

J2012-01 SAS/SATA JBOD SERIES User's Manual

D/N:MAN-00306-A P/N:

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PREFACE

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Warning

- A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.
- 2. Use only shielded cables to connect I/O devices to this equipment.
- 3. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

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SAFETY INSTRUCTIONS

- Before getting started, please read the following important cautions:
- All cautions and warnings on the equipment or in the manuals should be noted.
- Most electronic components are sensitive to electrical static discharge. Therefore, be sure to ground yourself at all times when installing the internal components.
- Use a grounding wrist strap and place all electronic components in static-shielded devices. Grounding wrist straps can be purchased in any electronic supply store.
- Be sure to turn off the power and then disconnect the power cords from your system before performing any installation or servicing. A sudden surge of power could damage sensitive electronic components.
- Do not open the system's top cover. If opening the cover for maintenance is a must, only a trained technician should do so. Integrated circuits on computer boards are sensitive to static electricity. Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.
- Place this equipment on a stable surface when install. A drop or fall could cause injury.
- Please keep this equipment away from humidity.
- Carefully mount the equipment into the rack, in such manner, that it won't be hazardous due to uneven mechanical loading.
- This equipment is to be installed for operation in an environment with maximum ambient temperature below 35°C.
- The openings on the enclosure are for air convection to protect the equipment from overheating. DO NOT COVER THE OPENINGS.
- Never pour any liquid into ventilation openings. This could cause fire or electrical shock.
- Make sure the voltage of the power source is within the specification on the label when connecting the equipment to the power outlet. The current load and output power of loads shall be within the specification.
- This equipment must be connected to reliable grounding before using. Pay special attention to power supplied other than direct connections, e.g. using of power strips.
- Place the power cord out of the way of foot traffic. Do not place anything over the power cord. The power cord must be rated for the

- product, voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.
- If the equipment is not used for a long time, disconnect the equipment from mains to avoid being damaged by transient over-voltage.
- Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.
- If one of the following situations arise, the equipment should be checked by service personnel:
 - 1. The power cord or plug is damaged.
 - 2. Liquid has penetrated the equipment.
 - 3. The equipment has been exposed to moisture.
 - 4. The equipment does not work well or will not work according to its user manual.
 - 5. The equipment has been dropped and/or damaged.
 - 6. The equipment has obvious signs of breakage.
 - Please disconnect this equipment from the AC outlet before cleaning. Do not use liquid or detergent for cleaning. The use of a moisture sheet or cloth is recommended for cleaning.
- Module and drive bays must not be empty! They must have a dummy cover.

Product features and specifications are subject to change without notice.

CAUTION :

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS. After performing any installation or servicing, make sure the enclosure are lock and screw in position, turn on the power.

1.1 Box Content

Before removing the subsystem from the shipping carton, visually inspect the physical condition of the shipping carton. Exterior damage to the shipping carton may indicate that the contents of the carton are damaged. If any damage is found, do not remove the components; contact the dealer where the subsystem was purchased for further instructions. Before continuing, first unpack the subsystem and verify that the contents of the shipping carton are all there and in good condition.



If any items are missing, please contact your authorized reseller or sales representative. J2012-01 User's Manual

1.2 Specifications

	Number of Expande	er Single/Dual		Universal A/C Input	100~240V AC full range
General	Expander Chip	LSI SAS3x28R		Operating Environment	T
	Host/Expansion Interface	3 x Mini SAS HD (SFF-8644) per expander tray	Electrical and Environmental		Relative humidity 20% to 80%
Drives Supported	Drive Interface 12Gb & 6Gb SAS if using dual expanders 12Gb & 6Gb SAS/SATA if using single expander			Non-operating Environment	Temperature -20°C to 60°C Relative humidity 10% to 90%
	Form Factor	3.5"		Dimensions (W x D x H) (with chassis ears)	mm: 483 x 534 x 88.2
Administration /	Admin/Firmware Upgrade	In-band & Serial port interface IEM port (Optional)			inches : 19 x 21 x 3.5
Management	LED indicators, Audible Alarm	Yes	Physical Specification	Gross Weight (w/ PSU,	kgs : 22.1
	Disk Drive	Hot swap 12-bay	specification	w/o Rail & Disks)	lbs : 46.3
	Cooling	2 x 6038 hot swap fans		Packaging	mm: 595 x 785 x 278
Hot swap and Redundancy	Power Supply	549W 1+1 hot swap redundant 80+ Platinum		(W x D x H)	inches: 23.4 x 30.9 x 10.9
Redendancy	Power Entry	Dual AC Inlet		Standard	Adjustable plate
	Expander	Dual expanders	Moorning	Option	20" tool-less rail

1.3 General Information

J2012-01 is a 2U rackmount chassis with 12 x 3.5"HDD hot swap bay and dual expand module JBOD, which is a high performance, high density, scalable storage product. The J2012-01 JBOD supports T10 zoning function and can be shared by up to 3 servers.

• Front Panel

Supports hot-swappable 12 x 3.5" HDDs

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LED Indicator and Switch

		System PWR Switch				
	V	Behavior	Status			
		Normal	Off			
U		Press	Boot up			
		Long Press	system shutdown			
	A	Power Fault LED	·			
		Behavior	LED Status			
		Normal	Off			
		Failed	Red			
	1=	Temperature(Overheat) LED				
		Behavior	LED Status			
		Normal	Off			
		Failed	Red			
		Fan fault LED				
		Behavior	LED Status			
		Normal	Off			
		Failed	Red			
	MUTE	System Alert Mute Switch				
		Behavior	Status			
		Normal	Off			
		Press	Alert mute			

J2012-01 User's Manual

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Chapter 1 Product Introduction

• Rear Expender Panel



Item	Describtion
	SFF8644 wide port
	Console port
	Debug port
	BMC LAN port
B.C ()	BMC console port

2 Dual Expander (Primary & Secondary)

Chapter 1 Product Introduction

• Rear Panel

549W 1+1 hot-swap redundant power supply



Chapter 1 Product Introduction

1.4 SCSI Enclosure Services - 2 (SES-2)

To ensure J2012-01 can work properly and provide high performance, durability. J2012-01 has implemented SCSI Enclosure Services-2 to monitor the status of power supply, system cooling fan and working temperature. It also has the indicators to deliver the status of fail devices such as power supply or cooling fan. You can get the information directly from the front indicators to know how your enclosure works.

For detailed information, please visit <u>http://www.t10.org</u> If you are a member of the T10 working group, the Standard which controlled by T10 technical committee, could be found at <u>http://www.t10.org/cgi-bin/ac.pl?t=f&f=ses2r19a.pdf</u>

1.4.1 SES pages supported are listed below

00h -list of supported diagnostic pages

01h -SES -configuration

02h -SES -enclosure control / enclosure status

07h -SES -element descriptor

0Ah -SES -additional element

0Eh -SES -download microcode control / SES download microcode status

1.4.2 SES elements supported are listed below.

02h -power-supply

03h -cooling

04h -temperature-sensor

0Eh -enclosure

- 12h -Voltage
- 17h -array device

Chapter 2. Hardware Installation

This chapter provides detailed instructions on hardware installation.

2.1 Removing and Installing Top Cover

Loosen 2 screws on top cover. Take it out of the enclosure.



2.2 Removing/Installing a Drive Tray/ Hard Drive/ Drive Slot Map

2.2.1 Removing a Disk Drive

Release a drive tray by pressing the unlock button and pinching the lock lever slightly and pulling out the drive tray.



2.2.2 Installing a 3.5" Disk Drive



Directly place HDD into tool-less HDD tray until it snaps. Please check if the screw holes on HDD match the dimples on HDD tray.

HDD can also be screwed on HDD tray by fastening two screws as picture showed.

2.2.3 Installing a Hard Disk Drive Tray

Insert the drive carrier into its bay. Push the tray lever until it clicks. Make sure the drive tray is correctly secured in place when its front edge aligns with the bay edge.



2.2.4 Drive Slot Map

The drive slot map follows.

80 84 87 87		

HBA card							
0	1	2	3				
4	5	6	7				
8	9	10	11				

MegaRaid card							
1	2	3	4				
5	6	7	8				
9	10	11	12				

2.3 Removing and Installing a PSU Module

- 2.3.1 Removing a PSU module
- Remove power cables connected to the PSU module.
- Allow a minute for fan to spin down.
- Pushing the latch then hold the tray handle tab. Then pull the PSU module gently until it slides out of the JBOD.

2.3.2 Installing a PSU Module

- Slide in PSU module.
- Make sure the latch on the module is fully hooked onto the PSU housing.



2.4 Removing and Installing a Fan Module

- 2.4.1 Removing a Fan module
- Loosen the thumb screws on each sides in front of fan module.
- Hold the fan module from both sides.
- Pull the fan module gently and firmly until it clears the enclosure chassis.
- 2.4.2Installing a Fan Module
- Align the fan module with the opening in the enclosure.
- Insert the fan module into JBOD.



2.5 Removing and Installing External Expander Module

- 2.5.1 Removing an expander module
- Loosen the thumb screw to release expander tray lever.
- Hold the lever to pull the expander out of JBOD.
- 2.5.2 Installing an expander module
- Align the expander module with the opening in front of the enclosure, and insert it into the enclosure firmly.
- Close the lever and secure the retaining screw.



2.6 Removing and Installing the HDD backplane Module

- 2.6.1 Removing a HDD backplane module
- Unscrew 8pcs screws in the middle side of JBOD to release the HDD backplane module. (2* top side 2* bottom side *2 both side)
- Hold the backplane module to pull the backplane module out of JBOD.
- 2.6.2 Installing a HDD backplane module
- Slide the HDD backplane module into JBOD.
- Secure the HDD backplane module onto the JBOD using the screws.



2.7 Installing Slide Rail /Adjuster Plate

2.7.1 Installing slide rail

To install the slide rail, please refer to the manual in the slide rail kit.



