NEC

NEC ESMPRO Manager Ver.7 Setup Guide

Chapter1 Setup for Managed Component in which EXPRESSSCOPE Engine 3 is integrated Chapter2 Setup for Managed Component in which a BMC excluding EXPRESSSCOPE Engine 3 is integrated Chapter3 Setup for Managed Component in which iLO is integrated Chapter4 Setup for Managed Component of BMC (Other) **Chapter5 EM Card and Chassis Management** Chapter6 Setup for the NEC Storage M series Chapter7 Setup for the NEC Storage V series Chapter8 Setup for the Managed Component based on vPro Chapter9 Setup for NEC Scalable Modular Server DX2000 Chapter10 Setup for the VMware ESXi server Chapter11 Setup for the Alert only Component Chapter12 Setup for ExpEther **Chapter13 Setup for Network Device Chapter14 Setup for Other Computer Device Chapter15 Operation for group Chapter16 Removing components**

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Storage	
Network Device	
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Terminology

Term	Description
ESMPRO Extension for	A plugin to display hardware information of Express 5800 servers for
Windows Admin Center	Windows Admin Center.
NEC ESMPRO Agent	This is a software that works together with NEC ESMPRO Manager to
6	monitor servers and to obtain various informations from them.
NEC ESMPRO	It is NEC ESMPRO Agent's successor software.
ServerAgentService	
ExpressUpdate Agent	This is a software that works on managed servers. it can update modules
	such as the firmware and the software on managed servers after recevie the
	demand from NEC ESMPRO Manager.
WebSAM iStorageManager	This is a software that centrally, productively manages storage resources
	and displays its component and monitor status and notify fault.
iStorage (M Series) NEC	This is neccessary relative module for NEC ESMPRO Manager to monitor
ESMPRO Manager relative	iStorage M series.
module	
Windows Admin Center	A web-browser-based server management software provided by Microsoft.
BMC	Baseboard Management Controller
	BMC is an Embedded controller that can monitor hardware status and
	abnormality without depending on system status and OS.
EXPRESSSCOPE Engine	This is a NEC management controller by using BMC.
BMC (EXPRESSSCOPE	Baseboard Management Controller
Engine)	An Embedded controller which is able to monitor the system status or error
	regardless of DC off/on.
BMC (Other)	Baseboard Management Controller
	Management component pre-contains EMS (Embedded Management
	Software).
	(Product other than BMC (EXPRESSSCOPE Engine), iLO and vPro.)
IPMI	Intelligent Platform Management Interface
	A standard interface specification for monitoring server hardware without
D 10 1	depending on system status and US.
Redfish	Redfish is a standard interface that is newer than IPMI, defined by the $D_{\rm A}$
	DMTF(Distributed Management Task Force), for managing server
H O	operations.
ilo	A management controller which is able to monitor the system status or error
	regardless of DC off/on
vPro	Intel platform brand for business users (Intel® vProIM Technology)
jamt	Intel® Active Management Technology
	Remote control technology and one of main functions of vPro
SOL	Serial Over I AN
301	A function which BMC converts the serialized data to UDP Packet and
	sends to LAN
WS-Man	Web Service Management
	Open standard protocol for remotely accessing management data with any
	computer device.
Classic Mode	It is user interface for NEC ESMPRO Manager Ver.7 to start the same
	functionas NEC ESMPRO Manager Ver.6. It can display Server detail
	information and oprate environment setting of NEC ESMPRO Manager.
Component	It is the device managed in NEC ESMPRO Manager.
System management	System management is to manage components using SNMP (NEC
	ESMPRO Agent) / WS-Man / ESXi / iStorage in NEC ESMPRO Manager.

Microsoft Teams	Microsoft Teams is a collaboration and communication platform developed by Microsoft.
Alert Define File	In the settings file, SNMP trap for receiving on NEC ESMPRO Manager is defined.
	https://www.58support.nec.co.jp/global/download/index.html

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About This Document

This document introduces remote management using the server management utility "NEC ESMPRO Manager" and explains the complete procedures from installation to managed component's setup.

Before attempting to operate the component management utility NEC ESMPRO Manager, 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 components. The notes and restrictions on use of each product as a managed component are explained in the user's guide provided with the managed component and "Appendix D. Managed Components Summary".

If the NEC EXPRESSBUILDER(SE) CD-ROM or Maintenance Management Tool CD-ROM is attached to the managed component, read the word in place of "NEC EXPRESSBUILDER" in this document.

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 components.
CHECK:	Points or notes you need to check when handling software or components.
TIPS:	Useful information.

Other Documents for NEC ESMPRO Manager

For other information about the NEC ESMPRO Manager, see the documents below.

- Which components can NEC ESMPRO Manager control? See the "Appendix D. Managed Components Summary".
- How to operate after setup. See the NEC ESMPRO Manager online help information.
- How to operate the command line Interface. See the "NEC ESMPRO Manager Command Line Interface".

Chapter1 Setup for Managed Component in which EXPRESSSCOPE Engine 3 is integrated

This chapter explains the setup procedure for the NEC ESMPRO Manager to manage the BMC and NEC ESMPRO Agent Extension ver.2.xx on a managed component remotely via LAN connection.

1.1 Setup Flow

Setup by the following setup procedure:

- (1) Connect the management PC on which NEC ESMPRO Manager is installed and the managed component on the same network.
- (2) Configure BMC on the managed component to enable ESMPRO Management.
- (3) Register the managed component on NEC ESMPRO Manager.

1.2 Configure BMC on Managed Component Configure BMC of the managed component at first.

compare 2010 of me manager component at mon
TIPS:
 This section explains about the minimum setting that is necessary to connect NEC ESMPRO Manager with the managed component. For details of BMC configuration, see document of each tool.
There are three ways for configuring a BMC on a managed component for LAN connection.
Configuration with NEC EXPRESSSCOPE Engine 3 WebConsole
You can access EXPRESSSCOPE Engine 3 from a Web browser, and set BMC Configuration.
СНЕСК:
• You can use EXPRESSSCOPE Engine 3 only when the HTTP/HTTPS is enabled.
• You cannot configure BMCs on ft server with NEC EXPRESSSCOPE Engine 3 Web
Console. Please choose other method.
Configuration with online BMC Configuration.
Online configuration tool installed on Windows/Linux OS configures BMC.
TIPS:
• The name of the tool is "BMC Configuration" or "Server Configuration Utility". It is depends on a model of server.
Configuration with off-line BMC Configuration
Off-line tool started from POST screen by F4 key configures BMC.
TIPS:
• The name of the tool is "BMC Configuration" or "Server Configuration Utility". It is
depends on a model of server.

1.2.1 Configuration with EXPRESSSCOPE Engine 3 WebConsole

Explain the operation of Web Console of EXPRESSSCOPE Engine 3.

СНЕСК:

- You cannot configure BMCs on ft server with NEC EXPRESSSCOPE Engine 3 Web Console. Please choose other method.

(1) After starting a web browser on the management PC, input following URL.

In the case that the IP address of BMC is 192.168.1.1 and the setting of HTTPS is enable. https://192.168.1.1/

(2) "Main Menu" screen will be displayed.

Select "Configuration" tab.

The following screen shows example	e.
------------------------------------	----

Expresss	<u>COPE</u> 3				User:Management Software [Privilege:Adm Environment About EXPRESSS	ninistrator] Logout COPE Engine 3 Help
Server Name:BMC1C6F653E3F6 System F	50 (192.168.15.110) Remote Access	Configuration	Update			
Summary Component IPMI Information Access Information	Servi Mi Se Lo Re Re Sy Bh Bh Sy Sy	er Information odel Name[Product Part] oduct Serial Number river Status gin users irmote KVM mote Media rmote KVM And Media Licensi- ristem BIOS Revision 4/C Fiurtware Revision 4/C Boot Flash ROM vistem LAN MAC	Expres 012342 D Nor 3 Availat Availat 4.6.00 ⁻ 00.26 #2 LAN 1 LAN 2	s5900/R110d-1E [N8100-1760] 6 mal le le anse has been registered. 8 : 1C-6F-65-3E-3F-86 1C-6F-65-3E-3F-87	Detail Detail Detail Detail	Reload
		POST Comp	ileted Successfu	lly î		

(3) "Configuration" screen will be displayed. Select "Miscellaneous".

45 4400			1.1.1			
15.1100		Environment About EXPRESSSCOPE En	gine 3			
cess Configuration	Update					
		A Reid	had			
Harm Manua		Cadua Malaz				
Item Name		Setup Value				
Management LAN	Management AN					
Basic	management 2 st					
Connection Type	Auto Negotiation					
MAC Address	1C:6F:65:3E:3F:50					
DHCP	Enable					
IP Address	192.168.15.110	192.168.15.110				
Subnet Mask	255.255.254.0					
Default Gateway	0.0.0.0					
Dynamic DNS	Disable					
DNS Server						
Host Name	BMC1C6F653E3F50					
Domain Name						
Access Limitation						
Limitation Type	Allow All					
POST Comp	leted Successfully					
	Item Name Management LAN Management LAN Basic Connection Type MAC Address DHCP IP Address Subnet Mask Default Gateway Dynamic DNS DNS Server Host Name Domain Name Access Limitation Limitation Type	Item Name Management LAN Management LAN Basic Connection Type Auto Negotiation MAC Address 10:6F 65:3E:3F:50 DHCP Enable IP Address 192:168:15:110 Subnet Mask 255:255:26:4.0 Default Gateway 0.0.0.0 Dynamic DNS Disable DNS Server BMC105F653E3F50 Domain Name Allow All POST Completed Successfully () ()** ()**** i:	Item Name Setup Value Management LAN Management LAN Basic Connection Type Connection Type Auto Negotiation MAC Address 10: 6F:65:3E:3F:50 DHCP Enable IP Address 192:168:15:110 Subnet Mask 255:255:254.0 Default Gateway 0:0:00 Dynamic DNS Disable DNS Server Host Name Moc Elimitation Autor All			

(4) "Miscellaneous" screen will be displayed.

Be sure to set the following items. The other items can be used with the default values.

-- "ESMPRO Management" Click "Enable".
-- "Authentication Key" Enter the authentication key.

The following screen shows example.

Expression		,				User:Management Software (Privilege:Administrator) Environment About EXPRESSSCOPE Eng	Logout ine 3 Help
System Re	emote Access	Configuration	Update				
BMC Troperty Service Service SsL User Management Alert System Operaton ECO Miscellaneous Backup/Restore System BIOS	Inte HT HT Op Pow ACC De PEF Fis Man ES Au Re	rtace rtp rp rp rtp rtp rtp rtp rtp rtp rtp r	<	Enable Enable Enable Last State 600Second Disable Enable	Edit		×
		POST Con	npleted Success	sfully	ii		

CHECK:

- If a managed component supports SOL and "Redirection" is selected to "Enable", you must change the following items for the remote console via the LAN.
- "Configuration" page "System BIOS" page "Flow Control": Hardware RTS/CTS.
- (5) Select "Apply".

The configuration information is set in the BMC.

(6) Select "Property" page in "Network" screen.

Set the following items. The other items can be used with the default values.

-- "DHCP"

Determine whether to dynamically obtain an IP address from a DHCP server. If the item is set Enable and applied, BMC set the value obtained from DHCP server on "IP Address", "Subnet Mask" and "Default Gateway".

- -- "IP Address" Enter the BMC IP address.
- -- "Subnet Mask" Enter the subnet mask for the IP address.
- -- "Default Gateway"

Enter the default gateway if the managed component connects to management PC via any gateway

The following screen shows example.

Express	SCOPE	2				User:Management Software [Privilege:Administrator]	jout
Server Name: BMC1C6F6538	E3F50 (192.168.15.110)	·				Environment About EXPRESSSCOPE Engine 3	Help
System	Remote Access	Configuration	Update				
BMC	Mai	nagement LAN					-
[⊕] Network	N	1anagement LAN		Manage	ement LAN		
Property	Bas	ic					
Service	c	onnection Type		Auto N	legotiation 💌		
SSL	N	IAC Address		10:6E-0	86,95,95,60		
User Manageme Alert	ent D	HCP	(Ena Ena	able O Disable		
"System Operator	n D	ynamic DNS		C En	aure crisable		
ECO	D	NS Server					
Miscellaneous Backup/Restore	н	lost Name		BMC10	C6F653E3F50		
System BIOS	D	omain Name					
	Acc	ess Limitation					
	L	imitation Type		• Allo	ow All C Allow Address C Deny Address		
					Apply Default Cancel		•
		POST C	ompleted Succe	ssfully			

(7) If you set "Default Gateway", confirm that the gateway is connected to network.

(8) Select "Apply".

The configuration information is set in the BMC.

•	Please set the following items for NEC ESMPRO Manager to receive alerts from the
	BMC.
	- Miscellaneous
	- Platform Event Filtering : Enable
	- Alert
	- Alert - SNMP Alert :
	- Alert : Enable
	- Computer Name : Any
	- Alert Receiver 1 IP Address:
	IP address of the management PC on which NEC ESMPRO Manager is
	installed.
	* Please set the checkbox to enable

1.2.2 Online Configuration

1.2.2.1 Configuration with Configuration tool for Windows

Explain the operation of Configuration tool for Windows.

- (1) After booting Windows on the managed component, start "BMC Configuration" or "Server Configuration Utility" from start menu on Windows.
- (2) The main dialog box is displayed.
 - In the case of BMC Configuration: "Set BMC Configuration" → "Miscellaneous"
 - In the case of Server Configuration Utility: "EXPRESSSCOPE Engine 3" → "Miscellaneous"

(3) Be sure to set the following items. The other items can be used with the default values.

 -- "ESMPRO Management" Click "Enable".
 -- "Authentication Key" Enter the authentication key.

The following screen shows example.

Behavior when SEL repository is full	○ Stop logging SEL ○ Clear all SEL ④ Overwrite oldest SEL
Power Restore Delay AC-LINK	◯ Stay Off ◯ Last State . O Power On
Delay Time [Required]	30 seconds (30 - 600)
PEF Platfrom Event Filter *1f PEF Configuration is s	Enable O Disable et to disable, SNMP alert will not work.
Management Software — ESMPRO Management Authentication Key [Re	C Enable C Disable
Bedirection	C Enable C Disable

CHECK:

• If a managed component supports SOL and "Redirection" is selected to "Enable", you must change the following items for the remote console via the LAN. Main dialog box - "Set BIOS Configuration" page - "Flow Control": Hardware RTS/CTS.

.....

Select Network configuration screen.

- In the case of BMC Configuration: "Set BMC Configuration" \rightarrow "Network"
- In the case of Server Configuration Utility: "EXPRESSSCOPE Engine 3" \rightarrow "Network" \rightarrow "Property"

- CHECK:
- If you configure a fault tolerant server, there are the tab "Network 0" (for CPU/IO module 0) and the tab "Network 1" (for CPU/IO module 1). Please configure both CPU/IO modules.
- (4) Set the following items. The other items can be used with the default values.
 - -- "DHCP"

Determine whether to dynamically obtain an IP address from a DHCP server. If the item is set Enable and applied, BMC set the value obtained from DHCP server on "IP Address", "Subnet Mask" and "Default Gateway".

- -- "IP Address" Enter the BMC IP address.
- -- "Subnet Mask"

Enter the subnet mask for the IP address.

-- "Default Gateway"

Enter the default gateway if the managed component connects to management PC via any gateway.

The following screen shows example.

*Modufying the setting in this	s screen will turn the connection with the BMC off.	-
Management LAN Management LAN	Management LAN	
Connection Type	Auto Negotiation	
BMC MAC Address	6C:F0:49:56:94:53	
рнср 🤇	💿 Enable 🔿 Disable	
IP Address [Required]	192.168.14.77	
Subnet Mask. [Required]	255.255.254.0	
Default Gateway	0.0.0.0	
Dynamic DNS	C Enable 💿 Disable	
DNS Server		
Host Name	BMC6CF049569453	
Domain Name		

- (5) If you set "Default Gateway", confirm that the gateway is connected to network.
- (6) Click "Apply".

The configuration information is set in the BMC.

CHECK:
Please set the following items for NEC ESMPRO Manager to receive alerts from the BMC.
Miscellaneous

Platform Event Filter : Enable
SNMP Alert
Alert : Enable
Computer Name : Any
Alert Receiver Primary IP Address :

IP address of the management PC on which NEC ESMPRO Manager is installed.
* Please set the checkbox to enable.

1.2.2.2 Configuration with Configuration tool for Linux

Explains the operation of Configuration tool for Linux.

(1) After booting Linux on the managed component, start BMC Configuration or Server Configuration Utility by the following commands.

In the case of BMC Configuration:

/opt/nec/BMC Configuration/bmcconf

In the case of Server Configuration Utility:

/opt/nec/ServerConfiguration/svconf

- (2) The main dialog box is displayed.
 - In the case of BMC Configuration: "Set BMC Configuration" → "Miscellaneous"
 - In the case of Server Configuration Utility: "EXPRESSSCOPE Engine 3" → "Configuration" → "Miscellaneous"
- (3) "Miscellaneous" screen is displayed.

Be sure to set the following items. The other items can be used with the default values.

 -- "ESMPRO Management" Click "Enable".
 -- "Authentication Key" Enter the authentication key.

AC-Link	estore beray	() Stay Off	(*) Last State	() Powe
Delay T	ime [Required	1]	30_	seconds (30 -	600)
*PEF			(10	Franklar () Dia	
*If PE	m Event riite F Configurati	er ion is set t	o disable.	SNMP alert wil	l not wor
*Managem	ent Software		o andabro,	onar arero mi	1 1100 1101.
ESMPRO	Management			Enable () Dis	able
Authent	ication Key	Kequired]		**	

CHECK:

 If a managed component supports SOL and "Redirection" is selected to "Enable", you must change the following items for the remote console via the LAN.
 Main dialog box - "Set BIOS Configuration" page - "Console Redirection Configuration" page - "Flow Control": Hardware RTS/CTS.

.....

(4) Select "Apply".

The configuration information is set in the BMC.

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(5) Select network configuration screen.

- In the case of BMC Configuration: "Set BMC Configuration" → "BMC Configuration" → "Network" → "Property"
- In the case of Server Configuration Utility: "EXPRESSSCOPE Engine 3" → "Configuration" → "Network" → "IPv4 Property"
- (6) Set the following items. The other items can be used with the default values.
 - -- "DHCP"

Determine whether to dynamically obtain an IP address from a DHCP server. If the item is set Enable and applied, BMC set the value obtained from DHCP server on "IP Address", "Subnet Mask" and "Default Gateway".

- -- "IP Address" Enter the BMC IP address.
- -- "Subnet Mask" Enter the subnet mask for the IP address.
- -- "Default Gateway"

Enter the default gateway if the managed component connects to management PC via any gateway.

The following screen shows example.



- (7) If you set "Default Gateway", confirm that the gateway is connected to network.
- (8) Select "Apply".

The configuration information is set in the BMC.

CHECK:
Please set the following items for NEC ESMPRO Manager to receive alerts from the BMC.
Miscellaneous

Platform Event Filter : Enable
SNMP Alert:
Alert : Enable
Computer Name : Any
Primary Alert Receiver : Enable
IP Address :

IP address of the management PC on which NEC ESMPRO Manager is installed.

1.2.3 Configuration with Off-line BMC Configuration

(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. Select keyboard type.
- (3) "Main Menu" screen is displayed. Select "BMC Configuration" or "Server Configuration Utility".
- (4) Select Miscellaneous screen.
 - In the case of BMC Configuration: "BMC Configuration" \rightarrow "Miscellaneous"
 - In the case of Server Configuration Utility: "EXPRESSSCOPE Engine 3" → "Configuration" → "Miscellaneous"

(5) Be sure to set the following items. The other items can be used with the default values.

- -- "ESMPRO Management" Click "Enable".
- -- "Authentication Key" Enter the authentication key.

The following screen shows example.

Miscellaneous	
Items	: Values
Behavior when SEL repository is full	. : [Stop logging SEL]
Platform Event Filter	: [Disable]
Management Software	
ESMPRO Management	. [Enable]
Authentication Key [Required]	• [****
Redirection	: [Enable]
< OK >	
< Cancel >	
< Load Default Value >	
	Warra an Ol
Select: [Enter] cancel: [ESU] Help:[
Note . If DEE Configuration is set	to dischle. CNWD clost will not work
Note : IT FEF Contiguration is set	to disable, SNMP alert will not work.

CHECK:
 If a managed component supports SOL and "Redirection" is selected to "Enable", you must change the following items necessary for the remote console via the LAN. Input <F2> key on the POST screen of the managed component.
 "SETUP" page - "Advanced" page - "Serial Port Configuration" page - "Flow Control": Hardware RTS/CTS.

(6) Select "OK".

The configuration information is set in the BMC.

(7) Select network configuration screen.

- In the case of BMC Configuration: "BMC Configuration" \rightarrow "Network" \rightarrow "Property"
- In the case of Server Configuration Utility: "EXPRESSSCOPE Engine 3" → "Configuration" → "Network" → "IPv4 Property"

СНЕСК:

• If you configure a fault tolerant server, there are the menu "Network: CPU/IO module 0" and the menu "Network 1: CPU/IO module 1". Please configure both CPU/IO modules.

(8) Set the following items. The other items can be used with the default values.

-- "DHCP"

Determine whether to dynamically obtain an IP address from a DHCP server. If the item is set Enable and applied, BMC set the value obtained from DHCP server on "IP Address", "Subnet Mask" and "Default Gateway".

- -- "IP Address" Enter the BMC IP address.
- -- "Subnet Mask" Enter the subnet mask for the IP address.
- -- "Default Gateway"

Enter the default gateway if the managed component connects to management PC via any gateway.

The following screen shows example.

Network(Property)	
Items :	Values
Trends ************************************	[Management LAN] [Auto Negotiation] 10:55:55:35:35:50 [Enable] 132.166.15.110 255.255.254.0 0.0.0.0 [Disable]
DNS Server : Host Name : Domain Name : < OK > < Cancel > < Load Default Value >	[] [BMC1C6F653E3F50] []
Select:[Enter] Cancel:[ESC] Help Note:To change "Management LAN"):[Home or ?] setting, "BMC Reset" is required.

- (9) If you set "Default Gateway", confirm that the gateway is connected to network.
- (10) Select "OK".

The configuration information is set in the BMC.

```
.....
 IMPORTANT:
    When "Shared BMC LAN" of BMC Network setting is enabled via "BMC
    Configuration" or "Server Configuration Utility", the system LAN port that is shared
    and the BMC are not able to communicate directly.
    Therefore, when BMC is managed by NEC ESMPRO Manager of own component,
    "Management LAN" is enabled instead of enabling "Shared BMC LAN". Detail of
    this, please refer to EXPRESSSCOPE Engine 3 User's Guide.
      .....
 CHECK:
    Please set the following items for NEC ESMPRO Manager to receive alerts from the
    BMC.
    - Miscellaneous
      - Platform Event Filter : Enable
    - SNMP Alert:
      - SNMP Alert : Enable
      - Computer Name : Any
      - Alert Receiver 1: Enable
      - IP Address 1:
        IP address of the management PC on which NEC ESMPRO Manager is
installed.
```

1.3 Register a managed component on NEC ESMPRO Manager

To register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform in the following order:

1.3.1 Environment setting

If it has never been set, NEC ESMPRO Manager cannot register following components. In following cases, "Self Signed Certificate" should be accepted by NEC ESMPRO Manager. Otherwise NEC ESMPRO Manager cannot manage components via WS-Management protocol or ESXi.

- The managed is a VMware ESXi server

- NEC ESMPRO ServerAgentService is installed to managed component, and HTTPS with "Self Signed Certificate" is used for communication between ServerAgentService and NEC ESMPRO Manager.

(1) Click "Environment" from "Settings" menu.

ESMPRO		About NEC ESMPRO Manager Help Classic Mode	Administrator •
😢 Dashboard 📲 Register 📾 Component 🛕 AlertViewer 🕂 Advanced - 🎗	Tools - 🌣 Settings -		
	Account Information		
Component Status	Environment	New Alert Status	
	Environment		
The component is not registered.	Alive Monitoring Settings	No alerts are unread.	
			_
FW/SW Update Availablity		Alert Unread/Read Status	
The component is not registered.		There are no alerts.	

(2) On "Network" screen, click "Edit" and set "Self Signed Certificate" of "WS-Man Communication / ESXi" to "Allow".

3 ¢ number of times	
4 seconds	
60 seconds	
5 seconds	
5 number of times	
47117	
• Redfish O IPMI	
20 seconds	
Allow • Not Allowed	
Serial Port 1 +	
• Allow No Allowed	
20 seconds	
0 number of times	
• HTTPS O HTTP	
Allow O Not Allowed	

1.3.2 Add component to Group 1.3.2.1 Creating group

(1) Click "Component".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator *
G Dashooard G Hegi ter Component M Herrylewer + Advanced · R 10015 · U Settings ·	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) The "Component List" will be displayed. Please select the group to that component belongs from the group list.

For example, if you want to create a new group in group "root", select "root".

ESMPRO							About N	EC ESMPRO Manago	er Help Classic Mo	de 💄 admin -
🕻 Dashboard -	Register	📾 Component 🔺 A	AlertViewer 💥 1	Tools 🔻						
Component List	l .							+ ADD GROUP	root	÷
REFRESH			🗹 🛛 Error 🛛	🎽 🗕 Warning 🖞	🗹 🔍 DC-OF	F/POST/OS Panic	✓ ●Unknowr	າ 🗹 🔍 Normal	 Status Getting 	 Not Monitored
 Status No data available. 	Name	Туре	Linkage	÷ II	P Address	Manager	nent LAN ss	\$ Memo		\$
0 item(s) 0 to 0 i	s displayed									Previous Next
									DELETE SELE	ECTED DEVICE/GROUP

(3) Click "+ ADD GROUP"

ESMPRO			Abo	ut NEC ESMPRO Manager Help	Classic Mode 💄 admin 🕶
🖨 Dashboard 📲 Register	component 🛕 AlertViewer 💥 Tool:	3 *			
Component List			(+ ADD GROUP	ot 🗢
REFRESH	🗹 单 Error 🔽 🔍	Warning 🗹 🛛 DC-OFF/P	OST/OS Panic 🗹 🔍 Unkn	own 🔽 🔍 Normal 🗹 🔍 State	us Getting 🛛 🔍 Not Monitored
🖌 Status 🗘 Name		IP Address	Management LAN IP Address	# Memo	*
No data available.					
0 item(s) 0 to 0 is displayed					Previous Next
					DELETE SELECTED DEVICE/GROUP

(4) On the "Add a Group"screen, enter the group name and click "REGISTER".

The group name can be up to 63 characters long. Please do not enter a group name that includes whitespace characters.

Add a Group		×
Crea	te a new group	
[Plea GI	oupB	
	REGISTER	

(5) "A new group "GroupB" is created" is displayed, and click "OK". Created group will be listed in "Component List".

localhost:21120 says	
A new group "GroupB" is created.	
	ОК

MPRO		About NEC ESMPRO Manager Help Classic	Mode 💄 Administrator -
Dashboard 📲 Register 🚔 Component 🛕 AlertViewer 🕂 Advanced 👻 🎇 Tools 👻	Settings -		
omponent List		+ ADD GROUP	۵
REFRESH	Error Sector	/POST/OS Panic 💟 🖲 Unknown 💟 🖲 Normal 💟 🖷 Status G	etting 🛛 🛛 Not Monitored
	Manage	ment LAN	
otatus		ess 🌩 Memo	\$
GroupB Group[Rename]			
emis concernent to discloued			Previous 1 Next
		DELE	TE SELECTED DEVICE/GROUP

1.3.2.2 Adding a component to a group

(1) Click "Component".

SMPF	0						About NEC ESMPRO Manager	Help Classic Mode 💄 Adminis	strator
Dashb	oard 📲 Regis	r 📾 Component ,	AlertViewer + Advanced	- 🎗 Tools - 🌣 Setting	s -				
Compon	ent List	\smile					+ ADD GROUP	root	٠
REFR	ESH				🛃 🛛 Error 🛛 🖉 🔍 Warning	DC-OFF/POST/OS Panic	🗹 🖲 Unknown 🗹 🔍 Normal 🚦	🕽 😐 Status Getting 🛛 🔍 Not M	onitore
Sta	itus 🗘 I	Name	🕆 Туре	Linkage	IP Address	Management LAN	Memo Memo		4
•	2	Server	Server			192.168.1.240			
•	Fi (GroupB	Group[Rename]						
em(s)	between 1 and	2 is displayed						Previous	1 N
									DOLID
								DELETE SELECTED DEVICE/G	NUUP
									İ

(2) The "Component List" will be displayed, please click the checkbox for the component and then click "+ ADD GROUP".

ESMPRO						About NEC ESMPRO Manage	er Help Classic Mode	Administrator -
🕼 Dashboard 🛛 🐇	Register 📾 Compo	onent 🛕 AlertViewer 🕂 Advanc	ed - 💥 Tools - 🌣 Set	tings -				
Component List						+ ADD GROUP	root	٠
REFRESH				🗹 🛛 Error 🛛 🖉 🖉 Warnii	ng 💈 🛛 DC-OFF/POST/OS Panic	🗹 🖲 Unknown 🔽 🔍 Normal	Status Getting	Not Monitored
Status		🗢 Туре	Linkage		Management LAN	# Memo		\$
2	Server	Server			192.168.1.240			
•	GroupB	Group[Rename]						
2 item(s) between	n 1 and 2 is displayed							Previous 1 Next
							DELETE SELE	CTED DEVICE/GROUP

(3) Select the group from the group list, and then click "REGISTER".

If you want to create a new group and register components, select "+ Add New Group" from the list and enter the group name.

ESMPRO						About NEC ESMPRO Manager Help Cla	ssic Mode 🔒 Administrator -
🔇 Dashboard 🔒	Register 🖴 Component	AlertViewer + Advanced -	🗶 Tool:	Add devices or groups to the group.	×		
Component List				GroupP		+ ADD GROUP root	•
DEEDERH				Gloups •		Panic 🔽 elinknown 🔽 eNormal 🔽 eStatus (Setting 🔽 🔍 Not Monitored
REFREGIT				i device(s) will be added			
Status	Name	🗘 Туре	÷ Linka			# Memo	\$
	Server	Server		PECISTER			
	GroupB	Group[Rename]		ILCUOLEN			
2 item(s) between	1 and 2 is displayed						Previous 1 Next
						UEL	ETE SELECTED DEVICE/GROUP

(4) If you select a group where components have been added from the group list, the component or group will be displayed in the "Component List".

