3. Reboot the server.
4. If the issue persists, contact customer support.

2401-[Device Type] [Slot number] SAN Error - Fabric Login (FLOGI) failed

Symptom

2401-[Device Type] [Slot number] SAN Error - Fabric Login (FLOGI) failed. SAN connection not possible.

Cause

The system failed to login to the SAN Fabric. Connection to the SAN is not possible without a successful login.

Action

1. Check the switch and SAN configuration.
2. Reconnect the ports.
3. Reboot the server.
4. If the issue persists, contact customer support.

2402-[Device Type] [Slot number] SAN Error - Name Server login failed

Symptom

2402-[Device Type] [Slot number] SAN Error - Name Server login failed. Boot from SAN not possible.

Cause

The system failed to login to the SAN Name Server. Booting from the SAN is not possible without a successful login.

Action

1. Check the switch and SAN configuration.
2. Reconnect the ports.
3. Reboot the server.
4. If the issue persists, contact customer support.

2403-[Device Type] [Slot number] SAN Error - No targets found

Symptom

2403-[Device Type] [Slot number] SAN Error - No targets found. Boot from SAN not possible.

Cause

No boot targets were found on the SAN. Booting from the SAN is not possible without a boot target.

Action

1. Check the switch and SAN configuration.
2. Reconnect the ports.
3. Reboot the server.
4. If the issue persists, contact customer support.

2404-[Device Type] [Slot number] SAN Error - Adapter restart failed

Symptom

2404-[Device Type] [Slot number] SAN Error - Adapter restart failed. Firmware not ready. Boot from SAN not possible.

Cause

The SAN adapter failed to restart correctly due to the adapter firmware not being ready in time. Booting from the SAN is not possible until the adapter restarts successfully.

Action

1. Reconnect the ports.
2. Reboot the server.
3. If the issue persists, contact customer support.

2405-[Device Type] [Slot number] Error - Vital Product Data (VPD) is not available

Symptom

2405-[Device Type] [Slot number] Error - Vital Product Data (VPD) is not available.

Cause

The Vital Product Data is not available for the specified adapter.

Action

1. Update the firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

2406-[Device Type] [Slot number] NIC Error - NIC personality (Ethernet, iSCSI, or FCoE) could not be changed

Symptom

2406-[Device Type] [Slot number] NIC Error - NIC personality (Ethernet, iSCSI, or FCoE) could not be changed. FW may require update.

Cause

A personality change attempt on the adapter did not succeed because of a hardware problem or incorrect firmware version on the adapter.

Action

1. Reseat the card in the slot.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.
2. Update the card firmware to the latest version.
   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
3. Reboot the server.
4. If the issue persists, contact customer support.

2407-[Device Type] [Slot number] Error - The firmware update did not complete successfully

Symptom

2407-[Device Type] [Slot number] Error - The firmware update did not complete successfully.

Cause

The firmware update failed.

Action

1. Verify that the proper firmware image is selected, and attempt to update the firmware again.
   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
2. If the issue persists, contact customer support.

2408-[Device type] [Slot number] Error – Firmware image recovery not successful

Symptom

2408-[Device type] [Slot number] Error – Firmware image recovery not successful.

Cause

The adapter attempted to recover its firmware image, but was not successful.

Action

1. Reboot the server.
2. If the issue persists, contact customer support.

2410-[Device type] [Slot number] Error – Controller I/O timeout failure

Symptom

2410-[Device type] [Slot number] Error – Controller I/O timeout failure.

Cause

Communication with the controller timed out.

Action

1. Reboot the server.
2. If the issue persists, update the firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
3. If the issue persists, contact customer support.

2411-[Device Type] [Device number] iSCSI Error - Failed to acquire DHCP initiator network address

Symptom

2411-[Device Type] [Device number] iSCSI Error - Failed to acquire DHCP initiator network address.