Chapter 2 Hardware Installation

2.7.2 Installing the rear of JBOD onto the Rack

- Secure the adjuster plate on the rack using the screws.
- Insert the slide rail into the adjuster plate and make sure the slide rail is fully hooked into the adjuster plate.
 M4 X 6L screws kit * 1sets (10pcs)
 Adjuster plate *2 sets



Chapter 2 Hardware Installation

2.7.3 Installing the front of JBOD onto the rack

- Secure the JBOD on the rack using the screws.
- Complete installing JBOD.





Chapter 3. Sub-System Configuration Setup

3.1 Supported Configuration On Host



3.



NOTE :

TO HAVE MULTIPLE HOST ACCESS SUPPORT (THE HOST NUMBER CAN BE UP TO THE NUMBER OF WIDE PORTS ON EACH AIC 12G EXPANDER CONTROLLER), ONLY THE FOLLOWING DRIVES ARE SUPPORTED FOR SHARED ACCESS:

- 1. SAS DRIVE
- 2. SATA DRIVE WITH AN INTERPOSER WHICH PROVIDES SATA-TO-SAS CONVERSION

Chapter 3 Sub-System configuration Setup

3.2 Utility Set up on Host

Step 1: Set up host RS232 connection
Set up RS232 connection application into your host as shown in the example process below.
For example:
OS: Microsoft Windows Server 2008
RS232 connection application: Hyperterminal

Step 2: Install HyperTrm.exe



Step 3: Enter a new name for the icon in the field below and click OK.



Step 4: Connect by using selecting an option in the drop down menu circled in red below (we selected COM2 in this example) and click OK.

Connect To
JBOD Contraction
Enter details for the phone number that you want to dial:
Country/region:
Enter the area code without the long-distance prefix.
Area code: 03
Phone number:
Connect using: COM2
Configure
✓ Detect Carrier Loss ✓ Use country/region code and area code ✓ Redial on busy
OK Cancel

Step 5: For "Bits per second", select 38400. For "Flow control", select: None. Click OK when you have finished your selections.

CON	12 - Properties			? ×
Pc	ort Setting			[
	Bits per second:	38400		_
	Data bits:	8		<u> </u>
	Parity:	None		<u> </u>
	Stop bits:	1		<u> </u>
	Flow control:	None		-
			Restore	Defaults
	OK		Cancel	Apply

Step 6 : Set up is complete. The diagram below depicts what screen should displayed.



3.3 Connect Host to JBOD via RS232

Use a RS-232 DB9 cable connect the console port of JBOD with host's PC COM port (see figures below for DB9 RS-232 cable and SAS expander COM port).





3.4 Configure command Line Interface Operation

3.4.1 How to enable/disable T10 zoning The default T10 zoning configuration is off. (A) Check the current zoning state cmd> phyzone state Zoning is OFF (B) Enable zoning cmd> phyzone on (C) Disable zoning cmd> phyzone off
Image: Cmd > C

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3.4.2 How to configure T10 zoning

After enabling T10 zoning, five predefined groups are Group1, Group8, Group9, Group10, and Group11.

Each PHY should be in one of the five groups, and all PHYs in a wide port should be in the same group.

Each PHY in Group1 can access any PHY in other groups, and vice versa. Each PHY in Group8 cannot access any PHY in Group9, and vice versa.

The command syntax is "phyzone phy_index group". The following example shows how to setup one drive accessed only the first port and another drive accessed only by the second port.

The configuration for the example is (A) PHY0 - PHY3 for the first wide port (B) PHY4 - PHY7 for the second wide port (C) PHY12 - PHY35 for drive

Step 1: Read the current group for PHY4 cmd> phyzone 4 Phy 4 for Zone Group 1 Step 2: Assign the second port (PHY4 - PHY7) for Group9 cmd> phyzone 4 9 cmd> phyzone 5 9 cmd> phyzone 6 9 cmd> phyzone 7 9 Step 3: Assign the first port (PHY0 - PHY3) for Group8 cmd> phyzone 0 8 cmd> phyzone 1 8 cmd> phyzone 28 cmd> phyzone 38 Step 4: Assign the drive on PHY12 to be accessed only by the first port instead of the second port cmd> phyzone 128 Step 5: Assign the drive on PHY13 to be accessed only by the second port instead of the first port cmd> phyzone 13 9 Step 6: Reset

Chapter 3 Sub-System configuration Setup

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3.4.3 How to get all revisions in AIC SAS 12G Expander

(A) Expander firmware revision
cmd> rev
(B) Expander configuration revision
cmd> showmfg
(C) MCU firmware for managing sensors
cmd> sensor

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Mtg Revision: 1.1.0.4 Product Name: SAS3_HOTSWAP Platform Name: AIC 12G	
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MCU firmware version :1.2 	
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3.4.4 How to configure temperature sensor

Four temperature settings in Celsius are T1, T2, warning threshold, and alarm (critical) threshold.

(A) Get the current temperature settings

cmd> temperature

Temperature in Celsius (†1=20 C, †2=55 C, warning=50 C, alarm=55 C)

(B) Set temperature with new T1=18 C, T2=52 C, warning threshold=48 C, and alarm threshold=54 C. The new setting will take effect after reset.

cmd> temperature 18 52 48 54

cmd> reset

(C) We also take expander temperature into consideration, and the temperature parameters for expander are fixed. Expander temperature parameters: T1=40, T2=86 (max 115*0.75) ,and no warning or alarm.

The smart fan feature will use the highest PWM output which is calculated from system and expander temperature parameters.



3.4.5 How to configure enclosure address

(A) Get the current enclosure address
cmd> enclosure_addr
Enclosure Address: 0x500605B0000272BF
(B) Set the enclosure address with 0x500605B0000272BF. The new setting will take effect after reset.
cmd> enclosure_addr 500605B0000272BF
cmd> reset

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3.4.6 How to configure standby timer for all disk drives

This feature is applicable for SAS/SATA drives. Standby timer is in units of minutes. Setting standby timer with 0 minute disables this feature.

(A) Get current standby timer
cmd> standby_timer
Standby Timer : 0 minutes
(B) Set the standby timer with 10 minutes. The new setting will take effect
after reset.
cmd> standby_timer 10

cmd> reset

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3.4.7 How to configure wide port checker

This feature is applicable for SAS drives instead of SATA drives. If there is no connection with any active SAS initiator by checking all wide ports, AIC Expander Controller stops all attached SAS drives to save power consumption of SAS drives. Otherwise, AIC Expander Controller starts all attached SAS drives to provide drive access service to any active SAS initiator.

(A) Get the current state of wide port checker

cmd> check_wide_port

Checking wide port is OFF

(B) Enable checking wide port. The new setting will take effect after reset. cmd> check wide port on

cmd> reset

(C) Disable checking wide port. The new setting will take effect after reset. cmd> check_wide_port off

cmd> reset

Chapter 3 Sub-System configuration Setup


3.4.8 How to configure serial number

(A) Get the current serial number cmd> serial_number
Expander number: 421-12021704510010 or Expander number: 421-12021704510010 Enclosure number: 526-12071100500088
(B) Only set Expander serial number with 421-12021704510010.
cmd> serial_number 421-12021704510010
(C) Set both of Expander serial number (421-12021704510010) and Enclosure serial number (526-12071100500088).
cmd> serial_number 421-12021704510010 526-12071100500088

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3.4.9 How to turn on/off the power of a drive slot

The "DEVICE OFF" for a drive slot is defined in the bit4, byte3 of the "Array Device Slot control element" in the SES-3 specification. Set the bit to turn off a slot power, and vice versa. Please install a software package "sg3_utils" on your host computer, and have a SAS HBA and a cable to connect your host with the expander. We use Linux for example.

(A) Show the device for AIC Expander Controller (canister)

\$ sg_map -i

/dev/sg2 AIC 12G 2U24SAS3swap 0c01

(B) Get the current state of a slot power. The "Device off=0" means the slot power is on.

```
$ sg_ses --page=2 /dev/sg2
```

Element 0 descriptor:

App client bypass B=0, Fault sensed=0, Fault reqstd=0, Device off=0

(C) Get the descriptor of a slot power

\$ sg_ses --page=7 /dev/sg2

Element 0 descriptor: Disk001

(D) Turn off a slot power

\$ sg_ses --descriptor=Disk001 --set=3:4:1 /dev/sg2

(E) Turn on a slot power

\$ sg_ses --descriptor=Disk001 --clear=3:4:1 /dev/sg2

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/dev	/sg2	/dev/s	sdc	HIT	ACHI	HUC1	09090	OCSS6	90	A2D0	
/dev	/sg3	/dev/s	sdd	HIT	ACHI	HUC1	09090	OCSS6	90	A2D0	
/dev	/sg4	/dev/s	sde	HIT	ACHI	HUC1	09090	OCSS6	90	A2D0	
/dev	/sg5	/dev/s	sdf	HIT	ACHI	HUC1	09090	9CSS6	90	A2D0	
/dev	/sg6	/dev/s	sdg	HIT	ACHI	HUC1	09090	OCSS6	90	A2D0	
/dev	/sg7	/dev/s	sdh	HIT	ACHI	HUC1	09090	9CSS6	90	A2D0	
/dev	/sg8	/dev/s	sdi	HIT	ACHI	HUC1	09090	9CSS6	90	A2D0	
/dev	/sg9	/dev/s	sdj	HIT	ACHI	HUC1	09090	OCSS6	90	A2D0	
/dev	/sg10	/dev/	/sdk	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sgll	/dev/	/sdl	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg12	/dev/	/sdm	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg13	/dev/	/sdn	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg14	/dev/	/sdo	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg15	/dev/	/sdp	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg16	/dev,	/sdq	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg17	/dev,	/sdr	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg18	/dev,	/sds	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg19	/dev,	/sdt	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg20	/dev,	/sdu	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg21	/dev,	/sdv	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg22	/dev,	/sdw	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg23	/dev,	/sdx	ΗI	TACHI	HUC	10909	90CSS	600	A2D0	
/dev	/sg24	AIC 1	12G	20	24SAS3	swap		0c01			
/dev	/sg25	/dev,	/sdy	AT	Α	ST9	16051	11NS		SN03	
[roo	t@loca	alhost	Desk	top]#						