	ESMPRO							About NEC	ESMPRO Manage	r Help Classic Mode	Administrator -
	🕼 Dashboard 🛛 🖧 Re	egister 📾 Com	ponent 🛕 AlertViewer 🕂	- Advanced - 🎇 Tool	s - 🌣 Settings -						
	Component List								+ ADD GR IP	GroupB	•
	REFRESH				 Error 	🛃 😐 Warning	DC-OFF/POST/C	OS Panic 🛛 🛛 Unknown	🗹 🛛 Normal	 Status Getting 	 Not Monitored
	 Status 	Name	⇔ Type	Linkage	IP Address	¢	Management LAN IP Address	Memo			\$
5		Server	Server				192.168.1.240				
	1 item(s) between 1 a	and 1 is displaye	d								Previous 1 Next
										DELETE SELE	CTED DEVICE/GROUP

1.3.3 Register the Managed Component

Use either of the two methods to register the managed component.

Manual Registration

This method requires the operator to directly enter the managed component's information such as the IP address of the BMC and to perform "Check Connection".

Auto Registration

This method automatically searches the network for managed components that are not registered yet on the NEC ESMPRO Manager, and registers the managed components. This method is available only when LAN connection is used.

1.3.3.1 Manual Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator -
😫 Dashboan 🔁 Register 🖨 Component 🛕 AlertViewer 🕂 Advanced - 🎇 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
SW/6W lades Available	Alex Unexed/Read Status
	Alert ulireau/reau status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Manual Registration".

Auto Registration Manual Registra	ation
Server / Storage JPS Netwo	ork Device Other Computer Device Alert Only Management
Component Name [Required]	
Alias	
Destination Group	root ¢
Common Setting	
OS IP Address [Required]	
SNMP (NEC ESMPRO Agent) / WS-N	fan / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility)	
Management	• Registration O Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iL(D*/"BMC(Other)*/"vPro"(Common)
Management	• Registration O Unregistration
Management Type	• iLO BMC BMC (Other) vPro
▲ "BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(mai For cases other than the above and	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ny core server). 'ILO" and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	1
Communication Protocol	○ нттр ● нттрѕ
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)*/"iLt	D*/*BMC(Other)*/*vPro*(LAN)
IP Address 1 [Required]	

(3) Input the following items:

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO Manager.
	Assign a name different from other managed component names. Do not
	enter a name including blank characters. Uppercase characters are
	distinguished from lowercase characters.
Alias	Specify the information about the managed component. Do not enter a
	name including blank characters. Only blank characters cannot be entered.
	Also, please do not enter a name containing blank characters. The blank
	characters will be removed if there are half-width blank characters before
	or after the string. Uppercase characters are distinguished from lowercase
	characters. Optional.
Destination Group	Specify the group to which the managed component will belong. See "1.3.2
	Add component to Group" for the information about creating group.
Common Setting	
OS IP Address	Specify the OS IP Address of the managed component.
SNMP (NEC ESMPRO	Agent) / WS-Man / ESXi / iStorage
Management	Select "Registration" to manage the system of the component.
Management Type	Select a management type of the managed component. - SNMP *1
	NEC ESMPRO Agent is installed on the managed component.
	- WS-Man *1, *2
	VMware ESXi7 is installed on the managed component.
	NEC ESMPRO ServerAgentService is installed on the managed
	component.
	- ESXi *1, *2
	The operating system of the managed component is VMware ESXi8 or
	later.
SNMP Community	SNMP Community Name which is specified at SNMP Agent running on
Name(Get)	the managed component.
	It is necessary to get the information, configure, monitor via SNMP
SNMP Community	When you want to set SNMP Community names for Get and Set separately
Name(Set)	on the managed component, specify the SNMP Community name for Set
	in this field by alphanumeric characters.
II N	If it is not specified, SNMP Community name for Get will be used.
User Name	Enter the Username/Password for communication with WS-Man or ESXI.
	- NEC ESMPRO ServerAgentService (Windows) is installed.
	Enter Username(Local User Accounts)/Password of Windows system
	Administrator
Password	(does not use a user object in Active Directory Domain Services)
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter root/Password of Linux operating system
	1
	- The operating system of the managed component is VMware ESXi.
	Enter Username/Password of VMware ESXi Administrator
Communication	This is displayed only when WS-Man is selected as the management target.
Protocol	Select protocol HTTP/HTTPS for connection WS-Man service. *2
	- NEC ESMPRO ServerAgentService (Windows) is installed
	If you want to use HTTPS for WS-Man communication with

	ESMPRO/ServerAgentService, refer to Chapter 2, Installation 3.3 HTTPS Setting in the ESMPRO/ServerAgentService Installation Guide (Windows).
	 NEC ESMPRO ServerAgentService (Linux) is installed. Select HTTPS.
	- The operating system of the managed component is VMware ESXi7. Select HTTPS.
Port Number	Enter port number where WS-Man service listens for connection. *3
	 NEC ESMPRO ServerAgentService (Windows) is installed. If you want to use HTTP, enter 5985. If you want to use HTTPS, enter 5986.
	- NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986.
	- The operating system of the managed component is VMware ESXi7. Enter 443.
RAID system(Universal	RAID Utility)
Management	 Select "Registration" to manage the RAID system of the component. The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting. The managed component is Express5800/ft server.
	The RAID system management feature unregistered because there is no utility to manage the RAID system.
	- If the managed component is a VMware ESXi8 or later, please select "
	Unregistration ".
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	Select "Registration" to manage the component using NEC ExpressUpdate.
Updates via	Select "Registration" to manage the component using Management
"PMC (EVDDESSSCO	DE Engine)" / "il O" / "DMC (Other)" / "vPro" (Common)
Management	Select "Registration" otherwise NEC ESMPRO Manager may not monitor
	HW status.
Management Type	Select "BMC".
Authentication Key	Enter the "authentication key" that you set in "1.2 Configure BMC on Managed Component".
"BMC (EXPRESSSCO	PE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN)
Current IP Address	If you set both "IP Address1" and "IP Address2", specify which IP address
Failover	This setting is valid only when both "IP Address1" and "IP Address2" are
	set. Determine whether to enable/disable the "Failover" feature.
IP Address 1	Enter the IP address that is specified on LAN1 of the BMC configuration
	for the managed component.
	address of the management I AN port for the CPU/IO module 0 to the form
	If the managed component is a server which has FXPRESSSCOPE Engine
	SP3(2BMC model), you should enter the IP address of the management
	LAN port for the Master BMC to the form.
IP Address 2	Enter the IP address that is specified on LAN2 of the BMC configuration
	for the managed component.
	If the managed component is a fault tolerant server, you should enter the IP

-

	address of the management LAN port for the CPU/IO module 1 to the form.
	If the managed component is a server which has EXPRESSSCOPE Engine
	SP3(2BMC model), you should enter the IP address of the management
	LAN port for the Standby BMC to the form.
CHE	CCK:
•	*1 If NEC ESMPRO Manager is installed on Linux system, "SNMP" server
	management are not supported.
СНЕ	
CIII	*? If a calf signed contificate is installed on the monopoid contrast for UTTDS
•	¹² If a sen-signed certificate is instaned on the managed server for HTTPS
	communication, a setting to allow it is required. Refer to "Chapter2" Environment
	setting" for detailed information.
CHE	CCK:
•	*3 Regarding a port number for WS-Man communication, refer to "Appendix C. Port
	number for WS-Man communication".
ІМР	ORTANT
•	If BMC(EXPRESSSCOPE Engine) management is disabled NEC ESMPRO
	Manager may not be able to manifer HW status Detailed information is shown in the
	annager may not be able to monitor 11 w status. Detailed information is shown in the
	connection check result screen.

(4) Click "ADD".

If there is an error in the input content, correct the input content following the message.

ESMPRO		About NEC ESMPRO Manager	Help Classic Mode	💄 admin 🕶
🚯 Dashboard 📲 Register 🚔 Component 🛕 Ale	ertViewer 💃 Tools 👻			
Auto Registration Manual Registrat	ion			
Server / Storage Network Device	Other Computer Device Alert Only Management			
Component Name [Required]	BMC			
Alias				
Destination Group	root ¢			
SNMP (NEC ESMPRO Agent) / WS-Ma	un / ESXi / iStorage			
Management	Registration O Unregistration			
RAID system (Universal RAID Utility)				
Management	Registration Unregistration			
NEC ExpressUpdate				
Updates via NEC ExpressUpdate Agent	C Registration • Unregistration			
Updates via Management Controller	Registration Unregistration			
"BMC (EXPRESSSCOPE Engine)"/"iL0"	'/"BMC(Other)"/'vPro"(Common)			
Management	• Registration Unregistration			
▲ If BMC / iLO management is disal Please refer to the result page of control	bled, NEC ESMPRO Manager cannot monitor HW errors of some servers. nection check.			
Management Type	• BMC iLO BMC (Other) vPro			
	s target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL core server). LO" and "vPro", Please select "BMC (Other)".			
Authentication Key [Required]				
"BMC (EXPRESSSCOPE Engine)"/"iLO	'/"BMC(Other)"/"vPro"(LAN)			
Current IP Address	IP Address 1			
Failover	• Enable O Disable			
IP Address 1 [Required]	192 . 168 . 8 . 18			
IP Address 2				
	d Da			

(5) "CHECK CONNECTION" screen is displayed.

Click "CHECK CONNECTION" to start it.

ESMPRO	About NEC ESMPRO Manager	Help Classic Mode	💄 admin 🗸
🚯 Dashboard - 🖞 Register 🚔 Component 🛕 AlertViewer 🔀 Tools 👻			
Auto Registration Manual Registration Server / Storage Network Device Other Computer Device Alert Only Management			
To remotely manage components, please continue to perform check connection.			
CHECK CONNECTION			

(6) If the "CHECK CONNECTION" is completed, "Connection check results" screen will be displayed.

ESMPRO			About NEC ESMPRO Mana	ger Help	Classic Mode	💄 admin 🕶
🕒 Dashboard 📲 Register 🚔 Component 🥻	AlertViewer 💥 Tools 🗸					
Auto Registration Manual Regi	stration	Alert On	/ Management			
		Conr	ection check results			
	Management	Detected	Detail			
	ВМС	Detected	SNMP Alert configuration is not completed on BMC (EXPRESSSCOPE Engine). Setting up SNMP Alert configuration is required to send hard ware error alert to NEC ESMPRO Manager. Please set NEC ESMPRO M anager's address as 'Alert Receiver'. Using the BMC (EXPRESSSCOPE E ngine) NEC ExpressUpdate function can be used.			
	ВАСК	TO COMPON	NT LIST CONTINUE REGISTERING			

Detected	Detail
Detected	The feature was detected.
	NEC ESMPRO Manager can use the feature to manage the component.
Not Detected	The feature was not detected.
	NEC ESMPRO Manager cannot use the feature to manage the component.
	Click the "Name" of the component that could not be registered in the
	"Component List". The connection settings screen in Classic mode will be
	displayed. Please check that there are no errors in the entered items. For more
	details, please refer to the online help for NEC ESMPRO Manager.
1.3.3.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 💄 Administrator -
🚯 Dashboz 🖞 🎝 Register 🛟 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
EW/6W Heddae Aveilability	Alat Useral/Read Status
Fw/sw update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Auto Registration".

Destination Orugo 0.00: Discovery Made Discovery Discover Discovery Discover Discovery Discover Discover Made Discover Made </th <th>to Registration Manual Registra</th> <th>tion</th>	to Registration Manual Registra	tion
Discovery Mode P Address Range Discovery Star Address Prepared Discovery Mode P Address Range Discovery Star Address Prepared Discovery Mode Discovery I Discovery IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Destination Group	e toot
Silcovery Mole P Adverse Hange Haccenty Silcovery Mole	Discovery Range	
Burt Address (Nequent) Burt Address (Nequent) Bicker (Stand) Bicker (Stand) <td>Discovery Mode</td> <td>IP Address Range Discovery Network Address Discovery</td>	Discovery Mode	IP Address Range Discovery Network Address Discovery
Evid Address (Beguerd) Bitch Address (Beguerd) Bitch (EC EMPRO ServerAgentService, ESK2 sarlier) Bitch (C EMPRO ServerAgentService, ESK2 sarlier) C Extent Service, ESK2 sarlier, ESK2	Start Address [Required]	
Share Accession BMP PACE EMARIA Agent, Elitorget M anies) Discovery Discovery Community Name Riespieled Discove	End Address [Required]	
State State </td <td>\frown</td> <td></td>	\frown	
SMRP PMC2 ESMRPR0 Agents, Elicoget M annes) Discovery Endole Discovery Endole Discovery Exdole D	C Server / Storage	
Discovery Inside Detable SMP Community Name Required (Lobic SMA (Lot CEMPRO ServerApertifier Voc. (ESD? service) Discovery Endels Detable User Name/Passendl Required (Lobic (Stocker) Discovery Endels Detable Discovery Endels Detable Discovery Endels Detable Discovery Endels Detable Discovery Endels Detable Discovery Endels Detable Discovery Endels Detable <td>SNMP (NEC ESMPRO Agent, iStora</td> <td>ige M series)</td>	SNMP (NEC ESMPRO Agent, iStora	ige M series)
SMP: Community Name [Required] With Multic ESERPTIO Exercise ApportService, ESE? service Discoury Enable User Name Passewood [Required] Discoury Enable User Name Passewood [Required] Discoury Enable User Name Passewood [Required] Discoury Enable Discoury Enable <t< td=""><td>Discovery</td><td>C Enable Disable</td></t<>	Discovery	C Enable Disable
Visit Mun (NDC ESMPRO Server Agentiserice, ESU? service) Discoury Enable User Name/Passeod (Regulard) / Discoury Enable Autorico	SNMP Community Name Required	d) public
Discovery Endel Liker Name/Passeod [Reguled]	WS-Man (NEC ESMPRO ServerAge	ntService, ESXi7 earlier)
User Namu/Fuseword [Negund]	Discovery	Enable Disable
ESX (ESX d a later) Discoury ESX (ESX d a later) Discoury EST AP (Sourge V series) Discoury Ext AnnoPasson (Required) Discoury Estable Disable Disable Discoury Estable Disable Disable Discoury Estable Disable Discoury Estable Disable Disable Discoury Estable Disable Disable Disable Disable Discoury Discou	User Name/Password [Required]	dow /
Discovery Endels Uter Namel Plasseed [Regined] / ADD REST API (Storage V series) Discovery Endels Discovery <	ESXI (ESXI8 or later)	
Uter Namel Passeord [Regulard] REST API (Disreget V action) Discorery Inter Namel Passeord [Regulard] Inter Namel Passeord [Regulard] </td <td>Discovery</td> <td>O Enable 🔿 Disable</td>	Discovery	O Enable 🔿 Disable
REST APR (Ourorge V series) Discoury Enable User Namel Passender (Required) / ADD RAD system (Universal RADU Utility) Discoury Enable A. "HAD (Discourse) Enable A. "BAD(Discourse) Enable Discoury Enable Discoury Enable A. "BAD(Discourse) Enable A. "BAD(Discourse) Enable Discoury Enable Discoury Enabl	User Name/Password [Required]	
Incomy Incomy Income Incomy Income		
User Name Password [Regured] / A00 RADD system (Dolversal RADU Utility) Enable Decomp Discoury Inable Decade RCD Expressibulate (Expressibulate Apent) Discoury Inable Discoury Inable Decade RCD Enable Decade RCD(DRPESSSCOPE English) Enable Decade RCD(DRPESSSCOPE English) Enable Decade A "RAD(DRPESSSCOPE English) Enable Decade A "RAD(DRPESSSCOPE English) Decade Antheriod Resource and Art Article And Yelly Plass select TMC (DMP)* A "RAD(DRPESSSCOPE English) Decade Antheriod Resource and Art Art Article Decade A "RAD(DRPESSSCOPE English) Decade Decade Antheriod Resource and Art	REST API (iStorage V series)	• Fnable O Disable
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ALD system (biversal AMD Utility) Discorey Enable NEC Expressibulate (Expressibulate Apert) Discorey Enable NC Discorey Enable NC Discorey Enable NC Discorey Enable Discorey Enable NC Discorey Enable All Table (Disable NC Discorey Comparison Enable Discorey Enable </td <td>User Name/Password [Required]</td> <td>/ ADD</td>	User Name/Password [Required]	/ ADD
Discovery	RAID system (Universal RAID Utility	0
NEC Expressional (Expressional Expressional Expressi	Discovery	Enable Disable
Incomp Enable ILD Discoury Enable Disable All Onasagement is disabled, MIC ESMPIN Manager cannot monitor HW errors of some strivers. Please refer to the event age of auto registration. Discoury Enable Enable Enable Enable Disable Enable Discoury Enable Enable Mac(DDPRESSECOPE Engine) Discoury Enable Mac(DDPRESSECOPE Engine) Enable All Mac(DDPRESSECOPE Engine) Enable Enable Enable Enable Enable Enable Enable<td>NEC ExpressUpdate (ExpressUpdat</td><td>C Enable Disable</td>	NEC ExpressUpdate (ExpressUpdat	C Enable Disable
LU Discovery	ciaconey	
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evalt page of auto registration. User Name/Password [Regulard] Carter Name/Password [Regulard] Ca	 If it 0 management is disabled 	NEC ESMODY Manager cannot monitor HW errors of some servers. Disase refer to the
	esult page of auto registration.	, HELE LARRE TO Manager Cannot monitor the shore of annual an ends. Finance fore to an
BMC[CERPEESSECOPE Engine] Decomy C. Cadde Control and Second S	User Name/Password [Required]	dak 🔪
	BMC(EXPRESSSCOPE Engine)	
A TMAC(EXPERSESCOPE Engine)' is target for EXPERSESCOPE Engine 1/2/1/11/25/25/25/25/25 (M. Card(SIGMABIL ADQ), MAX(EXO CONTER), MAIC/mary core server). For cases other than the above and 1/0 and 1/0 hybr. Plasses estimate 'TMAC (Dise)'. MAC(EXPERSESCOPE' Engine)' management is disabled, NCE ESM/PIO Manager cannot monitor HW errors of some a rever. Plasses for the break lags and 1/0 and registration. MAC(EXPERSESCOPE' to be read) ago at a dark estimation. MAC(EXPERSESCOPE' to be read) ago at a dark estimation of the entropy of a dark registration. MAC(EXPERSESCOPE' to be read) ago at a dark estimation of the entropy of a dark registration. MAC(EXPERSESCOPE) and the entropy of a dark registration and the entropy of a dark registration. MAC(EXPERSESCOPE) and the entropy of a dark registration and the entropy of a dark registration. MAC(EXPERSESCOPE) and the entropy of a dark registration and the entropy of a dark registration and the entropy of a dark registration. MAC(EXPERSESCOPE) and the entropy of a dark registration MAC(EXPERSESCOPE) and the entropy of the entropy of the entropy of the entropy of th	Discovery	O Enable 🔘 Disable
ADQ, MACKEDO CISITERIJ, MACICIDAN CORE SERVID. Toricrases of the time hashow and Yoria Yoria Seese select "MAC (Driver). A ut MACKEDPESSBOOK" (Engine) management and inabled, NGC ESM/MO Manager canoot monitor HW errors of some servers. Please for the hire sell space of using registration. MCC Objects of the hire sell space of the hire sell selected access method and connection is established with both (PHM and Redfish) the access method sell set sell sectores are sell selected access method sell set the sectore of the sectores. Litter hirms/Plasswood [Neguherd] for the hire sell sectore	.≜ *BMC(EXPRESSSCOPE Engine))* is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL
	ADE), BMC(ECO CENTER), BMC(m For cases other than the above and	any core server). d'ILO' and 'vPro', Please select 'BMC (Other)'.
NEC Expressibilities Authentication Key (Reguined) Authentication Key (Reguined) BMC (Ohrw) BMC (Ohrw) Choovery C Exable Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exable C Exa	ervers. Please refer to the result pa	ej managemen is unadiou, rec. Esser KO manager cannot monitor HW errors of some age of auto registration.
Authentication Key Thequined Authe	NEC ExpressUpdate	Enable Disable
MCC (Other) MCC (Other) MCC (Other) MCC (Decident) MCC (D	Authentication Key [Required]	ADD .
	BMC (Other)	
If MAC(Other/Instaugument) is disabled, NEC ESM/HDM Manager cannot monitor YW errors of some servers. Please refer to the result page of auto registration. Access Mode Artaon Anto	Discovery	Enable Disable
The Interder Sage of A BLOP Registration. Access Mode Access Access Mode Access Ac	A If BMC(Other)management is	disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please re
If "Auto" is selected as an access method and connection is established with both (IPMI and Redisk) the access method and connection is established with both (IPMI and Redisk) the access method and connection is established with both (IPMI and Redisk) the access method and got the priority for server registration process. User Namio Password [Negured] /	r to the result page of auto registra	Auto Redfish IPMI
Network Extent as security access memory we get the promy for server registration process. User Namo/Password [Reguined] Instition Vincom Password [Reguined] User Namo/Password [Reguined] (ACO (Stable Stable (Stable (Stable (Stable (Stab	. If "Auto" is selected as an acce ods i.e. then refer "Priority access in the second sec	ess method and connection is established with both (IPMI and Redfish) the access met mode at the time of automatic selection' option in Classic Mode's Environment-Setting
User Name/Password [Required] / 400 Inst(P) shre(TM) Technology Discovery O Enable User Name/Password [Required] / 400 Discovery iscovery Discovery Discovery Discovery Discover	Herwork screen and selected acce	sa meulou wiii ger tile priority for server registration process.
Intel(R) IPPo(TM) Technology Discoury Discoury Discoury Discoury Discoury Discourd (Required) District	User Name/Password [Required]	/ ADD
Discovery	Intel(R) vPro(TM) Technology	
User Namo/Password (Required) / ADD Ups Network Device	Discovery	O Enable 🗇 Disable
UPS Network Device	User Name/Password [Required]	/ ADD
Network Device	DUPS	
	Network Device	
Other Computer Device	Other Computer Device	

(3) Input the following items:

Name	Value
Destination Group	Specify the group to which the managed component will belong See "1.3.2
Destination Group	Add component to Group" for the information about creating group
Discovery Range	The component to Group for the mornation about creating group.
Discovery Mode	With "IP Address Range Discovery" selected the NEC ESMPRO Manager
Discovery widde	searches for the managed components using the IP address range
	With "Network Address Discovery" selected the NEC ESMPRO Manager
	searches for the managed components using the specified network
	address
Start Address	When you select "IP Address Range Discovery" for "Discovery Mode"
End Address	specify the start IP address and end IP address of the range in which
Life Address	managed components are to be searched for
Network Address	When you select "Network Address Discovery" for "Discovery Mode"
Network Mask	specify the network address and network mask of the managed component
THE WORK MUSK	to be searched for.
SNMP (NEC ESMPRO	Agent, iStorage M series)
Discovery	Select "Enable" to manage the system of the component.*1
SNMP Community	SNMP Community Name which is specified at SNMP Agent running on
Name	the managed component.
	It is necessary to get the information, configure, monitor via SNMP
WS-Man(NEC ESMPR	O ServerAgentService, ESXi7)
Discoverv	Select "Enable" to manage VMware ESXi of the component. *1.*2. *5
User Name/Password	Enter username and password for WS-Man communication. The account
	must be a system administrator of the managed operating system.
	Click "Add" button and you can add a pair of username and password up
	to 5. *3
	- NEC ESMPRO ServerAgentService (Windows) is installed.
	Enter Username(Local User Accounts)/Password of Windows system
	Administrator
	(does not use a user object in Active Directory Domain Services)
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter root/Password of Linux operating system
	- The operating system of the managed component is VMware ESXi7.
	Enter Username/Password of VMware ESXi Administrator
ESXi (ESXi8 or later)	
Discovery	Select "Enable" to manage ESXi (ESXi8 or later) of the component. *1,*2
User Name/Password	Enter username and password for ESXi (ESXi8 or later) communication.
	The account must be a system administrator of the managed operating
	system.
	Click "Add" button and you can add a pair of username and password up
	to 5. *3
	Enter Username/Password of VMware ESX1 Administrator
REST API(iStorage V s	eries)
Discovery	Select "Disable".
RAID system (Universa	I RAID Utility)
Management	Select "Enable" to manage the RAID system of the component.
	- The operating system of the managed component is VMware ESX1/.
	w S-ivian management must be enabled in addition to this setting.
	- 1 ne managed component is Express3800/It server.
	I ne KAID system management feature unregistered because there is no
	utility to manage the KAID system.
	-11 the managed component is a VM ware ESX18 or later, please select "

	Unregistration ".
NEC ExpressUpdate (E	xpressUpdate Agent)
Updates via NEC	Select "Enable" to manage the component using NEC ExpressUpdate.
BMC (EXPRESSSCOP	E Engine)
Discovery	Select "Enable" otherwise NEC ESMPRO Manager may not monitor HW status.
NEC ExpressUpdate	Select "Enable" to feature NEC ExpressUpdate.
Authentication Key	Enter the "authentication key" that you set in "1.2 Configure BMC on Managed Component", *3 *4
iLO	
Discovery	When you discover components which have EXPRESSSCOPE Engine3, this item should be "Disable".
BMC (Ohter)	
Discovery	When you discover components which have EXPRESSSCOPE Engine3, this item should be "Disable".
Intel(R) vPro(TM) Tech	nology
Discovery	When you discover components which have EXPRESSSCOPE Engine3, this item should be "Disable".
CHECK: • *1 If NEC ESMI ESXi manageme	PRO Manager is installed on Linux system, "SNMP" and VMware nt are not supported.
• *2 If a self-sig communication, detailed informat	ned certificate is installed on the managed server for HTTPS a setting to allow it is required. Refer to "1.1 Setup Flow" for tion.
CHECK: • *3 On "Environn list of username/ auto registration	nent" - "Auto Registration Setting List" screen, you can manage a password and authentication key. All entries in the list are used for every time.
CHECK: • *4 If you registar server, you shou CPU/IO module • *4 If you register EXPRESSSCOP which includes b	er the "Management Controller" management for a fault tolerant ld specify the search range which includes BMC IP addresses of 0 and 1. r the "Management Controller" management for a server which has E Engine SP3(2BMC model), you should specify the search range oth BMC IP addresses of Master and Standby.
CHECK: • *5 If you want to ESMPRO/Server in the ESMPRO/	o use HTTPS for WS-MAN communication with AgentService, refer to Chapter 2, Installation 3.3 HTTPS Setting ServerAgentService Installation Guide (Windows).
IMPORTANT: • If BMC(EXPRE Manager may no connection check	ESSSCOPE Engine) management is disabled, NEC ESMPRO t be able to monitor HW status. Detailed information is shown in the c result screen.

(4) Click "RUN DISCOVERY".

Auto Registration Manual Regist	ation		
Destination Group	root	٠	
Discovery Range			
Discovery Mode	IP Address Range	Discovery O Network Address Discovery	
Start Address [Required]	192 . 168	. 8 . 18	
End Address [Required]	192 . 168	. 8 . 18	
Server / Storage			
SNMP (NEC ESMPRO Agent, iSto	age M series)		
Discovery	🔿 Enable 🝳 Disab	le	
WS-Man (NEC ESMPRO ServerA	entService, ESXi7 earlier)		
Discovery	🔿 Enable 🧿 Disab	le	
ESXi (ESXi8 or later)			
Discovery	🔿 Enable 🧿 Disab	le	
REST API (iStorage V series)			
Discovery	🔿 Enable 🝳 Disab	le	
RAID system (Universal RAID Uti	ty)		
Discovery	🔿 Enable 🧿 Disab	le	
NEC ExpressUpdate (ExpressUp	ate Agent)		
Discovery	🔘 Enable 🗴 Disab	le	
iLO			
Discovery	🔘 Enable 🧿 Disab	le	
BMC(EXPRESSSCOPE Engine)			
Discovery	🔾 Enable 🔵 Disat	le	
▲ *BMC(EXPRESSSCOPE Engi ADE), BMC(ECO CENTER), BMC(For cases other than the above a ▲ If BMC(EXPRESSSCOPE Engi ervers. Please refer to the result	e)" is target for EXPRESSSC0 nany core server). nd "iLO" and "vPro", Please se ne) management is disabled page of auto registration.	DPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGM/ lect "BMC (Other)". . NEC ESMPRO Manager cannot monitor HW e	ABL rrors of som
NEC ExpressUpdate	🗴 Enable 🔵 Disab	le	
Authentication Key [Required]		ADD	
BMC (Other)			
Discovery	🔘 Enable 🧿 Disab	le	
Intel(R) vPro(TM) Technology			
Discovery	🔘 Enable 🧿 Disab	le	
JUPS			
Network Device			
Other Computer Device			

NEC ESMPRO Manager Setup Guide

CHECK: When you click the "RUN DISCOVERY", you may see a message "The search cannot be started. ". If you have enabled "WS-Man Discovery" or "ESXi Discovery", please check whether a "Self Signed Certificate" is allowed in section "1.3.1 Environment setting".

When you click the "RUN DISCOVERY", the discovery for components will begin and the "Auto Registration in Progress" screen will be displayed.

ESMPRO		About NEC ESMPRO Mana	ger Help Classic Mode	💄 admin 🕶
🚯 Dashboard 📲 Register 🚔 Co	omponent 🛕 AlertViewer 🎇 Tools 👻			
Auto Registration	Manual Registration			
	Auto Re	egistration in Progress		
	Discovery Mode	IP Address Range Discovery		
	Start Address	192.168.8.18		
	End Address	192.168.8.18		
	. ▲ Even if switch screens or log	CANCEL out, you can check the progress by opening this screen again.		

(5) If the "Auto Registration" is completed, following message will be displayed. Click "OK".



(6) The components registered will be displayed on the "Auto Registration Results" screen.

