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VANTAGEO Server

Alarm Handling (for BMC Version 3)

Version: R1.4

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Revision History

Revision No.	Revision Date	Revision Reason
R1.4	2024-11-06	Added "2.90 30890 Correctable memory error minor
		inform".
		Added "2.91 30891 Correctable memory error minor
		alarm".
		Added "2.92 30900 Waitting DPU post start".
		Added "2.93 30901 Waitting DPU post success".

Revision No.	Revision Date	Revision Reason	
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		Added "2.95 30903 DPU BIOS post timeout".	
		Added "2.96 30905 Device change inform".	
		Added "2.97 30907 a Machine Check Exception oc-	
		cured recently".	
		Added "2.98 30911 NVME Link is abnormal".	
		Added "2.99 30912 NVME has failure".	
		Added "2.100 30913 Liquid cooling system but the	
		Liquid-card is not present".	
		Added "2.101 30916 CPU configure error".	
		Added "2.102 30918 The hard disk has foreign con-	
		figuration".	
		Added "2.103 30919 EDPC Event".	
		Added "2.104 30920 FRB1/BIST failure".	
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		 Added "2.79 30857 Hard disk temperature is higher 	
		than major threshold".	
		Added "2.80 30859 Smart Nic Detect Error".	
		Added "2.81 30860 Hard disk has predictive failure".	
		Added "2.82 30861 Liquid cooling system is leak-	
		ing".	
		"'y .	

Revision No.	Revision Date	Revision Reason	
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About This Manual

Purpose

This manual describes various types of alarms generated by the system, and their probable causes and handling suggestions, to provide you with guidance on handling these alarms.

Intended Audience

This manual is intended for:

- Software commissioning engineers
- Network management engineers
- Maintenance engineers

What Is in This Manual

This manual contains the following chapters.

Chapter 1, Alarm Overview	Describes the alarm definition, presentation mode, levels, types, and fields.	
Chapter 2, Alarm Handling	Describes the detailed information about alarms, and their probable causes and handling suggestions.	
Chapter 3, Technical Support	Describes how to contact VANTAGEO technical support and the required preparations.	

Conventions

This manual uses the following convention.



Note: provides additional information about a topic.

Chapter 1

Alarm Overview

Alarm Definition

An alarm is a stateful and recoverable event that indicates a failure in the system. The system reports faults arising from equipment, software and service operation through alarms to remind the maintenance personnel to handle the faults.

Presentation Mode

The **Current Alarm** function on the BMC Web portal shows alarms and notifications that occur during the operation procedure of the server system in real time.

- Alarm: An alarm is a persistent indication of a fault that affects normal services and reliable system operation. Alarms persist until the corresponding faults are removed. If an alarm occurs, you must immediately locate the cause of the alarm and remove faults.
- Notification: A notification is a prompt message that occurs during normal system operation
 and does not affect system operation. In most cases, no special manual intervention is required. You only need to wait until the system is automatically recovered. You need to locate
 the cause of the notification and remove faults only for a frequently-reported notification.

Alarm Severity

Alarms are classified into different severities based on the impact of fault events on the system. For a description of the alarm severity, refer to Table 1-1.

Table 1-1 Alarm Severity Descriptions

Alarm Severity	Description	
Critical	When a critical fault occurs in the system, actions need to be taken immediately to recover the system and clear the alarm.	
Major	When a major fault occurs in the system, the system can still operate, but cannot provide some key functions.	
Minor	When a minor fault occurs in the system, the system can operate properly, but some functions are affected.	

Alarm Severity	Description	
Inform	System operation information is provided. When an inform occurs in the system, the	
	system operation is not affected.	

Alarm Type

For a description of the alarm types, refer to Table 1-2.

Table 1-2 Alarm Type Descriptions

Alarm Type	Description
Communication alarm	This alarm is raised when a communication failure causes system failures.
Processing error alarm	This alarm is raised when a manual mis operation causes system failures.
Quality of service alarm	This alarm is raised when a system failure occurs because the quality of service does not meet requirements.
Equipment alarm	This alarm is raised when a system failure is caused by a device failure.
Environment alarm	This alarm is raised when a system failure is caused by environmental factors.

Alarm Field

For a description of the fields contained in an alarm, refer to Table 1-3.

Table 1-3 Alarm Field Descriptions

Alarm Field	Description
Alarm code	Digital code of an alarm in the system, for example, 23050.
Alarm title	Format: " alarm code + alarm name " , for example, 23050 Fan Module Is Absent.
Alarm description	Describes and explains the alarm name.
Alarm information	Alarm information includes: Alarm severity: For detailed information, refer to Table 1-1. Alarm type: For detailed information, refer to Table 1-2.
Alarm cause	Describes the root causes that trigger an alarm.
Impact	Describes the impact on the system after an alarm occurs.
Action	Describes the procedures for locating and clearing an alarm.

Chapter 2 Alarm Handling

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2.1 5632 Hard Disk Usage Is Too High

Alarm Name

The hard disk used-rate is over threshold

Alarm Description

This alarm is raised when the hard disk usage exceeds the threshold.



To handle this alarm, you need to use a specified OS and a specified monitoring tool. For details, contact VANTAGEO technical support.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The hard disk usage exceeds the specified alarm threshold.
- The hard disk usage threshold is not set properly.

Impact

The hard disk cannot operate properly. An active-standby switchover of the board may occur when the alarm is raised.

- 1. Log in to the Web portal, and check whether the hard disk usage is as expected.
 - Yes → Step 3.
 - No → Step 2.
- 2. Modify the alarm threshold for the hard disk usage. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Perform disk cleanup. Delete unnecessary files or move them to an external device. Check whether the alarm is cleared.

- Yes \rightarrow End.
- No → Step 4.
- 4. Contact VANTAGEO technical support.

2.2 5797 Hard Disk Is Faulty

Alarm Name

The hard disk is abnormal

Alarm Description

This alarm is raised when a hard disk is faulty.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The hard disk health threshold is exceeded.
- The temperature is too high.
- The hard disk is faulty.

Impact

The hard disk cannot operate properly.

- 1. Check whether the temperature of the hard disk is too high.
 - Yes → Step 2.
 - No → Step 4.
- 2. Check whether the ambient temperature is abnormal.
 - Yes → Step 3.
 - No → Step 3.
- 3. Reduce the ambient temperature and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Replace the hard disk, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Contact VANTAGEO technical support.

2.3 5800 Hard Disk Is Offline

Alarm Name

Hard disk offline

Alarm Description

This alarm is raised when a hard disk is offline.

Alarm Information

• Alarm severity: Major

• Alarm type: Equipment alarm

Alarm Cause

- The hard disk is removed.
- The backplane of the hard disk is faulty.
- The controller of the hard disk is faulty.

Impact

The hard disk fails to operate properly, and the board is restarted.

Action

- 1. Check whether the hard disk is removed.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Replace the backplane of the hard disk and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 3.
- 3. Contact VANTAGEO technical support.

2.4 5801 Logical Disk Error

Alarm Name

Virtual disk is abnormal

Alarm Description

This alarm is raised when a logical disk is faulty.

Alarm Information

• Alarm severity: Major

• Alarm type: Equipment alarm

Alarm Cause

- A hard disk in a RAID configuration is absent.
- A hard disk in a RAID is faulty.

Impact

The hard disk cannot operate properly.

Action

- 1. Check whether a disk is removed.
 - Yes → Step 2.
 - No → Step 3.
- 2. Install the disk, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Handle the alarm in accordance with the corresponding disk error handling suggestions, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.5 5802 RAID Card Error

Alarm Name

RAID card is abnormal

Alarm Description

This alarm is raised when a RAID controller card is faulty.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

- The BBU temperature is high.
- The BBU voltage is low.
- The controller temperature exceeds the major-level threshold.

Impact

The RAID controller card fails to operate properly.

Action

- 1. Check whether the ambient temperature is normal (normal range: 5 °C-40 °C).
 - Yes → Step 3.
 - No → Step 2.
- 2. Remove the fault related to the abnormal ambient temperature, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 3.
- 3. Replace the BBU battery configured for the RAID, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.6 23050 Fan Module Is Absent

Alarm Name

Fan device absent

Alarm Description

This alarm is raised when a fan module is absent or removed.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The fan module is removed.
- The fan module is unavailable or faulty.

Impact

There is a heat dissipation problem in the system, so the temperature of the chassis is high, causing damage to components.

Action

- 1. Log in to the Web portal of the BMC, and check whether the fan of the corresponding slot is present.
 - Yes → Step 2.
 - No → Step 3.
- 2. Remove and then reinstall the fan module. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 3. Replace the fan module, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.7 23051 Power Module Is Absent

Alarm Name

Power unit absent

Alarm Description

This alarm is raised when a power module is absent or removed.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The power module is removed.
- The power module is unavailable or faulty.

Impact

There may be potential security risks in the power supply of the system.

- 1. Check whether the power supply module is present.
 - Yes \rightarrow Step 2.
 - No → Step 3.
- 2. Remove and then reinstall the power module. Check whether the alarm is cleared.
 - Yes → End.