Chapter 3 Sub-System configuration Setup

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<pre>[root@localhost Desktop]# sg_sespage=2 /dev/sg24 AIC 12G 2U24SAS3swap 0c01 Define for (here), 50015h21602e5e2f</pre>	^
Primary enclosure logical identifier (nex): 50015621682c5a3f Enclosure Status diagnostic page: INVOP=0, INFO=0, NON-CRIT=0, CRIT=0, UNRECOV=0 generation code: 0x0 status descriptor list	
Overall descriptor: Predicted failure=0, Disabled=0, Swap=0, status: Unsupported	
OK=0, Reserved device=0, Hot spare=0, Cons check=0 In crit array=0, In failed array=0, Rebuild/remap=0, R/R abort=0 App client bypass A=0, Do not remove=0, Enc bypass A=0, Enc bypass B=0 Ready to insert=0, RMV=0, Ident=0, Report=0 App client bypass B=0, Fault sensed=0, Fault regstd=0, Device off=0	
Bypassed A=0, Bypassed B=0, Dev bypassed A=0, Dev bypassed B=0 Element 0 descriptor: Predicted failure=0. Disabled=0. Swap=0. status: Not installed	*
OK=0, Reserved device=0, Hot spare=0, Cons check=0 In crit array=0, In failed array=0, Rebuild/remap=0, R/R abort=0 App client bypass A=0, Do not remove=0, Enc bypass A=0, Enc bypass B=0 Ready to insert=0, RMV=0, Ident=0, Report=0 App client bypass B=0, Fault sensed=0, Fault reqstd=0, Device off=1 Bypassed A=0, Bypassed B=0, Dev bypassed A=0, Dev bypassed B=0 Element 1 descriptor:)
Predicted failure=0, Disabled=0, Swap=0, status: OK OK=0, Reserved device=0, Hot spare=0, Cons check=0 In crit array=0, In failed array=0, Rebuild/remap=0, R/R abort=0 App client bypass A=0, Do not remove=0, Enc bypass A=0, Enc bypass B=0 Ready to insert=0, RMV=0, Ident=0, Report=0 App client bypass B=0, Fault sensed=0, Fault reqstd=0, Device off=0 Bypassed A=0, Bypassed B=0, Dev bypassed A=0, Dev bypassed B=0 Element 2 descriptor:)
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Chapter 3 Sub-System configuration Setup

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[root@localhost Desktop]# sg_sespage=7 /dev/sg24	~
AIC 12G 2U24SAS3swap 0c01	
Primary enclosure logical identifier (hex): 50015b21682c5a3f	
Element Descriptor In diagnostic page:	
element descriptor by type list	
Element type: Array device slot subenclosure id: 0 [ti=0]	
Overall descriptor: ArrayDevicesInSubEnclsr0	
Element 0 descriptor: Disk001	
Element 1 descriptor: Disk002	
Element 2 descriptor: Disk003	
Element 3 descriptor: Disk004	
Element 4 descriptor: Disk005	
Element 5 descriptor: Disk006	
Element 6 descriptor: Disk007	
Element / descriptor: Disk008	
Element 9 descriptor: Disk009	
Element 10 descriptor: Disk011	
Element 11 descriptor: Disk012	
Element 12 descriptor: Disk013	
Element 13 descriptor: Disk014	
Element 14 descriptor: Disk015	
Element 15 descriptor: Disk016	
Element 16 descriptor: Disk017	
Element 17 descriptor: Disk018	
Element 18 descriptor: Disk019	
Element 20 descriptor: Disk020	
Element 21 descriptor: Disk022	
Element 22 descriptor: Disk023	
Element 23 descriptor: Disk024	
Element type: Temperature sensor, subenclosure id: 0 [ti=1]	
Overall descriptor: TempSensorsInSubEnclsr0	
Element 0 descriptor: SystemTempSense01	
Element type: Voltage sensor, subenclosure id: 0 [ti=2]	
Overall descriptor: VoltageSensorsInSubEnclsr0	
Element 0 descriptor: VoltageSense01	
Element type: Enclosure, subenclosure id: 0 [ti=3]	
Overall descriptor: EnclosureElementInSubEnclsr0	
Element 0 descriptor: EnclosureElement01	Ē
Element type: Power supply, subenclosure id: 0 [ti=4]	
Overall descriptor: PowerSupplyInSubEnclsr0	~
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3.4.10 How to power off/on all disk drives manually

The "RQST ON" for Power Supply is defined in the bit5, byte3 of the "Power Supply control element" in the SES-3 specification. Clear the bit to power off all disk drives. Set the bit to power on all disk drives. Please install the software package "sg3_utils" on your host computer, and have a SAS HBA and a cable to connect your host with the expander. We use Linux for example.

(A) Show the device for AIC Expander Controller (canister) \$ sg_map -i

/dev/sg2 AIC 12G 2U24SAS3swap 0c01

(B) Power off all disk drives

\$ sg_ses --descriptor=DiskPowerSupply --clear=3:5:1 /dev/sg2

(C) Power on all disk drives

\$ sg_ses --descriptor=DiskPowerSupply --set=3:5:1 /dev/sg2

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[root@loca	alhost Des	ktop]# sg_n	nap -i	
/dev/sg0	/dev/sda	HITACHI	HUC109090CSS600	A2D0
/dev/sg1	/dev/sdb	HITACHI	HUC109090CSS600	A2D0
/dev/sg2	/dev/sdc	HITACHI	HUC109090CSS600	A2D0
/dev/sg3	/dev/sdd	HITACHI	HUC109090CSS600	A2D0
/dev/sg4	/dev/sde	HITACHI	HUC109090CSS600	A2D0
/dev/sg5	/dev/sdf	HITACHI	HUC109090CSS600	A2D0
/dev/sg6	/dev/sdg	HITACHI	HUC109090CSS600	A2D0
/dev/sg7	/dev/sdh	HITACHI	HUC109090CSS600	A2D0
/dev/sg8	/dev/sdi	HITACHI	HUC109090CSS600	A2D0
/dev/sg9	/dev/sdj	HITACHI	HUC109090CSS600	A2D0
/dev/sg10	/dev/sdk	HITACHI	HUC109090CSS600	A2D0
/dev/sg11	/dev/sdl	HITACHI	HUC109090CSS600	A2D0
/dev/sg12	/dev/sdm	HITACHI	HUC109090CSS600	A2D0
/dev/sg13	/dev/sdn	HITACHI	HUC109090CSS600	A2D0
/dev/sg14	/dev/sdo	HITACHI	HUC109090CSS600	A2D0
/dev/sg15	/dev/sdp	HITACHI	HUC109090CSS600	A2D0
/dev/sg16	/dev/sdq	HITACHI	HUC109090CSS600	A2D0
/dev/sg17	/dev/sdr	HITACHI	HUC109090CSS600	A2D0
/dev/sg18	/dev/sds	HITACHI	HUC109090CSS600	A2D0
/dev/sg19	/dev/sdt	HITACHI	HUC109090CSS600	A2D0
/dev/sg20	/dev/sdu	HITACHI	HUC109090CSS600	A2D0
/dev/sg21	/dev/sdv	HITACHI	HUC109090CSS600	A2D0
/dev/sg22	/dev/sdw	HITACHI	HUC109090CSS600	A2D0
/dev/sg23	/dev/sdx	HITACHI	HUC109090CSS600	A2D0
/dev/sg24	AIC 12G	2U24SAS39	wap 0c01	
/dev/sg25	/dev/sdy	ATA	ST9160511NS	SN03
[root@loca	alhost Des	ktop]#		



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<pre>[root@localhost Desktop]# sg_sesdescriptor=DiskPowerSupplyclear=3:5:1 /dev</pre>	~
/sg24 [root@localhost_Desktop]# sg_sesdescriptor=DiskPowerSupplyset=3:5:1 /dev/sg24	
[root@localhost Desktop]#	
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3.4.11 How to manually change PWM (fan speed) for all Cooling elements

The "RQST IDENT" for Cooling is defined in the bit7, byte1 and the "REQUESTED SPEED CODE" is defined in the bit2 ~ 0, byte3 of the "Cooling control element" in the SES specification. Set "RQST IDENT" bit to disable the smart fan function, and then change PWM or fan speed for all Cooling elements by setting the "REQUESTED SPEED CODE" bits. Clear "RQST IDENT" bit to enable the smart fan function again. Please disable the smart fan function before changing PWM or fan speed. Only Cooling element 0 supports this feature. We use the software package "sg3_utils" on Linux for example, and have a SAS HBA and a cable to connect your host with the expander.

(A) Show the device for AIC Expander Controller (canister)
 \$ sg_map -i

/dev/sg2 AIC 12G 2U24SAS3swap 0c01

(B)Set "RQST IDENT" of Cooling element 0 to disable the smart fan function

\$ sg_ses --descriptor=SystemCoolingElement01 --set=1:7:1 /dev/sg2

(C)Set "REQUESTED SPEED CODE" of Cooling element 0 to change PWM or fan speed for all Cooling elements. Set "REQUESTED SPEED CODE"=7 (100% PWM) for example.

\$ sg_ses --descriptor=SystemCoolingElement01 --set 3:2:3=7 /dev/sg2

REQUESTED SPEED CODE	PWM
7	100%
6	90%
5	80%
4	70%
3	60%
2	50%
1	40%
0	Leave at current speed

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# sg_sesdescriptor=SystemCooingElement01set=3:2:3=7 /dev/sg2	
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3.4.12 How to power off/on all disk drives automatically

This feature is applicable for SAS/SATA drives. If there is no connection with any active SAS initiator by checking all wide ports, AIC Expander Controller powers off all attached SAS/SATA drives to save power consumption. Otherwise, AIC Expander Controller powers on all attached SAS/SATA drives to provide drive access service to any active SAS initiator. (A) Apply the following commands on the COM port. cmd> check_wide_port standby

cmd> reset



WARNING : This function is not recommended to use with RAID card since RAID card limitation.

