



Dear Inspur Yingxin Server Users:

Thank you very much for choosing Inspur Yingxin server!

This manual introduces the technical features of this server and the system settings and installation, which will help you understand and

Jiedi uses this server.

Please hand over the packaging of our products to waste collection stations for recycling, which will help prevent pollution and benefit mankind.

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wave,

November 2014

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DOCUMENT FOR THESE PICTURES/DIAGRAMS/SCHEMATICS.**

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<https://github.com/Dok-T/inspur-nf5270m4>



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summary

This manual introduces the server's specifications, hardware operation, software settings, service terms, fault diagnosis, and maintenance procedures.

Closely related content.

This guide assumes that the reader has sufficient knowledge of server products, has received sufficient training, and has sufficient experience in operation and maintenance.

No personal injury or product damage will occur.

Target audience

This manual is mainly applicable to the following persons:

- Technical support engineer
- Product Maintenance Engineer

It is recommended that professional engineers with server knowledge refer to this manual to perform server operation and maintenance.

warn

This manual introduces the technical features of this server and the system settings and installation, which will help you understand and

1. Please do not disassemble or install

server components at will, and do not expand or connect other devices at will.

2. Before disassembling or installing server

components, be sure to disconnect all cables connected to the server.

3. BIOS and BMC settings are very important for configuring your server. If you do not have any special requirements, please use the system

The factory default values, do not change the parameter settings at will.

4. Please use the driver that came with the computer or the driver provided by Inspur's official website. If you use a driver other than Inspur's,

It may cause compatibility issues and affect the normal use of the product, and Inspur will not bear any responsibility or obligation for this.

Inspur will not be responsible for any damages that occur before, during or after the use of our products, including but not limited to

loss of profits, loss of information, business interruption, personal injury, or any other indirect loss.

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1 Safety Instructions



WARNING: The following warnings indicate potential hazards that could result in property damage, personal injury, or death.

1 The power supply in this system may generate high voltage and dangerous electrical energy, which may cause personal injury. Do not remove it by yourself.

Unless otherwise notified by Inspur, only maintenance technicians trained by Inspur have the right to open the host cover and disassemble or replace any components inside the system.

2 Please connect the device to a proper power source. Use only the type of external power source indicated on the rated input label to power the device.

To protect your device from damage caused by instantaneous voltage increases or decreases, please use relevant voltage stabilizing equipment or Uninterruptible power supply device.

3 If you must use an extension cable, use a three-conductor cable with a properly grounded plug and check the extension cable rating.

Ensure that the total current rating of all products plugged into the extension cable does not exceed 100% of the extension cable's rated current limit.

Eighty percent.

4. Please be sure to use the power supply components provided with the device, such as the power cord, power socket (if provided with the device), etc.

To ensure the safety of the user, do not replace the power cable or plug at will.

5 To prevent electric shock caused by system leakage, be sure to plug the power cables of the system and external devices into a properly grounded power socket.

Please insert the three-core power cord plug into a well-grounded, easily accessible three-core AC power socket.

Use the grounding prong on the power cord. Do not use adapter plugs or unplug the grounding prong on the power cord.

If you are not sure whether there is proper grounding protection, do not operate this equipment and contact an electrician.

consult.

6 Never push any objects into the system openings. Pushing objects into the system may cause a short circuit in internal components and cause

Fire or electric shock.

7. Please place the system away from heat sinks and heat sources, and do not block the ventilation holes. **8.** Do not allow

food or liquid to spill inside the system or on other components, and do not use the system in a highly humid or dusty environment.

Use products.

9. Replacing the battery with the wrong model may cause explosion. When you need to replace the battery, please consult the manufacturer first and use the manufacturer's

Do not disassemble, squeeze, puncture or short-circuit the external contacts of the battery.

Do not throw it into fire or water, and do not expose it to temperatures exceeding 60 degrees Celsius.

When opening or repairing batteries, be sure to properly dispose of used batteries and do not place used batteries or circuits that may contain batteries.

Boards and other components are placed together with other waste. For battery recycling, please contact your local waste recycling agency.

10 Before installing equipment in a cabinet, install the front and side feet on the independent cabinet to align it with other cabinets.

If the feet are not installed before installing the equipment in the cabinet, the cabinet may tip over in some cases, which may cause personal injury.



Before installing equipment, be sure to install the feet first. After installing equipment and other components in the cabinet, only pull one component out of the cabinet at a time by its sliding parts. Pulling out multiple components at the same time may cause the cabinet to tip over. causing serious personal injury.

1 Do not move the cabinet alone. Considering the height and weight of the cabinet, it should be moved by at least two people.

Service.

12 When the cabinet is powered on, do not touch the copper busbar directly. Do not short-circuit the copper busbar directly. **13** This is a Class A product. In a living environment, this product may cause radio interference. In this case, it may

Users are required to take practical measures to deal with the interference.



Note: To ensure better use of the device, the following precautions will help you avoid problems that may damage components or cause data loss.

1 If any of the following situations occur, please unplug the power cord of the product from the power socket and contact Inspur customer service.

Service Contact

1) The power cable, extension cable or power plug is damaged. **2)** The product

is exposed to water.

3) The product is dropped or damaged.

4) Objects fall into the interior of the product.

5) The product does not function properly when operated according to the operating instructions.

2 If the system gets wet, please follow the steps below to deal with it

1) Turn off the system and devices, disconnect them from the electrical outlets, wait 10 to 20 seconds, and then

Then open the computer cover.

2) Move the device to a well-ventilated place and allow the system to dry for at least 24 hours, and ensure that the system is completely dry.

3) Close the computer cover, reconnect the system to the power outlet, and then turn it on. **4)** If the system

fails or is abnormal, please contact Inspur for technical assistance. Pay attention to the location of the

3 system cables and power cables, and route them where they will not be stepped on or knocked off.

Do not place other objects on the cables.

4 Allow the device to cool before removing the cover or touching internal components. To avoid damaging the motherboard,

Wait 5 seconds after shutdown before removing components from the motherboard or disconnecting system peripherals.

5 If a modem, telecommunications or LAN option is installed in the device, please note the following

1) Do not connect or use the modem during thunderstorms. Otherwise, you may be struck by lightning.

2) Never connect or use the modem in a wet environment.

3) Never plug a modem or telephone cable into the Network Connection Controller (NC) socket.

- 4) Open the product package, touch or install internal components, or touch uninsulated modem cables or jacks

Before doing so, disconnect the modem cable.

6 To prevent electrostatic discharge from damaging the electronic components inside the device, please pay attention to the following matters

- 1) Before disassembling or touching any electronic components in the device, you should first discharge static electricity from your body. You can discharge static

electricity from your body by touching a grounded metal object (such as an unpainted metal surface on the chassis) to prevent static electricity from your body
from being discharged to sensitive components.

- 2) Do not remove static-sensitive components from anti-static packaging materials if you are not going to install them. 3) During work, regularly touch the ground

conductor or the unpainted metal surface on the chassis to remove static electricity from your body that may damage internal components.

7 With the approval of Inspur, please pay attention to the following matters when disassembling and installing the internal components of the system

- 1) Turn off the system power and disconnect the cables, including disconnecting any connections to the system.

Remove the cable by its connector, not by the cable itself.

- 2) Allow the product to cool down before removing the cover or touching internal components. 3) Before removing

or touching any electronic components in the device, remove static electricity from your body by touching a grounded metal object.

electricity.

- 4) Do not move too much during disassembly to avoid damaging components or scratching your arms. 5) Handle components

and cards carefully and do not touch the components or contacts on the cards.

Grasp the card or component by its edges or by its metal mounting bracket.

8 During the installation and use of the cabinet product, please pay attention to the following matters: 1)

After the cabinet is installed, please ensure that the feet are fixed to the rack and supported on the ground, and all the weight of the rack is

The amount has fallen to the ground.

- 2) Always install the cabinet from bottom to top, and install the heaviest components first. 3) When pulling components out of the cabinet,

use gentle force to ensure that the cabinet remains balanced and stable. 4) When pressing the component rail release lock and sliding the
component in or out, be careful, as the rail may pinch you.

fingers.

- 5) Do not overload the AC power branch circuit in the cabinet. The total cabinet load should not exceed the branch circuit rating.

80% of the fixed value.

- 6) Ensure that the components in the cabinet are well ventilated.

- 7) When repairing components in the cabinet, do not step on any other components.

2 Product Specifications

2.1 Introduction This

model is a completely self-developed server product. It uses the Intel Grantley-EP platform and the Wellsburg chipset. It supports two mainstream Intel Xeon E5-26XX V4 (or E5-26XX V3) series processors. It supports 20 DIMM DDR4 memory, with a maximum support of 2133MHz. It supports ECC

Registered and multiple advanced memory redundancy functions. Supports up to 2.5x29 SAS/SATA/SSD hot-swappable hard disks or 3.5x12 SAS/SATA/SSD hot-swappable hard disks. The motherboard integrates a high-performance Gigabit network card and supports advanced network features. The motherboard integrates a BMC/KVM chip. 7 available PCI-Express expansion slots.

SAS or SAS RAID card supporting SAS 3.0 (12Gb/s) to achieve flexible SAS/SAS RAID Solution. Modular design of components such as structure, storage, PCI expansion, power supply, fan, etc. Energy-saving and noise reduction design, equipped with Equipped with high-efficiency PMbus power supply, supports DPNM function to achieve energy saving and consumption reduction.

- 2.5x24 configuration (taking full configuration as an example)

It supports 24 front-mounted 2.5-inch SAS/SATA/SSD hard disks, and its appearance is shown in the figure below.



- 3.5x8 configuration (taking full configuration as an example)

Supports 8 front-mounted 3.5/2.5-inch SAS/SATA/SSD hard disks. The appearance is shown in the figure below. Note: The 3.5-inch hard disk tray can hold 3.5/2.5 hard disks.



- 3.5x12 configuration (taking full configuration as an example)

Supports 12 front-mounted 3.5/2.5-inch SAS/SATA/SSD hard disks. The appearance is shown in the figure below. Note: The 3.5-inch hard disk tray can hold 3.5/2.5 hard disks.



- 2.5x25 configuration (taking full configuration as an example)

It supports 25 front-mounted 2.5-inch SAS/SATA/SSD hard disks, and its appearance is shown in the figure below.





2.2 Features and specifications

processor	
Processor Class	Intel dual-core Xeon E5-26XX V3 series (supports up to two 135W)
Type interface	Intel dual-core E5-26xx V4 (or Xeon E5-26xx V3) series (supports up to two 145W) two Socket-R3 slots
Chipset	
Chipset Type	PCH C610 (Wellsburg)
Memory	
Memory type	DDR4 ECC RDIMM/LRDIMM Memory
Number of memory slots	20
Total memory capacity	Maximum supported capacity: 640 GB (single stick: 32 GB)
I/O interface	
USB interface	2 rear USB 3.0 ports, 2 internal USB 3.0 ports
Display Interface	1 front VGA port 1 rear VGA port
Serial Interface	1 rear serial port
ID indicator port	1 ID indicator light (blue) and its button
Display Controller	
Controller type	Aspeed 2400 chip integrated, maximum resolution supported 1280*1024
SAS backplane	
SAS3.0 backplane	Supports hot-swappable SAS/SATA/SSD hard drives
Network Card	
The network card controller	motherboard integrates an Intel I350 dual-gigabit network card and provides two 1000M adaptive RJ45 network ports
Management chip	
Management chip	Integrates an independent 1000Mbps network interface dedicated to IPMI remote management.
PCI expansion slots	<p>The motherboard has 6 PCI Express 3.0 slots onboard, and the external card supports vertical insertion, including</p> <p>PCIE0: CPU0, 8x + 1x, supports half-height and half-length expansion cards, supports NCSI</p> <p>PCIE1: CPU1, 8x, supports half-height and half-length expansion cards</p> <p>PCIE2: CPU1, 16x, supports half-height and half-length expansion cards</p> <p>PCIE3: CPU1, 8x (16x slot, 8 lanes), supports half-height and half-length expansion cards</p> <p>PCIE4: CPU0, 16x, supports half-height 3/4-length expansion cards</p> <p>PCIE5: CPU0, 8X, supports half-height and half-length expansion cards</p>
harddisk	
Hard Drive Type	The front 2.5/3.5-inch SAS, SATA, SSD hard disk can support up to 2 rear SATA, SSD hard disks. (Subject to the actual model you purchased)

External storage drives

Optical Drive	Slim SATA DVD drive Note: 3.5 x 12, 2.5 x 25, and 2.5 x 24 configurations cannot support the third hard disk module. Optical Drive, select USB Optical Drive.
---------------	---

Driver USB disk	Optional drive USB disk
-----------------	-------------------------

power supply

Specification	Single/dual power 550W/800W and above output power; 1+1 redundancy; 2 power modules support PMBus power supply, implementing Node Manager 3.0 functions
---------------	--

Power Input	Please refer to the power input value on the host nameplate label.
-------------	--

Physical specifications

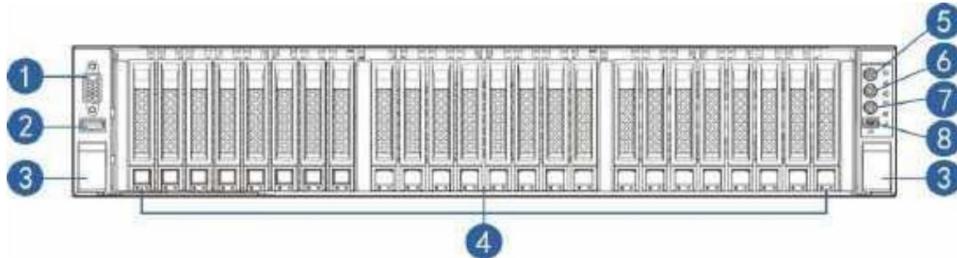
Outside dimensions of packaging box	651 width x 307 height x 971 depth (unit: mm)
Host size	447 width x 87 height x 720 depth (unit: mm)
Product Redesign	Gross weight: 35.2kg (12-slot fully equipped). (Gross weight includes host + packaging box + guide rail + accessory box)

Environmental parameters

Operating temperature	10°C – 35°C
Storage and transportation temperature	-40°C -60°C
Operating humidity	35% -80% relative humidity 20% -80% relative humidity
Storage and transportation humidity	20% -93% (40°C) relative humidity

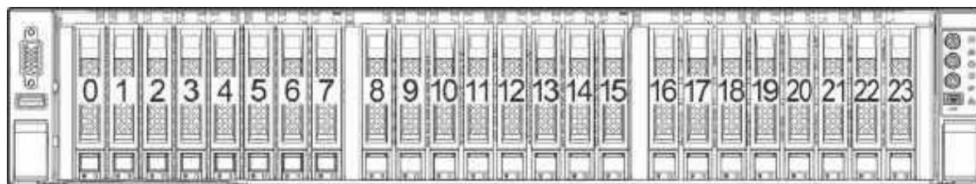
3. Front panel

1. 2.5X24 Drive Bays



serial number	Module Name
1	Front VGA port
2	Front USB 3.0 port
3	Server and cabinet fixing buckle
4	Front hard disk slot
5	Server switch button
6	D Light and button
7	System fault indicator light button
8	key LCD liquid crystal management module interface

2.5X24 hard drive slot sequence diagram

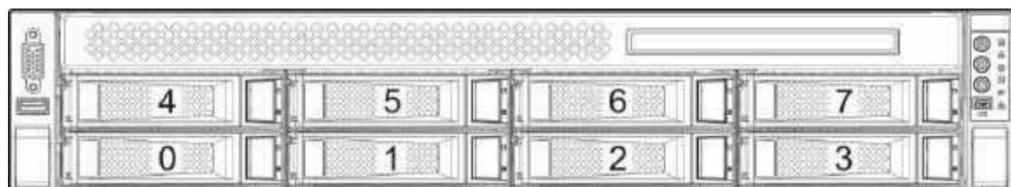


2.3.2 3.5X8 Disk Slots

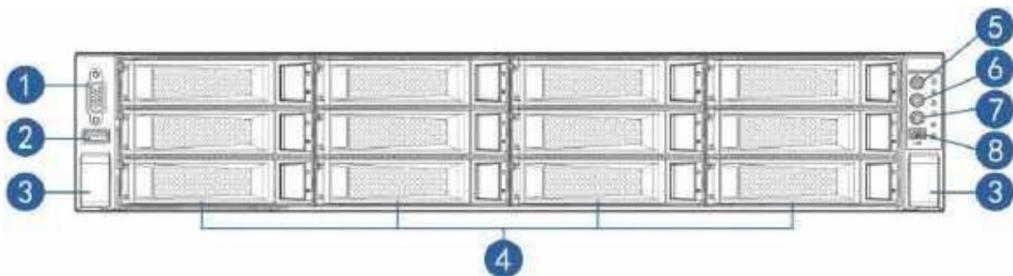


serial number	Module Name
1	Front VGA port
2	Front USB 3.0 port
3	Server and cabinet fixing buckle
4	Front hard disk slot
5	Optical Drive
6	Server switch button
7	ID light and button
8	System fault indicator button
9	LCD liquid crystal management module interface

3.5X8 hard disk slot sequence diagram

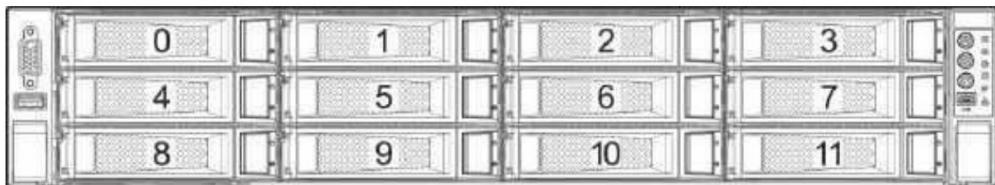


2.3.3 3.5X12 Drive Bay



serial number	Module Name
1	Front VGA port
2	Front USB 3.0 port
3	Server and cabinet fixing buckle
4	Front hard disk slot
5	Server switch button
6	ID light and button
7	System fault indicator button
8	LCD liquid crystal management module interface

3.5X12 hard disk slot sequence diagram

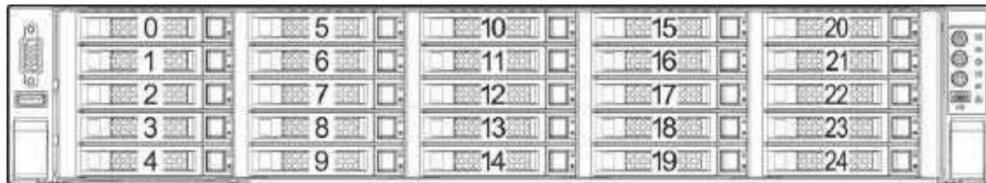


2.3.4 2.5X25 Disk Slot

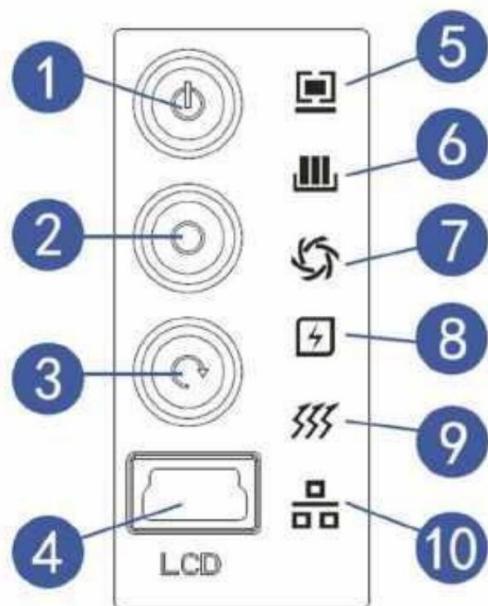


serial number	Module Name
1	Front VGA port
2	Front USB 3.0 port
3	Server and cabinet fixing buckle
4	Front hard disk slot
5	Server switch button
6	ID light and button
7	System fault indicator button
8	LCD liquid crystal management module interface

2.5 x 25 drive bay hard drive order diagram

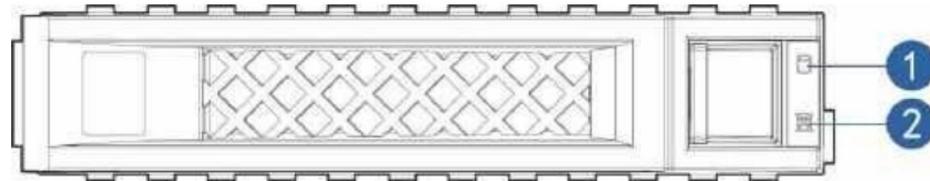


2.3.5 Front panel buttons and indicators



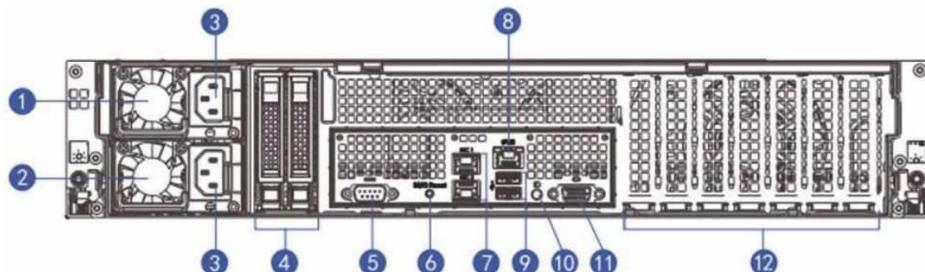
serial number	Module Name
1	Server switch button
2	ID light and button
3	System fault indicator button
4	LCD liquid crystal management module interface
5	System fault indicator
6	Memory fault indicator
7	Fan fault indicator
8	Power Failure Indicator
9	System overheat indicator
10	Network status indicator