- No → Step 4.
- 3. Replace the power module, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.830721 Temperature Is Below the Warning-Level Low Threshold

Alarm Name

Temperature is lower than lower-non-critical threshold

Alarm Description

This alarm is raised when the device temperature is below the warning-level low threshold.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- The ambient temperature is low.
- The temperature sensor is faulty.

Impact

The data processing speed of the system may decrease.

Action

- 1. Check whether the ambient temperature of the equipment room ranges from 5 °C to 40 °C.
 - Yes → Step 3.
 - No → Step 2.
- 2. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.9 30722 Temperature Is Below the Major-Level Low Threshold

Alarm Name

Temperature is lower than lower-critical threshold

Alarm Description

This alarm is raised when the device temperature is below the major-level low threshold.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The ambient temperature is low.
- The temperature sensor is faulty.

Impact

The data processing speed may decrease, and data may be lost.

Action

- 1. Check whether the ambient temperature of the equipment room ranges from 5 °C to 40 °C.
 - Yes → Step 3.
 - No → Step 2.
- 2. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.10 30723 Temperature Is Below the Critical-Level Low Threshold

Alarm Name

Temperature is lower than lower-non-recoverable threshold

Alarm Description

This alarm is raised when the device temperature is below the critical-level low threshold.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

• The ambient temperature is low.

• The temperature sensor is faulty.

Impact

Some system functions may be unavailable.

Action

- 1. Check whether the ambient temperature of the equipment room ranges from 5 °C to 40 °C.
 - Yes \rightarrow Step 3.
 - No → Step 2.
- 2. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.11 30724 Temperature Is Above the Warning-Level High Threshold

Alarm Name

Temperature is higher than upper-non-critical threshold

Alarm Description

This alarm is raised when the device temperature is above the warning-level high threshold.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- The temperature of the equipment room is too high.
- Fans are damaged, so they stop operating or the rotational speeds are abnormal.
- The heat dissipation conditions of the rack are poor.

Impact

The data processing speed of the system may decrease.

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$

- No \rightarrow Step 2.
- 2. Check whether the ambient temperature of the equipment room ranges from 5 °C to 40 °C.
 - Yes → Step 4.
 - No → Step 3.
- 3. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 4.
- 4. Check whether the fans stop or their rotational speeds are too low due to faults.
 - Yes → Step 5.
 - No → Step 6.
- 5. Remove the fan fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 6.
- 6. Check whether the heat dissipation conditions of the rack are poor.
 - Yes → Step 7.
 - No → Step 8.
- 7. Configure heat dissipation mode, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 8. Contact VANTAGEO technical support.

2.12 30725 Temperature Is Above the Major-Level High Threshold

Alarm Name

Temperature is higher than upper-critical threshold

Alarm Description

This alarm is raised when the device temperature is above the major-level high threshold.

Alarm Information

- Alarm severity: Major
- Alarm type: equipment alarm

Alarm Cause

- The ambient temperature of the equipment room is too high.
- Fans are damaged, so they stop operating or the rotational speeds are abnormal.
- The heat dissipation conditions of the rack are poor.

Impact

The data processing speed of the system may decrease and data may be lost.

Action

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Check whether the ambient temperature of the equipment room ranges from 5 °C to 40 °C.
 - Yes → Step 4.
 - No → Step 3.
- 3. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Check whether the fans stop or their rotational speeds are too low due to faults.
 - Yes → Step 5.
 - No → Step 6.
- 5. Remove the fan fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 6.
- 6. Check whether the heat dissipation conditions of the rack are poor.
 - Yes \rightarrow Step 7.
 - No → Step 8.
- 7. Configure heat dissipation mode, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 8. Contact VANTAGEO technical support.

2.13 30726 Temperature Is Above the Critical-Level High Threshold

Alarm Name

Temperature is higher than upper-non-recoverable threshold

Alarm Description

This alarm is raised when the device temperature is above the critical-level high threshold.

Alarm Information

• Alarm severity: Critical

Alarm type: Equipment alarm

Alarm Cause

- The ambient temperature of the equipment room is too high.
- Fans are damaged, so they stop operating or the rotational speeds are abnormal.
- The heat dissipation conditions of the rack are poor.

Impact

Some system functions may be unavailable.

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 2.
- 2. Check whether the ambient temperature of the equipment room ranges from 5 °C to 40 °C.
 - Yes → Step 4.
 - No → Step 3.
- 3. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Check whether the fans stop or their rotational speeds are too low due to faults.
 - Yes → Step 5.
 - No → Step 6.
- 5. Remove the fan fault, and check whether the alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$
 - No → Step 6.
- 6. Check whether the heat dissipation conditions of the rack are poor.
 - Yes → Step 7.
 - No → Step 8.
- 7. Configure heat dissipation mode, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 8. Contact VANTAGEO technical support.

2.14 30727 Voltage Is Below the Warning-Level Low Threshold

Alarm Name

Voltage is lower than lower-non-critical threshold

Alarm Description

This alarm is raised when the device voltage is below the warning-level low threshold.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- The voltage of the button cells on the mainboard is abnormal.
- The mainboard is faulty.

Impact

Some system functions may be unavailable.

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 2.
- 2. Check whether the voltage of the button cells on the mainboard is abnormal.
 - Yes → Step 3.
 - No → Step 4.
- 3. Replace the button cells on the mainboard, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Check whether the mainboard is faulty.
 - Yes → Step 5.
 - No → Step 6.
- 5. Replace the mainboard and check whether the alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$
 - No → Step 6.
- 6. Contact VANTAGEO technical support.

2.15 30728 Voltage Is Below the Major-Level Low Threshold

Alarm Name

Voltage is lower than lower-critical threshold

Alarm Description

This alarm is raised when the voltage is below the major-level low threshold.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The voltage of the button cells on the mainboard is abnormal.
- The mainboard is faulty.

Impact

Some system functions may be unavailable or a fault of a higher level may occur.

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 2.
- 2. Check whether the voltage of the button cells on the mainboard is abnormal.
 - Yes → Step 3.
 - No → Step 4.
- 3. Replace the button cells on the mainboard, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Check whether the mainboard is faulty.
 - Yes → Step 5.
 - No → Step 6.
- 5. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 6.
- 6. Contact VANTAGEO technical support.

2.16 30729 Voltage Is Below the Critical-Level Low Threshold

Alarm Name

Voltage is lower than lower-non-recoverable threshold

Alarm Description

This alarm is raised when the device voltage is below the critical-level low threshold.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

- The voltage of the button cells on the mainboard is abnormal.
- The mainboard is faulty.

Impact

Part of a circuit is damaged.

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 2.
- 2. Check whether the voltage of the button cells on the mainboard is abnormal.
 - Yes → Step 3.
 - No → Step 4.
- 3. Replace the button cells on the mainboard, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Check whether the mainboard is faulty.
 - Yes → Step 5.
 - No → Step 6.
- 5. Replace the mainboard and check whether the alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$
 - No → Step 6.
- 6. Contact VANTAGEO technical support.

2.17 30730 Voltage Is Above the Warning-Level High Threshold

Alarm Name

Voltage is higher than upper-non-critical threshold

Alarm Description

This alarm is raised when the device voltage is above the warning-level high threshold.

Alarm Information

• Alarm severity: Minor

Alarm type: Equipment alarm

Alarm Cause

The mainboard is faulty.

Impact

Some system functions may be unavailable.

Action

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes → End.
 - No → Step 2.
- 2. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.18 30731 Voltage Is Above the Major-Level High Threshold

Alarm Name

Voltage is higher than upper-critical threshold

Alarm Description

This alarm is raised when the device voltage is above the major-level high threshold.

Alarm Information

Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

The mainboard is faulty.

Impact

Some system functions may be unavailable or a fault of a higher level may occur.

Action

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Replace the mainboard and check whether the alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.19 30732 Voltage Is Above the Critical-Level High Threshold

Alarm Name

Voltage is higher than upper-non-recoverable threshold

Alarm Description

This alarm is raised when the voltage is above the critical-level high threshold.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

The mainboard is faulty.

Impact

Part of a circuit is damaged.

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.

- 2. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.20 30734 Fan Rotation Speed Is Below the Major-Level Low Threshold

Alarm Name

Velocity of fan is lower than lower-critical threshold

Alarm Description

This alarm is raised when the speed of a fan of the device is below the major-level low threshold.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

The fan has a mechanical fault.

Impact

The temperature in the shelf may increase.

- 1. Check whether a fan connector is loose.
 - Yes → Step 2.
 - No \rightarrow Step 3.
- 2. Secure the fan connector, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 3.
- 3. Replace the fan module, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.21 30736 CPU Usage Is Too High

Alarm Name

CPU utilization exceeds alarm limit

Alarm Description

This alarm is raised when the CPU usage exceeds the threshold.



To handle this alarm, you need to use a specified OS and a specified monitoring tool. For details, contact VANTAGEO technical support.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The threshold is improperly set to a low value.
- The CPU usage exceeds the threshold.

Impact

The server operates slowly and the performance is affected.

