Express 5800

NEC

BMC Configuration User's Guide

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About this Document

This document explains the complete procedures from installation of "BMC Configuration" to setup of managed server.

Before attempting to operate BMC Configuration, read this document so as to gain an adequate understanding of the contents.

Notes

This document is intended for persons who are familiar with the operating system's functions and operations and the network's functions and setup. For operations and inquiries about the operating system, see its online help information.

This document covers universal information about generally managed servers. The notes and restrictions on use of each product as a managed server are explained in the user's guide provided with the managed server and "ESMPRO Manager Ver.5 Setup guide".

Names used with screen images in this document are fictitious. They are unrelated to existing product names, names of organizations, or individual names. The setting values on the screen images are shown as examples, so setting values such as IP addresses on screen images are not guaranteed for operation.

In this document. "¥" expresses back slash.

About Symbols in This Document

The following explains three symbols that are used in this document:

IMPORTANT:	Points or particular notes you must follow when handling software of servers.
CHECK:	Points or notes you need to check when handling software or servers.
TIPS:	Useful information.

1. Summary

BMC Configuration is software that works on the managed server. It configures BMC on the managed server.

1.1 BMC Configuration Functions

1.1.1 NEC Express5800 series

BMC Configuration

You can specify the configurations to the managed server's BMC.

BIOS Configuration

You can configure the System BIOS settings on the managed server. The settings are effective by rebooting the server.

Battery Configuration

If the managed server is equipped with a battery, you can check and configure the information of the battery.

Backup

You can output the configurations on the managed server to files.

Restore

You can apply the configurations which are backed up in files on the managed server.

Clear BMC SEL

You can clear the SEL(System Event Log) information of BMC.

BMC Configuration Initialization

You can clear the configurations to the ex-factory settings.

Reset BMC

You can restart BMC without system rebooting.

System Information (Version Information)

The versions of BMC Firmware, Boot Firmware, Sensor Data Information (SDR) and System BIOS can be collected.

1.1.2 NEC Express5800/ft Server

BMC Configuration

You can specify the configurations to the managed server's BMC.

Backup

You can output the settings of FRU/BIOS/BMC Configuration on the server to a file.

Restore

You can apply the FRU/BIOS/BMC settings which are backed up in files to BMC on the server.

1.1.3 NEC Express5800/The highly parallel computing server

■ Setting for NEC ESMPRO Management

You can specify the authentication key to manage from NEC ESMPRO Manager to the managed server's BMC.

2. System Requirements

2.1 Hardware

It needs to satisfy the following conditions.

- Target System
 - -- NEC Express5800 Series and NEC Storage NS Series that integrates EXPRESSSCOPE Engine 3
 - -- NEC Express5800 Series that integrates EXPRESSSCOPE Engine SP3
 - -- The highly parallel computing server (NEC Express5800/HR120a-1, HR120b-1)
- Memory
 - 512MB or more
- Availability of hard disk

100MB or more

CHECK:

- ft Server (NEC Express5800/R320c-M4, R320c-E4 and R310c-E4) is supported by the upper version from BMC Configuration for Windows Ver.1.20.
- ECO CENTER (NEC Express5800/E120d-1, E120d-M and E110d-M) is supported by the upper version from BMC Configuration for Windows Ver.1.21.
- The highly parallel computing server (NEC Express5800/HR120a-1 and HR120b-1) is supported by the upper version from BMC Configuration for Windows Ver.1.33 and BMC Configuration for Linux Ver.1.31.
- EXPRESSSCOPE Engine SP3 is supported by the upper version from BMC Configuration for Windows/Linux Ver.1.40.

2.2 Operating System

Target OS is as follows.

• Windows

Microsoft Windows Server 2003 R2, Standard Edition/Enterprise Edition Microsoft Windows Server 2003 R2, Standard/Enterprise x64 Edition Windows Server 2008 Standard/Enterprise Windows Server 2008 R2, Standard/Enterprise/Datacenter x64 Edition Windows Server 2008 R2, Standard/Enterprise/Datacenter Windows Server 2012 Standard/Datacenter Windows Server 2012 R2, Standard/Datacenter

• Linux

Red Hat Enterprise Linux Advanced Platform 5 (x86, x64) Red Hat Enterprise Linux Server 5 (x86, x64) Red Hat Enterprise Linux Server 6 (x86, x64) SUSE Linux Enterprise Server 10 (SP3) (x86, x64) SUSE Linux Enterprise Server 11 (SP2, SP3) (x86, x64) Oracle Linux 6 (x64)

IM	PORTANT:
•	You can not install BMC Configuration in the following case.
•	Installation on guest OS virtual of machine. The following packages are necessary to use BMC Configuration on Red Hat Enterprise
•	Linux Server $6(x64)$ or Oracle Linux $6(x64)$. If these are not installed, you need to install
	them from the install disc of operating system.
	glibc i686
	nss-softokn-freebl 1686
	zlib i686

2.3 Server Management Driver

On Linux, OpenIPMI Driver must be started to use BMC Configuration.

CHECK:

• Use the following command to confirm that OpenIPMI Driver has been installed on Linux. rpm -qa | grep -i OpenIPMI

• If the OpenIPMI Driver is stopped, you need to start OpenIPMI Driver. You can confirm the status of OpenIPMI Driver by the following command. /etc/init.d/ipmi status

If "not loaded" is displayed after executing the above command, please start OpenIPMI Driver by the following command. /etc/init.d/ipmi start

And you can start OpenIPMI Driver automatically at the system booting to execute the following command and reboot the operation system. chkconfig ipmi on

3. Installation

3.1 BMC Configuration Installation for Windows

Explain the installation of BMC Configuration.

3.1.1 Check before installation

Check the followings:

-- See chapter 2 to check the system requirement.

-- Login to Windows as Administrator.

3.1.2 Start installation menu

If you install BMC Configuration by using downloaded modules:

After unzipping the downloaded modules, please execute the following file. BMC Configuration installation will be started.

¥bmc_config¥setup.exe

■ If you install BMC Configuration by using EXPRESSBUILDER:

You can install BMC Configuration as follows:

(1) Insert EXPRESSBUILDER into the DVD drive on the managed server which Windows has started. Autorun Menu will be displayed.

TIPS:

- If Autorun Menu does not launch, double-click ¥autorun¥dispatcher.exe from EXPRESSBUILDER. (x64 Edition : dispatcher_x64.exe)
- If the device selection window is displayed, select the device you are using.

(2) Click [Set up software]-[BMC Configuration]. BMC Configuration installation will be started.

TIPS:

• Please refer to 7.1 BMC Configuration installation when you install it.

3.1.3 Install BMC Configuration

(1) The BMC Configuration installer is started. Click [Next].



(2) Enter a folder name to install. Click [Next].

BMC Configuration 1.00	×
Choose Destination Location Select folder where setup will install files.	
Setup will install BMC Configuration in the follo	owing folder.
To install to this folder, click Next. To install to another folder.	a different folder, click Browse and select
Destination Folder C:\Program Files (x86)\	Browse
InstallShield	< Back Next > Cancel

(3) Confirm the installation settings, and click [Next]. The installation is started.

MC Configuration 1.00					
Start Copying Files Review settings before copying files.					New Y
Setup has enough information to start c change any settings, click Back. If you copying files.	opying th Lare satis	ne program f sfied with the	iles. If you v e settings, cl	vant to revi ick Next to	ew or begin
Current Settings:					
Install to:C:\Program Files (x86)\					A
tallShield					
		< <u>B</u> ack	Nex	t>	Cancel

After the installation is completed, BMC Configuration is available.

3.2 BMC Configuration Uninstallation for Windows

Explain the uninstallation of BMC Configuration.

3.2.1 Check before uninstallation

Check the following: -- Login to Windows as Administrator.

3.2.2 Uninstall BMC Configuration

Uninstall from the Windows menu [Control Panel] - [Add or Remove Programs]. Select [BMC Configuration] and click [Change/Remove] button. You can uninstall it by displayed direction.

CHECK: Close the dialog box of BMC Configuration if it has been opened, and then uninstall BMC Configuration.

3.3 BMC Configuration Installation for Linux

Explain the installation of BMC Configuration.

3.3.1 Check before installation

Check the followings:

-- See chapter 2 to check the system requirement.

-- Login to Linux as root user.

CHECK:

- BMC Configuration installer exists on following directory:
 - -- If you install by using downloaded modules: /bmc_config.
 - -- If you install by using EXPRESSBUILDER: <revision folder>/lnx/pp/bmc_config. As for <revision folder>, confirm the number in the parenthesis of the version displayed on the lower right of Autorun Menu.

For example, if the version is "Version 6.10-020.05 (024)", then <revision folder> is 024.

3.3.2 Copy and extract BMC Configuration installer

Copy the BMC Configuration installer (all files in /bmc_config) into any directory on the managed server. The following is an example to copy into /usr/local/bin:

(1) Copy the all installer files to /usr/local/bin.

It is shown example that files is copied from EXPRESSBUILDER to /use/local/bin directory.

(The mount path is dependent on the OS. Specify the right path.)

cp -r /mnt/cdrom/001/lnx/pp/bmc_config /usr/local/bin

(2) Move to the directory containing the installer.

(3) Extract the installer.

tar xzvf BMCConfiguration-N.NN-x.tgz

"N.NN" in the example file name means the version.

.....

TIPS:

Please refer to 7.1 BMC Configuration installation when you install it.

3.3.3 Install BMC Configuration

(1) Move to the directory that the installer was extracted.

cd /usr/local/bin/bmc_config/BMCConfiguration-N.NN-x

"N.NN" in the example directory name means the version.

(2) Execute the shell for the installation.

./BMCConfiguration-N.NN-x.sh

"N.NN" in the example file name means the version.

(3) A confirmation message of BMC Configuration installation is displayed. Input "yes" and "Enter" key.

BMC Configuration is installed under /opt/nec/BMC_Configuration directory. If you input "no", the installation is not executed.

When the installation is completed, the following message is displayed.

"The installation of BMC Configuration is now completed."

After the installation is completed, BMC Configuration is available.

.....

CHECK:

• Don't delete the files that are used to install, because you will use them to uninstall.

3.4 BMC Configuration Uninstallation for Linux

Explain the uninstallation of BMC Configuration.

3.4.1 Check before installation

Check the following: -- Login to Linux as root user.

3.4.2 Uninstall BMC Configuration

- (1) Move to the directory in which all installation files are copied.
 - cd /usr/local/bin/bmc_config/BMCConfiguration-N.NN-x

"N.NN" in the example directory name means the version.

(2) Execute the shell for uninstallation.

./BMCConfiguration-N.NN-x.sh

"N.NN" in the example file name means the version.

(3) A confirmation message of BMC Configuration uninstallation is displayed. Input "delete" and "Enter" key.

When the uninstallation is completed, the following message is displayed. "The uninstallation of BMC Configuration is now completed."

4. Functions

This chapter describes the functions of BMC Configuration of if you use a standard server. Please refer to chapter 5 when you use ft Server. Please refer to chapter 6 when you use the highly parallel computing server.

4.1 Start procedure

4.1.1 On Windows

After the installation is completed, do the following operation as Administrator to open the main dialog box of BMC Configuration.

- Click "BMC_Configuration" - "BMC Configuration" from [start] on Windows

The following screen shows example.

In the case of EXPR	ESSSCOPE Engine 3:
9- ₁₂ (BMC Configuration Version 1.30
	BMC Configuration
	BIOS Configuration
	Battery Configuration
	Backup
	Restore
	BMC/Battery Configuration Initialization
	Close
Г	System Information
	BMC Firmware Version 00.05
	Boot Firmware Version 00.29
	SDR Version 00.09
	BIOS Version 4.6.1003
L	

In the case of EXPRESSSCOPE Engine SP3:

BML Configur	ration Version 1.40	
	BMC Configuration	
	BIOS Configuration	
	BMC Configuration Initialization	
	Close	
System Infon	nation	
BMC Firr	nware Version 00.07	
Boot Firm	ware Version 00.28	
SDR Versi	on 25.06	
BIOS Unit	tion 4.6 0206	

from [start] on Windows.

4.1.2 On Linux

After the installation is completed, do the following operation as root user to open the setting function of BMC Configuration.

/opt/nec/BMC_Configuration/bmcconf
TIPS:

• Refer to the following to see BMC Configuration help information.

Open the setting of BMC Configuration and press F12 key on the screen displayed "[F12] help" at the bottom.

4.1.3 On Off-line TOOL

You can start the Off-line TOOL as follows.

(1) The following message is displayed on the bottom of POST screen.

Press<F2> SETUP, <F3> Internal flash memory, <F4> ROM Utility, <F12> Network

(2) Press F4 key on this screen. If F4 key is entered, Keyboard type selection screen is displayed after POST screen, and the Off-line TOOL menu is displayed after selecting keyboard type.

(3) Select BMC Configuration.

TIPS:

- Off-line TOOL is integrated in the managed server by default.
- The Off-line TOOL menu is not displayed and BMC Configuration will start directory according to the system.
- Refer to the following to see help information.

Start the tool and select Help menu, or press Home key or "?" key on the screen displayed "[Help:[Home or ?]]" at the bottom.

4.2 BMC Configuration

This chapter explains all the BMC Configuration information items. Refer to set more detailed settings. Explain the settings with the screen of BMC Configuration for Windows.

4.2.1 Network

This screen displays and sets the network environment of BMC. It is displayed "Network(Master)" or " Network(Standby)" in the case of EXPRESSSCOPE Engine SP3.

Network Service	User Account Active Directory LDAP Mail Al
*Modufying the setting in th	is screen will turn the connection with the BMC off.
Management LAN	Management AN
Management LAN	
	Auto Negotiation
	DL.FU.43:06:34:03
IR Address (Required)	1921C014 77
Subnet Mask [Required]	255 255 254 0
Default Gatewar	0.0.0.0
Dunamic DNS	© Enable O Disable
DNS Server	
Host Name	
Domain Name	
ault Value	Apply Cance
Access Limitation ault Value Configuration SNMP Alert Structure	Apply Cance
Access Limitation ault Value Configuration SNMP Alert Syntemotic Service BMC MAL Acaress	Apply Cance ustem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al
Access Limitation ault Value Configuration SNMP Alert Struct Service BML MAL Accress DHCP	Apply Cance vstem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al © Enable C Disable
Access Limitation ault Value Configuration SNMP Alert Sy Network Service BML MAL Accress DHCP IP Address [Required]	Apply Cance vstem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al Oct 0.40.00.00.00 • Enable C Disable 192.168.14.77
Access Limitation ault Value Configuration SNMP Alert Synthemic Synthemic Mac Acaress DHCP IP Address [Required] Submet Mask [Required]	Apply Cance vstem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al © Enable © Disable 192.168.14.77 255.255.254.0
Access Limitation ault Value Configuration SNMP Alert Synthemic Synthemic Mark Service BML MAL Access DHCP IP Address [Required] Subnet Mask [Required] Default Gateway Denacid DNC	Apply Cance vstem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al Oct 0493-0039-00 C Enable Disable 192.168.14.77 255.255.254.0 0.0.0 C Enable C Dirable
Access Limitation ault Value Configuration SNMP Alert Synthematic Synthematic Synthematic Service BMC Mat. Acaress DHCP IP Address [Required] Subnet Mask. [Required] Default Gateway Dynamic DNS DNS Server	Apply Cance vstem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al Oct 040-00-00-00 © Enable © Disable 192.168.14.77 255.255.254.0 0.0.0 © Enable © Disable
Access Limitation ault Value ault Value SNMP Alert SNMP Alert Service SML MAL Accress DHCP IP Address [Required] Subnet Mask [Required] Default Gateway Dynamic DNS DNS Server Hest Name	Apply Cance ustem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al Oct 0.43.30.34.33 • Enable Disable 192.168.14.77 255.255.254.0 0.0.0 • Enable Disable
Access Limitation ault Value SNMP Alert Syntemation SNMP Alert Service BML MAL Accress DHCP IP Address [Required] Subnet Mask [Required] Default Gateway Dynamic DNS DNS Server Host Name Domain Name	Apply Cance ystem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al 00.00 © Enable 192.168.14.77 255.255.254.0 0.00.0 © Enable © Disable
Access Limitation ault Value Configuration SIMP Alert SIMP Alert Service bmc.mat.Accress DHCP IP Address [Required] Subnet Mask. [Required] Default Gateway Dynamic DNS DNS Server Host Name Domain Name	Apply Cance ustem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al User Account Stable 192.168.14.77 255.255.254.0 0.0.0 © Enable © Disable
Access Limitation ault Value ault Value SNMP Alert Service BML MAL Acaress DHCP IP Address (Required) Default Gateway Dynamic DNS DNS Server Host Name Domain Name Access Limitation Access Limitation Access Limitation	Apply Cance
Access Limitation ault Value Configuration SNMP Alert SNMP Alert Some may access DHCP IP Address [Required] Subnet Mask [Required] Default Gateway Dynamic DNS DNS Server Host Name Domain Name Access Limitation Access Limitation Access Limitation Type IP Address [Development]	Apply Cance ystem Operation ECO Control Miscellaneou User Account Active Directory LDAP Mail Al 0c.r 0-0-00-00-00 0 0 0 0.0.0 • Enable 0 0.0.0 • Enable 0 0.0.0 • Enable 0 • Enable 0 0 • Allow All C Allowed Address •
Access Limitation ault Value ault Value Configuration SNMP Alert Synthetic Synthetic But Mail Accress DHCP IP Address [Required] Default Gateway Dynamic DNS DNS Server Host Name Domain Name Access Limitation Access Limitation Type IP Address [Required]	Apply Cance