3.4.13 How to configure power setting

This feature is for restoring on AC power loss. Three supported options are "keep off", "keep on", and "keep last state". The default setting is "keep off". (A) Get the current power setting cmd> power_setting Power setting: keep off (B) Set "keep off" cmd> power_setting keep_off (C) Set "keep on" cmd> power_setting keep_on (D) Set "keep last state" cmd> power_setting keep_last_state 3.4.14 How to enable the EDFB function on 12G expander

The default EDFB configuration is off. Check the current configuration

cmd> edfb

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Enable the edfb

cmd>edfb on

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3.5 Power on/off the enclosure via RS232

The RS232 setting - baud rate: 9600 bps, data bits: 8, parity: odd, stop bits: 1, flow control: none



Serial port for Remote JBOD Power on & off Up – to Host or JBOD

The power-on command is "RemoteStart\n" where "\n" means Carriage Return and Linefeed. The power-off command is "RemoteStop\n". When the host RS232 receives "RemoteStart\n" or "RemoteStop\n" from the enclosure after the same command was sent to the enclosure, that means the enclosure accepts the command sent by the host. The reference script below runs on Linux.

```
#######################
   #!/bin/bash
   PORT="/dev/ttyS0"
   BAUDRATE="9600"
   NOFLOW="-ixon -ixoff -crtscts"
   SOFTFLOW="ixon ixoff -crtscts"
   DEFAULT="-inpck clocal -istrip ignbrk ignpar opost onlcr -iexten"
   if [$# -eq 0]; then
   echo "Usage: $0 start/stop"
   exit 1
   fi
   [!-e "$PORT"] && echo "Console closed..."
   stty -F $PORT $BAUDRATE cs8 parenb parodd -cstopb $NOFLOW opost onlcr
   case $1 in
   start)
   echo "RemoteStart"
   echo -e "\n" > $PORT
   echo -e "RemoteStart\n" > $PORT
   ;;
J2012-01 User's Manual
```

stop) echo "RemoteStop" echo -e "\n" > \$PORT echo -e "RemoteStop\n" > \$PORT echo -e "RemoteStop\n" > \$PORT

Chapter 4. BMC Configuration and Settings

4.1 Sensor's location for Fan & Temperature



Chapter 4 BMC Configuration and Setting

4.2 Utility setup on Host

Please refer to Section 3.2

4.3 Connect Host to BMC by RS232

1. Type the "[", it will show the IPMI serial interface

IPMI Terminal Interface

Usage :

Terminal Text command : [SYS Command] Terminal IPMI command : [NetFn SeqNum Cmd Data 0 ... Data N] Type [SYS HELP] - To get list of Text Command IPMI Terminal:/> [

Type command for login the interface. #[sys pwd –u admin admin] It will response [OK]

IPMI Terminal:/> [sys pwd -u admin admin] [OK]

2. Get LAN information

Get LAN static IP /DHCP	[30 00 02 01 04 00 00]
Get LAN IP	[30 00 02 01 03 00 00]
Get submask	[30 00 02 01 06 00 00]
Get gateway	[30 00 02 01 0C 00 00]
$\begin{array}{r} 0_{hex} = 0_{dec} \\ 1_{hex} = 1_{dec} \\ 2_{hex} = 2_{dec} \end{array} \qquad $	/> [30 00 02 01 04 00 00] L 02]
3 _{hex} = 3 _{dec} IPMI Terminal: 1 -4	/> [30 00 02 01 03 00 00]
$4_{hex} = 4_{dec}$ $5_{hex} = 5_{dec}$	
6 hex = 6 decIPMI Terminal:/7 hex = 7 	<pre>/> [30 00 02 01 06 00 00]</pre>
8 _{hex} = 8 _{dec}	
9 _{hex} = 9 _{dec} IPMI Terminal:/ A _{hex} = 10 _{dec} [34 00 02 00 11]	<pre>/> [30 00 02 01 0C 00 00] C0 A8 58 01]</pre>
$\mathbf{B}_{hex} = 11_{dec}$	
$\mathbf{c}_{\text{hex}} = 12_{\text{dec}}$	
$\mathbf{D}_{hex} = 13_{dec}$	
$E_{hex} = 14_{dec}$	
hex = 15dec	

Get LAN static IP /DHCP: 01 is static IP, 02 is DHCP.

The red box is hexadecimal, according to the left picture, the IP is 16*12 + 0 = 192, 16*10 + 8 = 168, 16*5 + 8 = 88, 16*6 + 11 = 107, It is **192.168.88.107**

3. Set LAN information

Se	et LAN information										
Se	et LAN static IP /DHCP	[30 0	0 01	01	04 (01/0	2]			
Se	et LAN IP	[30 0	0 01	01	03	C0 /	80	0 0 A	、]	
Se	et submask	[30 0	0 01	01	06	FF FF	FF	00]		
Se	et gateway	[30 0	0 01	01	0C	C0 /	A8 (0 01]	
	IPMI Terminal:/> [34 00 01 00]	[30	00	01	01	04	01]]			
	IPMI Terminal:/> [34 00 01 00]	[30	00	01	01	03	C0	A8	00	ØA]
	IPMI Terminal:/> [34 00 01 00]	[30	00	01	01	06	FF	FF	FF	00]
	IPMI Terminal:/> [34 00 01 00]	[30	00	01	01	00	C0	A8	00	01]

The Green returns text that in red box is completion code, **00 means OK**, The blue text can change the value what you want, if you want to change the IP address, must **set the LAN status to static.** 4. Login the web page

Open a browser, type the IP in the address bar

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← → C ⋒ [] 192.168.88.111/index.html	[↓ 公] =
AIC	Intelligent Storage
Required 1. Al 2. Al 3. Er 4. Er 1. Is recorr	Username: Password: Foract Password? Login Anowser Settings ave popups from this site wy popups from this site wy file download from this site. (How to) able javascript for this site able cookies for this site mended not to use Refresh, Back and Forward options of the browser.

Type the default account and password Account:admin Password:admin

📥 🗅 Megarac SP 🛛 🗙 🗖		
← → C ⋒ [] 192.168.88.111/index.html		□ 🗙 ☆ 🗎 🚍
AIC		Intelligent Storage
	Username: admin Password: Forgot Password? Login Beguired Browser Settings	
	 Allow popups from this site S Allow file download from this site. (How to D) Enable javascript for this site S Enable cookies for this site S Enable cookies for this site S It is recommended not to use Refresh, Back and Forward options of the browser. 	

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4.4 Web UI

4.4.1 Dashboard

Device Information

Displays the Firmware Revision and Firmware Build Time (Date and Time).

Network Information

Shows network settings for the device. Click on the link Edit to view the Network Settings Page.

Remote Control

Not support this function.

Remote Console Preview Box

It will show the console preview of the remote server using java application. Click on 'Refresh' button to reload the console preview.

Sensor Monitoring

It lists all available sensors on the device, with information such as status, name, reading, and status icon, as well as a link to that sensor's page. There are 3 possible states for a Sensor:

- Green dot denotes a Normal state.
- Yellow exclamation mark denotes a Warning state.
- Red x denotes a Critical state.

The magnifying glass allows access to the Sensor details page for that sensor.

Event Logs

A graphical representation of all events incurred by the various sensors and % occupied/available space in logs. If you click on the colorcoded rectangle in the Legend for the chart, you can view a list of those specific events only.



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4.4.2 FRU information

This page displays the BMC FRU file information. On selecting a particular FRU Device ID its corresponding FRU information will be displayed.

Basic Information

It displays the FRU device ID and device name for the selected FRU device ID.

Chassis Information

It displays the following Chassis information fields.

- Area Format Version
- Chassis Type
- Chassis Part Number
- Chassis Serial Number
- Chassis Extra

Board Information

It displays the following Board information fields.

- Area Format Version
- Language
- Manufacture Date Time
- Board Manufacturer
- Board Product Name
- Board Serial Number

- Board Part Number
- FRU File ID
- Board Extra

Product Information

It displays the following Product information fields.

- Area Format Version
- Language
- Manufacturer Name
- Product Name
- Product Part Number
- Product Version
- Product Serial Number
- Asset Tag
- FRU File ID
- Product Extra

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Dashboard FRU Information Hard Di	sk Status Storage Health Configuration Remote Co	● admin (Administrator) C Refresh I Print I Logout Control Firmware Update HELP
Field Replaceable Unit(FRU)	<u> </u>	
This page gives detailed information for the vario	ous FRU devices present in this system.	
Basic Information:		
FRU Device ID	0 •	
FRU Device Name	BMC_FRU	
Chassis Information:		
Chassis Information Area Format Version	1	
Chassis Type	Main Server Chassis	
Chassis Part Number		
Chassis Serial Number Chassis Extra		
Board Information:		
Board Information Area Format Version	1	
Language	0	
Manufacture Date Time	Wed Nov 20 17:49:00 2013	
Board Manufacturer	ABC	
J2012-01 User's N	Aanual	

4.4.3 Hard Disk Status

This page displays all the HDD power on/off status, using the "Power On" and "Power Off" button to control HDD status.

ACTIONS Power On Select a HDD to turn it power on. Power off Select a HDD to turn it power off. NOTE : WHEN SELECT A HDD TO POWER ON/OFF, MUST TO REFRESH THIS PAGE FOR GET THE NEW STATUS. 🖶 🗋 Megarac SP × C 🕯 🗋 192.168.88.130/index.html **□**×☆ = Intelligent Storage admin (Administrator) 🛛 C Refresh 🛛 😔 Print Logout Dashboard FRU Information Hard Disk Status Storage Health Configuration Remote Control Firmware Update Hard Disk Manager Power Control Power On Power Off Hard Disk Power Control HDD1 O HDD2 O HDD3 O HDD4 O HDD5 O HDD6 O HDD7 O HDD8 HDD9 HDD10 HDD11 HDD12 HDD13 HDD14 HDD15 HDD16 ۲ . HDD17 HDD18 HDD19 HDD20 HDD21 HDD22 HDD22 HDD23 HDD24 javascript://

4.4.4 Storage Heath

4.4.4.1 Sensor Readings

A list of sensor readings will be displayed here. Click on a record to show more information about that particular sensor, including thresholds and a graphical representation of all associated events. Double click on a record to toggle (ON / OFF) the live widget for that particular sensor. You can filter the list to view particular sensors only using the drop-down list box.