RO aboard - 🗗 Register 🛋 Component 🛕 Al	ertViewer 🎇 Tools 👻		About NEC ES	GMPRO Manager Help Classic Mode 🛓
Auto Registration Manual Registra	tion			
		Auto Registration Res	ults	
Entry Count:1item(s)				
Name IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents
ManagementController	192.168.8.18		ExpressUpdate (BMC Controller) Enable	The component was added.
	BAC	K TO COMPONENT LIST CONTIN	UE REGISTERING	

Description
Component name
P address
BMC (EXPRESSSCOPE Engine) /iLO/BMC (Other) /vPro)
\mathcal{D} IP address
P address of BMC (EXPRESSSCOPE Engine) (device support
LAN port2)
ExpressUpdate is enable
When "NEC ExpressUpdate(ExpressUpdate Agent)" is
enabled, and a component that can be installed with
ExpressUpdate Agent is discovered.
• ExpressUpdate is disable
- "NEC ExpressUpdate(ExpressUpdate Agent)" is disable
- "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled,
but there is not component that can be installed with
ExpressUpdate Agent.
• A component has been added.
This message will be displayed if the component is
successfully registered.
• Management Controller management cannot be used.
Hardware monitoring function is unavailable.
(EXPRESSECOPE angina)/iLO/PMC (ather)/yPro connot
be discovered for a component registered by an OS IP
address If you want to register the Management Controller
management function, click the "Name". The connection
settings screen in Classic mode will be displayed, so you
can perform the registration here.

TIPS:

 If the system management cannot discover the managed component name, the "Name" of "Component List" will be "ManagementController". The following components will be named "ManagementController + number". If you want to change the name, click the "Name" in the "Component List" to launch Classic mode, and then click "Setting" -> "Connection Setting" ->"Edit" to change component name.

1.3.3.3 Auto Registration Setting

Before executing auto registration, User Name/Password and Authentication Key can be registered up to 5. Using this feature, you do not have to enter these information for each auto registration process. Executing auto registration, User Name/Password and Authentication Key entered in this screen are used in addition to the information entered in auto registration screen.

(1) Click "Environment" from "Settings" menu.

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator •
🚯 Dashboard 📲 Register 📾 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools -	ings -
Component Status	At Information
The component is not registered.	Konitoring Settings No alerts are unread.
E FW/SW Update Availablity	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click "Auto Registration Setting" and enter each item.

ESMPRO	🕯 Register 🔺 Component 🔺 Al	ertViewer + Advanced ·	- 🎗 Tools - 🌣 Settings -	
User	Accounts Access Control	Network Option	Auto Registration Setting	
Auto	Registration Setting List			
	WS-Man (NEC ESMPRO ServerAger	tService, ESXi7 earlier)		
	User Name/Password		/	ADD
	ESXi (ESXi8 or later)			
	User Name/Password		1	ADD
	iLO			
	User Name/Password		1	ADD
	BMC(EXPRESSSCOPE Engine)			
	Authentication Key		ADD	
	BMC (Other)			
	User Name/Password		/	ADD
	Intel(R) vPro(TM) Technology			
	User Name/Password		/	ADD
	REST API (iStorage V series)			
	User Name/Password		/	ADD

WS-Man (NEC ESMPRO ServerAgentService, brfore ESXi7)

- "User Name/Password"

Enter a pair of username and password for WS-Man auto registration. You can enter up to 5 pairs.

ESXi (ESXi8 or later)

- "User Name/Password"

Enter a pair of username and password for ESXi auto registration. You can enter up to 5 pairs.

BMC (EXPRESSSCOPE Engine)

- Authentication Key

Enter an authentication key for BMC auto registration. You can enter it up to 5. Refer to "1.2 Configure BMC on Managed Component" for more information about Authentication Key.

iLO

- "User Name/Password"

Enter a pair of user name and password for iLO auto registration. You can enter up to 5 pairs.

BMC (Other)

- "User Name/Password"

Enter a pair of user name and password for BMC (Other) auto registration. You can enter up to 5 pairs.

Intel(R) vPro(TM) Technology

- "User Name/Password"

Enter a pair of user name and password for vPro auto registration. You can enter up to 5 pairs.

REST API (iStorage V series)

- "User Name/Password"

Please enter the username and password that will be used to discovery for the REST API (iStorage V series) Management during Auto Registration. You can enter up to 5 pairs.

Chapter2 Setup for Managed Component in which a BMC excluding EXPRESSSCOPE Engine 3 is integrated

This chapter explains the setup procedure for the NEC ESMPRO Manager to manage the BMC and NEC ESMPRO Agent Extension ver1.xx (or NEC DianaScope Agent) on a managed component remotely via LAN connection.

2.1 Setup Flow

Perform the following setup procedure:

- (1) Connect the NEC ESMPRO Manager server and the managed component on the same network.
- (2) Configure BMC on the managed component.
- (3) Register the managed component on the NEC ESMPRO Manager.

2.2 Configure BMC on Managed Component (for LAN connection)

Configure BMC of the managed component at first.

.....

TIPS:

• This section explains about the minimum setting that is necessary for connection the NEC ESMPRO Manager with the managed component. For details of BMC configuration, see document of each tool.

There are two methods for configuring the BMC on a managed component for LAN connection.

Configuration with NEC ESMPRO Agent Extension ver.1.xx, NEC DianaScope Agent or "System Management" tool of NEC EXPRESSBUILDER CD-ROM

This section explains the configuration procedure using NEC ESMPRO Agent Extension for Windows.

CHECK:

- There are other BMC configuration tools, but do not use the following tools for setup with NEC ESMPRO Manager.
 - -- NEC MWA Agent

-- "System management" started from NEC EXPRESSBUILDER that does not

contain NEC ESMPRO Manager.

Configuration with NEC EXPRESSBUILDER DOS based with remote console feature.

NEC EXPRESSBUILDER DOS based with remote console feature is to configure the BMC on the managed component when a keyboard is not connected.

CHECK:

- Configuration with NEC EXPRESSBUILDER DOS based with remote console feature can be available only from the NEC EXPRESSBUILDER that contains NEC ESMPRO Manager.
 - See the user's guide provided with the managed component about NEC EXPRESSBUILDER DOS based with remote console feature.

If there is the description about NEC EXPRESSBUILDER DOS based with remote console feature, the feature is available.

2.2.1 Configuration with NEC ESMPRO Agent Extension ver1.xx (for LAN connection)

2.2.1.1 Configuration with NEC ESMPRO Agent Extension ver1.xx for Windows

This section explains the configuration procedure using NEC ESMPRO Agent Extension for Windows.

- (1) After booting Windows on the managed component, click Windows "start" and start the BMC configuration function of NEC ESMPRO Agent Extension.
- (2) The main dialog box will be appeared. Click "Set Configuration". When a confirmation message is displayed, click "OK".

The following screen shows example for the managed component that the BMC uses standard LAN port.

	RO Agent	Extension	
Configurati	Configuration Set Configuration		Confirmation of Alert Alert Test
Read	File	Write File	
Sela	ect IP addr	ess for Agent	Close
BMC	IP address	Synchronization	
			_
– System Info BMC Firm	ormation — ware Vers: 00.1.Sc	ion 00.53	

(3) "BMC Configuration" dialog box will be display. Click "Common" tab page.

Be sure to set the below item. The other items can be used with the default values.

- -- "Computer Name"
- Enter a unique name for each managed component.
- -- "Authentication Key"

The following screen shows example.

BMC Configuration						×
Common LAN1 LA	N2 WAN/D	irect Pager				
Management Informa						
Management miorina	uon					
Model Name : 🛛 🗙	xxxx					
Comment 1 :						
Comment 2 :						
-						
BMC Common						
Computer Name :	Blueberry	4	Remote Control (LAN1):	Enable	O Disable	
Authentication Key	:		Remote Control (WAN/Direct):	Enable	🔿 Disable	
Community Name :	public		Redirection (LAN):	Enable	O Disable	
Alert:	• Enable	O Disable	Redirection (WAN/Direct):	Enable	🔿 Disable	
Alert Process :	C All	One	Remote Control	💿 Enable	🔿 Disable	
Alert Acknowledge:	🖲 Enable	🔿 Disable	(LANZ):			
Alert Level:	Level4 (Non-	-recoverble, Critic	al, Non-critical, OK)	-	· Alert Order	
Defau	ilt Value			OK	Cancel	

TIPS:

If a managed component is compatible with SOL and "Enable" is selected for the item "Redirection (LAN)," the following items necessary for the remote console via the LAN will be changed automatically.

.....

"Common" tab page - "Redirection (WAN/Direct)": Enable

"WAN/Direct" page - "Flow Control": RTS/CTS

(4) Select "LAN1" tab page for LAN port 1 of the BMC.

Set the below items. The other items can be used with the default values.

-- "Obtain an IP Address automatically (DHCP)" Determine whether to dynamically obtain an IP address from a DHCP server. If the item is set enable and registered, the BMC set the value obtained from DHCP server on "IP Address", "Subnet Mask" and "Default Gateway". You can set enable on the item only if the BMC supports this capability.
-- "IP Address" Case that BMC on the managed component uses Management LAN port; enter the IP address for the Management LAN port.

Case that BMC on the managed component uses a standard LAN port; be sure to make the setting identical to the setting on the operating system of the managed component.

-- "Subnet Mask"

Enter the subnet mask for the IP address.

-- "Default Gateway"

Enter the default gateway if the managed component connects to NEC ESMPRO Manager Server via any gateway

-- "Alert Receiver / Management PC IP Address" - "Primary". Enter the IP address of the management PC.

The following screen shows example.

BMC Configuration
Common LAN1 WAN/Direct
Server Obtain an IP Address Enable C Disability IP Address : 192.168.14.141 Subnet Mask : 255.255.255.0 Default Gateway : Image: Tertiary : Alert Retry Alert Retry Alert Timeout : 3
Default Value OK Cancel

TIPS:

• The "LAN2" tab is displayed only when the managed component's BMC supports communication via LAN2. To communicate with the NEC ESMPRO Manager via LAN2, make the setting on the "LAN2" tab as same as "LAN1" tab.

CHECK:

- Please set the following items for NEC ESMPRO Manager to receive alerts from the BMC.
 - LAN1 / LAN2
 - Alert Receiver / Management PC IP Address
 - Primary :
 - IP address of the management PC on which NEC ESMPRO Manager is installed.
- * Please set the checkbox to enable.

(5) If you set "Default Gateway", please connect the managed component via LAN port used by BMC and the gateway to network.

If you set "Alert Receiver / Management PC IP Address" on same network with the managed component, please connect the managed component via LAN port used by BMC and the alert receiver/management PC to network.

(6) Click "OK".

The configuration information will be set in the BMC. The MAC addresses of the gateway and the alert receivers will be also set in the BMC.

2.2.1.2 Configuration with NEC ESMPRO Agent Extension ver.1.xx for Linux

This section explains the configuration procedure using NEC ESMPRO Agent Extension ver.1.xx for Linux.

(1) After booting Linux on the managed component, start the BMC configuration function of NEC ESMPRO Agent Extension by the following command.

/opt/nec/esmpro_sa_ex_sysman/agentconf

(2) "Main Menu" screen will be displayed.Select "Set System Management Parameters".

The following screen shows example for the managed server that the BMC uses standard LAN port.

BMC Config	uraion function Version 1.07
	Main Menu System Information Set System Management Parameters BMC IP address Synchronization Select IP address for Agent Exit
[Enter] se	lect [F12] help

(3) "Set System Management Parameters" screen will be displayed. Select "Configuration".

BMC Config	guraion function Version 1.07	
	Set System Management Parameters Configuration Alert Test Return to previous menu	
[Enter] se	elect [ESC] return [F12] help	

(4) "Configuration" screen will be displayed. Select "Set Configuration".

BMC Config	uraion function Version 1.07
	Configuration Set Configuration Default Value Pand File
	Write File Return to previous menu
[Enter] se	lect [ESC] return [F12] help

(5) "BMC Configuration" screen will be displayed. Select "Common".

BMC Configuration Alert Order LAN1 LAN1(Alert) LAN2 LAN2(Alert) WAN/Direct WAN(Alert)
Save BMC Configuration Return to previous menu

(6) "Common" screen will be displayed.

Be sure to set the below item. The other items can be used with the default values.

- -- "Computer Name"
 - Enter a unique name for each managed server.
- -- "Authentication Key"

The following screen shows example.

Model Name Comment 1	Common Express5800/110Ba-e3 [N8400-023]	
Comment 2 Computer Name Authentication Key Community Name Alert Alert Process Alert Acknowledge	host1 ****** public (*) Enable() All (*) Enable() Disable	
Alert Level *Remote Control LAN1 LAN2 WAN/Direct *Redirection	Level4 (Level3 Alert plus OK) (*) Enable () Disable (*) Enable () Disable (*) Enable () Disable	#
LAN WAN/Direct	(*) Enable () Disable (*) Enable () Disable (OK) (Cancel)	

• If a managed server is compatible with SOL and "Enable" is selected for the item
"Redirection (LAN)," the following items necessary for the remote console via the
LAN will be changed automatically.
"Common" screen - "Redirection (WAN/Direct)": Enable
"WAN/Direct" screen - "Flow Control": RTS/CTS
CHECK:
Please set the following items for NEC ESMPRO Manager to receive alerts from the
BMC.
- LAN1 (Alert) / LAN2 (Alert) :
- Primary Alert Receiver : Enable
- IP Address:
IP address of the management PC on which NEC ESMPRO Manager is
installed.
(7) Select "LAN1" from "BMC Configuration" screen.
Set the below items. The other items can be used with the default values.

-- "Obtain an IP Address automatically (DHCP)" Determine whether to dynamically obtain an IP address from a DHCP server. If the item is set enable and registered, the BMC set the value obtained from DHCP server on "IP Address", "Subnet Mask" and "Default Gateway". You can set enable on the item only if the BMC supports this capability.

--"IP Address"

Case that BMC on the managed server uses Management LAN port; enter the IP address for the Management LAN port.

Case that BMC on the managed server uses a standard LAN port; be sure to make the setting identical to the setting on the operating system of the managed server.

-- "Subnet Mask"

Enter the subnet mask for the IP address.

-- "Default Gateway"

Enter the default gateway if the managed server connects to NEC ESMPRO Manager Server via any gateway

The following screen shows example.

Obtain an IP Address autor () Enable (*) Disable	natically(DHCP)
IP Address Subnet Mask Default Gateway	192.168.14.53 255.255.254.0 0.0.0.0
KO	♥ <cancel></cancel>

-- "Alert Receiver / Management PC IP Address" - "Primary". Enter the IP address of the management PC.

The following screen shows example.

LAN	1(Alert)
*Alert Receiver/Managemer Alert IP Address *Alert Receiver/Managemer Alert IP Address *Alert Receiver/Managemer Alert IP Address *Alert Retry Alert Retry Alert Retry Count Alert Timeout	<pre>t PC (Primary) (*) Enable () Disable 192.168.14.197 t PC (Secondary) () Enable (*) Disable 0.0.0 t PC (Tertiary) () Enable (*) Disable 0.0.0 3 (0 - 7 times) 6 (3 - 30 seconds)</pre>
	OK> <cancel></cancel>

CHECK: • The "LAN2" in "BMC Configuration" screen is displayed only when the managed

- component's BMC supports communication via LAN2. To communicate with the NEC ESMPRO Manager via LAN2, make the setting on the "LAN2" and "LAN2(Alert)" as same as "LAN1" and "LAN1(Alert)".
- (8) If you set "Default Gateway", please connect the managed component via LAN port used by BMC and the gateway to network.

If you set "Alert Receiver / Management PC IP Address" on same network with the managed component, please connect the managed component via LAN port used by BMC and the alert receiver/management PC to network.

(9) Select "Save BMC Configuration" from "BMC Configuration" screen.

The configuration information will be set in the BMC. The MAC addresses of the gateway and the alert receivers will be also set in the BMC.

2.2.2 Configuration with NEC EXPRESSBUILDER DOS based with remote console feature (for LAN connection)

NEC EXPRESSBUILDER DOS based with remote console feature can configure the BMC on the managed component with the configuration information FD containing the configuration information.

CHECK:

- Configuration with NEC EXPRESSBUILDER DOS based with remote console feature is available only from the NEC EXPRESSBUILDER that contains NEC ESMPRO Manager.
- See the user's guide provided with the managed component about NEC EXPRESSBUILDER DOS based with remote console feature. If there is the description about NEC EXPRESSBUILDER DOS based with remote console feature, the feature is available.
- See "The installation of BMC Configuration" in "chapter4 Applendix 1.4 BMC Configuration" of "NEC ESMPRO Manager Ver. 7 Installation Guide" for the information about installstion of NEC ESMPRO BMC Configuration.

Perform the following procedure:

(1) Create a configuration information file

(2) Run NEC EXPRESSBUILDER DOS based with remote console feature

2.2.2.1 Create a configuration information file

(1) Start the NEC ESMPRO Manager configuration installed on any PC to create the configuration information file.

🖳 🖀 DianaScope Configuration	×
Configuration	
New Change	
Read from FD	Close

(2) Click "New". The confirming message will be displayed. Click "OK".

- (3) The "BMC Configuration" dialog box will appear. Click "Common" tab page.
 - Be sure to set the below item. The other items can be used with the default values.
 - -- "Computer Name"
 - Enter a unique name for each managed component
 - -- "Authentication Key"
 - -- Set "Remote Control (LAN)", "Remote Control (WAN/Direct)", "Redirection (LAN)" and "Redirection (WAN/Direct)" to enable

The following screen shows example.

BMC Configuration					×
Common LAN1 LA	.N2 WAN/Di	rect Pager			
Management Informa					
Management Informa	uon				
Model Name : 🛛 🗙	xxxx				
Comment 1 :					
Comment 2 :					
-					
BMC Common					
Computer Name :	Blueberry		Remote Control (LAN1):	Enable	C Disable
Authentication Key	*****		Remote Control (WAN/Direct):	Enable	C Disable
Community Name :	public		Redirection (LAN):	Enable	C Disable
Alert:	© Enable	O Disable	Redirection (WAN/Direct):	Enable	O Disable
Alert Process :	O All	One	Remote Control	Enable	O Disable
Alert Acknowledge:	🖲 Enable	C Disable	(LANZ).		
Alert Level:	Level4 (Non-	recoverble, Critic	al, Non-critical, OK)	•	Alert Order
Defau	ilt Value			OK	Cancel

(4) Select "LAN" tab page for LAN port 1 of the BMC.

Set the below items. The other items can be used with the default values.

- -- "Obtain an IP Address automatically (DHCP)"
 - Determine whether to dynamically obtain an IP address from a DHCP server.

If the item is set enable and registered, the BMC set the value obtained from DHCP server on "IP Address", "Subnet Mask" and "Default Gateway".

- You can set enable on the item only if the BMC supports this capability.
- -- "IP Address"

Case that BMC on the managed component uses Management LAN port; enter the IP address for the Management LAN port.

Case that BMC on the managed component uses a standard LAN port: be sure to make the setting identical to the setting on the operating system of the managed component.

-- "Subnet Mask"

Enter the subnet mask for the IP address.

-- "Default Gateway"

Enter the default gateway if the managed component connects to the management PC via any gateway, -- "Alert Receiver / Management PC IP Address" - "Primary"

Enter the IP address of the management PC.

The following screen shows example.

MC Configuration		
Common LAN LAN2 WAN/Direct Pager		
Server Obtain an IP Address automatically(DHCP) © Enable © Disable IP Address : 192.168.14.141 Subnet Mask : 255.255.255.0 Default Gateway :	Alert Alert Receiver / Management PC IP Address Primary: 192.168.14.197 Secondary: Tertiary: Alert Retry Alert Retry Alert Retry Count: 3 times Alert Timeout: 6 seconds	
	OK Cancel App	ply

СН	IFCK.
•	To communicate with the NEC ESMPRO Manager via LAN2, make the setting on the "LAN2" tab as same as "LAN" tab. If the BMC of the managed component does not support communication via LAN2, the values of "LAN2" tab page have no effect with the managed component. The managed component installed the BMC that uses Management LAN port supports the function of "Obtain an IP Address automatically (DHCP)".
СН	IECK:
•	Please set the following items for NEC ESMPRO Manager to receive alerts from the
	BMC.
	- LAN1 / LAN2
	- Platform Event Filter : Enable
	- Alert Receiver / Management PC IP Address :
	Drimony
	-1 Initially
	IP address of the management PC on which NEC ESMPRO Manager is

- (5) Insert a formatted floppy disk into the FD drive, and click "OK". A dialog box will appear for specifying a location where the configuration information is to be saved.
- (6) Specify the floppy disk's root directory as the location. Enter "CSL_LESS.CFG" for the file name, and click "OK".

The configuration information file will be saved on the floppy disk. This floppy disk is called a "configuration information FD".

СНЕСК:

• Place the configuration information FD in the write-enable state.

2.2.2.2 Run NEC EXPRESSBUILDER DOS based with remote console feature

(1) If you set "Default Gateway" at creating the configuration information file, please connect the managed component via LAN port used by BMC and the gateway to network. If you set "Alert Receiver / Management PC IP Address" on same network with the managed component at creating the configuration information file, please connect the managed component via LAN port used by BMC and the alert receiver/management PC to network.

(2) Configure the BMC of the managed component with the configuration information.

Insert the NEC EXPRESSBUILDER CD-ROM into the CD-ROM drive and the "configuration information FD" into the FD drive on the managed component. And then turn on the component. After NEC EXPRESSBUILDER DOS based with remote console feature is started and the configuration information is loaded from the FD into the managed component. The MAC addresses of the gateway and the alert receivers will be also set in the BMC. And then the Operating System will be rebooted.

..... TIPS: If the setting in the configuration information file is already configured, the managed component will be not rebooted. When the console-less function for LAN connection is used, the BIOS settings are changed as follows: Serial Port Address: On Board COM B (only for the managed server supporting SOL) Baud Rate: 19.2kbps (only for the managed server supporting SOL) Flow Control : RTS/CTS for the managed server supporting SOL No Flow for the managed server not supporting SOL Terminal Type (Console Type): PC-ANSI (only for the managed server supporting SOL) To check whether that the managed component supports SOL, see Appendix D. Managed Components Summary The managed component is opened the main menu of the NEC EXPRESSBUILDER after executing the feature. After registering the managed component on the NEC ESMPRO Manager and confirm the remote console for the managed component, remove the NEC EXPRESSBUILDER from the CD-ROM drive if you need.

2.2.3 Configuration with NEC EXPRESSBUILDER System Management (for LAN connection)

This section explains the configuration procedure using NEC EXPRESSBUILDER System Management.

- (1) After booting NEC EXPRESSBUILDER on the managed component, select "System Management" from "TOOL MENU".
- (2) The main screen will be appeared. Select "System Management".

Display Firmware Management Info Set System Management Parameters	nemation
Set System Management Parameters	
	s
Setup for BMC Web Server	
LAN Port Settings	
Clear BMC Configuration	
Exit	
Select:[Enter] Help:[H/h]	

(3) Set "System Management Parameters" screen will be displayed. Select "Configuration".

Set System M	anagement Paramet	ers	
Configurati	on		-
Alert Test			
Return to p	revious menu		
Select:IEnt	er] Help:[H/h]		

(4) "Configuration" screen will be displayed. Select "New".



(5) "BMC Configuration" screen will be displayed. Select "Common".

Common			
LAN1			
LAN1(Alert)			
WAN/Direct			
WAN(Alert)			
ОК			
Cancel			
Select:[Enter]	Help:[H/h]		

(6) "Common" screen will be displayed.

Be sure to set the below item. The other items can be used with the default values.

- -- "Computer Name"
 - Enter a unique name for each managed server.
- -- "Authentication Key"

The following screen shows example.

Common	
<pre>*Management Information</pre>	
Model Name	[Express5800/R120b-1]
Comment 1	[]
Comment 2	[]
*BMC Common	
Computer Name	[host1]
Authentication Key	[****]
Community Name	[nublic]
Alert	[Enable]
Alert Process	[One]
Alert Acknowledge	[Enable]
Alert Level	[Level4 (Level3 Alert plus OK)]
Remote Control(LAN1)	[Enable]
Remote Control(WAN/Direct)	[Enable]
Redirection(LAN)	[Enable]
Redirection(WAN/Direct)	[Enable]
Return to previous menu	
Select:[Enter] Help:[H/h]	

TIPS:
 If a managed server is compatible with SOL and "Enable" is selected for the item "Redirection (LAN)", the following items necessary for the remote console via the LAN will be changed automatically.
 "Common" screen - "Redirection (WAN/Direct)": Enable
 "WAN/Direct" screen - "Flow Control": RTS/CTS

(7) Select "LAN1" from "BMC Configuration" screen. Set the below items. The other items can be used with the default values.

-- "Obtain an IP Address automatically (DHCP)"

Determine whether to dynamically obtain an IP address from a DHCP server.

If the item is set enable and registered, the BMC set the value obtained from DHCP server on "IP Address", "Subnet Mask" and "Default Gateway".

You can set enable on the item only if the BMC supports this capability.

-- "IP Address"

Case that BMC on the managed component uses Management LAN port; enter the IP address for the Management LAN port.

Case that BMC on the managed component uses a standard LAN port; be sure to make the setting identical to the setting on the operating system of the managed component.

-- "Subnet Mask"

Enter the subnet mask for the IP address.

-- "Default Gateway"

Enter the default gateway if the managed component connects to NEC ESMPRO Manager Server via any gateway

The following screen shows example.

LAN1	
*Server	
Obtain an IP Address automatically(DHCP)	[Disable]
IP Address	[192.168.14.141]
Subnet Mask	[255.255.255.0]
Default Gateway	[0.0.0]
Return to previous menu	
Select:[Enter] Help:[H/h]	

-- "Alert Receiver / Management PC(1)". Enter the IP address of management PC.

The following screen shows example.

LAN1(Alert)	
:	
*Alert Receiver/Management PC(1)	
Alert	[Enable]
IP Address	[192.168.14.197]
×Alert Receiver∕Management PC(2)	
Alert	[Disable]
IP Address	[0.0.0]
*Alert Receiver/Management PC(3)	
Alert	[Disable]
IP Address	[0.0.0]
×Alert Retry	
Alert Retry count	[3(times)]
Alert Timeout	[6(seconds)]
Return to previous menu	_
Select:LEnter] Help:LH/h]	

•	The "LAN2" in "BMC Configuration" screen is displayed only when the managed component's BMC supports communication via LAN2. To communicate with the NEC ESMPRO Manager via LAN2, make the setting on the "LAN2" and "LAN2(Alert)" as same as "LAN1" and "LAN1(Alert)".
СН	ECK:
•	Please set the following items for NEC ESMPRO Manager to receive alerts from the
	BMC.
	- LAN1 (Alert) / LAN2 (Alert) :
	- Alert Receiver / Management PC (1):
	- Alert : Enable
	- IP Address :
	- IP Address : IP address of the management PC on which NEC ESMPRO Manager is

(8) If you set "Default Gateway", please connect the managed component via LAN port used by BMC and the gateway to network.

If you set "Alert Receiver / Management PC IP Address" on same network with the managed component, please connect the managed component via LAN port used by BMC and the alert receiver/management PC to network.

(9) Select "Save BMC Configuration" from "BMC Configuration" screen.

The configuration information will be set in the BMC. The MAC addresses of the gateway and the alert receivers will be also set in the BMC.

2.3 Register a managed component on NEC ESMPRO Manager (for LAN connection)

To register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform in the following order:

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

2.3.1 Register the Managed Component

Use either of the two methods to register the managed component.

Manual Registration

This method requires the operator to directly enter the managed component's information such as the IP address of the BMC and to perform "Check Connection".

Auto Registration

This method automatically searches the network for managed components that are not registered yet on the NEC ESMPRO Manager, and registers the managed components.

2.3.1.1 Manual Registration

(1) Click "Register".

PRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Admir
hbo. d 🖪 Register 🗧 Component 🛦 AlertViewer 🕂 Advanced - 💥 Tools -	Settings -
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Manual Registration".