Item		Description	Default Value
Management LAN		Management LAN setting	
Management		Set and display LAN port to communicate with BMC. You can	Management LAN
	LAN	modify this setting only on BMC Configuration of Off-line TOOL.	
		*1 *2	
		Management LAN	
		: LAN port for BMC exclusive use.	
		Shared BMC LAN	
		: LAN port of System (OS) is shared and used.	
	Connection Type	Set and display the connection type of the management LAN.	Auto Negotiation
		When Management LAN is "Shared BMC LAN", you can modify	
		this setting only on BMC Configuration of Off-line TOOL. *1	
		Auto Negotiation	
		: Connecting by suitable setting.	
		Connecting by Full Duploy at aread of 10 bro. *10	
		1 Connecting by Full Duplex at speed of Tobps. To	
		Connecting by Half Dunley at speed of 1Gbps *10	
		100Mbps Full	
		: Connecting by Full Duplex at speed of 100Mbps.	
		100Mbps Half	
		: Connecting by Half Duplex at speed of 100Mbps.	
		10Mbps Full	
		: Connecting by Full Duplex at speed of 10Mbps.	
		10Mbps Half	
	;	: Connecting by Half Duplex at speed of 10Mbps.	
	BMC MAC	MAC Address of the management LAN is displayed.	
	Address		
	DHCP	Determine whether to dynamically obtain an IP address from a	Blade Server:
		DHCP server. If the item is set Enable and applied, BMC set the	Enable
		Value obtained from DHCP server on TP Address, Subnet	Disable
	IP Address	Set the BMC IP address of the management I ANI *4	102 168 1 1 [*11]
	Subnet Mask	Set the Subnet Mask of the management I AN *3 */	255 255 255 0
	Default Gateway	Set the Default Gateway IP Address of the management I AN *4	0000
		If you set this item it is necessary for applying configuration	0.0.0.0
		information that the gateway is connected on network.	
	Dvnamic DNS	Determine whether to enable/disable of Dynamic DNS. *5 *12	Disable
	DNS Server	Set the DNS Server. *12	0.0.0.0
	Host Name	Set the Host Name. *6 *7 *12	Blank
	Domain Name	Set the Domain Name. *7 *12	Blank
	GUID	GUID of the managed server is displayed. *10 *12	
Α	ccess Limitation	Access Limitation setting *12	
	Access	Select the Access Limitation Type.	Allow All
	Limitation Type	Allow All	
		: Access to BMC is not limited.	
Allow Address		Allow Address	
		: Set the IP Address that is allowed to access BMC.	
		Deny Address	
		: Set the IP Address that is limited to access BMC.	
	IP Address	Set the IP Address to allow or deny to access with the	Blank
l		management LAN. *8 *9	

*1: It is possible to set when the system supports change.

*2: If you modify this setting, "Reset BMC" is necessary on some systems. When set to "Shared BMC LAN", the management LAN port is disabled. When set to "Shared BMC LAN", the network performance may be reduced because the data of both LANs must be transmitted or received.

*3: When the Subnet Mask is wrong setting, error message, such as "Failed to apply configuration.", is displayed.

*4: It is possible to set when DHCP is "Disable".

*5: It is possible to set when DHCP is "Enable".

*6: The length of Host Name must be less than 64 characters. Host Name will be truncated to 63 characters, if you input over 63 characters.

*7: Host Name and Domain Name should be within total of 255 characters.

8: The range of IP address to "Allow" or "Deny" access is delimited by ",(Comma)". With regard to the setting of "Deny" access, "(Asterisk)" can be described as a wild-card. (ex: 192.168.1.*,192.168.2.1,192.168.2.254)

*9: It is possible to set when Access Limitation Type is "Allowed Address" or "Denied Address". The length must be less than 255 characters.

*10: It is possible to set or display in the case of EXPRESSSCOPE Engine SP3.

*11: The default value is "192.168.1.100" or "192.168.1.101" in the case of EXPRESSSCOPE Engine SP3.

*12: It displays only the case of Network(Master) of EXPRESSSCOPE Engine SP3.

4.2.2 Service

This screen displays and sets the list of the service of BMC. It is displayed "Service(Master)" in the case of EXPRESSSCOPE Engine SP3.

C Configuration	
SNMP Alert Í Sys Network Service	tem Operation ECO Control Miscellaneous User Account Active Directory LDAP Mail Alert
*Modufying the setting in this	screen will turn the connection with the BMC off.
Web Server HTTP	Enable C Disable
HTTP Port [Required]	80 (1 - 65535)
HTTPS	
HTTPS Port [Required]	443 (1 - 65535)
*HTTP cannot be set enab	led singularly.
SSH	
SSH	
SSH Port [Required]	[22 [1 - 65535]
efault Value	ApplyCancel

Item	Description	Default Value
Web Server	Web Server setting	
HTTP	Select Enable/Disable of HTTP. *1	Enable
HTTP Port	Set the HTTP Port. *2 *3	80
HTTPS	Select Enable/Disable of HTTPS.	Enable
HTTPS Port	Set the HTTPS Port. *2 *3	443
SSH	SSH setting	
SSH	Select Enable/Disable of SSH.	Enable
SSH Port	Set the SSH Port. *2 *3	22

*1: If HTTP is set Enable, HTTPS is also set Enable automatically. You can not set HTTP alone to enable.

*2: It is possible to set when each port is set to enable.

*3: Each port number must not overlap.

4.2.3 User Account

This screen displays and sets the users who use BMC. It is possible to register up to 12 users or less.

Network	Service	User Account	Active Directory	LDAP	Mail Aler
No	User Name	Privilege	Operation		
1 Adi	ministrator	Administrator	Edit Delete		
2			Edit Delete		
3			Edit Delete		
4			Edit Delete		
5			Edit Delete		
6			Edit Delete		
7			Edit Delete		
8			Edit Delete		
9			Edit Delete		
10			Edit Delete		
11		- i	Edit Delete		
12			Edit Delete		
,		,			

Item	Description
User Account	Displays a list of registered users.
No	The number allocated to user is displayed.
User Name	The user name is displayed.
Privilege	The privilege of the user is displayed.
Edit	Add or change user information.
Delete	Delete user information. *1

*1: It is possible to delete only for the existing user.

..... **CHECK:**

• In Off-line Tool, you can delete user information at the next user settings screen.

4.2.4 User

This screen sets the selected user.

User	🖲 Enable 🛛 Disable
User Name [Required]	Administrator
Password [Required]	****
Confirm Password [Required]	****
Privilege	Administrator 💌

Item	Description	Default Value
User	User setting	
User	Select Enable/Disable of User. *1	Enable
User Name	Set the User Name. *2	Blank
Password	Set the Password of the User. *3	Blank
Confirm Password	Set same character string as the Password. *3	Blank
Privilege	Select the privilege of the User. *4	Administrator
	Administrator	
	Operator	
	User	

*1: It is possible to set only for the existing user.

*2: It is possible to set less than 15 half-size alphanumeric characters, "-(minus sign)" and "_(underscore)". "-(minus sign)" can not use top character of User Name. "root", "null", "MWA", "AccessByEM-Poem", "Maintenance" and already registered name in other number can not use.

*3: It is possible to set less than 19 ASCII characters, except for " (space)", " "(quotation marks)", "&", "?", "=", "#" and "¥".

*4: The privilege is as follows:

Privilege	Description
Administrator	Users who have an administrative account and are allowed to perform any
	operation.
Operator	Users who can operate the system, except session management, registration
	of license, Remote KVM/Media, whole settings and update.
User	General users who are only allowed to access the IPMI Information.

4.2.5 Active Directory

This screen displays and sets the Active Directory.

-Active [)irectory	User Account	Active Directory		al Alert
Active	Directory Authenticatio	n 💽 Enable C	Disable		
User D	omain Name <mark>(Requir</mark>	ed]			
Timeo	ut [Required]	120 seco	nds (15 - 300)		
🔽 Do	main Controller Server.	Address1 [Required]			
Do	main Controller Server.	Address2 [Required]		_	
Do Do	main Controller Server.	Address3 [Required]		_	
			,		
Group-	Group Name	Group Domain	Privilege	Operation	
1	aroup Marine			Fdit Delete	
) 	Edit Delete	
2 1			, 	Edit Doloto	
4					
5			1	Edit Delete	

Item	Description	Default Value
Active Directory	Active Directory setting	
Active Directory Authentication	Select Enable/Disable of Active Directory Authentication.	Disable
User Domain Name	Set the user domain name used by Active Directory Authentication. *1 *2	Blank
Timeout	Set the timeout period with domain controller. *1	120
Domain Controller Server 1	Select Enable/Disable of Domain Controller Server 1. *1 *3	Enable
Server Address 1	Set the IP Address of Domain Controller Server 1. *1 *4	Blank
Domain Controller Server 2	Select Enable/Disable of Domain Controller Server 2. *1 *3	Disable
Server Address 2	Set the IP Address of Domain Controller Server 2. *1 *4	Blank
Domain Controller Server 3	Select Enable/Disable of Domain Controller Server 3. *1 *3	Disable
Server Address 3	Set the IP Address of Domain Controller Server 3. *1 *4	Blank

Item		Description
Group *1		Displays a list of registered groups.
	No	The number allocated to group is displayed.
	Group Name	The group name is displayed.
	Group Domain	The domain name of Active Directory is displayed.
	Privilege	The privilege of the group is displayed.
Edit *1		Add or change group information.
Delete *1 *5		Delete group information.

*1: It is possible to set when Active Directory Authentication is "Enable".

*2: It is possible to set less than 255 half-size alphanumeric characters, "-(minus sign)", "_(underscore)" and ".(period)".

*3: When Active Directory Authentication is enabled, one or more of the Domain Controller Server should be enable.

*4: It is possible to set when each Domain Controller Server is "Enable".

*5: It is possible to set only for the existing group.

CHECK:

• In Off-line Tool, you can delete group information at the next group settings screen.

······

4.2.6 Group

This screen sets the selected group.

oup No.1		
Group Group Name Group Domain	[Required] [Required]	
Group Privilege	[
Default	<u> </u>	KCancel

Item		Description	Default Value
Group		Group setting	
	Group Name	Set the Group Name. *1	Blank
	Group Domain	Set the Group Domain Name. *2	Blank
	Privilege	Select the privilege of the Group.	Administrator
		Administrator	
		Operator	
		User	

*1: It is possible to set less than 255 half-size alphanumeric characters, "-(minus sign)" and "_(underscore)". *2: It is possible to set less than 255 half-size alphanumeric characters, "-(minus sign)", "_(underscore)" and ".(period)".

4.2.7 LDAP

This screen displays and sets the LDAP (Lightweight Directory Access Protocol).

Configuration			
SNMP Alert System Op Network Service U	eration ECO Contr Jser Account Active Directory	ol LDAP	Miscellaneous Mail Alert
LDAP			
LDAP Authentication	Enable Disable		
IP Address [Required]			
Port [Required]	636 (1 - 65535)		
Search Base [Required]			
Bind Domain Name [Required]			
Bind Password [Required]			
sfault Value		Apply	Cancel

Item	Description	Default Value
LDAP	LDAP setting	
LDAP Authentication	Select Enable/Disable of LDAP Authentication.	Disable
IP Address	Set the IP Address. *1	0.0.0.0
Port	Set the LDAP Port. *1	636
Search Base	Set the Search Base used by LDAP Authentication. *1 *2	Blank
Bind Domain Name	Set the Domain Name used by LDAP Authentication. *1 *2	Blank
Bind Password	Set the Password used by LDAP Authentication. *1 *3	Blank

*1: It is possible to set when LDAP Authentication is "Enable".

*2: It is possible to set from 4 to 62 half-size alphanumeric characters, "-(minus sign)", "_(underscore)", ".(period)", ",(comma)"and "=".

*3: It is possible to set from 4 to 31 half-size alphanumeric characters, except for " "(quotation marks)", "#" and "".

4.2.8 Mail Alert

This screen displays and sets the alert by E-mail from BMC. This setting does not exist in the case of EXPRESSSCOPE Engine SP3.

BMC Configuration			×
SNMP Alert Sy Network Service	stem Operation ECO User Account Active Direc	Control tory LDA	Miscellaneous P Mail Alert
Mail Alert Alert O Enable O Response time of SMTP	Disable server <mark>(Required)</mark> 30 seconds (;	30 - 600)	Alert Test
_ Mail]	
To:1 [Required]			
To:2 [Required]			
To:3 [Required]			
From			
Reply-To			
Subject			
SMTP Server			
SMTP Server			
	*IP Address or Dmain Name		
SMTP Port [Required]	25 (1 - 65535)		
SMTP Authentication	C Enable 💿 Disable		
			<u> </u>
Default Value		Apply	Cancel

Configuration									<u>l</u>
SNMP Alert) Sys	stem Ope	ration	Τ.	ECO	Î	Control		Miscellaneous
Network	Service	0	ser Acco	unt	Active	e Directo	w	LDAP	Mail Alert
SMTP Port [R	[equired]	25	(1 - 65	535)					<u> </u>
SMTP Authenti	cation	O Ena	ble 💿	Disable					
		🗹 CRA	M-MD5	M LC	IGIN 🗹	PLAIN			
User Name [R	equired]					1			
Password (R	equired			_					
		To:1	To:2	To:3					
Alert Level		Error/V	/arning		-				
		To:1	To:2	To:3					
Temperature(M	onitoring TI	hreshold)							
Error		$\overline{\lor}$	$\overline{\mathbb{V}}$	V					
Warning		$\overline{\mathbf{V}}$	$\overline{ } $	$\overline{\checkmark}$					
Information		Γ	Γ	Г					
Voltage(Monitor	ring Thresh	old)							
Error		V	\checkmark	$\overline{\checkmark}$					
Warning				$\overline{\mathbf{v}}$					
Information		Г	Г	Г					
FAN(Speed)									
Error		V	$\overline{\mathbf{v}}$	V					
Warning		$\overline{\vee}$	V	V					-
fault Value							[]	nolu	Cancel
dar Farab							<u></u>	PPV	

Item	Description	Default Value
Mail Alert	Mail Alert setting	
Alert	Select Enable/Disable of Mail Alert.	Disable
Response time of SMTP	Set the timeout period until when the connection to	30
server	SMTP server succeed by E-mail transmission.	
Mail	Mail Header setting	
To:1	Select Enable/Disable of To:1. *1	Enable
Mail Address	Set the mail address of To:1. *2 *3	Blank
To:2	Select Enable/Disable of To:2. *1	Disable
Mail Address	Set the mail address of To:2. *2 *3	Blank
To:3	Select Enable/Disable of To:3. *1	Disable
Mail Address	Set the mail address of To:3. *2 *3	Blank
From	Set the From. *3	Blank
Reply-To	Set the Reply-To. *3	Blank
Subject	Set the Subject. *4	Blank
SMTP Server	SMTP Server setting	
SMTP Server	Set the SMTP Server. *5	0.0.0.0
SMTP Port	Set the SMTP Port.	25
SMTP Authentication	Select Enable/Disable of SMTP Authentication.	Disable
CRAM-MD5	Select Enable/Disable of CRAM-MD5. *6 *7	Enable
LOGIN	Select Enable/Disable of LOGIN. *6 *7	Enable
PLAIN	Select Enable/Disable of PLAIN. *6 *7	Enable
User Name	Set the SMTP User Name. *6 *8	Blank
Password	Set the SMTP User Password. *6 *9	Blank
Alert Level	Alert Level setting	
Alert Level	Set the kind of event to alert. *10	Error/ Warning
Alert Test	Execute the alert test by E-mail.	