NOTE : N/A represents Not Applicable.

Live Widget

Turn On or Off the live widget for this sensor. This widget gives a dynamic representation of the readings for the sensor.

View this Event Log

Click this button to go the event log page for the viewed sensor.



4.4.4.2 Event Log

This page displays the list of events incurred by different sensors on this device. Double click on a record to see the details of that entry. You can also sort the list of entries by clicking on any of the column headers. You can use the sensor type or sensor name filter options to view those specific events logged in the device.

BMC Timezone

Check this option to display the event log entries logged with the BMC Timezone value.

Client Timezone

Check this option to display the event log entries logged with the Client (user's) Timezone value.

UTC Offset

Displays the current UTC Offset value based on which event Time Stamps will be updated. Navigational arrows can be used to selectively access different pages of the Event Log.

Clear All Event Logs

Clear All Event Logs option will delete all existing records for all sensors.

Save All Event Logs

Save All Event Logs option will save all existing records for all sensors.

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Dashboard	FRU Information	Hard Disk Status	Storage Health	Configuration	Remote Control	Firmware Update	ê ad	nin (Administrator) Refresh 😔 Print 🖙 Logou HELI
Event Lo	a							
Events genera	ited by the system will b	e logged here. Double	-click on a record to se	e the description.				
All Events		T fi		_				
		·	ter by: All Sensors	•				Event Log: 7 event entries, 1 page(s)
BMC Tim	nezone 🔍 Client Time	zone UTC Offset: (GM	T+/-0)	•				Event Log: 7 event entries, 1 page(s) < 1 >>>
● BMC Tim	nezone	zone UTC Offset: (GM	T+/-0) Sensor Name A	•	Senso	rType →	Description →	Event Log: 7 event entries, 1 page(s) <
● BMC Tim Event ID → 7	nezone	zone UTC Offset: (GM 20:19	T+/-0) Sensor Name #0xa0	•	Senso OE	rType ⊥ EM	Description 그 Transition to Running - A	Event Log: 7 event entries, 1 page(s) <
● BMC Tim Event ID → 7 6	nezone Client Time <u>Time Stamp</u> 11/28/2014 08: 11/28/2014 04:	zone UTC Offset: (GM 20:19 02:01	T+/-0) Sensor Name #0xa0 #0xa0		Senso OE OE	nrTyppe ⊥ EM EM	Description → Transition to Running - A Transition to Power Off-	Event Log: 7 event entries, 1 page(s) <
● BMC Tim Event ID → 7 6 5	nezone Client Time <u>Time Stamp \</u> 11/28/2014 08: 11/28/2014 04: 11/27/2014 06:	zone UTC Offset: (GM 20:19 02:01 51:17	T+/-0) Sensor Name → #0xa0 #0xa0 #0xa0 #0xa0		Senso OE OE OE	nrTyppe _∆ ⊟M ⊟M	Description → Transition to Running - A Transition to Power Off- Transition to Running - A	Event Log: 7 event entries, 1 page(s) << < 1 >>> sserted sserted sserted
BMC Tim Event ID 7 6 5 4	ezone Client Time Time Stamp 11/28/2014 08: 11/28/2014 04: 11/28/2014 04: 11/27/2014 06: 11/27/2014 06:	zone UTC Offset: (GM 20:19 02:01 51:17 51:16	ter by: <u>All Sensors</u> T+/-0) Sensor Name → #0xa0 #0xa0 #0xa0 #0xa0 #0xa0		Senso OE OE OE OE	ir Type 🔺 EM EM EM	Description → Transition to Running - A Transition to Power Off- Transition to Running - A Transition to Power Off-	Event Log: 7 event entries, 1 page(s) <
● BMC Tim Event ID → 7 6 5 4 3	ezone ● Client Time Time Stamp. → 11/28/2014 08: 11/28/2014 04: 11/27/2014 06: 11/27/2014 06: 11/27/2014 06:	zone UTC Offset: (GM 20:19 02:01 51:17 51:16 48:18	ter by: [All Sensors T+/-0) Sensor Name → #0xa0 #0xa0 #0xa0 PS2_Status	▲	Senso OE OE OE Pa	rType _∆ EM EM EM EM werSupply	Description Transition to Running - A Transition to Power Off- Transition to Running - A Transition to Power Off- Presence Detected - Ass	Event Log: 7 event entries, 1 page(s) <
● BMC Tim Event ID → 7 6 5 4 3 2	ezone ■ Client Time Time Stamp → 11/28/2014 08: 11/28/2014 04: 11/27/2014 06: 11/27/2014 06: 11/27/2014 06: 11/27/2014 06:	zone UTC Offset: (GM 20:19 02:01 51:17 51:16 48:18 48:18 48:18	T+/-0) Sensor Name △ #0xa0 #0xa0 #0xa0 #0xa0 #0xa0 PS2_Status PS1_Status	• · · · · · · · · · · · · · · · · · · ·	Senso OE OE OE Pa Pa	r Type EM EM EM Wwer Supply wer Supply	Description Transition to Running - A Transition to Power Off - Transition to Running - A Transition to Power Off Presence Detected - Ass Presence Detected - Ass	Event Log: 7 event entries, 1 page(s) <

Save Event Logs Clear All Event Logs

4.4.5 Configuration

4.4.5.1 DNS

This page is used to configure the Host name and Domain Name Server configuration of the device.

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				🕯 admin (Administrator) i C Refresh 🕏 Print 🌁 Logout
Dashboard FRU Information	Hard Disk Status Storage Health	Configuration Remote Control	Firmware Update	HELP
DNS Server Settings				
Manage DNS settings of the device.				
Host Configuration Host Settings	Automatic			
Host Name	AMIOD1EPDACD4AA			
nust Name	AMI001562A624AA			
Register BMC				
eth0	 Register BMC Direct Dynamic DNS 			
Domain Name Configuration				
Domain Settings	eth0_v4 v			
Domain Name	lamyourfather			
Domain Name Server Configuration				
DNS Server Settings	eth0 🔹			
IP Priority	IPv4 IPv6			
DNS Server1	192.168.88.1			
DNS Server2				
DNS Server3				

<u>Host configuration</u>

Host Settings Choose either Automatic or Manual settings.

Host Name It displays the hostname of the device if Auto is selected. If the Host setting is chosen as Manual, then specify the hostname of the device.

Register BMC Choose the BMC's network port to register with the DNS settings. Check the option 'Register BMC' to register with the DNS settings. Choose the option 'Direct Dynamic DNS' to register with direct dynamic DNS or choose 'DHCP Client FQDN' to register through a DHCP server.

Domain Name Configuration

Domain Settings It lists the options for the domain interface as Manual, v4 or v6 for multi LAN channels.

Domain Name It displays the domain name of the device if Auto is selected. If the Domain setting is chosen as Manual, then specify the domain name of the device.

Domain Name Server Configuration

Chapter 4 BMC Configuration and Setting

DNS Server Settings It lists the options for the DNS interface, Manual and available LAN interfaces.

IP Priority If the IP Priority is IPv4, it will have 2 IPv4 DNS servers and 1 IPv6 DNS server. If the IP Priority is IPv6, it will have 2 IPv6 DNS servers and 1 IPv4 DNS server.

NOTE :

THIS IS NOT APPLICABLE FOR MANUAL CONFIGURATION.

DNS Server 1, 2 & 3

Specify the DNS (Domain Name System) server address to be configured for the BMC.

- An IPv4 Address is made of 4 numbers separated by dots as in "xxx.xxx.xxx.xxx".
- Each number ranges from 0 to 255.
- The first number must not be 0.

DNS Server Address will support the following:

- IPv4 Address format.
- IPv6 Address format.

Save

Click 'Save' to save any changes made. You will be logged out of current UI session and will need to log back in.

Reset

Reset the modified changes.

4.4.5.2 Network

This page is used to configure the network settings for available LAN channels.

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Dashboard FRU Information Hard D	lisk Status Storage Health	Configuration	Remote Control	Firmware Update	HELP
Network Settings					Í
Manage network settings of the device.					
LAN Interface	eth0 🔻]			
LAN Settings	Enable				
MAC Address	00:15:B2:A6:24:AA				
IDv4 Configuration					
Obtain an IP address automatically	Use DHCP				
IPv4 Address	192.168.88.130				
Subnet Mask	255.255.255.0				
Default Gateway	192 168 88 1	1			
-					
IPv6 Configuration	_				
IPv6 Settings	Enable				
Obtain an IP address automatically	Use DHCP				
IPv6 Address					
Subnet Prefix length	0				
Default Gateway					

LAN Interface

Select the LAN interface to be configured.

LAN Settings

Check this option to enable LAN support for the selected interface.

MAC Address

This field displays the MAC address of the selected interface (read only).

IPv4 Configuration

It lists the IPv4 configuration settings.

Obtain an IP address automatically

Enable 'Use DHCP' to dynamically configure the IPv4 address using Dynamic Host Configuration Protocol (DHCP).

IPv4 Address, Subnet Mask, Default Gateway

If DHCP is disabled, specify a static IPv4 address, Subnet Mask and Default Gateway to be configured for the selected interface.

- An IP Address consists of 4 sets of numbers separated by dots as in "xxx.xxx.xxx.xxx".
- Each set ranges from 0 to 255.
- The first Number must not be 0.

IPv6 Configuration

It lists the IPv6 configuration settings.

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IPv6 Settings

Check this option to enable IPv6 support for the selected interface.

Obtain an IP address automatically

Enable 'Use DHCP' to dynamically configure the IPv4 address using Dynamic Host Configuration Protocol (DHCP).