- 1. Check whether the CPU usage alarm threshold is too low on the Web portal.
 - Yes → Step 2.
 - No → Step 3.
- 2. Change the CPU usage alarm threshold.
- 3. After waiting for tens of seconds, check whether the alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$
 - No → Step 4.
- 4. Check whether the server is busy with services.
 - Yes → Step 5.
 - No → Step 6.
- 5. Wait until the current services are completed. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 6.
- 6. Contact VANTAGEO technical support.

2.22 30737 Memory Usage Is Too High

Alarm Name

Memory utilization exceeds alarm limit

Alarm Description

This alarm is raised when the memory usage exceeds the alarm threshold.



To handle this alarm, you need to use a specified OS and a specified monitoring tool. For details, contact VANTAGEO technical support.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The threshold is too low and is not properly set.
- The memory usage exceeds the alarm threshold.

Impact

The system operates slowly and the performance is affected.

- 1. Check whether the memory usage alarm threshold is set too low on the Web portal.
 - Yes → Step 2.
 - No → Step 3.
- 2. Change the CPU usage alarm threshold. Wait for tens of seconds, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 3.
- 3. After waiting for tens of seconds, check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Check whether the server is busy with services.
 - Yes → Step 5.
 - No → Step 6.
- 5. Wait until the current services are completed. Check whether the alarm is cleared.

- Yes \rightarrow End.
- No → Step 6.
- 6. Add a memory module, restart the server, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 7.
- 7. Contact VANTAGEO technical support.

2.23 30739 Current Is Below the Warning-Level Low Threshold

Alarm Name

Current is lower than lower-non-critical threshold

Alarm Description

This alarm is raised when the device current is below the warning-level low threshold.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

The mainboard is faulty.

Impact

Some system functions may be unavailable.

Action

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes → End.
 - No → Step 2.
- 2. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.24 30740 Current Is Below the Major-Level Low Threshold

Alarm Name

Current is lower than lower-critical threshold

Alarm Description

This alarm is raised when the device current is below the major-level low threshold.

Alarm Information

Alarm severity: Major

• Alarm type: Equipment alarm

Alarm Cause

The mainboard is faulty.

Impact

Some system functions may be unavailable or a fault of a higher level may occur.

Action

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 2.
- 2. Replace the mainboard and check whether the alarm is cleared.
 - Yes → End.
 - No \rightarrow Step 3.
- 3. Contact VANTAGEO technical support.

2.25 30741 Current Is Below the Critical-Level Low Threshold

Alarm Name

Current is lower than lower-non-recoverable threshold

Alarm Description

This alarm is raised when the device current is below the critical-level low threshold.

Alarm Information

Alarm severity: Critical

Alarm type: Equipment alarm

Alarm Cause

The mainboard is faulty.

Impact

Part of a circuit is damaged.

Action

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.26 30742 Current Is Above the Warning-Level High Threshold

Alarm Name

Current is higher than upper-non-critical threshold

Alarm Description

This alarm is raised when the device current is above the warning-level high threshold.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

The mainboard is faulty.

Impact

Some system functions may be unavailable.

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes → End.
 - No → Step 2.
- 2. Replace the mainboard and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.27 30743 Current Is Above the Major-Level High Threshold

Alarm Name

Current is higher than upper-critical threshold

Alarm Description

This alarm is raised when the device current is above the major-level high threshold.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

The mainboard is faulty.

Impact

Some system functions may be unavailable or a fault of a higher level may occur.

Action

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Replace the mainboard and check whether the alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.28 30744 Current Is Above the Critical-Level High Threshold

Alarm Name

Current is higher than upper-non-recoverable threshold

Alarm Description

This alarm is raised when the device current is above the critical-level high threshold.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

The mainboard is faulty.

Impact

Part of a circuit is damaged.

Action

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.29 30745 Fan Rotation Speed Is Below the Warning-Level Low Threshold

Alarm Name

Velocity of fan is lower than lower-non-critical threshold

Alarm Description

This alarm is raised when the speed of a fan of the device is below the warning-level low threshold.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

There is a mechanical fault.

Impact

The temperature in the shelf may increase.

- 1. Check whether a fan stops or operates at a low rotational speed.
 - Yes → Step 2.

- No → Step 3.
- 2. Secure the fan connectors, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Replace the fan module, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.30 30746 Fan Rotation Speed Is Below the Critical-Level Low Threshold

Alarm Name

Velocity of fan is lower than lower-non-recoverable threshold

Alarm Description

This alarm is raised when the speed of a fan of the device is below the critical-level low threshold.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

There is a mechanical fault.

Impact

The temperature in the shelf may increase.

- 1. Check whether a fan stops or operates at a low rotational speed.
 - Yes → Step 2.
 - No → Step 3.
- 2. Secure the fan connectors, and then check whether this alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$
 - No \rightarrow Step 3.
- 3. Replace the fan module, and check whether the alarm is cleared.
 - Yes \rightarrow End.

- No → Step 4.
- 4. Contact VANTAGEO technical support.

2.31 30752 Link on a Network Interface Is Broken

Alarm Name

NIC port link state is down

Alarm Description

This alarm is raised when the link on a network interface is broken.



The purpose of configuring the NIC port alarm is to raise this alarm when the network cable is removed or improperly connected.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- The network cable is removed or has a poor contact.
- The NIC does not operate properly.

Impact

Network communication fails.

- 1. Log in to the Web portal of the BMC and check the alarm information.
- 2. Locate the network interface based on the alarm information. Check whether the physical connection of the network interface is faulty.
 - Yes \rightarrow Step 3.
 - No → Step 4.
- 3. Re-connect the network cable properly and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Check whether the NIC is faulty.
 - Yes → Step 5.
 - No → Step 6.
- 5. Replace the NIC where the network interface is located.



NIC replacement operations include replacing an onboard NIC and replacing a PCIe card.

- 6. After powering on the device, check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 7.
- 7. Contact VANTAGEO technical support.

2.32 30756 Major Power Fault

Alarm Name

Power major fault

Alarm Description

This alarm is raised when there is a major fault on a power supply of the device.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The input voltage of the power supply is abnormal.
- The input current of the power supply is abnormal.
- The input power of the power supply is abnormal.
- The output voltage of the power supply is abnormal.
- The output current of the power supply is abnormal.
- The output power of the power supply is abnormal.
- The temperature of the power supply is abnormal.
- The fans of the power supply are abnormal.
- The firmware of the power supply is abnormal.

Impact

The board fails to operate properly.

- 1. By using the alarm management function on the Web portal, check the alarm information to locate the cause of the alarm.
- 2. Perform the following operations based on the alarm cause.

If	Then
Power input is abnormal	Go to Step 3.
Power output is abnormal	Go to Step 5.
Breaker of the power supply is abnormal	Go to Step 8.

- 3. By using the power management function on the Web portal, check the output voltage, current, and power of the faulty power supply to see whether the power supply is abnormal.
 - Yes → Step 4.
 - No → Step 8.
- 4. Remove the power input fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 5. Based on the sensor information on the Web portal, check the voltage, current, and power of the server using the power supply, to see whether the related sensors on the mainboard are faulty.
 - Yes → Step 6.
 - No → Step 7.
- 6. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 7.
- 7. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 8. Replace the power module, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 9.
- 9. Contact VANTAGEO technical support.

2.33 30758 Minor Power Fault

Alarm Name

Power minor fault

Alarm Description

This alarm is raised when there is a minor fault on a power supply of the device.

Alarm Information

Alarm severity: Minor

Alarm type: Equipment alarm

Alarm Cause

- The input voltage of the power supply is abnormal.
- The input current of the power supply is abnormal.
- The input power of the power supply is abnormal.
- The output voltage of the power supply is abnormal.
- The output current of the power supply is abnormal.
- The output power of the power supply is abnormal.
- The temperature of the power supply is abnormal.
- The fans of the power supply are abnormal.
- The firmware of the power supply is abnormal.

Impact

The board fails to operate properly.

- 1. By using the alarm management function on the Web portal, check the current alarm information to locate the cause of the alarm.
- 2. Perform the following operations based on the alarm cause.

If	Then
Power input is ab- normal	Go to Step 3.
Power output is ab- normal	Go to Step 5.
Power supply breaker is abnormal	Go to Step 8.

- 3. By using the power management function on the Web portal, check the output voltage, current, and power of the faulty power supply to see whether the power supply is abnormal.
 - Yes \rightarrow Step 4.
 - No → Step 8.
- 4. Remove the input power fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 5. Based on the sensor information on the Web portal, check the voltage, current, and power of the server using the power supply, to see whether the related sensors on the mainboard are faulty.

- Yes → Step 6.
- No → Step 7.
- 6. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 7.
- 7. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 8. Replace the power module, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 9.
- 9. Contact VANTAGEO technical support.

2.34 30759 Faulty Memory Isolation

Alarm Name

Fault memory isolation

Alarm Description

This alarm is raised when a faulty memory module is isolated.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- The release latch for the memory module is not secured.
- The memory module is faulty.
- The slot for the memory is stained.
- The memory module is incorrectly installed.
- There are foreign objects on CPU pins.
- Pins of the CPU socket on the mainboard are damaged.

Impact

The memory module of the system cannot be used.