*1: When Mail Alert is enabled, one or more of the addresses should be enabled.

*2: It is possible to set when To:X is "Enable".

*3: It is possible to set less than 255 half-size alphanumeric characters and "-(minus sign)", "_(underscore)", ".(period)", "@(at mark)".

*4: It is possible to set less than 63 half-size alphanumeric characters, except for "+", " "(quotation marks)", "?", "=", "<", ">", "#" and "¥".

*5: It is possible to set full domain or IP Address less than 255 half-size alphanumeric characters and "-(minus sign)", "_(underscore)", ".(period)".

*6: It is possible to set when SMTP Authentication is "Enable".

*7: When SMTP Authentication is enabled, one or more of the authentic method should be enabled.

*8: It is possible to set less than 64 half-size alphanumeric characters, except for " (space)", " "(quotation marks)", "?", "=", "<", ">", "#" and " \mathfrak{Y} ".

*9: It is possible to set less than 19 half-size alphanumeric characters, except for " (space)", " "(quotation marks)", "?", "=", "<", ">", "#" and " χ ".

*10: The Alert Level is as follows:

Alert Level	Description
Error	When "Error" is detected in each sensor type, the alert is sent to the checked
	address.
Error/ Warning	When "Error" or "Warning" is detected in each sensor type, the alert is sent to
	the checked address.
Error/ Warning/ Information	When "Error", "Warning" or "Information" is detected in each sensor type, the
	alert is sent to the checked address.
Separate Setting	You can arbitrarily select the event and the address(To:X) to alert in each
	sensor type.

4.2.9 SNMP Alert

This screen displays and sets the alert by SNMP from BMC.

IC Configuration		
Network Service Use SNMP Alert System Opera	r Account Active Directory LDAP tion ECO Control	Mail Alert Miscellaneous
SNMP Alert		Alert Test
Alert	C Enable 💿 Disable	
Computer Name		
Community Name	public	
Alert Process	One Alert Receiver O All Alert Receivers	
Alert Acknowledge	• Enable C Disable	_
Alert Retry Count	3 🛨 times (0 · 7)	
Alert Timeout	6 🕂 seconds (3 - 30)	
Alert Receiver		
Primary IP Address [Required]	0.0.0.0	
Secondary IP Address [Required]	0.0.0.0	
Tertiary IP Address [Required]	0.0.0.0	
Alert Level		
Alert Level	Error/Warning	
	Fill Addition (information	<u> </u>
efault Value	Apply	Cancel
C Configuration		
Network Service Use SNMP Alert System Opera	r Account Active Directory LDAP tion ECO Control	Mail Alert Miscellaneous
Alert Receiver		_
Primary IP Address [Required]	0.0.0.0	
Secondary IP Address [Required]	0.0.0.0	
Tertiary IP Address [Required]	0.0.0.0	
- Alert Level		

	0.0.0.0				
Secondary IP Address [Required]	0.0.0.0				
Tertiary IP Address [Required]	0.0.0.0				
Alert Level					
Alert Level	Error/Warnii	ng	•		
	Error	Warning	Information		
Temperature(Monitoring Threshold)	V	V	Г		
Voltage(Monitoring Threshold)	<u>_</u>		Г		
FAN(Speed)	<u>_</u>	V	Г		
Cooling Device(Monitoring Threshold)	<u>v</u>	V	Г		
Temperature(Monitoring Abnormal State) 🔽		Г		
POST Memory Resize		<u>v</u>	Г		
Module/Board(Missing)	<u>V</u>		Γ		
SMI Timeout	V		Г		
Voltage(Monitoring Abnormal State)	<u>v</u>		Г		
Cooling Device(Monitoring Abnormal	$\overline{\mathbf{v}}$	$\overline{\mathbf{v}}$	Г		
Transition to Power Save			Г		
Microcontroller State		2	Г		
Second Marken			ſ	Apply	Cancel

-

Item	Description	Default Value
SNMP Alert	SNMP Alert setting	
Alert*1	Select Enable/Disable of SNMP Alert.	Disable
Computer Name	Set the Computer Name. *2	Blank
Community Name	Set the Community Name. *2	public
Alert Process	Select One Alert Receiver/All Alert Receiver of Alert	One Alert Receiver
	Process.	
Alert Acknowledge	Select Enable/Disable of Alert Acknowledge.	Enable
Alert Retry Count	Set the count of Alert retry. *3	3
Alert Timeout	Set the seconds to alert timeout. *3	6
Alert Receiver	Alert Receiver setting.	
Primary IP Address	Select Enable/Disable of Primary IP Address. *4	Enable
IP Address	Set the IP Address of Primary. *5	0.0.0.0
Secondary IP Address	Select Enable/Disable of Secondary IP Address. *4	Disable
IP Address	Set the IP Address of Secondary. *5	0.0.0.0
Tertiary IP Address	Select Enable/Disable of Tertiary IP Address. *4	Disable
IP Address	Set the IP Address of Tertiary. *5	0.0.0.0
Alert Level	Alert Level setting	
Alert Level	Set the kind of event to alert. *6	Error/ Warning
Alert Test	Execute the alert test by SNMP.	

*1: When PEF(Platform Event Filter) setting is "Disable", it can not alert.

*2: It is possible to set less than 16 half-size alphanumeric characters.

*3: It is possible to set when Alert Acknowledge is "Enable".

*4: When SNMP Alert is enabled, one or more of the addresses should be enable.

*5: It is possible to set when each Alert Receiver is "Enable".

*6: The Alert Level are as follows:

Alert Level	Description
Error	When "Error" is detected in each sensor type, the alert is sent to the checked
	address.
Error/ Warning	When "Error" or "Warning" is detected in each sensor type, the alert is sent to
	the checked address.
Error/ Warning/ Information	When "Error", "Warning" or "Information" is detected in each sensor type, the
	alert is sent to the checked address.
Separate Setting	You can arbitrarily select the event to alert in each sensor type.

4.2.10 System Operation

This screen displays and sets the Remote KVM console and the Remote Media.

SNMP Alert System Op	User Account Active Directory Contro	LDAP	Mail Alert Miscellaneous
	1 1	. 1	
Remote KVM Console		7	
Encryption	💿 Enable 🔿 Disable		
Port(No Encryption) [Required]	7578 (1024 - 65535)		
Port(Encryption) [Required]	7582 (1024 - 65535)		
Mouse Cursor Mode	C Single 💿 Dual		
Mouse Coordinate Mode "When server OS is Microsoft Wi When OS is Linux, Relative Mode	C Relative (Absolute ndows, Absolute Mode is recommended. e is recommended.		
Keyboard Language	English(US)		
Remote Media			
Encryption			
Bemote CD/DVD [Required	1 5120 (1024, 65522)		
Bemote LISB Memory	5122		
Bemote ED	5123		
	15125		
efault Value		Apply	Cancel
nfiguration		1	5
nfiguration stwork Service U NMP Alert System Ope	Iser Account Active Directory aration ECO Coni	LDAF	P Mail A Miscellaneou
nfiguration atwork Service U NMP Alert System Ope Mouse Cursor Mode	Iser Account Active Directory eration ECO Coni C Single C Dual	LDAF	⊃ Mail A Miscellaneou
nfiguration etwork Service U NMP Alert System Ope Mouse Cursor Mode Mouse Coordinate Mode	Iser Account Active Directory eration ECO Cont C Single © Dual C Relative © Absolute	LDAF	P Mail A Miscellaneou
nfiguration itwork Service U NMP Alert System Ope Mouse Cursor Mode Mouse Coordinate Mode When server OS is Microsoft Wim Ubase DS is Liower Belative Mode	Iser Account Active Directory eration ECO Con Single O Dual Relative Absolute dows, Absolute Mode is recommended.	LDAF	P Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode Mouse Coordinate Mode When Server OS is Microsoft Wini When OS is Linux, Relative Mode	Iser Account Active Directory eration ECD Coni Single O Dual Relative Absolute dows, Absolute Mode is recommended. is recommended.	LDAF	P Mail A Miscellaneou
nfiguration itwork Service U NMP Alert System Ope Mouse Cursor Mode Mouse Coordinate Mode When server OS is Microsoft Wine When OS is Linux, Relative Mode Keyboard Language	Iser Account Active Directory eration ECO Con Single O Dual Relative Absolute dows, Absolute Mode is recommended. is recommended. English(US)	LDAF	2 Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode Mouse Coordinate Mode When server OS is Microsoft Winn When OS is Linux, Relative Mode Keyboard Language emote Media	Iser Account Active Directory eration ECO Cont Single ODual Relative Absolute dows, Absolute Mode is recommended. is recommended. English(US)	LDAF	P Mail A Miscellaneou
nfiguration Itwork Service U NMP Alert System Ope Mouse Cursor Mode Mouse Coordinate Mode When Server OS is Microsoft Wink When OS is Linux, Relative Mode Keyboard Language emote Media Encryption	Iser Account Active Directory eration ECO Cont Single O Dual Relative Absolute dows, Absolute Mode is recommended. is recommended. English(US)	LDAF	P Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode Mouse Coordinate Mode When server OS is Microsoft Wine When OS is Linux, Relative Mode Keyboard Language emote Media Encryption - Port(No Encryption)	Iser Account Active Directory eration ECD Coni Single Dual Relative Absolute dows, Absolute Mode is recommended. is recommended. English(US)	Trol	P Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode When Server OS is Microsoft Win When OS is Linux, Relative Mode cemote Media Encryption Port(No Encryption) Remote CD/DVD [Required]	Iser Account Active Directory eration ECO Cont Single O Dual Relative O Absolute dows, Absolute Mode is recommended. is recommended. English(US) C Enable O Disable (1024 - 65532)	LDAF	2 Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode Wouse Coordinate Mode When server OS is Microsoft Win When OS is Linux, Relative Mode cemote Media Encryption Port(No Encryption) Remote CD/DVD [Required]	Iser Account Active Directory eration ECO Coni Single © Dual Relative © Absolute dows, Absolute Mode is recommended. English(US) English(US) Enable © Disable [5120] (1024 - 65532) [5122]	LDAF	 Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode Wouse Coordinate Mode When server OS is Microsoft Win When OS is Linux, Relative Mode Keyboard Language emote Media Encryption Port(No Encryption) Remote CD/DVD [Required] Remote USB Memory Remote FD	Iser Account Active Directory eration ECO Con Single © Dual Relative © Absolute dows, Absolute Mode is recommended. is recommended. English(US) © Enable © Disable 5120 (1024 - 65532) 5122 5123		9 Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode When server OS is Microsoft Winn When OS is Linux, Relative Mode ceyboard Language emote Media Encryption Port(No Encryption) Remote USB Memory Remote USB Memory Remote FD Port(Encryption)	Iser Account Active Directory eration ECO Cont Single O Dual Relative Absolute dows, Absolute Mode is recommended. is recommended. English(US) C Enable Disable 5120 (1024 - 65532) 5122 5123	LDAF	P Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode Mouse Coordinate Mode When server OS is Microsoft Win When OS is Linux, Relative Mode (eyboard Language emote Media Encryption Port(No Encryption) Remote CD/DVD [Required] Remote USB Memory Remote FD Port(Encryption) Remote CD/DVD [Required]	Iser Account Active Directory eration ECO Cont C Single C Dual C Relative C Absolute dows, Absolute Mode is recommended. is recommended. English(US) C Enable C Disable 5120 (1024 - 65532) 5122 5123 (1024 - 65532)		P Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode Wouse Coordinate Mode When server OS is Microsoft Win When OS is Linux, Relative Mode Ceyboard Language emote Media Encryption Port(No Encryption) Remote CD/DVD [Required] Remote FD Port(Encryption) Remote CD/DVD [Required] Remote CD/DVD [Required] Remote VSB Memory Remote CD/DVD [Required] Remote USB Memory	Iser Account Active Directory eration ECO Con C Single © Dual C Relative © Absolute dows, Absolute Mode is recommended. is recommended. English(US) © Enable © Disable 5120 (1024 - 65532) 5122 5124 (1024 - 65532) 5126	LDAF	2 Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope Mouse Cursor Mode Wouse Coordinate Mode When server OS is Microsoft Win When OS is Linux, Relative Mode ceptoard Language emote Media Encryption Port(No Encryption) Remote CD/DVD [Required] Remote FD Port[Encryption] Remote CD/DVD [Required]	Iser Account Active Directory eration ECO Con Single © Dual Relative © Absolute dows, Absolute Mode is recommended. is recommended. English(US) © Enable © Disable 5120 (1024 - 65532) 5122 5123 (1024 - 65532) 5126 5127	LDAF	 Mail A Miscellaneou
nfiguration twork Service U NMP Alert System Ope douse Cursor Mode douse Coordinate Mode When server OS is Microsoft Win When OS is Linux, Relative Mode ceyboard Language emote Media incryption Port(No Encryption) Remote CD/DVD [Required] Remote FD Port(Encryption) Remote CD/DVD [Required]	Iser Account Active Directory eration ECO Con Single © Dual Relative © Absolute dows, Absolute Mode is recommended. is recommended. English(US) © Enable © Disable 5120 (1024 - 65532) 5122 5123 (1024 - 65532) 5126 (1024 - 65532)		P Mail. Miscellanec

Item	Description	Default Value
Remote KVM Console	Remote KVM Console setting	
Encryption	Select Enable/Disable of Encryption.	Enable
Port (No Encryption)	Set the Remote KVM Console Port when Encryption	7578
	is enabled. *1	
Port (Encryption)	Set the Remote KVM Console Port when Encryption	7582
	is disabled. *1	
Mouse Cursor Mode	Select the mode of the mouse cursor.	Dual
	Single	
	Dual	
Mouse Coordinate Mode	Select the mode of expression of coordinates of the	Windows:
	mouse cursor. *2	Absolute
	Relative	Linux, Off-line:
	Absolute	Relative
Keyboard Language	Select the Keyboard Language.	English(US) *3
	Japanese(JP)	
	English(US)	
	French(FR)	
	German(DE)	
Remote Media	Remote Media setting	
Encryption	Select Enable/Disable of Encryption.	Enable
Remote CD/DVD Port	Set the Remote CD/DVD Port when Encryption is	5120
(No Encryption)	enabled. *1	
Remote USB Memory Port	Remote USB Memory Port is displayed.	
(No Encryption)	(Remote CD/DVD Port + 2)	
Remote FD Port	Remote FD Port is displayed.	
(No Encryption)	(Remote CD/DVD Port + 3)	
Remote CD/DVD Port	Set the Remote CD/DVD Port when Encryption is	5124
(Encryption)	disabled. *1	
Remote USB Memory Port	Remote USB Memory Port is displayed.	
(Encryption)	(Remote CD/DVD Port + 2)	
Remote FD Port	Remote FD Port is displayed.	
(Encryption)	(Remote CD/DVD Port + 3)	

*1: Each port number must not overlap.*2: When OS is Windows, the Absolute mode is recommended. The Relative mode is recommended for Linux.

*3: When the language of OS is Japanese, the default value is Japanese(JP).

4.2.11 ECO

This screen displays and sets the items concerning the power consumption and the system load.