Auto Registration Manual Registra	ation
Server / Storage JPS Netwo	ork Device Other Computer Device Alert Only Management
Component Name [Required]	
Alias	
Destination Group	root ¢
Common Setting	
OS IP Address [Required]	
SNMP (NEC ESMPRO Agent) / WS-M	fan / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility)	
Management	• Registration O Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iL0	0°/°BMC(Other)°/″vPro°(Common)
Management	• Registration O Unregistration
Management Type	• iLO BMC BMC (Other) vPro
▲ "BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(mai For cases other than the above and	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ny core server). "ILO" and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	T
Communication Protocol	О НТТР • НТТРS
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)"/"iLd	D*/*BMC(0ther)*/*vPro*(LAN)
IP Address 1 [Required]	
(3) Input the following items:

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO Manager.
_	Assign a name different from other managed component names. Do not
	enter a name including blank characters. Uppercase characters are
	distinguished from lowercase characters.
Alias	Specify the information about the managed component. Do not enter a
	name including blank characters. Only blank characters cannot be entered.
	Also, please do not enter a name containing blank characters. The blank
	characters will be removed if there are half-width blank characters before
	or after the string. Uppercase characters are distinguished from lowercase
	characters. Optional.
Destination Group	Specify the group to which the managed component will belong. See "1.3.2
-	Add component to Group" for the information about creating group.
Common Setting	
OS IP Address	Specify the OS IP Address of the managed component.
SNMP (NEC ESMPRO	Agent) / WS-Man / ESXi / iStorage
Management	Select "Registration" to manage the system of the component.
Management Type	Select a management type of the managed component.
	- SNMP *1
	NEC ESMPRO Agent is installed on the managed component.
	- WS-Man *1, *2
	VMware ESXi7 is installed on the managed component.
	NEC ESMPRO ServerAgentService is installed on the managed
	component.
	- ESXi*1, *2
	The operating system of the managed component is VMware ESXi8 or
	later.
SNMP Community	SNMP Community Name which is specified at SNMP Agent running on
Name(Get)	the managed component.
	It is necessary to get the information, configure, monitor via SNMP
SNMP Community	When you want to set SNMP Community names for Get and Set separately
Name(Set)	on the managed component, specify the SNMP Community name for Set
	in this field by alphanumeric characters.
	If it is not specified, SNMP Community name for Get will be used.
User Name	Enter the Username/Password for communication with WS-Man or ESXi.
	- The operating system of the managed component is VMware ESXi.
Password	Enter Username/Password of VMware ESXi Administrator
Communication	This is displayed only when WS-Man is selected as the management target.
Protocol	Select protocol HTTP/HTTPS for connection WS-Man service. *2
	1
	- NEC ESMPRO ServerAgentService (Windows) is installed.
	If you want to use HTTPS for WS-Man communication with
	ESMPRO/ServerAgentService, refer to Chapter 2, Installation 3.3 HTTPS
	Setting in the ESMPRO/ServerAgentService Installation Guide
	(Windows).
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Select HTTPS.
	- The operating system of the managed component is VMware ESXi7.
	Select HTTPS.
Port Number	Enter port number where WS-Man service listens for connection. *3

If you want to use HTTP, enter 5985. If you want to use HTTPS, enter 5986 NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986 The operating system of the managed component is VMware ESXi7. Enter 443.RAID system managementManagementSelect "Registration" to manage the RAID system of the component. - The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting. - If the managed component is a VMware ESXi8 or later, please select " Unregistration".NEC ExpressUpdate Updates via NEC ExpressUpdate AgentUpdates via Management ControllerVBMC (EXPRESSSCOPE Engine)" / "I.O" / "BMC (Other)" / "vPro" (Common)Management TypeSelect "Registration" to manage the Component using Management ControllerManagement TypeSelect "Registration" to therwise NEC ESMPRO Manager may not monitor HW status.Managed Component"."BMC (EXPRESSSCOPE Engine)" / "I.O" / "BMC (Other)" / "vPro" (LAN)Current IP AddressFailoverThis setting is valid only when both "IP Address2", specify which IP address you want to use for connection.FailoverFailoverThis setting is valid only when both "IP Address1" and "IP Address2" are set. Determine whether to enable/disable the "Failover" feature.IP Address 2Enter the IP address that is specified on LAN2 of the BMC configuration for the managed component.		- NEC ESMPRO ServerAgentService (Windows) is installed.
If you want to use HTTPS, enter 5986. - NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986. - The operating system of the managed component is VMware ESXi7. Enter 443. RAID system management Management Select "Registration" to manage the RAID system of the component. - The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting. - If the managed component is a VMware ESXi8 or later, please select " Unregistration ". NEC ExpressUpdate Select "Registration" to manage the component using NEC ExpressUpdate. ExpressUpdate Agent Updates via NEC ExpressUpdate Agent Select "Registration" to manage the component using Management Controller Obdates via Select "Registration" to manage the component using Management Management Controller Obstruct Select "Registration" to manage the component using Management Management Type Select "Registration" otherwise NEC ESMPRO Manager may not monitor HW status. Management Type Select "BMC". Autentication Key If you set both "IP Address!" and "IP Address2", specify which IP address2", you want to use for connection. Failover This setting is valid only when both "IP Address1" and "IP Address2" are set. Determine whether to enable/disable the "Failover" feature. IP Address 1 Enter the IP address that is specified on LAN1 of the BMC configuration for the managed component.		If you want to use HTTP, enter 5985.
• NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986. • The operating system of the managed component is VMware ESXi7. Enter 443. RAID system management Management Select "Registration" to manage the RAID system of the component. - The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting. - If the managed component is a VMware ESXi8 or later, please select " Unregistration ". NEC ExpressUpdate Updates via NEC Select "Registration" to manage the component using NEC ExpressUpdate. ExpressUpdate Agent Updates via Select "Registration" to manage the component using Management Controller Management Controller Select "Registration" to manage the component using Management Controller "BMC (EXPRESSSCOPE Engine)" / "ILO" / "BMC (Other)" / "vPro" (Common) Management Type Select "BMC". Authentication Key Enter the "authentication key" that you set in "1.2 Configure BMC on Managed Component". "BMC (EXPRESSSCOPE Engine)" / "ILO" / "BMC (Other)" / "vPro" (LAN) Current IP Address If you set both "IP Address1" and "IP Address2", specify which IP address2", you want to use for connection. Failover This setting is valid only when both "IP Address1" and "IP Address2" are set. Determine whether to enable/disable the "Failover" feature. Failovers 1 Enter the IP address that is specified on		If you want to use HTTPS, enter 5986.
- NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986 The operating system of the managed component is VMware ESXi7. Enter 443.RAID system managementSelect "Registration" to manage the RAID system of the component. - The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting. - If the managed component is a VMware ESXi8 or later, please select " Unregistration ".NEC ExpressUpdateSelect "Registration" to manage the component using NEC ExpressUpdate. ExpressUpdate Select "Registration" to manage the component using Management Management Controller"BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common)Management TypeSelect "Registration" otherwise NEC ESMPRO Manager may not monitor HW status.Managed Component"."BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common)Authentication KeyEnter the "authentication key" that you set in "1.2 Configure BMC on Managed Component"."BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN)Current IP AddressIf you set bot "IP Address1" and "IP Address2", specify which IP address you want to use for connection.FailoverThis setting is valid only when both "IP Address1" and "IP Address2" are set. Determine whether to camberdisable the "Failover" feature.IP Address 1Enter the IP address that is specified on LAN2 of the BMC configuration for the managed component.		•
Enter 5986. - The operating system of the managed component is VMware ESXi7. Enter 443. RAID system management Management Select "Registration" to manage the RAID system of the component. - The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting. - If the managed component is a VMware ESXi8 or later, please select " Unregistration ". NEC ExpressUpdate Updates via NEC ExpressUpdate Agent Select "Registration" to manage the component using NEC ExpressUpdate. ExpressUpdate Agent Updates via Select "Registration" to manage the component using Management Controller "BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common) Management Type Select "Registration" otherwise NEC ESMPRO Manager may not monitor HW status. Management Type Select "BMC". Authentication Key Enter the "authentication key" that you set in "1.2 Configure BMC on Managed Component". "BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN) Current IP Address If you set both "IP Address1" and "IP Address2", specify which IP address2", you want to use for connection. Failover This setting is valid only when both "IP Address1" and "IP Address2" are set. Determine whether to enable/disable the "Failover" feature. IP Address 1 Enter the IP address that is specified on LAN1 of the BMC configuration for the managed component.		- NEC ESMPRO ServerAgentService (Linux) is installed.
AID system management - The operating system of the managed component is VMware ESXi7. Enter 443. Management Select "Registration" to manage the RAID system of the component. - The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting. - If the managed component is a VMware ESXi8 or later, please select " Unregistration ". NEC ExpressUpdate ExpressUpdate Agent Select "Registration" to manage the component using NEC ExpressUpdate. ExpressUpdate Agent Updates via Select "Registration" to manage the component using Management Controller "BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common) Management Select "Registration" otherwise NEC ESMPRO Manager may not monitor HW status. Management Type Select "BMC". Authentication Key Enter the "authentication key" that you set in "1.2 Configure BMC on Managed Component". "BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN) Current IP Address If you set both "IP Address1" and "IP Address2", specify which IP address you want to use for connection. Failover This setting is valid only when both "IP Address1" and "IP Address2" are set. Determine whether to enable/disable the "Failover" feature. IP Address 1 Enter the IP address that is specified on LAN1 of the BMC configuration for the managed component.		Enter 5986.
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Managed Component"."BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN)Current IP AddressIf you set both "IP Address1" and "IP Address2", specify which IP address you want to use for connection.FailoverThis setting is valid only when both "IP Address1" and "IP Address2" are set. Determine whether to enable/disable the "Failover" feature.IP Address 1Enter the IP address that is specified on LAN1 of the BMC configuration for the managed component.IP Address 2Enter the IP address that is specified on LAN2 of the BMC configuration for the managed component	Authentication Key	Enter the "authentication key" that you set in "1.2 Configure BMC on
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set. Determine whether to enable/disable the "Failover" feature. IP Address 1 Enter the IP address that is specified on LAN1 of the BMC configuration for the managed component. IP Address 2 Enter the IP address that is specified on LAN2 of the BMC configuration for the managed component.	Failover	This setting is valid only when both "IP Address1" and "IP Address2" are
IP Address 1 Enter the IP address that is specified on LAN1 of the BMC configuration for the managed component. IP Address 2 Enter the IP address that is specified on LAN2 of the BMC configuration for the managed component.		set. Determine whether to enable/disable the "Failover" feature.
for the managed component. IP Address 2 Enter the IP address that is specified on LAN2 of the BMC configuration for the managed component.	IP Address 1	Enter the IP address that is specified on LAN1 of the BMC configuration
IP Address 2 Enter the IP address that is specified on LAN2 of the BMC configuration for the managed component		for the managed component.
for the managed component	IP Address 2	Enter the IP address that is specified on LAN2 of the BMC configuration
for the managed component.		for the managed component.

CHECK: *1 If NEC ESMPRO Manager is installed on Linux system, "SNMP" and VMware ESXi server management are not supported. CHECK: *2 If a self-signed certificate is installed on the managed server for HTTPS communication, a setting to allow it is required. Refer to "1.3.1 Environment setting" for detailed information. CHECK: *3 On "Environment" - "Auto Registration Setting List" screen, you can manage a list of username/password and authentication key. All entries in the list are used for auto registration every time.

(4) Click "ADD".

If there is an error in the input content, correct the input content following the message.

ESMPRO		
🕼 Dashboard 📲	Register 📾 Component 🛕 Alert	Viewer 🕂 Advanced - 💥 Tools - 🌣 Settings -
Auto R	egistration Manual Registratio	n
	un (Stamon JUDO – Maturada I	
Serv	er 7 Storage UPS Network	Device Other Computer Device Alert Only Management
C	omponent Name [Required]	BMC
A	lias	
D	estination Group	root \$
SI	NMP (NEC ESMPRO Agent) / WS-Man	/ ESXi / iStorage
м	lanagement	Registration Unregistration
R	AID system (Universal RAID Utility)	
м	lanagement	Registration Unregistration
N	EC ExpressUpdate	
U	pdates via NEC ExpressUpdate gent	Registration Unregistration
U) Ci	pdates via Management ontroller	Registration Unregistration
"В	BMC (EXPRESSSCOPE Engine)"/"iLO"/"	BMC(0ther)"/"vPro"(Common)
м	lanagement	Registration Unregistration
۵. Pi	If BMC / iLO management is disable lease refer to the result page of conne	ed, NEC ESMPRO Manager cannot monitor HW errors of some servers. ction check.
м	lanagement Type	iLO OBMC OBMC (Other) vPro
Al Fo	"BMC(EXPRESSSCOPE Engine)" is t DE), BMC(ECO CENTER), BMC(many c or cases other than the above and "iLO	arget for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ore server). " and "vPro", Please select "BMC (Other)".
A	uthentication Key [Required]	
"B	3MC (EXPRESSSCOPE Engine)"/"iLO"/"I	BMC(Other)"/"vPro"(LAN)
C	urrent IP Address	IP Address 1 IP Address 2
Fa	ailover	Enable Disable
IP	Address 1 [Required]	192 . 168 . 8 . 18
IP	Address 2	

(5) "CHECK CONNECTION" screen is displayed.

Click "CHECK CONNECTION" to start it.		
ESMPRO	About NEC ESMPRO Manager Help Classic Mode	min -
🚯 Dashboard 🚦 Register 🚔 Component 🛕 AlertViewer 🔆 Tools 👻		
Auto Registration Manual Registration		
Server / Storage Network Device Other Computer Device Alert Only Management		
To remotely manage components, please continue to perform check connection.		
CHECK CONNECTION		

(6) If the "CHECK CONNECTION" is completed, "Connection check results" screen will be displayed.

ESMPRO		About NEC ESM	PRO Manager Help Classic Mode 💄 admin -
🔃 Dashboard 📲 Register 📾 Component 🖌	🛕 AlertViewer 🛛 🗙 Tools 👻		
Auto Registration Manual Reg	istration		
Server / Storage Network De	evice Other Computer Device	Alert Only Management	
		Connection check results	
	Management	Detected Detail	
	вмс	Detected SNMP Alert configuration is not completed on BMC (EXPRESSS Engine). Setting up SNMP Alert configuration is required to sen ware error alert to NEC ESMPRO Manager. Please set NEC ESM anager's address as 'Alert Receiver'. Using the BMC (EXPRESSS ngine) NEC ExpressUpdate function can be used.	ICOPE d hard IPRO M COPE E
	BAC	TO COMPONENT LIST CONTINUE REGISTERING	

Detected	Detail
Detected	The feature was detected.
	NEC ESMPRO Manager can use the feature to manage the component.
Not Detected	The feature was not detected.
	NEC ESMPRO Manager cannot use the feature to manage the component.
	Click the "Name" of the component that could not be registered in the
	"Component List". The connection settings screen in Classic mode will be
	displayed. Please check that there are no errors in the entered items. For more
	details, please refer to the online help for NEC ESMPRO Manager.

2.3.1.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 💄 Administrator -
Component A AlertViewer + Advanced - X Tools - Component A AlertViewer + Advanced - X Tools - Component - AlertViewer	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server/Storage" of "Auto Registration".

Registration Manual Registratio	1	
Destination Group	root	
Discovery Range		
Discovery Mode	IP Address Range Discovery Network Address Disco	very
Start Address [Required]		
End Address [Required]		
C Server / Storage		
SNMP (NEC ESMPRO Agent, iStorage	M series)	
Discovery	• Enable 🗍 Disable	
SNMP Community Name [Required]	public	
WS-Man (NEC ESMPRO ServerAgentS	ervice. ESXi7 earlier)	
Discovery	• Enable O Disable	
User Name/Password [Required]		D
Discovery	C Enable 🔿 Disable	
Liser Name/Dassword Device 41		in l
- we wanter trassword [kedmed]	AD	
REST API (iStorage V series)	Enable Disable	
User Name/Password [Required]	/ AD	0
RAID system (Universal RAID Utility)		
NEC ExpressUpdate (ExpressUpdate /	gent)	
Discovery	O Enable 🔘 Disable	
il0		
Discovery	O Enable 🗇 Disable	
A If ILO management is disabled, N esult page of auto registration.	C ESMPRO Manager cannot monitor HW errors of some server	J. Please refer to the
User Name/Password [Required]		0
Discovery	O Enable 🗍 Disable	
	target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card	SIGMABL
ADE), BMC(ECO CENTER), BMC(man) For cases other than the above and "I	core server). O' and 'vPro', Please select 'BMC (Other)".	WW arrow of a
ervers. Please refer to the result page	of auto registration.	
NEC ExpressUpdate	C Enable 🔾 Disable	
Authentication Key [Required]	ADD	
BMC (Other)		
Discovery	Enable Disable	
If BMC(Other)management is dis r to the result page of auto registration	abled, NEC ESMPRO Manager cannot monitor HW errors of some 1.	e servers. Please rel
Access Mode	Auto Redfish IPMI	
A If "Auto" is selected as an access ods i.e. then refer "Priority access mo Network screen and selected access	method and connection is established with both (IPMI and Redf de at the time of automatic selection' option in Classic Mode's E method will get the priority for server registration process.	sh) the access met nvironment-Setting
User Name/Password [Required]	/ AD	D
intel(R) vPro(TM) Technology		
Discovery	O Enable 🔘 Disable	
User Name/Password [Required]	/	D
OD UPS		
Network Device		
Other Computer Device		

(3) Input the following items:

Name	Value
Destination Group	Specify the group to which the managed component will belong.
Discovery Range	
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager searches for the managed components using the IP address range. With "Network Address Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the specified network address.
Start Address	When you select "IP Address Range Search" for "Search Mode", specify
End Address	the start IP address and end IP address of the range in which managed components are to be searched for.
Network Address Network Mask	When you select "Network Address Search" for "Search Mode", specify the network address and network mask of the managed component to be
	searched for.
SNMP (NEC ESMPRO	Agent, iStorage M series)
Discovery	Select "Enable" to manage the system of the component.*1
SNMP Community Name	SNMP Community Name which is specified at SNMP Agent running on the managed component.
	It is necessary to get the information, configure, monitor via SNMP
WS-Man(NEC ESMPR	O ServerAgentService, ESXi7)
Discovery	Select "Enable" to manage VMware ESXi server of the component. *1,*2
User Name/Password	Enter username and password for WS-Man communication. The account
	must be a system administrator of the managed operating system.
	Click "Add" button and you can add a pair of username and password up
	to 5. *3
	- The operating system of the managed component is VMware ESXi.
	Enter Username/Password of VMware ESXi Administrator
ESXi (ESXi8 or later)	
Discovery	Select "Enable" to manage ESXi (ESXi8 or later) of the component. *1,*2
User Name/Password	Enter username and password for ESXi (ESXi8 or later) communication. The account must be a system administrator of the managed operating
	system. Click "Add" button and you can add a pair of username and password up
	to 5. *3
	Enter Username/Password of VMware ESXi Administrator
REST API(iStorage V set	eries)
Discovery	Select "Disable".
RAID system managem	ent
Management	Select "Enable" to manage the RAID system of the component.
	- The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting.
	-If the managed component is a VMware ESXi8 or later, please select "
	Unregistration ".
NEC ExpressUpdate	
Updates via NEC	Select "Enable" to manage the component using NEC ExpressUpdate.
ExpressUpdate Agent	
BMC (EXPRESSSCOP	E Engine)
Discovery	Select "Enable" otherwise NEC ESMPRO Manager may not monitor HW status.
Features NEC	Select "Enable" to feature NEC ExpressUpdate.
ExpressUpdate	
Authentication Key	Enter the "authentication key" that you set in "1.2 Configure BMC on

	Managed Component". *3
iLO	
Discovery	When you discover components which have BMC excluding
	EXPRESSSCOPE Engine3, this item should be "Disable".
BMC (Other)	
Discovery	When you discover components which have BMC excluding
	EXPRESSSCOPE Engine3, this item should be "Disable".
Intel(R) vPro(TM) Tech	inology
Discovery	When you discover components which have BMC excluding
	EXPRESSSCOPE Engine3, this item should be "Disable".

 CHECK: *1 If NEC ESMPRO Manager is installed on Linux system, "SNMP" and VMware ESXi management are not supported.
 CHECK: *2 If a self-signed certificate is installed on the managed server for HTTPS communication, a setting to allow it is required. Refer to "1.3.1 Environment setting" for detailed information.
CHECK:
 *3 On "Settings" - "Environment" - "Auto Registration Setting List" screen, you can manage a list of username/password and authentication key. All entries in the list are used for auto registration every time.

(4) Click "RUN DISCOVERY".

Destination Group root Placowary Range Discovery Mode IP Address Range Discover N Network Address Discovery Start Address [Required] 192 192 168 8 18 End Address [Required] 192 192 168 8 18 Convery Enable Discovery </th <th></th> <th></th> <th></th>			
Placovery Range Discovery Mode IP Address Range Discovery Start Address [Required] 192 192 108 8 18 End Address [Required] 192 192 108 8 18 StMMP (NEC ESMPRO Agent, IStorage M series) Discovery Enable Discovery Enable Disable WSMan (NEC ESMPRO ServerAgentService, ESX7 earlier) Discovery Estable Discovery Enable Disable RSST API (Giorage V series) Discovery Enable Disable RADD system (Universal RAD Utility) Discovery Enable Disable NCE ExpressityIdate (ExpressityIdate Agent) Discovery Enable Disable NCE DispressityIdate (ExpressityIdate Agent) Discovery Enable Discovery Enable Disable NCE DispressityIdate (ExpressityIdate Agent) Discovery Enable Discovery Enable Disable NCE DispressityIdate (ExpressityIdate Agent) Discovery Enable Discovery Enable Disable Discovery Enable Disab	Destination Group	root +	
Discovery Mode P Address Range Discovery Network Address Discovery Start Address [Required] 192, 168, 8, 18 End Address [Required] 192, 168, 8, 18 C Server / Storage SMMP (NEC ESMPRO Agent, IStorage M series) Discovery Enable © Disable VIS-Man (NEC ESMPRO ServerAgentService, ESX7 earlier) Discovery Enable © Disable ESX (ESX8 or later) Discovery Enable © Disable REST API (Storage V series) REST (API (Storage V series)) Discovery	Discovery Range		
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Authentication Key [Required] Authentication Key [Required] BMC (Other) Discovery Enable Disable Intel(R) vPro(TM) Technology Discovery Enable Disable UPS Network Device	"BMC(EXPRESSSCOPE Engl ADE), BMC(ECC CENTER), BMC For cases other than the above : A if BMC(EXPRESSSCOPE En- ervers. Please refer to the result NEC Express Indiate	is) is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(Sk many core serve). nd "LO" and "vPro", Please select "BMC (Other)". ine) management is disabled, NEC ESMPRO Manager cannot monitor H page of auto registration.	3MABL W errors of sor
Authentication Key [Required] MDD BMC (Other) Discovery Enable Discovery Discovery Discovery Discovery Discovery Network Device	NEC Expressupdate		
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CHECK:

When you click the "RUN DISCOVERY", you may see a message "The search cannot be started. ". If you have enabled "WS-Man Discovery", please check whether a "Self Signed Certificate" is allowed in section "Chapter2 Environment setting".

When you click the "RUN DISCOVERY", the discovery for components will begin and the "Auto Registration in Progress" screen will be displayed.

ESM	SMPRO About NEC ESMPRO Manager Help Classic Mode 🛓 admin -						
🖨 Da	🚯 Dashboard - 🤷 Register 📾 Component 🛕 AlertViewer 🏃 Tools 👻						
	Auto Registration Auto Registration Auto Registration in Progress						
			Discovery Mode	IP Address Range Discovery			
			Start Address	192.168.8.18			
			End Address	192.168.8.18			
			. ▲ Even if switch screens or log o	CANCEL ut, you can check the progress by opening this	s screen again.		

(5) If the "Auto Registration" is completed, following message will be displayed. Click "OK".



- (6) The components registered will be displayed on "Auto Registration Results".
 - Clicking the "Name" will open the Classic mode where you can confirm the registered information.

ESMPRO About NEC ESMPRO Manager Help Classic Mode 🛓 admin •						
🕼 Dashboard 📲 Register 📾 Component 🛕 AlertViewer	💥 Tools 👻					
Auto Registration Manual Registration						
		Auto Registration Results				
Entry Count:1item(s)						
Name IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents		
ManagementController	192.168.8.18		ExpressUpdate (BMC Controller) Enable	The component was added.		
	BACK TO C	OMPONENT LIST CONTINUE REI	GISTERING			

Name	Description
Name	Component name
IP address	IP address
Management LAN IP Address 1	IP address of BMC (EXPRESSSCOPE Engine)/iLO/BMC
	(Other)/vPro
Management LAN IP Address 2	IP address of BMC (EXPRESSSCOPE Engine)(device support
	LAN port2)
Install NEC ExpressUpdate Agent	ExpressUpdate is enable
	When "NEC ExpressUpdate(ExpressUpdate Agent)" is
	enabled, and a component that can be installed with
	ExpressUpdate Agent is discovered.
	• ExpressUpdate is disable
	- "NEC ExpressUpdate(ExpressUpdate Agent)" is disable
	- "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled,
	but there is not component that can be installed with
	ExpressUpdate Agent.
Contents	• A component has been added.
	This message will be displayed if the component is
	successfully registered.
	• Management Controller management cannot be used.
	Hardware monitoring function is unavailable.
	This message will be displayed when BMC
	(EXPRESSSCOPE engine)/1LO/BMC (other)/vPro cannot
	address. If you want to register the Management Controller
	management function click the "Name" The connection
	settings screen in Classic mode will be displayed so you
	can perform the registration here.
	settings screen in Classic mode will be displayed, so you can perform the registration here.

TIPS:

When the system management cannot discover the managed component name, the
 "Name" of "Component List" will be "ManagementController".
 The following components will be named "ManagementController + number". If you
 want to change the name, click on the "Name" in the "Component List" to launch
 Classic mode, and then click "Setting" -> "Connection Setting" ->"Edit" to change
 component name.

2.3.1.3 Auto Registration Setting

Before executing auto registration, User Name/Password and Authentication Key can be registered up to 5. For more details, please refer to "1.3.3.3 Auto Registration Setting".

Chapter3 Setup for Managed Component in which iLO is integrated

This chapter explains the setup procedure for the NEC ESMPRO Manager to manage the iLO component.

3.1 Setup Flow

Setup by the following setup procedure:

- (1) Connect the management PC on which NEC ESMPRO Manager is installed and the managed component on the same network.
- (2) Configure iLO on the managed component.
- (3) Register the managed component on NEC ESMPRO Manager.

3.2 Configure iLO on Managed Component

3.2.1 SNMP Settings

This section explains about the setup procedure for NEC ESMPRO Manager to receive SNMP alerts from iLO.

CHECK:

- Because this section uses iLO WebConsole, you need to set the network of iLO
- beforehand. Please see the user's guide of the managed component about the network setting of iLO.
- (1) After starting a web browser on the management PC, input URL as below.

In the case that the IP address of iLO is 192.168.1.1 and the setting of HTTPS is enable. https://192.168.1.1/

(2) A login screen of iLO will be displayed.

After login to the iLO, Select "Management" - "SNMP Settings" at the WebConsole menu. The following screen shows example.

NEC iL0 5 × 1.10 Jun 07 2017	Management - SNMP Settings 🏾 🍵 🧿 🥑	ል ?
Information	SNMP Settings AlertMail Remote Syslog	
System Information		
Firmware & OS Software		^
iLO Federation	SNMP Settings	
Remote Console & Media	System Location	
Power & Thermal		
iLO Dedicated Network Port	System Contact	
iLO Shared Network Port		
Administration	System Role	
Security		
Management	System Role Detail	
EXPRESSBUILDER	Read Community	

(3) Set IP address of the management PC on which NEC ESMPRO Manager is installed in the following order.

-- If iLO5 firmware version is less than 1.20, set a following value and select "Apply" button.

"SNMP Alert Destination(s)" : IP address of the management PC on which NEC ESMPRO Manager is installed.

The following screen shows example.

NEC iLO 5 ×	Management - SNMP Settings 🍵 🧿 🥑 船 ?
Information	SNMP Settings AlertMail Remote Syslog
System Information	
Firmware & OS Software	^
iLO Federation	
Remote Console & Media	
Power & Thermal	SNMP Alert Destination(s)
iLO Dedicated Network Port	192.168.1.100
iLO Shared Network Port	
Administration	
Security	
Management	
EXPRESSBUILDER	SNMP Port 161
	Apply

-- If iLO5 firmware version is 1.20 or later, select "New" button of "SNMP Alert Destinations". And set a following value and select "Add" button.

"SNMP Alert $\ensuremath{\mathsf{Destination}}(s)$ " : IP address of the management PC on which NEC ESMPRO Manager is installed.

The following screen shows example.

nformation	SNMP Settings AlertMail Remote Syslog						
System Information							
irmware & OS Software	161						
O Federation							
Remote Console & Media	Apply						
Power & Thermal							
O Dedicated Network Port	CNIMP Alast Destinations						
O Shared Network Port	SNMP Alert Destinations						
Administration	SNMP Trap SNMP SNMPv3						
Security	Alert Community Protocol User						
Management	Destination						
XPRESSBUILDER	(8)						
	Alert destination not configured.						
NEC iLO 5 120 Dec 15 201 ×	Management - SNMP Settings		٠	•	0	8	
NEC iLO 5 120 Dec 15 201 × formation	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog		٠	٢	•	6	(··
NEC iLO 5 120 Dec 15 201 × formation ystem Information	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog		۲	0	0	â	
ICO 5 120 Date 15 201 × formation rmware & OS Software	Management - SNMP Settings SNMP Settings AlertMail Remote Systeg Add Alert Destination	×	٠	0	•	6	
formation rware & OS Software O Federation	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination	×	٠	٢	•	ĉ	
JEC LO 5 L20 Dec 15 201 × formation rmware & OS Software O Federation moto Console & Media	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination	×	٠	•	•	8	(···
ICO 5 120 Dec 15 201 × formation Intrware & OS Software O Federation emote Console & Media ower & Thermal	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination SNMP Alert Destination	×	٠	•	•	¢.	(.
INEC I 120 Dec 15 201 × formation rmware & OS Software O Federation emote Console & Media ower & Thermal O Dedicated Network Port	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination SNMP Alert Destination(s) 192.108.1.100	×	٠	•	٥	Q:	
NECC ILO 5 1.20 Dec 15 201 × formation rmware & OS Software O Federation emote Console & Media ower & Thermal O Dedicated Network Port O Shared Network Port	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination SNMP Alert Destination(s) 192 (188.1.100)	×	٠	٥	•	â	?
NECC ILO 5 120 Dec 15 201 × formation ystem Information imware & OS Software O Federation emote Console & Media ower & Thermal O Dedicated Network Port O Shared Network Port O Shared Network Port dministration	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination SNMP Alert Destination(s) 192.188.1.100 Trap commun.	× 	٠	•		<u>A</u>	
Internation Sector 2000 to 120 Dec 15 201 × formation system Information immware & OS Software O Federation emote Console & Media ower & Thermal O Dedicated Network Port O Shared Network Port dministration ecurity	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination SNMP Alert Destination(s) 192.168.1.100 Tatp Community SNMP Protocol	×	•	٥	•	â	(**
INEC ILOS Instruction formation irmware & OS Software O Federation emote Console & Media ower & Thermal O Dedicated Network Port O Shared Network Port dministration ecurity langement	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination SNMP Alert Destination(s) 192.188.1.100 Trap Community SNMP Protocol SNMPV1 Trap	× × ~	•	٥	•	â	?
Internation states of the second states of the seco	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination SNMP Alert Destination(s) 102.108.1.100 Tap Come of SNMP Protocol SNMP Protocol SNMP VI Trap	× × ~	•	•	•	යි	
Internation Solution	Management - SNMP Settings SNMP Settings AlertMail Remote Syslog Add Alert Destination SNMP Alert Destination(s) 122.108.1.100 122.108.1.100 Tap Source of SNMP Protocol SNMPV1 Trap	×	•	•		<u>۾</u>	(°

3.2.2 NEC SSO Settings

This section explains about the setup procedure for NEC ESMPRO Manager to login iLO WebConsole with Single Sign-On.

Regarding Single Sign-On settings of iLO, the following trust mode is supported.

Single Sign-On Trust Mode options

- Trust None (SSO disabled) (default) —Rejects all SSO connection requests.
- Trust by Certificate (most secure)—Enables SSO connections from an NEC SSO-compliant application by matching a certificate previously imported to iLO.
- Trust by Name—Enables SSO connections from an NEC SSO-compliant application by matching a directly imported IP address or DNS name.
- Trust All (least secure)—Accepts any SSO connection initiated from any NEC SSO-compliant application.

In order to enable NEC SSO feature, the different procedure is required for each mode. Refer to below.

СНЕСК:

- If "Trust None" is configured, when you click "Login to iLO" on NEC ESMPRO Manager, you only browses iLO Top page and login step is required.
- Because this section uses iLO WebConsole, you need to set the network of iLO beforehand. Please see the user's guide of the managed component about the network setting of iLO.

3.2.2.1 The procedure for Trust by Certificate

(1) When you configure "Trust by Certificate" mode, it is necessary to install certificate. Suppose the following for each options when generating it.