- 1. Identify the location of the faulty memory module based on the alarm information, and check whether there is any foreign object on the memory socket.
 - Yes → Step 2.
 - No → Step 4.
- 2. Remove the faulty memory module from the slot, scrub the golden finger of the memory module, and install the module back into the same slot.
- 3. Power on the board again. Wait for five to ten minutes and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Replace the faulty memory module, power on the device again, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Log in to the Web portal of the BMC.
- 6. From the device list of the system, check the CPU corresponding to the memory module where the alarm is generated.
- 7. Check whether there is any foreign object on the mainboard socket and CPU pin surfaces.
 - Yes → Step 8.
 - No → Step 10.
- 8. Remove the foreign objects, and scrub the CPU pin surfaces with cotton swabs dipped in anhydrous alcohol.
- 9. Reinstall the memory module, power on the device, and then check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 10.
- 10. Contact VANTAGEO technical support.

2.35 30762 System Power-On Failure

Alarm Name

Server power on failure

Alarm Description

This alarm is raised when there is a system power-on failure.

Alarm Information

• Alarm severity: Critical

Alarm type: Equipment alarm

Alarm Cause

- The mainboard of the server is faulty.
- The memory is faulty.
- The CPU is faulty.

Impact

The server cannot operate properly.

Action

- 1. Press and hold the power key of the server to power on the server again.
- 2. Wait for over ten seconds and then power on the shelf of the server again. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Replace the mainboard of the faulty server, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.36 30763 Intrusion into the System

Alarm Name

System Intrusion

Alarm Description

This alarm is raised when the server is intruded into.

Alarm Information

• Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

- The server cover is opened.
- The server cover detection sensor is faulty.

Impact

Operations may be performed on the device without permission.

Action

- 1. Check whether the server cover is opened manually.
 - Yes → Step 2.
 - No → Step 3.
- 2. Close the server cover, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.37 30765 CPU Error

Alarm Name

CPU error

Alarm Description

This alarm is raised when there is a software system error on the server.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

- The memory is faulty.
- The PCIe device is faulty.
- An internal error occurs on the CPU.

Impact

Services may be affected.

- 1. Log in to the Web portal of the BMC, enter the page for alarm management, and check whether the memory or PCIe is faulty.
 - Yes \rightarrow Step 2.
 - No → Step 3.

- 2. Remove the fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.38 30768 PCle Error

Alarm Name

PCIe error

Alarm Description

This alarm is raised when the PCIe bus of the server is faulty.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

- The PCIe device is faulty.
- The slot for the PCIe device is stained.

Impact

Services may be affected.

Action

- 1. Access the Web portal of the BMC. Based on the alarm information, determine the location of the PCIe card where the alarm is generated.
- 2. Migrate the services on the server and power off the server.
- 3. Remove the PCIe card from the server and install it on the server again.

For how to remove and then install again a PCIe card, refer to the part replacement manual of the server.

- 4. Power on the device, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Replace the PCIe device. Power on the device and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 6.
- 6. Contact VANTAGEO technical support.

2.39 30772 Correctable Memory Error

Alarm Name

Correctable memory error

Alarm Description

This alarm is raised when a correctable memory error occurs on the server.

Alarm Information

• Alarm severity: Major

• Alarm type: Equipment alarm

Alarm Cause

- The release latch for a memory module is not secured.
- A memory module is faulty.
- The slot for the memory is stained.
- There are foreign objects on CPU pins.
- Pins of the socket on the mainboard are damaged.

Impact

The system may fail to operate properly.

Action

- Identify the location of the faulty memory module based on the alarm information, and check whether there is any foreign object on the memory socket.
 - Yes → Step 2.
 - No → Step 4.
- 2. Remove the faulty memory module from the slot, scrub the golden finger of the memory module, and install the module back into the same slot.

For how to remove and then install again a memory module, refer to the part replacement manual of the server.

- 3. Power on the server again. Wait for five to ten minutes and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 4.
- 4. Replace the faulty memory module, power on the device again, and check whether the alarm is cleared.
 - Yes \rightarrow End.

- No \rightarrow Step 5.
- 5. Log in to the Web portal of the BMC.
- 6. From the device list of the system, check the CPU corresponding to the memory module where the alarm is generated.
- 7. Check whether there is any foreign object on the mainboard socket and CPU pin surfaces.
 - Yes → Step 8.
 - No → Step 10.
- 8. Remove the foreign objects, and scrub the CPU pin surfaces with cotton swabs dipped in anhydrous alcohol.
- 9. Install the memory module and power on the server again. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 10.

10. Contact VANTAGEO technical support

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2.40 30773 Uncorrectable Memory Error

Alarm Name

Uncorrectable memory error

Alarm Description

This alarm is raised when an uncorrectable memory error occurs on a board.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

- The release latch for the memory module is not secured.
- The memory module is faulty.
- The slot for the memory is stained.
- There are foreign objects on CPU pins.
- Pins of the socket on the mainboard are damaged.

Impact

The system may fail to operate properly.

- 1. Identify the location of the faulty memory module based on the alarm information, and check whether there is any foreign object on the memory socket.
 - Yes → Step 2.
 - No → Step 4.
- 2. Remove the memory module from the slot that raises the alarm, scrub the golden finger of the memory module, and install the module back into the same slot.
- 3. Power on the board again. Wait for five to ten minutes and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 4.
- 4. Replace the faulty memory module, power on the device again, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Log in to the Web portal of the BMC.
- 6. From the device list of the system, check the CPU corresponding to the memory module where the alarm is generated.
- 7. Check whether there is any foreign object on the mainboard socket and CPU pin surfaces.
 - Yes → Step 8.
 - No → Step 10.
- 8. Remove the foreign objects, and scrub the CPU pin surfaces with anhydrous alcohol cotton.
- 9. Reinstall the memory module, power on the device, and then check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 10.
- 10. Contact VANTAGEO technical support.

2.41 30774 Correctable error limit reached

Alarm Name

Correctable error limit reached

Alarm Description

This alarm is raised when the number of correctable memory errors collected by the counter exceeds the threshold after the ADDDC function is enabled.

Alarm Information

Alarm severity: Inform

Alarm type: Equipment alarm

Alarm Cause

- The release latch for a memory module is not secured properly.
- A memory module is faulty.
- A memory slot is stained.
- There are foreign objects on CPU pins.
- The pins of the socket on the mainboard are damaged.

Impact

The memory access efficiency may decrease, and services are affected.

- 1. Identify the location of the faulty memory module based on the alarm information, and check whether there is any foreign object on the memory socket.
 - Yes → Step 2.
 - No → Step 4.
- 2. Remove the faulty memory module from the slot, clean the golden finger of the memory module, and install the module back into the same slot.
- 3. Power on the server again. Wait for five to ten minutes and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Replace the faulty memory module and power on the server again. Check whether the alarm is cleared.
 - Yes → End.
 - No → Step 5.
- 5. Log in to the Web portal of the BMC.
- 6. In accordance with the device list of the system, identify and check the CPU corresponding to the memory module where the alarm is generated.
- 7. Check whether there is any foreign object on the mainboard socket and CPU pin surfaces.
 - Yes → Step 8.
 - No → Step 10.
- 8. Remove the foreign objects, and clean the CPU pin surfaces with cotton swabs dipped in anhydrous alcohol.

- 9. Install the memory module and power on the server again. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 10.
- 10. Contact VANTAGEO technical support.

2.42 30776 System Power Is Too High

Alarm Name

The total power is too high

Alarm Description

This alarm is raised when the system power exceeds the threshold.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

The totally consumed power of the server exceeds the preset threshold.

Impact

If the total power of the power supply of the system is exceeded, the system may be powered off.

- 1. On the Web portal, check whether the alarm threshold for power consumption is properly set.
 - Yes → Step 3.
 - No → Step 2.
- 2. Modify the system power alarm threshold, wait for over ten seconds, and then check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Reduce the system load, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.43 30777 System Power Is Incompatible

Alarm Name

System PSUs are not compatible

Alarm Description

This alarm is raised when the current system power supplies are incompatible.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The power supplies of servers are from different manufacturers.
- The power supplies of servers are of different models.
- The power supplies of servers are in different firmware versions.

Impact

Some power supplies may fail to output power. When the system power consumption is increased, the system may break down due to insufficient power supply.

Action

- Log in to the Web portal of the BMC and check whether the manufacturers of the power supplies are the same.
 - Yes \rightarrow Step 3.
 - No → Step 2.
- 2. Replace the power supplies with those of the same manufacturer. Wait for over ten seconds, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.44 30780 POST Error

Alarm Name

POST Error

Alarm Description

This alarm is raised when a system error is detected during power-on of the server.

Alarm Information

Alarm severity: Major

• Alarm type: Equipment alarm

Alarm Cause

- The number of times that the BIOS password of the server is entered exceeds the threshold.
- A component of the server is faulty.

Impact

The system fails to be started.

Action

- 1. Power off the server and power it on again, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Contact VANTAGEO technical support.

2.45 30781 Major MCE Error

Alarm Name

MCE Fatal Error

Alarm Description

This alarm is raised when there is a major MCE error. An MCE is triggered when the CPU detects a hardware error.

Alarm Information

Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

There is a CPU error on the server.

Impact

Services may be affected.