IPv6 Address

Specify a static IPv6 address to be configured for the selected interface.

Subnet Prefix length

Specify the subnet prefix length for the IPv6 settings.

• Value ranges from 0 to 128.

Default Gateway

Specify the v6 default gateway for IPv6 settings.

Save

Click 'Save' to save any changes made. You will be prompted to log out of the current UI session and log back in at the new IP address.

Reset

Click 'Reset' to reset the modified changes.

4.4.5.3 Network Link

This page is used to configure the network link option for the available network interfaces.

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Dashboard FRU Information	Hard Disk Status Storage Health	Configuration Remote Control	Firmware Update	HELF
Network Link Configu	ration evice.			
LAN Interface	eth0 🔻			
Auto Negotiation	ON OFF			
Link Speed	100 Mbps 🔹			
Duplex Mode	Full Duplex 🔻			
				Save Reset

LAN Interface

Select the network interface from the list for which the Link speed and duplex mode are to be configured.

Auto Negotiation

This option is enabled to allow the device to perform automatic configuration to achieve the best possible mode of operation (speed and duplex) over a link.

Link Speed

Link speed will list all the supported capabilities of the network interface. It can be 10/100/1000 Mbps.

Duplex Mode

Select any one of the following Duplex Modes.

- Half Duplex
- Full Duplex

Save

Click 'Save' to save the settings.

Reset

Click 'Reset' to reset the modified changes.

4.4.5.4 NTP

This page displays the device's current Date & Time Settings. It can be used to configure either Date & Time or NTP (Network Time Protocol) server settings for the device.

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Dashboard FRU Informa	tion Hard Disk Status	Storage Health	Configuration	Remote Control	Firmware Update	🕯 admin (Administrator) C Refresh 😒 Print 🛸 Logout HELP
NTP Settings						
Here you can either configure the NTP server or view and modify the device's Date & Time settings.						
Date:	November •	28 🔻 2014	•			
Time: (hh:mm:ss)	08 28	17				
Timezone:			•			
Primary NTP Server:	pool.ntp.org]				
Secondary NTP Server:	time.nist.gov]				
Automatically synchronize Date & Time with NTP Server						

Refresh Save Reset

Date

Specify the current Date for the device.

Time

Specify the current Time for the device.

NOTE :

AS A YEAR 2038 PROBLEM EXISTS, THE ACCEPTABLE DATE RANGE IS FROM 01-01-2005 TO 01-18-2038.

NTP Server

Specify the NTP Server for the device. Check the 'Automatically synchronize' option to configure the NTP Server. The NTP Server will support the following:

- IP Address (Both IPv4 and IPv6 format).
- FQDN (Fully qualified domain name) format.
UTC Offset

UTC Offset list contains the UTC offset values for the NTP server, which can be used to display the exact local time.

NOTE :

USE THE CORRECT UTC OFFSET AFTER ADJUSTING FOR DST.

AUTOMATICALLY SYNCHRONIZE

Check this option to automatically synchronize Date and Time with the NTP Server.

Refresh

Click 'Refresh' to reload the current date & time settings.

Save

Click 'Save' to save any changes made.

Reset

Click 'Reset' to reset the modified changes.

4.4.5.5 PEF

This page is used to configure the Event Filter, Alert Policy and LAN Destination. To view the page, the user must at least be an Operator. To modify or add a PEF, the user must be an Administrator.

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						admin (Administrator)	Ċ Refresh 🛛 🕏 Print 💡	볼 Logout
Dashboard FRU Infor	nation Hard Disk Status	Storage Health	Configuration	Remote Control	Firmware Update			HELP
PEF Manageme	ıt							

Use this page to configure Event Filter, Alert Policy and LAN Destination. To delete or modify a entry, select it in the list and click "Delete" or "Modify". To add a new entry, select an unconfigured slot and click "Add"

Event Filter	Alert Policy LAN Destination			
				Configured Event Filter count: 15
PEF ID 🛆	Filter Configuration 🔺	Event Filter Action 🗅	Event Severity	Sensor Name 🛆
1	Enabled	[Alert]	Unspecified	Any 🔺
2	Enabled	[Alert]	Unspecified	Any
3	Enabled	[Alert]	Unspecified	Any
4	Enabled	[Alert]	Unspecified	Any
5	Enabled	[Alert]	Unspecified	Any
6	Enabled	[Alert]	Unspecified	Any
7	Enabled	[Alert]	Unspecified	Any
8	Enabled	[Alert]	Unspecified	Any
9	Enabled	[Alert]	Unspecified	Any
10	Enabled	[Alert]	Unspecified	Any
11	Enabled	[Alert]	Unspecified	Any
12	Enabled	[Alert]	Unspecified	Any
13	Enabled	[Alert]	Unspecified	Any 👻
				Add Modify Delete

NOTE :

FREE SLOTS ARE DENOTED BY '~' IN ALL COLUMNS FOR THE SLOT. FOR MORE INFORMATION, REFER THE PLATFORM EVENT FILTERING (PEF) SECTION IN **IPMI SPECIFICATION.**

Event Filter

Click the Event Filter tab to show configured Event filters and available slots. You can modify or add new event filter entries here. A maximum of 40 slots are available and include the default of 15 event filter configurations.

Alert Policy

Click the Alert policy tab to show configured Alert policies and available slots. You can modify or add new alert policy entries here. A maximum of 60 slots are available.

LAN Destination

Click the LAN Destination tab to show configured LAN destinations and available slots. You can modify or add new LAN destination entries here. A maximum of 15 slots are available

Send Test Alert

Select a configured slot in the LAN Destination tab and click 'Send Test Alert' to send a sample alert to the configured destination.

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NOTE :

TEST ALERTS CAN BE SENT ONLY WITH SMTP CONFIGURATIONS SET TO ENABLED. SMTP SUPPORT CAN BE ENABLED UNDER CONFIGURATION->SMTP.

Add

Select a free slot and click 'Add' to add a new entry to the device. Alternatively, double click on a free slot.

Modify

Select a configured slot and click 'Modify' to modify that entry. Alternatively, double click on the configured slot.

Delete

Select the desired configured slot to be deleted and click 'Delete'.

4.4.5.6 SMTP

This page is used to configure the SMTP settings.

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Dashboard FRU Information Hard D)isk Status Storage Healtl	Configuration	Remote Control	Firmware Update	🕯 admin (Administrator) C Refresh 🐶 Print 🍡 Logout HELP
SMTP Settings					
Manage SMTP settings of the device.					
LAN Channel Number	1 •				
Sender Address					
Machine Name					
Primary SMTP Server SMTP Support	🖉 Enable				
Server Address					
SMTP Server requires Authentication	1				
User Name					
Password					
Secondary SMTP Server					
SMTP Support	Enable				
Server Address					
SMTP Server requires Authentication	ı				
User Name					

LAN Channel Number

Select the LAN channel to which the SMTP information needs to be configured.

Sender Address

Enter the 'Sender Address' valid on the SMTP Server.

Machine Name

Enter the 'Machine Name' of the SMTP Server.

- Machine Name is a string of maximum 15 alpha-numeric characters.
- Space, special characters are not allowed.

Primary SMTP Server

It lists the Primary SMTP Server configuration.

SMTP Support

Check this option to enable SMTP support for the BMC.

Server Address

Enter the 'IP address' of the SMTP Server. It is a mandatory field.

• An IP Address is made of 4 numbers separated by dots as in "xxx.xxx.xxx.xxx".

- Each Number ranges from 0 to 255.
- The first Number must not be 0.

The server address will support the following:

- IPv4 Address format.
- IPv6 Address format.

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SMTP Server requires Authentication

Check the option 'Enable' to enable SMTP Authentication.

NOTE :

SMTP Server Authentication Types supported are:

- , CRAM-MD5
- , LOGIN
- , PLAIN

IF THE SMTP SERVER DOES NOT SUPPORT ANY ONE OF THE ABOVE

AUTHENTICATION TYPES, THE USER WILL GET AN ERROR MESSAGE STATING,

"AUTHENTICATION TYPE IS NOT SUPPORTED BY SMTP SERVER"

Username

Enter the username to access SMTP Accounts.

- The User Name can be 4 to 64 alpha-numeric characters.
- It must start with an alphabet.
- Special characters ',' (comma), ':' (colon), ';' (semicolon), ' ' (space) and '\' (backslash) are not allowed.

Password

Enter the password for the SMTP User Account.

- Passwords must be at least 4 characters long.
- Space is not allowed.

NOTE :

THIS FIELD WILL NOT ALLOW MORE THAN 64 CHARACTERS.

Secondary SMTP Server

It lists the Secondary SMTP Server configuration. It is an optional field. If the Primary SMTP server is not working, then it tries the Secondary SMTP Server configuration.

Save

Click 'Save' to save the new SMTP server configuration.

Reset

Click 'Reset' to reset the modified changes.

4.4.5.7 User

The displayed table shows any configured Users and available slots. You can modify or add new users from here. A maximum of 10 slots are available, including the default admin and anonymous. It is advised that the anonymous user's privilege and password should be modified as a security measure. To view the page, you must have Operator privileges. To modify or add a user, You must have Administrator privileges.

NOTE :

Free slots are denoted by "~" in all columns for the slot.

Add User

Select a free slot and click 'Add User' to add a new user to the device. Alternatively, double click on a free slot to add a user.

Modify User

Select a configured slot and click 'Modify User' to modify that user. Alternatively, double click on the configured slot.

Delete User

Select the desired user to be deleted and click 'Delete User'

😸 🗅 Megarac SP 🛛 🗙 🔲		
← → C ⋒ 🗋 192.168.88.130/index.html		🖳 🗘 🚍
AIC		Intelligent Storage
		🇘 admin (Administrator) 🛛 C Refresh 😒 Print 🍡 Logout
Dashboard FRU Information Hard Disk Status Storage Health Configuratio	n Remote Control Firmware Update	HELP
User Management		

The list below shows the current list of available users. To delete or modify a user, select the user name from the list and click "Delete User" or "Modify User". To add a new user, select an unconfigured slot and click "Add Use

				Number of configured users: 2
UserID 🛆	Username 🗅	User Access 🛆	Network Privilege 🔺	Email ID 스
1	anonymous	Disabled	Administrator	~
2	admin	Enabled	Administrator	~
3	~	~	~	~
4	~	~	~	~
5	~	~	~	~
6	~	~	~	~
7	~	~	~	~
8	~	~	~	~
9	~	~	~	~
10	~	~	~	~

Add User Modify User Delete User

4.4.6 Remote Control

4.4.6.1 Storage power control

This page helps you to view or perform any host power cycle operations.