Options	Description	Sample for settings
alias	Alias specifies key or Certificate entries	esmpro_ilosso
	stored in keystore file.	
storepass	Password to access keystore.	secret
validity	Validity of the certificate. The unit is 'day'.	365
keystore	Location of keystore.	C:¥Users¥Administrator¥.keystore

(2) Open command prompt on the management PC and change directory as follows: <NEC ESMPRO Manager install folder>¥ESMWEB¥java¥r1¥bin

Exa	ample)
	cd C:\Program Files\ESMPRO\ESMWEB\java\r1\bin

(3) Execute following command to generate a key.

keytool -genkeypair -keysize 2048 -keyalg RSA -sigalg SHA384withRSA -alias {alias value in step(1)} -storepass {storepass value in step(1)} -validity {validity value in step(1)} -keystore {key store value in step (1)}

Example)

keytool -genkeypair -keysize 2048 -keyalg RSA -sigalg SHA384withRSA -alias esmpro ilosso -storepass secret -validity 365 -keystore C:¥Users¥Administrator¥.keystore (4) After command in step (3), some inputs are required as follows:



(*1) You can enter host name or IP address for "first and last name".

(*2) Press Enter in order to enter same password as keystore password.

- (5) Confirm if keystore is generated in location of step (1).
- (6) In order to convert a keystore to PEM format, execute the following command. If password is required, input storepass value in step (1).

keytool -exportcert -keystore {keystore value in step(1)} -alias {alias value in step(1)} -rfc > {location of output file}

Example)

keytool -exportcert -keystore C:¥Users¥Administrator¥.keystore -alias esmpro ilosso rfc > C:¥Users¥Administrator¥test.pem

(7) Confirm if Certificate in PEM format is generated in location of step (6).

Example of PEM data)

```
Example of PEM data)
```

(8) Open "ilosso.properties" in the following location with text editor on the management PC.

Location of "ilosso.properties": <NEC ESMPRO Manager install folder>¥ESMWEB¥wbserver¥webapps¥esmpro¥WEB-INF ¥service¥iLOSSO

CHECK:

• When you open "ilosso.properties" with text editor, select UTF-8 encoding without BOM.

.....

(9) Update the value of the following properites.

Property Name	Value	Sample for property
ALIAS_NAME	"alias" in step (1)	esmpro_ilosso
KEYSTORE_PATH	"location" of keystore in step (1). File separator must be "/" or "¥¥".	-In case that file separator is "¥¥": C:¥¥Users¥¥Administrator¥¥.keystore -In case that file separator is "/": C:/Users/Administrator/.keystore
PASSWORD	"storepass" in step (1).	secret

Example)

	HOST NAME:
1	ALIAS NAME=esmpro ilosso
I	KEYSTORE_PATH=C:¥¥Users¥¥Administrator¥¥.keystore
l	PASSWORD=secret

(10) Restart the management PC.

CHECK:

• After NEC ESMPRO Manager restarting, Value of PASSWORD is encrypted and saved as ENCRYPTED_PASSSWORD automatically and then is removed.

(11) Start a web browser on the management PC and input URL as below.

In the case that the IP address of iLO is 192.168.1.1 and the setting of HTTPS is enable. https://192.168.1.1/ (12) After login to iLO, Select "Security" - "NEC SSO" at the WebConsole menu. The following screen shows example.



(13) Select "Trust by Certificate" as SSO Trust Mode and click "Apply" button. Then click "Import" button in "Manage Trusted Certificates and Records" to install the trusted certificate.



(14) Copy text of Certificate(*1) generated in step (7) and paste it in text field. Then Click "Apply" button.



*1: You must copy and paste all text including "-----BEGIN CERTIFICATE-----" and "-----END CERTIFICATE-----".

(15) Confirm if Certificate is added in "Manage Trusted Certificates and Records" field on NEC SSO settings.



3.2.2.2 The procedure for Trust by Name

(1) Open "ilosso.properties" in the following location with text editor on the management PC.

Location of "ilosso.properties":

<NEC ESMPRO Manager install folder>¥ESMWEB¥wbserver¥webapps¥esmpro¥WEB-INF ¥service¥iLOSSO

CHECK:
When you open "ilosso.properties" with text editor, select UTF-8 encoding without BOM.

(2) Configure IP address or Domain Name of the management PC for "HOST_NAME" property and save properties file.

Example)

- (3) Restart the management PC.
- (4) Execute step (11) and (12) in 3.2.2.1.
- (5) Select "Trust by name" as SSO Trust Mode and click "Apply" button. Then click "Import" button in "Manage Trusted Certificates and Records".



(6) Configure the value saved as "HOST_NAME" in step (2) in text field of "Import Direct DNS Name" and click "Apply" button.

NEC $^{iL05}_{\scriptscriptstyle 1.30May232018}$ $ imes$	Security - Single Sign-On Settings 🍐 💿 🌐 📀	ል ?
Information	Access Settings iLO Service Port Secure Shell Key SSL Certificate Directory Encryption N	IEC SSO
System Information	Login Security Banner	
Firmware & OS Software	разне пне развеич-енсовед ⊻ ола селинсяне озна нете	
Remote Console & Media		
Intelligent System Tuning		
iLO Dedicated Network Port		
iLO Shared Network Port	Apply	
Administration	Import From LIBI	
Security		
Management EXPRESSBUILDER	Certificate URL	
	Apply	
	Import Direct DNS Name	
	DNS name or IP address 192.168.1.2	
	Apply	

(7) Confirm if name set in step (6) is added in "Manage Trusted Certificates and Records" field on NEC SSO settings.

NEC $^{\mathrm{iL05}}_{\mathrm{1.30May232018}}$ $ imes$	Security - Single Sign-On Settings 🍈 💿 🌐 🤗 🔗 ?
Information	Access Settings iLO Service Port Secure Shell Key SSL Certificate Directory Encryption NEC SSO
System Information	Login Security Banner
Firmware & OS Software	
iLO Federation	Single Sign-On Settings Manage Trusted Certificates and Records
Remote Console & Media	SSO Trust Mode
Power & Thermal	Trust by name
Intelligent System Tuning	
iLO Dedicated Network Port	x ^d /
iLO Shared Network Port	t satof site ^{ste} Delete <u>↑</u> Import
Administration	15 ⁶ 05 ⁶ k ⁶ 1
Security	🗹 🗹 🔁 Login
Management	Remote Console
EXPRESSBUILDER	Virtual Power and Reset
	Configure LCO Settings

3.2.2.3 The procedure for Trust by All

- (1) Execute step (11) and (12) in 3.2.2.1.
- (2) Select "Trust by All" as SSO Trust Mode and click "Apply" button.

NEC iLO 5 × 1.30 May 23 2018	Security - Single Sign-On Settings 🍥 🧿 🌐 🥑 🛔 ?
Information	Access Settings iLO Service Port Secure Shell Key SSL Certificate Directory Encryption NEC SSO
System Information	Login Security Banner
iLO Federation	Single Sign-On Settings Manage Trusted Certificates and Records
Remote Console & Media Power & Thermal	SSO Trust Mode Trust All
Intelligent System Tuning	
ILO Dedicated Network Port	at and the month of the second
Administration	
Security Management EXPRESSBUILDER	Image: Construct of the section of
	Apply

3.3 Register a managed component on NEC ESMPRO Manager

To register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform steps in the following order:

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

3.3.1 Environment setting

If NEC ESMPRO Manager manages components in which iLO is integrated, in following cases, "Self-Signed Certification" should be accepted by NEC ESMPRO Manager in "Environment Setting". Otherwise NEC ESMPRO Manager cannot manage components in which iLO is integrated.

- NEC ESMPRO Manager communicates with iLO by HTTPS and using "Self-Signed Certificate".

- СНЕСК:
 - The communication protocol used between NEC ESMPRO Manager and iLO is HTTPS by default.

The communication protocol can be changed by Communication Protocol settings of "Communication with iLO"at "Environment Setting"- "Network".

(1) Click "Environment" from "Settings" menu.

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Admin	nistrator •
🚯 Dashboard 🖞 Register 📾 Component 🛕 AlertViewer 🕂 Advanced - 🏃 Tools - 🗢	Settings -	
Component Status	Account Information Environment Alive Monitoring Settings No alerts are unread.	
FW/SW Update Availability	Alert Unread/Read Status	
The component is not registered.	There are no alerts.	

(2) Click "Network" and click "Edit".



(3) Set "Self Signed Certificate" of "Communication with iLO" to "Allow".

When using ESXi or WS-Man communication in the following environment, "Self-signature proof" of " WS-Man Communication / ESXi"

Set it to "Allow".

- If the managed is a VMware ESXi server.
- When the management side is configured to use HTTPS for communication between NEC ESMPRO ServerAgentService and NEC ESMPRO Manager, and when using self-signing

Edit N	letwork Settings		×
	SNMP/ICMP Communication		
	Packet Resend Count	3 \$ number of times	
	No-response Timeout 1 (1 - 65535 seconds) [Required]	4 seconds	
	No-response Timeout 2 (1 - 65535 seconds) [Required]	4 seconds	
	No-response Timeout 3 (1 - 65535 seconds) [Required]	4 seconds	
	No-response Timeout 4 (1 - 65535 seconds) [Required]	4 seconds	
	Communication with Remote Console/Remote Drive		
	No-response Timeout (20 - 1800 seconds) [Required]	60 seconds	
	Communication with BMC		
	IPMI no response detection timer value (1 - 15 seconds) [Required]	5 seconds	
	Command Send Retry Count (0 - 10 number of times) [Required]	5 number of times	
	Send Source Port (1025 - 65535) [Required]	47117	
	Priority access mode at the time of automatic selection [Required]	• Redfish 🔿 IPMI	
	Redfish no response detection timer value (1 - 30 seconds) [Required]	20 seconds	
	Self Signed Certificate	Allow • Not Allowed	
	Direct Connection Setting		
	Port Number	Serial Port 1 \$	
	WS-Man Communication / ESXi		
	Self Signed Certificate	Allow Not Allowed	
	Communication with iLO		
	No-response Timeout (1 - 30 seconds) [Required]	20 seconds	
	Command Send Retry Count (0 - 10 number of times) [Required]	0 number of times	
	Communication Protocol for Auto Registration	• HTTPS O HTTP	
	Self Signed Certificate	Allow Not Allowed	
		CANCEL DEFAULT	APPLY

3.3.2 Register the Managed Component

Use either of following two methods to register the managed component.

Manual Registration

This method requires the operator to directly enter the managed component's information such as the IP address of iLO and to perform "Check Connection".

Auto Registration

This method automatically searches the network for managed components and iLO that are not registered yet on the NEC ESMPRO Manager and registers them.

3.3.2.1 Manual Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 😩 Administrator -
🕼 Dashboar 🛃 Register 🖻 Component 🛕 AlertViewer 🕂 Advanced - 🎉 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Manual Registration".

	ration
Server / Storage JPS Netw	rork Device Other Computer Device Alert Only Management
Component Name [Required]	
Alias	
Destination Group	root ¢
Common Setting	
OS IP Address [Required]	
SNMP (NEC ESMPRO Agent) / WS	Man / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXI7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility	0
Management	• Registration O Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"I	L0°/"BMC(Other)"/"vPro"(Common)
Management	• Registration O Unregistration
Management Type	ILO BMC BMC (Other) vPro
Image: MBMC(EXPRESSSCOPE Engine ADE), BMC(ECO CENTER), BMC(m For cases other than the above and)" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL any core server). d "iLO" and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	1
Communication Protocol	O HTTP O HTTPS
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)*/"i	L0"/"BMC(Other)"/"vPro"(LAN)

(3) Input the following items.

Name	Value						
Component Name	Specify the name of the managed component on NEC ESMPRO Manager.						
1	Assign a name different from other managed component names. Do not						
	enter a name including blank characters. Uppercase characters are						
	distinguished from lowercase characters.						
Alias	Specify the information about the managed component. Do not enter a						
7 thus	name including blank characters. Only blank characters cannot be entered						
	Also please do not enter a name containing blank characters. The blank						
	Also, please do not enter a name containing blank endracters. The blank						
	or after the string. Unpercase characters are distinguished from lowercase						
	characters. Optional						
Destination Group	Specify the group to which the managed component will belong. See "1.2.2.						
Destination Group	Add component to Group" for the information about creating group						
Common Sotting	Add component to Group for the information about creating group.						
Common Setting	Common Setting						
OS IP Address	Specify the US IP Address of the managed component.						
SNMP (NEC ESMPRO	Agent) / WS-Man / ESX1 / iStorage						
Management	Select "Registration" to manage the system of the component.						
Management Type	Select a management type of the managed component.						
	- SNMP *1						
	NEC ESMPRO Agent is installed on the managed component.						
	- WS-Man *1, *2						
	VMware ESXi7 is installed on the managed component.						
	NEC ESMPRO ServerAgentService is installed on the managed						
	component.						
	- ESXi *1, *2						
	The operating system of the managed component is VMware ESXi8 or						
	later.						
User Name	Enter the user name and password for communication with WS-Man or						
	ESXi.						
	- NEC ESMPRO ServerAgentService (Windows) is installed.						
	Enter Username(Local User Accounts)/Password of Windows system						
	Administrator						
Password							
	- NEC ESMPRO ServerAgentService (Linux) is installed.						
	Enter root/Password of Linux operating system						
	- The operating system of the managed component is VMware ESXi.						
	Enter Username/Password of VMware ESXi Administrator						
Communication	This is displayed only when WS-Man is selected as the management target.						
Protocol	Select protocol HTTP/HTTPS for connection WS-Man service.						
	- NEC ESMPRO ServerAgentService (Windows) is installed.						
	If you want to use HTTPS for WS-Man communication with						
	ESMPRO/ServerAgentService, refer to Chapter 2, Installation 3.3 HTTPS						
	Setting in the ESMPRO/ServerAgentService Installation Guide						
	(Windows).						
	- NEC ESMPRO ServerAgentService (Linux) is installed.						
	Select HTTPS.						
	- The operating system of the managed component is VMware ESXi7.						
	Select HTTPS.						

Port Number	Enter port number where WS-Man service listens for connection. *2		
	 NEC ESMPRO ServerAgentService (Windows) is installed. If you want to use HTTP, enter 5985. If you want to use HTTPS, enter 5986. 		
	- NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986.		
	- The operating system of the managed component is VMware ESXi7. Enter 443.		
RAID system managem	ent		
Management	If the managed component is NEC ESMPRO ServerAgentService, Select "Unregistration".		
	If the operating system of the managed component is VMware ESXi7, refer to "10.3.2.1 Manual Registration".		
	If the managed component is a VMware ESXi8 or later, please select "		
NEC Express Undate	Onegistration .		
NEC Expressopulate			
ExpressUpdate Agent	integrated does not support updating via NEC ExpressUpdate Agent.		
Updates via Management Controller	Select "Unregistration". The managed component in which iLO is integrated does not support updating via Management Controller.		
"BMC (EXPRESSSCO	PE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common)		
Management	Select "Registration".		
Management Type	Select "iLO".		
User Name	Enter the user name and password for communication with the iLO. *3		
Password			
Communication	Select protocol used by communication with iLO. *5		
Protocol			
Port Number	Select port number used by communication with iLO. *4		
"BMC (EXPRESSSCO	PE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN)		
IP Address 1	Enter the IP address of iLO.		

 CHECK: *1 If a self-signed certificate is installed on the managed server for HTTPS communication, a setting to allow it is required. Refer to "1.1 Setup Flow" for detailed information.
 CHECK: *2 Regarding a port number for WS-Man communication, refer to "Appendix C. Port number for WS-Man communication".
 CHECK: *3 Set a user name and a password of following user account. Please refer to "iLO5 user's guide" or "iLO6 user's guide" for details about a user account of iLO. Administrator of the default user Additional user with all user privileges.
If a user account of other than the above is used, there is a possibility that you can't use some function for managing iLO.
CHECK:

80 for HTTP or 443 for HTTPS. If the default value is changed, you need to set the port number after the change. Please refer to "iLO5 user's guide" or "iLO6 user's
guide" for details.
СНЕСК:
• *5 There are devices that cannot be connected via HTTP. For details, please refer to
Appendix D (Component in which iLO is integrated).
IMPORTANT:
• If iLO management is disabled, NEC ESMPRO Manager may not be able to monitor
HW status. Detailed information is shown in the connection check result screen.

(4) Click "ADD".

Auto Registration Auto Registration Server / Storage Network Device Other Computer Device Alert Only Management Component Name (Required) ILD Alias Destination Group root SNMP (NEC ESMPRO Agent) / WS-Man / ESXI / IStorage Management Registration Updates via NEC Express/Update Updates via NEC Express/Update Registration Unregistration Management Registration Unregistration Agent Registration Unregistration Agent Registration Unregistration A "BMC(EXPRESSSCOPE Engine)'/TUP/'EMC(Other)'/VPro'(Common) Management Type BMC </th <th>≟ a</th>	≟ a
Auto Registration Manual Registration Server / Storage Network Device Other Computer Device Alert Only Management Component Name [Required] ILO	
Berver / Storage Network Device Other Computer Device Alert Only Management Component Name [Required] ILO Allas	
Component Name [Required] ILO Alias	
Alias Destination Group root SNMP (NEC ESMPRO Agent) / WS-Man / ESXI / istorage Management Registration Unregistration RAID system (Universal RAID Utility) Management Registration Undates via NEC ExpressUpdate Updates via NEC ExpressUpdate Registration Undates via NEC ExpressUpdate Registration Unregistration Management Registration Unregistration A "If BMC / ILO management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type BMC Libo BMC(EXPRESSSCOPE Engine)' is target for EXPRESSCOPE Engine1/2/3/3ft/2SP/3SR EM Card(SIGMABL ADE], BMC(ECO CENTER), BML(many core server). For cases other than the above and 'ILO' and 'VPo', Please select 'BMC (Other)'. Communication Protocol HTTP <	
Destination Group root SNMP (NEC ESMPRO Agent) / WS-Man / ESXI / IStorage Management Registration Varegistration Unregistration RAID system (Universal RAID Utility) Management Registration Updates via NICE ExpressUpdate Updates via NICE ExpressUpdate Registration Updates via NICE ExpressUpdate Registration Updates via NICE ExpressUpdate Registration Unregistration Management Registration Unregistration Management Type BMC ILO BMC (Other) VPro A rBMC(CO CENTER), BMC(many core serve). For cases other than the above and TuC and "VPro", Please select "BMC (Other)". User Name/Password [Required] Administrator / Internet Port Number [Required] 443	
SNMP (NEC ESMPRO Agent) / WS-Man / ESXi / iStorage Management Registration RAID system (Universal RAID Utility) Management Registration Varegistration Unregistration NEC ExpressUpdate Registration Updates via NEC ExpressUpdate Registration Updates via NEC ExpressUpdate Registration Undates via NEC ExpressUpdate Unregistration Management Registration Unregistration Unregistration A If BMC / ILO management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type BMC A "BMC(EXPRESSSCOPE Engine)' is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABLADE), ESMEC(DELER), BMC(many core server). For cases other than the above and 'ILO' and 'vPro', Please select 'BMC (Other)''. User Name/Password [Required] Administrator (dministrator (
Management Registration Unregistration RAID system (Universal RAID Utility) Management Registration Unregistration NEC ExpressUpdate Registration Unregistration Vidates via NEC ExpressUpdate Registration Unregistration Vidates via NEC ExpressUpdate Registration Unregistration Management Registration Unregistration Management Registration Unregistration Management Registration Unregistration A If BMC / ILO management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type BMC ILO BMC (Other) vPro A "SMC(EXPRESSSCOPE Engine)" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ADE), BMC(CO CENTER), BMC(many core server). For cases other than the above and "Lo" and "Pro", Please select "BMC (Other)". User Name/Password [Required] Administrator /	
RAID system (Universal RAID Utility) Management Registration NEC ExpressUpdate Updates via NEC ExpressUpdate Registration Unregistration BMC (EXPRESSSCOPE Engine)'/'ILO'/'BMC(Other)'/'VPro'(Common) Management Registration Unregistration Unregistration Assert Registration Unregistration Unregistration Management Registration Unregistration Unregistration Assert Registration Unregistration Unregistration Assert Registration Unregistration Unregistration Management Registration Management Type BMC ILO BMC(CO CENTER), BMC(Concenter), BMC(Conter) or eserver), For cases other than the above and 'ILO' and 'vPro', Please select 'BMC (Other)'. User Name/Password [Required] Administrator Vertice HTTP Port Number [Required] 443	
Management Registration Unregistration NEC ExpressUpdate Registration Unregistration Agent BMC (EXPRESSSCOPE Engine)/'/ILO'/'BMC(Other)'/'/VPro'(Common) Management Registration Unregistration Management Registration Unregistration A_ If BMC / ILO management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type BMC i.D BMC (Other) vPro A_ "BMC(EXPRESSSCOPE Engine)' is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ADE), BMC(Conter). VPro A_ "BMC(EXPRESSSCOPE Engine)' is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ADE), BMC(Conter). VPro A_ "BMC(EXPRESSSCOPE Engine)' and "vPro", Please select "BMC (Other)". User Name/Password [Required] Administrator / User Name/Password [Required] Administrator /	
NEC ExpressUpdate Updates via NEC ExpressUpdate Agent "BMC (EXPRESSSCOPE Engine)'/'LO'/'BMC(Other)'/'vPro'(Common) Management Registration Management Registration Unregistration Unregistration A If BMC / LLO management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type BMC O iLO BMC (Other) vPro A "BMC(EXPRESSSCOPE Engine)' is target for EXPRESSSCOPE Engine1/2/3/3ft/ZSP/3SP, EM Card(SIGMABL ADE), BMC(EOO CENTER), BMC(many core server). For cases other than the above and "LO" and "vPro", Please select "BMC (Other)". User Name/Password [Required] Administrator / Communication Protocol HTTP HTTPS Port Number [Required] 443	
Updates via NEC ExpressUpdate Registration Unregistration Agent *BMC (EXPRESSSCOPE Engine)'/*ILO'/*BMC(Other)'/'\vPro'(Common) Management Registration Unregistration	
"BMC (EXPRESSSCOPE Engine)'/i/LO'/'BMC(Other)'/'vPro"(Common) Management Registration Unregistration A If BMC / ILO management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please rafer to the result page of connection check. Management Type BMC BMC BMC (Other) vPro A "BMC(EXPRESSSCOPE Engine)" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ADE), BMC(Concerters), BMC(Cinany core server). For cases other than the above and "ILO" and "vPro", Please select "BMC (Other)". User Name/Password [Required] Administrator / munication Protocol HTTP Patters Port Number [Required] 443	
Management • Registration • Unregistration A If BMC / ILO management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type BMC • ILO BMC (Other) • VPro A TBMC/EXPRESSSCOPE Engine)* is target for EXPRESSSCOPE Engine1/2/3/Sft/2SP/3SP, EM Card(SIGMABL ADE), BMC(ECO CENTER), BMC(many core server). For cases other than the above and "ILO" and "VPro", Please select "BMC (Other)". User Name/Password [Required] Administrator / Immunication Protocol HTTP • HTTPS Port Number [Required] 443	
Management Type BMC ILO BMC (Other) vPro Management Type BMC ILO BMC (Other) vPro Management Type BMC ILO BMC (Other) vPro Management Type BMC (The second se	
M "BMC(EXPRESSSCOPE Engine)" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ADE), BMC(ECO CENTER), BMC(many core server). For cases other than the above and "LO" and "vPro", Please select "BMC (Other)". User Name/Password [Required] Administrator /	
User Name/Password [Required] Administrator /	
Communication Protocol HTTP • HTTPS Port Number [Required] 443	
Port Number [Required] 443	
"BMC (EXPRESSSCOPE Engine)"/"LO"/"BMC(Other)"/"VPro"(LAN)	
IP Address 1 [Required] 192 . 168 . 8 . 28	

(5) "CHECK CONNECTION" screen is displayed.

Click "CHECK CONNECTION" to collect the managed component information for the management.

ESMPRO	About NEC ESMPRO Manager	Help Classic Mode	🛔 admin 🗸	
🕼 Dashboard 🖞 Register 🚔 Component 🛕 AlertViewer 🛠 Tools 👻				
Auto Registration Manual Registration Server / Storage Network Device Other Computer Device Alert Only Management				
To remotely manage components, please continue to perform check connection.				
CHECK CONNECTION				

(6) If the "CHECK CONNECTION" is completed, "Connection check results" screen will be displayed.

ESM	PRO			About NEC ESMPRO Manager Help Classic Mode 🛓 admin •	
🖨 Das	hboard 📲 Register 📾 Component ,	🛦 AlertViewer 💥 Tools -			_
	Auto Registration Manual Reg	gistration			
	Server / Storage Network D	evice Other Computer D	evice Alert Only Management		
			Connection check results	;	
		Management	Detected Detail		
		iLO	Detected iLO can be used.		
			BACK TO COMPONENT LIST CONTINUE RE	EGISTERING	

Detected	Detail
Detected	The feature was detected.
	NEC ESMPRO Manager can use the feature to manage the component.
Not Detected	The feature was not detected.
	NEC ESMPRO Manager cannot use the feature to manage the component.
	Check parameters corresponding to the feature.

3.3.2.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator *
😢 Dashboar 🔒 Register 🖹 Component 🔺 AlertViewer + Advanced - 💥 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Auto Registration".

Registration Manual Registratio	n		
Destination Group	root	٠	
Discovery Range			
Discovery Mode	O IP Address Range Dis	covery 🔿 Network Ac	Idress Discovery
Start Address [Required]			
End Address [Required]			
C Server / Storage			
SNMP (NEC ESMPRO Agent, iStorage	M series)		
Discovery	O Enable 🔿 Disable		
SNMP Community Name [Required]	public		
WS-Man (NEC ESMPRO ServerAgent	ervice. ESXi7 earlier)		
Discovery	• Enable O Disable		
Hear Name/Dataword (Required)		,	400
one remer assure (required)			
ESXI (ESXI8 or later)	C Eastela O Disable		
Liscovery	Chable Usable		
User Name/Password [Required]		/	ADD
REST API (iStorage V series)			
Discovery	O Enable O Disable		
User Name/Password [Required]		/	ADD
RAID system (Universal RAID Utility)			
Discovery	• Enable 🔘 Disable		
NEC ExpressUpdate (ExpressUpdate	Agent)		
Discovery	O Enable 🔘 Disable		
il0			
Discovery	C Enable O Disable		
 If iLO management is disabled, N esult page of auto registration. 	EC ESMPRO Manager canno	t monitor HW errors of a	ome servers. Please refer to
User Name/Password [Required]		/	ADD
Discovery	O Enable O Disable		
	s target for EXPRESSSCOPE	Engine1/2/3/3ft/2SP/3	SP, EM Card(SIGMABL
ADE), BMC(ECO CENTER), BMC(man For cases other than the above and "	core server). LO" and "vPro", Please select	"BMC (Other)".	
 If BMC(EXPRESSCOPE Engine) ervers. Please refer to the result page 	management is disabled, NE of auto registration.	C ESMPRO Manager ca	snot monitor Hw errors of sol
NEC ExpressUpdate	O Enable 🔘 Disable		
Authentication Key [Required]		ADD	
BMC (Other)			
Discovery	• Enable O Disable		
. If BMC(Other)management is dis to the event	abled, NEC ESMPRO Manag	er cannot monitor HW er	rors of some servers. Please
Access Mode	O Auto O Redt	fish O IPMI	
If "Auto" is selected as an access ods i.e. then refer "Priority access me Network screen and selected access	method and connection is e ide at the time of automatic method will get the priority f	stablished with both (IP) selection" option in Clas for server registration pr	MI and Redfish) the access m sic Mode's Environment-Setti ocess.
User Name/Password [Required]		/	ADD
Intel(R) vPro(TM) Technology			
Discovery	• Enable O Disable		
Uner Nama/Dana and Resource 4			400
user mamermassword [Meduired]			
San (15			
Network Device			
Other Computer Device			

(3) Input the following items to search managed components based on iLO.

Nomo	Volue				
Destination Group	Specify the group to which the managed component will belong. See				
	"1.3.2 Add component to Group" for the information about creating				
	group.				
Discovery Range					
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager				
	searches for the managed components using the IP address range.				
	With "Network Address Search" selected, the NEC ESMPRO Manager				
	searches for the managed components using the specified network				
	address.				
Start Address	When you select "IP Address Range Search" for "Search Mode", specify				
End Address	the start IP address and end IP address of the range in which managed				
	components are to be searched for.				
Network Address	When you select "Network Address Search" for "Search Mode", specify				
Network Mask	the network address and network mask of the managed component to be				
	searched for.				
SNMP (NEC ESMPRO	Agent, iStorage M series)				
Discovery	When you discover only the components in which it Q is integrated, this				
	item should be "Disable".				
WS-Man(NEC ESMPRO ServerAgentService FSXi7)					
Discovery	When you discover components installed NEC ESMPRO				
21000.01	ServerAgentService or ESXi7, select "Enable". *1, *4				
User Name/Password	Enter username and password for WS-Man communication. The account				
	must be a system administrator of the managed operating system.				
	Click "Add" button and you can add a pair of username and password up				
	to 5 $*$?				
	- NEC ESMPRO Server AgentService (Windows) is installed				
	Enter Username(Local User Accounts)/Password of Windows				
	system Administrator				
	- NEC ESMPRO Server A centService (Linux) is installed				
	Enter root/Password of Linux operating system				
	The operating system of the managed component is VMware ESXi7				
	- The operating system of the managed component is vivivale ESAT/.				
EQV: (EQV:9 or later)	Enter Username/Password of VMware ESAI Administrator				
ESAI (ESAIO OF later)	Colort "Enchla" to manage ECV: (ECV:9 on later) of the common of				
Discovery	select "Enable" to manage ESXI (ESXI8 or later) of the component.				
II N /D 1	1, 2				
User Name/Password	Enter username and password for ESA1 (ESA18 or later) communication.				
	The account must be a system administrator of the managed operating				
	system.				
	Click "Add" button and you can add a pair of username and password up				
	to 5. *3				
	Enter Username/Password of VMware ESXi Administrator				
REST API(iStorage V s	eries)				
Discovery	Select "Disable" .				
RAID system management					
Management	If the operating system of the managed component is ESXi7, refer to				
	"10.3.2.2 Auto Registration".				
	If the managed component is a VMware ESXi8 or later, please select "				
	Unregistration ".				
NEC ExpressUpdate					
Updates via NEC	When you discover only the components in which iLO is integrated, this				
ExpressUpdate Agent	item should be "Disable".				
BMC (EXPRESSSCOP	PE Engine)				
--	---				
Discovery	When you discover only the components in which iLO is integrated, this item should be "Disable".				
iLO					
Discovery	Select "Enable"				
User Name/Password	Enter username and password for communication with the iLO, Clicking "Add"button, you can enter up to 5 pairs of username and password. *2, *3				
BMC (Other)					
Discovery	When you discover only the components in which iLO is integrated, this item should be "Disable".				
Intel(R) vPro(TM) Tech	inology				
Discovery	When you discover only the components in which iLO is integrated, this item should be "Disable".				
CHECK: • *2 On "Settings" - manage a list of use used for auto regist	"Environment" - "Auto Registration Setting List" screen, you can ername/password and authentication key. All entries in the list are tration every time.				
CHECK: • *3 Set a user name user's guide" or "il Administrator of Additional user w If a user account of use some function	and a password of following user account. Please refer to "iLO5 LO6 user's guide" for details about a user account of iLO. The default user with all user privileges. If other than the above is used, there is a possibility that you can't for managing iLO.				
CHECK: • *4 If you want to u ESMPRO/ServerA in the ESMPRO/Se	se HTTPS for WS-MAN communication with gentService, refer to Chapter 2, Installation 3.3 HTTPS Setting erverAgentService Installation Guide (Windows).				