Cause

- Missing or improperly connected network cable
- Incorrect configuration settings

Action

1. Verify that the network cable is connected to this port.
2. Verify that the DHCP server is reachable from the system.
3. Verify that the DHCP server is able to provide the settings required for the system, such as IP address, mask, and gateway settings.
4. Verify that the DHCP server is not busy.
5. Reboot the server, and try again.
6. If the issue persists, contact customer support.

2412-[Device Type] [Device number] iSCSI Error - Failed to acquire DHCP target network address

Symptom

2412-[Device Type] [Device number] iSCSI Error - Failed to acquire DHCP target network address.

Cause

- Missing or improperly connected network cable
- Incorrect configuration settings

Action

1. Verify that the network cable is connected to this port.
2. Verify that the DHCP server is reachable from the system.
3. Verify that the DHCP server is able to provide the target settings required for the system, such as IP address, port number, and target IQN.
4. Verify that the DHCP server is not busy.
5. Reboot the server, and try again.
6. If the issue persists, contact customer support.

2413-[Device Type] [Device number] iSCSI Error - Failed to acquire DHCP iSNS Server IP address

Symptom

2413-[Device Type] [Device number] iSCSI Error - Failed to acquire DHCP iSNS Server IP address.

Cause

- Missing or improperly connected network cable
- Incorrect configuration settings

Action

1. Verify that the network cable is connected to this port.
2. Verify that the DHCP server is reachable from the system.
3. Verify that the DHCP server is configured to provide iSNS settings.
4. Verify that the DHCP server is not busy.
5. Reboot the server, and try again.
6. If the issue persists, contact customer support.

2414-[Device Type] [Device number] iSCSI Error - iSCSI login failed

Symptom

2414-[Device Type] [Device number] iSCSI Error - iSCSI login failed.

Cause

- Missing or improperly connected network cable
- Incorrect configuration settings

Action

1. Verify that the network cable is connected to this port.
2. If settings are configured to be provided by a DHCP server, verify that it is reachable from the system and not busy.
3. If settings on the system are provided manually, verify that the controller settings, initiator configuration, and target configuration, including any authentication settings, are correct.
4. Verify that the target is configured correctly.
5. Reboot the server, and try again.
6. If the issue persists, contact customer support.

2415-[Device Type] [Device number] iSCSI Error - Boot LUN not available

Symptom

2415-[Device Type] [Device number] iSCSI Error - Boot LUN not available.

Cause

Incorrect configuration settings

Action

1. Verify that the iSCSI configuration on the target is correct, and that the initiator has permissions to access the disk/LUN.
2. Reboot the server.

2416-[Device Type] [Device number] Error - Controller firmware not ready

Symptom

2416-[Device Type] [Device number] Error - Controller firmware not ready.

Cause

The controller firmware did not initialize or is corrupt.

Action

1. Reboot the server, and try again.
2. Update the controller firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website.**

3. If the issue persists, contact customer support.

2419-[Device Type] [Slot number] Error - Rx/Tx is disabled on this device

Symptom

2419-[Device Type] [Slot number] Error - Rx/Tx is disabled on this device because an unsupported SFP+ or QSFP module type was detected.

Cause

An unsupported transceiver module (SFP+ or QSFP) is connected to the adapter.

Action

Replace the transceiver module with a supported model.

2420-[Device Type] [Slot number] Error - The UEFI driver for the device detected an older version of the NVM image than expected

Symptom

2420-[Device Type] [Slot number] Error - The UEFI driver for the device detected an older version of the NVM image than expected.

Cause

The option ROM was updated to a newer version than the nominal version distributed with the current NVM.

Action

Update the NVM image and option ROM on the adapter using the same firmware update bundle.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2421-[Device Type] [Slot number] Error - The UEFI driver for the device detected a newer version of the NVM image than expected

Symptom

2421-[Device Type] [Slot number] Error - The UEFI driver for the device detected a newer version of the NVM image than expected.

Cause

The option ROM was updated to a newer version than the nominal version distributed with the current NVM.