- Enter the Web portal. Based on the alarm information, determine the location of the CPU where the alarm is generated.
- 2. Migrate the services from the server, power off the server, remove the corresponding CPU, and check whether the socket has bent pins.
 - Yes → Step 3.
 - No → Step 4.
- 3. Replace the mainboard and check whether the alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$
 - No → Step 5.
- 4. Reinstall the CPU, and then check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Replace the CPU, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 6.
- 6. Contact VANTAGEO technical support.

2.46 30782 Fatal MCE Error

Alarm Name

MCE Catastrophic Error

Alarm Description

This alarm is raised when there is a fatal MCE error. An MCE is triggered when the CPU detects a hardware error.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

There is a CPU error on the server.

Impact

The server cannot work properly.

- Enter the Web portal. Based on the alarm information, determine the location of the CPU where the alarm is generated.
- 2. Migrate the services from the server, power off the server, remove the corresponding CPU, and check whether the socket has bent pins.
 - Yes → Step 3.
 - No → Step 4.
- 3. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 4. Reinstall the CPU, and then check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Replace the CPU, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 6.
- 6. Contact VANTAGEO technical support.

2.47 30783 Early Warning for a Processor Fault

Alarm Name

CPU Predictive Failure Detected

Alarm Description

This alarm is raised when the processor is about to fail.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- There is a correctable CPU error inside the CPU of the server.
- The mainboard is faulty.

Impact

The server may not operate properly.

- 1. Power off the device, remove all CPUs, and transpose the CPUs horizontally, vertically, or diagonally.
- 2. After the device is powered on, check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Enter the Web portal. Based on the alarm information, determine the location of the CPU where the alarm is generated.
- 4. Replace the CPU, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 5.
- 5. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 6.
- 6. Contact VANTAGEO technical support.

2.48 30786 Device Temperature Is Above the Threshold

Alarm Name

Device temperature is higher than major threshold

Alarm Description

The device temperature exceeds the threshold.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The ambient temperature of the equipment room is too high.
- The fans stop operating or are not present.
- The heat dissipation conditions of the server are poor.
- The heat dissipation mode is not properly set.
- A component of the server is faulty.

Impact

The data processing speed of the system may decrease.

- 1. Wait for three to five minutes, and check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Check whether the ambient temperature is normal (normal range: 5 °C~40 °C).
 - Yes → Step 4.
 - No → Step 3.
- 3. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Check whether the fans stop operating or there are no fans.
 - Yes → Step 5.
 - No → Step 6.
- 5. Remove the fan fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 6.
- 6. Modify the heat dissipation mode, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 7.
- 7. Replace the component corresponding to the temperature alarm. After the device is powered on, check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 8. Contact VANTAGEO technical support.

2.49 30787 Server Power-On

Alarm Name

Server is powered on

Alarm Description

This alarm is raised when the server is powered on.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

The server is powered on manually.

Impact

None.

Action

- 1. Check whether the server is powered on manually.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Check whether the server was powered off and then powered on because of an error on the server.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.50 30790 Server Power-Off

Alarm Name

Server is powered off

Alarm Description

This alarm is raised when the server is powered off.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- The server is powered off manually.
- The server is powered off because the temperature is too high.

Impact

The server cannot operate properly.

Action

1. Check whether the server is powered off manually.

- Yes \rightarrow End.
- No → Step 2.
- 2. Check whether the server was powered off and then powered on because of an error on the server.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.51 30791 Presence Status of a Power Module Is Changed

Alarm Name

Power module status change

Alarm Description

This notification is raised when the presence status of a power module is changed.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- The power module is removed.
- The power module is unavailable.
- The main board is faulty.

Impact

There may be potential security risks in the power supply of the system.

Action

- 1. Check whether the power supply is manually removed and then reinstalled.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Contact VANTAGEO technical support.

2.52 30810 Presence Status of a Hard Disk Is Changed

Alarm Name

Hard disk status change

Alarm Description

This alarm is raised when a hard disk is removed or installed.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- The hard disk is installed.
- The hard disk is removed.
- The backplane of the hard disk is faulty.
- The controller of the hard disk is faulty.

Impact

None.

Action

- 1. Check whether the hard disk is manually removed and then reinstalled.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Contact VANTAGEO technical support.

2.53 30815 Host CPU Reset Event

Alarm Name

Host is reset event

Alarm Description

This notification is raised when a CPU reset event of the server occurs.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- The server is reset manually.
- The server is reset due to a fault.

Impact

The server is restarted, so its functions become unavailable.

Action

- 1. Check whether the server is reset manually or through other management software.
 - Yes \rightarrow Step 2.
 - No → Step 4.
- 2. Log in to the Web portal.
- 3. Enter the log and alarm interfaces, and check whether there are alarms on the server.
 - Yes → Step 4.
 - No \rightarrow End.
- 4. Contact VANTAGEO technical support.

2.54 30832 PCIe Scan Failure

Alarm Name

PCIe scan failed

Alarm Description

This alarm is raised when there is a PCIe scan failure.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The PCIe device is faulty.
- The slot for the PCIe device is stained.

Impact

The PCIe fails to operate.

- 1. Log in to the Web portal of the BMC.
- 2. Enter the page for alarm management. Based on the alarm information, determine the location of the PCIe card where the alarm is generated.
- 3. Migrate the services on the server and power off the server.

- 4. Remove and then reinstall the PCIe card on the server. Power on the device. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Replace the PCIe device. Power on the device and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 6.
- 6. Contact VANTAGEO technical support.

2.55 30833 Correctable PCle Error

Alarm Name

PCIe correctable error

Alarm Description

This alarm is raised when there is a correctable PCIe error.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- The PCIe device is faulty.
- The slot for the PCIe device is stained.

Impact

Services may be affected.

- 1. Log in to the Web portal of the BMC.
- 2. Enter the page for alarm management. Based on the alarm information, determine the location of the PCIe card where the alarm is generated.
- 3. Migrate the services on the server and power off the server.
- 4. Remove and then reinstall the PCIe card on the server. Power on the device. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Replace the PCIe device. Power on the device and check whether the alarm is cleared.

- Yes \rightarrow End.
- No → Step 6.
- 6. Contact VANTAGEO technical support.

2.56 30834 Correctable PCIe Error

Alarm Name

PCIe correctable error

Alarm Description

This notification is raised when there is a correctable PCIe error.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- The PCIe device is faulty.
- The slot for the PCIe device is stained.

Impact

Services may be affected.

- 1. Log in to the Web portal of the BMC.
- 2. Enter the page for alarm management. Based on the alarm information, determine the location of the PCIe card where the alarm is generated.
- 3. Migrate the services on the server and power off the server.
- 4. Remove and then reinstall the PCIe card on the server. Power on the device. Check whether the alarm is cleared.
 - Yes → End.
 - No → Step 5.
- 5. Replace the PCIe device. Power on the device and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 6.
- 6. Contact VANTAGEO technical support.

2.57 30835 Correctable Memory Error

Alarm Name

Correctable memory error

Alarm Description

This notification is raised when there is a correctable memory error.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- The memory module is not secured.
- The memory is faulty.
- The slot for the memory is stained.
- There are foreign objects on CPU pins.
- Pins of the socket on the mainboard are damaged.

Impact

The memory access efficiency is reduced, and services are affected.

- 1. Identify the location of the memory module based on the alarm information, and check whether there is any foreign object on the memory socket.
- 2. Remove the foreign objects and then power on the device. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Replace the memory. Power on the device. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Log in to the Web portal of the BMC and check the CPU corresponding to the faulty memory module.
- 5. Remove the CPU corresponding to the alarm memory module, and check whether there is any foreign object on the mainboard socket and CPU pin surfaces.
 - Yes → Step 6.
 - No → Step 7.

- 6. Remove the foreign objects, and scrub the CPU pin surfaces with anhydrous alcohol cotton.
- 7. Reinstall the CPU, and then check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 8. Contact VANTAGEO technical support.

2.58 30836 Correctable Processor Error

Alarm Name

CPU Predictive Failure Detected

Alarm Description

This notification is raised when there is a correctable processor error.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- There is a correctable CPU internal error of the server.
- The main board is faulty.

Impact

The server may not operate properly.

- 1. Power off the device, remove all CPUs, and transpose the CPUs horizontally, vertically, or diagonally. After the device is powered on, check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Log in to the Web portal of the BMC.
- 3. Enter the page for alarm management. Based on the alarm information, determine the location of the CPU where the notification is generated.
- 4. Replace the CPU. Power on the device and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 5.
- 5. Replace the mainboard and check whether the alarm is cleared.
 - Yes → End.

- No → Step 6.
- 6. Contact VANTAGEO technical support.

2.59 30837 Service Migration on the Server

Alarm Name

Services on this server are recommended to be moved out

Alarm Description

This notification is raised when a service of the server is migrated.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- A CPU error (30765) alarm occurs.
- A PCIe error (30768) alarm occurs.
- An uncorrectable memory error (30772) alarm occurs.
- A fatal MCE error (30782) alarm occurs.

Impact

None.