Reset Expander

Select this option to reboot the expander without powering off (warm boot).

Power Off Storage

Select this option to immediately power off the storage.

Power On Storage

Select this option to power on the storage.

Power Cycle Storage

Select this option to first power off, and then reboot the system (cold boot).

Perform Action

Click 'Perform Action' to perform the selected option.



Perform Action

4.4.6.2 JAVA SOL

Java SOL			
Dashboard FRU Information Har	rd Disk Status Storage Health Configuration	Remote Control Firmware Update	HELP
1000111		🕴 admin (Administrator) 📿 Refresh 😒 Pr	int 🌗 Logout
AIC		Intelligent	Storage
		~ ~	
← → C ⋒ 🗋 192.168.88.130/	findex.html		
🚔 🗋 Megarac SP 🛛 🗙 🚺			

Press the button to launch the Java SOL.

Java SOL

Launch the Java SOL, you must have Administrator privileges.

	- E	NOTE :				
	A COMPATIBLE JRE MUST BE INSTALLED IN THE SYSTEM PRIOR TO THE					
		LAU	unch of the J	NLP FILE.		
2	Sessio	asor n He	alb			
		ſ	2			
_		E	3			
Das			BMC IP :	192.168.88.111		
Ja			Username :	admin		
Pre			Password :	••••		
			Volatile-Bit-Rate :	38.4K		
			Non-Volatile-Bit-Rate :	38.4K		
				Connect Cancel		

Volatile-Bit-Rate Please set 38.4K Non-Volatile-Bit-Rate Please set 38.4K This function can connect to expander command line mode.

4.5 Firmware Update

4.5.1 Requirement Browsers: FireFox 24.0 or later version Chrome 35.0 or later version I.E. 7.0 or later version Linux: Redhat 6.4

NOTE :

IF YOU WANT TO UPDATE A NEW VERSION FIRMWARE FOR BMC, WHEN FINISHED ALL THE UPDATE PROCESS, PLEASE CLEAR THE WEB BROWSER COOKIES.

4.5.2 Web update

- 1. Check the BMC IP is valid.
- Open a browser, type in the BMC IP, it will show the BMC web UI, type the default account, or have administrator privileges account. Username: admin Password: admin

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← → C ⋒ [] 192.168.88.111/index.html		□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
AIC		Intelligent Storage
	Username: admin Password: Foraot Password? Login	
	Required Browser Settings	
	 Allow popups from this site Allow file download from this site (How to 	
	 2. Anow the download normalis site (now to) 3. Enable javascript for this site 	
	4. Enable cookies for this site 🥝	
	It is recommended not to use Refresh, Back and Forward options of the browser.	

3. This is login main page.

AIC				Intelligent Storage
Dashboard FRU Information Storage Health Configuration	Remote Control I	Maintenance Fir	mware Upda	∔admin (Administrator) ⊂ Refresh 🖏 Print 🧈 Logout ate HELP
Dashboard				i
Dashboard gives the overall information about the status of the device and remo	te server.			
Device Information	Sens	or Monitoring		Event Logs
Firmware Revision: 1.0.0 Firmware Build Time: Jul 17 2014 16:04:11 CST	Status Sens	sor Reading		Free Space (100%)
Natural Information (544)	Fan_O	Not Available	م	
MAC Address: 00:15:B2:11:21:31	Fan_1	Not Available	م	
V4 Network Mode: DHCP	Fan_2	Not Available	م	
IPv4 Address: 192.168.88.111	Fan_3	Not Available	م	
V6 Network Mode: DHCP IPv6 Address: ::	Fan_4	Not Available	م ا	
	Fan_5	Not Available	Q	
Remote Control Console not supported	Fan_6	Not Available	A	
	TempO) Not Available	Q	
	Temp1	Not Available	مر	
	Temp2	2 Not Available	م	
	Temp3	3 Not Available	2	
	Temp4	Not Available	م	•

4. Click the "Firmware Update", it will pop a drop-down menu, click the "Firmware Update"

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← → C ⋒ [] 192.168.88.111/index.html				二 公) ≡
AIC				Intelligent Storag	ge
Dashboard FRU Information Storage Health Configuration Re	emote Control Mainte	enance Firm	ware Update	🗘 admin (Administrator) 📿 Refresh 😒 Print 🖙 Lo	gout HELP
Dashboard		Firmv Proto	ware Update		-
Dashboard gives the overall information about the status of the device and remote s Device Information	erver. Sensor M	onitoring		Event Logs	
Firmware Revision: 1.0.0 Firmware Build Time: Jul 17 2014 16:04:11 CST	Status Sensor	Reading		Free Space (100%)	
Network Information (Edit) MAC Address: 00:15:B2:11:21:31 V4 Network Mode: DHCP IPv4 Address: 192:168:89:111	Fan_0 Fan_1 Fan_2	Not Available Not Available Not Available	α α α		
V6 Network Mode: DHCP IPv6 Address: ::	Fan_4	Not Available	م م		
Remote Control Console not supported	Fan_6	Not Available	۔ م		
	Temp1	Not Available	<u>م</u>		
	Temp2	Not Available	<u>م</u>		
	Temp4	Not Available	<u>~</u> م		-

5. This page will show the update warning, if you really want to update BMC firmware, click the "Enter Update Mode" button.

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← → C ㎡ 192.168.88.111/index.html	国 公 公 目
AIC	Intelligent Storage
	🗘 admin (Administrator) 🧲 Refresh 🔗 Print 🖙 Logout
Dashboard FRU Information Storage Health Configuration Remote Control Maintenance Firmware Update	HELP
Firmware Update	
Upgrade firmware of the device. Press "Enter Update Mode" to put the device in update mode.	
The protocol information to be used for firmware image transfer during this update is as follows. To configure, choose 'Protocol Configuration' under Firmware Update me Protocol Type : HTTP/HTTPs	nu.
WARNING: Please note that after entering the update mode, the widgets, other web pages and services will not work. All the open widgets will be automatically closed. If the be reset.	upgradation is cancelled in the middle of the wizard, the device will
	Enter Undate Mode
	Linel Opdate Mode

6. Wait few minutes, it will pop a window, click the "Select file" to upload firmware file that you want update.

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← → C ⋒ [b] 192.168.88.111/index.html		□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
AIC		Intelligent Storage
Dashboard FRU Information Storage Health Configuration Remot	e Control Maintenance Firmware Update	• admin (Administrator)
Firmware Update		
Upgrade firmware of the device. Press "Enter Update Mode" to put the device in update mode The protocol information to be used for firmware image transfer during this update is a Protocol Type : HTTP/HTTP's WARNING: Please note that after entering the update mode, the widgets, other web page reset.	ode. Is follows. To configure, choose 'Protocol Configuration' under F 	Irmware Update menu.
 Closing all active client requests. Preparing device for firmware upgrade. Uploading firmware image. Verifying firmware image. Flashing firmware image. Resetting Device. 	Upload Firmware Please select the firmware image to flash 選擇檔案 5090M010.ima	Upload Cancel

7. Wait a minutes, it will pop a window for check update section, just check the "Check this option to do all full firmware flash" option.

🗅 Megarac SP 🛛 🗙 🔼	
→ C 🖍 🗋 192.168.88.111/index.html	دا
AIC	Intelligent Sto
hboard FRU Information Storage Health Configuration Ret	admin (Adminis mote Control Maintenance Firmware Update
rmware Update	
rade firmware of the device. Press "Enter Update Mode" to put the device in updat	te mode.
The protocol information to be used for firmware image transfer during this update Protocol Type : HTTP/HTTPs	e is as follows. To configure, choose 'Protocol Configuration' under Firmware Update menu.
ARNING: Please note that after entering the update mode, the widgets, other web p set.	pages and services will not work. All the open widgets will be automatically closed. If the upgradation is cancelled in the middle of the wizard, the device
Closing all active client requests.	Section Based Firmware Undate
	eccient Based i miniare optiate
🗹 Preparing device for firmware upgrade.	
Preparing device for firmware upgrade. Uploading firmware image.	The following section is used to allow the user to configure the firmware image for section based flashing.
 Preparing device for firmware upgrade. Uploading firmware image. Verifying firmware image. 	The following section is used to allow the user to configure the firmware image for section based flashing.
 Preparing device for firmware upgrade. Uploading firmware image. Verifying firmware image. Flashing firmware image. 	The following section is used to allow the user to configure the firmware image for section based flashing. Check this option to do full firmware flash Proceed Cancel

8. Click "OK" the firmware will started update operation.

😓 🗅 Megarac SP 🛛 🗙 🛄		_ @ ×
← → C ⋒ 192.168.88.111/index.html		□ ☆ 3
AIC	192.168.88.111 的網頁顯示: ×	Intelligent Storage
Dashboard FRU Information Storage Health Configuration Ren	Clocking UK 'will start the schall upgrade operation, where the storage is written with the new firmware image. It is essential that the upgrade operation is not interrupted once it starts. Do you wish to proceed?	admin (Administrator)
Firmware Update	確定 取消	
Upgrade firmware of the device. Press "Enter Update Mode" to put the device in update	mode.	
The protocol information to be used for firmware image transfer during this update Protocol Type : HTTP/HTTPs	s as follows. To configure, choose 'Protocol Configuration' under Firn	nware Update menu.
WARNING: Please note that after entering the update mode, the widgets, other web pa reset.	ges and services will not work. All the open widgets will be automatic	ally closed. If the upgradation is cancelled in the middle of the wizard, the device will be
Closing all active client requests.	Section Based Firmware Undate	
🗹 Preparing device for firmware upgrade.		
🗹 Uploading firmware image.	The following section is used to allow the user to configu	ure the firmware image for section based flashing.
🗖 Verifying firmware image. 🕏		Check this option to do full firmware flash
Flashing firmware image.		Proceed Cancel
Resetting Device.		