Action

1. Install the most recent version of the UEFI driver.
2. Update the NVM image and option ROM on the adapter.

   Hitachi Vantara recommends updating the NVM image and option ROM on the adapter using the same firmware update bundle.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2422-[Device Type] [Slot number] Error - The UEFI driver for the device stopped because the NVM image is newer than expected

Symptom

2422-[Device Type] [Slot number] Error - The UEFI driver for the device stopped because the NVM image is newer than expected.

Cause

The current NVM version is not supported by the UEFI driver.

Action

1. Install the most recent version of the UEFI driver.
2. Update the NVM image and option ROM on the adapter.

   Hitachi Vantara recommends updating the NVM image and option ROM on the adapter using the same firmware update bundle.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2423-[Device Type] [Slot number] Error - Firmware recovery mode detected

Symptom

2423-[Device Type] [Slot number] Error - Firmware recovery mode detected. Initialization failed.

Cause

The adapter firmware encountered a problem and started in recovery mode.

Action

1. Reboot the server.
2. If the issue persists, contact customer support.

2424-[Device Type] [Slot number] Error - Critical firmware data has been corrupted

Symptom

2424-[Device Type] [Slot number] Error - Critical firmware data has been corrupted.

Cause

Critical firmware data has been corrupted.

Action

1. Restore the device factory defaults.
2. If the issue persists, contact customer support.

2425-[Device Type] [Slot number] Error - Topology Media conflict

Symptom

2425-[Device Type] [Slot number] Error - Topology Media conflict in Ethernet port configuration detected.

Cause

Topology Media conflict detected in Ethernet port configuration.

Action

1. Use the Intel System Configuration Utility to resolve the issue.

   For more information, see the **Intel System Configuration Utility User Guide**.

2. If the issue persists, contact customer support.

2426-[Device Type] [Slot number] Error - Device firmware has been reverted

Symptom

2426-[Device Type] [Slot number] Error - Device firmware has been reverted to version X. Device may exhibit limited functionality.

Cause

Device firmware has been reverted to a previous version.

Action

1. Update to the latest firmware version.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**

2. If the issue persists, contact customer support.

3000 series

3010-MemBIST RMT: Margin out of range at CPU X DIMM Y

Symptom

3010-MemBIST RMT: Margin out of range at CPU X DIMM Y - Count Z.

Cause

The system detected an error on the specified DIMM.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Remove, and then reinstall the DIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, replace the DIMM.

3011-MemBIST MEMTEST: Uncorrectable memory error found

Symptom

3011-MemBIST MEMTEST: Uncorrectable memory error found at CPU X DIMM Y Rank Z.

Cause

The system detected an error on the specified DIMM.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product on the **Hitachi Vantara website**.

Action

1. Remove, and then reinstall the DIMM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, replace the DIMM.

3012-MemBIST MEMTEST: Correctable Memory Error found

Symptom

3012-MemBIST MEMTEST: Correctable Memory Error found at CPU X DIMM Y Rank Z.

Cause

The system detected a corrected error on the specified DIMM. The DIMM is functional but must be replaced during the next service event.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Replace the DIMM.

For more information, see the server maintenance and service guide for your product on the Hitachi Vantara website.

3013-Processor Built-In Self-Test (BIST) Failure

Symptom

3013-Processor Built-In Self-Test (BIST) Failure. Processor X, Error Code: Y.

Cause

- The processor is not seated correctly.
- The processor is failing or has failed.

CAUTION: Before removing or replacing any processors, be sure to follow the guidelines in "Processor troubleshooting guidelines" in the troubleshooting guide for your product. Failure to follow the recommended guidelines can cause damage to the system board, requiring replacement of the system board.

Action

1. Reboot the server.
2. If the issue persists, reseat the processor.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.
3. If the issue persists, contact customer support.

3016-Memory Configuration Error - No memory is available

Symptom

3016-Memory Configuration Error - No memory is available. If DIMMs are installed, verify that the DIMMs are installed properly. -System Halted!

Cause

- There are no DIMMs installed in the server.
- DIMMs are not installed correctly.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

Install DIMMs in a supported configuration.