■ In the case of EXPRESSSCOPE Engine 3

BMC Configuration		×
Network Service User Account Active Direct SNMP Alert System Operation ECO	tory LDAP Control	Mail Alert Miscellaneous
Aggressive Mode Power Threshold[Pa) [Required] 250 (W) (240 - 250) Correction time limit [Required] 2 Sec (1 - 600) Shutdown System	ECO Info.	
Image: Non-Aggressive Mode 2 Power Threshold(Pn) [Required] 240 (W) (30 - 250) Correction time limit [Required] 10 Sec (1 - 600)]	
Safe Power Capping 🕜		
Performance Mode Performance Optimized Disable CPU Cores [Required] [0 (0 - 5)	Power Optimized	
Default Value	Apply	Cancel

Item	Description	Default Value
Aggressive Mode	Aggressive Mode brings the system power	
(Critical Power Cap)	consumption under the specified upper limit threshold.	
	This function reduces power consumption by changing	
	CPU clock, throttling CPU clock and throttling Memory	
	clock instead of lowering the system performance.	
	If the power consumption has been exceeded over the	
	Power Threshold(Pa) during the period specified in the	
	Correction time limit, it will be able to generate System	
	Event Log, send alert, and Shutdown System.	
Aggressive Mode	Select Enable/Disable of Aggressive Mode.	Disable
(Critical Power Cap)		
Power Threshold(Pa)	Set the Power consumption upper limit threshold of	Maximum
(Power Cap Value(Pc))	Aggressive Mode. The range is from AAA to Maximum	Power
	Power Configuration.[Watt] *1 *2 *9	Configuration [*9]
Correction time limit	Set the maximum time to take corrective actions in	2 or Minimum
	order to bring the system power consumption back to	value,
	the specified Power Threshold(Pa) before generating	whichever is
	System Event Log, sending alert and Shutdown	greater. [*9]
	System. The range is from NNN to MMM.[Sec] *1 *3 *9	
Shutdown System	Select Enable/Disable of the action if the power	Disable
(Exception Action)	consumption has been exceeded over the Power	
	Threshold(Pa) during the period specified in the	
	Correction time limit. *1	
Item	Description	Default Value
--	---	--
Non- Aggressive Mode (Non-Critical Power Cap)	Non-Aggressive Mode brings the system power consumption under the specified upper limit threshold without extremely decreasing system performance. This function reduces power consumption by changing only CPU clock in order to reduce the deterioration of the system performance compared with Aggressive Mode. If the power consumption has been exceeded over the Power Threshold(Pn) during the period specified in the Correction time limit, it will be able to generate System Event Log and send alert.	
Non-Aggressive Mode (Non-Critical Power Cap)	Select Enable/Disable of Non-Aggressive Mode.	Disable
Power Threshold(Pn) (Power Cap Value(Pn))	Set the Power consumption upper limit threshold of Non-Aggressive Mode. The range is from Minimum Power Configuration to BBB.[Watt] *4 *5 *9	Power Threshold(Pa) - 10 or Minimum Power Configuration + 10, whichever is greater. [*9]
Correction time limit	Set the maximum time to take corrective actions in order to bring the system power consumption back to the specified Power Threshold(Pn) before generating System Event Log and sending alert. The range is from NNN to MMM.[Sec] *4 *9	10 or Minimum value, whichever is greater. [*9]
Safe Power Capping	Safe Power Capping brings the system power consumption down forcibly when the system is unable to obtain the power readings. This function is considered for the case where the sharp increase of power consumption causes circuit breaker tripping while the system power consumption is not readable.	
Safe Power Capping (Power Reading Timeout)	Select Enable/Disable of Safe Power Capping.	Disable
Boot Time Configuration *7	Boot Time Configuration can set the performance of the system in booting. Also can set disable CPU cores per sockets.	
Boot Time Configuration Performance Mode	Select Enable/Disable of Boot Time Configuration. Select the performance of the system in booting. *8 Performance Optimized Power Optimized	Disable Performance Optimized
Disable CPU Cores	Set the CPU Core number(s) to disable. *8 *9	0
ECO Info.	The reference value and the statistics value of the managed server are displayed.	

*1: It is possible to set when Aggressive Mode is "Enable".

*2: AAA is "Minimum Power Configuration" or "Power Threshold(Pn)".

*3: When "Power Threshold(Pa)" is not equal to "Power Threshold(Pn)", NNN is the minimum value of the system.

When "Power Threshold(Pa)" is equal to "Power Threshold(Pn)", NNN is "Correction time limit" of Non-Aggressive Mode.

MMM is the maximum value of the system.

*4: It is possible to set when Non-Aggressive Mode is "Enable".

*5: BBB is "Maximum Power Configuration" or "Power Threshold(Pa)".

*6: NNN is the minimum value of the system.

MMM is the maximum value of the system.

- *7: It is not displayed when the system does not support this function.
- *8: It is possible to set when Boot Time Configuration is "Enable".
- *9: The range and value is different according to the system.

CHECK:

• The ECO screen is not displayed if the managed server does not support this function.

■ In the case of EXPRESSSCOPE Engine SP3

BMC Configuration	>
Network(Master) Network(Standby) Service(Master) L LDAP SNMP Alert System Operation ECO Miscel	Jser Account Active Directory Active Directory I Ianeous Extended Functionality
Proactive Mode ? Power Threshold(Pa) [Required] 2200 (W) (2190 - 2200) *This mode is available while the OS is running.	ECO Info.
Retr Mode Power Threshold(Pn) [Required] 2190 (w) (1700 - 2200) Correction time limit [Required] 10 Sec (1 - 600)	
Default Value	Apply Cancel

Item	Description	Default Value
Proactive Mode *1	Proactive Mode function brings the system power consumption under the specified upper limit threshold as the "Power Threshold(Pa)".	
Proactive Mode	Select Enable/Disable of Proactive Mode.	Disable
Power Threshold(Pa)	Set the Power consumption upper limit threshold of	Maximum
	Proactive Mode. The range is from AAA to Maximum	Power
	Power Configuration.[Watt] *2 *3 *7	Configuration
		[*7]
Alert Mode *4	If the power consumption has been exceeded over the "Power Threshold (Pn)" during the period specified in the "Correction time limit", it will be able to generate System Event Log and send alert.	
Alert Mode	Select Enable/Disable of Alert Mode.	Disable
Power Threshold(Pn)	Set the Power consumption upper limit threshold of	BBB - 10 or
-	Alert Mode. The range is from Minimum Power	Minimum
	Configuration to BBB.[Watt] *5 *6 *7	Power
		Configuration +
		10, whichever
		is greater. [*7]

Item	Description	Default Value
Correction time limit	Set the maximum time to take corrective actions in order to bring the system power consumption back to the specified Power Threshold(Pn) before generating System Event Log and sending alert. The range is from 1 to 600.[Sec] *5	10
ECO Info.	The reference value and the statistics value of the managed server are displayed.	

*1: This mode is available while the OS is running.

*2: It is possible to set when Proactive Mode is "Enable".

*3: AAA is "Minimum Power Configuration" or "Power Threshold(Pn)".

*4: It is not displayed when the system does not support this function.

*5: It is possible to set when Alert Mode is "Enable".

*6: BBB is "Maximum Power Configuration" or "Power Threshold(Pa)".

*7: The range and value is different according to the system.

4.2.12 ECO Information

This screen displays the reference value and the statistics value of the managed server according to its HW configuration and system load. The display format is different according to the system.

■ In the case of EXPRESSSCOPE Engine 3

Information						
Reference						
Maximum Configurat	ion (*1)	Mi	nimum Configuratio	on (*2)		
During Operation	250 [V	V] Du	ring Operation	100 [W]		
Idle	60 [V	V] Idl	e	30 [W]		
(*1) Maximum configu (*2) Minimum configu These values are refere from the actual value w	ration means 'a ration means 'a nce only. Each /hich depends o	n available max n available mini value includes a on your precise	imum configuration mum configuration a possible tolerance server configuratio	i in the purchase." in the purchase." and might be differer n.	nt	
-Statistics						_
Power		CPU Thrott	ling	Memory Th	rottling	
Current	40 [W]	Current	0 [%]	Current	0 [%]	
Maximum	60 [W]	Maximum	100 [%]	Maximum	0 [%]	
Minimum	38 [W]	Minimum	0 [%]	Minimum	0 [%]	
Average	40 [W]	Average	5 [%]	Average	0 [%]	
Reset			Reset		Reset	
						·
Information						
- Reference Marinum Barrow Cana		250 m	л			
Maximum Fower Cons	unprion	20				
Minimum Power Const	imption	<u>30 [</u> W	1			
Warning: These values are refere	ence only. Each	value includes	a possible tolerance	e.		
Statistics						
Power		CPU Thrott	ling	Memory Th	rottling	
Current	40 [W]	Current	0 [%]	Current	0 [%]	
Maximum	60 [W]	Maximum	100 [%]	Maximum	0 [%]	
Minimum	38 [W]	Minimum	0 [%]	Minimum	0 [%]	
Average	40 [W]	Average	5 [%]	Average	0 [%]	
Reset			Reset		Reset	

Item	Description
Maximum Configuration *1	An available maximum configuration in the model.
During Operation	At system high load.
Idle	When only power supply ON.
Minimum Configuration *1	An available minimum configuration in the model.
During Operation	At system high load.
Idle	When only power supply ON.
Maximum Power Consumption *1	Maximum system power consumption.
Minimum Power Consumption *1	Maximum system power consumption.
Power	The power consumption of the managed server is displayed.
Current	Present power consumption.
Maximum	Maximum power consumption.
Minimum	Minimum power consumption.
Average	Average value of power consumption.
CPU Throttling *2	CPU throttling rate of the managed server is displayed.
Current	Present CPU throttling rate.
Maximum	Maximum CPU throttling rate.
Minimum	Minimum CPU throttling rate.
Average	Average value of CPU throttling.
Memory Throttling *2 *3	Memory Throttling rate of the managed server is displayed.
Current	Present Memory Throttling rate.
Maximum	Maximum Memory Throttling rate.
Minimum	Minimum Memory Throttling rate.
Average	Average value of Memory Throttling.
Reset	The statistics values are reset.

*1: These values are reference purpose only. Each value might be different from the actual value which depends on your precise server configuration.

*2: Technology that decreases frequency or duty cycle of clock, and suppresses power consumption.

*3: It is not displayed when the system does not support this function.

■ In the case of EXPRESSSCOPE Engine SP3

Maximum Power Consumption	2200 [V] Wai Th	ming: ese values are reference only. Each
Minimum Power Consumption	1700 [V] val:	ue includes a possible tolerance.
Statistics			

Item	Description
Maximum Power Consumption *1	Maximum system power consumption.
Minimum Power Consumption *1	Maximum system power consumption.
Power	The power consumption of the managed server is displayed.
Current	Present power consumption.

*1: These values are reference purpose only. Each value might be different from the actual value which depends on your precise server configuration.

4.2.13 Control

Control the managed server. This setting is applied at the next booting time of the managed server. This setting does not exist in the case of EXPRESSSCOPE Engine SP3.

1C Configuratio	n					
Network SNMP Alert	Service Syste	User Account m Operation	Active Dire ECO	ectory Control	LDAP	Mail Alert Miscellaneous
One Time Bo Boot	oot Device	ange	T			
		ange				
)efault Value				(Ap	ply)	Cancel

Item	Description	Default Value
One Time Boot Device	One Time Boot Device setting	
Boot Device *1	Select the Device used at next boot.	No Change

*1: The Boot Devices are as follows:

Boot Device	Description
No Change	It follows the setting of System BIOS of the managed server.
PXE	PXE Boot is done.
HDD	It starts from the hard disk connected to the managed server.
CD/DVD	It starts from the CD/DVD drive connected to the managed server.
Remote FD	It starts from the FD drive (media) connected by the remote media function.
Remote CD/DVD	It starts from the CD/DVD drive (media) connected by the remote media
	function.
Remote USB Memory	It starts from USB Memory connected by the remote media function.
FD	It starts from the FD drive or the removable mass storage connected to the
	managed server.

CHECK:

This setting item does not exist in Off-line TOOL.

4.2.14 Miscellaneous

This screen displays and sets the various functions of BMC.

repository is full		Stop logging SE	L 🔿 Clear all S	GEL O Overwi	ite oldest SE	L
Power Restore D	Delay					_
AC-LINK	0	StayOff 💽 L	ast State 🔿 Po	ower On		
Delay Time (R	equired]	Random 45	seconds (45	- 600)		
PEF Platfrom Event	Filter 💿	Enable O D	sable			
*If PEF Configu	ration is set to	disable, SNMP	alert will not wor	k.		
Management So	oftware					
Management So ESMPRO Mana	agement	C Enable	Oisable			
Management So ESMPRO Mana Authentication	agement Key (Require	C Enable	Oisable			
Management So ESMPRO Mana Authentication	agement Key (Require	C Enable	Disable Disable			
Management So ESMPRO Mana Authentication	agement Key (Require	C Enable	Oisable			

Item	Description	Default Value
SEL	SEL setting	
Behavior when SEL	Select the Behavior when SEL repository is full. *1	Stop logging SEL
repository is full	Stop logging SEL	
	: SEL is not recorded any more.	
	Clear all SEL	
	: Delete all SEL and record SEL newly.	
	Overwrite oldest SEL	
	: Old SEL is overwritten with new SEL.	
Power Restore Delay	Power Restore Delay setting	
AC-Link	Select the AC-Link setting.	Last State *2
	Stay Off	
	: DC is not turned on.	
	Last State	
	: It becomes the same as time when AC was turned off.	
	Power On	
	: DC on always.	
Delay Time	Set the value or specify the Random. The range is from	Minimum value
	"Minimum value" to "600"[Sec], *3	
PEF	PEF setting	
Platform Event Filter	Select Enable/Disable of Platform Event Filter. *4	Enable
Management Software	Management Software setting	
ESMPRO Management	Select Enable/Disable of ESMPRO Management. *5	Current value

Item	Description	Default Value
Authentication Key	Set the Authentication Key. *6 *7	guest
Redirection	Select Enable/Disable of Redirection. *6	Enable
	If Redirection is set to "Enable", BIOS Redirection Port in	
	Console Redirection Configuration of BIOS is set to "Serial	
	Port B".	

*1: When this item is changed to/from "Overwrite oldest SEL", all log records in the SEL Repository are cleared.

*2: When the "Standby Power Save" function of System BIOS is Enable, it is set to "Power On". And the default value is changed to "Power On".

*3: It is not possible to set when AC-Link is "Stay Off" or the system is Blade Server. Delay time from turning on AC to turning on DC is specified. It is possible to set up to 600(seconds). Minimum value is different according to the system. It is possible to set "Random" when the system supports it.

*4: "Enable" and "Disable" of the report function from BMC are set. It makes SNMP Alert be impossible when it sets to "Disable".

*5: When BMC can be managed directly from NEC ESMPRO Manager (Ver.5.4 or later), it must be set to "Enable". If it sets to "Enable", Authentication Key also must be set.

*6: It is possible to set when NEC ESMPRO Management is set "Enable".

*7: It is Authentication key when managing from NEC ESMPRO Manager (Ver.5.4 or later). It is possible to set less than 16 half-size alphanumeric characters.

CHECK:

Power Restore Delay settings do not exist in Off-line TOOL.

4.2.15 Extended Functionality

This screen displays and sets the extended functions. This setting only exists in the case of EXPRESSSCOPE Engine SP3. Please refer to the User's Guide of the managed server for details of the item.