(4) Click "RUN DISCOVERY" and the discovery for the managed components will start.

Aut	o Registration Manual Registra	ition
	Destination Group	root. •
	Discovery Range	
	Discovery Mode	IP Address Range Discovery Network Address Discovery
	Start Address [Required]	192 . 168 . 8 . 18
	End Address [Required]	192 . 168 . 8 . 18
	C Server / Storage	
	SNMP (NEC ESMPRO Agent, iStore	age M series)
	Discovery	C Enable O Disable
	WS-Man (NEC ESMPRO ServerAge	entService, ESXi7 earlier)
	Discovery	O Enable O Disable
	ESXI (ESXI8 or later)	
	Discovery	C Enable O Disable
	REST API (iStorage V series)	
	Discovery	C Enable O Disable
	RAID system (Universal RAID Utilit	у)
	Discovery	C Enable O Disable
	NEC ExpressUpdate (ExpressUpdate	ite Agent)
	Discovery	C Enable O Disable
	iLO	
	Discovery	C Enable O Disable
	BMC(EXPRESSSCOPE Engine)	
	Discovery	S Enable O Disable
	▲ "BMC(EXPRESSSCOPE Engine ADE), BMC(ECO CENTER), BMC(m For cases other than the above an ▲ If BMC(EXPRESSSCOPE Enginervers. Please refer to the result p	I)" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL Iany core server), d "ILO" and "vPro", Please select "BMC (Other)". e) management is disabled, NEC ESMPRO Manager cannot monitor HW errors of sor age of auto registration.
	NEC ExpressUpdate	• Enable O Disable
	Authentication Key [Required]	ADD
	BMC (Other)	
	Discovery	O Enable O Disable
	Intel(R) vPro(TM) Technology	
	Discovery	C Enable O Disable
	O UPS	
	Network Device	
	Other Computer Device	

CHECK:

When you click the "RUN DISCOVERY", you may see a message "The search cannot be started. ". If you have enabled "WS-Man Discovery", please check whether a "Self Signed Certificate" is allowed in section "Chapter2 Environment setting".

When you click the "RUN DISCOVERY", the discovery for components will begin and the "Auto Registration in Progress" screen will be displayed.

ESMPRO		About NEC ESMPRO Manager Help	Classic Mode 💄 admin 🗸
🔇 Dashboard 📲 Register 🚔 Component 🔺	AlertViewer 🎇 Tools 🔻		
Auto Registration Manual Regis	tration		
		\bigcirc	
	Auto Re	gistration in Progress	
	Discovery Mode	IP Address Range Discovery	
	Start Address	192.168.8.28	
	End Address	192.168.8.28	
		CANCEL	
	▲ Even if switch screens or log or	ut, you can check the progress by opening this screen again.	

(5) If the auto registration is completed, following message will be displayed. Click "OK".



(6) The components registered will be displayed on the "Auto Registration Results" screen.

Clicking the "Name" to open the Classic mode where you can confirm the registered information.

ESMPRO			About	NEC ESMPRO Manager Help Classic Mode	🛔 admin 🕶
🚯 Dashboard 📲 Register 📾 Component 🛕 AlertViewe	r 💥 Tools -				
Auto Registration Manual Registration					
		Auto Registration Result	S		
Entry Count:1item(s)					
Name IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents	
ManagementController	192.168.8.28		ExpressUpdate Disable	The component was added.	
	ва		REGISTERING		

Description
Component name
IP address
IP address of BMC(EXPRESSSCOPE
Engine)/iLO/BMC(Other)/vPro
It is not displayed.
ExpressUpdate is enable
When "NEC ExpressUpdate(ExpressUpdate Agent)" is
enabled, and a component that can be installed with
ExpressUpdate Agent is discovered.
• ExpressUpdate is disable
- "NEC ExpressUpdate(ExpressUpdate Agent)" is disable
- "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled,
but there is not component that can be installed with
ExpressUpdate Agent.
• A component has been added.
This message will be displayed if the component is
successfully registered.
• Management Controller management cannot be used.
Hardware monitoring function is unavailable.
This message will be displayed when BMC
(EXPRESSSCOPE engine)/1LO/BIVIC (other)/VPro cannot
address. If you want to register the Management Controller
management function click the "Name" The connection
settings screen in Classic mode will be displayed so you
can perform the registration here.

TIPS:

 If the system management cannot discover the managed component name, the "Name" of "Component List" will be "ManagementController". The following components will be named "ManagementController + number". If you want to change the name, click the "Name" in the "Component List" to launch Classic mode, and then click "Setting" -> "Connection Setting" ->"Edit" to change component name.

3.3.2.3 Auto Registration Setting

Before executing auto registration, User Name/Password and Authentication Key can be registered up to 5. For more details, please refer to "1.3.3.3 Auto Registration Setting".

Chapter4 Setup for Managed Component of BMC (Other)

This chapter explains the setup procedure for the NEC ESMPRO Manager to manage the BMC (Other) component.

In addition to supporting the traditional IPMI access method to BMC (and other) components, Redfish is now available as an option.

Check:

- Please refer to "Appendix D List of Managed Components: BMC (and other) Components" for devices that can be accessed via Redfish.

Check:

- If BMC (and other) components were registered in the old ESMPRO/ServerManager and then updated, the access method will be set to IPMI.

4.1 Setup Flow

Setup by the following setup procedure:

- (1) Connect the management PC on which NEC ESMPRO Manager is installed and the managed component on the same network.
- (2) Configure BMC on the managed component to enable ESMPRO Management.
- (3) Register the managed component on NEC ESMPRO Manager.

4.2 Configure BMC on Managed Component

Configure BMC (Other) of the managed component via Embedded Management Software. After starting a web browser on the management PC, input URL in order to start Embedded Management Software.

In the case that the IP address of BMC (Other) is 192.168.1.1 and the setting of HTTPS is enable.

.....

CHECK:

Please set "Platform Events" and "Trap settings" so that NEC ESMPRO Manager receive alerts from the BMC.

4.3 Register a managed component on NEC ESMPRO Manager

In order to register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform the following procedure:

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

4.3.1 Environment setting

4.3.1.1 The setting of "Self-Signed Certification"

If NEC ESMPRO Manager manages BMC(Other) components, in following cases, "Self-Signed Certification" should be accepted by NEC ESMPRO Manager in "Environment Setting". Otherwise NEC ESMPRO Manager cannot manage BMC(Other) components.

- NEC ESMPRO Manager communicates with BMC(Other) components by Redfish and using "Self-Signed Certificate".
- (1) Click "Environment" from "Settings" menu.

(2) Click "Network" and click "Edit".

ESMPRO		About NEC ESMPRO Manager Help Classic Mode 💄 admin -	1
🚯 Dashboard 📲 Register 📾 Component 🛕 AlertViewer 💥 Tools 👻	🌣 Settings 👻		
User Accounts Access Control Network Option	Auto Registration Setting		
SNMP/ICMP Communication			
Packet Resend Count	3 number of times		
No-response Timeout 1	4 seconds		
No-response Timeout 2	4 seconds		
No-response Timeout 3	4 seconds		
No-response Timeout 4	4 seconds		
Communication with Remote Console/Remote Drive			
No-response Timeout	60 seconds		
Communication with BMC			
IPMI no response detection timer value	5 seconds		
Command Send Retry Count	5 number of times		
Send Source Port	47117		
Priority access mode at the time of automatic selection	Redfish		
Redfish no response detection timer value	20 seconds		
Self Signed Certificate	Not Allowed		
Direct Connection Setting			
Port Number	Serial Port 1		
WS-Man Communication / ESXi			
Self Signed Certificate	Allow		
Communication with iL0			
No-response Timeout	20 seconds		
Command Send Retry Count	0 number of times		
Communication Protocol for Auto Registration	HTTPS		
Self Signed Certificate	Allow		

(3) Set "Self Signed Certificate" of "Communication with BMC" to "Allow".

Edit N	letwork Settings		×
	SNMP/ICMP Communication		
	Packet Resend Count	3	
	No response Timeout 1 (1 - 65535 seconds) [Required]	4 seconds	
	No response Timeout 2 (1 - 65535 seconds) [Required]	4 seconds	
	No response Timeout 3 (1 - 65535 seconds) [Required]	4 seconds	
	No-response Timeout 4 (1 - 65535 seconds) [Required]	4 seconds	
	Communication with Remote Console/Remote Drive		
	No-response Timeout (20 - 1800 seconds) [Required]	60 seconds	
	Communication with BMC		
	IPMI no response detection timer value (1 - 15 seconds) [Required]	5 seconds	
	Command Send Retry Count (0 - 10 number of times) [Required]	5 number of times	
	Send Source Port (1025 - 65535) [Required]	47117	
	Priority access mode at the time of automatic selection [Required]	Redfish O IPMI	
	Redfish no response detection timer value (1 - 30 seconds) [Required]	20 seconds	
	Self Signed Certificate	Allow Not Allowed	
	Direct Connection Setting		
	Port Number	Serial Port 1 \$	
	WS-Man Communication / ESXi		
	Self Signed Certificate	• Allow O Not Allowed	
	Communication with iLO		
	No response Timeout (1 - 30 seconds) [Required]	20 seconds	
	Command Send Retry Count (0 - 10 number of times) [Required]	0 number of times	
	Communication Protocol for Auto Registration	• HTTPS O HTTP	
	Self Signed Certificate	Allow O Not Allowed	
		CANCEL DEFAULT APPLY	

4.3.1.2 Set the priority access method when "Auto"

You can set the priority access method when "Auto" is selected as the access method to be used for discover of BMC (other) management in an environment where both Redfish and IPMI are available.

4.3.2 Register the Managed Component

Use either of following two methods to register the managed component.

Manual Registration

This method requires the operator to directly enter the managed component's information such as the IP address of BMC (Other) and to perform "Check Connection".

Auto Registration

This method automatically searches the network for managed components and BMC (Other) that are not registered yet on the NEC ESMPRO Manager and registers them.

4.3.2.1 Manual Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 💄 Administrator -
🕼 Dashboar 🛃 Register 😑 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered	There are no electe
The component is not registered.	mere are no dierts.

(2) Click the "Server / Storage" of "Manual Registration" tab.

Auto Registration Manual Registr	ation
Server / Storage JPS Netwo	ork Device Other Computer Device Alert Only Management
Component Name [Required]	
Alias	
Destination Group	root ¢
Common Setting	
OS IP Address [Required]	
SNMP (NEC ESMPRO Agent) / WS-M	fan / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility)	
Management	• Registration O Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iLl	D"/"BMC(Other)"/"vPro"(Common)
Management	• Registration O Unregistration
Management Type	iLO BMC BMC (Other) vPro
"BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(ma For cases other than the above and	'is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMAB ny core server). 'ILO' and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	1
Communication Protocol	O HTTP O HTTPS
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)"/"iLl	D"/"BMC(Other)"/"vPro"(LAN)
IP Address 1 [Required]	

(3) Input the following items.

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO
	Manager.
	Assign a name different from other managed component names. Do not
	enter a name including blank characters. Uppercase characters are
	distinguished from lowercase characters.
Alias	Specify the information about the managed component. Do not enter a
	name including blank characters. Only blank characters cannot be
	entered. Also, please do not enter a name containing blank characters.
	The blank characters will be removed if there are half-width blank
	characters before or after the string. Uppercase characters are
	distinguished from lowercase characters. Optional.
Destination Group	Specify the group to which the managed component will belong. See
	"1.3.2 Add component to Group" for the information about creating
	group.
Common Setting	
OS IP Address	Specify the OS IP Address of the managed component.
SNMP (NEC ESMPRO	Agent) / WS-Man / ESXi / iStorage
Management	Select "Registration" to manage the system of the component.
Management Type	Select a management type of the managed component.
	- WS-Mail 1, 2 VMware ESVi7 is installed on the managed component
	NEC ESMPRO ServerAgentService is installed on the managed
	component
	- FSXi *1 *2
	The operating system of the managed component is VMware ESXi8 or
	later.
User Name	Enter the user name and password for communication with WS-Man or
	ESXi.
	- NEC ESMPRO ServerAgentService (Windows) is installed.
	Enter User name(Local User Accounts)/Password of Windows
	system Administrator.
Password	
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter root/Password of Linux operating system.
	- The operating system of the managed component is VMware ESXi.
	Enter Username/Password of VMware ESXi Administrator.
Communication	This is displayed only when WS-Man is selected as the management
Protocol	target.
	Select protocol HTTP/HTTPS for connection WS-Man service.
	NEC ESMDDO ServerA contService (Windows) is installed
	If you want to use HTTPS for WS Man communication with
	ESMPRO/ServerAgentService refer to Chapter 2 Installation 3.3
	HTTPS Setting in the ESMPRO/Server Δ gent Service Installation Guide
	(Windows)
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Select HTTPS.
	- The operating system of the managed component is VMware ESXi7.

	Select HTTPS.
Port Number	Enter port number where WS-Man service listens for connection. *2
	 NEC ESMPRO ServerAgentService (Windows) is installed. If you want to use HTTP, enter 5985. If you want to use HTTPS, enter 5986. NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986. The operating system of the managed component is VMware ESXi7.
DAID	Enter 443.
RAID system managem	
Management	 Select "Registration" to manage the RAID system of the component. The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting. If the managed component is a VMware ESXi8 or later, please select " Unregistration ".
NEC ExpressUpdate	
Updates via NEC	Select "Registration" to manage the component using NEC
ExpressUpdate Agent	ExpressUpdate.
Updates via	Select "Unregistration". The managed component in which BMC (Other)
Management	is integrated does not support updating via Management Controller.
Controller	
"BMC (EXPRESSSCO	PE Engine)"/"iLO"/"BMC(Other)"/"vPro"(Common)
Management	Select "Registration".
Management Type	Select "BMC (Other)".
	Select "Access Mode" used by communication with BMC(Other). *4 • Auto If "Auto" is selected as an access method and connection is established with both (IPMI and Redfish) the access methods i.e. then refer
Access Mode	"Priority access mode at the time of automatic selection" option in Classic Mode's Environment-Settings Network screen and selected access method will get the priority for server registration process. • Redfish Specify Redfish as the "Access Mode" for BMC (other). • IPMI Specify IPMI as the "Access Mode" for BMC (other).
Access Mode	 "Priority access mode at the time of automatic selection" option in Classic Mode's Environment-Settings Network screen and selected access method will get the priority for server registration process. Redfish Specify Redfish as the "Access Mode" for BMC (other). IPMI Specify IPMI as the "Access Mode" for BMC (other). Specify the Connection Port Number used by Redfish.
Access Mode Port Number	 "Priority access mode at the time of automatic selection" option in Classic Mode's Environment-Settings Network screen and selected access method will get the priority for server registration process. Redfish Specify Redfish as the "Access Mode" for BMC (other). IPMI Specify IPMI as the "Access Mode" for BMC (other). Specify the Connection Port Number used by Redfish. If you select "Auto" or "Redfish" as the access method, port number
Access Mode Port Number	 "Priority access mode at the time of automatic selection" option in Classic Mode's Environment-Settings Network screen and selected access method will get the priority for server registration process. Redfish Specify Redfish as the "Access Mode" for BMC (other). IPMI Specify IPMI as the "Access Mode" for BMC (other). Specify the Connection Port Number used by Redfish. If you select "Auto" or "Redfish" as the access method, port number settings are Mandatory.
Access Mode Port Number User Name Percent	 "Priority access mode at the time of automatic selection" option in Classic Mode's Environment-Settings Network screen and selected access method will get the priority for server registration process. Redfish Specify Redfish as the "Access Mode" for BMC (other). IPMI Specify IPMI as the "Access Mode" for BMC (other). Specify the Connection Port Number used by Redfish. If you select "Auto" or "Redfish" as the access method, port number settings are Mandatory. Enter the user name and password for communication with the BMC (Other) *3
Access Mode Port Number User Name Password UBMC (EXEDESSCO	 "Priority access mode at the time of automatic selection" option in Classic Mode's Environment-Settings Network screen and selected access method will get the priority for server registration process. Redfish Specify Redfish as the "Access Mode" for BMC (other). IPMI Specify IPMI as the "Access Mode" for BMC (other). Specify the Connection Port Number used by Redfish. If you select "Auto" or "Redfish" as the access method, port number settings are Mandatory. Enter the user name and password for communication with the BMC (Other), *3
Access Mode Port Number User Name Password "BMC (EXPRESSSCO	 "Priority access mode at the time of automatic selection" option in Classic Mode's Environment-Settings Network screen and selected access method will get the priority for server registration process. Redfish Specify Redfish as the "Access Mode" for BMC (other). IPMI Specify IPMI as the "Access Mode" for BMC (other). Specify the Connection Port Number used by Redfish. If you select "Auto" or "Redfish" as the access method, port number settings are Mandatory. Enter the user name and password for communication with the BMC (Other), *3

CHECK:

• *1 If a self-signed certificate is installed on the managed server for HTTPS communication, a setting to allow it is required. Refer to "1.1 Setup Flow" for detailed information.

CHECK:

• *2 Regarding a port number for WS-Man communication, refer to "Appendix C. Port number for WS-Man communication".

СНЕСК:
• *3 Set a user name and a password of following user account. Please refer to
"BMC/CMC Management Console User's Guide" for details about a user account of
BMC (Other).
Administrator of the default user
Additional user with an user privileges.
If a user account of other than the above is used, there is a possibility that you can't use some function for managing BMC (Other).
CHECK:
• *4 When using "Redfish" as the access method for BMC (other) and using self-signed certificates, it is necessary to refer to "4.3.1 Environment setting" in ESMPRO/ServerManager to allow self-signed certificates for communication between the BMC (other) component and ESMPRO/ServerManager.
IMPORTANT:
• If BMC (Other) management is disabled, NEC ESMPRO Manager may not be able
to monitor HW status. Detailed information is shown in the connection check result
screen.
IMPORTANT:
• When the access method for BMC (other) is Redfish, the remote console function
and console log settings cannot be used. Other than that, there is no difference in
functionality between IPMI and Redfish.

(4) Click "ADD".

If there is an error in the input content, correct the input content following the message.

ESMPRO		About NEC ESMPRO Manager	Help Classic Mode	admin -
🚯 Dashboard 📲 Register 🚔 Component 🛕 Aler	tViewer 💥 Tools -			
Auto Registration Manual Registratio	n			
Server / Storage Network Device	Other Computer Device Alert Only Management			
Component Name [Required]	BMC_Other			
Alias				
Destination Group	root ¢			
SNMP (NEC ESMPRO Agent) / WS-Man	/ ESXi / iStorage			
Management	Registration Unregistration			
RAID system (Universal RAID Utility)				
Management	Registration Unregistration			
NEC ExpressUpdate				
Updates via NEC ExpressUpdate Agent	Registration O Unregistration			
"BMC (EXPRESSSCOPE Engine)"/"iLO"/"	'BMC(Other)''/'vPro'(Common)			
Management	• Registration 🔘 Unregistration			
▲ If BMC / iLO management is disable Please refer to the result page of connection	ed, NEC ESMPRO Manager cannot monitor HW errors of some servers. Inction check.			
Management Type	○ BMC ○ iLO O BMC (Other) ○ vPro			
▲ "BMC(EXPRESSSCOPE Engine)" is ADE), BMC(ECO CENTER), BMC(many of For cases other than the above and "iLC	target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ore server). ' and 'VPr0; Please select 'BMC (Other)'.			
Access Mode	• Auto Redfish IPMI			
	nethod and connection is established with both (IPMI and Redfish) the acces is mode at the time of automatic selection" option in Classic Mode's Environ cted access method will get the priority for server registration process.			
Port Number [Required]	443			
▲ Specify the Connection Port Numb Specify the Secure Port that is set for w	er used by Redfish. reb service of BMC Management Console.			
User Name/Password [Required]	Administrator /			
"BMC (EXPRESSSCOPE Engine)"/"iL0"/"	'BMC(0ther)''/'vPro'(LAN)			
IP Address 1 [Required]	192 , 168 , 8 , 26			

(5) "CHECK CONNECTION" screen is displayed.

Click "Check Connection" to collect the managed component information for the management.

ESMPRO	About NEC ESMPRO Manager	Help Classic Mode	🛔 admin 👻
🕼 Dashboard - 🧏 Register 📾 Component 🛕 AlertViewer 🎘 Tools 👻			
Auto Registration Manual Registration Server / Storage Network Device Other Computer Device Alert Only Management			
To remotely manage components, please continue to perform check connection.			
CHECK CONNECTION			

(6) If the "CHECK CONNECTION" is completed, "Connection check results" screen will be displayed.

ESMP	RO			About N	IEC ESMPRO Manager	Help Cla	assic Mode	🛔 admin 🕶	
🖨 Dash	board - 🚡 Register 📾 (Component 🛕 Alert	/iewer 💥 Tools 👻						
	Auto Registration	Manual Registration	1						
	Server / Storage	Network Device	Other Computer Device	Alert Only Management					
				Connection check results					
			Management	Detected Detail					
			BMCOther	Detected Hardware monitoring function via BMC (Other) is available.					
				BACK TO COMPONENT LIST CONTINUE REGISTERING					

Detected	Detail			
Detected	The feature was detected.			
	NEC ESMPRO Manager can use the feature to manage the component.			
Not Detected	The feature was not detected.			
	NEC ESMPRO Manager cannot use the feature to manage the component.			
	Check parameters corresponding to the feature.			
	Click the "Name" of the component that could not be registered in the			
	"Component List". The connection settings screen in Classic mode will be			
	displayed. Please check that there are no errors in the entered items. For more			
	details, please refer to the online help for NEC ESMPRO Manager.			

4.3.2.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator •
😢 Dashboar 🔁 Register 😑 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌩 Settings -	
Component Status	A New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Auto Registration".

uto Registration Manual Registratio	an
Destination Group	root +
Discovery Range	
Discovery Mode	IP Address Range Discovery Network Address Discovery
Start Address [Required]	
End Address [Required]	
Server / Storage	
SNMP (NEC ESMPRO Agent, iStorage	r M series)
Discovery	C Enable Disable
SNMP Community Name [Required]	public
WS-Man (NEC ESMPRO ServerAgentS	Service, ESXi7 earlier)
Discovery	Enable Disable
User Name/Password [Remined]	
ord manufic spends frequest	
ESXi (ESXi8 or later)	
unscovery	Chause U Disable
User Name/Password [Required]	7 ADD
REST API (iStorage V series)	
Discovery	• Enable O Issable
User Name/Password [Required]	/ ADD
RAID system (Universal RAID Utility)	C Enable O Disable
NEC ExpressUpdate (ExpressUpdate /	Agent)
Discovery	Enable Disable
ILO	
Discovery	• Enable Disable
点 If iLO management is disabled, N	NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the
esult page of auto registration.	
User Name/Password [Required]	/ ADD
BMC(EXPRESSSCOPE Engine)	
Discovery	• Enable O Disable
.≜ "BMC(EXPRESSSCOPE Engine)" I	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL
ADE), BMC(ECO CENTER), BMC(many For cases other than the above and "I	y core server). iLO' and 'VPro', Please select 'BMC (Other)'. Improvement is disabled, NEC SEMDO Manager sampl monitor NW errors of some
ervers. Please refer to the result page	managements is classed, the classe to manager current monitor methods of some e of auto registration.
NEC ExpressUpdate	O Enable 🕖 Disable
Authentication Key [Required]	ADD
BMC (Other)	
Discovery	Enable Disable
A If BMC(Other)management is dis	sabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please rel
r to the result page of auto registratio	II.
Access mode	s method and connection is established with both (IPMI and Redfish) the access method
ods i.e. then refer "Priority access mo Network screen and selected access	ade at the time of automatic selection [*] option in Classic Mode's Environment-Setting method will get the priority for server registration process.
Here Name (Dar sword (Dan Josef)	4
use name rassword (required)	
Intel(R) vPro(TM) Technology	
Discovery	C Enable O Disable
User Name/Password [Required]	7 ADD
O UPS	
Network Device	
Other Computer Device	

(3) Input the following items to search managed components of BMC (Other).

Name	Value
Destination Group	Specify the group to which the managed component will belong.
Discovery Range	[
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager searches for the managed components using the IP address range. With "Network Address Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the specified network address.
Start Address	When you select "IP Address Range Search" for "Search Mode", specify
End Address	the start IP address and end IP address of the range in which managed components are to be searched for.
Network Address	When you select "Network Address Search" for "Search Mode", specify the
Network Mask	network address and network mask of the managed component to be
	searched for.
SNMP (NEC ESMPRO	Agent, iStorage M series)
Discovery	when you discover only the components in which BMC (Other) is integrated, this item should be "Disable".
WS-Man(NEC ESMPR	O ServerAgentService, ESXi7)
Discovery	When you discover components installed NEC ESMPRO ServerAgentService or VMware ESXi6 and later, select "Enable". *1, *5
User Name/Password	Enter username and password for WS-Man communication. The account must be a system administrator of the managed operating system. Click "Add" button and you can add a pair of username and password up
	 NEC ESMPRO ServerAgentService (Windows) is installed. Enter Username(Local User Accounts)/Password of Windows system
	Administrator - NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter root/Password of Linux operating system
	Enter Username/Password of VMware ESXi Administrator
ESXi (ESXi8 or later)	
Discovery	Select "Enable" to manage ESXi (ESXi8 or later) of the component. *1
User Name/Password	Enter username and password for ESXi (ESXi8 or later) communication.
	The account must be a system administrator of the managed operating
	Click "Add" button and you can add a pair of username and password up to 5. *2
	Enter Username/Password of VMware ESXi Administrator
REST API(iStorage V s	eries)
Discovery	Select "Disable".
RAID system managem	ent
Management	Select "Enable" to manage the RAID system of the component.
	If the operating system of the managed component is VMware ESXi, WS- Man management must be enabled in addition to this setting.
NEC ExpressUpdate	
Updates via NEC	Select "Enable" to manage the component using NEC ExpressUpdate.
ExpressUpdate Agent	
BMC (EXPRESSSCOP	E Engine)
Discovery	When you discover only the components of BMC (Other), this item should be "Disable".
iLO	

Discovery	When you discover only the components of BMC (Other), this item should be "Disable".
BMC (Other)	
Discovery	Select "Enable"
Access Mode	Select "Access Mode" used by communication with BMC(Other). *4 • Auto If "Auto" is selected as an access method and connection is established with both (IPMI and Redfish) the access methods i.e. then refer "Priority access mode at the time of automatic selection" option in Classic Mode's Environment-Settings Network screen and selected access method will get the priority for server registration process. • Redfish Specify Redfish as the "Access Mode" for BMC (other). • IPMI Specify IPMI as the "Access Mode" for BMC (other).
User Name/Password	Enter username and password for communication with the BMC (Other), Clicking "Add" button, you can enter up to 5 pairs of username and password. *2, *3
Intel(R) vPro(TM) Tec	hnology
Discovery	When you discover only the components of BMC (Other), this item should be "Disable".
CHECK:	

•	*1 If a self-signed certificate is installed on the managed server for HTTPS
	communication, a setting to allow it is required. Refer to "1.1 Setup Flow" for datailed information

CHECK:

 *2 On "Settings" - "Environment" - "Auto Registration Setting List" screen, you can manage a list of username/password and authentication key. All entries in the list are used for auto registration every time.

CHECK:

- *3 Set a user name and a password of following user account. Please refer to "BMC/CMC Management Console User's Guide" for details about a user account of BMC (Other).
 - -- Administrator of the default user
 - -- Additional user with all user privileges.

If a user account of other than the above is used, there is a possibility that you can't use some function for managing BMC (Other).

Ϋ́, Ϋ́,

CHECK:

• *4 When using "Redfish" as the access method for BMC (other) and using self-signed certificates, it is necessary to refer to "4.3.1 Environment setting" in ESMPRO/ServerManager to allow self-signed certificates for communication between the BMC (other) component and ESMPRO/ServerManager.

.....

CHECK:

- *5 If you want to use HTTPS for WS-MAN communication with
- ESMPRO/ServerAgentService, refer to Chapter 2, Installation 3.3 HTTPS Setting
- in the ESMPRO/ServerAgentService Installation Guide (Windows).

IMPORTANT:

• When the access method for BMC (other) is Redfish, the remote console function and console log settings cannot be used. Other than that, there is no difference in functionality between IPMI and Redfish.

(4) Click "RUN DISCOVERY" and the discovery for the managed components will start.