For more information, see the server user guide for your product on the **Hitachi Vantara website.**

3017-Server Platform Services Authentication Failure

Symptom

3017-Server Platform Services Authentication Failure - The Server Platform Services (SPS) firmware image failed authentication and may be compromised. -System Halted!

Cause

The SPS firmware image failed cryptographic signature checking after a power cycle. This error occurs when the image is corrupted or compromised.

Action

1. Update the Server Platform Services firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

3018-Server Platform Services Authentication Failure

Symptom

3018-Server Platform Services Authentication Failure - The Server Platform Services (SPS) firmware image could not be authenticated because the image is out of date.

Cause

The SPS firmware image must pass the cryptographic signature checking process for it to be authenticated. Use a version of the SPS firmware that includes this support.

Action

Update the Server Platform Services firmware image.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3019-Server Platform Services Firmware in Recovery Mode

Symptom

3019-Server Platform Services Firmware in Recovery Mode. SPS firmware image is corrupted. -System Halted!

Cause

The SPS firmware image is corrupted.

Action

Update the Server Platform Services firmware.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3020-PCIe Slot X failed to train at Gen Y speed and Z width

Symptom

3020-PCIe Slot X failed to train at Gen Y speed and Z width.

Cause

- The device is not properly seated.
- The device is not running the latest firmware.

Action

1. Remove and then reinstall the card.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.
2. Update the card firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
3. If the issue persists, contact customer support.

3021-PCIe Slot X failed to train

Symptom

3021-PCIe Slot X failed to train.

Cause

The PCI Express end point failed to train.

Action

1. Remove and then reinstall the card.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website.**

2. Update the card firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

3022-PCIe Slot X failed to train or no device detected on a bifurcated slot

Symptom

3022-PCIe Slot X failed to train or no device detected on a bifurcated slot.

Cause

The PCI Express end point failed to train or no device was detected on the bifurcated slot.

Action

1. If the card supports bifurcation, remove and then reinstall the card.

   For more information, see the server maintenance and service guide for your product.

2. If the issue persists, update the card firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

3023-FlexibleLOM X failed to train

Symptom

3023-FlexibleLOM X failed to train.

Cause

The FlexibleLOM failed to train.

Action

1. Remove and then reinstall the FlexibleLOM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Update the FlexibleLOM firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

3024-FlexibleLOM X failed to train at Gen Y speed and Z width

Symptom

3024-FlexibleLOM X failed to train at Gen Y speed and Z width.

Cause

- The device is not properly seated.
- The device is not running the latest firmware.

Action

1. Remove and then reinstall the FlexibleLOM.
   For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Update the FlexibleLOM firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

3031-BIOS Safe Mode is engaged

Symptom

3100-BIOs Safe Mode is engaged. System will boot in a minimal configuration.

Cause

BIOS Safe Mode was activated by the user when the server was in a nonrecoverable state. This will activate a minimal

configuration boot in an attempt to recover server boot functionality.

Action

No action is required.

3032-Intelligent Diagnostics Enabled

Symptom

3032-Intelligent Diagnostics Enabled: Server will attempt automated recovery.

Cause

Intelligent Diagnostics was activated by the user when the server was in a nonbooting state. The server will run in Intelligent Diagnostics mode on the next boot and attempt to detect boot issues. This process can take several minutes.

Action

No action is required.

3033- Intelligent Diagnostics Exit

Symptom

3033-Intelligent Diagnostics Exit: Automated server recovery has concluded.

Cause

Intelligent Diagnostics was activated by the user when the server was in a nonbooting state. Intelligent Diagnostics has completed and an automatic server recovery was attempted.

Action

No action is required.

3034- Intelligent Diagnostics has detected device X is causing POST boot issues

Symptom

3034-Intelligent Diagnostics has detected device X is causing POST boot issues. The device will now be disabled.

Cause

Intelligent Diagnostics was activated by the user when the server was in a nonbooting state. During execution, Intelligent Diagnostics was able to find the device preventing POST from completing. The device has been disabled to allow POST to complete again.