2.3.6 Indicator lights on the hard disk tray



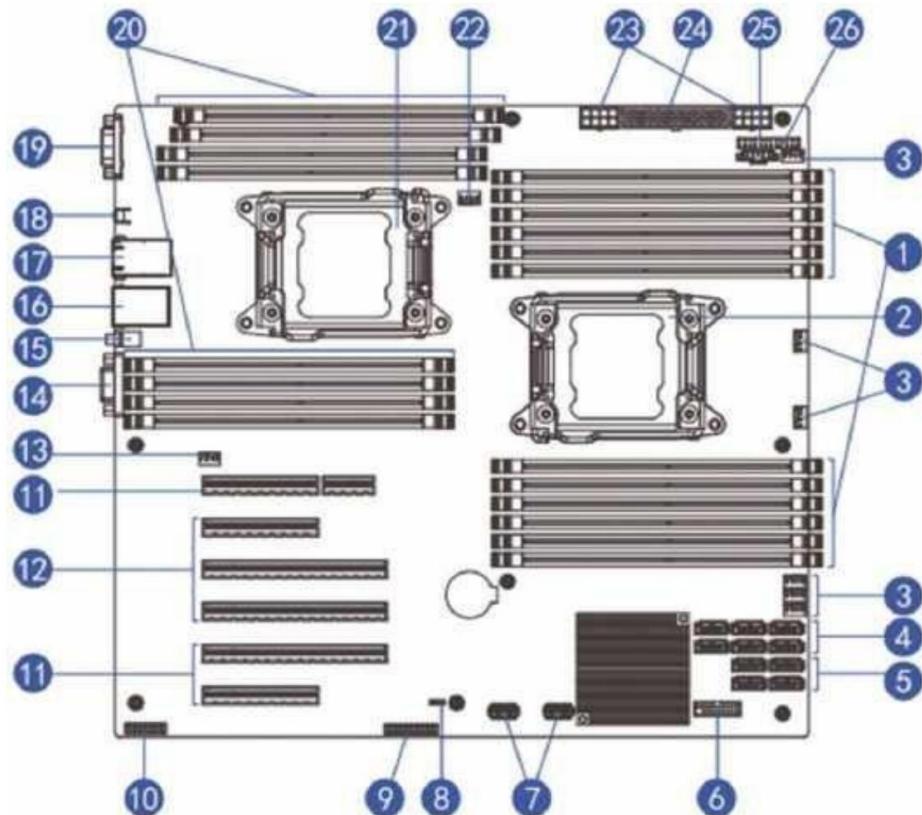
Number Number	module name module name	illustrate illustrate
1 1	Hard disk activity indicator	Steady green: Normal Solid red: Hard disk failure Flashing green: Hard disk is reading or writing
1	Hard disk failure warning indicator	Steady blue: Hard disk location Solid red: The hard disk is faulty.
	Hard disk failure warning indicator	Steady blue Steady red: The hard disk is out of service.
	Hard disk failure warning indicator	Solid blue: Hard disk location RA D Failure Reboot
2	Hard drive activity indicator	Solid blue: Hard disk location Solid blue: RAID Rebuilding Steady green: Normal Steady blue: RAID rebuilding Green flashes for hard drive read and write activity

2.4 Rear Panel



serial number	Module Name
1	PSU0
2	PSU1
3	Power cord interface
4	2.5-inch hard disk slot
5	Serial Interface
6	BMC Reset
7	Gigabit Ethernet
8	IPMI interface
9	USB interface
10	ID light and button
11	VGA port
12	PCIE Slot

2.5 Motherboard Layout



serial number	Module Name
1	Memory slot (corresponding to CPU0)
2	CPU0
3	System fan connector
4	SATA interface
5	SSATA interface
6	Front USB port
7	Built-in USB port
8	CMOS clear jumper
9	TCM Interface
10	Front VGA port
11	PCIE slot (corresponding to CPU0)
12	PCIE slot (corresponding to CPU1)
13	CPU1 fan connector
14	Rear VGA port
15	ID light and button
16	IPMI interface/Rear USB interface (2)
17	2 Gigabit Ethernet ports
18	BMC Reset button
19	Serial Interface
20	Memory slot (corresponding to CPU1)
	CPU1
	CPU0 fan connector
	8pin power connector
	24pin power connector
25	PMBUS communication interface
26	Front control panel interface

6. Introduction to motherboard jumpers

1. Clear CMOS Jumper Introduction

For jumper locations, see [2.5 Mainboard Layout].

Jumper Number	Function Description	Jumper Function
CLR_CMOS		CMOS clear jumper pins 1-2 are shorted, normal state; pins 2-3 are shorted, clear CMOS.



When clearing CMOS, the system must be shut down and the power must be cut off. Short-circuit Pin2-3 and hold for 5 seconds. Then use the jumper again.

The cap shorts the Pin1 and Pin2 of the CLR_CMOS jumper (default setting state) and restores them to the original state.



3 BIOS settings

This chapter introduces the BIOS function settings and motherboard jumpers of this server. The operations described in this section are limited to

This should only be performed by operators or administrators who are qualified to maintain the system.

BIOS is a basic input and output system that can use a special setup program to adjust system parameters and hardware parameters.

Since BIOS has a significant impact on the operation and startup of the system, setting inappropriate parameters may

It may cause conflicts between hardware resources or reduce system performance. Therefore, it is important to understand the BIOS settings.

It is very important to configure your server. If you do not have any special requirements, it is recommended that you use the factory default values.

Feel free to change the parameter settings.



1. Before changing the server BIOS settings, please record the corresponding initial settings so that you can

Often, it can be restored based on the recorded initial settings.

2. Usually the factory default settings of the system are the most optimized settings. Do not try to change them before understanding the meaning of each parameter.

3. This chapter mainly explains the commonly used settings in detail. The options that are rarely used during use are only briefly explained or not explained at all.

4. The content of BIOS will vary depending on the product configuration and will not be explained in detail here.

3.1 How to set up system BIOS

Power on the server, the system starts to boot, and when the Inspur Logo appears on the screen, the following prompt

"Press to SETUP or <TAB> to POST or <F12> to PXE Boot.", press

[DEL] key. When "Enter ng Setup..." appears in the lower right corner of the screen, the system will enter the BIOS setup.

In the BIOS main menu, you can use the arrow keys to select a sub-item and press the Enter key to enter the sub-menu.



Note: Gray options are unavailable. Items with a "y" symbol have submenus.

Control key description table

button	Function
<Esc>	Exit or return to the main menu from a submenu
"y" or "y"	Select Menu
<UP> or <DOWN>	Move the cursor up or down
<Home> or <End>	Move the cursor to the top or bottom of the screen
< + > or < - >	Select the previous or next value of the current item, set
<F1>	help
<F2>	Restore last settings
<F9>	Restoring Default Settings
<F10>	Save and exit
<Enter>	Execute a command or select a submenu

3.2 BIOS settings

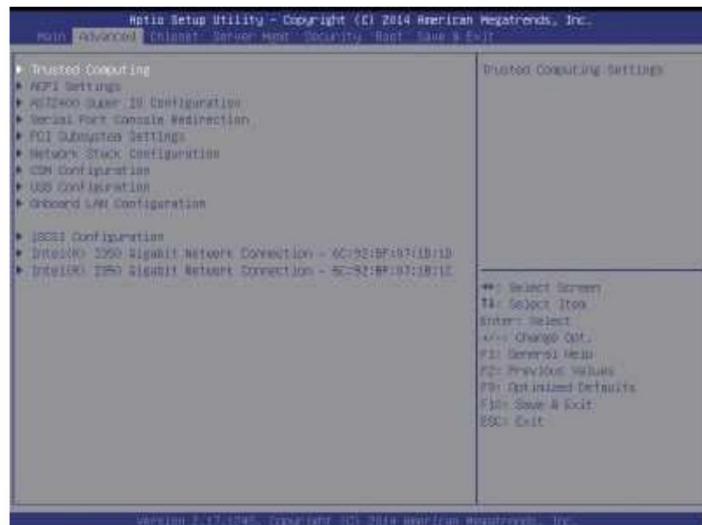
3.2.1 Main Menu



Main menu interface description table

Interface parameters	Functional Description
BIOS Information	Displays the current BIOS information
Processor Information	Display CPU information
Memory Information	Display memory capacity and current speed information
System Date (Day mm/dd/yyyy)	Display system time
System Time (hh/mm/ss)	
Access Level	Current access level

3.2.2 Advanced Menu

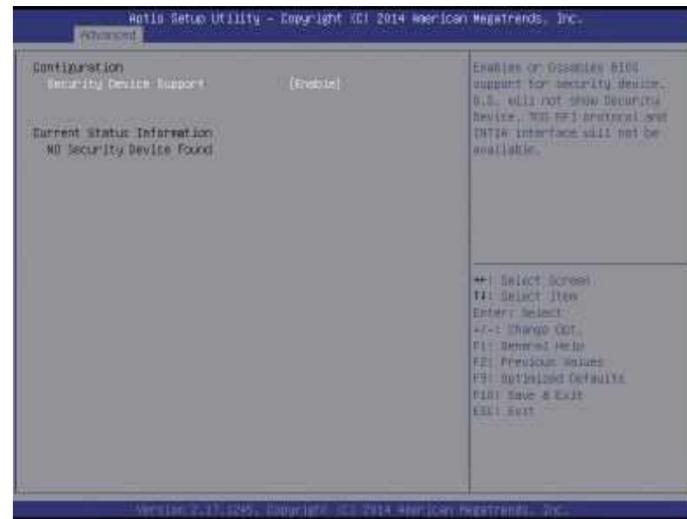




Advanced Menu Interface Description Table

Interface parameters	Functional Description
Trusted Computing	Trusted computing configuration
ACPI Settings	Advanced configuration and power interface settings
AST2400 Super IO Configuration	AST2400 I/O chip parameter configuration
Serial Port Console Redirection	Serial port console redirection settings
PCI Subsystem Settings	PCI Subsystem Settings
Network Stack Configuration	Network stack configuration
CSM Configuration	CSM Configuration
USB Configuration	USB Configuration
Onboard LAN Configuration	Onboard network card configuration

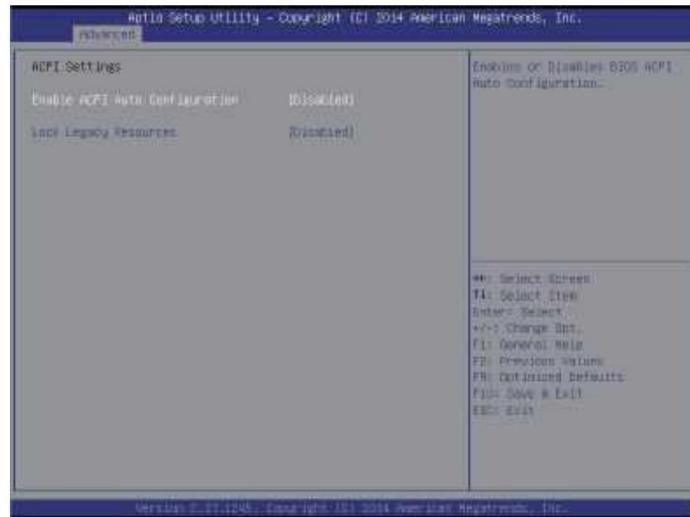
3.2.2.1 Trusted Computing



Trusted Computing Menu Interface Description Table

Interface parameters	Functional Description
Security Device Support	BIOS support settings for security settings
Current Status Information	Current security device status information

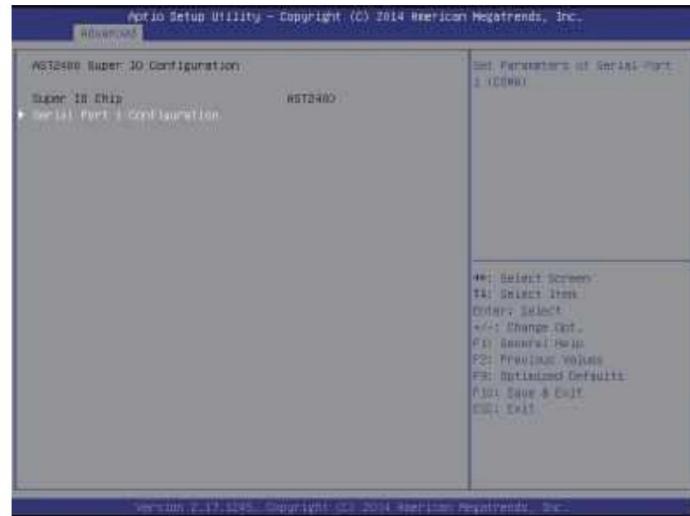
3.2.2.2 ACPI Settings



Advanced Menu Interface Description Table

Interface parameters	Functional Description
Enable ACPI Auto Configuration	Allow ACPI autoconfiguration
Lock Legacy Resources	Locking legacy resource settings

3.2.2.3 AST2400 Super IO Configuration



AST2400 Super IO Configuration Menu Interface Description Table

Interface parameters	Functional Description
Super IO Chip	Current I/O Chip
Serial Port 1 Configuration	Serial port 1 configuration

3.2.2.4 SerialPort Console Redirection

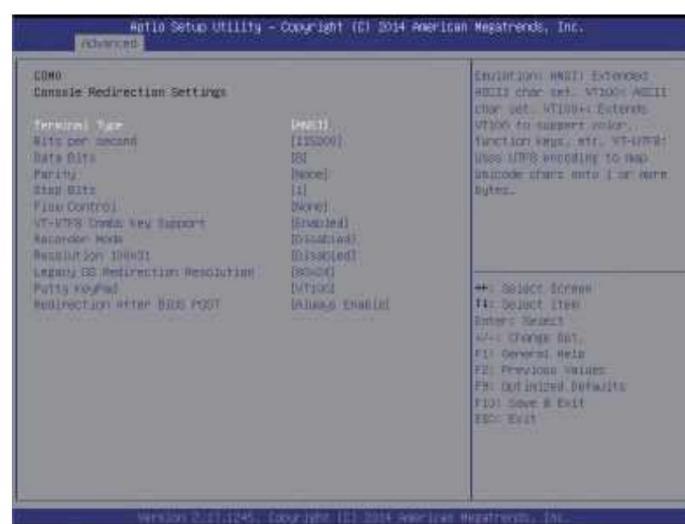


SerialPort Console Redirection Menu Interface Description Table

Interface parameters	Functional Description
Console Redirection	Console redirection switch setting
Console Redirection Settings	Console redirection parameter setting

3.2.2.4.1 Console RedirectionSettings

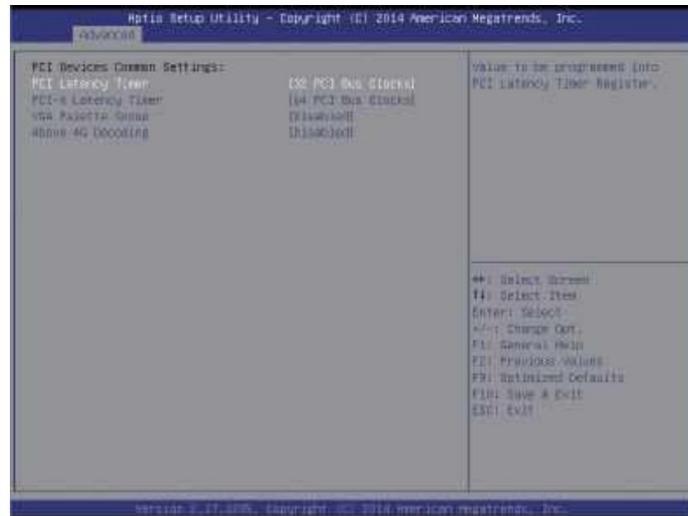
When the Console Redirection option is set to [Enabled], the Console Redirection Settings menu is turned on.



Console Redirection Settings menu interface description

Interface parameters	Functional Description
Terminal Type	Terminal type settings
Bits per second	Baud rate setting
Data Bits	Data bit setting
Parity	Parity Setting
Stop Bits	Stop bit setting
Flow Control	Flow Control Settings
VT-UTFB Combo Key Support	VT-UTFB key combination support settings
Recorder Mode	Recorder Mode Settings
Redirection 100 x 31	Extended terminal resolution settings
Legacy OS Redirection Resolution	Legacy OS Redirection Resolution
Putty KeyPad	Putty function keys and keyboard settings
Redirection After BIOS POST	BIOS Redirection Settings after Boot

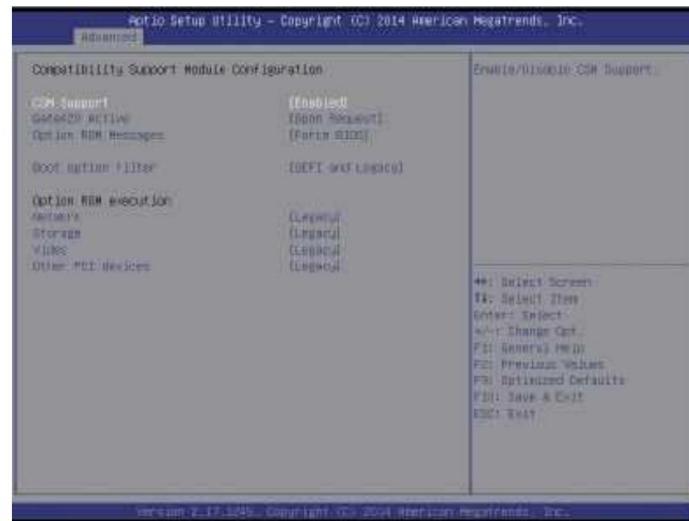
3.2.2.5 PCI Subsystem Settings



PCI Subsystem Settings Menu Interface Description Table

Interface parameters	Functional Description
PCI Latency Timer	PCI Latency Timer Settings
PCI-X Latency Timer	PCI-X Latency Calculator Settings
VGA Palette Snoop	VGA Color Correction Settings
Above 4G Decoding	Decoding settings for 4G address space on 64-bit devices

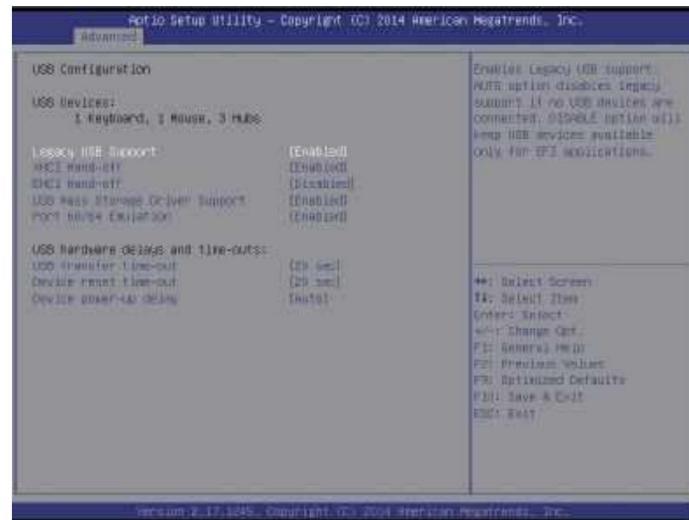
3.2.2.6 CSM Configuration



CSM Configuration Menu Interface Description Table

Interface parameters	Functional Description
CSM Support	CSM Support Basket
GateA20 Active	A20 address line control mode setting
Option Rom Message	Option Rom Display mode setting
Boot option filter	Start option filter settings
Option ROM execution	Option Rom Execution Mode
Network	Network card Option Rom execution mode setting
Storage	Storage device Option Rom execution mode setting
Video	Video Device Option Rom Execution Mode Settings
Other PCI devices	Other PCI device Option Rom execution mode settings

3.2.2.7 USB Configuration



BIOS settings

USB menu interface description table

Interface parameters	Functional Description
Legacy USB Support	Legacy USB Device Settings
XHCI Hand-off	Scalable host controller interface settings for USB 3.0
EHCI Hand-off	Enhanced host controller interface settings for USB2.0
USB Mass Storage Driver Support	USB mass storage driver support settings
Port 60/64 Emulation	USB port 60/64h emulation settings

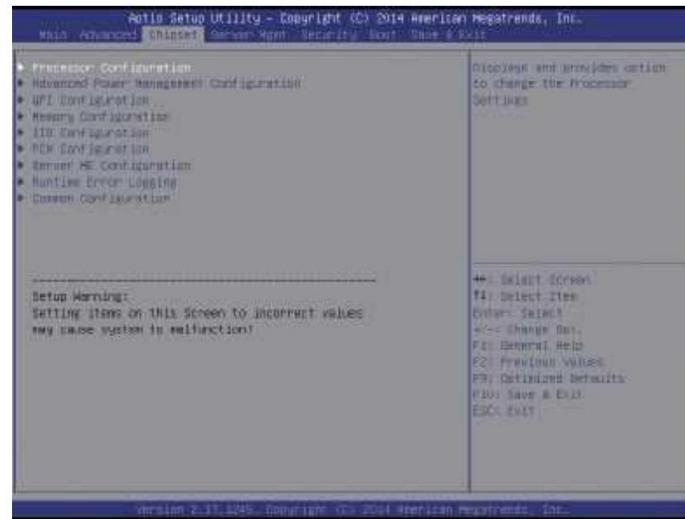
3.2.2.8 Onboard LAN Configuration



Onboard LAN Configuration Menu Interface Description Table

Interface parameters	Functional Description
Onboard NIC1 Control	Onboard network card NIC1 switch settings
Onboard NIC2 Control	Onboard network card NIC2 switch settings
Onboard NIC1 ROM	Onboard network card NIC1 PXE Oeprom switch settings
Onboard NIC2 ROM	Onboard network card NIC2 PXE Oeprom switch settings