Action

- 1. Check whether there are any CPU, PCIe, memory, or MCE alarms.
 - Yes \rightarrow Step 2.
 - No → Step 3.
- 2. Handle the notification based on the specific error code. Check whether the notification is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.60 30838 Heat Alert

Alarm Name

Heat alert

Alarm Description

This alarm is raised when there is an early warning of high temperature.

Alarm Information

Alarm severity: Major

• Alarm type: Equipment alarm

Alarm Cause

The ambient temperature exceeds the high-temperature early-warning threshold.

Impact

None.

Action

- 1. Check whether the ambient temperature of the equipment room is too high.
 - Yes → Step 2.
 - No → Step 3.
- 2. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes → End.
 - No \rightarrow Step 3.
- 3. Contact VANTAGEO technical support.

2.61 30839 Ambient Temperature Read Abnormal

Alarm Name

Ambient temperature read abnormal

Alarm Description

This alarm is raised when the ambient temperature cannot be properly read.

Alarm Information

Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

The ambient temperature cannot be properly read.

Impact

None.

Action

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Replace the mainboard and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.62 30840 PCIe Topology Changed

Alarm Name

PCIe topology changed

Alarm Description

This alarm is raised when the PCIe topology is changed. You need to check whether the change is normal.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- A different model of PCIe riser card or hard disk backplane is used to replace the old one.
- A slimline between the mainboard and the backplane is not connected or is faulty.

Impact

None.

- Check whether the PCIe riser card or PCIe/NVMe backplane has been replaced with a different model.
 - Yes → Step 2.
 - No → Step 3.
- 2. Update the PCIe topology, and check whether the alarm is cleared.

- Yes \rightarrow End.
- No → Step 3.
- 3. Check whether the PCIe riser card is installed properly and whether the slimline between the mainboard and the PCIe/NVMe backplane is properly connected.
 - Yes → Step 5.
 - No → Step 4.
- 4. Power off the server and then reinstall the card or backplane. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Contact VANTAGEO technical support.

2.63 30841 Automatic Apply New PCle Topology Config

Alarm Name

Automatic apply new PCIe topology config

Alarm Description

This alarm is raised when the new PCIe topology configuration is directly applied in accordance with the auto-update policy upon a topology change.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- A different model of PCIe riser card or hard disk backplane is used to replace the old one.
- A slimline between the mainboard and the backplane is not connected or is faulty.

Impact

None.

- Check whether the PCIe topology configuration need to be automatically updated in the onsite application scenario.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Contact VANTAGEO technical support.

2.64 30842 PCIe Device Is Equipped Error

Alarm Name

PCIe device is equipped error

Alarm Description

This alarm is raised when the PCle device is installed in an PCle slot that is not supported.

Alarm Information

• Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

The PCIe device is installed in an PCIe slot that is not supported.

Impact

None.

Action

- 1. Log in to the Web portal of the BMC. Enter the page for alarms. Based on the alarm information, determine the location of the PCIe card where the alarm is generated.
- 2. Migrate the services on the server and then power off the server.
- 3. Remove the PCIe card from the server and install it in the correct slot of the server again.
- 4. Power on the server, and then check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Contact VANTAGEO technical support.

2.65 30843 Hard Disk Is Missing

Alarm Name

Hard disk is missing

Alarm Description

This alarm is raised when a hard disk is not present.

Alarm Information

Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

- The SAS cable is incorrectly connected, is loose, or is damaged.
- The hard disk is faulty.

Impact

None.

Action

- 1. Check whether the SAS cable is incorrectly connected, is loose, or is damaged.
 - Yes \rightarrow Step 2.
 - No → Step 4.
- 2. After powering off the server, reinstall or replace the SAS cable. Power on the server, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 3.
- 3. Replace the hard disk and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 4. Contact VANTAGEO technical support.

2.66 30844 Hard Disk Is Not Accessible

Alarm Name

Hard disk is not accessible

Alarm Description

This alarm is raised when a hard disk is unavailable.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

There is an unrecoverable hard disk fault.

Impact

None.

Action

- 1. Replace the hard disk and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 2.
- 2. Contact VANTAGEO technical support.

2.67 30845 Watchdog Alarm

Alarm Name

Watchdog alarm

Alarm Description

This alarm is raised when the watchdog times out.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

- When the host is powered on, the BIOS fails to be booted.
- When the host is powered on, the BIOS is booted successfully. However, the BIOS is abnormal and fails to be started.

Impact

None.

- 1. Check whether the hardware and software of the host are operating properly.
 - Yes → Step 2.
 - No → Step 3.
- 2. Restart the host, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.68 30846 Watchdog Inform

Alarm Name

Watchdog inform

Alarm Description

This notification is raised when the watchdog times out.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- When the host is powered on, the BIOS is booted successfully, but the operating system fails to be booted.
- When the host is powered on, the BIOS is booted successfully, the operating system is booted successfully but then crashes.

Impact

None.

Action

- 1. Check whether the hardware and software of the host are operating properly.
 - Yes → Step 2.
 - No → Step 3.
- 2. Restart the host, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.69 30847 Fantray Fully Redundant State Inform

Alarm Name

Fantray fully redundant state inform

Alarm Description

This notification is raised when fans are fully redundant.

Alarm Information

Alarm severity: Inform

• Alarm type: Equipment alarm

Alarm Cause

The redundancy state of fans is normal.

Impact

None.

Action

None.

2.70 30848 Fantray Redundancy Lost Alarm

Alarm Name

Fantray redundancy lost alarm

Alarm Description

This alarm is raised when the fan redundancy state cannot be detected.

Alarm Information

Alarm severity: Minor

• Alarm type: Equipment alarm

Alarm Cause

- A fan module is removed.
- A fan raises an alarm.

Impact

None.

- 1. Check whether a fan module is removed.
 - Yes \rightarrow Step 2.
 - No → Step 3.
- 2. Install the fan modules in idle fan slots one by one, and check whether the alarm is cleared.
 - Yes \rightarrow End.

- No → Step 3.
- 3. Remove and then install again the fan module where the alarm is raised. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Replace the fan module where the alarm is raised. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Contact VANTAGEO technical support.

2.71 30849 PSU Fully Redundant State Inform

Alarm Name

PSU fully redundant state inform

Alarm Description

This notification is raised when the power supplies are in fully redundant state.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

The power supply redundancy state is normal.

Impact

None.

Action

None.

2.72 30850 PSU Redundancy Degraded Alarm

Alarm Name

PSU redundancy degraded alarm

Alarm Description

This alarm is raised when power redundancy is degraded.

Alarm Information

Alarm severity: Minor

• Alarm type: Equipment alarm

Alarm Cause

- A power module is removed.
- A power supply alarm is raised.

Impact

None.

Action

- 1. Check whether a power module is removed.
 - Yes → Step 2.
 - No → Step 3.
- 2. Install the power modules in idle power module slots one by one, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Remove and then install again the power module where the alarm is raised, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 4.
- 4. Replace the power module power module where the alarm is raised. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Contact VANTAGEO technical support.

2.73 30851 PSU Redundancy Lost Alarm

Alarm Name

PSU redundancy lost alarm

Alarm Description

This alarm is raised when the power supply redundancy state is lost.

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Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- A power module is removed.
- A power supply alarm is raised.

Impact

None.

Action

- 1. Check whether a power module is removed.
 - Yes → Step 2.
 - No → Step 3.
- 2. Install the power modules in idle power module slots one by one, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Remove and then install again the power module where the alarm is raised, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 4.
- 4. Replace the power module where the alarm is raised. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Contact VANTAGEO technical support.

2.74 30852 UID Button Pressing Notification

Alarm Name

UID button inform

Alarm Description

This alarm is raised when the UID button is pressed.

Alarm Information

• Alarm severity: Inform

Alarm type: Equipment alarm

Alarm Cause

- The UID button is pressed for less than 5 seconds, causing an on-off state change.
- The UID button is pressed for 5 to 10 seconds, causing a switch to the BMC serial port.
- The UID button is pressed for over 10 seconds, causing a BMC reset.

Impact

None.

Action

No action is required.

2.75 30853 BMC Resetting Completion Notification

Alarm Name

BMC system restart inform

Alarm Description

This alarm is raised when the BMC is completely reset.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- The entire BMC chassis is powered off and restarted.
- The BMC is reset through an interface.
- The BMC is reset because the UID button is pressed for over 10 seconds.
- The watchdog times out and resets the BMC.

Impact

None.

Action

No action is required.

2.76 30854 Power Button Inform

Alarm Name

Power button inform

Alarm Description

This alarm is raised when the power button is pressed.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- In power-off state, the power button is pressed and held for less than 5 seconds. The server is then powered on.
- In power-on state, the power button is pressed and held for less than 5 seconds. The server is then powered off.
- In power-on state, the power button is pressed and held for no less than 5 seconds. The server is then forcibly powered off.

Impact

None.

Action

No action is required.

2.77 30855 Auto active bios Success

Alarm Name

Auto active bios Success

Alarm Description

This alarm is raised when the BIOS configuration of a host automatically takes effect after the host is powered off.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

None.

Impact

None.

Action

No action is required.

2.78 30856 System boot inform

Alarm Name

System boot inform

Alarm Description

This alarm is raised when the system is started.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- The host is powered on.
- A cold boot is performed on the host.
- A warm boot is performed on the host.