Network(Master) Network(Standby) Service(Master) User Account Active Directory LDAP SNMP Alert System Operation ECO Miscellaneous Extended Functionality Cooling Current value Value of after rebooting BBU(") on PCI Slot Not-Installed © Not-Installed "BBU:Battery Backup Unit for SAS Card. Fault Handling Current value Value of after rebooting Degraded Server Boot Policy Boot © Boot Not-Boot Failing Unit Removal Enable © Enable Disable PRB2 Monitoring Enable © Enable Disable Diagnostics Current value Value of after rebooting Enable Configuration Current value Value of after rebooting Enable Master Clock Module Current value Value of after rebooting Enable	BMC Configuration			×
LDAP SNMP Alert System Operation ECO Miscellaneous Extended Functionality Cooling Current value Value of after rebooting BBU(") on PCI Slot Not-Installed © Not-Installed "BBU:Battery Backup Unit for SAS Card. Fault Handling © Urrent value Value of after rebooting Degraded Server Boot Policy Boot © Boot © Boot Not-Boot Failing Unit Removal Enable © Enable © Disable FRB2 Monitoring Enable © Enable Disable Diagnostics Current value Value of after rebooting Enable Configuration Current value Value of after rebooting Enable Configuration Current value Value of after rebooting Enable Configuration Current value Value of after rebooting Enable Master Clock Module Clock1 © Clock1 © Clock2 ✓	Network(Master) Network(Sta	andbuì Í Servi	ce(Master) I User Account	Active Directory
Cooling Current value Value of after rebooting BBU(°) on PCI Slot Not-Installed Installed "BBU:Battery Backup Unit for SAS Card. Installed Installed Fault Handling Current value Value of after rebooting Degraded Server Boot Policy Boot Installed Pailing Unit Removal Enable Installed FRB2 Monitoring Enable Enable Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable Installed Configuration Current value Value of after rebooting Master Clock Module Clock1 Installed	LDAP SNMP Alert Syste	m Operation	ECO Miscellaneous Exte	ended Functionality
Cooling Current value Value of after rebooting BBU(") on PCI Slot Not-Installed Installed "BBU:Battery Backup Unit for SAS Card. Fault Handling Current value Value of after rebooting Degraded Server Boot Policy Boot Installed Failing Unit Removal Enable Installee FRB2 Monitoring Enable Enable Diagnostics Current value Value of after rebooting Diagnostics Enable Installee Configuration Current value Value of after rebooting Master Clock Module Clock1 Installee				
Current value Value of after rebooting BBU(°) on PCI Slot Not-Installed "BBU:Battery Backup Unit for SAS Card. Fault Handling Degraded Server Boot Policy Boot © Boot © Boot © Boot © Installed Periodic Diagnostics Diagnostics Current value Value of after rebooting © Enable © Enable © Enable Diagnostics Current value Value of after rebooting © Enable	Cooling			
BBU(°) on PCI Slot Not-Installed Not-Installed Installed "BBU:Battery Backup Unit for SAS Card. Fault Handling Degraded Server Boot Policy Current value Value of after rebooting Degraded Server Boot Policy Boot © Not-Boot Failing Unit Removal Enable © Enable Disable FRB2 Monitoring Enable © Enable Disable Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable © Enable Disable Configuration Current value Value of after rebooting Enable Master Clock Module Clock1 © Clock1 © Clock2 Image: Clock 1		Current value	Value of after rebooting	
"BBU:Battery Backup Unit for SAS Card. Fault Handling Degraded Server Boot Policy Current value Value of after rebooting Pailing Unit Removal Enable © Enable Disable FRB2 Monitoring Enable © Enable Disable Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable © Enable Disable Configuration Current value Value of after rebooting Disable Master Clock Module Clock1 © Clock1 © Clock2 Image: Clock Cloc	BBU(*) on PCI Slot	Not-Installed	Not-Installed C Installed	
BBD:Battery Backup Unit for SAS Card. Fault Handling Degraded Server Boot Policy Boot © Boot © Not-Boot Failing Unit Removal Enable © Enable Disable FRB2 Monitoring Enable © Enable Disable Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable © Enable Disable Configuration Current value Value of after rebooting Master Clock Module Clock1 © Clock2 Image: Clock 1	*PDU D // D // // 240			
Fault Handling Current value Value of after rebooting Degraded Server Boot Policy Boot © Boot Not-Boot Failing Unit Removal Enable © Enable Disable FRB2 Monitoring Enable © Enable Disable Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable © Enable Disable Configuration Current value Value of after rebooting Master Clock Module Clock1 © Clock2 Image: Clock 1	BBU:Battery Backup Unit for SAS	i Laro.		
Current value Value of after rebooting Degraded Server Boot Policy Boot	- Foult Hondling			
Current value Value of after rebooting Degraded Server Boot Policy Boot © Boot Not-Boot Failing Unit Removal Enable © Enable Disable FRB2 Monitoring Enable © Enable Disable Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable © Enable Disable Configuration Current value Value of after rebooting Master Clock Module Clock1 © Clock2 Image: Clock 1	raukhanding			
Degraded server boot Poincy Boot © boot Not-boot Failing Unit Removal Enable © Enable Disable FRB2 Monitoring Enable © Enable Disable Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable © Enable Disable Configuration Current value Value of after rebooting Master Clock Module Clock1 © Clock2 Image: Clock 1	Deeve ded Centre Deet Delieu	Current value	C Death C Net Death	
Failing Unit Removal Enable Enable Value of after rebooting Periodic Diagnosis Enable Enable	Degraded Server Boot Policy	Boot		
FRB2 Monitoring Enable Image: Enable Image: Enable Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable Image: Enable Configuration Current value Value of after rebooting Master Clock Module Clock1 Image: Clock2 Image: Clock2	Failing Unit Removal	Enable	🖲 Enable 🔿 Disable	
PHB2 Monitoring Enable Image: Configuration Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable Image: Configuration Current value Value of after rebooting Master Clock Module Clock1 Image: Clock2	EDDO M. D. C		65 H 65 H	
Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable Image: Configuration Current value Value of after rebooting Master Clock Module Clock1 Image: Clock2	FRB2 Monitoring	Enable	🖲 Enable 🔘 Disable	
Diagnostics Current value Value of after rebooting Periodic Diagnosis Enable • Enable Configuration Current value Value of after rebooting Master Clock Module Clock1 • Clock2				
Current value Value of after rebooting Periodic Diagnosis Enable Configuration Current value Value of after rebooting Master Clock Module Clock1 © Clock2	Diagnostics			
Periodic Diagnosis Enable © Disable Configuration Current value Value of after rebooting Master Clock Module Clock1 © Clock2		Current value	Value of after rebooting	
Configuration Current value Value of after rebooting Master Clock Module Clock1 © Clock2	Periodic Diagnosis	Enable	🖲 Enable 🥤 Disable	
Current value Value of after rebooting Master Clock Module Clock1 © Clock2 Image: Clock2				1
Current value Value of after rebooting Master Clock Module Clock1 © Clock2 Image: Clock2	Configuration			1
Master Clock Module Clock1 © Clock1 © Clock2		Current value	Value of after rebooting	
	Master Clock Module	Clock1	Clock1 Clock2	
Default Value Cancel	Default Value		Apply	Cancel

BMC Configuration			×
Network(Master) Network(Star LDAP SNMP Alert System	ndby) Serv n Operation	rice(Master) User Accou ECO Miscellaneous	nt Active Directory Extended Functionality
- Fault Handling	Construction	Value of other shareful	
Degraded Server Boot Policy	Boot	Boot C Not-Boot	
Failing Unit Removal	Enable	🖲 Enable 🔿 Disable	
FRB2 Monitoring	Enable	💿 Enable 🔿 Disable	
Diagnostics			
Periodic Diagnosis	Current value Enable	Value of after rebooting • Enable C Disable	
Configuration			
Master Clock Module	Current value Clock1	Value of after rebooting Clock1 C Clock2	
Spare Memory Configuration Mode	Static	💿 Static 🔿 Dynamic	
Spare PCIe Configuration Mode	Static	Static C Dynamic	
Default Value			Cancel

Item	Description	Default Value
Cooling	Cooling function setting	
BBU(*1) on PCI Slot	Select the cooling function of the BBU(*1). Not -Installed Installed	Not -Installed
Fault Handling	Fault Handling function setting	
Degraded Server Boot Policy	Select the Degraded Server Boot Policy. Boot Not-Boot	Not-Boot
Failing Unit Removal	Select Enable/Disable of Failing Unit Removal. Enable Disable	Enable
FRB2 Monitoring	Select Enable/Disable of FRB2 Monitoring. Enable Disable	Enable
Diagnostics	Diagnostics function setting	
Periodic Diagnosis	Select Enable/Disable of Periodic Diagnosis. Enable Disable	Enable
Configuration	Various other setting	
Master Clock Module	Select the Master Clock Module. Clock1 Clock2	Clock1
Spare Memory Configuration Mode	Select the Spare Memory Configuration Mode. Static Dynamic	Static
Spare PCIe Configuration Mode	Select the Spare PCIe Configuration Mode. Static Dynamic	Static

*1: Battery Backup Unit for SAS Card

CHECK:

This setting is applied at the next booting time of the managed server.

4.3 BIOS Configuration

This screen displays and sets System BIOS settings of the server. Please refer to the User's Guide of the managed server for details of the item.

This setting is applied at the next booting time of the managed server.

BIOS	5 Configuration			×
BI	os			
				-
[-Basic Configuration			
	POST Error Pause	Current value	Value of after rebooting	
	1 OST Ellort dusc	Enable		
	Memory	Boot	C Halt C Boot	
	CLI Setup	Disable	🔿 Enable 💿 Disable	
	Standby Power Save	Disable	C Enable 💿 Disable	
	– Serial Port A Configuratio	n		
		Current value	Value of after rebooting	
	Serial Port A	Enable	📀 Enable 🔿 Disable	
	Serial A Base I/O	3F8h	3F8h	
	Serial A Interrupt	IRQ 4	IRQ 4	
l	– Serial Port B Configuratio	n		
		Current value	Value of after rebooting	
	Serial Port B	Enable	● Enable C Disable	
	Serial B Base I/O	2F8h	2F8h	
	Serial B Interrupt	IRQ 3	IRQ 3 💌	_
De	efault Value		Apply	Cancel

1	Current value	Value of after rebooting	
Serial Port B	Enable	💿 Enable 🔿 Disable	
Serial B Base I/O	2F8h	2F8h	
Serial B Interrupt	IRQ 3	IRQ 3	
Console Redirection Config	guration		
	Current value	Value of after rebooting	
BIOS Redirection Port	Serial Port B	Serial Port B 💌	
Terminal Type	VT-100+	VT-100+	
Baud Rate	115200	115200 💌	
Data Bits	8	8	
Stop Bits	1	1	
Parity	None	None	
Flow Control	Hardware RTS/CTS	Hardware RTS/CTS 💌	
Continue C.R. after POST	Enable	⊙ Enable ⊂ Disable	

Item	Description	Default Value *1
Basic Configuration	Basic Configuration setting	
POST Error Pause	Select Enable/Disable of POST Error Pause.	Enable
Memory Error *2	Select Halt/Boot of Memory Error.	Boot
CLI Setup *2	Select Enable/Disable of CLI Setup.	Disable
Standby Power Save *2	Select Enable/Disable of Standby Power Save.	Disable
Serial Port A Configuration	Serial Port A Configuration setting	
Serial Port A	Select Enable/Disable of Serial Port A.	Enable
Serial A Base I/O	Select Base I/O Address of Serial Port A. It	3F8h
	must be different from Serial Port B.	
Serial A Interrupt	Select IRQ of Serial Port A. It must be different	IRQ 4
	from Serial Port B.	
Serial Port B Configuration	Serial Port B Configuration setting	
Serial Port B	Select Enable/Disable of Serial Port B.	Enable
Serial B Base I/O	Select Base I/O Address of Serial Port B. It	2F8h
	must be different from Serial Port A.	
Serial B Interrupt	Select IRQ of Serial Port B. It must be different	IRQ 3
	from Serial Port A.	
Console Redirection Configuration	Console Redirection Configuration setting	
BIOS Redirection Port	Select BIOS Redirection Port. You can not	Disabled
	select "Disable" Port.	
Terminal Type	Select Terminal Type.	VT-100+
Baud Rate	Select Baud Rate.	115200
Data Bits	Select Data Bits.	8
Stop Bits	Select Stop Bits	1
Parity	Select Parity.	None
Flow Control	Select Flow Control.	Hardware
		RTS/CTS
Continue C.R. after POST	Select Enable/Disable of Continue Console	Enable
	Redirection after POST.	

*1: The value might be different according to the system.*2: It is not displayed when the system does not support this function.

......

CHECK:

• This setting item does not exist in Off-line TOOL.

4.4 Battery Configuration

If the managed server is equipped with a battery, you can check and configure the information of the battery.

CHECK:

- Battery Configuration is not displayed if the managed server is not equipped with a battery.
- Select Battery Configuration in Off-line TOOL.

4.4.1 Battery Pack Information

This screen displays the various information of the battery pack.

	Battery Pack1	Battery Pack2
itatus	Normal	Normal
Charge Status	Fully Charged	Fully Charged
Battery Pack Replacement	No Need	No Need
Remaining Charge	2500 mAh	2500 mAh
full Charge Capacity	2500 mAh	2500 mAh
Rated Capacity	2500 mAh	2500 mAh
Voltage	9443 mV	9443 mV
Current	0 mA	0 mA
Vlanufacturer Name	FDK	FDK
vIodel Name	TC071NE3	TC071NE3
Battery Type	NiMH	NiMH
Fotal Working Hours	888 Hours	890 Hours
Recharged Count	12 Times	12 Times
ull Charged Count	78 Times	77 Times

Ite	em	Description
Battery Pack Information		Displays the information of the Battery Pack 1 and 2.
	Status	The detected state of the battery pack is displayed.
		Normal / Warning / Error / Not Mounted
	Charge Status	The charge status of the battery pack is displayed. *1
		Fully Charged / Charging / Discharging(%) / Unknown
	Battery Pack Replacement	The necessity of the battery pack replacement is displayed. *1
		Need / No Need
	Remaining Charge	The remaining charge[mAh] of the battery pack is displayed. *1
		Remaining Charge
		: The remaining capacity for the Full Charge Capacity.
	Full Charge Capacity	The full charge capacity[mAh] of the battery pack is displayed. *1
		Full Charge Capacity
		: The battery capacity that could be discharged to the voltage
		at the end of discharge from full charge.
	Rated Capacity	The rated capacity[mAh] of the battery pack is displayed. *1
		Rated Capacity
		: The minimum capacity of the battery pack based on the
		charge and discharge conditions of JIS C8708 2007.

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Item	Description	
Voltage	The measured voltage[mV] of the battery pack is displayed. *1	
Current	The measured current [mA] of the battery pack is displayed. *1	
Manufacturer Name	The manufacturer name of the battery pack is displayed. *1	
Model Name	The model name of the battery pack is displayed. *1	
Battery Type	The type of the battery pack is displayed. *1	
Total Working Hours	The total working hours of the battery pack is displayed. *1	
Recharged Count	The recharged count of the battery pack is displayed. *1	
Full Charged Count	The full charged count of the battery pack is displayed. *1	

*1: If the battery pack is not mounted, "-" is displayed.

4.4.2 Battery Controller Information

This screen displays the various information of the battery controller.

Battery Controller Information	
Manufacturer Name	FDK
Device Name	TC071NE3
Firmware Revision	04.06
Supported Battery Type	NiMH
Approximate Backup Time at Full Charge(current load) min:sec	26:1
Approximate Backup Time at Full Charge(maximum load) min:sec	2:45
Rated Capacity	5000 mAh
Rated Power	300 W
Peak VA	350 W
Charge Power	25 W

Item	Description		
Battery Controller Information	Displays the information of the Battery Controller.		
Manufacturer Name	The manufacturer name of the battery controller is displayed.		
Device Name	The device name of the battery controller is displayed.		
Firmware Revision	The firmware revision of the battery controller is displayed.		
Supported Battery Type	The type of the battery controller is displayed.		
Approximate Backup Time at	The approximate backup time[minutes:seconds] in fully charged		
Full Charge(current load)	state at current load of the battery controller is displayed. *1 *2		
Approximate Backup Time at	The approximate backup time[minutes:seconds] in fully charged		
Full Charge(maximum load)	state at maximum load of the battery controller is displayed. *1 *2		
Rated Capacity	The rated capacity[mAh] of the battery controller is displayed.		
	Rated Capacity		
	: The minimum capacity of the battery controller based on the		
	charge and discharge conditions of JIS C8708 2007.		
Rated Power	The rated power[W] of the battery is displayed.		
Peak VA	The peak power[W] of the battery is displayed.		
Charged Power	The power[W] required for charging is displayed.		

*1: If the approximate backup time is unknown, "-" is displayed.

*2 'Approximate Backup Time at Full Charge' is a reference value when the server's environment temperature is 25 degrees Celsius. This value may be different from actual operating time caused by temperature differences.

4.4.3 Battery Controller Configuration

This screen displays and sets the various functions of the battery controller.

Battery Controller Configuration		×
Battery Controller		
Shutdown at power lost	Enable	C Disable
Shutdown delay time [Required]	10	Seconds (0 - 255)
Battery turn off delay time [Required]	20	Seconds (0 - 3600)
*The power switch should be configured to shutd	own in the OS.	
Boot after power recovery	• Enable	O Disable
*This item is valid only when AC-LINK is set 'St and Last State is DC-OFF.	ay Off, or AC-LINE	C is set 'Last State'
Boot timeout after DC-ON [Required]	0	Seconds (0 - 3600)
Default Value Apply	Cancel	

Item	Description	Default Value
Battery Controller Configuration	Battery Controller setting	
Shutdown at power lost	Select Enable/Disable of the ability to shutdown at the power failure. *1	Disable
Shutdown delay time Set the timeout period until the shutdown v started at the power failure. *2 *3		0
Battery turn off delay time	Set the timeout period until the shutdown will be finished at the power failure. *2 *3	0
Boot after power recovery	t after power recovery Select Enable/Disable of the ability to boot after the power recovery. *2 *4	
Boot timeout after DC-ON	Set the timeout period until the boot is complete after DC-ON. *2 *3 *5	0

*1: The POWER Switch should be configured to shutdown in the OS.

*2: It is possible to set only if Shutdown at power lost is set to "Enable".

*3: The battery output period may be briefer in duration than the each configured time in this item, depending on the remaining charge.