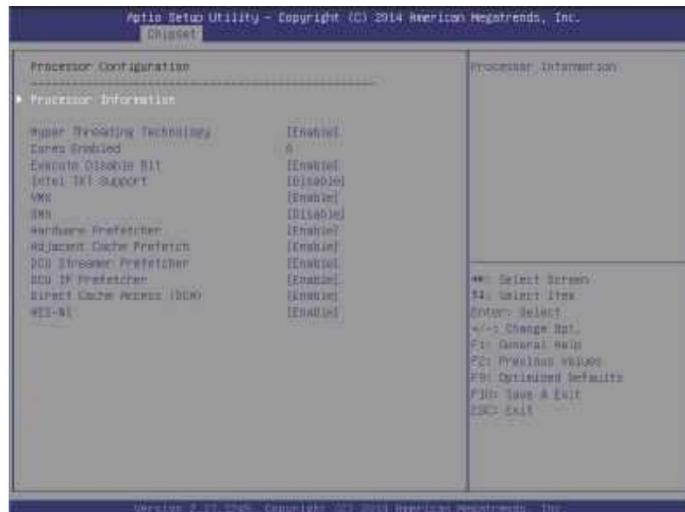
3.2.3 Chipset Menu



Chipset menu interface description table

Interface parameters	Functional Description
Processor Configuration	Processor Configuration
Advanced Power Management Configuration	Advanced Power Management Configuration
QPI Configuration	QPI Configuration
Memory Configuration	Memory Configuration
IIO Configuration	IIO Configuration
PCH Configuration	PCH Configuration
Server ME Configuration	Server ME Configuration
Runtime Error Logging	Runtime error log configuration
Common Configuration	Common option configuration

3.2.3.1 Processor Configuration



Processor Configuration menu interface description table

Interface parameters	Functional Description
Processor Information	Processor Information submenu, detailed information about the processor
Hyper Threading Technology	Hyper-Threading Technology Settings
Core Enabled	CPU core number setting
Execute Disable Bit	Virus protection technology settings
IntelTXT Support	Intel Trusted Execution Technology Support Settings
VMX	Intel Hardware Assisted Virtualization Technology Settings
SMX	Safe Mode Extended Settings
Hardware Prefetcher	Hardware Prefetch Settings
Adjacent Cache Prefetch	Neighbor Cache Prefetch Settings
DCU Streamer Prefetcher DCU	DCU Streamer Prefetch Settings
IP Prefetcher	DCU IP Prefetch Settings
Direct Cache Access (DCA)	Direct Cache Access Settings
AES-NI	IntelAES-NI Advanced Encryption Standard Settings

3.2.3.2 Advanced Power Management Configuration



Advanced Power Management Configuration Menu Interface Description Table

Interface parameters	Functional Description
Power Technology	Setting Power Management
Config TDP	TDP Settings
CPU P State Control	CPU P State Control Settings submenu, Power Technology is set to [Custom] is enabled
CPU C State Control	CPU C State Control Settings submenu, Power Technology is set to [Custom] is enabled
Energy Performance Tuning	CPU performance and power saving adjustment submenu
Socket RAPL Configuration	Turbo power limit setting submenu, EIST option needs to be set to [Enabled]
DRAM RAPL Configuration	DRAM RAPL Configuration Submenu

1. CPU P State Control



CPU P State Control Menu Interface Description Table

Interface parameters	Functional Description
EIST(P-states)	EIST switch settings
Turbo Mode	Turbo mode switch setting

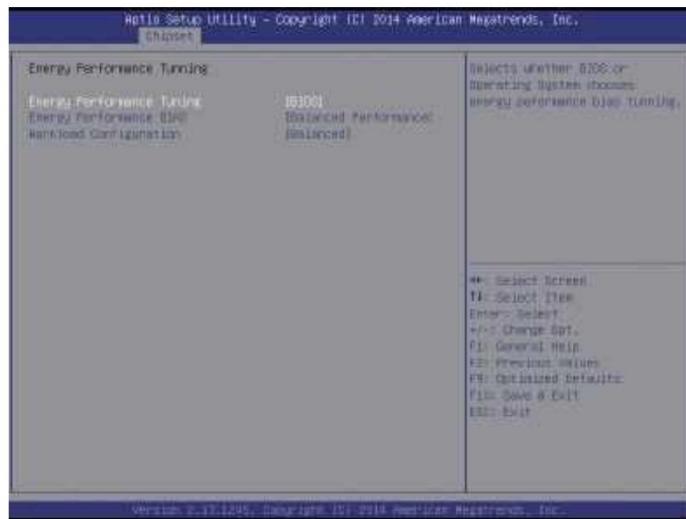
2. CPU C State Control



CPU C State Control Menu Interface Description Table

Interface parameters	Functional Description
Package C State limit	C-state limit settings
CPU C3 report	C3 switch settings
CPU C6 report	C6 switch settings
Enhanced Halt State (C1E)	C1E switch settings

3. Energy Performance Tuning

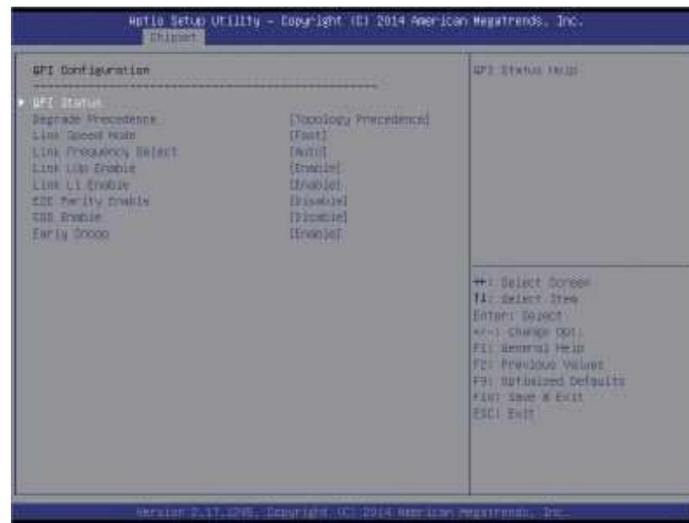




Energy Performance Tuning Menu Interface Description Table

Interface parameters	Functional Description
Energy Performance Tuning	Choose whether to use BIOS or OS for energy performance adjustment
Energy Performance BIAS	Energy saving performance management settings
Workload Configuration	Workload Configuration

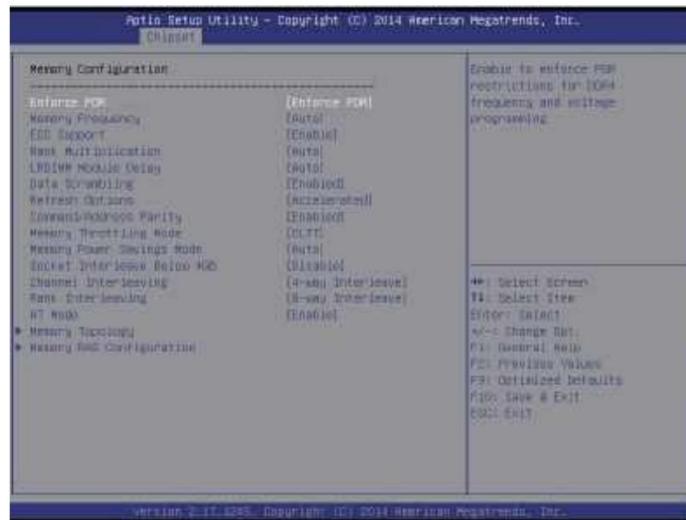
3.2.3.3 OPI Configuration



QPI Configuration Menu Interface Description Table

Interface parameters	Functional Description
OPI Status	QPI Status Display Submenu
Degrade Precedence	Downgrade to priority setting
Link Speed Mode	Link Speed Mode Settings
Link Frequency Select	Link frequency selection setting
Link LOP Enable	Link power saving mode setting, set when bandwidth is half of peak bandwidth
Link L1 Enable	When the system is very idle, adjust QPI Link to close
E2E Parity Enable	E2E parity enable setting
COD Enable	COD Enable Settings
Early Snoop	Early Snoop Settings

3.2.3.4 Memory Configuration

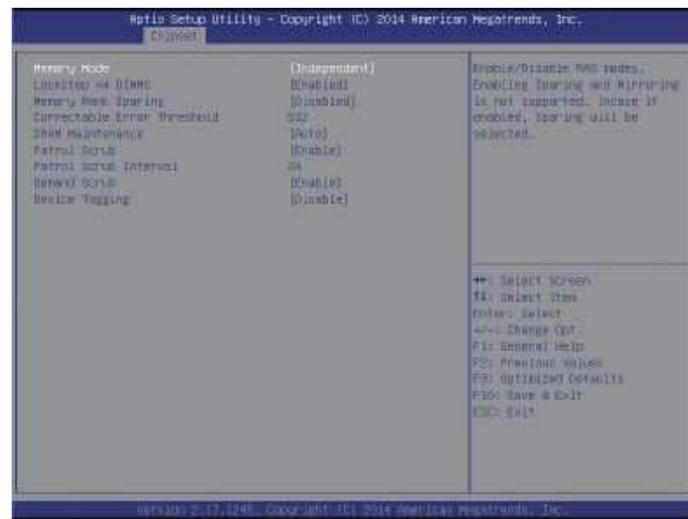


Memory Configuration Menu Interface Description Table

Interface parameters	Functional Description
Enforce POR	Execute POR setup
Memory Frequency	Memory frequency setting
ECC Support	ECC Support Settings
Rank Multiplication	Rank Multiplier Settings
LRDIMM Module Delay	LRDIMM module delay settings
Data Scrambling	Data scrambling settings
Refresh Options	Refresh mode settings
Command/Address Parity	DDR4 command/address parity settings
Memory Throttling Mode	Memory thermal management mode settings
Memory Power Savings Mode	Memory power saving mode settings
Socket Interleave Below 4GB	Processor interleaving for address spaces below 4GB
Channel Interleaving	Channel Crossover Settings
Rank Interleaving	Rank Crossover Settings
A7 Mode	A7 Mode Settings
Memory Topology	Memory topology
Memory RAS Configuration	Memory RAS Configuration Submenu



Memory RAS Configuration



Memory RAS Configuration Old single interface description table

Interface parameters	Functional Description
Memory Mode	Set the memory mode, including [Independent], [Mirroring] and [Lock Step] 3 options.
Lockstep X4 DIMMs	Lockstep switch settings for X4 DIMMs
Memo ry Rank Sparing	Memory Rank Hot Standby Settings
Correctable Error Threshold	Correctable error threshold setting
DRAM Maintenance	DRAM Maintenance Settings
Patrol Scrub	Patrol Scrub Settings
Patrol Scrub Interval	Patrol Scrub stagger setting
Demand Scrub	Demand Scrub Settings
Device Tagging	Device Tag Settings

3.2.3.5 IIO Configuration



11O Configuration menu interface description table

Interface parameters	Functional Description
IIO 0 Configuration	IIO 0 configuration submenu, used to set the Link speed of the PCIE device of CPU 0
IIO 1 Configuration	IIO 1 configuration submenu, used to set the Link speed of the PCIE device of CPU 1
I/OAT Configuration	Intel I/O Acceleration Technology Configuration Submenu
Intel VT for Directed I/O (VT-d)	Intel VT-d switch settings

3.2.3.6 PCH Configuration



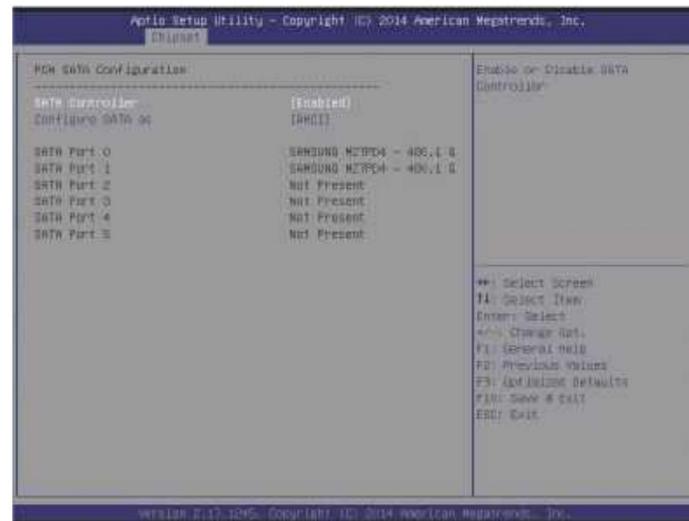
PCH Configuration menu interface description table

Interface parameters	Functional Description
Chassis Intrusion	Chassis intrusion switch settings
RestoreAC Power Loss	AC power-on power state setting
PCH sSATA Configuration	PCH sSATA Configuration Submenu
PCH SATA Configuration	PCH SATA Configuration Submenu
USB Configuration	USB Configuration Submenu

1. PCH SATA Configuration

Taking the PCH SATA Configuration menu as an example, this article introduces the onboard SATA port SATA hard disk configuration.

The sSATA Configuration menu is now available and will not be repeated.



PCH SATA Configuration Menu Interface Description Table

Interface parameters	Functional Description
SATA Controller	SATA Controller Switch Settings
Configure SATA as	Set SATA mode. There are two mode settings: [AHCI] and [RAID]
SATA Port 0/1/2/3/4/5	Onboard SATA ports 0/1/2/3/4/5 connected hard disk information

SATA RAID Mode Settings

1. Set the Configure SATA as option to [RAID], press F10 to save the setting, and restart the system.
2. During the system startup process, the screen will prompt

Press <CTRL-I> to enter Configuration Utility.

At this time, press the [Ctrl] [I] keys simultaneously to enter the SATA RAID configuration interface, as shown in the figure below.



3. After entering the SATA RAID configuration interface, the menu list information will be displayed, including the hard disks connected to the SATA controller.

Disk information (disk ID, disk model, disk capacity, and whether the disk is a volume member, etc.), existing

RAID volume information (including volume ID, name, RAID level, capacity, status, and whether it is bootable).



button	describe
f1	Used to move the cursor in different menus or change the value of menu options
TAB	Select the menu setting item
Enter	Select Menu
Esc	Exit the menu or return to the previous menu from a submenu

4. The SATA RAID configuration interface has the following 4 executable menus:

Create RAID Volume	Creating a RAID Volume
Delete RAID Volume	Delete an existing RAID volume.
Reset Disks to Non-RAID	Resets the hard drives in a RAID volume to return it to a non-RAID state.
Exit	Exit SATA HostRAID configuration interface

1) Create RAID Volume Menu

After entering the SATA RAID configuration interface, you can use the up and down arrow keys to select this menu, and then press the [Enter] key

Enter the Create RAID Volume menu, or directly enter the number key in front of the menu to enter the Create RAID Volume menu.

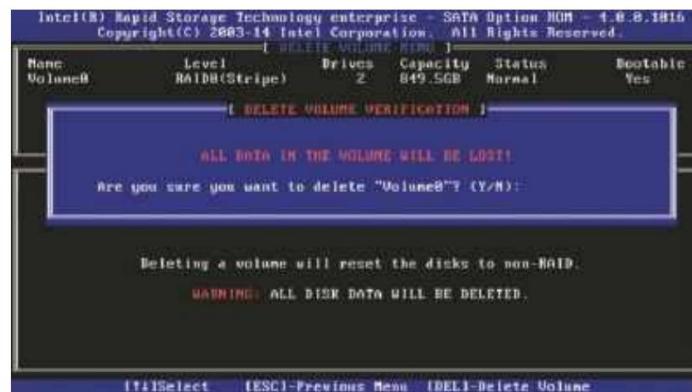
The single operation is similar and will not be repeated. The Create RAID Volume example is as follows



The system displays the following menu options:

Name	Please enter a volume name of at least 16 characters without any special characters.
	Please select a RAID volume level. If no volume has been created yet, there are RAID0 (Stripe), RAID1 (Mirror), RAID10 (RAID 0 + 1) and RAID5 (Parity) volume levels to choose from. Please select a volume level based on your actual needs.
RAID Level	<p>RAID0 allows 2 or more hard disks to form this RAID volume.</p> <p>RAID1 allows 2 hard disks to form this RAID volume.</p> <p>RAID10 allows 4 hard disks to form this RAID volume. This option is available only when the number of hard disks is 4 or more.</p> <p>RAID5(Parity) allows 3 or more hard disks to form this RAID volume.</p>
Disks	Select the hard disk to be used for RAID volume. After selecting this option and pressing Enter, you will enter the hard disk selection interface. Please use the space bar to select the hard disks to be used for RAID volume in turn, and then press Enter to return to the volume creation menu interface.
Strip Size	Please select the strip size of the volume. This option is only available for RAID 0 and RAID 5 volumes.
Capacity	Set the capacity of the volume. The default is the maximum capacity of the volume.
	<p>After completing the above settings, select [Create Volume] and press Enter. The system prompts "WARNING ALL DATA ON SELECTED DISKS WILL BE LOST. Are you sure you want to create this volume ?(Y/N)". If you are sure you want to create a RAID volume, please enter "Y" and the volume will be created. At the same time, the data on the selected hard disks will be lost.</p> <p>All will be lost.</p> <p>If you do not want to create a RAID volume, please enter "N" to exit the volume creation.</p> <p>Here we enter "Y" to create a RAID volume. After the creation is completed, return to the SATA HostRAID configuration main window.</p> <p>The interface will open and the created RAID volume will be displayed in the RAID volume.</p>

2) Delete RAID Volume Menu



Enter the Delete RAID Volume menu, the system prompts: "Deleting a volume will reset the disks to non-RAID. Warning: ALL DISKS DATA WILL BE DELETED."

If you are sure you want to delete the RAID volume, press the [DEL] key and the system will pop up a prompt again: "ALL DATA IN THE VOLUME WILL BE LOST! Are you sure you want to delete "Volume"? (Y/N)", if you confirm to delete the RAID volume, please enter "Y", if you cancel the operation of deleting the RAID volume, please enter "N".

3) Reset Disks to Non-RAID menu



Enter the Reset Disks to Non-RAID menu, and the system will display all the hard disks in the RAID volume.

You need to use the spacebar to select the hard disk to be reset, and then press the Enter key to reset the hard disk. The system will prompt again "Are you sure you want to reset RAID data on selected disks? (Y/N)", type "Y" or "N" according to the prompt. Note, When you reset a hard drive, all data on the hard drive will be lost and the hard drive will no longer belong to the RAID volume.

4) Exit Menu

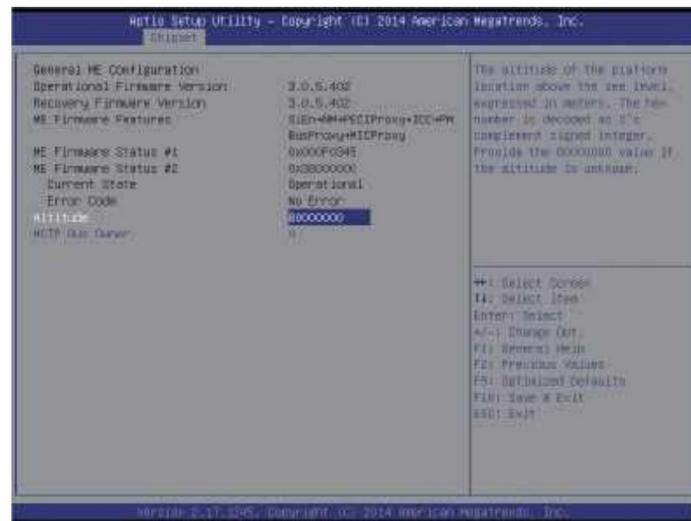


The system prompts: "Are you sure you want to exit? (Y/N):", enter "Y" to exit

In the SATA RAID configuration interface, input "N" to cancel the exit operation.