🔊 Register 🚍 Component 🔥 Aler	tViawar 😵 Toole 💌	About HES COMPRO Manager Hel	Classic Mode
-2 Register Component AL Aler	TVIewer 🖈 10015 *		
to Registration Manual Registratio			
Manual Registration	un		
Destination Group	root 🗢		
Discovery Range			
Discovery Mode	IP Address Range Discovery O Network Address Discovery		
Start Address [Required]	192 . 168 . 8 . 26		
End Address [Required]	192 168 8 26		
Server / Storage			
SNMP (NEC ESMPRO Agent, iStorage	e M series)		
Discovery	C Enable • Disable		
WS-Man (NEC ESMPRO ServerAgent	IService, ESXi7 earlier)		
Discovery	Enable Disable		
ESXI (ESXIR)			
Discovery	C Enable O Disable		
REST API (iStorage V series)			
Discovery	Enable Disable		
RAID system (Universal RAID Utility)			
Discovery	🔿 Enable 🔹 Disable		
NEC ExpressUpdate (ExpressUpdate	Agent)		
Discovery	Enable Disable		
BMC(EXPRESSSCOPE Engine)	Crashie O Disabia		
Discovery			
iLO			
Discovery	Enable Disable		
BMC (Other)			
Discovery	• Enable Disable		
▲ If BMC(Other)management is di r to the result page of auto registrati	sabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refe on.		
Access Mode	• Auto CRedfish IPMI		
▲ If "Auto" is selected as an access ods i.e. then refer "Priority access m Network screen and selected access	s method and connection is established with both (IPMI and Redfish) the access meth ode at the time of automatic selection' option in Classic Mode's Environment-Settings s method will get the priority for server registration process.		
User Name/Password [Required]	Administrator / ADD		
Intel(R) vPro(TM) Technology			
Discovery	C Enable O Disable		
Network Device			
Other Computer Device			

CHECK:

When you click the "RUN DISCOVERY", you may see a message "The search cannot be started.". If you have enabled "WS-Man Discovery", please check whether a "Self Signed Certificate" is allowed in section "1.3.1 Environment setting".

When you click the "RUN DISCOVERY", the discovery for components will begin and the "Auto Registration in Progress" screen will be displayed.

ESMPRO		About NEC	ESMPRO Manager	Help Classic Mode	🛔 admin 🕶
🚯 Dashboard 📲 Register 📾 Component 🛕 AlertViewer	🗙 Tools 👻				
Auto Registration Manual Registration					
	Auto Re	gistration in Progress			
	Discovery Mode	IP Address Range Discovery			
	Start Address	192.168.8.26			
	End Address	192.168.8.26			
	$\ensuremath{\Delta}$ Even if switch screens or log o	CANCEL			

(5) If the auto registration is completed, following message will be displayed. Click "OK".

localhost:21120 says
2023/10/17 16:05:59 Obtaining/changing of the component name was completed, and the automatic registration was successful.
OK

(6) The components registered will be displayed on the "Auto Registration Results" screen.

	g uie mai		pen lite Classic	illoue where you		e registered information.
ESMPRO					About NEC	ESMPRO Manager Help Classic Mode 🛓 admin 🗸
🔇 Dashboard	I -🗄 Register 📾 Comp	oonent 🛕 AlertViewe	r 🎇 Tools 🔻			
A	Auto Registration Ma	anual Registration				
				Auto Registration Result	s	
	Entry Count:1item(s)					
	Name	IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents
	ManagementController		192.168.8.26		ExpressUpdate Disable	The component was added. Hardware monitoring function via BMC (0th er) is available.
			BA	CK TO COMPONENT LIST CONTINUE I	REGISTERING	

Clicking the "Name" to open the Classic mode where you can confirm the registered information.

Name	Description
Name	Component name
IP address	IP address
Management LAN IP Address 1	IP address of BMC(EXPRESSSCOPE Engine)/iLO/BMC(Other)/vPro
Management LAN IP Address 2	It is not displayed.
Install NEC ExpressUpdate Agent	• ExpressUpdate is enable When "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled, and a component that can be installed with ExpressUpdate Agent is discovered.
	• ExpressUpdate is disable
	 "NEC ExpressUpdate(ExpressUpdate Agent)" is disable "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled, but there is not component that can be installed with ExpressUpdate Agent.
Contents	• The component has been added.
	This message is displayed when a component has been successfully registered.
	• The hardware status monitoring function via BMC (other) is available.
	This message will be displayed if BMC (other) is successfully registered.
	 Management Controller management cannot be used. Hardware monitoring function is unavailable. This message will be displayed when BMC (EXPRESSSCOPE engine)/iLO/BMC (other)/vPro cannot
	be discovered for a component registered by an OS IP address. If you want to register the Management Controller management function, click the "Name". The connection settings screen in Classic mode will be displayed, so you can perform the registration here.

TIPS:
• If the system management cannot discover the managed component name, the
"Name" of "Component List" will be "ManagementController".
I he following components will be named "ManagementController + number".
If you want to change the name, click the "Name" in the "Component List" to launch
component name.

4.3.2.3 Auto Registration Setting

Before executing auto registration, User Name/Password and Authentication Key can be registered up to 5. For more details, please refer to "1.3.3.3 Auto Registration Setting".

Chapter5 EM Card and Chassis Management

5.1 Overview

The NEC ESMPRO Manager has following functions by communication with the EM card in a blade enclosure,

Information Collection

NEC ESMPRO Manager collects the status and the information of the blade enclosure as follows.

- -- Blade / EM Card / Switch Module List
- If the slot state of CPU blade, EM card or switch module is changed, NEC ESMPRO Manager collects current slot state.
- -- Chassis Information
 - NEC ESMPRO Manager collects the blade enclosure name, the name and ID of the rack in which the blade enclosure is installed.
- -- EM Card / Switch Module Status

NEC ESMPRO Manager obtains the STATUS Lamp of the EM card and the switch module.

Component Monitoring

NEC ESMPRO Manager always monitors the slot state in the blade enclosure and the STATUS Lamp of the EM card and the Switch Module. When some slot state change or failure occurs, NEC ESMPRO Manager notifies the operator.

CPU Blade Auto Setting

When NEC ESMPRO Manager detects new CPU blade installed on the blade enclosure, the NEC ESMPRO Manager configures BMC on the CPU blade (managed component) through the EM card to control the managed component remotely. NEC ESMPRO Manager also registers the managed component for its own, and execute the "Check Connection".

5.2 System Requirements

NEC ESMPRO Manager can manage the following EM card.

Hardware

EM card that is listed "Appendix D. Managed Components Summary".

• Communication Medium

TCP/IP network

CH	ECK:
•	NEC ESMPRO Agent Extension and NEC DianaScope Agent cannot be installed on
	EM card.

5.3 Setup for EM Card

5.3.1 Setup Flow

Perform the following setup procedure:

- (1) Connect the NEC ESMPRO Manager server and the EM card.
- (2) Setup EM card for communication with NEC ESMPRO Manager.
- (3) Register the EM card on NEC ESMPRO Manager.

5.3.2 Setup EM Card for communication with NEC ESMPRO Manager Setup the EM Card as follows. See Users Guide that attached to EM Card for detail.

(1) Set the IP address of the EM Card.

.....

CHECK:

- The IP address set on the EM card should be the value that can be divided by 4. If the IP address be set other value, NEC ESMPRO Manager will fail "Check Connection". NEC ESMPRO Manager communicates to the EM card with the "fixed IP address".
- (2) Setup EM Card for communication with NEC ESMPRO Manager (DianaScope support). Use setdsl command for SIGMABLADE-M.
 Use SET DSCRASSWORD and SET DSCSTATE command for SICMABLADE H.

Use SET DSGPASSWORD and SET DSGSTATE command for SIGMABLADE-H.

5.3.3 Register EM Card on NEC ESMPRO Manager

You can register the EM card with similar way of registering the ordinary managed component. Use either of the two methods to register EM card.

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

Manual Registration

This method requires the operator to directly enter the EM card's information such as the IP address and to perform "Check Connection".

Auto Registration

This method automatically searches the network for managed components and EM card that are not registered yet on the NEC ESMPRO Manager, and registers them.

TIPS:

- NEC ESMPRO Manager distinguishes the EM card from ordinary managed component by "Check Connection".
 - After "Check Connection" of the EM card is completed, Information of the blade enclosure (chassis) is displayed on the "Chassis List" on the NEC ESMPRO Manager.

The chassis name on the NEC ESMPRO Manager is set to the first 16 characters of the blade enclosure name. If the same name is already registered, some number is added to the name.

You can change the chassis name on "Chassis Information".

5.3.3.1 Manual Registration

(1) Click "Register".

ESMPRO		About NEC ESMPRO Manager Help	Classic Mode	Administrator •
😫 Dashboar 🔄 Register 😑 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools -	🗘 🌣 Settings -			
Component Status	New Alert Status			
The component is not registered.	No alerts are unread.			
FW/SW Update Availablity	alert Unread/Read Status			
The component is not registered.	There are no alerts.			

(2) Click the "Server / Storage" of "Manual Registration".

Auto Registration Manual Registra	ation
Server / Storage JPS Netwo	rk Device Other Computer Device Alert Only Management
Component Name [Required]	
Alias	
Destination Group	root ¢
Common Setting	
OS IP Address [Required]	
SNMP (NEC ESMPRO Agent) / WS-M	lan / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility)	
Management	Registration Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iLf	0°/°BMC(Other)°/°vPro°(Common)
Management	• Registration O Unregistration
Management Type	ILO O BMC OBMC (Other) VPro
▲ "BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(mai For cases other than the above and	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL 19 core server). 'ILO" and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	1
Communication Protocol	O HTTP O HTTPS
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)"/"iLf	0°/"BMC(0ther)"/"vPro"(LAN)
IP Address 1 [Required]	

(3) Input the following items on the "Manual Registration"-" Full Management" view.

Name	Value
Component Name	Specify the name of the EM card on NEC ESMPRO Manager.
-	Assign a name different from other managed component names. Do not
	enter a name including blank characters. Uppercase characters are
	distinguished from lowercase characters.
Alias	Specify the information about the EM card. Do not enter a name including
	blank characters. Only blank characters cannot be entered. Also, please do
	not enter a name containing blank characters. The blank characters will be
	removed if there are half-width blank characters before or after the string.
	Uppercase characters are distinguished from lowercase characters.
	Optional.
Group	Specify the group to which the EM card will belong. See "1.3.2 Add
	component to Group" for the information about creating group.
Common Setting	
OS IP Address	Specify the Address of the EM card.
SNMP (NEC ESMPRO	Agent) / WS-Man / ESXi / iStorage
Management	Select "Registration" to manage the EM card.
Management Type	Select "SNMP"
SNMP Community	SNMP Community Name which is specified at the EM card.
Name(Get)	The default value is "public".
SNMP Community	SNMP Community Name which is specified at the EM card.
Name(Set)	The default value is "public".
RAID system managem	ent
Management	Select "Unregistration".
NEC ExpressUpdate	
Updates via NEC	Select "Unregistration".
ExpressUpdate Agent	
Updates via	Select "Unregistration".
Management Controller	
"BMC (EXPRESSSCO	PE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common)
Management	Select "Registration".
Management Type	Select "BMC".
Authentication Key	Enter the "authentication key" for the EM card.
BMC (EXPRESSSCO	PE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN)
Current IP Address	Select IP Address I
Failover	Select "Disable".
IP Address 1	Enter the IP address that is specified on LANT of the BMC configuration
	for the managed component.
	if the managed component is a fault tolerant server, you should enter the IP
	address of the management LAN port for the CPU/IO module 0 to the form.
	If the managed component is a server which has EAPKESSSCOPE Engine SP2(2PMC model), you should enter the ID address of the management
	I AN port for the Master BMC to the form
IP Address 2	This field can be blank
	If the managed component is a server which has EXPRESSSCOPE Engine SP3(2BMC model), you should enter the IP address of the management LAN port for the Master BMC to the form.
IP Address 2	This field can be blank.

(4) Click "ADD".

Auto Registration Manual Registr	ration
Server / Storage UPS Netw	ork Device Other Computer Device Alert Only Management
Component Name [Required]	ЕМ
Alias	
Destination Group	root \$
Common Setting	
OS IP Address [Required]	192 . 168 . 8 . 103
SNMP (NEC ESMPRO Agent) / WS-	Man / ESXi / iStorage
Management	• Registration 🔘 Unregistration
Management Type	SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXI (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility))
Management	Registration • Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	O Registration • Unregistration
Updates via Management Controller	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iL	0°/"BMC(Other)*/"vPro"(Common)
Management	• Registration O Unregistration
Management Type	iLO O BMC OBMC (Other) vPro
▲ "BMC(EXPRESSSCOPE Engine) ADE), BMC(ECO CENTER), BMC(ma For cases other than the above and	" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMAE iny core server). "ILO" and "vPro", Please select "BMC (Other)".
Authentication Key [Required]	
"BMC (EXPRESSSCOPE Engine)"/"iL	0°/″BMC(Other)*/″vPro"(LAN)
Current IP Address	O IP Address 1 O IP Address 2
Failover	Enable Disable
IP Address 1 [Required]	192 . 168 . 8 . 104
IP Address 2	

- (5) "CHECK CONNECTION" screen is displayed.
 - Click "CHECK CONNECTION" to collect the managed component information for the management.

ESM	PRO	About NEC ESMPRO Manager	Help Classic Mode	💄 admin 🕶
🕻 Da	shboard 🤷 Register 🚔 Component 🛕 AlertViewer 💥 Tools 👻			
	Auto Registration Manual Registration Server / Storage Network Device Other Computer Device Alert Only Management			_
	To remotely manage components, please continue to perform check connection			
	CHECK CONNECTION			

(6) "Connection check results" screen will be displayed.

Auto Registration	Manual Registration					
Server / Storage	Network Device Oth	ner Computer Device Alert Or	nly Manageme	int		
			Conn	ection check results		
		Management	Detected	Detail		
		SNMP (NEC ESMPRO Agent, iStorage M series)	Detected	SNMP (NEC ESMPRO Agent) can be used.		
		BMC	Detected	SNMP Alert configuration is not completed on BMC (EXPRESSSCOPE Engine). Setting up SNMP Alert configuration is required to send hard ware error alert to NEC ESMPRO Manager. Please set NEC ESMPRO M anager's address as 'Alert Receiver' Juling the BMC (EXPRESSCOPE E anager's address as 'Alert Receiver' Juling the BMC (EXPRESSCOPE E		

Detected	Detail
Detected	The feature was detected.
	NEC ESMPRO Manager can use the feature to manage the component.
Not Detected	The feature was not detected.
	NEC ESMPRO Manager cannot use the feature to manage the component.
	Check parameters corresponding to the feature. Click the "Name" of the
	component that could not be registered in the "Component List". The
	connection settings screen in Classic mode will be displayed. Please check
	that there are no errors in the entered items. For more details, please refer to
	the online help for NEC ESMPRO Manager.

5.3.3.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator •
😢 Dashboar 🔁 Register 😑 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
	A New Heat Design
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Auto Registration".

uto Registration Manual Registratio	m
Destination Group	root +
Discovery Range	
Discovery Mode	IP Address Range Discovery Network Address Discovery
Start Address [Required]	
End Address [Required]	
G Server / Storage	
SNMP (NEC ESMPRO Agent, iStorage	M series)
Discovery	Enable Disable
SMAD Community Name Desviced	white
State Community range (required)	paure
WS-Man (NEC ESMPRO ServerAgentS	Service, ESXI7 earlier)
Liscovery	Enable Usable
User Name/Password [Required]	/ ADD
ESXI (ESXI8 or later)	
Discovery	O Enable O Disable
User Name/Password [Required]	/ ADD
REST API (iStorage V series)	
Discovery	O Enable O Disable
User Name/Password [Required]	/ ADD
RAID system (Universal RAID Utility)	
Discovery	Enable Disable
Discovery	C Enable Disable
LO	
Discovery	• Enable O Disable
A If iLO management is disabled, N	IEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the
esun page of auto registration.	
User Name/Password [Required]	ADD .
BMC(EXPRESSSCOPE Engine)	
Discovery	Enable Disable
▲ "BMC(EXPRESSSCOPE Engine)" is ADE), BMC(ECD CENTER), BMC(many For cases other than the above and "II ▲ If BMC(EXPRESSSCOPE Engine) : ervers. Please refer to the result page	is tanget for EXPRESSCOPE Engine1/2/3/3fv/28P/38P, EM Card(SIGMABL y core server). K0 and 'VPO', Please select 'BMC (Other)'. management is disabled, MEC ESMPRO Manager cannot monitor HW errors of some of alot registration.
NEC ExpressUpdate	O Enable 🔘 Disable
Authentication Key [Required]	ADD
BMC (Other)	
Discovery	• Enable O Disable
A If BMC(Other)management is dis r to the result page of auto registratio	abled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please re m.
Access Mode	Auto Redfish IPMI
A If "Auto" is selected as an access ods i.e. then refer "Priority access mo Network screen and selected access	imethod and connection is established with both (IPMI and Redfish) the access met ade at the time of automatic selection' option in Classic Mode's Environment-Setting method will get the priority for server registration process.
User Name/Password [Required]	/ ADD
intel(R) vPro(TM) Technology	
Discovery	C Enable 🔾 Disable
User Name/Password [Required]	ADD
O UPS	
Network Device	
Other Computer Device	

(3) Input the following items to search managed components of EM card.

Name	Value
Destination Group	Specify the group to which the EM card will belong. See "1.3.2 Add
	component to Group" for the information about creating group.
Discovery Range	
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the IP address range.
	With "Network Address Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the specified network address.
Start Address	When you select "IP Address Range Search" for "Search Mode", specify
End Address	the start IP address and end IP address of the range in which managed
	components are to be searched for.
Network Address	When you select "Network Address Search" for "Search Mode", specify the
Network Mask	network address and network mask of the managed component to be
	searched for.
SNMP (NEC ESMPRO	Agent, iStorage M series)
Discovery	Select "Enable".
SNMP Community	SNMP Community Name which is specified at SNMP Agent running on
Name	the EM card.
WS-Man(NEC ESMPR	O ServerAgentService, ESXi7)
Discovery	Select "Disable"
ESXi (ESXi8 or later)	
Discovery	Select "Disable"
REST API (iStorage V s	eries)
Discovery	Select "Disable"
RAID system managem	ent
Management	Select "Disable"
NEC ExpressUpdate	
Updates via NEC	Select "Disable"
ExpressUpdate Agent	
BMC (EXPRESSSCOP	E Engine)
Discovery	Select "Enable".
Features NEC	Select "Disable"
ExpressUpdate	
Authentication Key	Enter the password that you set in EM card.
iLO	
Discovery	Select "Disable".
BMC (Other)	
Discovery	Select "Disable".
Intel(R) vPro(TM) Tech	nology
Discovery	Select "Disable".

(4) Click "RUN DISCOVERY"	and the discovery for the m	anaged components will start.
	2	

_		About NEC ESMPRO Manager	Help Classic Mode
🖺 Register 🛋 Component 🛕 Aler	rtViewer 💥 Tools 👻		
> Registration Manual Registration	on		
Destination Group	root 🗢		
Discovery Range			
Discovery Mode	• IP Address Range Discovery O Network Address Discovery		
Start Address [Required]	192 . 168 . 8 . 26		
End Address [Required]	192 . 168 . 8 . 26		
Server / Storage			
SNMP (NEC ESMPRO Agent, iStorag	e M series)		
Discovery	O Enable O Disable		
WS-Man (NEC ESMPRO ServerAgent	tService, ESXi7 earlier)		
Discovery	C Enable O Disable		
ESXi (ESXi8)			
Discovery	C Enable O Disable		
REST API (iStorage V series)			
Discovery	O Enable O Disable		
RAID system (Universal RAID Utility)			
Discovery	C Enable O Disable		
NEC ExpressUpdate (ExpressUpdate	a Agent)		
Discovery	C Enable O Disable		
BMC(EXPRESSSCOPE Engine)			
Discovery	Enable Disable		
iLO			
Discovery	Enable Oisable		
BMC (Other)			
Discovery	• Enable 🔘 Disable		
▲ If BMC(Other)management is di r to the result page of auto registrati	isabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refe ion.		
Access Mode	• Auto CRedfish IPMI		
▲ If "Auto" is selected as an acces ods i.e. then refer "Priority access m Network screen and selected access	s method and connection is established with both (IPMI and Redfish) the access meth node at the time of automatic selection" option in Classic Mode's Environment-Settings s method will get the priority for server registration process.		
User Name/Password [Required]	Administrator / ADD		
Intel(R) vPro(TM) Technology			
Discovery	C Enable O Disable		
Network Device			
Other Computer Device			
When you click the "RUN DISCOVERY", the discovery for components will begin and the "Auto Registration in Progress" screen will be displayed.

ESMF	PRO			,	About NEC ESMPRO Manager	Help Classic Mode	🛔 admin 🕶
🖨 Das	hboard - 🖥 Register 📾	Component 🛕 AlertViewer 🕽	Tools ▼				
	Auto Registration	Manual Registration					
				$\left(\right)$			
			Auto Reg	gistration in Progress			
			Discovery Mode	IP Address Range Discovery			
			Start Address	192.168.8.103			
			End Address	192 168 8 104			
				13210010101			
				CANCEL			
			A Even if switch screens or log or	It you can check the progress by opening this screen again			
			man and a decina or log of	a, you can encore the progress by opening this derech ugun	**		

(5) If the auto registration is completed, following message will be displayed. Click "OK".



(6) The components registered will be displayed on the "Auto Registration Results" screen.

Clicking the "Name" to open the Classic mode where you can confirm the registered information.

ESMPRO)				About NE	C ESMPRO Manager Help Classic Mode	💄 admin 🗸
😫 Dashboar	d 📲 Register 📾 Comp	onent 🛕 AlertViewer	🗙 Tools 👻				
	Auto Registration Ma	nual Registration					
				Auto Registration Results			
	Entry Count:1item(s)						
	Name	IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents	
	Default_Chassis_Name 2-EM2	192.168.8.103	192.168.8.103		ExpressUpdate Disable	The component was added.	
				BACK TO COMPONENT LIST CONTINUE R	EGISTERING		

Name	Description
Name	Component name
IP address	IP address
Management LAN IP Address 1	IP address of EM Card or Chassis.
Management LAN IP Address 2	It is not displayed.
Install NEC ExpressUpdate Agent	ExpressUpdate is enable
	When "NEC ExpressUpdate(ExpressUpdate Agent)" is
	enabled, and a component that can be installed with
	ExpressUpdate Agent is discovered.
	• ExpressUpdate is disable
	- "NEC ExpressUpdate(ExpressUpdate Agent)" is disable
	- "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled,
	but there is not component that can be installed with
	ExpressUpdate Agent.
Contents	• A component has been added.
	This message will be displayed if the component is
	successfully registered.
	 Management Controller management cannot be used.
	Hardware monitoring function is unavailable.
	This message will be displayed when BMC
	(EXPRESSSCOPE engine)/iLO/BMC (other)/vPro cannot
	be discovered for a component registered by an OS IP
	address. If you want to register the Management Controller
	management function, click the "Name". The connection
	settings screen in Classic mode will be displayed, so you
	can perform the registration here.

TIPS:

• When the EM card is registered by auto registration, the EM card name is set to blade enclosure + "-EM" + EM card number. If you want to change the EM card name, click "Component List" – "name" to start classic mode and click "Setting" -"Connection Setting". Click "edit" to change EM card name.

.....

5.4 Operation of EM card

You can open the screen to check the STATUS lamp and to turn UID lamp on as follows.

- (1) Click "Chassis" from the tree view.
- (2) Click the EM card name on the "Component List".
- (3) Click the EM card parts on the "Chassis MAP" screen.

5.5 CPU Blade Auto Registration

NEC ESMPRO Manager monitors blade slot state of the blade enclosure on which the EM card is installed. If NEC ESMPRO Manager detects new CPU blade installed on the chassis, NEC ESMPRO Manager configures BMC on the CPU blade (managed component) through the EM card. To control the managed component, NEC ESMPRO Manager also registers the managed component and executes "Check Connection".

You should set the item for the BMC configuration and component registration on the NEC ESMPRO Manager on the "Chassis Properties" - "CPU Blade Auto Setting".

See the online help of the NEC ESMPRO Manager for the details of the items.

Chapter6 Setup for the NEC iStorage M Series

6.1 Setup Flow

Setup by the following setup procedure:

- (1) Connect the NEC ESMPRO Manager server and the iStorage.
- (2) Install WebSAM iStorageManager on the management server where NEC ESMPRO Manager has been installed.

IMPORTANT:

- If you choose to install a separately provided WebSAM iStorageManager please note that after installing WebSAM iStorageManager, you should install the iStorage (M series) NEC ESMPRO Manager relative module. And the supported version of WebSAM iStorageManager is Ver12.3 or above.
- **To launch the iSM client (Web GUI) from the WebSAM iStorageManager link, a license for WebSAM iStorageManager is required. Please refer to the "ESMPRO Installation Tool User's Guide" for information about license management.
- (3) Register Storage (iStorage) on WebSAM iStorageManager.

Please click "iSMsetenv" on the NEC ESMPRO Manager to set storage information.

Please refer to the online help for "iSMsetenv" in iStorageManager. Additionally, "iSMsetenv" can only be launched from the browser on the server where NEC ESMPRO Manager and WebSAM iStorageManager are installed.

*If you are using Firefox, please configure the settings to launch the " iSMsetenv " tool. Here are the steps:

- 1. Enter "about:config" in the address bar of Firefox.
 - You may see a warning screen when making advanced configuration changes, but there is no problem, so click "Accept the risk and Continue" to proceed.
- 2. Enter "negotiate" in the filter field.
- 3. Double-click "network.negotiate-auth.trusted-uris".
- 4. Enter the IP address or hostname of NEC ESMPRO Manager. If you are using "localhost" as the hostname, enter "localhost".

(4) Register the managed component on NEC ESMPRO Manager.

Register the Managed Component 6.2

To register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform steps in the following order.

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

6.2.1 Register NEC Storage on NEC ESMPRO Manager

Use either of the two methods to register NEC Storage.

Manual Registration

This method requires the operator to directly enter the NEC Storage's information such as the "Floating IP Address" and to perform "Check Connection".

Auto Registration

This method automatically searches the network for managed components and NEC Storage, and registers them.

..... **TIPS:**

- NEC ESMPRO Manager distinguishes the NEC Storage from ordinary managed . component by "Check Connection".
- The managed component name on the NEC ESMPRO Manager is set to the disk array name that is set in iSMClient. You can change the managed component name on "Connection Setting".

6.2.1.1 Manual Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator -
😫 Dashboard 🕒 Register 🚍 Component 🔺 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settin	ings -
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Manual Registration".

Auto Registration Manual Registra	ation
Server / Storage JPS Netwo	rk Device Other Computer Device Alert Only Management
Component Name [Required]	
Alias	
Destination Group	root ¢
Common Setting	
OS IP Address [Required]	
SNMP (NEC ESMPRO Agent) / WS-M	lan / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility)	
Management	Registration Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iLf	0°/°BMC(Other)°/°vPro°(Common)
Management	• Registration O Unregistration
Management Type	ILO O BMC OBMC (Other) VPro
▲ "BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(mai For cases other than the above and	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL 19 core server). 'ILO" and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	1
Communication Protocol	O HTTP O HTTPS
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)"/"iLf	0°/"BMC(0ther)"/"vPro"(LAN)
IP Address 1 [Required]	

(3) Input the following items on the "Manual Registration"-"Full Management" view.

Name	Value		
Component Name	Specify the NEC Storage name on the NEC ESMPRO Manager.Assign a		
	name different from other managed component names. Do not enter a name		
	including blank characters. Uppercase characters are distinguished from		
	lowercase characters.		
Alias	Specify the information about the NEC Storage. Do not enter a name		
	including blank characters. Only blank spaces cannot be entered. Also, do		
	not enter a name containing a blank character. The space character will be		
	characters are distinguished from lowercase characters. Ontional		
Destination Group	Specify the group to which the NEC Storage will belong		
Destination Group	When you add the group to which the managed component will belong see		
	"1.3.2 Add component to Group" for the information.		
Common Setting			
OS IP Address	Enter the Fixed IP address of "Floating IP Address" of the NEC Storage.		
SNMP (NEC ESMPRO	Agent) / WS-Man / ESXi / iStorage		
Management	Select "Registration".		
Management Type	Select "SNMP"		
	NEC ESMPRO Agent or iStorage M series is installed on the managed		
	component.		
	- WS-Man *1, *2		
	NEC ESMPRO ServerAgentService or ESXi7 is installed on the		
	managed component.		
	The operating system of the managed component is VMware ESX1.		
	- ESX1 (ESX18 or later)		
CNIMD Community	- KEST API(IStorage V series)		
SNMP Community	Enter the "SNMP community name" specified on iSMChent.		
SNIMD Community	Enter the "SNIMD community name" specified on iSMClient		
Name(Set)	Enter the Sivier community name specified on isivicitent.		
RAID system(Universal	RAID Utility)		
Management	Select "Unregistration".		
NEC ExpressUpdate			
Updates via NEC	Select "Unregistration".		
ExpressUpdate Agent	e e e e e e e e e e e e e e e e e e e		
Updates via	Select "Unregistration".		
Management Controller			
"BMC (EXPRESSSCO	PE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common)		
Management	Select "Unregistration".		

(4) Click "ADD".

If there is an error in the input content, correct the input content following the message.

Auto Registration Manual Registre	ation
Server / Storage UPS Netwo	ork Device Other Computer Device Alert Only Management
Component Name [Required]	iStorageM
Alias	
Destination Group	root 🗢
Common Setting	
OS IP Address [Required]	10 . 15 . 228 . 146
SNMP (NEC ESMPRO Agent) / WS-M	Ian / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility)	
Management	Registration Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	O Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iLf	D*/"BMC(Other)"/"vPro"(Common)
Management	Registration Unregistration

(5) "CHECK CONNECTION" screen is displayed.

Click "CHECK CONNECTION" to start it.

ESMPRO	About NEC ESMPRO Manager	Help Classic Mode	🛔 admin 🗝
🚯 Dashboard 🛛 🖞 Register 📾 Component 🛕 AlertViewer 💥 Tools 👻			
Auto Registration Manual Registration			
Server / Storage Network Device Other Computer Device Alert Only Management			
To remotely manage components, please continue to perform check connection.			
CHECK CONNECTION			

(6) If the "CHECK CONNECTION" is completed, "Connection check results" screen will be displayed.

ESMPRO	About NEC ESMPRO Manager	Help Classic Mode	💄 admin -
🚯 Dashboard - 🎝 Register 🚔 Component 🛕 AlertViewer 💥 Tools 👻			
Auto Registration Manual Registration			
Server / Storage Network Device Other Computer Device Alert Only Management			
Connection check results			
Management Detected Detail			
SNMP (NEC ESMPRO Agent, Detected SNMP (NEC ESMPRO Agent) can be used iStorage M series)	đ.		
BACK TO COMPONENT LIST CONTINUE REGISTERIN	G		

Detected	Detail	
Detected	The feature was detected.	
	NEC ESMPRO Manager can use the feature to manage the component.	
Not Detected	The feature was not detected.	
	NEC ESMPRO Manager cannot use the feature to manage the component.	
	Check parameters corresponding to the feature.	
	Click the "Name" of the component that could not be registered in the	
	"Component List". The connection settings screen in Classic mode will be	
	displayed. Please check that there are no errors in the entered items. For more	
	details, please refer to the online help for NEC ESMPRO Manager.	