Action

1. Confirm that the specified device has the latest firmware.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. Confirm that the specified device is seated properly.

For more information, see the server user guide for your product on the **Hitachi Vantara website**.

3035 - DIMM Initialization Error

Symptom

3035-DIMM Initialization Error - Processor X Channel Y could not be trained properly and has been mapped out.

Cause

One or more memory modules failed to initialize properly and has been disabled by the memory initialization code.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product.

Action

1. Reseat the specified DIMMs.

For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

2. Update the System ROM.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3. If the issue persists, contact customer support.

3036-Unsupported DIMM Configuration Detected

Symptom

3036-Unsupported DIMM Configuration Detected – Processor X, Channel Y violate the DIMM population rule. The DIMM has been mapped out.

Cause

DIMMs are installed in an unsupported configuration, resulting in some of the memory being mapped out and not available to the Operating System.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product on the **Hitachi Vantara website.**

Action
Install DIMMs in a supported configuration.
For additional information, see the server user guide for your product.

3037-Unsupported DIMM Configuration Detected

Symptom

3037-Unsupported DIMM Configuration Detected – Processor X, Channel Y. The number of installed DIMM ranks exceeds the number supported by the channel.

Cause

The number of installed DIMM ranks exceeds the number supported by the channel.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product on the **Hitachi Vantara website**.

Action

Install DIMMs in a supported configuration.

For additional information, see the server user guide for your product:

3038- Server Platform Services Firmware in Recovery Mode

Symptom

3038-Server Platform Services Firmware in Recovery Mode. System Halted! Please update your firmware using an SPS image recovery package.

Cause

The SPS firmware image is corrupt.

Action

Update the Server Platform Services firmware.

For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

3040- Memory Re-Map Initiated

Symptom

3040-Memory Re-Map Initiated – Memory that had been previously mapped out due to errors has been automatically mapped back in due to the DIMM being moved to a new DIMM slot.

Cause

Memory that was mapped out due to excessive errors was moved to a new location.

Action

If the issue persists, contact customer support.

3041- BIOS Safe Mode has successfully booted

Symptom

3041-BIOS Safe Mode has successfully booted. System will resume boot in a minimal configuration.

Cause

BIOS Safe Mode was activated by the user when the server was in a nonrecoverable state. The server has successfully activated a minimal configuration boot in an attempt to recover server boot functionality.

Action

No action is required.

3042- BIOS Safe Mode has failed to complete POST

Symptom

3042-BIOS Safe Mode has failed to complete POST.

Cause

BIOS Safe Mode was activated by the user when the server was in a nonrecoverable state. The server has failed to complete a minimal configuration boot in an attempt to recover server boot functionality.

Action

No action is required.

3046- Unsupported DIMM Configuration Detected

Symptom

3046-Unsupported DIMM Configuration Detected – Processor X, Channel Y violates the DIMM population rule. The DIMM has been mapped out.

Cause

DIMMs are installed in an unsupported configuration, resulting in some of the memory being mapped out and not available to the Operating System.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product on the **Hitachi Vantara website**.

Action

Install DIMMs in a supported configuration.

For additional information, see the server user guide for your product.

3047- Unsupported DIMM Configuration Detected

Symptom

3047-Unsupported DIMM Configuration Detected – Processor X, Channel Y was mapped out due to an event that has led to an unsupported configuration. (Major Code: A, Minor Code: B).

Cause

This DIMM has been mapped out due to another memory event.

CAUTION: Failure to properly handle DIMMs can damage the DIMM components and the system board connector. For more information, see the DIMM handling guidelines in the troubleshooting guide for your product on the **Hitachi Vantara website**.

Action

1. Verify that the DIMMs are installed in a supported configuration.
2. If the issue persists, contact customer support.

3100 series

3100-Trusted Platform Module (TPM) was successfully bound to system

Symptom

3100-Trusted Platform Module (TPM) was successfully bound to system.

Action

No action is required.