3.2.3.7 ServerME Configuration



Server ME Configuration Menu Interface Description Table

Interface parameters	Functional Description
Operational Firmware Version	ME firmware operational version
Recovery Firmware Version	ME firmware restore state version
ME Firmware Features	Features of ME firmware
ME Firmware Status #1	ME FW Status Value #1
ME Firmware Status #2	ME FW Status Value #2
Current State	Current Status
Error code	ME FW Error Code

3.2.3.8 Common Configuration



Common Configuration menu interface description table

Interface parameter function description	
MMCFG Base	MMCFG base address setting
Isoc Mode	Isoc mode setting
MeSeg Mode	MeSeg Mode Settings
Numa	Numa switch settings
BIOS Guard	BIOS protection settings
VGA Priority	Priority setting for integrated graphics and external graphics

3.2.4 Sever Mgmt



Server Mgmt Menu Interface Description Table

Interface parameters	Functional Description
BMC Firmware Version	BMC firmware version
FRB-2 Timer	FRB-2 Clock Settings
FRB-2 Timer timeout	FRB-2 clock expiration time setting
FRB-2 Timer power	FRB-2 clock expiration policy settings
OS Watchdog Timer	System watchdog timer settings
OS Wdt Timer timeout	OS watchdog clock expiration time setting
OS Wdt Timer po icy	Policy settings after OS watchdog timer expires
BMC network configuration	BMC Network Settings
System Event Log	System Event Log Submenu
View FRU information	View FRU Information Submenu
BMC network configuration	BMC Network Configuration Submenu
BMC User Settings	BMC User Settings Submenu
System Heat Information	System Health Information Submenu



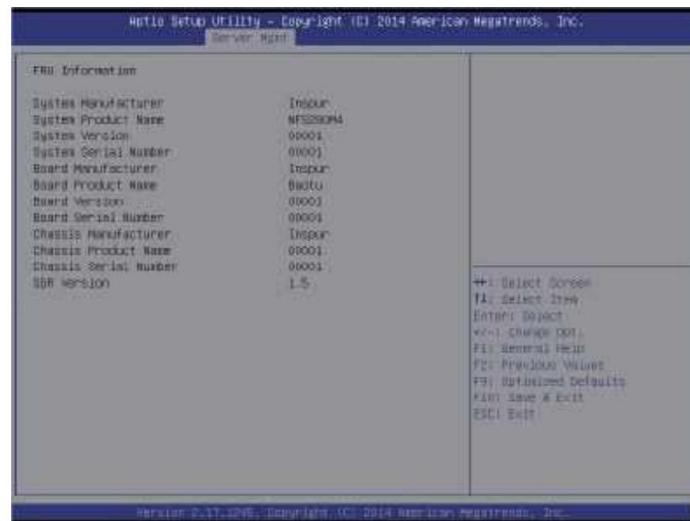
3.2.4.1 System Event Log



System Event log menu interface description table

Interface parameters	Functional Description
SEL Components	System event log switch settings during startup
Erase SEL	Erase settings for system event log
When SELs are Full	What to do when the system event log is full
Log EFI Status Codes	Record EFI status code settings

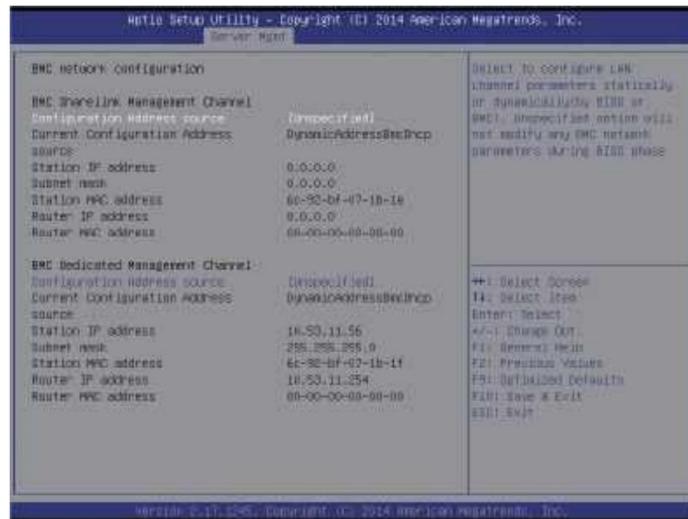
3.2.4.2 View FRU information



The View FRU information menu lists the BMC FRU information read by the BIOS.

BIOS will interact with BMC to keep FRU information updated synchronously.

3.2.4.3 BMC network configuration



BMC network configuration → Single interface description table

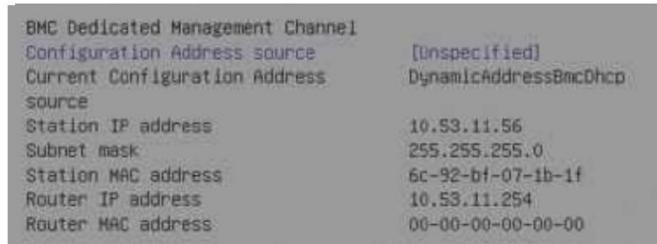
Interface parameters	Functional Description
Configuration Address Source	Configure BMC network status parameters to set static IP, dynamically obtain IP, [Unspecified] BMC network parameters will not be modified
Current Configuration Address	Current configuration address status
Station IP address	IP address of the port
Subnet mask	Subnet Mask
Station MAC address	MAC address of the port
Router IP address	Router IP address
Router MAC address	Router MAC address

The BMC network configuration in the BIOS setup interface is used to manage the BMC network through BIOS.

to configure the network.

- If the BIOS does not operate, the default is to read the BMC to its dedicated management port and sharelink

Management port settings, taking Dedicated management port as an example, BIOS read settings are as follows



- BIOS can perform Dynamic and

Static network settings, take the Dedicated management port as an example to set the BMC Static IP as follows

Set the Configuration Address source option to [Stat c] 3) Select the Stat on P address

option and press Enter. The Stat on P address box pops up.

Enter the Stat c P to be set. After setting, press Enter to confirm. The example is as shown below.



4) Select the Subnet mask item and press Enter. The Subnet mask box pops up and you can manually enter the value you want to set.

Subnet mask, after setting, press Enter to confirm. The example is as shown below



5) Select the Router IP address item and press Enter. The Router IP address box pops up. Enter the address manually.

Enter the Router IP address to be set. After setting, press Enter to confirm. The example is as shown below:



6) After the Static IP setting is completed, press F10 to save and restart. The BIOS will then configure the Static IP setting for the BMC.



3.2.4.4 BMC User Settings



BMC User Settings menu interface description table

Interface parameters	Functional Description
Add User	Add user submenu
Delete User	Delete User Submenu
Change User Settings	Modify User Settings submenu

1. Add User operation



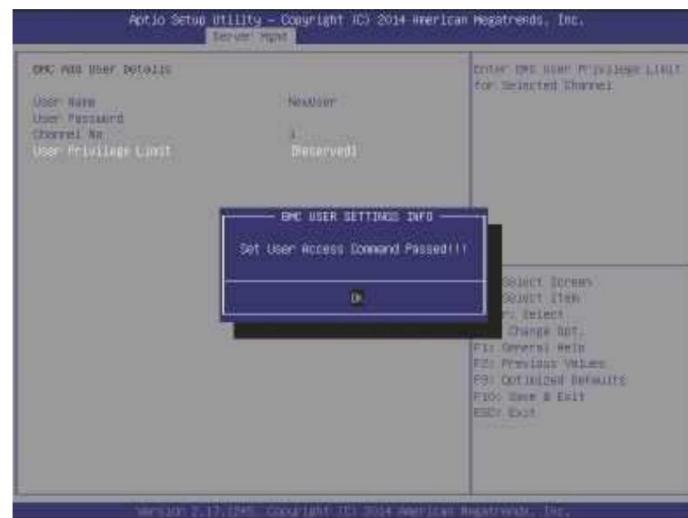
- 1) Select the User Name item and press Enter. The User Name box pops up and you can manually enter the user name you want to set.
After setting, press Enter to confirm.

- 2) Select the User Password item and press Enter. A User Password box will pop up. Enter the password you want to enter manually.

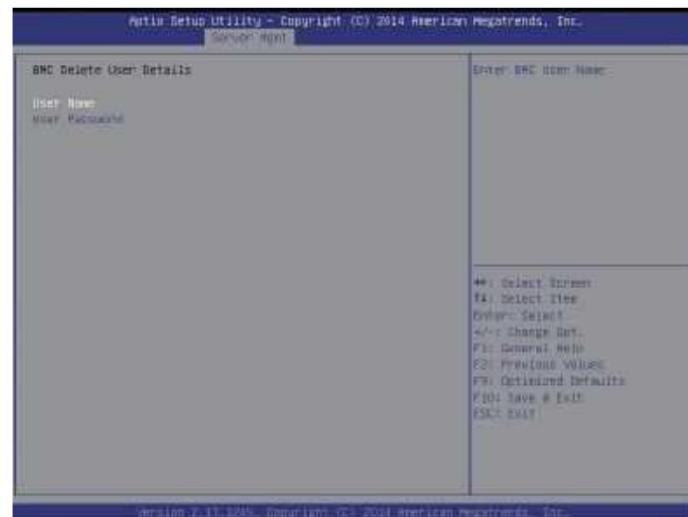
After setting the user password, press Enter to confirm.

- 3) Channel NO is set to 1 or 8.
- 4) User Privilege Limit, set the permissions for the new user. After setting, press Enter.

The BMC USER SETTINGS INFO prompt box pops up. When the prompt "Set User Access Command Passed", press Enter key OK to confirm, the user is added successfully, the example is as follows



2. Delete User Operation

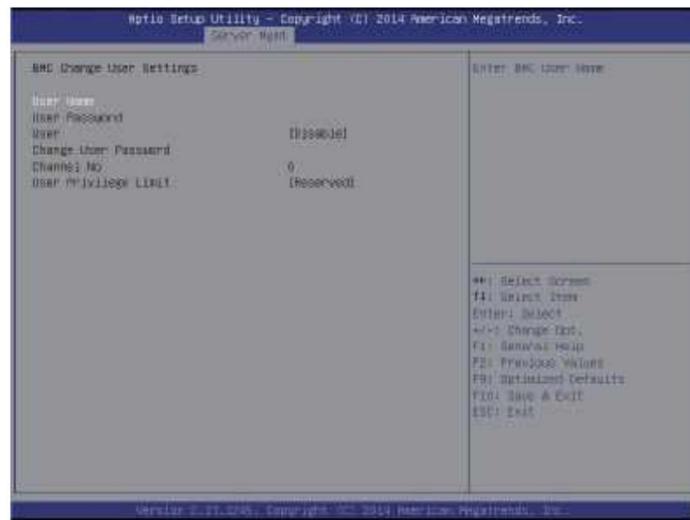


- 1) Select the User Name item and press Enter. The User Name box pops up. Manually enter the user name to be deleted and press Enter to confirm.
- 2) Select the User Password item, press Enter, the User Password box pops up, enter manually

After entering the password to be deleted, press Enter to confirm. The BMC USER SETT NGS NFO pop-up window will appear.

Prompt box to indicate whether user deletion is successful or failed.

3. Change User Settings



1) Select the User Name item and press Enter. The User Name box pops up. Manually enter the user name to be modified. After setting, press Enter to confirm.

2) Select the User Password item and press Enter. The User Password box pops up. Enter the user password manually and press Enter to confirm.

3) Select the User item and set [Enable] or [Disable]. **4)** Select the

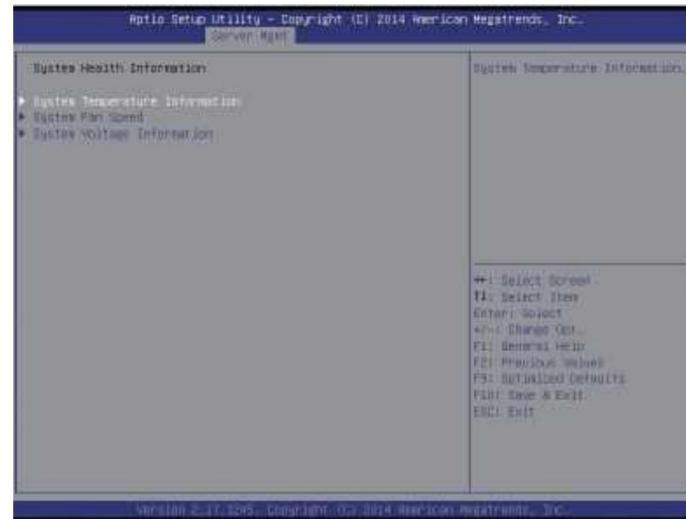
Change User Password item and change the user password.

5) Channel NO is set to 1 or 8.

6) User Privilege Limit item, you can modify the user's permissions. After setting, press Enter key.

The BMC USER SETT NGS NFO prompt box pops up. When prompted "Set User Access Command Passed", press Enter to confirm. The user settings are modified successfully.

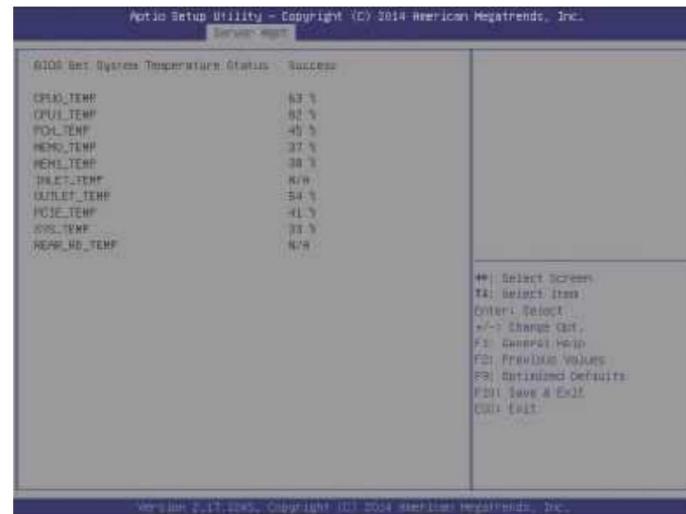
3.2.4.5 System Health Information



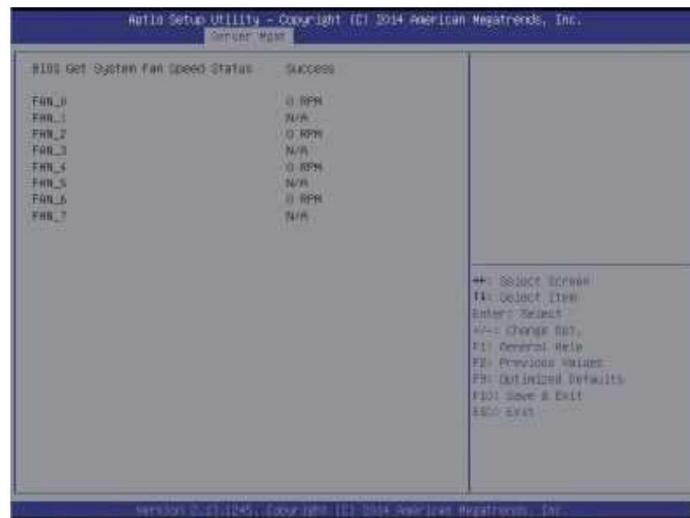
System Health Information single interface description table

Interface parameters	Functional Description
System Temperature Information	System temperature information submenu
System Fan Speed	System Fan Speed Submenu
System Voltage Information	System voltage information submenu

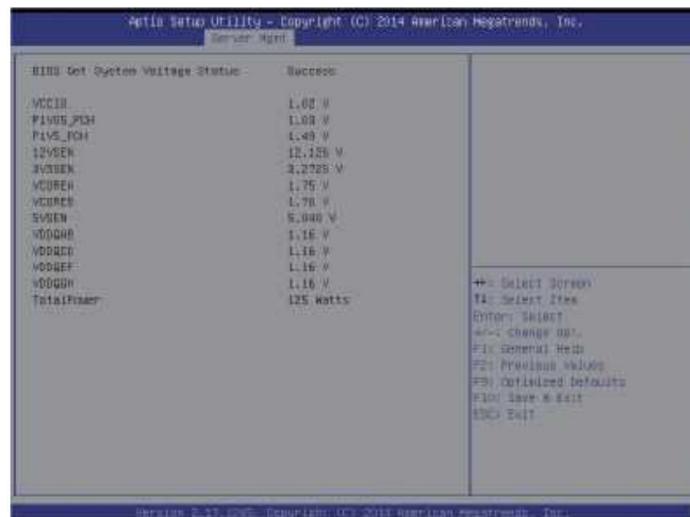
1. System Temperature Information



2. System Fan Speed



3. System Voltage Information



3.2.5 Security Menu



Security Menu Interface Description Table

Interface parameters	Functional Description
Administrator Password	Create an administrator password
User Password	Create a normal user password

3.2.6 Boot Menu



BIOS settings

Boot Configuration Menu Interface Description Table

Interface parameters	Functional Description
Bootup Num Lock State	Setting the status of the number lock key on the keyboard after startup
Boot Options Retry	Start device polling settings
Quiet Boot	Quiet startup, this option is set to Enabled, the machine logo is displayed as the manufacturer Set the logo, set it to disabled, and the startup logo is the default of AMI Logo.
Boot Option Priorities	Startup item priority setting
Boot Option #X	
Hard Driver BBS Priorities	Hard disk device BBS priority setting
Network Device BBS Priorities	Network device BBS priority setting

How to set up BIOS Boot?

Enter the Boot operation interface, use the up and down keys to move the cursor to Boot option #X to select, and set the system

The startup sequence of the system, X--- is 1, 2, 3, etc., as shown in the following figure.



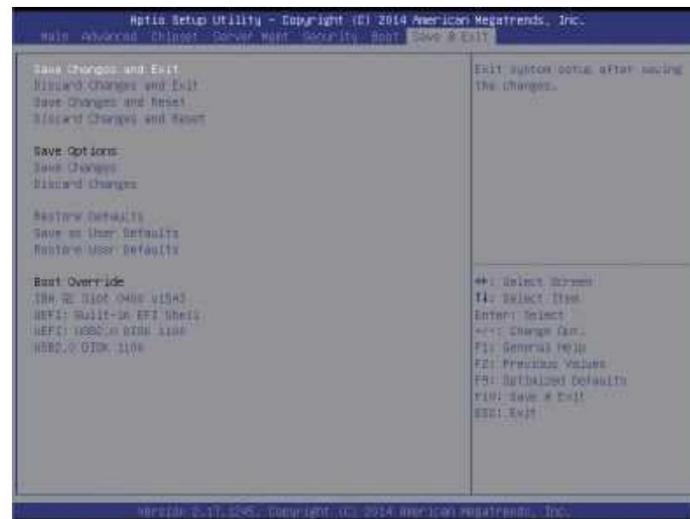
Take Boot option #1 as an example. You can set the first boot item of the system. Move the cursor to Boot option #1 and press

Enter key, a pop-up list of boot items is displayed, such as IBA GE slot 0400 v1543, UEFI: Built-in EFI Shell,

UEFI: USB2.0 DISK 1100, USB2.0 DISK 1100, etc. Use the up and down keys to select an item, such as USB2.0 DISK

1100, press Enter to select the USB DOS disk as the first startup item of the system.

3.2.7 Save & Exit Menu



Save & Exit Menu Interface Description Table

Interface parameters	Functional Description
Save Changes and Exit	Save and exit
Discard Changes and Exit	Abandon modification and exit
Save Changes and Reset	Save changes and restart
Discard Changes and Reset	Abandon changes and restart
Save Changes	Save changes
Discard Changes	Abandon changes
Restore Defaults	Restore factory settings
Save as user Defaults	Save as Default
Restore user Defaults	Restore user settings
Boot Override	The startup item is overloaded. You can select the startup items listed below to start

3.3 Firmware Update

1. BIOS upgrade version, you can choose to update under DOS or OS.

Use afudos tool to upgrade BIOS in DOS

The system boots from the USB DOS boot disk, enters the directory where the afudos tool is located, and the corresponding new version of BIOS

The bin file has been placed in the folder. Execute the command afudos BIOS.bin /b /p /n /x /me to update the BIOS version.

This and ME, BIOS.bin is a bin file of the new version of BIOS, the example is as follows

```

C:\AFUDOS\afudos BIOS.bin /b /p /n /x

AMI Firmware Update Utility v5.06.00
Copyright (C)2014 American Megatrends Inc. All Rights Reserved.

Reading flash ..... done
ME Data Size checking .. ok
Secure Flash enabled, recalculate ROM size with signature...
FTS Checksums ..... ok
Loading capsule to secure memory buffer ... done
Erasing Boot Block ..... done
Updating Boot Block ..... done
Verifying Boot Block ..... done
Erasing Main Block ..... done
Updating Main Block ..... done
Verifying Main Block ..... done
Erasing NVRAM Block ..... done
Updating NVRAM Block ..... done
Verifying NVRAM Block ..... done
Update success for /F11!
Successful Update Recovery Loader to UP8xx!!
Successful Update FPT, MF88, FPTP and MF811
ME Entire Image update success !!
WARNING : System next power-off to have the changes take effect!

```

When the ME part is unchanged, to upgrade the BIOS part, just execute the command afudos BIOS.bin /b /p

/n /x.

Parameter Description:	/b -- Program Boot Block
	/p -- Program Main BIOS
	/n -- Program NVRAM
	/x – Don't Check ROM ID
	/me -- Program ME Entire Firmware Block

2. Use afulnx tool to upgrade B OS in Linux OS. The afulnx

tool for Linux OS is divided into 32-bit and 64-bit. Taking Linux 64bit OS as an example, use

afulnx_64 tool, enter the directory where the afulnx_64 tool is located, and put the corresponding BIOS bin file into the folder, and enter the command ./afulnx_64 BIOS.BIN /P /B /N /X /R. The example is as follows

```

root@localhost:~# afulnx_64 BIOS.BIN /b /p /n /x
AMI Firmware Update Utility v5.06.01
Copyright (C)2014 American Megatrends Inc. All Rights Reserved.

Reading flash ..... done
ME Data Size checking .. ok
Secure Flash enabled, recalculate ROM size with signature...
FTS Checksums ..... ok
Loading capsule to secure memory buffer ... done
Erasing Boot Block ..... done
Updating Boot Block ..... done
Verifying Boot Block ..... done
Erasing Main Block ..... done
Updating Main Block ..... done
Verifying Main Block ..... done
Erasing NVRAM Block ..... done
Updating NVRAM Block ..... done
Verifying NVRAM Block ..... done
Update success for /F11!
Successful Update Recovery Loader to UP8xx!!
Successful Update FPT, MF88, FPTP and MF811
ME Entire Image update success !!
WARNING : System next power-off to have the changes take effect!