9. In the update processes, it will take 3~5 minutes.

	CAUTION: Please do not close this webpage!! Or it will let the	E FIRMWARE DEATH
Hegan	a SP ×	
← → C fi	🗅 192.168.88.111/index.html	🖳 🏹 🔳
AIC		Intelligent Storage
Design 1		admin (Administrator)
Firmware U Upgrade firmware The protocol in Protocol Type WARNING: Pleas reset. WC Clo Clo Clo Pre Upl Ver	Jpdate of the device. Press "Enter Update Mode" to put the device in update mode. formation to be used for firmware image transfer during this update is as follows. To configure, choose "Protocol Configuration' under Firmware Update menu. : : HTTP/HTTPs e note that after entering the update mode, the widgets, other web pages and services will not work. All the open widgets will be automatically closed. If the upgate sing all active client requests. paring device for firmware upgrade. oading firmware image. ifying firmware image.	radation is cancelled in the middle of the wizard, the device will be
🗖 Fla	shing firmware image. (50% done) 🗢	
🔲 Re	setting Device.	

10. When show the "Device has been reset" window, it means firmware update successful, wait 90 seconds for BMC restarted.

A Megaras S? ×	_ @ ×
← → C ♠ 192.168.88.111Åndex.html	🔽 😪 🔳
AIC	Intelligent Storage
Dashboard FRU Information Storage Health Configuration Remote Control Maintenance Firmware Update	admin (Administrator)
Firmware Update	
Upgrade firmware of the device. Press "Enter Update Mode" to put the device in update mode.	
The protocol Informatic Protocol Type : HTTF Device has been reset	
The device has been reset. Please close this browser session and open a new browser session to reconnect to the device.	
reset. The device may take about a minute to boot up.	e wizard, the device will be
Closing all active client requests.	
🧭 Preparing device for firmware upgrade.	
🖉 Uploading firmware image.	
🖉 Verifying firmware image.	
🖉 Flashing firmware image. (100% done)	
🖉 Resetting Device.	

4.6 Expander firmware update

1. Click the "Firmware Update", it will pop a drop-down menu, click the "Expand Update"

AIC				Intelligent Storage
Dashboard FRU Information Hard Disk Status Storage Health	Configuration Remo	te Control	Firmware Update	🕯 admin (Administrator) 🤇 Refresh 🔇 Print 🍡 Logout HELP
Dashboard		f	Firmware Update Expand Update	
Dashboard gives the overall information about the status of the device and remote se	rver.	F	Protocol Configuration	
Device Information	Sensor M	onitoring		Event Logs
Firmware Revision: 2.0.0 Firmware Build Time: Feb 24 2015 15:21:18 CST	Status Sensor	Reading		PS2_Status (0.05%) PS1_Status (0.05%)
Network Information (Edit)	Fan_O	Not Available	2	Unknown (0.08%)
MAC Address: 00:15:B2:11:21:31	Fan_1	Not Available	م	
V4 Network Mode: DHCP	TempO	Not Available	م	
IPv4 Address: 192.168.88.151	PS1_Status	Not Available	م	
Vo Network mode. Disable	PS2_Status	Not Available	م	
Remote Control Console not supported	PS_Watt	Not Available	٩	
	PSU1_temp	Not Available	م	
	PSU2_temp	Not Available	a	
	Watchdog1	0x8001	م	

2. Chose the expander firmware file then click the "upload" button.



3. Click the "Proceed" button.

AIC	Intelligent Storage
Dashboard FRU Information Hard Disk Status Storage Health Config	admin (Administrator) uration Remote Control Firmware Update
Expander Update Upgrade Expander of the device. WARNING: Please note that after entering the update mode, the widgets, other web pages a web page.	nd services will not work. All the open widgets will be automatically closed. If the upgradation is cancelled in the middle of the wizard, need to reload this
 Closing all active client requests. Preparing device for Expander upgrade. Uploading Expander image. Verifying Expander image. Flashing Expander image. Update finished. 	File Updated Press the Proceed button to flash expander firmware. Proceed Cancel

4. Updating



WARNING: Please note that after entering the update mode, the widgets, other web pages and services will not work. All the open widgets will be automatically closed. If the upgradation is cancelled in the middle of the wizard, need to reload this web page.

- Closing all active client requests.
- Preparing device for Expander upgrade.
- Iploading Expander image.
- Verifying Expander image.
- 🗖 Flashing Expander image. (1%) 🛽

Update finished.

5. Update finished and successful.

AIC		Intelligent Storage
Dashboard FRU Informa	ation Hard Disk Status Storage Health Configuration Remote Control Firmware Update	admin (Administrator)
Expander Update		
Upgrade Expander of the devi	ce.	
WARNING: Please note that a web page	offer entering the under mode the widdente other web pages and conjects will not work. All the onen widdente will be submatically closed. If the upgradation is concelled in the middle ixpander has been update	of the wizard, need to reload this
Closing	The expander has been update. Please close this browser session and open a new browser session to reconnect to the device.	
🗹 Preparir	Do the power cycle for get new expander version	
🗹 Uploading	Expander image.	
🗹 Verifying E	Expander image.	
🗹 Flashing E	xpander image. (100%)	
🗹 Update fini	ished.	
- opulie ini	MIGM.	

6. If update processes not success, please check the expander firmware is current version or the system is already power off.

AIC	Intelligent Storage
Dashboard FRU Information Hard Disk Status Storage Health Configuration Remote Control Firmware Update	admin (Administrator)
Expander Update	
Upgrade Expander of the device. WARNING: Please note that after update mode, the wideate, other web page. Expander update NOT success	is the widdle of the wizard, need to reload this
Closing Expander update not success. Please close this browser session and open a new browser session to reconnect to the device.	
Preparir Please check the expander status is ready or the upload file is currently.	
✓ Uploading Expander image.	
Flashing Expander image.	
☑ Update finished.	

4.7 Firmware safety mode

If you update process fail or primary firmware suffers some error, it will boot in safety mode.

1. If you saw the sensor name, status LED and ID LED are abnormal, the LEDs are cross blinking, it means firmware is in safety mode, in safety mode some function will be useless!

MEGARAC			American Megatrends
Dashboard FRU Information Server Health Configuration R	emote Control Firmware L	lpdate	🕯 admin (Administrator) 📿 Refresh 🕏 Print 🍃 Logout HEL
Dashboard			
Dashboard gives the overall information about the status of the device and remote	server.		
Device Information	Sensor Monit	toring	Event Logs
Firmware Revision: 1.0.0 Firmware Build Time: Jun 17 2014 18:47:17 CST	Status Sensor	Reading	Unknown (0.11%)
Network Information (Edit) MAC Address: 00:15:B2:A6:24:A4	BMC SAFETY MODE Clear the WEB	Not Available 🔎 Not Available 🔎	
V4 Network Mode: DHCP IPv4 Address: 192.168.88.123 V6 Network Mode: DHCP	page cookie to refresh the page	Not Available 🔎	
IPv6 Address: ::	then you can see BMC RESET	Not Available 🔎	
Remote Control Console not supported	option and more	Not Available 🔎	
	info. Follow the	Not Available 🔎	
	indicator to	Not Available 🔎	
	reset BMC.	Not Available 🔎	

🛃 root@david:~											
[root@david ~]#	ip	mito	ool -I	lanplus	-H	192.168.88.123	$-\mathrm{U}$	admin -P	admin	sdr	
BMC SAFETY MODE	Ι	no	readin	ıg	I	ns					
Clear the WEB	I	no	readin	ıg	I	ns					
page cookie to	Ι	no	readin	ıg	I	ns					
refresh the page	Ι	no	readin	ıg	I	ns					
then you can see	Ι	no	readin	ıg	I	ns					
BMC RESET		no	readin	ıg	I	ns					
option and more		no	readin	ıg	I	ns					
info. Follow the		no	readin	ıg	I	ns					
indicator to		no	readin	ıg	I	ns					
reset BMC.		no	readin	ıg	I	ns					
[root@david ~]#											





2. Please clear browser cookies, and re-start browser, BMC web UI will refresh web page object

MEGA	RAC®		
			🗘 admin (Administrator) 🛛 😋 Refresh 🔅 Print 📑 Logou
Dashboard	BMC Reset	Firmware Update	HEL
Notice!	!!		

BMC is in safety mode!!

Please reset BMC via the WEB page soft button of BMC RESET to return to normal state.

If you see this screen again next time, please update BMC firmware.

Device Information Firmware Revision: 1.0.0 Firmware Build Time: Jun 17 2014 18:47:17 CST

 Network Info-"turn

 MAC Address:
 00:15:B2:A6:24:A4

 V4 Network Mode:
 State

 IPV4 Address:
 192:168:22:22

 V6 Network Mode:
 DHCP

 IPV6 Address:
 ::

3. Click the "BMC Reset" button, into the reset page



4. Select the "BMC reset", and Click the "Perform Action" button.

MEGARAC	American
	admin (Administrator) C Refresh 💀 Print 🥌 Logori
Dashboard BMC Reset Firm	are Update HELP
Reset BMC option	
🖲 Reset BMC	

Perform Action

5. The page will show "Requesting" status, because reset BMC, this web page will be invalid, wait 90 seconds and clear browser cookies, re-login web UI again.

MEGARAC			American Megatrends
Dashboard	BMC Reset	Firmware Update	• aunin (Auninistrator) C. Reinesh V. Print V. Euguat HELP
Reset BMC option			Performing Power ActionPlease Wait 🔳 🔲
Reset BMC			

Perform Action

6. If still see the safety mode page, please follow section 4.5 to do firmware update.

Chapter 5. Technical Support



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