3101-Unbound Trusted Platform Module (TPM) detected

Symptom

3101-Unbound Trusted Platform Module (TPM) detected.

Action

No action is required.

3103-NVDIMM Error: Unsupported NVDIMM-N configuration detected

Symptom

3103-NVDIMM Error: Unsupported NVDIMM-N configuration detected. All NVDIMMs are disabled.

Cause

NVDIMMs are installed in an unsupported configuration.

Action

Install the NVDIMMs in a supported configuration.

3105-Unsupported PCIe Card Configuration

Symptom

3105-Unsupported PCIe Card Configuration. The PCIe device installed in Slot X is not supported in the current location.

Cause

The PCIe card is installed in an unsupported slot.

Action

Install the PCIe card into a supported slot.

For more information, see the server user guide for your product on the Hitachi Vantara website.

3121-Transaction Timeout Error Detected

Symptom

3121-Transaction Timeout Error Detected. Slot X

Cause

- The device firmware or driver is out of date.
- The device is failing.

Action

1. Update the firmware and drivers on the specified device.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.
2. If the issue persists, contact customer support.

3127-Transaction Timeout Error Detected

Symptom

3127-Transaction Timeout Error Detected. Embedded X.

Cause

- The device firmware or driver is out of date.
- The device is failing.

Action

1. Update the firmware and drivers on the specified device.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

3130- The current power supply configuration setting is not recommended

Symptom

3130-The current power supply configuration setting is not recommended for the number of power supplies installed. Ensure that the Power Supply Requirements setting in Platform Configuration (RBSU) properly matches the number of installed power supplies.

Cause

The current setting of the Power Supply Redundancy Configuration in RBSU does not support the current number of installed power supplies.

Action

- Set the Power Supply Redundancy configuration option in the UEFI System Utilities to match the number of installed power supplies.
- Any power supplies that are not required.
  For more information, see the server maintenance and service guide for your product on the **Hitachi Vantara website**.

3154-Encryption policy changed to Remote Key Management System

Symptom

3154-Encryption policy changed to Remote Key Management System (RKMS).

Cause

The encryption type was changed from local to remote in Platform Configuration (RBSU).

Action

No action is required.

3155-Encryption for Processor X DIMM Y is enabled

Symptom

3155-Encryption for Processor X DIMM Y is enabled.

Cause

Encryption for the specified device was enabled from Platform Configuration (RBSU).

Action

No action is required.

3158-Resetting the configuration for controller X failed

Symptom

3158-Resetting the configuration for PCI controller X failed.

Cause

Resetting the configuration for the PCI controller failed due to a firmware failure.

Action

1. Reboot the server and try again.
2. If the issue persists, update the firmware on the specified device.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website.**

3. If the issue persists, contact customer support.

3160-Innovation Engine Error - The Innovation Engine is operating in Diagnostic mode

Symptom

3160-Innovation Engine Error - The Innovation Engine is operating in Diagnostic mode.

Cause

Diagnostic mode is enabled in the Innovation Engine firmware status register.

Action

If the issue persists, contact customer support.

3165-Innovation Engine Firmware Error

Symptom

3165-Innovation Engine Firmware Error - The Innovation Engine firmware is corrupt or not operating properly.

Cause

The Innovation Engine firmware is corrupted.

Action

1. Flash the Innovation Engine firmware.

   For more information, see the troubleshooting guide for your product on the **Hitachi Vantara website**.

2. If the issue persists, contact customer support.

3166-Remote Key Management System connection failed

Symptom

3166-Remote Key Management System (RKMS) connection failed.

Cause

The remote key management server failed to connect to iLO.

Action

Verify the connection between the remote key management server and iLO.
For more information, see the iLO user guide on the **Hitachi Vantara website**

3167-X64 exception occurred during the previous boot

Symptom

3167-X64 exception type 0xX occurred during the previous boot. Image name: Y.

Cause

An X64 exception occurred during the previous boot due to an unexpected error.

Action

If the issue persists, contact customer support.