```

When the ME part is modified, to upgrade the BIOS part, you need to execute the command afudos BIOS.bin /b /p /n /x

/me, parameter description is the same as DOS.

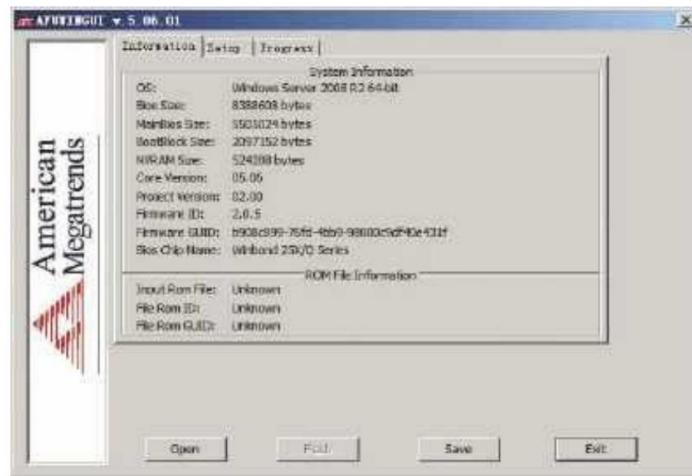
3. Use afuWin tool to upgrade BIOS under Windows OS

The Windows OS afuwin tool also has 32-bit and 64-bit versions. afuwinx64.exe uses the 64-bit

OS, run the command prompt, enter the directory where the afuwinx64.exe tool is located, put the corresponding BIOS bn file into the folder, and enter the command afuwinx64.exe BIOSBIN /P /B /N /X /R to update the BIOS file

At the same time, Windows provides a GUI method to refresh the BIOS. Take Windows 2008 R2 OS as an example, use AFUWINGUI tool updates the BIOS.

- 1) Run the AUWINGUI.EXE tool, as shown below

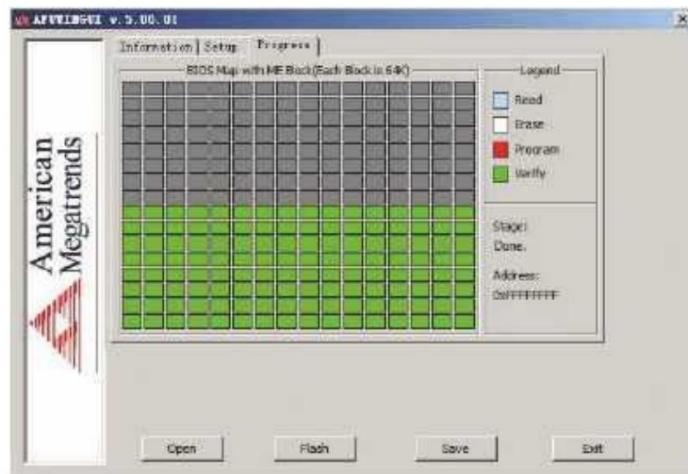


- 2) Click the Open button, select the BIOS.BIN file to be upgraded, and then automatically enter the Setup interface.



3) Select Program all Blocks and Do Not Check ROM D in the Setup interface, click the flash button, and the flash will automatically

Enter the Progress interface and execute the BIOS update in sequence according to the colors on the right. The BIOS update is completed as shown below





4 BMC Settings

4.1 Introduction

Introduce the specifications and main functions followed by the management

software. Inspur server management software has realized the control unit of server management and is compatible with the server industry management standards.

IPMI2.0 specification.

Mainly realize the following functions

Remote control

The server can be controlled through KVM (Keyboard Video and Mouse), SOL (Serial Over Lan), virtual media and other functions.

Note: The SOL function must be implemented through third-party tools such as IPMITool.

Alarm management

Report alarm information in real time and take corresponding actions based on the information.

Condition monitoring

Monitor the various operating states of each monitoring unit in real time.

Equipment information management

Provides device version information, model and asset information.

Heat dissipation control

Able to dynamically adjust fan speed based on ambient temperature and workload.

Support IPMITool tool management

Supports command operations sent by IPMITool. You can download IPMITool by yourself.



Note: IPMITool download website: <http://ipmitool.sourceforge.net/manpage.html>
<https://codeberg.org/IPMITool/ipmitool>

Support WEB interface management

Provides friendly visual interface management, you can quickly complete the setting and query tasks through simple interface clicks.

Support centralized account management

Supports centralized storage of accounts in Active Directory servers, directing the authentication process to the server, and implementing domain account login management system.

4.2 Functional Modules

Introduce the module composition of Inspur server management system and the functions of each module.

4.2.1 Module composition

Inspur server management system mainly consists of IPMI module, command line module, WEB module, KVM Over IP , virtual media, etc.

The command **module** implements the call to the IPMI module. Users operate the IPMI module through command lines.

The **WEB** module implements daily management of the server in the form of a visual interface by calling IPMI commands.

And the WEB module integrates the functions of KVM and virtual media.

4.2.2 Introduction to IPMI Module

The IPMI module implements server system management functions according to the IPMI2.0 standard.

The functions implemented by the IPMI module are:

Real-time monitoring of the **system**

When a fault is detected, the alarm can be reported, indicated and the system self-protection can be started.

Remote control of the **system**

It can realize management requirements such as remote power on and off, and resetting business systems through command lines and the Web.

4.2.3 Command Line Function Introduction

The command line module includes query and setting commands for network, sensor, fan, user management, system, server, etc.

4.2.4 Remote Control Module Introduction

Remote control module includes

KVM Over IP means that users can use the local video, keyboard, and mouse on the client to control the remote device.

Monitor and control to achieve real-time operation of remote equipment management.

Virtual media provides access to the local disk in the form of virtual CD-ROM and floppy disk drives on the server through the network.

Remote access to local media (CD-ROM drive, floppy disk drive, or CD-ROM/floppy disk image files).

If the

Java runtime environment does not meet the requirements, you can log in to <http://www.oracle.com/technetwork/java/javase/downloads/index.html> Download.

4.3 Web Interface Introduction

Seki Senbon

This chapter describes the Web interface of the management system and the steps for logging into the Web interface.

[Log in to the web interface](#)

This section describes how to log in to the Web interface.

[Web interface introduction](#)

Describes the layout of the web interface.

4.3.1 Log in to the Web interface

This guide uses the Windows 7 operating system

Firefox browser as an example to introduce how to log in to the Web management interface.

Steps.



Note: When operating the interface through the Web, a maximum of 20 users can log in at the same time.

Step 1 Ensure that the management network ports of the client and server are connected.

Step 2 Open the browser and enter "http://ipaddress" in the address bar. (Where ipaddress

The IP address of the management network port. For details on how to confirm the IP address, see the appendix Confirming the IP address of the management network port.

Step 3 The login interface pops up, as shown below.

1. Enter your username and password

Description The system provides a default user "admin" in the administrator user group, and the default password is "admin".

2. Click "Login" to enter the management interface.



4.3.2 Web Interface Introduction

The Web interface helps users complete server management through a visual and friendly interface.

Online help is available from any interface by clicking



button to query the description and operation instructions of this interface.

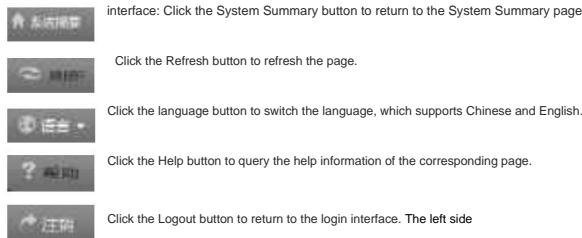
guide.

The web interface is divided into four parts, as shown in the figure below.



The upper left corner of the [interface](#) indicates the name of the web interface.

- Meaning of the buttons in the upper right corner of the



of the [interface](#) is the navigation tree. Through the nodes in the navigation tree, you can select different function interfaces.

The functions implemented include viewing the overall overview, viewing system information, remote control, power management, querying events and

Log, real-time monitoring, diagnosis and positioning, system maintenance, system configuration and other functions. For a detailed introduction of each function, please refer to

See the following chapters.

The right side of the [interface](#) is the detailed operation interface.

4.3.3 General Overview

Click System Summary to open the "System Summary" interface, as shown below.



4.3.4 System Information

Select "System Information" in the navigation tree, including "Asset Information", "Hardware Monitoring", "Device Status",

There are five interfaces of "FRU Information", as shown in the figure below.

- Asset information displays system configuration information, including CPU, memory, PC E device, and Mac address information.
- Hardware monitoring displays real-time monitoring information, including temperature sensors, voltage sensors, fan speed, power, Processor status, memory status, and power module status information.

Device Status displays the status information of the front hard disk.

FRU Information Displays FRU information.

资产信息							
No.	名称	型号	已插入状态	插拔次数(次)	一插拔状态(次)	二插拔状态(次)	三插拔状态(次)
0	固态硬盘	NA	NA	NA	NA	NA	NA
1	固态硬盘	NA	NA	NA	NA	NA	NA

硬件监控					
传感器名称	状态	下限值	上限值	上界值	
CPU_TEMP	正常	NA	72 °C	105 °C	
GPU_TEMP	正常	NA	NA	102 °C	
PSU_TEMP	正常	NA	48 °C	102 °C	
MEMO_TEMP	正常	NA	42 °C	95 °C	
MEMY_TEMP	正常	NA	NA	95 °C	
INLET_TEMP	正常	NA	NA	40 °C	
OUTLET_TEMP	正常	NA	NA	NA	
PDU_TEMP	正常	NA	NA	NA	
SYS_TEMP	正常	NA	NA	NA	
REAR_HD_TEMP	正常	NA	NA	60 °C	

系统设备状态	
状态	
注意：进入该页后需要通过“设备管理器”才能查看本页数据。	

FRU信息	
类别	机架位置
FRU Device ID	0
FRU Device Name	SSD_7100

4.4 Remote Control

Select "Remote Control" on the navigation tree to open the remote control interface. The remote control interface contains six interfaces: "Console Redirection (KVM)", server power on/off control, server positioning, remote session settings, virtual media settings, and mouse mode settings, as shown in the figure below.

Console redirection (KVM): Pop up the KVM console window.

Server power on/off control: control the startup, shutdown, and restart of the server.

Server location: Turn on/off the location light.

· Remote session settings: Set KVM session encryption, media encryption, and virtual media connection mode.

· Virtual media settings: Set the number of virtual media (floppy disk, optical drive, hard disk,

etc.). · Mouse mode settings: Set the mouse working mode of the KVM remote console.

The image displays four screenshots of the BMC settings 'Remote Control' interface, each showing a different configuration page:

- KVM Console:** Shows options for opening a KVM console window (using KVM Over IP or serial port) and a KVM session configuration section with maximum and minimum session counts.
- Power Control:** Shows a 'Power On/Off' section with a dropdown menu for power status (开机, 关机, 重新启动, 电源, 电源开/关) and a 'Perform Action' button.
- Session Settings:** Shows a 'Session Position' section with system boot status (已启动), timeout length (30s, 10s, 20s, 10m, 其他, 5), and a 'Position' tab.
- Mouse Mode:** Shows a 'Mouse Mode' section with 'Enable' checkboxes for 'Enable' and '媒体连接' (Media Connection).

■ 电源冷却设置

机架设备	1U
C0M0设备	1U
硬盘设备	1U
50W风扇控制	100%

■ 电源模式设置

电源运行模式	● 正常模式
冷却模式	<input type="radio"/> 恒温模式 (推荐Linux运行系统使用, Redhat除外) <input type="radio"/> 低功耗模式 (推荐Windows和Redhat Linux运行系统使用) <input type="radio"/> 其他模式 (推荐SUSE和Ubuntu系统使用)

4.5 Power supply and heat dissipation

Select "Power and Cooling" in the navigation tree to open the Power and Cooling page. The Power and Cooling page contains

Power Monitoring: Power Management, and Fan Speed Control, as shown below. **Power Monitoring :**

includes power module status, alarm status, temperature, input power, output power, input

Voltage, output voltage, input current, output current, and power module firmware version information.

Power management : Includes the power module in-place status, current status, and active/standby mode switching functions.

Fan speed control | Includes fan status, current speed information, and speed control function.



Note: Fan speed control includes the following speed levels:

-Low gear duty cycle about 20%

-Medium speed gear: about 50% duty cycle

-High speed gear : about 80% duty cycle

- Full speed gear |100% duty cycle

编号	在位	类型状态	温度(C)	输出功率(W)	输入功率(W)	输入电压(V)	输出电压(V)	输出功率	状态
0	●	NO WARNING	36	45	21	325	13	1.0 A	Standby
1	●	Run	31A	45W	20A	325	13A	1.0A	Standby

The screenshot shows the BMC Settings interface. At the top, there's a table for power supplies (PSU) with two rows: PSU0 (status: N/A, action: Switch to Standby) and PSU1 (status: Main Power, action: Switch to Standby). Below this is a legend for 'Status' (Green dot = In place, Grey dot = Not in place). A section for 'Fan Speed Control' follows, with a note about current fan speed (0 RPM above + no hard disk drive configuration). It includes a 'Manual Fan Speed Control' button and a table for four fans (FAN_SYS_0 to FAN_SYS_3) with current speeds (e.g., 2754 ± 15%) and control options (Low, Medium, High, Full). A legend for 'Status' (Green dot = Normal, Red dot = Severe, Grey dot = Unavailable) is also present.

编号	在位	当前状态	主/备切换
PSU0	●	N/A	切换至备用
PSU1	●	主输出	切换至备用

说明
●在位 ●不在位

■ 手动控制风速

当前散热量配置: 0转以上+无硬盘驱动器配置

○ 手动控制风扇

编号	状态	当前转速	风速控制
FAN_SYS_0	●	N/A	低速(20%) 中速(50%) 高速(80%) 全速(100%)
FAN_SYS_1	●	2754 (±15%)	低速(20%) 中速(50%) 高速(80%) 全速(100%)
FAN_SYS_2	●	2754 (±15%)	低速(20%) 中速(50%) 高速(80%) 全速(100%)
FAN_SYS_3	●	3648 (±25%)	低速(20%) 中速(50%) 高速(80%) 全速(100%)

说明
●正常 ○严重 ●不可用

4.6 BMC Settings

Select "BMC Settings" in the navigation tree to open the BMC Settings page. BMC Settings includes "BMC Network"

, "Service Settings", "NTP Settings", "SMTP Settings", "Alarm Management", "Active Directory Settings"

, "LDAP/ED rector", "User Settings", "IP Access Control", "NCSI Network Card Selection" 10 pages, as shown in the figure below.

- BMC network includes BMC network configuration (static IP, DHCP), DNS settings, and network interface binding functions.
- Service settings configure BMC's Web service, KVM service, SSH service, and te net service.

NTP settings: Set the BMC time. There are two ways to set the BMC time.

ÿ Synchronize from NTP server

ÿ Manual time setting

- SMTP settings Set the SMTP server information related to alarms.
- Alarm

management Set the event filtering, alarm target and other information of the BMC management module alarms.

Active **Directory** Settings: Set up the BMC Active Directory.

- LDAP/ED rector: Set up BMC's LDAP.
- User settings: Manage BMC users,

including adding users, deleting users, and changing passwords.

- IP access control configures the IP address segment that can access the BMC.

NCSI network card selection includes NCSI network card switching and NCSI working mode switching functions.

BMC网络设置

网络		DNS	网络接口绑定
局域网接口	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="button"/>
局域网设置	<input checked="" type="checkbox"/>	启用	<input type="button"/>
MAC地址	<input type="text"/>		
IPV4配置			
自动获取IP地址	<input checked="" type="checkbox"/>	启用DHCP	<input type="button"/>
IPV4地址	<input type="text"/>		
子网掩码	<input type="text"/>		
默认网关	<input type="text"/>		
VLAN配置			
VLAN设置	<input checked="" type="checkbox"/>	启用	<input type="button"/>
VLAN ID	<input type="text"/>		
VLAN优先级	<input type="text"/>		

保存 备份

电源设置

#	电源名称	电源状态	UUID	电源连接时间	电源端口号	ABUS	最大负载	有效负载
1	电源1	待机	0000	2019-01-01 10:00:00	443	1552	20	10
2	PSU1	待机	0000	2019-01-01 10:00:00	792	NA	5	5
3	PSU2	待机	0000	2019-01-01 10:00:00	3124	NA	1	1
4	PSU3	待机	0000	2019-01-01 10:00:00	3125	NA	1	1
5	PSU4	待机	0000	2019-01-01 10:00:00	3126	NA	1	1
6	PSU5	无源	NA	NA	32	NA	NA	NA
7	PSU6	无源	NA	22	NA	100	NA	NA

串行设置

COM1	<input type="text"/>	<input type="button"/>
波特率	<input type="text"/>	<input type="button"/>
校验位	<input type="text"/>	<input type="button"/>
RTS/CTS	<input type="text"/>	<input type="button"/>
HTTP端口	<input type="text"/>	<input type="button"/>

重置 保存 备份

SNMP设置

SNMP读权限	<input type="text"/>	<input type="button"/>
禁用读权限	<input type="text"/>	
主SNMP服务器		
SNMP连接	<input type="text"/>	
SNMP服务器属性	<input type="text"/>	
用户名	<input type="text"/>	
密码	<input type="text"/>	
备用SNMP设置		
SNMP连接	<input type="text"/>	
SNMP服务器属性	<input type="text"/>	
用户名	<input type="text"/>	
密码	<input type="text"/>	

保存 备份

■ 服务器设置

选择操作的命令语言

本地操作	远程
操作员姓名:	用户名:
连接端口:	连接端口:
代理端口号:	代理端口号:

保存 / 取消

角色权限

选择操作的命令语言

本地操作	远程
1. 用户名	
2. 密码	
3. 权限	
4. 地址	
5. 禁止	

保存 / 取消 / 完成操作

■ 活动目录设置

“活动目录”已启用。如果活动目录，将对所有操作进行自动授权。更多信息。

下面的操作将对所有操作进行自动授权。如果对操作没有指定一个角色，将在列表中选择操作的内容；然后反向操作将被忽略。如果选择其中一个操作，将对所有操作自动授权，但不会影响其他操作。

角色操作编号	操作1	操作2	操作3	操作4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-
5	-	-	-	-

完成操作 / 取消操作 / 完成操作

■ DAPPS Directory设置

如果DAPPS Directory已启用，设置DAPPS Directory并运行操作配置，将对所有操作自动授权。更多信息。

下面的操作将对所有操作进行自动授权。如果对操作没有指定一个角色，将在列表中选择操作的内容；然后反向操作将被忽略。如果一个操作的角色，运行一个配置的操作，将对所有操作自动授权。

角色操作编号	操作1	操作2	操作3	操作4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-
5	-	-	-	-

完成操作 / 取消操作 / 完成操作

■ 用户管理

配置用户数: 10

用户名	用户名	用户权限	操作权限	登录状态	电子邮箱地址
1	admin	管理员	Administrator	ONLINE	-
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-
11	-	-	-	-	-
12	-	-	-	-	-
13	-	-	-	-	-
14	-	-	-	-	-
15	-	-	-	-	-

完成操作 / 取消操作 / 完成操作



4.7 Logs

Select "Log" in the navigation tree to open the log-related pages, including "System Event Log", "BMC System Design Log", "Black Box Log", "Event Log Settings", "BMC System Audit Log Settings"

page, as shown below.

The [system](#) event log displays various event logs generated by the server.

- BMC system audit log displays the BMC system log and audit log.
- Black box log is used to import fault log records.
- Event log settings Set BMC log storage strategy Linear strategy Log storage will be cleared and re-recorded when full

The circular policy log will be recorded in a circular manner after it is full.

- BMC system audit log settings: Set the storage method and length of the BMC system audit log.

事件ID	时间	事件描述	时间戳	级别
45	08/04/2014 06:49:01	Power Status	系统ACPI电源状态	信息 (已知问题 - Assisted)
46	08/04/2014 06:49:01	Power Status	电源开关	升/灭键按下 - Assisted
47	08/04/2014 06:49:51	Power Status	系统ACPI电源状态	电源在未关机时 - Assisted
48	08/04/2014 06:49:46	Power Status	电源开关	升/灭键按下 - Assisted
49	08/04/2014 06:49:41	Power Status	电源开关	升/灭键按下 - Assisted
50	08/04/2014 06:39:30	MEM_C00_Status	内存	检测到存在 - Assisted
51	08/04/2014 06:39:30	MEM_C00_Status	内存	检测到存在 - Assisted
52	08/04/2014 06:39:30	CPU_Status	处理器	检测到处理器存在 - Assisted
53	08/04/2014 06:39:30	PSU_Status	电源	电源插入或拔出 (双路电源) - Assisted
54	08/04/2014 06:39:30	PSU_Status	电源模块	检测到存在 - Assisted

The screenshot displays the BMC settings interface under the 'Fault Diagnosis' tab. It features several configuration pages:

- Task Restart:** Includes options for 'BMC' and 'KVM'.
- Blue Screen of Death:** Includes options for 'BMC' and 'KVM'.
- System Power-On Self-Test Code:** Includes options for 'BMC' and 'KVM'.
- System Log Settings:** Contains two main sections:
 - 系统事件日志设置:** Offers options for '本地日志' (Local Log) and '远端日志' (Remote Log).
 - 系统故障日志设置:** Includes fields for '本地日志信息' (Local Log Information), '远程日志信息' (Remote Log Information), '文件长度 (字节)' (File Length (Bytes)), '读取间隔' (Read Interval), '重写地址' (Rewrite Address), and '审计日志信息' (Audit Log Information).