Impact

None.

Action

No action is required.

2.79 30857 Hard disk temperature is higher than major threshold

Alarm Name

Hard disk temperature is higher than major threshold

Alarm Description

This alarm is raised when an over-temperature error occurs on an HDD/SSD.

Alarm Information

Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

- The ambient temperature of the equipment room is too high.
- The fans stop or are not present.
- The heat dissipation condition of the server is poor.
- The heat dissipation mode is not properly set.
- A hard disk is faulty.

Impact

The hard disk cannot operate properly.

- 1. Wait for three to five minutes, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 2.
- Check whether the ambient temperature of the server is within the normal range (5°C– 40°C).
 - Yes → Step 4.
 - No → Step 3.
- 3. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 4.
- 4. Check whether the fans stop or there are no fans.
 - Yes → Step 5.
 - No → Step 6.
- 5. Remove the fan fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 6.
- 6. On the Web portal of the BMC, modify the heat dissipation mode, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 7.
- 7. Replace the faulty disk and power on the server again. Check whether the alarm is cleared.
 - Yes \rightarrow End.

- No → Step 8.
- 8. Contact VANTAGEO technical support.

2.80 30859 Smart Nic Detect Error

Alarm Name

Smart Nic Detect Error

Alarm Description

This alarm is raised when the detection of the smart NIC fails.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

The detection of the smart NIC fails.

Impact

None.

Action

No action is required.

2.81 30860 Hard disk has predictive failure

Alarm Name

Hard disk has predictive failure

Alarm Description

This alarm is raised when a hard disk is predicted to be faulty during detection.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

A hard disk is predicted to be faulty during detection.

Impact

The hard disk may fail to operate properly.

Action

- 1. Replace the hard disk and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Contact VANTAGEO technical support.

2.82 30861 Liquid cooling system is leaking

Alarm Name

Liquid cooling system is leaking

Alarm Description

This alarm is raised when the liquid leaks from the liquid cooling system.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

The sensor of the liquid cooling system detects a liquid leak.

Impact

By default, the host power-off protection function is disabled. If this function is enabled, the host is powered off in accordance with the configured time when liquid leak occurs.

Action

1. Contact VANTAGEO technical support.

2.83 30862 Liquid cooling system is out of service

Alarm Name

Liquid cooling system is out of service

Alarm Description

This alarm is raised when the liquid cooling system is out of service.



The leak detection cable is equipped with a sensor to check whether the liquid cooling system is out of service.

Alarm Information

Alarm severity: Major

• Alarm type: Equipment alarm

Alarm Cause

The leak detection cable of the liquid cooling system is disconnected.

Impact

The leak detection function fails to operate properly.

Action

1. Contact VANTAGEO technical support.

2.84 30864 Fan speed status abnormal alarm

Alarm Name

Fan speed status abnormal alarm

Alarm Description

This alarm is raised when the fan speed is abnormal.

Alarm Information

Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

The rotation speed of a fan is lower than the minimum rotation speed.

Impact

The internal components of the server are over-temperature.

Action

1. Check whether the rotor of a fan module operates properly.

- Yes \rightarrow Step 3.
- No → Step 2.
- 2. Troubleshoot the rotor fault, remove and reinstall the fan module, and check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Replace the fan module, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.85 30865 Memory temperature above major threshold alarm

Alarm Name

Memory temperature above major threshold alarm

Alarm Description

This alarm is raised when the memory temperature is higher than critical threshold.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- The ambient temperature is high.
- A fan stops operating or is not present.
- The heat dissipation conditions of the server are poor.
- The heat dissipation mode is not properly set.
- A component of the server is faulty.

Impact

The data processing speed of the system may decrease.

- 1. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Check whether the ambient temperature of the equipment room ranges from 5 °C to 40 °C.

- Yes → Step 4.
- No → Step 3.
- 3. Troubleshoot the ambient temperature fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Check whether a fan stops or is not present.
 - Yes → Step 5.
 - No → Step 6.
- 5. Remove the fan fault, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 6.
- 6. On the Web portal of the BMC, modify the heat dissipation mode, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 7.
- 7. Replace the fan module where the alarm is raised. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 8. Contact VANTAGEO technical support.

2.86 30866 System firmware status abnormal alarm

Alarm Name

System firmware status abnormal alarm

Alarm Description

This alarm is raised when the system firmware status is abnormal.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- Memory modules are not installed.
- The installed memory modules are isolated.

Impact

The host fails to be started.

Action

- 1. Check whether memory modules are installed.
 - Yes → Step 3.
 - No → Step 2.
- 2. Install the memory module, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Check whether the installed memory modules are isolated.
 - Yes → Step 4.
 - No → Step 5.
- 4. Troubleshoot the memory isolation fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Reinstall the memory module, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 6.
- 6. Contact VANTAGEO technical support.

2.87 30867 Abnormal power-on alarm

Alarm Name

Abnormal power on alarm

Alarm Description

This alarm is raised when there is a server power-on failure.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- CPU-related power supply errors or PG events.
- DIMM-related power supply errors or PG events.
- Power supply errors or PG events of other modules in the system.

Impact

The server cannot operate properly.

Action

1. Contact VANTAGEO technical support.

2.88 30870 Optical module status abnormal alarm

Alarm Name

Optical module status abnormal alarm

Alarm Description

The alarm is raised when optical module status is abnormal.

Alarm Information

Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

Optical module status is abnormal.

Impact

The network port communication is abnormal.

Action

- 1. Check whether the communication of the optical module is normal.
 - Yes → Step 3.
 - No → Step 2.
- 2. Troubleshoot the communication fault of the optical module, remove and then reinstall the optical module. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Replace the optical module, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.89 30880 Abnormal PSU output alarm

Alarm Name

Abnormal PSU Output alarm

Alarm Description

This alarm is raised when the PSU output is abnormal.

Alarm Information

Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

- The power cable is not connected properly.
- The power supply is abnormal.
- The power backplane is abnormal.

Impact

The host may be powered off unexpectedly.

Action

- 1. Identify alarm causes based on additional alarm information.
- 2. Remove and reinstall a power cable while ensuring uninterrupted power supply to the server. Wait for three to five minutes, and then check whether this alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Replace the power module and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.



If the alarm still persists after the power module is replaced, the power backplane may be abnormal.

4. Contact VANTAGEO technical support.

2.90 30890 Correctable memory error minor inform

Alarm Name

Correctable memory error minor inform

Alarm Description

This notification is raised when the number of correctable memory errors that occur on a server exceeds the notification-level threshold.

Alarm Information

• Alarm severity: Inform

Alarm type: Equipment alarm

Alarm Cause

- A memory module is not secured properly.
- A memory module is faulty.
- A memory slot is stained.
- There are foreign objects on CPU pins.
- The pins of the socket on the mainboard are damaged.

Impact

The memory access efficiency may be reduced, and services are affected.

- 1. Locate the faulty memory module based on the alarm information, and check whether there is any foreign object on the memory socket.
 - Yes → Step 2.
 - No → Step 4.
- 2. Remove the memory module from the slot where the alarm is raised, clean the gold finger of the memory module, and install the module back into the slot.
 - For how to remove and reinstall a memory module, refer to the parts replacement guide of the corresponding server.
- 3. Power on the server again, and wait for five to ten minutes. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Replace the memory module and power on the server again. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 5.
- 5. Log in to the Web portal of the BMC.
- 6. In accordance with the component list of the system, identify and check the CPU corresponding to the memory module where the alarm is raised.
- 7. Check whether there is any foreign object on the mainboard socket and CPU pins.
 - Yes → Step 8.
 - No → Step 10.

- 8. Remove the foreign objects, and clean the CPU pins with cotton swabs dipped in anhydrous alcohol.
- 9. Reinstall the memory module and power on the server again. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 10.
- 10. Contact VANTAGEO technical support.

2.91 30891 Correctable memory error minor alarm

Alarm Name

Correctable memory error minor alarm

Alarm Description

This alarm is raised when the number of correctable memory errors that occur on a server exceeds the minor alarm threshold.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- A memory module is not secured properly.
- A memory module is faulty.
- A memory slot is stained.
- There are foreign objects on CPU pins.
- The pins of the socket on the mainboard are damaged.

Impact

The memory access efficiency may be reduced, and services are affected.

- 1. Locate the faulty memory module based on the alarm information, and check whether there is any foreign object on the memory socket.
 - Yes → Step 2.
 - No → Step 4.
- 2. Remove the memory module from the slot where the alarm is raised, clean the gold finger of the memory module, and install the module back into the slot.

For how to remove and reinstall a memory module, refer to the parts replacement guide of the corresponding server.

- 3. Power on the server again, and wait for five to ten minutes. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Replace the memory module and power on the server again. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Log in to the Web portal of the BMC.
- 6. In accordance with the component list of the system, identify and check the CPU corresponding to the memory module where the alarm is raised.
- 7. Check whether there is any foreign object on the mainboard socket and CPU pins.
 - Yes → Step 8.
 - No → Step 10.
- 8. Remove the foreign objects, and clean the CPU pins with cotton swabs dipped in anhydrous alcohol.
- Reinstall the memory module and power on the server again. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 10.