3177-Key Management mode is Disabled for all the devices in the system

Symptom

3177-Key Management mode is Disabled for all the devices in the system.

Cause

The Key Management mode was set to Disabled in BIOS/Platform Configuration (RBSU).

Action

1. No action is required.
2. To enable key management, do the following:

   a. From the System Utilities screen, select **System Configuration** > **BIOS/Platform Configuration (RBSU)** > **Server Security** > **Device Encryption Options**.

   b. Set the **Key Management** option to one of the following:

   - Local
   - Remote

   c. Reboot the server.

   For more information, see the Persistent Memory User Guide on the **Hitachi Vantara website**

Troubleshooting resources

Troubleshooting resources are available for HA800 G2 server products in the following documents:

- Troubleshooting Guide for Hitachi Advanced Server HA800 G2 provides procedures for resolving common problems and comprehensive courses of action for fault isolation and identification, issue resolution, and software maintenance.
- Error Message Guide for Hitachi Advanced Server HA800 provides a list of error messages and information to assist with interpreting and resolving error messages.
- Error Message Guide for Hitachi Advanced Server HA800 G2 provides a list of error messages and information to assist with interpreting and resolving error messages.

Acronyms and abbreviations

ADU
Array Diagnostics Utility

AHS
active health system

ASR
Automatic Server Recovery

CGI
Common Gateway Interface

CONREP
Configuration Replication utility

DHCP
Dynamic Host Configuration Protocol

DNS
domain name system

EV
environment variable

FBWC
flash-backed write cache

HBA
host bus adapter

SSA
Smart storage administrator

iLO
Integrated Lights-Out

IRC
Integrated Remote Console

NMI
nonmaskable interrupt

NTP
network time protocol

NVRAM
nonvolatile memory

POST
Power-On Self-Test

QPI
QuickPath Interconnect

RBSU
ROM-Based Setup Utility

RIBCL

Remote Insight Board Command Language

RIS
reserve information sector

SAS
serial attached SCSI

SATA
serial ATA

SMART
self-monitoring analysis and reporting technology

SR-IOV
Single root I/O Virtualization

SSD
solid-state drive

SSH
Secure Shell

SSL
Secure Sockets Layer

SSO
single sign-on

SPV
Service Pack for Advanced Server

SUM
Smart Update Manager

SUT
Smart Update Tools

UEFI
Unified Extensible Firmware Interface

UID
unit identification

Symptom information checklist

Before troubleshooting an issue, collect the following symptom information:

Procedure

☐ Download the Active Health System Log.

☐ Does the server or component power-on?

☐ Does the server complete POST?

☐ If the server does not complete POST, what is the status and behavior of each of the server LEDs?

☐ Is video display available?

☐ If server completes POST and video is available, are there any POST error messages? Record the text of the POST error message as displayed.

☐ Does the server successfully boot an operating system or hypervisor? If not, does the server display any of the following symptoms and at what point did the following symptom occur?

- An uncorrectable machine check exception
- Stop error or blue screen (Windows)
- Purple diagnostic screen (Linux)
- Linux kernel panic
- A system “hang”
- A system “freeze”

☐ Does the issue occur after an OS is installed?

☐ Does the issue occur when a new application is loading?

☐ What symptoms did the server display when the server malfunctioned?

For example, did the server reboot? Were there LED codes, health logs, or messages displayed on the screen?

☐ Are any indications present that show that the malfunction was reported as a memory error, PCI error, or so forth?

The processor now contains the memory controller and PCI Express controller, so faults in other areas might be attributed to a processor malfunction.

☐ When did the issue occur?

Record exactly when the issue happens (include the date and time). If it happens more than once, keep a list of a all symptoms for each occurrence.

☐ What events preceded the failure? After which step does the issue occur?

☐ What has been changed since the time the server was working?

☐ Has hardware or software been recently added or removed?

If so, were the appropriate settings in the server setup utility changed?

☐ How long has the server or component exhibited issue symptoms?

☐ If the issue occurs randomly, what is the duration or frequency?

☐ What failed based on the iLO Event Log?

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