4.8 Troubleshooting

Select "Fault Diagnosis" on the navigation tree to open the fault diagnosis page, which includes three pages: "Task Restart", "Blue Screen of Death", and "System Power-On Self-Test Code", as shown in the figure below.

- Task restart includes two functions: restart BMC and restart KVM service.
- Last crash screen is used to capture the last screen information when the system crashes.



Note: The blue screen only applies to Windows 2008 R2 and Windows 2012 systems.

System POST code displays the boot code during system boot process.

The screenshot shows the 'System POST code' page under the 'Fault Diagnosis' tab. It contains the following options:

- BMC显示重置内容:** Includes checkboxes for '显示BMC' (Display BMC) and '显示KVM' (Display KVM).

上次崩溃记录

本页将会在主机系统发生故障崩溃时显示崩溃时的报警信息

提示：上次崩溃异常功能需要安装系统配置包自动恢复功能

Not Available:

最近启动的进程

最近启动的进程

正在运行的应用程序

正在运行的应用程序

<img alt="Grey circular icon indicating a process is not

4.9 System Maintenance

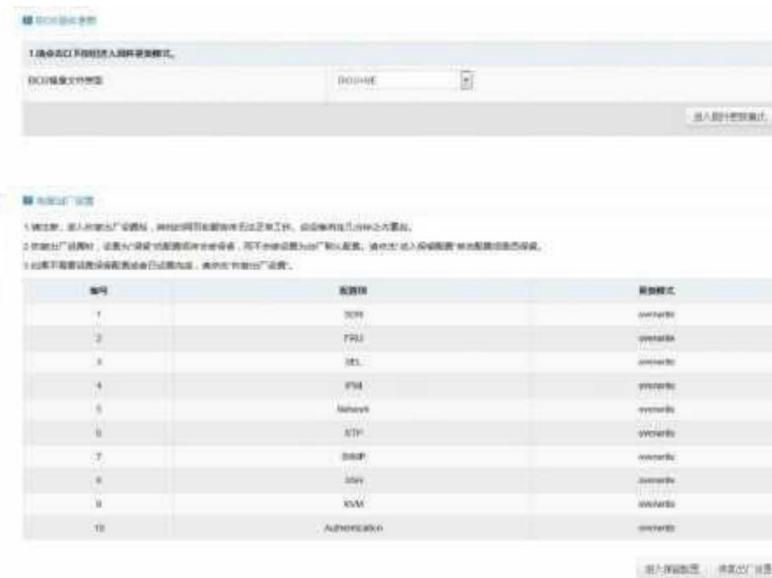
Select "System Maintenance" in the navigation tree to open the system maintenance page. The system maintenance page contains "BMC

There are four pages: "Firmware Update", "BIOS Firmware Update", "Restore Factory Settings", and "System Administrator". As shown in the figure below.

- BMC firmware update: Update the BMC FW through the BMC Web interface.
 - BIOS firmware update: Update the BIOS through the BMC Web interface. • Factory reset: Restore

the BMC configuration to the factory default state.

【基础】HTTP方法		
操作	解释	示例用法
1. GET方法：进入资源页面之后，地址栏将显示请求的网址，此操作被称为“读取”。		
2. POST方法：向服务器中写入新的数据或修改数据。		
3. PATCH方法：对单个资源进行部分修改。常用于更新部分的数据以提高效率。此操作只插入新数据，原有数据会保持不变。		
4. PUT方法：对单个资源完全替换。通常在进入资源编辑模式时执行此操作。		
【进阶】HTTP状态码		
状态码	解释	示例用法
200	OK	Success
201	CREATED	Created
202	ACCEPTED	Accepted
204	NO_CONTENT	NoContent
205	RESET_CONTENT	ResetContent
300	multiple_choices	MultipleChoices
301	Moved_permanently	MovedPermanently
302	Moved_temporarily	MovedTemporarily
303	See_other	SeeOther
304	Not_modified	NotModified
305	Use_proxy	UseProxy
400	Bad_request	BadRequest
401	Unauthorized	Unauthorized
403	Forbidden	Forbidden
404	Not_found	NotFound
405	Method_not_allowed	MethodNotAllowed
406	Not_acceptable	NotAcceptable
407	Proxy_authentication_required	ProxyAuthenticationRequired
408	Request_timeout	RequestTimeout
409	Conflict	Conflict
410	Gone	Gone
411	Length_required	LengthRequired
412	Precondition_failed	PreconditionFailed
413	Payload_too_large	PayloadTooLarge
414	URI_too_long	UriTooLong
415	Unsupported_media_type	UnsupportedMediaType
416	Range_not_satisfiable	RangeNotSatisfiable
417	Expectation_failed	ExpectationFailed
500	Internal_server_error	InternalServerError
501	Not_implemented	NotImplemented
502	Bad_gateway	BadGateway
503	Service_unavailable	ServiceUnavailable
504	Gateway_timeout	GatewayTimeout
505	Version_not_supported	VersionNotSupported



4.10 Command Line Function Introduction

Seki Senbon

This section describes the Web interface of the management system and the steps for logging into the Web interface.

Login command line

This section describes how to log in to the command line.

- Command line function introduction

Describes the functions of the command line.

4.10.1 Command line login:

Use ssh to log in to the BMC command line, the default username is root, the default password is rootuser

```
login as: root
root@10.53.11.240's password:
Executing [-/usr/local/bin/smashclp]
```

After logging in, you can enter the command line operation interface

```

          >> smashclp <<
=====
smashclp cli tool version 0.9
Enter 'help' for a list of built-in commands
=====

/smashclp> [green prompt]
```

Type help to view online help.

```
./manhelp [file]
Usage: ./manhelp

Identify:      get or set network parameters, please enter identify --help for more information
names:        get or set device parameters, please enter names --help for more information
dns:          get or set dns parameters, please enter dns --help for more information
domains:      get or set domain parameters, please enter domains --help for more information
keys:         get or set keys parameters, please enter keys --help for more information
ip:           get or set ip parameters, please enter ip --help for more information
fan:          get or set fan parameters, please enter fan --help for more information
psu:          get or set psu parameters, please enter psu --help for more information
parameters:   change root password
exit:         exit the command line
./manhelp
```

4.10.2 Command Line Function Introduction

4.10.2.1 Network information acquisition and setting

The ipconfig command can be used to obtain and set the BMC network information.

```
/smashclp> ipconfig --get
eth0
    IP Address Source : dhcpc
    IP Address       : 10.53.11.240
    Subnet Mask      : 255.255.255.0
    Default Gateway IP: 10.53.11.254
    MAC Address      : 6C:92:8F:07:1A:B6

eth1
    IP Address Source : dhcpc
    IP Address       : 0.0.0.0
    Subnet Mask      : 0.0.0.0
    Default Gateway IP: 0.0.0.0
    MAC Address      : 6C:92:8F:07:1A:B7
```

4.10.2.2 Sensor information acquisition

The sensor command can be used to obtain a list of all sensor information

4.10.2.3 FRU information acquisition and setting

The FRU information can be obtained through the FRU command

```
/smashclp> fru --get all
Chassis Type          : Rack Mount Chassis
Chassis Part Number   : 0
Chassis Serial        : 0
Chassis Extra         : NULL
Board Mfg Date        : Mon Sep  8 13:17:00 2014
Board Mfg              : Inspur
Board Product          : shenzhu
Board Serial           : 0
Board Part Number      : 0
Product Manufacturer   : Inapur
Product Name           : NP5270M4
Product Part Number    : 0
Product Version        : 01
Product Serial          : 0
Product Asset Tag       : NULL
/smashclp>
```

4 10 2 4 Chassis status acquisition and control

The system power status can be obtained and controlled through the Chassis command.

```
/smashclp> chassis --get --help
chassis commands:
  chassis <option> [<option>] <parameter>
  options:
    -help      show help information
    ?         show help information
    -get      get chassis information
    for example : chassis --get <option> <parameter>
    -set      set chassis information
    for example : chassis --set <option> <parameter>
  option?
    power    set or get host status
    identify  set or get UID status
  parameter?
    status   get host or UID status
    on      set host status power on
    off     set host or UID status power off
    force   set UID status all the light
See UID light on server seconds. Please put seconds in the followed identify
for example : chassis --set identify 15. Light on 15 Seconds
The Seconds must be greater than 0 and less than or equal to 240
.
```

Get system power status

```
/smashclp> chassis --get power status
The host status is on
.
```

4 10 2 5 User acquisition, addition, deletion

Use the User command to get a list of users, and add and delete users.

```
/smashclp> user --help
user commands:
  user <option> [<user id> [<user name>/<user priv>]]
  option:
    -help      show help information
    ?         show help information
    -list     show all the user of the information
    -add     Add new user information
    for example : user --add user_id<user name>
    -password  Modify user password
    for example : user -password user_id
    -privilege  Modify user permissions
    for example : user -privilege user_id<user priv>
    -delete   Delete user
    for example : user --delete user_id
    user name, The user name cannot be longer than 16 bytes.
    user id, The user ID more than 0, less than 16.
    user priv, The user priv is 1(OWNER), 3(OEMARIO), 4(ADMINISTRATOR) or 16(NU ACCESS).
    The password does not exceed 16 bytes.
.
```

Get User List

```
/smashclp> user --list
ID Name Channel Priv Limit
1 admin ADMINISTRATOR
2 NO ACCESS
3 NO ACCESS
4 NO ACCESS
5 NO ACCESS
6 NO ACCESS
7 NO ACCESS
8 NO ACCESS
9 NO ACCESS
10 NO ACCESS
11 NO ACCESS
12 NO ACCESS
13 NO ACCESS
14 NO ACCESS
15 NO ACCESS
16 NO ACCESS
```

4 10 2 6 Get the BMC version and restart BMC

Use the mc command to obtain BMC version information and restart BMC.

```
/smashclp> mc --help
mc commands:
  mc <option1> [<option2>] <parameter>
  option1:
    --help      show help information
    ?          show help information
    --get      get mc information
    for example : mc --get <parameters>
    --set      set mc information
    for example : mc --set <option2> <parameters>
  option2:
    bmc       set bmc action, this only support --set
    kvm       set kvm action, this only support --set
  parameters:
    version   get bmc version, this only support --get command
    reset     set bmc or kvm reset action, this only support --set command
```

Get BMC version information

```
/smashclp> mc --get version
Device ID           : 32
Device Revision    : 1
Firmware Revision  : 4.5.0
IPMI Version       : 2.0
```

4 10 2 7 Fan working mode setting, fan speed acquisition

Use the Fan command to set the fan operating mode and obtain the fan speed.

```
/smashclp> fan --help
fan commands:
  fan <option1> [<option2>] <parameter1> [<parameter2>]
  option1:
    --help      show help information
    ?          show help information
    --get      get fan information
    for example : fan --get <option2>
    --set      set fan information
    for example : fan --set <option2> <parameter1> [<parameter2>]
  option2:
    fanmode   set or get fanmode
    for example : fan --set fanmode 0:1
    0 : auto mode
    1 : manual mode
    fanlevel  set or get fan level
    for example : fan --set fanlevel <parameter1> <parameter2>
    parameter1: the fan id
    parameter2: the fan of the present
```

Fan speed acquisition

```
/smashclp> fan --get fanlevel
ID Status SpeedPercent SpeedRPM
0 NA 0 0 PRM
1 NA 0 0 PRM
2 NA 0 0 PRM
3 NA 0 0 PRM
4 NA 0 0 PRM
5 NA 0 0 PRM
6 NA 0 0 PRM
7 NA 0 0 PRM
```

4.10.2.8 Power module information acquisition and setting

The Psu command can be used to obtain the power module information and set the power module as the main output.

```
psu --help
psu commands:
  psu options> (parameters) (parameters2)
options:
  -h help
  -s show basic information
  -g get raw information
  -e get raw information
  PSU example <psu --get option2>
  -m set raw information
  PSU example (<psu --get option2> (parameters) (parameters2))
options:
  parameters: show all psu information, this only supports --get
  parameters: set psu information, this only supports --set
  parameters2: the ID of the PSU module, not more than 1
  parameters2: the status of the PSU module, 0 representation inactive, 1 representation standby
```

Power module information acquisition

```
/smashclp> psu --get psuinfo
PSU Assets Info:
ID | Mfr ID | Mfr Model | Serial Number | SW Ver
0 | N/A | N/A | N/A | N/A
1 | N/A | N/A | N/A | 1.000
PSU Monitor Info:
ID | Status | Alert | Temp(C) | F15(W) | Powt(W) | Vbat(V) | Volt(V) | Im(A) | Iext(A)
0 | N/A | N/A
1 | Activated | 24 | 56 | 10 | 251 | 12.22 | 0.26 | 0.26
```

4.10.2.9 Change root password

The root user's password can be changed using the password command.

```
/smashclp> password
New password: [REDACTED]
```

4.11 Time Zone Table

Time Zone	Countries and regions
GMT -12:00 8th Line West	
GMT -11:00 Apia, Niue, Pago Pago, Midway Island	
GMT -10:00 Fakaofo, Rarotonga, Tahiti, Johnston, Hawaii	
GMT -09:30 Marquesas	
GMT -09:00 Alaska, Gambier Islands	
GMT -08:00 Pacific Time (US and Canada), Pitcairn, Whitehorse, Tijuana, Vancouver	
GMT -07:00 Mountain Time (US and Canada), Edmonton, Hermosillo, Dawson Creek, Chihuahua, Yellowknife, Arizona, Mazatlan	
GMT -06:00 Central Time (U.S. and Canada), Belize, Easter Island, Costa Rica, Galapagos Islands, Managua, El Salvador, Guatemala, Mexico City, Regina, Winnipeg	
GMT -05:00 Eastern Time (US and Canada), Panama, Bogota, Grand Turk Island, Toronto, Montreal, Iqaluit, Guayaquil, Havana, Cayman Islands, Rio Branco, Lima, Nassau, Port-au-Prince, Jamaica	
GMT -04:00 Atlantic Time (Canada), Aruba, Anguilla, Antigua, Barbados, Bermuda, Puerto Rico, Boa Vista, Campo Grande, Halifax, Dominica, Grenada, Guadeloupe, Guyana, Caracas, Curacao, Cuiaba, La Paz, Martinique, Marseille,Montserrat, Papua, Santiago, Saint Domingo, Saint Kitts, Saint Lucia, Saint Thomas, Saint Vincent, Stanley, Toul, Tortola , Porto Velho, Port of Spain, Asuncion	
GMT -03:30 St. Louis	
GMT -03:00 Araguaina, Belém, Buenos Aires, Fortaleza, Godthub, Cayenne, Recife, Lourdes, Maceio, Montevideo, Miquelon, Paramaribo, Salvador, Sao Paulo	
GMT -02:00 South Georgia, Noronha	
GMT -01:00 Cape Verde, Skolesby Sound, Azores	
GMT +00:00 Abidjan, Accra, Laayoune, Bamako, Banjul, Bissau, Dakar, Dublin, Freetown, Greenland, Canary Islands, Casablanca, Conakry, Reykjavik, Lisbon, London, Lomé, Monrovia, Nouakchott, Sao Tome, Saint Helena, Ouagadougou	
GMT +01:00 Algiers, Austria, Andorra, Oslo, Paris, Berlin, Bangui, Porto-Novo, Budapest, Brazzaville, Brussels, Tirana, Douala, N'Djamena, Copenhagen, Warsaw, Kinshasa, Lagos, Libreville, Luxembourg, Luanda, Rome, Madrid, Malta, Malabo, Monaco, Niamey, Stockholm, Zurich, Tunis, Vaduz, Vienna, Windhoek, Ceuta, Gibraltar	
GMT +02:00 Amman, Beirut, Bucharest, Blantyre, Bujumbura, Damascus, Tripoli, Gaborone, Harare, Helsinki, Kiev, Kigali, Kishinev, Gaza, Cairo, Riga, Lubumbashi, Lusaka, Maputo, Maseru, Minsk, Kaliningrad, Nababane, Nicosia , Sofia, Tallinn, Tel Aviv, Vilnius, Athens, Istanbul, Johannesburg	

Antananarivo, Baghdad, Bahrain, Dar es Salaam, Khattum, Djibouti, Qatar, Kampala, Comoros Islands,
GMT+03:00 Kuwait, Riyadh, Mayotte, Mogadishu, Moscow, Nairobi, Addis Ababa, Aden, Showa

GMT+03:30 Newfoundland

Baku, Dubai, Tbilisi, Reunion Island, Mahé, Muscat, Mauritius, Samara, Yerevan
GMT+04:00

GMT+04:30 Kabul

Aktau, Aktobe, Ashgabat, Dushanbe, Karachi, Kerguelen Islands, Maldives, Yekaterinburg, Tashkent
GMT+05:00

GMT+05:30 Colombo, India

Almaty, Bishkek, Chagos, Dhaka, Mawson, Omsk, Novosibirsk, Thimphu, Vostok
GMT+06:00

GMT+06:30 Coco Islands, Yangon

GMT+07:00 Davis, Hanoi, Phnom Penh, Khovd, Bangkok, Krasnoyarsk, Christmas Island, Vientiane, Jakarta

Macau, Kuala Lumpur, Casey, Makassar, Manila, Irkutsk, Taipei, Brunei, Ulaanbaatar, Perth, Singapore,
GMT+08:00 Beijing, Hong Kong, China

GMT+09:00 Jayapura, Dili, Tokyo, Yakutsk, Palau, Pyongyang, Choibalsan, Seoul

GMT+09:30 Adelaide, Darwin

Dumont d'Urville, Brisbane, Hobart, Melbourne, Sydney, Guam, Port Moresby, Yuzhno-Sakhalinsk,
GMT+10:00 Saipan, Truk

GMT+11:00 Efate, Pohnpei, Guadalcanal, Kosrae, Magadan, Noumea

GMT+11:30 Norfolk

Auckland, Funafuti, Kwajalein, Majuro, Petropavlovsk-Kamchatka, Tarawa, Wallis, Wake Island, Nauru,
GMT+12:00 Fiji

GMT+13:00 Nuku'alofa

5 Hardware Maintenance

5.1 Tool Preparation

The tools that

need to be prepared before construction are shown in the following table.

Tool List

Graphics	name	illustrate
	A Phillips screwdriver is used to tighten the screws.	
	Anti-static wrist strap	Use thousands of hands to touch or operate equipment and devices. Prevent static discharge.
	Anti-static gloves	Use caution when plugging and unplugging boards, holding boards or other precision instruments, etc. to prevent static discharge.

5.2 Replacement Parts

Special reminder: Except for hot-swappable components (such as hot-swappable hard disks, etc.), all component replacement operations must be performed without power off.

5.2.1 Replacing the Processor

When installing or replacing the CPU, please pay attention to the following matters:

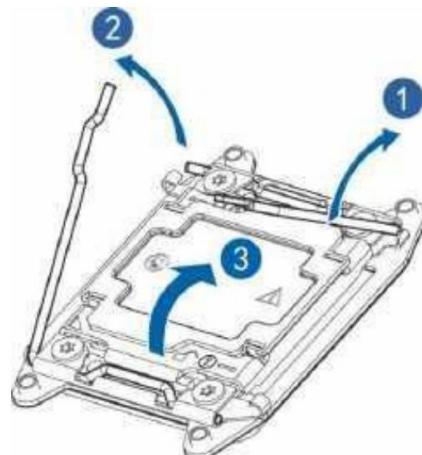
When installing two CPUs, the two CPUs must be of the same model.

When installing only one CPU, please follow the following requirements:

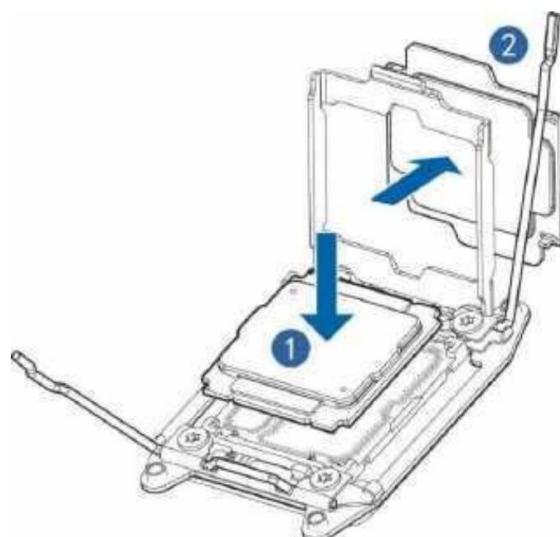
- 1) The CPU must be installed in the CPU0 socket. For the CPU location, see [Motherboard Diagram].