10. Contact VANTAGEO technical support.

2.92 30900 Waitting DPU post start

Alarm Name

Waitting **DPU** post start

Alarm Description

This alarm is raised when the system waits for the POST of a Taihang card (a smart NIC).

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

A server is being started.

Impact

None.

Action

None.

2.93 30901 Waitting DPU post success

Alarm Name

Waitting DPU post success

Alarm Description

This alarm is raised when the POST of a Taihang card (a smart NIC) is successful.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

A server is successfully started.

Impact

None.

Action

None.

2.94 30902 DPU soc post timeout

Alarm Name

DPU soc post timeout

Alarm Description

This alarm is raised when the POST of the SOC on a server fails.

Alarm Information

- Alarm severity: Minor
- Alarm type: Equipment alarm

Alarm Cause

- The DPU is suspended during power-on.
- The communication link is abnormal.

Impact

The host may fail to be started properly.

Action

- 1. Migrate the services from the server, and then power off the server.
- 2. Power on the server again, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Contact VANTAGEO technical support.

2.95 30903 DPU BIOS post timeout

Alarm Name

DPU BIOS post timeout

Alarm Description

This alarm is raised when the POST of the BIOS on a server fails.

Alarm Information

- Alarm severity: Critical
- Alarm type: Equipment alarm

Alarm Cause

- The DPU is suspended during power-on.
- The communication link is abnormal.

Impact

The host may fail to be started properly.

- 1. Migrate the services from the server, and then power off the server.
- 2. Power on the server again, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.

3. Contact VANTAGEO technical support.

2.96 30905 Device change inform

Alarm Name

Device change inform

Alarm Description

This alarm is raised when a component on a server is removed, installed, or replaced.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

One of the following components is installed, removed, or replaced:

- Memory
- CPU
- Hard disk
- Mainboard
- PSU
- RAID controller card

Impact

None.

Action

None.

2.97 30907 a Machine Check Exception occured recently

Alarm Name

a machine check exception occured recently

Alarm Description

This alarm is raised when an error has occurred on the server system recently.

Alarm Information

Alarm severity: Inform

Alarm type: Equipment alarm

Alarm Cause

- There is a memory fault.
- A PCIe device is not operating properly.
- An internal error occurs on a CPU.

Impact

Services may be affected.

Action

- 1. Log in to the Web portal of the BMC.
- 2. On the Current Alarm page, check whether there is any alarm related to memory and PCIe.
 - Yes \rightarrow Step 3.
 - No → Step 4.
- 3. Handle the memory and PCIe alarms as suggested, and check whether the current alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- On the Web portal of the BMC, select Maintenance > Download Data. The Download Expert Data page is displayed.
- 5. Click **Download Data** to download the data to a local disk.
- 6. Contact VANTAGEO technical support.

2.98 30911 NVME Link is abnormal

Alarm Name

NVME Link is abnormal

Alarm Description

This alarm is raised when the link of an NVMe SSD is abnormal.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

The PCIe link status of an NVMe SSD is detected abnormal.

Impact

The NVMe SSD cannot operate properly.

Action

- 1. Check whether a cable is properly connected to the NVMe SSD.
 - Yes → Step 3.
 - No → Step 2.
- 2. Troubleshoot the cable fault, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 3.
- 3. Replace the NVMe SSD, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No \rightarrow Step 4.
- 4. Contact VANTAGEO technical support.

2.99 30912 NVME has failure

Alarm Name

NVME has failure

Alarm Description

This alarm is raised when an NVMe SSD is faulty.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

The status of an NVMe SSD is detected abnormal.

Impact

The NVMe SSD cannot operate properly.

- 1. Replace the NVMe SSD, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.

2. Contact VANTAGEO technical support.

2.100 30913 Liquid cooling system but the Liquid-card is not present

Alarm Name

Liquid cooling system but the Liquid-card is not present

Alarm Description

This alarm is raised when the liquid cooling adapter is not present on a liquid-cooled server.

Alarm Information

Alarm severity: Inform

Alarm type: Equipment alarm

Alarm Cause

The liquid cooling adapter is detected not present on a liquid-cooled server.

Impact

The cooling mode of the server is changed to air cooling.

Action

1. Contact VANTAGEO technical support.

2.101 30916 CPU configure error

Alarm Name

CPU configure error

Alarm Description

This alarm is raised when different models of CPUs are used at the same time.

Alarm Information

Alarm severity: Major

Alarm type: Equipment alarm

Alarm Cause

- New-version and old-version Hygon C86-7390 CPUs are used at the same time.
- The Hygon C86-7390 CPU model does not match the BIOS version.

Impact

The host cannot be powered on, and services are affected.

Action

- 1. Query and record the models of CPUs that are present, and check whether their models are the same.
 - Yes \rightarrow Step 3.
 - No → Step 2.
- 2. Use the same model of CPUs, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 3.
- 3. Check whether the CPU model matches the BIOS version.
 - Yes → Step 4.
 - No → Step 7.
- 4. Transpose the CPU where the alarm is raised and a normal CPU where no alarm is raised, and check whether the alarm still exists on the CPU that raises the alarm.
 - Yes → Step 5.
 - No → Step 6.
- 5. Replace the CPU where the alarm is raised, and check whether the alarm is cleared.
 - Yes → End.
 - No → Step 6.
- 6. Replace the mainboard, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 7. Upgrade the BIOS version to match the CPU model, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 8.
- 8. Contact VANTAGEO technical support.

2.102 30918 The hard disk has foreign configuration

Alarm Name

The hard disk has foreign configuration

Alarm Description

This alarm is raised when a hard disk has foreign configurations.

Alarm Information

Alarm severity: Minor

• Alarm type: Equipment alarm

Alarm Cause

A logical structure has been configured for a hard disk.

Impact

The system may stop responding or data is lost.

Action

- 1. Clear or import RAID configurations, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 2.
- 2. Contact VANTAGEO technical support.

2.103 30919 EDPC Event

Alarm Name

EDPC Event

Alarm Description

This alarm is raised when an EDPC event occurs on a PCIe device.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- A PCIe device is faulty.
- A PCIe slot is stained.

Impact

Services may be affected.

Action

1. Log in to the Web portal of the BMC.

- 2. On the **Current Alarm** page, locate the corresponding PCIe slot based on the alarm information.
- 3. Migrate the existing services from the server, and power off the server.
- 4. Remove and reinstall the PCIe card where the alarm is raised, and power on the server. Check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 5.
- 5. Replace the PCIe card, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 6.
- 6. Contact VANTAGEO technical support.

2.104 30920 FRB1/BIST failure

Alarm Name

FRB1/BIST failure

Alarm Description

This alarm is raised when the BIST of a CPU fails.

Alarm Information

- Alarm severity: Major
- Alarm type: Equipment alarm

Alarm Cause

- There is a CPU fault.
- There is a mainboard fault.

Impact

The system may fail to be started properly.

- 1. Remove and reinstall the power cable to power off and then power on the server, and check whether the alarm is cleared.
 - $\bullet \quad \text{Yes} \to \text{End}.$
 - No \rightarrow Step 2.
- 2. Replace the CPU where the alarm is raised, and check whether the alarm is cleared.
 - Yes \rightarrow End.

- No → Step 3.
- 3. Replace the mainboard, and check whether the alarm is cleared.
 - Yes \rightarrow End.
 - No → Step 4.
- 4. Contact VANTAGEO technical support.

2.105 8392707 BMC Synchronize Status Change

Alarm Name

BMC synchronize status change

Alarm Description

This alarm is raised when BMC synchronization fails or succeeds.

Alarm Information

- Alarm severity: Inform
- Alarm type: Equipment alarm

Alarm Cause

- BMC synchronization fails.
- BMC synchronization succeeds.

Impact

None.

Action

No action is required.

Chapter 3

Technical Support

Technical Support Website

You can log in to the technical support website (https://vantageo.com/). On the website you can retrieve and download electronic documents of a product through the keywords such as 2230-RE



If you do not have an account, you need to register a new one so that you can log in to the website to query and download documents.

Technical Support Contact

If the problems cannot be solved through documents, you can contact VANTAGEO technical support in the following ways:

- support helpdesk: +91 18002669898
- support mailbox: support@vantageo.com
- On-site technical support: contact the local office of VANTAGEO PRIVATE LIMITED

Glossary

ADDDC

- Adaptive Double Device Data Correction

BBU

- Battery Backup Unit

BIOS

- Basic Input/Output System

BIST

- Built-In Self-Test

BMC

- Baseboard Management Controller

CPU

- Central Processing Unit

DIMM

- Dual Inline Memory Module

DPU

- Data Processing Unit

HDD

- Hard Disk Drive

MCE

- Machine-Check Exception

NIC

- Network Interface Card

NVME

- Non-Volatile Memory Express

NVMe

- Non-Volatile Memory Express

os

- Operating System

PCle

- Peripheral Component Interconnect Express

POST

- Power-On Self-Test

PSU

- Power Supply Unit

RAID

- Redundant Array of Independent Disks

SAS

- Serial Attached SCSI

SOC

- System on Chip

SSD

- Solid State Drive

UID

- Unit Identification Light

WEB

- Web