*4: This item is valid only when AC-LINK is set 'Stay Off', or AC-LINK is set 'Last State' and Last State is DC-OFF.

*5: This item is valid at DC-ON after the shutdown system by 'Shutdown at power lost'. (DC-ON by 'Boot after power recovery' or manually)

4.5 Backup

Back up the configurations to files. Select the backup target and click [OK]. This function does not exist in the case of EXPRESSSCOPE Engine SP3.

3ackup	×
File Locations	
Folder C:\Program	a Files\BMC_Configuration\json Browse
Backup Target	
🔽 User Management	C:\Program Files\BMC_Configuration\json\useraccount.j
✓ Network	C:Program Files\BMC_Configuration\json\network.json
🔽 Alert	C:\Program Files\BMC_Configuration\json\alert.json
🔽 System Operation	C:\Program Files\BMC_Configuration\json\operation.jso
ECO	C:\Program Files\BMC_Configuration\json\eco.json
Miscellaneous	C:\Program Files\BMC_Configuration\json\basic.json
✓ Battery	C:\Program Files\BMC_Configuration\json\battery.json
	OK Cancel

Item	Description			
File Locations	Set the location of backup files.			
Folder	The preservation folder of the file is displayed.			
Browse	It changes the preservation folder.			
Backup Target	Select the backup target.			
User Account	Select whether backup User Account settings or not, and display the			
	backup file name.			
Network	Select whether backup Network settings or not, and display the backup file			
name.				
Alert	Select whether backup Alert settings or not, and display the backup file			
name.				
Operation	Select whether backup Operation settings or not, and display the backup			
	file name.			
ECO *1	Select whether backup ECO settings or not, and display the backup file			
	name.			
Miscellaneous	Select whether backup Miscellaneous settings or not, and display the			
	backup file name.			
Battery *1	Select whether backup Battery settings or not, and display the backup file			
	name.			

*1: It is not displayed when the system does not support this function.

CH	IECK:
•	Off-line TOOL has no backup function.

4.6 Restore

Restore the configurations from files. Select the restore target and click [OK]. This function does not exist in the case of EXPRESSSCOPE Engine SP3.

estore	
File Locations	
Folder C:Program	n Files\BMC_Configuration\jsonBrowse
Restore Target	
🔽 User Management	C:\Program Files\BMC_Configuration\json\useraccount.j
✓ Network	C:\Program Files\BMC_Configuration\json\network.json
🔽 Alert	C:\Program Files\BMC_Configuration\json\alert.json
🔽 System Operation	C:\Program Files\BMC_Configuration\json\operation.jso
🔽 ECO	C:\Program Files\BMC_Configuration\json\eco.json
Miscellaneous	C:\Program Files\BMC_Configuration\json\basic.json
✓ Battery	C:\Program Files\BMC_Configuration\json\battery json
<u> </u>	OK Cancel

Item	Description
File Locations	Set the locations of files.
Folder	The preservation folder of the file is displayed.
Browse	It changes the preservation folder.
Restore Target	Select the restore target.
User Account	Select whether restore User Account settings or not. Only when the target
	backup file exists, the file name is displayed and able to be selected.
Network	Select whether restore Network settings or not. Only when the target
	backup file exists, the file name is displayed and able to be selected.
Alert	Select whether restore Alert settings or not. Only when the target backup
	file exists, the file name is displayed and able to be selected.
Operation	Select whether restore Operation settings or not. Only when the target
	backup file exists, the file name is displayed and able to be selected.
ECO *1	Select whether restore ECO settings or not. Only when the target backup
	file exists, the file name is displayed and able to be selected.
Miscellaneous	Select whether restore Miscellaneous settings or not. Only when the target
	backup file exists, the file name is displayed and able to be selected.
Battery *1	Select whether restore Battery settings or not. Only when the target backup
	file exists, the file name is displayed and able to be selected.

*1: It is not displayed when the system does not support this function.

CHECK:	
• Off-line TOOL has no restore function.	

4.7 Clear BMC SEL

If you select "Clear BMC SEL" on the menu of BMC Configuration, you can clear all records of System Event Log.

4.8 BMC Configuration Initialization

If you select "BMC Configuration Initialization" on the starting screen, you can restore all of BMC Configuration parameters to the default settings except for the part. It will take a few minutes to restart BMC.

IMPORTANT:

- This operation may cause data destruction.
- False HW error information may be detected on the server if Shutdown, Reboot, or any other operation is executed during a few minutes after this operation. Please refer to the server's User's Guide to get more information, because the occurrence of the false HW error detection depends on the model of the server.

.....

CHECK:

- The initialization of the ECO settings is supported the following version.
 BMC Configuration for Windows Ver.1.21 or later
- If the managed server is equipped with a battery, this item appears in "BMC/Battery Configuration Initialization" and the Battery settings are also initialized.

4.9 Reset BMC

If you select "Reset BMC" on the menu of BMC Configuration, you can reset BMC without rebooting system. It will take a few minutes to restart BMC.

IMPORTANT:

- Please use it when you can not operate the BMC functions correctly or if necessary.
- This operation does not clear the configuration settings.
- False HW error information may be detected on the server if Shutdown, Reboot, or any other operation is executed during a few minutes after this operation. Please refer to the server's User's Guide to get more information, because the occurrence of the false HW error detection depends on the model of the server.

5. Functions for ft Server

This chapter describes the functions of BMC Configuration of if you use ft Server. Please refer to chapter 4 when you use a standard server.

5.1 Start procedure

5.1.1 On Windows

After the installation is completed, do the following operation as Administrator to open the main dialog box of BMC Configuration.

- Click "BMC_Configuration" - "BMC Configuration" from [start] on Windows

The following screen shows example.

BMC Configuration Version 1.20				
	Set BMC Co	onfiguration		
	Backup/Restore Backup	Restore		
	Clo	se]	
TIPS:Refer to the following	ng to see BMC Cont	figuration help inf	ormat	ion.
Click "BMC_Con from [start] on Wi	figuration" - "BMC ndows.	Configuration He	lp"	

5.1.2 On Off-line TOOL

You can start the Off-line TOOL as follows.

(1) The following message is displayed on the bottom of POST screen.

Press<F2> SETUP, <F4> ROM Utility, <F12> Network

(2) Press F4 key on this screen. If F4 key is entered, Keyboard type selection screen is displayed after POST screen, and the Off-line TOOL menu is displayed after selecting keyboard type.

(3) Select BMC Configuration.

TIP	S:
•	Off-line TOOL is integrated in the managed server by default.
•	Refer to the following to see help information.
	Start the tool and select Help menu, or press Home key or "?" key on the screen displayed "[Help:[Home or ?]]" at the bottom.
•••••	

5.2 BMC Configuration Setting

This chapter explains all the BMC Configuration information items. Refer to set more detailed settings. Explain the settings with the screen of BMC Configuration for Windows.

"Network" and "Service" are different settings for CPU/IO module0 and CPU/IO module1. Otherwise, they are common settings for CPU/IO module0 and CPU/IO module1.

5.2.1 Network

This screen displays and sets the network environment of BMC.

BMC Configuration		×
Mail Alert SNMF Network0 Service0	Alert System Operation Control Network1 Service1 User Account Active Direct	viscellaneous
*Modufying the setting in thi Management LAN Management LAN	s screen will turn the connection with the BMC off.	<u> </u>
Connection Type	Auto Negotiation	
BMC MAC Address	50:E5:49:25:05:81	
DHCP		
IP Address [Required]	192.168.14.22	
Subnet Mask [Required]	255.255.254.0	
Default Gateway	0.0.0.0	
Dynamic DNS	C Enable O Disable	
DNS Server		
Host Name		
Domain Name		
Access Limitation		_
Default Value		Cancel

Mail Alert SNMF Network0 Service0 вми май Address	Alert System Operation Control Miscellaneous Network1 Service1 User Account Active Directory LDAP
DHCP	● Enable
IP Address [Required]	192.168.14.22
Subnet Mask [Required]	255.255.254.0
Default Gateway	0.0.0.0
Dynamic DNS	C Enable 💿 Disable
DNS Server	
Host Name	
Domain Name	
- Access Limitation	
Access Limitation Type	Allow All C Allowed Address C Denied Address
IP Address [Required]	
	*Use commas (,) to separate IP address. *The wildcard (*) can be used in Denied address.

Item	Description	Default Value
Management LAN	Management LAN setting	
Management	LAN port to communicate with BMC is displayed. *1	Management LAN
LAN		
Connection Type	Set and display the connection type of managed server.	Auto Negotiation
	Auto Negotiation	
	: Connecting by suitable setting.	
	100Mbps Full	
	: Connecting by Full Duplex at speed of 100 Mbps.	
	100Mbps Half	
	: Connecting by Half Duplex at speed of 100 Mbps.	
	10Mbps Full	
	Connecting by Full Duplex at speed of 10 Mbps.	
	Connecting by Half Dupley at speed of 10 Mbps	
	MAC Address is displayed	
Address	NAC Address is displayed.	
DHCP	Determine whether to dynamically obtain an IP address from a	Blade Server:
	DHCP server. If the item is set Enable and applied, BMC set the	Enable
	value obtained from DHCP server on "IP Address", "Subnet	Other server:
	Mask" and "Default Gateway".	
IP Address	Set the BMC IP address of the managed server.*3	192.168.1.1
Subnet Mask	Set the Subnet Mask of the managed server. *2 *3	255.255.255.0
Default Gateway	Set the Default Gateway IP address of the managed server. *3	0.0.0.0
	If you set this item, it is necessary for applying configuration	
	information that the gateway is connected on network.	
Dynamic DNS	Determine whether to enable/disable of Dynamic DNS. *4	Disable
DNS Server	Set the DNS Server.	0.0.0.0

Item	Description	Default Value
Host Name	Set the Host Name. *5 *6	Blank
Domain Name	Set the Domain Name. *6	Blank
Access Limitation	Access Limitation setting	
Access	Select the Access Limitation Type.	Allow All
Limitation Type	Allow All	
	: Access to BMC is not limited.	
	Allow Address	
	: Set the IP Address that is allowed to access BMC.	
	Deny Address	
	: Set the IP Address that is limited to access BMC.	
IP Address	Set the IP Address to allow or deny to access with BMC. *7 *8	Blank

*1: It is not possible to change for ft Server.

*2: When the Subnet Mask is wrong setting, error message, such as "Failed to apply configuration.", is displayed.

*3: It is possible to set when DHCP is "Disable".

*4: It is possible to set when DHCP is "Enable".

*5: The length of Host Name must be less than 64 characters. Host Name will be truncated to 63 characters, if you input over 63 characters.

*6: Host Name and Domain Name should be within total of 255 characters.

7: The range of IP address to "Allow" or "Deny" access is delimited by ",(Comma)". With regard to the setting of "Deny" access, "(Asterisk)" can be described as a wild-card. (ex: 192.168.1.*,192.168.2.1,192.168.2.254)

*8: It is possible to set when Access Limitation Type is "Allowed Address" or "Denied Address". The length must be less than 255 characters.

5.2.2 Service

This screen displays and sets the list of the service of BMC.

Mail Alert SNMP Alert System Operation Control Miscellaneous Network0 Service0 Network1 Service1 User Account Active Directory LDAP *Modufying the setting in this screen will turn the connection with the BMC off. Web Server HTTP © Enable Disable HTTP fort [Required] [80] (1 - 65535) HTTPS © Enable Disable HTTPS Port [Required] [443] (1 - 65535) "HTTP cannot be set enabled singularly. SSH © Enable Disable SSH (© Enable Disable SSH SSH Port [Required] [22] (1 - 65535)	IC Configuration		
*Modufying the setting in this screen will turn the connection with the BMC off. Web Server HTTP • Enable ○ Disable HTTP Port • Required ● • Enable ○ Disable HTTPS ● Enable ○ Disable HTTPS ● Enable ○ Disable HTTPS ● Enable ○ Disable HTTPS Port [Required] ○ [A43 □ (1 - 65535) ○ ○ ○	Mail Alert SNMF Network0 Service0	Alert System Operation Network1 Service1 User A	Control Miscellaneous
HTTP Port [Required] 80 (1 - 65535) HTTPS • Enable O Disable HTTPS Port [Required] 443 (1 - 65535) "HTTP cannot be set enabled singularly. SSH SSH O Enable O Disable SSH O Enable O Disable SSH Port [Required] 22 (1 - 65535)	*Modufying the setting in thi Web Server HTTP	screen will turn the connection with th	e BMC off.
HTTPS Port [Required] 443 (1 - 65535) "HTTP cannot be set enabled singularly. SSH SSH © Enable SSH SSH SSH [1 - 65535] SSH [22] (1 - 65535)	HTTP Port [Required] HTTPS	80 (1 - 65535) © Enable © Disable	
SSH Image: Constraint of the second	HTTPS Port [Required] *HTTP cannot be set ena	443 (1 - 65535) bled singularly.	
SSH Port [Required] 22 (1 - 65535)	SSH SSH	⊙ Enable ○ Disable	
	SSH Port [Required]	22 (1 - 65535)	
)efault Value		(Apply Cancel

Item	Description	Default Value
Web Server	Web Server setting	
HTTP	Select Enable/Disable of HTTP. *1	Enable
HTTP Port	Set the HTTP Port. *2 *3	80
HTTPS	Select Enable/Disable of HTTPS.	Enable
HTTPS Port	Set the HTTPS Port. *2 *3	443
SSH	SSH setting	
SSH	Select Enable/Disable of SSH.	Enable
SSH Port	Set the SSH Port. *2 *3	22

*1: If HTTP is set Enable, HTTPS is also set Enable automatically. You can not set HTTP alone to enable.

*2: It is possible to set when each port is set to enable.

*3: Each port number must not overlap.

5.2.3 User Account

This screen displays and sets the users who use BMC. It is possible to register up to 12 users or less.

Network0	Service0 N	letwork1 Service1	User	Account	Active	Directory	LDAP
– User Accou	int						
No	User Name	Privilege	Ope	eration			
1 Adm	ninistrator	Administrator	Edit	Delete			
2			Edit	Delete			
3			Edit	Delete			
4			Edit	Delete			
5			Edit	Delete			
6			Edit	Delete			
7			Edit	Delete			
8			Edit	Delete			
9			Edit	Delete			
10			Edit	Delete			
11			Edit	Delete			
12			Edit	Delete			

Item	Description
User Account	Displays a list of registered users.
No	The number allocated to user is displayed.
User Name	The user name is displayed.
Privilege	The privilege of the user is displayed.
Edit	Add or change user information.
Delete	Delete user information. *1

*1: It is possible to delete only for the existing user.

CHECK:

• In Off-line Tool, you can delete user information at the next user settings screen.

5.2.4 User

This screen sets the selected user.

User	💿 Enable 🔿 Disable
User Name [Required]	Administrator
Password [Required]	****
Confirm Password [Required]	****
Privilege	Administrator

lt	em	Description	Default Value
U	ser	User setting	
	User	Select Enable/Disable of User. *1	Enable
	User Name	Set the User Name. *2	Blank
	Password	Set the Password of the User. *3	Blank
	Confirm Password	Set same character string as the Password. *3	Blank
	Privilege	Select the privilege of the User. *4	Administrator
		Administrator	
		Operator	
		User	

*1: It is possible to set only for the existing user.

*2: It is possible to set only for the orlinding dot: *2: It is possible to set less than 15 half-size alphanumeric characters, "-(minus sign)" and "_(underscore)". "-(minus sign)" can not use top character of User Name. "eng", "root", "null", "MWA", "AccessByEM-Poem" and already registered name in other number can not use.

*3: It is possible to set less than 19 ASCII characters, except for " (space)", " "(quotation marks)", "&", "?", "=", "#" and "¥".

*4: The privilege is as follows:

Privilege	Description
Administrator	Users who have an administrative account and are allowed to perform any
	operation.
Operator	Users who can operate the system, except session management, registration
	of license, Remote KVM/Media, whole settings and update.
User	General users who are only allowed to access the IPMI Information.

5.2.5 Active Directory

This screen displays and sets the Active Directory.