2) Do not remove the protective cover on the socket where CPU1 is not installed.

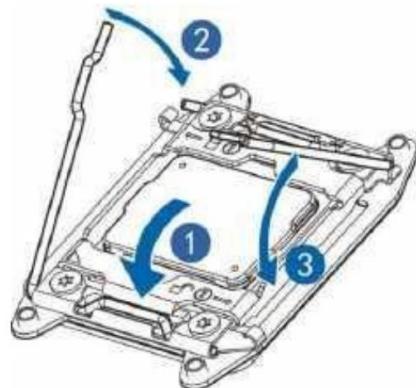
Step 1 Open the two levers of the CPU slot and open the CPU fixing plate.



Step 2 Install the CPU into the CPU slot, and then remove the CPU slot cover.



Step 3: Clamp the CPU with the CPU fixing plate, and then secure the two levers.



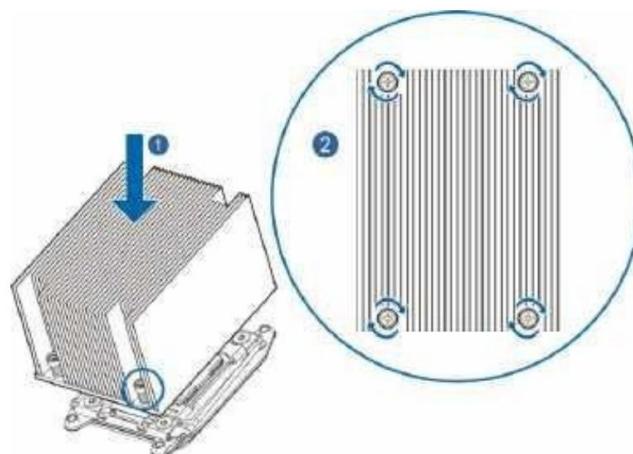
Step 4 Fix the CPU cooler on top of the CPU and tighten the cooler screws.



-Thermal paste must be evenly applied to the contact area between the CPU cooler and the CPU.

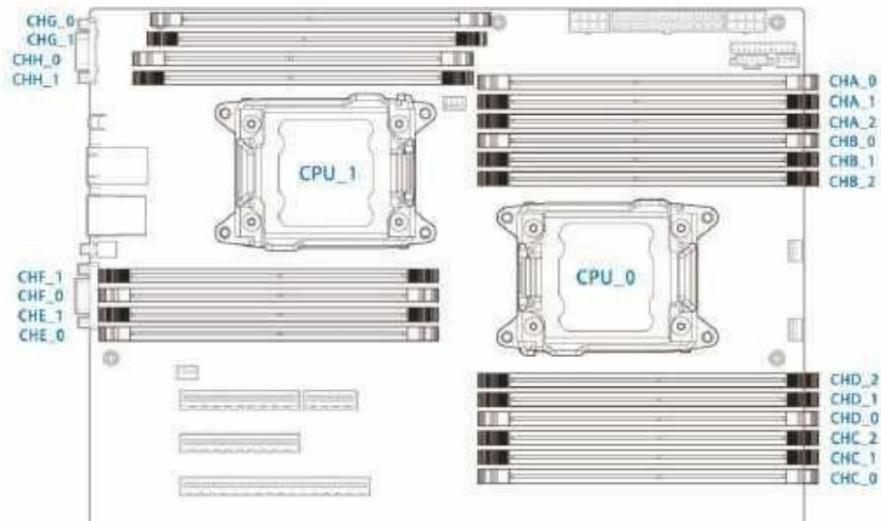
-The CPU radiator fins must be installed in accordance with the system air inlet and outlet

directions.-When fixing the CPU radiator, the screws must be tightened in diagonal order.



5.2.2 Replacing the Memory

-The memory slot layout is shown in the figure below



-Memory installation principles

The same machine can only use the same type of memory. The specific memory installation combination principles are as follows

a. White slots are preferred, and the memory of CPU1 should be installed symmetrically with that of CPU0.

b. For a single CPU, the memory follows the silkscreen order CHA_0/CHB_0/CHC_0/CHD_0/CHA_1/

CHB_1/CHC_1/CHD_1/ CHA_2/

C. Dual CPUs, CPU0 position memory follows the silk screen printing sequence CHA_0, CHB_0, CHC_0, CHD_0, CHA_1;

The memory installation of CPU1 should be symmetrical with the memory of CPU0.

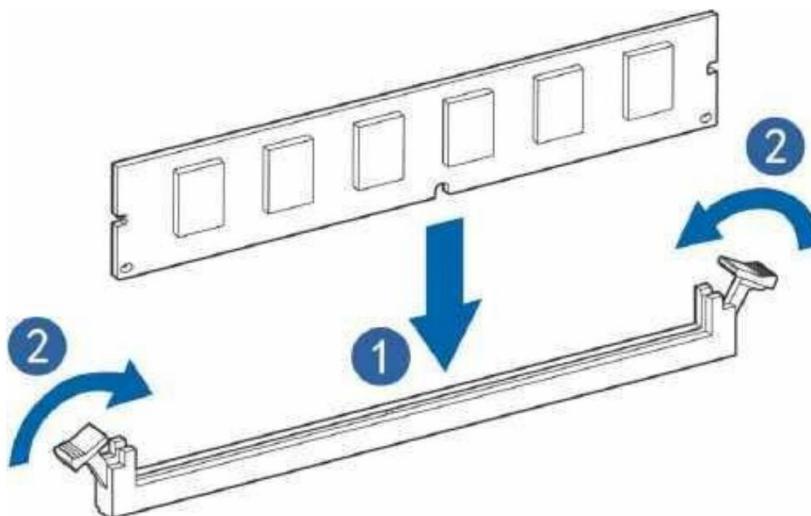
CHE_0, CHF_0, CHG_0,

CHH_0, CHE_1,

Step 1 Open the fixing buckles at both ends of the memory slot. Step 2 Align

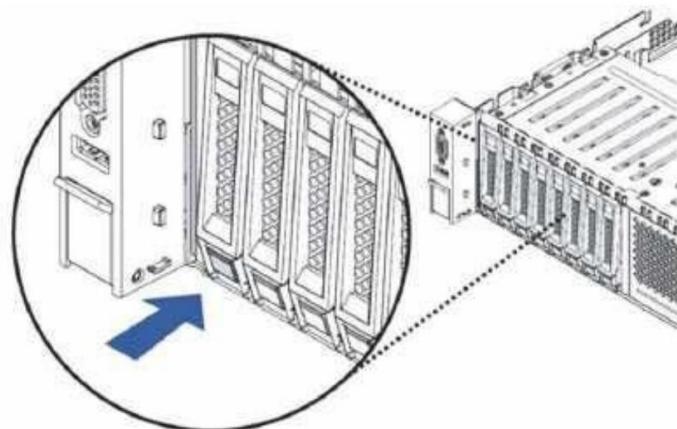
the notch at the bottom of the memory with the positioning point of the memory slot, and press down both ends of the memory with your thumbs to completely insert the memory.

Install it fully into the slot, and then securely fasten the clips at both ends of the memory slot.

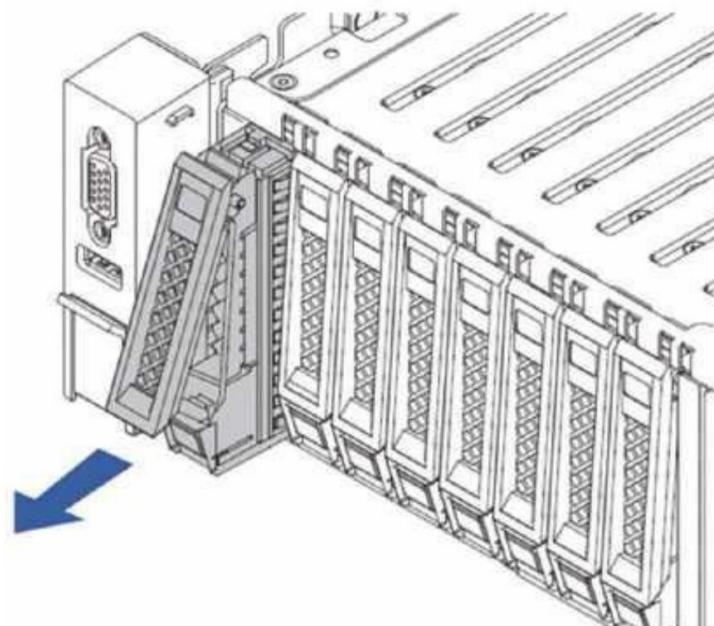


5.2.3 Replacing the Hard Drive

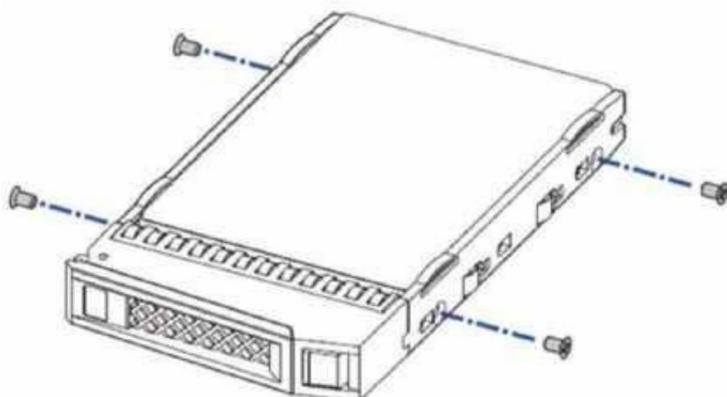
Step 1 Press the hard disk panel button.



Step 2 The wrench on the hard drive bracket pops out automatically, and you can remove the hard drive bracket smoothly outwards.



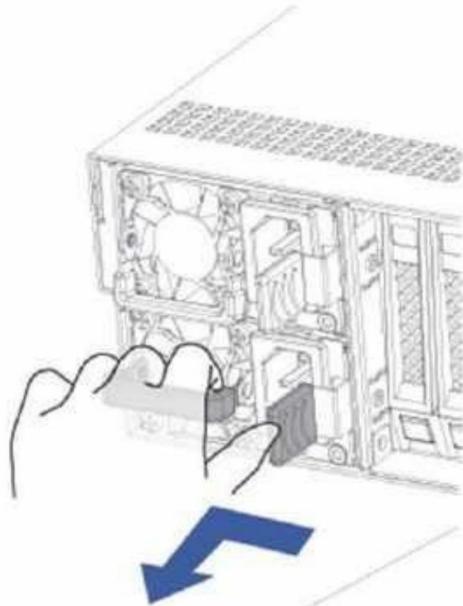
Step 3 Use four hard drive screws to secure the hard drive to the bracket.



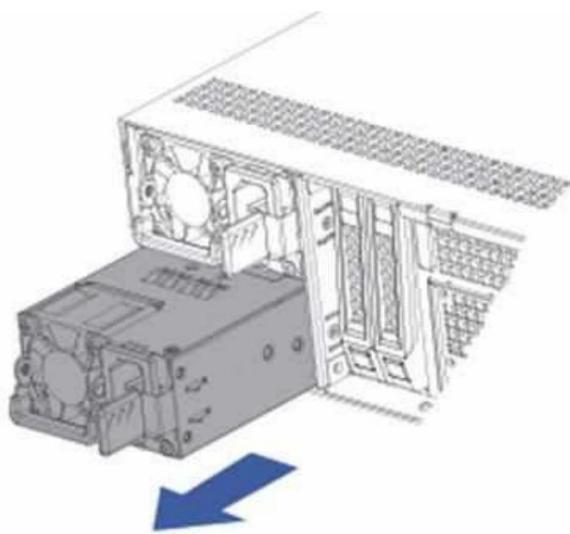
Step 4 Install the hard disk into the server and securely fasten the hard disk with the hard disk wrench.

5.2.4 Replacing the power supply

Step 1 Move the power clip in the direction of the arrow.



Step 2 Remove the power supply with even force.



Step 3 Install the power module. Push

the new power module along the power rail until you hear a click and the power spring automatically snaps into place.

The source module cannot be moved.

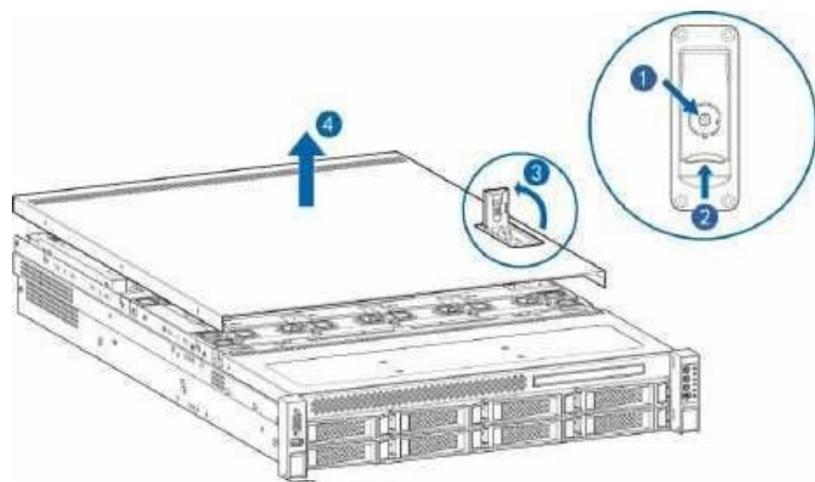
5.2.5 Replacing the chassis cover

Step 1 Turn the chassis cover lock to the open position. Step 2

Press the lock button.

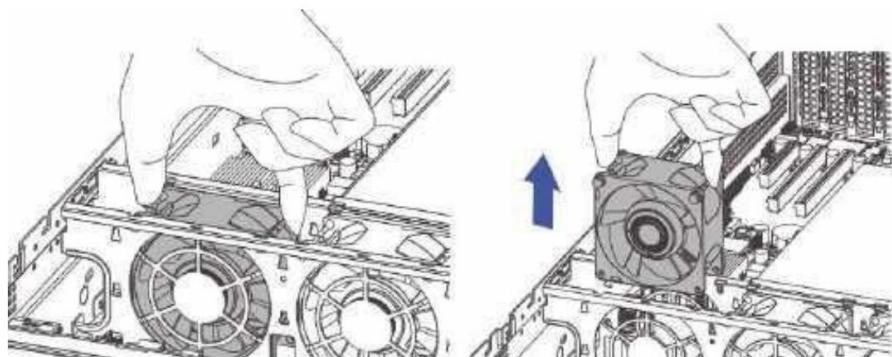
Step 3 Open the lock to its maximum opening.

Step 4 Remove the chassis cover vertically upwards.



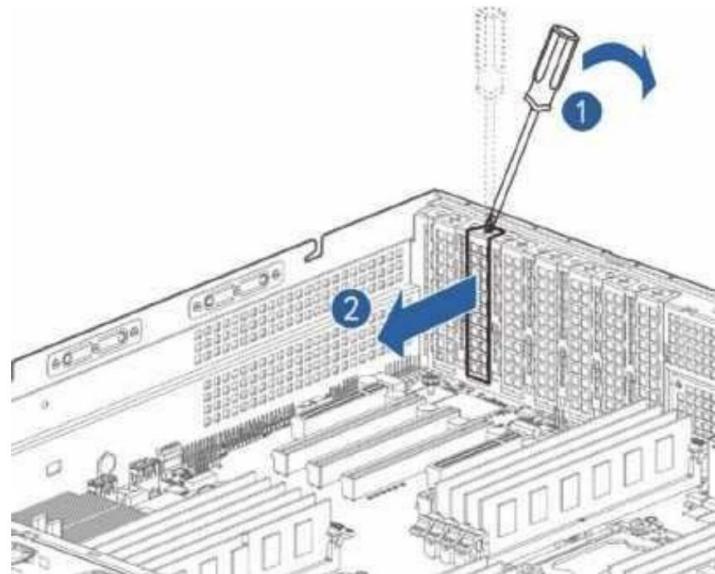
5.2.6 Replacing the system fan

Pinch both ends of the fan and remove it vertically upward.



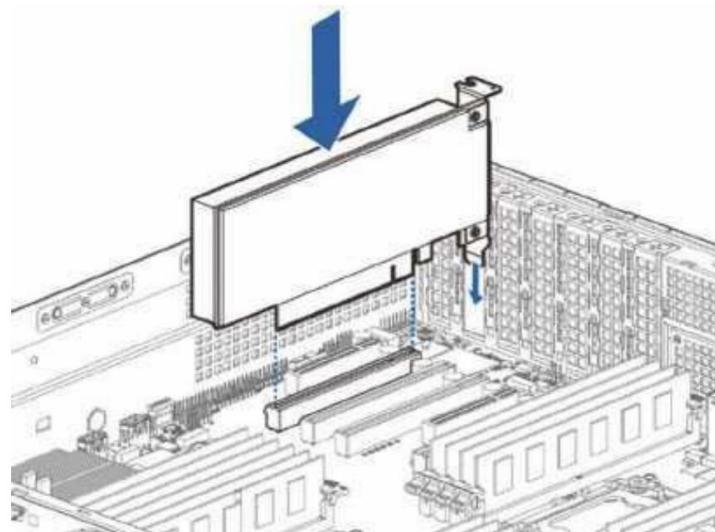
5.2.7 Replacing a PCIE expansion card

Step 1 Insert a screwdriver into the cross slot above the baffle and pry up and remove the baffle as shown in the following figure.



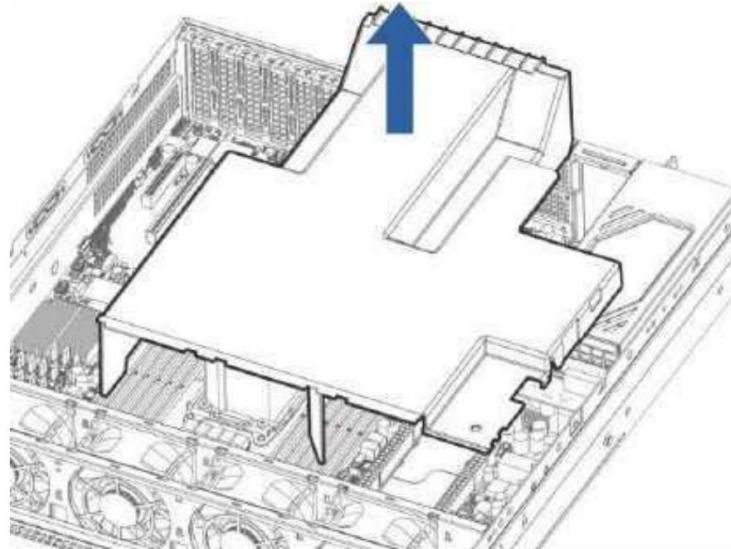
Step 2 Install the expansion card with the matching baffle, insert the expansion card into the corresponding slot of the PCIE card and tighten it.

Screw in place.



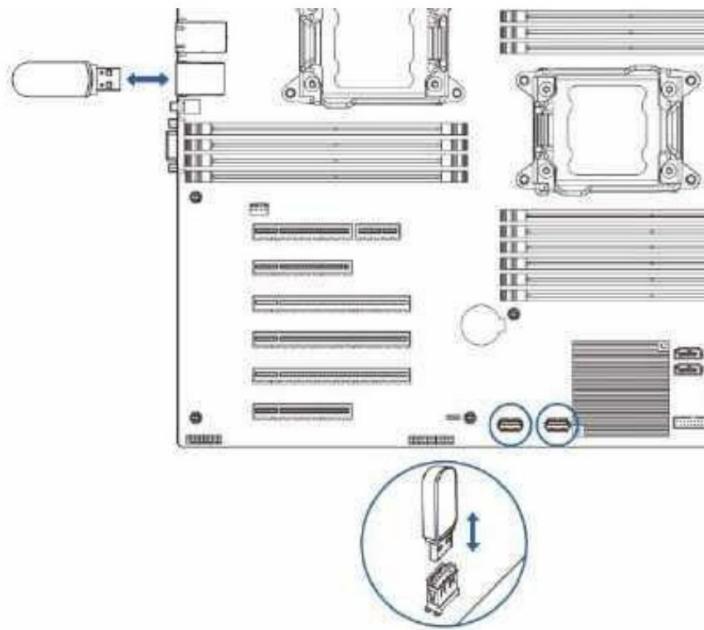
5.2.8 Replacing the air guide

Step 1 Open the upper cover of the chassis. Step 2 Remove the air guide cover vertically upwards.



5.2.9 Replacing the USB Flash Drive

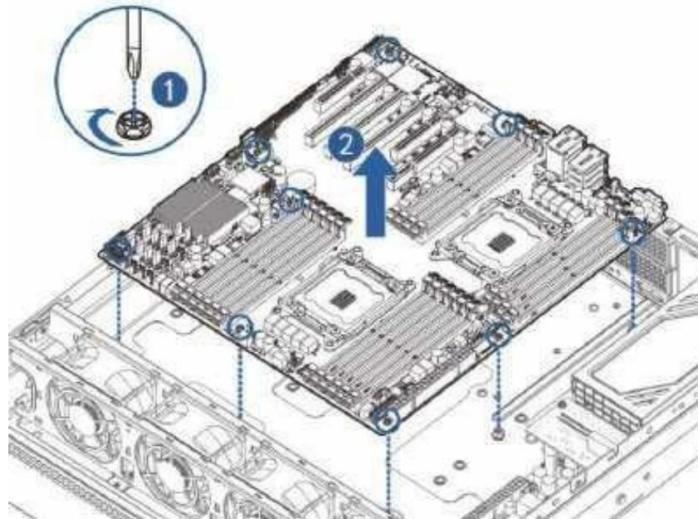
Step 1 Locate the USB Flash disk. Step 2 Remove the USB Flash disk in the opposite direction of the USB interface.



5.2.10 Replace the main board

Step 1 Remove all components and cables connected to the motherboard. Step 2 Remove the

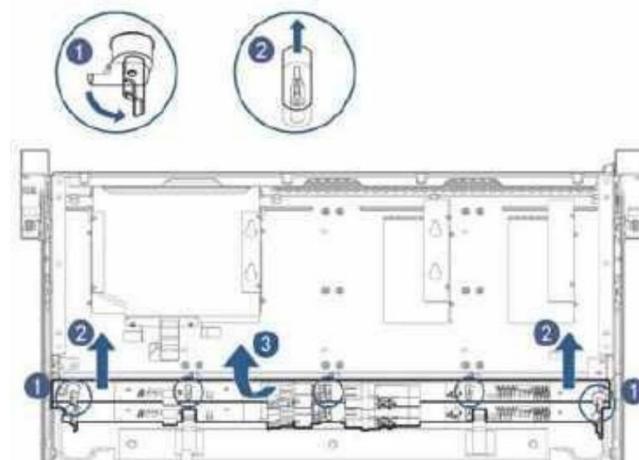
screws on the motherboard with a screwdriver and remove the motherboard vertically.



5.2.11 Replacing the front hard disk backplane

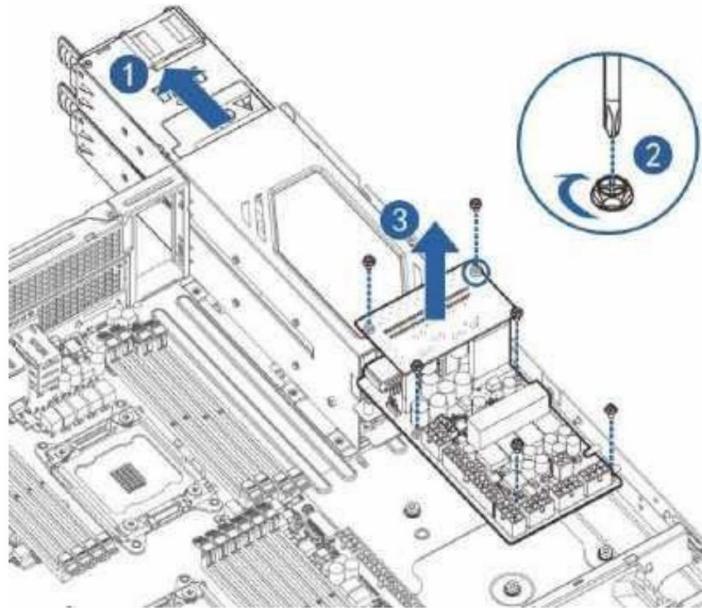
Step 1: Pop open the fixed column of the hard disk backplane and the chassis, lift the backplane vertically upward to remove the chassis buckle, and then remove it from the outside.

Hard disk backplane.



5.2.12 Replacing the power backplane

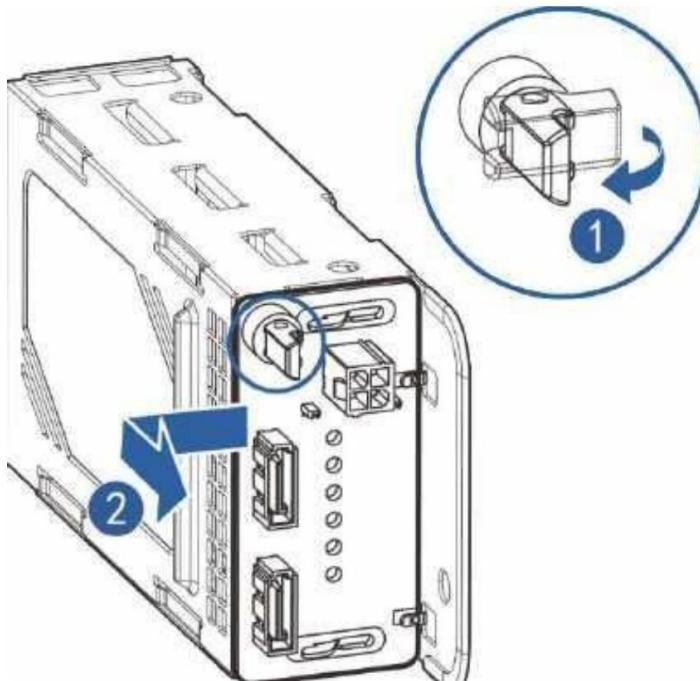
Step 1 Remove all components and cables connected to the power backplane. Step 2 Remove the screws on the power backplane with a screwdriver and remove the power backplane vertically upwards.



5.2.13 Replacing the rear hard disk backplane

Step 1: Pop open the fixed column of the hard disk backplane and the chassis, lift the backplane vertically upward to remove the chassis buckle, and then move it outward.

Remove the hard drive backplane.



6 Common faults and troubleshooting

In this chapter

Common server failure cases and corresponding diagnosis and treatment suggestions.

6.1 Common Faults

1) The machine does not power

on after the power cord is plugged in. Pressing the power button does not power on or respond, and the power indicator light does not light up.

2) The power module light is off or red

The machine runs normally but the light on one of the power modules is off or lights up red to sound an alarm.

3) No display after power-on

After pressing the switch to power on the machine, no information is displayed on the monitor.

4) The front panel indicator light is off

After powering on, the front panel indicators are all off.

5) Front panel status indicator light warning

The machine is operating normally but the status indicator is warning.

6) The display is black

A black screen failure occurs during use of the monitor.

7) The display is abnormal

The screen image of the monitor shakes, rolls, or distorts while the machine is in use.

8) Abnormal display of memory capacity

The memory capacity displayed by the operating system is inconsistent with the physical memory capacity.

9) The keyboard and floating icon are unavailable

The keyboard and floating icon cannot be used normally.

10) USB interface problem

This section describes how to handle the situation when the USB interface cannot be used.

6.2 Diagnosis and Troubleshooting Instructions

1) Diagnosis and troubleshooting of power failure when starting up

Phenomenon description: After pressing the power button, the indicator lights on the front panel of the server (power-on status indicator light, hard disk status indicator light) are not on, and the KVM (monitor) has no display output, and the server chassis fan does not rotate.

Procedure



a. Check whether the power supply of the machine is normal. If the indicator light of the power module is on, it means that the power supply is normal.

The light is off, please check whether the power supply is normal.

b. If the power supply is normal, re-plug the power module and test it, then restart the machine to verify.

C. If there are machines of the same model and with the same power module, you can replace the power module to test whether it is faulty.

d. If the above operations cannot solve the problem, please contact Inspur customer service.

2) The power module indicator light is off or is on red. Phenomenon

description: The machine runs normally, but a certain power module indicator light is off or is on red.

Procedure

a. First check whether the power cord is normal and re-plug the power cord.

b. If the fault still exists, re-plug the power module.

C. If the power can be shut down, you can swap the two power modules to determine whether the power module is faulty.

d. If the above operations cannot solve the problem, please contact Inspur customer service.

3) No display after power on

Fault description: After pressing the power button, the power indicator on the front panel of the server is on, but the monitor has no display.

Output:

Operation steps

a: First check whether the monitor is properly connected to the server VGA port.

b. Replace the monitor and test.

C. If the above operations cannot solve the problem, please contact Inspur customer service.

4) Front panel status indicator light warning

Fault description: The server is running normally, but the system status indicator on the front control panel flashes or lights up red to alarm.

Procedure

Please check whether the power module indicators are all green and steady. If normal, you can log in to the BMC web interface.

Collect logs and contact Inspur customer service.

5) Incomplete memory capacity

Fault Description: The memory capacity viewed by the operating system is inconsistent with the physical memory capacity.

Procedure

a. Make sure all memory is installed correctly and the correct type of memory is installed.

b. Check the memory capacity in BIOS setup. If the memory capacity is fully recognized in BIOS setup, it may be due to the operation

The system has a limit on memory capacity. If the identification is incomplete in BIOS setup, contact Inspur customer service.

6) Keyboard and mouse are unavailable

Fault description: The keyboard and mouse cannot be used normally.

Procedure

- a. Make sure the keyboard or mouse cable interface is connected correctly and firmly.
- b. Replace other device components to test whether the mouse or keyboard is faulty.
- C. Power off and then on the machine again to test.
- d. Restart the machine and enter the Cmos or rad configuration interface to test whether the keyboard or mouse performance is normal. If the keyboard and mouse performance is normal when tested in a non-system environment, consider that the system is faulty. If the keyboard and mouse still fail in a non-system environment, Considering the motherboard interface failure, you can contact Inspur technical hotline support.

7) USB interface problem

Fault Description The device with USB interface cannot be used.

Procedure

- a. Ensure that the operating system on the server supports USB devices. b.
Ensure that the correct USB device driver has been installed on the system.
- C. Power off the server and then power it on again to test.
- d. Check whether the USB device is normal when connected to other hosts. e. If
the USB device is normal when connected to other hosts, this server may be abnormal. Please contact Inspur Technical Support.
If the USB device behaves abnormally when connected to other hosts, replace the USB device.



7 Introduction to the service section

7.1 How to get help

If you encounter difficult or serious problems during routine maintenance or troubleshooting, please seek technical support from Inspur.

7.1.1 Preparation before contacting Inspur

In order to better solve the problem, it is recommended to make the following preparations before seeking Inspur technical support.

7.1.1.1 Collect necessary fault information

The information in the collection includes

- Customer's detailed name and address -

Contact person's name and phone number

- The exact time when the fault occurred -

Detailed description of the fault phenomenon

Device type and software version

- Measures taken after the failure and the results - Level

of the problem and expected resolution time

7.1.1.2 Make necessary preparations for debugging

When seeking Inspur technical support, Inspur technical support engineers may assist you in doing some operations to further

Collect the necessary fault information before seeking technical support.

Prepare screwdrivers, screws, serial cables, network cables and other items that may be used.

7.2 Various ways to contact Inspur technical support

7.2.1 WeChat Service

It provides micro-query, self-service troubleshooting, appointment repair, online consultation and other service functions, please pay attention

WeChat public account Inspur expert service

WeChat ID: lc4008600011

QR code:



7.2.2 Enterprise Service QQ

QQ number 4008600011

7.2.3 Service Email

Email address: lckf@inspur.com

In order to handle customer issues more efficiently, please send us emails in the following format.

Unit Name	xx Province xx City xx
Contact Information	Name Mobile/Landline (Extension)
Machine serial number	21xxxxxxxx or 8000xxxx

Problem description or fault phenomenon	Description
appendix	Fault photos or log files

7.2.4 Website Services

Inspur official website www.inspur.com

Technical service website www.4008600011.com

7.2.5 Telephone service

Tel: 4008600011



8. Standards

This section introduces the various access certifications that this product has passed and the standards it complies with.

· US FCC Statement

Describes the FCC standards that the product complies with.

· EU CE Declaration

Introduce the CE standards that the product complies with.

· China CCC

Introduce the CCC standards that the product complies with.

China Environmental Label

Introduce the Chinese Environmental Labeling Standards that the product complies with.

1. US FCC Statement

Introduces the FCC standards that the product

complies with. Federal Communications Commission (Federal Communications Commission) 47 CFR Part 15

Subpart B of this section specifies that the following precautions should be taken by users of this product:

NOTE This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

The primary purpose of these limits is to provide reasonable protection against harmful interference when this equipment is operated in a commercial area.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause

Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user

You will be asked to correct the interference at your own expense.

Any changes or modifications not expressly specified by our company may cause the device to fail to comply with FCC Class A requirements and

waives their authorization to operate this equipment.

2. EU CE Declaration

This product is a Class A product. In a residential

environment, this product may cause radio interference. In this case, use

Users will be required to take some appropriate countermeasures.

3. China CCC

警告：在居住环境中，运行此设备可能会造成无线电干扰。

8.4 China Environmental Label

The product complies with the China Environmental Labeling Standard.

This product and its packaging can be recycled and

This product is designed to have a resource recycling rate of no less than 80%, and a resource recycling and regeneration rate of no less than 1,000 70 %. At the end of the product life cycle, it should not be mixed with other wastes. You can report it to the seller or local government department.

You can also contact our customer service to learn about the recycling methods and locations, or contact us for recycling.

Name and content identification table of toxic and hazardous substances or elements in products - Server Name and content of harmful substances in the product

Part Name	Part Name	Toxic and hazardous substances or elements Hazardous substances						
		Lead (Pb)	lead mercury (Pb) (Hg)	Mercury (Hg)	Tin (Cd)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	pyrochlorephthalate, biphenyl, diphenyl ether (PBB)
Chassis	Chassis	X	X	●	●	●	●	●
Motherboard	Motherboard	X	X	●	●	●	●	●
Memory	Memory	●	●	●	●	●	●	●
Hard disk	Hard disk	●	●	●	●	●	●	●
Power supply	Power supply	X	X	●	●	●	●	●
Power cord	Power cord	●	●	●	●	●	●	●
Floppy Drive	Floppy Drive	X	X	●	●	●	●	●
USB flash drive	USB flash drive	X	X	●	●	●	●	●
Optical Drive	Optical Drive	X	X	●	●	●	●	●
External network card	External network card	X	●	●	●	●	●	●
to the external memory	Connect the card	●	X	●	●	●	●	●
Connection board	card data cable	X	X	●	●	●	●	●
Data Cable	Keyboard	X	X	●	●	●	●	●
Keyboard	mouse	X	X	●	●	●	●	●
mouse	CPU	X	X	●	●	●	●	●
CPU	Processor heat sink	X	X	●	●	●	●	●
processor heat rail	Rail	X	●	●	●	●	●	●
guide	sink print	●	●	●	●	●	●	●
printed matter	A plate	●	●	●	●	●	●	.Bag ●
CD	Boxing	●	●	●	●	●	●	. Packaging lining ●
Packing box	pad	●	●	●	●	●	●	. Plastic bags for packaging ●
Packaging pads		●	●	●	●	●	●	●
Packaging plastic bags	illustrate	●	●	●	●	●	●	●

illustrate: 1. Indicates that the content of the toxic and hazardous substance in all homogeneous materials of the component is in the "Toxic and Hazardous Substances in Electronic Information Products"

1. This form is compiled in accordance with the provisions of SJ/T 11364.

2. X indicates that the content of the toxic and hazardous substance in at least one homogeneous material of the component exceeds the limit set forth in the "Toxic and Hazardous Substances in Electronic Information Products".

3. ●: Indicates that the content of the hazardous substance in all homogeneous materials of this component is below the limit requirement specified in GB/T 26572.

The limit requirements for hazardous substances. The limit requirements specified in the standard. The "X" in the table cannot meet the limit requirements due to the limitations of the printed circuit board welding process.

4. The above components are possible configuration components of the product. Please refer to the configuration label for the actual product configuration.



9 Terms of Service

Please visit Inspur official website <http://www.inspur.com/>, go to Support Downloads/Self-Service/Service Policies to learn more about

The product warranty service policy includes service content, service period, service method, service response time and service disclaimer terms and other related contents.

or call Inspur service hotline

400-860-0011, by machine model or machine serial number

Please contact us by phone.

If there is no valid invoice, the warranty period will be determined by the manufacturer.

The calculation starts from the date when the product leaves the factory. The product invoice date is later than the actual delivery date of the product.

The warranty period starts from the date of actual delivery of the product.

Calculate..

22) Invoices are valid within three months of the invoice date and the factory date. If the invoice date is more than three months, the warranty period will be increased by three months.

build..

[99 Terms of Service Terms of Service](#)

We recommend that you read carefully before using for the first time.

In the "Instructions for Use" and "Standard Warranty Commitment" sections, this step will facilitate your use of the Influx Communication Server and help you understand the warranty services you can enjoy.

Information about warranty services enjoyed.

Special Tips: 11) You

should ask the distributor to unpack and inspect the quality of the server before handing it over.

Defects or malfunctions that are discovered only after handover ((Discovered only after use))

The inherent defects are not listed here, and are presumed to be not caused by the fault of our company.

22) If the Inspur product is changed according to the customer's requirements,

Server

Please fill in

the attached "Original Configuration of the Server" together with the distributor.

The dealer shall confirm and retain the "Dealer Configuration Change Instructions" and

Storage; all the non-instantaneous installations on your server are not included in the installation.

For warranty service, please contact its dealer.



33) If the distributor provides you with additional products other than those promised in the "Inspur Yingxin Server Standard Warranty Commitment",

For additional services, our company does not assume any responsibility. Please fill in Attachment 22 "Additional Services Request" together with the dealer company.

Commitment Description "Commitment Description" and confirm, preserve and guarantee it; preserve it to ensure that the dealer will fulfill the additional commitments made to you by the dealer.

44) This commitment only applies to Inspur server products manufactured on or after April 11, 2003 (inclusive).

[Instructions for first use](#)[Instructions for first use](#)

When you purchase a server, please: 11) First check

whether the actual configuration of the machine is consistent with the packing list, and whether the accompanying machine information, warranty card, and other materials are complete.

If you have any objections, please contact the distributor.

22) Carefully read the warranty commitment and the accompanying machine information, and keep the customer warranty card, accompanying machine information, CD-ROM and software properly.

diskette.

Note: Do not open the write protection of the random floppy disk to avoid virus infection.

[99.11 Warranty Period](#)[Warranty Period](#)

11) The Warranty Period shall commence on the date of first purchase of the Product ("Purchase Date"), which shall be the date of invoice for the Product.



9 Terms of Service

9 Terms of Service

We recommend that you read the "Instructions for First Use" carefully before using it for the first time.

This step will facilitate your use of Inspur. We recommend that you log in to the official website of Inspur at <http://inspur.com/> and read carefully before using it for the first time. You must read the "Notice for First Use" and the "Standard Warranty Commitment" section and download the "Standard Warranty Assistance" Service Commitment" service section to learn about the warranty services you can enjoy and other information.

This policy list will help you understand the relevant product warranty and repair service policies, including the service content, service period, and service information that you can enjoy, warranty information,

and apply service period Special handling for service methods and services: 1) You should ask the dealer to unpack and inspect over the service server. This product model or display: Serial No. 11) You should ask the distributor to unpack the product before handing over the service server. Any defects or faults found after handing over the service server (inherent defects that are only found after use are not included in this list) will be deemed to have been inspected. Any defects or malfunctions of this product that are discovered after delivery (internal defects that are discovered after use are presumed that the damage was not caused by our company's fault). 21) If the new service needs to be done according to the customer's requirements, please fill in the attached "Instructions for Configuration Change by the Distributor" together with the distributor, and confirm and save it; if all the configurations installed in your service server are not the original configurations of the Inspur Inspur service server, please fill in the attached "Warranty of Configuration Change by the Distributor" together with the distributor, and the warranty will be handled by you and the distributor. 33) If the distributor provides you with additional services other than the "Standard Warranty Commitment Statement for Inspur Inspur Service Servers", and confirms, acknowledges and preserves this statement. If your server is installed with any additional services other than those promised in this statement, our company will not be responsible for the should contact the distributor warranty of the company that the distributor should fill in the attached "Additional Service Standard Warranty Commitment Statement for Inspur Inspur Service Servers", and confirms, acknowledges and preserves this any additional statement, it means that the distributor will fill in the "Additional Service Standard Warranty Commitment Statement" only applies to Inspur Yingxin Servers produced on or after April 11, 22000033 (inclusive).

For additional services, our company does not assume any responsibility. Please fill in Attachment 22 "Additional

Service Information and Warranty Card" with the dealer to check whether the dealer has complete additional service information and warranty card. Please ensure that the dealer will fulfill its additional commitment to you. Machine information, and properly keep the customer warranty card, accompanying machine

4) This commitment only applies to Inspur server products manufactured on or after April 11, 2003 (inclusive).

information, CD-

ROM and floppy disk. 99. 11 Warranty Period 11) The Warranty Period shall commence on the date of first purchase of the Product ("Purchase Date"), which shall be the date of the invoice issued for the [Instructions for first use](#). Product. If there is no valid invoice, the Warranty Period shall commence on the date of shipment of the Product from the factory. If the invoice date of the Product is later than the actual delivery date of the Product, the Warranty Period shall commence on the actual delivery date of the Product. When you purchase the Server, please note that: 22) The Warranty Period shall commence on the date of shipment of the Product within three months of the invoice date. If the invoice date actual configuration of the machine is consistent with the packing list, and whether the factory date and warranty card accompanying the machine are complete.

If you have any objections, please contact the distributor.

Note

2) Carefully read the warranty commitment and the machine information, and keep the customer warranty card, machine information, CD-ROM and software in a safe place.

or call the Inspur service [hotline 400-860-0011](#) for consultation.

Note: Be careful not to open the write protection of the random floppy disk to avoid being infected with viruses.

9.1 Warranty Period

1) The Warranty Period shall commence on the date of first purchase of the Product ("Purchase Date"), which shall be the date of invoice issuance for the Product.