1C Configuration Mail Alert SNM	PAlert Í System Op	eration C	Control Miscella	aneous
Network0 Service0	Network1 Service1	User Account	Active Directory	LDAP
Active Directory Active Directory Authentin User Domain Name [Re Timeout [Required] I Domain Controller Ser Domain Controller Ser Domain Controller Ser	equired) [120 secon ver Address1 [Required] ver Address2 [Required] ver Address3 [Required]	Disable nds (15 - 300)		
Group No Group Name	Group Domain	Privilege	Operation	
1			Edit Delete	
2			Edit Delete	
3			Edit Delete	
4			Edit Delete	
5			Edit Delete	

Item	Description	Default Value
Active Directory	Active Directory setting	
Active Directory Authentication	Select Enable/Disable of Active Directory Authentication.	Disable
User Domain Name	Set the user domain name used by Active Directory Authentication. *1 *2	Blank
Timeout	Set the timeout period with domain controller. *1	120
Domain Controller	Select Enable/Disable of Domain Controller Server 1. *1	Enable
Server 1	*3	
Server Address 1	Set the IP Address of Domain Controller Server 1. *1 *4	Blank
Domain Controller	Select Enable/Disable of Domain Controller Server 2. *1	Disable
Server 2	*3	
Server Address 2	Set the IP Address of Domain Controller Server 2. *1 *4	Blank
Domain Controller	Select Enable/Disable of Domain Controller Server 3. *1	Disable
Server 3	*3	
Server Address 3	Set the IP Address of Domain Controller Server 3. *1 *4	Blank

ltem		Description
Group *1		Displays a list of registered groups.
	No	The number allocated to group is displayed.
	Group Name	The group name is displayed.
	Group Domain	The domain name of Active Directory is displayed.
	Privilege	The privilege of the group is displayed.
Edit *1		Add or change group information.
Delete *1 *5		Delete group information.

*1: It is possible to set when Active Directory Authentication is "Enable".

*2: It is possible to set less than 255 half-size alphanumeric characters, "-(minus sign)", "_(underscore)" and ".(period)".

*3: When Active Directory Authentication is enabled, one or more of the Domain Controller Server should be enable.

*4: It is possible to set when each Domain Controller Server is "Enable".

*5: It is possible to set only for the existing group.

CHECK:

• In Off-line Tool, you can delete group information at the next group settings screen.

······

5.2.6 Group

This screen sets the selected group.

up No.1		
-Group	m	
Group Name	[Required]	
Group Domain	[Required]	
Group Privilege		Administrator

Item		Description	Default Value
Group		Group setting	
	Group Name	Set the Group Name. *1	Blank
	Group Domain	Set the Group Domain Name. *2	Blank
	Privilege	Select the privilege of the Group.	Administrator
	-	Administrator	
		Operator	
		User	

*1: It is possible to set less than 255 half-size alphanumeric characters, "-(minus sign)" and "_(underscore)". *2: It is possible to set less than 255 half-size alphanumeric characters, "-(minus sign)", "_(underscore)" and ".(period)".

5.2.7 LDAP

This screen displays and sets the LDAP (Lightweight Directory Access Protocol).

BMC Configuration		X
Mail Alert SNMP Alert Network0 Service0 Netwo	System Operation Control Miscellaneous ork1 Service1 User Account Active Directory LDAP	
LDAP LDAP Authentication IP Address [Required] Port [Required] Search Base [Required] Bind Domain Name [Required] Bind Password [Required]	© Enable © Disable	
Default Value	(Apply Cancel	

lt	em	Description	Default Value
LDAP		LDAP setting	
	LDAP Authentication	Select Enable/Disable of LDAP Authentication.	Disable
	IP Address	Set the IP Address. *1	0.0.0.0
	Port	Set the LDAP Port. *1	636
	Search Base	Set the Search Base used by LDAP Authentication. *1 *2	Blank
	Bind Domain Name	Set the Domain Name used by LDAP Authentication. *1 *2	Blank
	Bind Password	Set the Password used by LDAP Authentication. *1 *3	Blank

*1: It is possible to set when LDAP Authentication is "Enable".

*2: It is possible to set from 4 to 62 half-size alphanumeric characters, "-(minus sign)", "_(underscore)", ".(period)", ",(comma)"and "=".

*3: It is possible to set from 4 to 31 half-size alphanumeric characters, except for " "(quotation marks)", "#" and "¥".

5.2.8 Mail Alert

This screen displays and sets the alert by E-mail from BMC.

Network0 Service0 Mail Alert SNMF	Network1 Service1 User Account Active Directory LI Alert System Operation Control Miscellaneo)AP ⊿s
Mail Alert Alert O Enable O	DisableAlert Test	
Response time of SMTP :	erver [Required] 30 seconds (30 - 600)	
Mail		
To:1 [Required]		
To:2 [Required]		
To:3 [Required]		
From		
Reply-To		
Subject		
· .	,	
SMTP Server		
SMTP Server	0.0.0.0	
	*IP Address or Dmain Name	
SMTP Port [Required]	25 (1 - 65535)	
SMTP Authentication	C Enable O Disable	_
Default Value	(Apply Canc	el
MC Configuration		×
Network0 Service0 Mail Alert SNMF	Network1 Service1 User Account Active Directory LI Alert System Operation Control Miscellaneo	DAP
SMTP Port [Required]	25 (1 - 65535)	
	A	
SMTP Authentication	🗢 Enable 💌 Disable	
SMTP Authentication	C Enable C Disable	
SMTP Authentication	C Enable C Disable	
SMTP Authentication User Name [Required] Password [Required]	C Enable C Disable	
SMTP Authentication User Name [Required] Password [Required]	C Enable C Disable	
SMTP Authentication User Name [Required] Password [Required] Alert Level		
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level	C Enable C Disable	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level	C Enable C Disable	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level Temperature(Monitoring T	C Enable C Disable	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level Temperature[Monitoring T Error Warning	C Enable © Disable CRAM-MD5 C LOGIN PLAIN Error/Warning T To:1 To:2 To:3 hreshold)	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level Temperature(Monitoring T Error Warning Information	C Enable C Disable	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level Temperature(Monitoring T Error Warning Information Voltage(Monitoring Threst	C Enable © Disable CRAM-MD5 C LOGIN PLAIN Error/Warning To:1 To:2 To:3 hreshold) M M M L C C C C C C C C C C C C C C C C C C C	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level Temperature(Monitoring T Error Warning Information Voltage(Monitoring Threst Error Warning	C Enable © Disable CRAM-MD5 C LOGIN PLAIN Error/Warning To:1 To:2 To:3 hreshold) V V V C C C hold	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level Temperature(Monitoring T Error Warning Information Voltage(Monitoring Threst Error Warning Information	C Enable C Disable	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level Temperature(Monitoring T Error Warning Information Voltage(Monitoring Threst Error Warning Information FAN(Speed)	C Enable © Disable CRAM-MD5 LOGIN PLAIN Error/Warning To:1 To:2 To:3 hreshold) M M M I I I I Nold]	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level Temperature(Monitoring T Error Warning Information Voltage(Monitoring Threst Error Warning Information FAN(Speed) Error Warning	C Enable ← Disable CRAM-MD5 ☐ LOGIN ☐ PLAIN Error/Warning ▼ To:1 To:2 To:3 hreshold) ₩ ₩ ₩ □ □ □ pold	
SMTP Authentication User Name [Required] Password [Required] Alert Level Alert Level Temperature(Monitoring T Error Warning Information Voltage(Monitoring Threst Error Warning Information FAN(Speed) Error Warning Default Value	C Enable ← Disable CRAM-MD5 □ LOGIN □ PLAIN Error/Warning To:1 To:2 To:3 hreshold)	

Item	Description	Default Value
Mail Alert	Mail Alert setting	
Alert	Select Enable/Disable of Mail Alert.	Disable
Response time of SMTP	Set the timeout period until when the connection to	30
server	SMTP server succeed by E-mail transmission.	
Mail	Mail Header setting	
To:1	Select Enable/Disable of To:1. *1	Enable
Mail Address	Set the mail address of To:1. *2 *3	Blank
To:2	Select Enable/Disable of To:2. *1	Disable
Mail Address	Set the mail address of To:2. *2 *3	Blank
To:3	Select Enable/Disable of To:3. *1	Disable
Mail Address	Set the mail address of To:3. *2 *3	Blank
From	Set the From. *3	Blank
Reply-To	Set the Reply-To. *3	Blank
Subject	Set the Subject. *4	Blank
SMTP Server	SMTP Server setting	
SMTP Server	Set the SMTP Server. *5	0.0.0.0
SMTP Port	Set the SMTP Port.	25
SMTP Authentication	Select Enable/Disable of SMTP Authentication.	Disable
CRAM-MD5	Select Enable/Disable of CRAM-MD5. *6 *7	Enable
LOGIN	Select Enable/Disable of LOGIN. *6 *7	Enable
PLAIN	Select Enable/Disable of PLAIN. *6 *7	Enable
User Name	Set the SMTP User Name. *6 *8	Blank
Password	Set the SMTP User Password. *6 *9	Blank
Alert Level	Alert Level setting	
Alert Level	Set the kind of event to alert. *10	Error/ Warning
Alert Test	Execute the alert test by E-mail.	

*1: When Mail Alert is enabled, one or more of the addresses should be enabled.

*2: It is possible to set when To:X is "Enable".

*3: It is possible to set less than 255 half-size alphanumeric characters and "-(minus sign)", "_(underscore)", ".(period)", "@(at mark)".

*4: It is possible to set less than 63 half-size alphanumeric characters, except for "+", " "(quotation marks)", "?", "=", "<", ">", "#" and "¥".

*5: It is possible to set full domain or IP Address less than 255 half-size alphanumeric characters and "-(minus sign)", "_(underscore)", ".(period)".

*6: It is possible to set when SMTP Authentication is "Enable".

*7: When SMTP Authentication is enabled, one or more of the authentic method should be enabled.

*8: It is possible to set less than 64 half-size alphanumeric characters, except for " (space)", " "(quotation marks)", "?", "=", "<", ">", "#" and "¥".

*9: It is possible to set less than 19 half-size alphanumeric characters, except for " (space)", " "(quotation marks)", "?", "=", "<", ">", "#" and " \mathfrak{X} ".

*10: The Alert Level is as follows:

Alert Level	Description
Error	When "Error" is detected in each sensor type, the alert is sent to the checked
	address.
Error/ Warning	When "Error" or "Warning" is detected in each sensor type, the alert is sent to
	the checked address.
Error/ Warning/ Information	When "Error", "Warning" or "Information" is detected in each sensor type, the
	alert is sent to the checked address.
Separate Setting	You can arbitrarily select the event and the address(To:X) to alert in each
	sensor type.

5.2.9 SNMP Alert

This screen displays and sets the alert by SNMP from BMC.

BMC Configuration		×
Network0 Service0 Network1 Mail Alert SNMP Alert	Service1 User Account Active D System Operation Control	Directory LDAP Miscellaneous
SNMP Alert Alert Computer Name Community Name Alert Process Alert Acknowledge Alert Rietry Count Alert Timeout	C Enable C Disable public C One Alert Receiver C All Alert Receivers C Enable C Disable 0 times (0 - 7) 3 seconds (3 - 30)	Alert Test
Alert Receiver Alert Receiver Primary IP Address [Required] Secondary IP Address [Required] Tertiary IP Address [Required] Alert Level	0.0.0.0 0.0.0.0 0.0.0.0	
Alert Level Default Value	Error/Warning	 Cancel

I Service1 Use	er Account 📔 Active	Directory LDAP
System Operation	Control	Miscellaneous
		7
0.0.0.0		
0.0.0.0		
0.0.0.0		
]
Error/Warning	•	
Error Warning	Information	
	Г	
	Г	
	Г	
V	Г	
V	Г	
	Γ	
V	Г	
	Г	
	Γ	
	Γ	
	Г	
	Service1 Use System Operation 0.0.0.0 0.0.0 Error/Warning Error Warning	Service1 User Account Active System Operation Control 0.0.0.0 0.0.0 0.0.0.0 0.0.0 Error/Warning Image: Control Error Varning Information Image: Control Image: Control Image: Control Image: Control

Item	Description	Default Value
SNMP Alert	SNMP Alert setting	
Alert*1	Select Enable/Disable of SNMP Alert.	Disable
Computer Name	Set the Computer Name. *2	Blank
Community Name	Set the Community Name. *2	public
Alert Process	Select One Alert Receiver/All Alert Receiver of Alert Process.	One Alert Receiver
Alert Acknowledge	Select Enable/Disable of Alert Acknowledge.	Enable
Alert Retry Count	Set the count of Alert retry. *3	3
Alert Timeout	Set the seconds to alert timeout. *3	6
Alert Receiver	Alert Receiver setting.	
Primary IP Address	Select Enable/Disable of Primary IP Address. *4	Enable
IP Address	Set the IP Address of Primary. *5	0.0.0.0
Secondary IP Address	Select Enable/Disable of Secondary IP Address. *4	Disable
IP Address	Set the IP Address of Secondary. *5	0.0.0.0
Tertiary IP Address	Select Enable/Disable of Tertiary IP Address. *4	Disable
IP Address	Set the IP Address of Tertiary. *5	0.0.0.0
Alert Level	Alert Level setting	
Alert Level	Set the kind of event to alert. *6	Error/ Warning
Alert Test	Execute the alert test by SNMP.	

*1: When PEF(Platform Event Filter) setting is "Disable", it can not alert.

*2: It is possible to set less than 16 half-size alphanumeric characters.

*3: It is possible to set when Alert Acknowledge is "Enable".

*4: When SNMP Alert is enabled, one or more of the addresses should be enable.

*5: It is possible to set when each Alert Receiver is "Enable".

*6: The Alert Level are as follows:

Alert Level	Description
Error	When "Error" is detected in each sensor type, the alert is sent to the checked
	address.
Error/ Warning	When "Error" or "Warning" is detected in each sensor type, the alert is sent to
	the checked address.
Error/ Warning/ Information	When "Error", "Warning" or "Information" is detected in each sensor type, the
	alert is sent to the checked address.
Separate Setting	You can arbitrarily select the event to alert in each sensor type.
5.2.10 System Operation

This screen displays and sets the Remote KVM console and the Remote Media.

		^
Network0 Service0 Networ Mail Alert SNMP Alert	k1 Service1 User Account System Operation Co	Active Directory LDAP
Mail Alert SNMP Alert Remote KVM Console Encryption Port(No Encryption) [Required] Port(Encryption) [Required] Mouse Cursor Mode Mouse Coordinate Mode "When server OS is Microsoft Wind When OS is Linux, Relative Mode in Keyboard Language	C Enable C Disable 7578 (1024 - 65535) 7582 (1024 - 65535) C Single C Dual C Relative C Absolute fows, Absolute Mode is recommended. Is recommended. English(US)	
Remote Media Encryption Port(No Encryption) Remote CD/DVD [Required] Remote USB Memory Remote FD	© Enable © Disable 5120 (1024 - 65532) 5122 5123	
Default Value		Apply Cancel
BMC Configuration Network0 Service0 Network Mail Alert SNMP Alert Mouse Cursor Mode Mouse Coordinate Mode When server OS is Microsoft Ution	k1 Service1 User Account System Operation Co O Single O Dual	Active Directory LDAP
When OS is Linux, Relative Mode i	Jows, Absolute Mode is recommended. s recommended.	
When OS is Linux, Relative Mode i Keyboard Language	Jows, Absolute Mode is recommended. s recommended.	
Remote Media Encryption Port(No Encryption) Bemote CD/DVD (Bequired)	C Enable O Disable	
When OS is Linux, Relative Mode is Keyboard Language Remote Media Encryption Port(No Encryption) Remote CD/DVD [Required] Remote USB Memory Remote FD	Absolute Mode is recommended. Inglish(US) English(US) Inglish(US) Inglish	
When OS is Linux, Relative Mode is Keyboard Language Remote Media Encryption Port(No Encryption) Remote CD/DVD [Required] Remote FD Port(Encryption) Remote CD/DVD [Required] Remote CD/DVD [Required] Remote USB Memory Remote FD	Journal of Absolute Mode is recommended. Jows, Absolute Mode is recommended. English(US) English(US) Enable 5120 (1024 - 65532) 5122 5123 5124 (1024 - 65532) 5125 5126 5127	

Item	Description	Default Value
Remote KVM Console	Remote KVM Console setting	
Encryption	Select Enable/Disable of Encryption.	Enable
Port (No Encryption)	Set the Remote KVM Console Port when Encryption	7578
	is enabled. *1	
Port (Encryption)	Set the Remote KVM Console Port when Encryption	7582
	is disabled. *1	
Mouse Cursor Mode	Select the mode of the mouse cursor.	Dual
	Single	
	Dual	
Mouse Coordinate Mode	Select the mode of expression of coordinates of the	Windows:
	mouse cursor. *2	Absolute
	Relative	Linux, Off-line:
	Absolute	Relative
Keyboard Language	Select the Keyboard Language.	English(US) *3
	Japanese(JP)	
	English(US)	
	French(FR)	
	German(DE)	
Remote Media	Remote Media setting	
Encryption	Select Enable/Disable of Encryption.	Enable
Remote CD/DVD Port	Set the Remote CD/DVD Port when Encryption is	5120
(No Encryption)	enabled. *1	
Remote USB Memory Port	Remote USB Memory Port is displayed.	
(No Encryption)	(Remote CD/DVD Port + 2)	
Remote FD Port	Remote FD Port is displayed.	
(No Encryption)	(Remote CD/DVD Port + 3)	
Remote CD/DVD Port	Set the Remote CD/DVD Port when Encryption is	5124
(Encryption)	disabled. *1	
Remote USB Memory Port	Remote USB Memory Port is displayed.	
(Encryption)	(Remote CD/DVD Port + 2)	
Remote FD Port	Remote FD Port is displayed.	
(Encryption)	(Remote CD/DVD Port + 3)	

*1: Each port number must not overlap.

*2: When OS is Windows, the Absolute mode is recommended. The Relative mode is recommended for Linux.

*3: When the language of OS is Japanese, the default value is Japanese(JP).

5.2.11 Control

Control the managed server. This setting is applied at the next booting time of the managed server.

BMC Configuratio	n			X
Network0 Mail Alert	Service0 Network1 SNMP Alert	Service1 User Ac System Operation	count Active Dire Control	ctory LDAP Miscellaneous
One Time Bo Boot	ot Device No Change	•		
Default Value			Apply	Cancel

Item	Description	Default Value
One Time Boot Device	One Time Boot Device setting	
Boot Device *1	Select the Device used at next boot.	No Change

*1: The Boot Devices are as follows:

Boot Device	Description
No Change	It follows the setting of System BIOS of the managed server.
PXE	PXE Boot is done.
HDD	It starts from the hard disk connected to the managed server.
CD/DVD	It starts from the CD/DVD drive connected to the managed server.
Remote FD	It starts from the FD drive (media) connected by the remote media function.
Remote CD/DVD	It starts from the CD/DVD drive (media) connected by the remote media
	function.
Remote USB Memory	It starts from USB Memory connected by the remote media function.
FD	It starts from the FD drive or the removable mass storage connected to the
	managed server.

CHECK:

This setting item does not exist in Off-line TOOL.

5.2.12 Miscellaneous

This screen displays and sets the various functions of BMC.

E Configuration	
Network0 Service0 Network1 Service1 User Act Mail Alert SNMP Alert System Operation	count Active Directory LDAP Control Miscellaneous
SEL Behavior when SEL repository is full	C Overwrite oldest SEL
Power Restore Delay AC-LINK O Stay Off O Last State O Power O Delay Time (Required) 40 seconds (40 - 600)	Ĵn
PEF	
"If PEF Configuration is set to disable, SNMP alert will not work.	
Management Software ESMPBD Management C Enable C Disable	
Authentication Key [Required]	
Redirection C Enable C Disable	

Item	Description	Default Value
SEL	SEL setting	
Behavior when SEL	Select the Behavior when SEL repository is full. *1	Stop logging SEL
repository is full	Stop logging SEL	
	: SEL is not recorded any more.	
	Clear all SEL	
	: Delete all SEL and record SEL newly.	
	Overwrite oldest SEL	
	: Old SEL is overwritten with new SEL.	
Power Restore Delay	Power Restore Delay setting	
AC-Link	Select the AC-Link setting.	Last State
	Stay Off	
	: DC is not turned on.	
	Last State	
	: It becomes the same as time when AC was turned off.	
	Power On	
	: DC on always.	
Delay Time	Set the value or specify the Random. The range is from	Minimum value
	"Minimum value" to "600"[Sec], *2	
PEF	PEF setting	
Platform Event Filter	Select Enable/Disable of Platform Event Filter. *3	Enable
Management Software	Management Software setting	

It	em	Description	Default Value
	ESMPRO Management	Select Enable/Disable of ESMPRO Management. *4	Current value
	Authentication Key	Set the Authentication Key. *5 *6	guest
	Redirection	Select Enable/Disable of Redirection. *5	Enable
		If Redirection is set to "Enable", BIOS Redirection Port in	
		Console Redirection Configuration of BIOS is set to "Serial	
		Port B".	

*1: When this item is changed to/from "Overwrite oldest SEL", all log records in the SEL Repository are cleared.

*2: It is not possible to set when AC-Link is "Stay Off". Delay time from turning on AC to turning on DC is specified. It is possible to set up to 600(seconds). Minimum value is different according to the system. It is possible to set "Random" when the system supports it.

*3: "Enable" and "Disable" of the report function from BMC are set. It makes SNMP Alert be impossible when it sets to "Disable".

*4: When BMC can be managed directly from NEC ESMPRO Manager (Ver.5.61 or later), it must be set to "Enable". If it sets to "Enable", Authentication Key also must be set.

*5: It is possible to set when NEC ESMPRO Management is set "Enable".

*6: It is Authentication key when managing from NEC ESMPRO Manager (Ver.5.61 or later). It is possible to set less than 16 half-size alphanumeric characters.

CHECK:

Power Restore Delay settings do not exist in Off-line TOOL.

5.3 Backup

Back up the system information to files. Select the backup target and click [OK].



ltem	Description
File Locations	Set the location of backup files.
Folder	The preservation folder of the file is displayed.
Browse	It changes the preservation folder.
Backup Target	Select the backup target.
FRU Information	Select whether backup FRU Information or not,
BIOS Information	Select whether backup BIOS Information or not.
BMC Information	Select whether backup BMC Information or not.

.....

CHECK:

• Off-line TOOL has no backup function.

5.4 Restore

Restore the system information from files. Select the restore target and click [OK].

Restore	×
File Locations	
Backup File C:\Program Files (x86)\BMC_Configuration Browse	
Restore Target	
\checkmark FRU Information $\qquad \checkmark$ include UUID (Require to reboot the server)	
I BIOS Information (Require to reboot the server)	
BMC Information	
OK Cancel	

Item	Description
File Locations	Set the locations of file.
Backup File	The backup file is displayed.
Browse	It changes the backup file.
Restore Target	Select the restore target.
FRU Information	Select whether restore FRU Information or not. Only when the target
	information exists in the file, you are able to select this item.
include UUID	When you restore FRU Information, select whether restore UUID or not.
	Only when FRU Information is selected and the target information exists in
	the file, you are able to select this item. *1
BIOS Information	Select whether restore BIOS Information or not. Only when the target
	information exists in the file, you are able to select this item.
BMC Information	Select whether restore BMC Information or not. Only when the target
	information exists in the file, you are able to select this item.

*1: When you restore UUID, BMC will be reset. In this case, it will take a few minutes to restart BMC. To reflect the setting, it is necessary to reboot the server.

.....

IMPORTANT:

- This operation may cause data destruction. Other than the maintenance person, please do not run.
- False HW error information may be detected on the server if Shutdown, Reboot, or any other operation is executed during a few minutes after this operation. Please refer to the server's User's Guide to get more information, because the occurrence of the false HW error detection depends on the model of the server.

```
_____
```

CHECK:

- You need backup file in the Backup function.
- Off-line TOOL has no restore function.

5.5 BMC Initialization

If you select "BMC Initialization" on Off-line TOOL, you can restore all of BMC Configuration parameters to the default settings except for the part. It will take a few minutes to restart BMC.

IMPORTANT:

- This operation may cause data destruction.
- False HW error information may be detected on the server if Shutdown, Reboot, or any other operation is executed during a few minutes after this operation. Please refer to the server's User's Guide to get more information, because the occurrence of the false HW error detection depends on the model of the server.

.....

CHECK:

- This operation is only possible on Off-line TOOL.
- This operation is initialized both CPU/IO module0 and CPU/IO module1.

5.6 Reset BMC

If you select "Reset BMC" on Off-line TOOL, you can reset BMC. It will take a few minutes to restart BMC.

IMPORTANT:
Please use it when you can not operate the BMC functions correctly or if necessary.
This operation does not clear the configuration settings.
False HW error information may be detected on the server if Shutdown, Reboot, or any other operation is executed during a few minutes after this operation. Please refer to the server's User's Guide to get more information, because the occurrence of the false HW error detection depends on the model of the server.
CHECK:
This operation is only possible on Off-line TOOL.
This operation is different in CPU/IO module0 and CPU/IO module1.

6. Functions for the highly parallel computing server

This chapter describes the functions of BMC Configuration of if you use the highly parallel computing server.

Please refer to chapter 4 when you use a standard server.

6.1 Start procedure

6.1.1 On Windows

After the installation is completed, do the following operation as Administrator to open the main dialog box of BMC Configuration.

- Click "BMC_Configuration" - "BMC Configuration" from [start] on Windows

The following screen shows example.

	BMC Co	onfiguration Version 1.33	×
		Set ESMPRO Management]
		Close	
TIPS:			
• Re	fer to the follow	ing to see BMC Configuration help info	ormation.
C f	Click "BMC_Co from [start] on W	nfiguration" - "BMC Configuration Hel	p"

6.1.2 On Linux

After the installation is completed, do the following operation as root user to open the setting function of BMC Configuration.



The following screen shows example.

BMC Configuration Version 1.31		
	Set ESMPRO Management Exit	
[Enter] se	select [F12] help	
TIPS: • Refer to the f	following to see BMC Configuration help information.	
Open the so displayed "	setting of BMC Configuration and press F12 key on the screen "[F12] help" at the bottom.	······

6.2 ESMPRO Management

This screen sets the managed server for remote management with NEC ESMPRO Manager.

Authentication Ke	AT7 *****
Default Value	Apply Cancel
iguration Version	1.31
	- Set ESMPRO Management
*Please set the	authentication key for ESMPRO Management.
Authentication	Key <mark>######</mark>
Additione road ron	
<pre>KDefault></pre>	KApply> KCancel>

Item	Description	Default Value
ESMPRO Management	Setting to manage from NEC ESMPRO.	
Authentication Key	Set the Authentication Key. *1	guest

*1: It is Authentication key when managing from NEC ESMPRO Manager (Ver.5.65 or later). It is possible to set less than 16 half-size alphanumeric characters.

7. Precautions for Use

7.1 BMC Configuration installation

- -- BMC Configuration Installer (Windows & Linux) can not downgrade to the older version. If you want to use the older version, uninstall the current version and then install older version. Note: All the registered information will be deleted as the result of the uninstalling.
- -- BMC Configuration (Windows) Installer may indicate a message that requests the removable media if you upgrade the BMC Configuration with the installer on CD-ROM/DVD-ROM. In this case, copy the installer on the HDD and then upgrade.

7.2 HTTP / HTTPS settings

-- HTTP alone can not be set to "Enable". When HTTP is set to "Enable", HTTPS is also set to "Enable" automatically.

7.3 Redirection setting

-- If Redirection of Management Software setting in Miscellaneous is applied to "Enable", the Value of after rebooting of BIOS Redirection Port in BIOS Console Redirection Configuration is set to "Serial Port B".

7.4 PEF setting and SNMP Alert setting

-- If Platform Event Filter in Miscellaneous is applied to "Disable", SNMP Alert is set to "Disable". And if SNMP Alert is applied to "Enable", Platform Event Filter is set to "Enable".

7.5 Alert form BMC

- -- In the case that the item "Alert" on BMC Configuration is enabled, BMC will alert directly to the specified alert receiver when the event specified in Alert Level is occurred. If NEC ESMPRO Manager (Ver.5.4 or later) or NEC ESMPRO Manager Association Module is installed on the alert receiver, the SNMP alert from BMC is registered on Alert Manager.
- -- Sending the alert from BMC depends on exist of NEC ESMPRO Agent.

(1) In the case of NEC ESMPRO Agent has been installed on the managed server. If OS does not run on the managed server, BMC send the alert when the specified event happens. After OS runs and NEC ESMPRO Agent starts, BMC does not send the alert even if the event happens, because NEC ESMPRO Agent sends the alert.

(2) In the case of NEC ESMPRO Agent has not been installed on the managed server. BMC sends the alert whenever the specified event happens.

7.6 Alert Test

-- Please send a test alert after completing all the settings of the Alert Configuration. You may be unable to use the alert function due to network environment and settings.

7.7 ECO setting

- -- The electric power value might not necessarily reach even the value of Power Threshold. The electric power control lowers the power consumption of the system by lowering the frequency of CPU/Memory. When CPU/Memory Throttling value reaches 100%, the electric power value does not fall any more.
- -- The server may not boot correctly if you configure too low value to the Aggressive Mode "Power Threshold(Pa)" and enable the Shutdown System option. When validating this setup, it is recommended to fully consider the value of "Power Threshold(Pa)" to be specified.
- -- The following case, ECO settings are not supported and not displayed. "Operating System is Windows Server 2003(R2)." and "NEC ESMPRO Agent is installed."

7.8 Management LAN setting

- -- When set to "Shared BMC LAN", the management LAN port is disabled.
- -- When set to "Shared BMC LAN", the network performance may be reduced because the data of both LANs must be transmitted or received.

7.9 Miscellaneous setting

-- If you set 100 or greater to "Power On Delay Time" on the Server menu of the BIOS SETUP utility, and make the Miscellaneous setting in Off-line TOOL, an error may occur. In this case, set 99 or less to "Power On Delay Time" temporarily, and then make the Miscellaneous setting. After that, set "Power On Delay Time" again as needed.

7.10 Network / Service setting

-- When you change the Network setting or the Service setting on the EXPRESSSCOPE Engine SP3, an error may occur depending on the load status of the system. In this case, please check the setting and set again as needed.

7.11 Default setting

-- Please refer to the appropriate EXPRESSSCOPE Engine User's Guide about differences between BMC Configuration's default values and values which "BMC Configuration Initialization" function will set.

7.12 Key input

- -- If you select the keyboard type "Japanese" in Off-line TOOL startup, you are not able to enter the key of "¥", "|" and "_".
- -- In BMC Configuration for Windows, if you want to apply a string containing "%", you must specify "%%" instead of "%".

Revision History

1.00	2011/05/10	Initial edition
1.01 2011/06/24		Adds ECO setting Precautions.
		Adds Management LAN setting Precautions.
		Adds required packages by Red Hat Enterprise Linux Server 6 (x64).
		Changes cover. Corrects writing errors.
1.02	2011/10/14	Changes Mail Alert and ECO setting.
		Changes ECO setting Precautions.
		Corrects writing errors.
1.10	2012/02/29	Adds User Account, User, Active Directory, Group, LDAP and System Operation
		setting.
		Changes Network, ECO and Miscellaneous setting.
		Adds Clear BMC SEL.
		Changes BMC Initialization.
		Adds Default setting Precautions.
		Corrects writing errors.
1.11	2012/05/24	Adds the old item name of ECO setting.
		Changes Installation.
		Corrects writing errors.
1.20	2012/08/21	Adds Functions for ft Server.
		Changes System Requirements.
		Corrects writing errors.
1.21	2012/11/12	Changes System Requirements.
		Changes ECO setting.
		Changes BMC Initialization.
		Changes Default setting Precautions.
		Corrects writing errors.
1.30	2012/11/16	Changes Summary and System Requirements.
		Changes the menu and the item name.
		Adds Battery Configuration.
		Changes Default setting Precautions.
		Corrects writing errors.
1.31	2013/02/13	Adds Functions for The highly parallel computing server (HR120a-1).
		Corrects writing errors.
1.32	2013/04/03	Changes ECO setting.
		Changes Default setting Precautions.
		Corrects writing errors.
1.33	2013/08/06	Adds Windows as a target OS of The highly parallel computing server.
		Changes BMC Configuration Initialization and Reset BMC.
		Changes ECO setting Precautions.
		Corrects writing errors.
1.34	2013/09/05	Changes BMC Configuration Initialization and Reset BMC.
		Changes Restore for ft Server.
		Adds Miscellaneous setting Precautions.
		Corrects writing errors.
1.40	2014/01/07	Changes System Requirements.
		Adds Functions for EXPRESSSCOPE Engine SP3.
		Adds Network/Service setting Precautions.
		Corrects writing errors.
1.41	2014/06/12	Adds Key input Precautions.
		Corrects writing errors.

BMC Configuration User's Guide

BMC Configu	uration User's Guide
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