6.2.1.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator •
🕼 Dashboa : 🎝 Register a Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Auto Registration".

Registration Manual Registration	n
Destination Group	root •
Discovery Range	
Discovery Mode	IP Address Range Discovery Network Address Discovery
Start Address [Required]	
End Address [Required]	
C Server / Storage	
SNMP (NEC ESMPRO Agent, iStorage I	M series)
Discovery	• Enable 🗍 Disable
SNMP Community Name [Required]	public
Discovery	Enable Disable
User Name/Password [Required]	Z ADD
ESXI (ESXI8 or later)	
Discovery	Enable Disable
User Name/Password [Required]	/ ADD
REST API (iStorage V series)	
Discovery	Enable Disable
User Name/Password [Required]	000
RAID system (Universal RAID Utility)	C Foshia 🕜 Disabla
NEC ExpressUpdate (ExpressUpdate A	igent)
Discovery	Enable Disable
iLO	
Discovery	• Enable 🗇 Disable
A If iLO management is disabled, NE	C ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the
esun page or auto registration.	
User Name/Password [Required]	ADD ADD
BMC(EXPRESSSCOPE Engine)	
Discovery	• Enable O Disable
▲ "BMC(EXPRESSSCOPE Engine)" is ADE), BMC(ECO CENTER), BMC(many For cases other than the above and "It ▲ If BMC(EXPRESSSCOPE Engine) in ervers. Please refer to the result page	t target for EXPRESSECOPE Engine 1/2/3/3ft/2SP/3SP, EM Card(SIGMABL core server). Or and "SPRO", Rease select "BIMC (Other)". management is disabled, NCC ESMPRO Manager cannot monitor HW errors of some of auto negistration.
NEC ExpressUpdate	C Enable Disable
Authentication Key Required	ADO
and an and a second sec	
BMC (Other)	C Foshla Disable
A HBMC/0th change	Ned NEC SCHIDDO Manager comet marker bill
n BMC(other)management is disa r to the result page of auto registration	DBed, NEC EXMPRO Manager cannot monitor HW errors of some servers. Please refe 1.
Access Mode	Auto Redfish IPMI
M. If Auto' is selected as an access i ods i.e. then refer "Priority access moi Network screen and selected access r	method and connection is established with both (IPMI and Hedish) the access meth de at the time of automatic selection" option in classic Mode's Environment-Settings method will get the priority for server registration process.
User Name/Password [Required]	/ ADD
Intel(R) vPro(TM) Technology	
Discovery	Enable Disable
User Name/Password [Required]	/ ADD
I UPS	
District Device	
Other Computer Davice	

(3) Select "Search Mode" on the "Auto Registration" view and enter following information.

Name	Valua
Destination Group	Specify the group to which the NEC Storage will belong. When you add
Destination Group	specify the group to which the menused expression with belong. which you add
	the group to which the managed component will belong, see 1.3.2 Add
D! D	component to Group" for the information.
Discovery Range	
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the IP address range.
	With "Network Address Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the specified network
	address.
Start Address	When you select "IP Address Range Search" for "Search Mode", specify
End Address	the start IP address and end IP address of the range which includes the NEC
	Storage's floating IP address.
Network Address	When you select "Network Address Search" for "Search Mode", specify the
Network Mask	network address and network which includes NES Storage's floating IP
	address
SNMP (NEC ESMPRO	Agent iStorage M series)
Discovery	Select "Enable"
SNMD Community	Select Elidole .
SINMP Community	SNMP Community Name is the SNMP Community Name specified on
Name	
WS-Man(NEC ESMPR	O ServerAgentService, ESXi7)
Discovery	Select "Disable"
ESXi (ESXi8 or later)	
Discovery	Select "Enable" to manage ESXi (ESXi8 or later) of the component. *1,*2
User Name/Password	Enter username and password for ESXi (ESXi8 or later) communication.
	The account must be a system administrator of the managed operating
	system.
	Click "Add" button and you can add a pair of username and password up
	to 5. *3
	- NEC ESMPRO ServerAgentService (Windows) is installed.
	Enter Username(Local User Accounts)/Password of Windows system
	Administrator
	(does not use a user object in Active Directory Domain Services)
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter root/Password of Linux operating system
	- The operating system of the managed component is VMware ESXi
	Enter Username/Password of VMware ESXi Administrator
REST API(iStorage V s	eries)
Discovery	Select "Enable" to manage REST A PI(iStorage V series) of the component
Discovery	*1 *2
Ligan Nama/Daggwand	I, 2 Eaton viscomence and many for DEST ADI/(Storage V series)
User Name/Password	Enter username and password for REST API(Istorage v series)
	communication. The account must be a system administrator of the
	managed operating system.
	Click "Add" button and you can add a pair of username and password up
	- NEC ESMPRO Server Agent Service (Windows) is installed.
	Enter Username(Local User Accounts)/Password of Windows system
	Administrator
	(does not use a user object in Active Directory Domain Services)
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter root/Password of Linux operating system
	- The operating system of the managed component is VMware ESXi.

	Enter Username/Password of VMware ESXi Administrator			
RAID system management				
Management	Select "Disable"			
NEC ExpressUpdate				
Updates via NEC	Select "Disable"			
ExpressUpdate Agent				
BMC (EXPRESSSCOPE Engine)				
Discovery	Select "Disable".			
iLO				
Discovery	Select "Disable".			
BMC (Other)				
Discovery	Select "Disable".			
Intel(R) vPro(TM) Technology				
Discovery	Select "Disable".			

(4) Click "RUN DISCOVERY".

Registration Manual Registratio	n
Destination Group	root +
Discovery Range	
Discovery Mode	IP Address Range Discovery O Network Address Discovery
Start Address [Required]	10 . 15 . 228 . 146
End Address [Required]	10 . 15 . 228 . 146
Server / Storage	
SNMP (NEC ESMPRO Agent, iStorage	M series)
Discovery	• Enable Disable
SNMP Community Name [Required]	public
WS-Man (NEC ESMPRO ServerAgentS	ervice, ESXi7 earlier)
Discovery	C Enable O Disable
ESXi (ESXi8 or later)	
Discovery	C Enable O Disable
REST API (iStorage V series)	
Discovery	C Enable O Disable
RAID system (Universal RAID Utility)	
Discovery	Enable Oisable
NEC ExpressUpdate (ExpressUpdate	Agent)
Discovery	Enable Disable
iLO	
Discovery	Enable Disable
BMC(EXPRESSSCOPE Engine)	
Discovery	Enable O Disable
BMC (Other)	
Discovery	Enable ODisable
Intel(R) vPro(TM) Technology	
Discovery	Enable ODisable
IPS UPS	
Network Device	
Other Computer Device	

Click "RUN DISCOVERY" to discovery the managed components, and the "Auto Registration in Progress" screen will be displayed.

		About NEC ESM	IPRO Manager He	ip Classic Mode	🛓 admin 👻	
🚯 Dashboard 🛛 🔓 Register 🚔 Component 🛕 AlertView	ver 💥 Tools 🔻					
Auto Registration Manual Registration						
Auto Registration						
	Auto Re	gistration in Progress				
	Discovery Mode	IP Address Range Discovery				
	Start Address	10.15.228.146				
	End Address	10.15.228.146				
	${\rm I\hspace{02cm}A}$ Even if switch screens or log c	CANCEL				

(5) If the "Auto Registration" is completed, following message will be displayed. Click "OK".

localhost:21120 の内容
2023/10/17 15:39:49 Obtaining/changing of the component name was completed, and the automatic registration was successful.
ОК

(6) The components registered will be displayed on the "Auto Registration Results" screen.

Clicking the "Name" to open the Classic mode, where you can confirm the registered information.

ESM	PRO					About NEC ESN	IPRO Manager Help Classic Mode 💄 admin 🕶	
🖨 Das	hboard -	Register 🛛 📾 Con	nponent 🛕 AlertView	ver 💥 Tools 👻				
	Auto	Registration	Aanual Registration					
	Entr	v Count-1itom(e)			Auto Registration Resu	lts		
	Na	ime	IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents	
	20	00743A65EA5233	10.15.228.146			ExpressUpdate Disable	The component was added. Management Controller management can not be used. Hardware monitoring functio n is unavailable.	
				BACK	TO COMPONENT LIST CONTINU	E REGISTERING		

Name	Description
Name	Component name
IP address	IP address
Management LAN IP Address 1	IP address of BMC (EXPRESSSCOPE Engine) /iLO/BMC
	(Other) /vPro)
Management LAN IP Address 2	It is not displayed.
Install NEC ExpressUpdate Agent	• ExpressUpdate is disable
	This function is not supported.
Contents	• The component has been added.
	This message is displayed when a component has been
	successfully registered.

TIPS:

Refer to the "iStorageManager Manual Guide" (IS901) for the overview of iStorage

and iSM client and the related manuals of iStorage and iSM client.

Chapter7 Setup for the NEC iStorage V Series

7.1 Setup Flow

Setup by the following setup procedure:

- (1) Connect the NEC ESMPRO Manager server and the iStorage.
- (2) Perform the necessary setup to register the iStorage V series.

Refer to the "iStorage(V series) ESMPRO integration module" and configure it to be monitored from the ESMPRO/ServerManager. ESMPRO integration is a function that enables monitoring of the iStorage V series from ESMPRO/ServerManager.

(3) Register the managed component on NEC ESMPRO Manager.

7.2 Register the Managed Component

To register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform steps in the following order.

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

7.2.1 Register iStorage on NEC ESMPRO Manager

Use either of the two methods to register NEC Storage.

Manual Registration

This method requires the operator to directly enter the NEC Storage's information such as the "Floating IP Address" and to perform "Check Connection".

Auto Registration

This method automatically searches the network for managed components and NEC Storage, and registers them.

7.2.1.1 Manual Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator •
😫 Dashboar 🔁 Register 😑 Component 🛕 AlertViewer 🕂 Advanced - 🎇 Tools - 🌩 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Kead Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Manual Registration".

Auto Registration Manual Registra	ation
Server / Storage JPS Netwo	rk Device Other Computer Device Alert Only Management
Component Name [Required]	
Alias	
Destination Group	root +
Common Setting	
OS IP Address [Required]	
SNMP (NEC ESMPRO Agent) / WS-M	lan / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXI (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility)	
Management	Registration Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"ILC	"/"BMC(0ther)"/"vPro"(Common)
Management	• Registration O Unregistration
Management Type	ILO BMC BMC (Other) vPro
▲ "BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(mai For cases other than the above and	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL 19 core server). 'ILO" and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	1
Communication Protocol	○ НТТР ● НТТРS
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)"/"IL	0"/"BMC(0ther)"/"vPro"(LAN)
IP Address 1 [Required]	

Name	Value
Component Name	Specify the NEC Storage name on the NEC ESMPRO Manager.Assign a
	name different from other managed component names. Do not enter a name
	including blank characters. Uppercase characters are distinguished from
	lowercase characters.
Alias	Specify the information about the NEC Storage. Do not enter a name
	including blank characters. Only blank spaces cannot be entered. Also, do
	not enter a name containing a blank character. The space character will be
	removed if the half space is contained before and after the string. Uppercase
	characters are distinguished from lowercase characters. Optional.
Destination Group	Specify the group to which the NEC Storage will belong.
	When you add the group to which the managed component will belong, see
	"1.3.2 Add component to Group" for the information.
SNMP (NEC ESMPRO	Agent) / WS-Man / ESXi / iStorage
Management	Select "Registration".
Management Type	Select "REST API (iStorage V series)"
IP Address 1	IP address of component CTL1
IP Address 2	IP address of component CTL2
User Name	Enter username and password for getting iStorage V series information by
Password	REST API.

(3) Input the following items on the "Manual Registration"-"Full Management" view.

(4) Click "ADD".

If there is an error in the input content, correct the input content following the message.

Auto Registration Manual Registra	ation
Server / Storage UPS Netwo	ork Device Other Computer Device Alert Only Management
Component Name [Required]	iStorageV
Alias	
Destination Group	root ¢
SNMP (NEC ESMPRO Agent) / WS-N	Лап / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
IP Address 1 [Required]	10 . 15 . 228 . 121
IP Address 2	10 . 15 . 228 . 122
User Name/Password [Required]	maintenance / ······

(5) If the "CHECK CONNECTION" is completed, "Connection check results" screen will be displayed.

ESMPRO & Dashboard 🖧 Register 📾 Component 🛕 AlertVier	wer 🗶 Tools •	About NEC ESMPRO Manager	Help Classic Mode	🛓 admin •
Auto Registration Manual Registration				
Server / Storage Network Device C	Sther Computer Device Alert Only Management			
	Connection check results			
-	Management Detected Detail			
	REST API (IStorage V series) Detected iStorage V series can be used.			
	BACK TO COMPONENT LIST CONTINUE REGISTERING			

Detected	Detail
Detected	The feature was detected.
	NEC ESMPRO Manager can use the feature to manage the component.
Not Detected	The feature was not detected.
	NEC ESMPRO Manager cannot use the feature to manage the component.
	Clicking on " CONTINUE REGISTERING" to confirm the inputted items.
	Please check that there are no errors in the entered items.

7.2.1.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator •
😫 Dashboa I 🎝 Register 🗧 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
Component Status	A New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Auto Registration".

Destination Group 000: Descination Group 000: Descovery Made P Address Range Discovery Dari Address Jingained + Dariorery • Dariorery • <tr< th=""><th>Registration Manual Registratio</th><th>n</th><th></th></tr<>	Registration Manual Registratio	n	
Discovery Range Excovery Mode Bar Address [Inegains] Convery P Bar Mode Discovery Convery Convery Convery <th>Destination Group</th> <th>root</th> <th>÷</th>	Destination Group	root	÷
Ciscovery Model P Address Range Discovery Network Address Discovery Bart Address [Regared]	Discovery Range		
But Address [lengind] Child Address [lengind] Child Address [lengind] Child CLIMMAD Agent, Blacegore Marries) Descovery Chindle Climate Cl	Discovery Mode	O IP Address Range Discov	rery 🔘 Network Address Discovery
blackess keyded blackess ke	Start Address [Required]		
State State </td <td>End Address [Required]</td> <td></td> <td></td>	End Address [Required]		
SMM (NECC EMPRO Agent, Storage M series) Discovery Ender public SMM (NECC EMPRO ServerAgentSeries, EMP, 2 and/e Storowry Ender Discovery Ender Ender Discovery Ender End	C Server / Storage		
Discovery Enable Discovery </td <td>SNMP (NEC ESMPRO Agent, iStorage</td> <td>M series)</td> <td></td>	SNMP (NEC ESMPRO Agent, iStorage	M series)	
SMP Community Hame Negeric	Discovery	O Enable 🔘 Disable	
WS Mux (NEC ESARRO Survival question on ESEC Survival (Control on Eservise Control Control on Eservise Control	SNMP Community Name [Required]	public	
In terms (File Elsenno Servering Regulars) Discovery Case Name Plasseord Regulars Discovery Discovery Discovery Case Name Plasseord Discover Name Plasseord Di		and a second second second	
User Name/Password [Negured]	Discovery	Enable Disable	
User Runne/Password [Regune] / ESD (ESDR or later) Discovery Enable User Name/Password [Regune] / ADD REST AP (Storaget V series) Discovery Enable Discovery<			
EXI (EXX or later) EXX (EXX or later) EXX API (Storage Y series) EXX or Name/Password [Reguined] AX00 RXX or Name/Password [Reguined] C Convery C Exable Detable C AX00 RXX or Name/Password [Reguined] C C Expressibulate (Expressibulate Apert) Excovery C Exable Detable C AX00 C Expressibulate (Expressibulate Apert) Excovery C Exable Detable C C Expressibulate (Expressibulate Apert) Excovery C Exable Detable C AX00 C Expressibulate (Expressibulate Apert) Excovery C Exable Detable C AX00 C Expressibulate (Expressibulate Apert) Excovery C Exable Detable C AX00 C Expressibulate (Expressibulate Apert) Excovery C Exable Detable C AX00 C Expressibulate (Expressibulate Apert) Excovery C Exable Detable C AX00 C Expressibulate (Expressibulate Apert) Excovery C Exable Detable C AX00 C Expressibulate (Expressibulate Apert) Excovery C Exable Detable C AX00 Extreme Password [Reguined] C Expressibulate (Expressibulate Apert) C Expressibulate C AX00 C Expressibulate C AX00 C Expressibulate Expressibulate C Expressibulate C Expressi	User Name/Password [Required]	/ <i>′</i>	ADD
Discovery Database Discovery Database Discovery Da	ESXI (ESXI8 or later)		
Liter Name/Password [Regulard] / ADD REST AP ((Storage V series) Discovery Enable Discovery Enable<	Discovery	C Enable 🕖 Disable	
PEST API (Storage V series) Discovery	User Name/Password [Required]	1	ADD
Discovery	REST API (iStorage V series)		
Let Name Password [Regime]	Discovery	O Enable O Disable	
ADD system (Universal RAD UBIN) Discovery Inable NECD Expressitybate (Expressitybate Apent) Discovery Inable ADD Discovery Inable Discovery Inable <	User Name/Password [Required]	1	ADD
Discovery Endel Disable NEC Expressity/date (Expressity/date Apent) Discovery Endel Discovery Endel Disable A. If & Densation Endel Discovery Discovery Endel Discovery A. If & Densation Endel Discovery Discovery Endel Discovery Discovery Endel Discovery A. If & Densation Endel Discovery User Name/Password (Required) ////////////////////////////////////	RAID system (Universal RAID Utility)		
NEC Expressibulate (Expressibulate Apert) Discovery	Discovery	O Enable 🔘 Disable	
Discovery	NEC ExpressUpdate (ExpressUpdate	Agent)	
LO Discovery ● Enable All Domangements in disabled, MEC ESMPHD Manager cannot monitor HW errors of some servers. Please refer to the each page of auto registration. User Name/Plassword [Regulare]	Discovery	C Enable O Disable	
A If ADC(ONPR) Assessed [Regulard] Control ADD Part ADD Advanger cannot monitor HW errors of some servers. Please refer to the exit page of auto registration. Control ADD ADD ADD ADD ADD ADD ADD ADD ADD AD	iL0 Discovery	C Enable O Disable	
evel page of auto registration. User Name/Plassword [Regulard]	 If it 0 management is disabled. N 	EC ESMPRO Manager cannot re	nonitor HW errors of some servers. Please refer to the
	esult page of auto registration.	Lo com no monegor centor n	
MCQEPRESSSCOPE Engine) Discovy Endel A. "MCQEPRESSSCOPE Engine) is happed for EXPRESSSCOPE Engine 1/2/L/12/L/23PL/23PL/23PL/32PL/32PL/32PL/32PL/3	User Name/Password [Required]	/	DDA
	BMC(EXPRESSSCOPE Engine)		
TMAC(DXPRESSECOPE Engine)' is target for EXPRESSECOPE Engine 1/2/13/13/128P/35P.EM Curd(EGMABLL ADD), MAC(DXD CENTER), MAC(Damp core server). For cases often time facility and 1/2 marking and which plass existed: TMAC (Other)'. A URAC(DXPRESSECOPE Engine)' management is disabled, NEC ESM/PHO Manager cannot monitor HW errors of some servers: Mace the time here also good 1/2 marking and registration: MC (Other) Discovery Instel	Discovery	O Enable 🔘 Disable	
It CD Expressiblydate It Enable Authentication Key [Negulere] ADD IBAC (Other) It Enable Charles (Color) It Enable A If EMAC(Other) It Enable A If AUX (Statement of the statement of the statement of the encoment of the statement of the encoment o	[™] BMC(EXPRESSCOPE Engine) [™] i ADE), BMC(ECO CENTER), BMC(many For cases other than the above and [™] M If BMC(EXPRESSCOPE Engine) ervers. Please refer to the result page ervers. br>ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers. ervers.	s target for EXPRESSSCOPE En r core server). L0° and "vPro", Please select "B management is disabled, NEC E e of auto registration.	gine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL MC (Other)*. ISMPRO Manager cannot monitor HW errors of some
Authentication Key [Regulared] ADD IMC (Other) Encorey Enable Stackway Enable Enable Authentication Key [Regulared] Enable Enable Authon of the service of the service of the service of some servers. Please ref Face Mark IPM A If Much Stackward (Stepping) Auto Refers IPM A If Much Stackward (Required) I automatic selection of costs and selected access method and connection is established with both (IPM and Redist) the access method and endowed with selection of costs and selected access method and with the priority or surver registration process. Lister Namie/Password [Required] Immune access and selected access method and connection is established with both (IPM and Redist) the access method access and selected access method and connection is established with both (IPM and Redist) the access method access and selected access method and connection is established with the priority or surver registration process. Lister Namie/Password [Required] Immune access access and selected access method access and selected access acc	NEC ExpressUpdate	O Enable 🔘 Disable	
BMC (Other) Discovery Instite Disable All MC(Other)management is disabled, MCC EMPRO Manager cannot monitor HW errors of some servers. Please refits to be result again address sense method and connection is established with both (IPMI and Redifast) the access method and connection is established with both (IPMI and Redifast) the access method and connection is established with both (IPMI and Redifast) the access method and connection is established with both (IPMI and Redifast) the access method and connection is established with both (IPMI and Redifast) the access method and connection is established with both (IPMI and Redifast) the access method and and the time of parameter againstance process. User Namei/Password [Required] Instale	Authentication Key [Required]		ADD
	BMC (Other)		
If MAC(Oher)romagement is disabled, NIC ESMPIO Manager cannot monitor HW errors of some servers. Please ref to the result age of auto registration: Construction of the server registration process Construction of the server registration process If and of the priority access model and the line of automatic selection' optimized as the hore of automatic selection' gains are registration process. Iter Name/Password [Registed] finable Intel(9) 4Pio(Tkt) Technology Inte	Discovery	• Enable O Disable	
rte tre ensult ages of auto registration. Access Mode Access Mode Access Mode Access Mode Access Mode Access media data concentration is established with both (DFM and hordinal) the access media Access media data concentration is established with both (DFM and hordinal) the access media Access media data concentration is established with both (DFM and hordinal) the access media Access media data concentration is established with both (DFM and hordinal) the access media Access media data concentration is established with both (DFM and hordinal) the access media Access media data concentration is established with both (DFM and hordinal) the access media Access method will get the priority for server registration process. User Name/Password (Reguined) Access method will get the priority for server registration process Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will get the priority for server registration process. Access method will be access method will get the priority for server registration process. Access method will be access m	A If BMC(Other)management is dis	abled, NEC ESMPRO Manager of	annot monitor HW errors of some servers. Please re
A If "Aut" is selected as an access method and convection is stabilized with both (IPM and Redfish) the access method selected access method and convection is stabilized with both (IPM and Redfish) the access method selected access method will pat the priority for server registration process. User Name/Password [Regulared] Convert Discovery Convert Liser Name/Password [Regulared] Liser Name/Pa	r to the result page of auto registratio	O Auto	O IPMI
User Namic/Password [Required]	If "Auto" is selected as an access ods i.e. then refer "Priority access mo Network screen and selected access	method and connection is esta ide at the time of automatic sel method will get the priority for	blished with both (IPMI and Redfish) the access met ection" option in Classic Mode's Environment-Setting server registration process.
Intel(P) 4Pro(TM) Technology Discovery	User Name/Password [Required]	1	ADD
Discovery	Intel(R) vPro(TM) Technology		
User Name/Password (Regulard) / ADD UPS The Nork Device The Nork Device The Computer Device	Discovery	• Enable O Disable	
UPS Network Device Other Computer Device	User Name/Password [Required]	/	ADD
Network Device Device	OD UPS		
Other Computer Device	Network Device		
	Other Computer Device		

(3) Select "Search Mode" on the "Auto Registration" view and enter following information.

Name	Value
Destination Group	Specify the group to which the NEC Storage will belong. When you add
	the group to which the managed component will belong, see "1.3.2 Add
	component to Group" for the information.
Discovery Range	
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the IP address range.
	With "Network Address Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the specified network
~	address.
Start Address	When you select "IP Address Range Search" for "Search Mode", specify
End Address	the start IP address and end IP address of the range which includes the NEC
NT-4	Storage's moating IP address.
Network Address	when you select "Network Address Search" for "Search Mode", specify the
Network Wask	address and network which includes NES Storage's floating if
SNMP (NEC ESMPRO	Agent iStorage M series)
Discovery	Select "Disable"
WS-Man(NEC ESMPR	O ServerAgentService, ESXi7)
Discovery	Select "Disable"
ESXi (ESXi8 or later)	
Discovery	Select "Disable"
REST API(iStorage V set	eries)
Discovery	Select "Enable" to manage REST API(iStorage V series) of the component.
	*1
User Name/Password	Enter username and password for getting iStorage V series information by
	REST API.
	Click "Add" button and you can add a pair of username and password up
	to 5. *1
RAID system managem	ent
Management	Select "Disable"
NEC ExpressUpdate	
Updates via NEC	Select "Disable"
ExpressUpdate Agent	
BMC (EXPRESSSCOP	E Engine)
Discovery	Select "Disable".
Discovery	Select "Disable".
Discovery	Salaat "Disable"
Intel(D) vDrs (TM) Tech	select Disable .
Discovery	nology Select "Dischle"
Discovery	Select Disable.

CHECK:

*1 On "Settings" - "Environment" - "Auto Registration Setting List" screen, you can manage a list of username/password and authentication key. All entries in the list are used for auto registration every time. (4) Click "RUN DISCOVERY".

to Registration Manual Registration	n
Destination Group	root ¢
Discovery Range	
Discovery Mode	• IP Address Range Discovery O Network Address Discovery
Start Address [Required]	10 . 15 . 228 . 121
End Address [Required]	10 . 15 . 228 . 121
Server / Storage	
SNMP (NEC ESMPRO Agent, iStorage	M series)
Discovery	C Enable O Disable
WS-Man (NEC ESMPRO ServerAgentS	ervice, ESXi7 earlier)
Discovery	C Enable O Disable
ESXi (ESXi8 or later)	
Discovery	C Enable O Disable
REST API (IStorage V series)	
Discovery	Enable Disable
User Name/Password [Required]	maintenance / ADD
RAID system (Universal RAID Utility)	
Discovery	C Enable O Disable
NEC ExpressUpdate (ExpressUpdate	Agent)
Discovery	C Enable Disable
iLO	
Discovery	C Enable O Disable
BMC(EXPRESSSCOPE Engine)	
Discovery	C Enable O Disable
BMC (Other)	
Discovery	C Enable O Disable
Intel(R) vPro(TM) Technology	
Discovery	Enable ODisable
O UPS	
Network Device	
Other Computer Device	

Click	"RUN DISCOVERY"	to discovery t	he managed	components,	and the '	"Auto R	egistration i	n Progres	s"
scree	n will be displayed.								

	ADOUT NEC ES	admin •
ent 🛕 AlertViewer 🎇 Tools 🔹		
al Registration		
	\bigcirc	
Auto	Registration in Progress	
Auto		
Discovery Mode	IP Address Range Discovery	
Start Address	10.15.228.121	
End Address	10.15.228.122	
	_	
	CANCEL	
▲ Even if switch screens of	or log out, you can check the progress by opening this screen again.	
	All Registration X Tools -	al Registration Int Address 10.15.228.122 End Address 10.15.228.122 End Address 10.15.228.122

(5) If the "Auto Registration" is completed, following message will be displayed. Click "OK".

localhost:21120 の内容	
2023/10/17 15:46:39 Obtaining/changing of the component name was completed, and the automatic registration was successful.	
ОК)

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(6) The components registered will be displayed on the "Auto Registration Results" screen.

ESMI	PRO				About NEC E	SMPRO Manager Help Classic Mode	🛔 admin 🗸
🖨 Das	shboard -붭 Register 📾	Component 🛕 AlertVi	iewer 💥 Tools 🔻				
	Auto Registration	Manual Registration					
				Auto Registration Res	ults		
	Entry Count:1item	(s)					
	Name	IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents	
	iStorageV		10.15.228.121	10.15.228.122	ExpressUpdate Disable	The component was added.	
			BACK	TO COMPONENT LIST CONTIN	IUE REGISTERING		

Name	Description	
Name	Component name	
IP address	It is not displayed.	
Management LAN IP Address 1	IP address of controller1(CTL1)	
Management LAN IP Address 2	IP address of controller2(CTL1)	
Install NEC ExpressUpdate Agent	ExpressUpdate is disable	
	This function is not supported.	
Contents • The component has been added.		
	This message is displayed when a component has been	
	successfully registered.	

TIPS:

 When "Auto Register", the "Name" of "Component List" will be "iStorageV". The following components will be named "iStorageV + number". If you want to change the name, click the "Name" in the "Component List" to launch Classic mode, and then click "Setting" -> "Connection Setting" -> "Edit" to change component name.

7.2.1.3 Auto Registration Setting

Before executing auto registration, User Name/Password and Authentication Key can be registered up to 5. For more details, please refer to "1.3.3.3 Auto Registration Setting".

Chapter8 Setup for the Managed Component based on vPro

8.1 Setup Flow

Setup by the following setup procedures:

- (1) Connect the management PC on which NEC ESMPRO Manager is installed and the managed component based on vPro on the same network.
- (2) Configure iAMT on the managed component based on vPro.
- (3) Register the managed component based on vPro on NEC ESMPRO Manager.

8.2 Configure iAMT on the Managed Component

Turn the managed component on.

Press <Ctrl+P> immediately after the component based on vPro displays the message prompting you to press the key.

Main menu of the iAMT configuration is displayed.

Please enter the password to configure the iAMT.

TIPS:

- The NEC ESMPRO Manager can manage the vPro including the iAMT firmware version 6.0 and later.
- The default user name and password are both "admin".
- The iAMT configuration method may depend on the iAMT firmware version. Refer to the website for detail configuration information and configure iAMT. The following is an example of the website.

Please note that this URL is subject to change without notice.

http://software.intel.com/en-us/articles/intel-active-management-technology-intel-amt-software-development-kit-sdk-start-here-guide/

"Performing Manual Setup (from Release 6.0)" or "Manually Configuring an Intel AMT 7.0" of "AMT7.0 Start Here Guide"

8.3 Register the managed component on NEC ESMPRO Manager

To register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform steps in the following order.

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

8.3.1 Register the Managed Component

Use either of following two methods to register the managed component.

Manual Registration

This method requires the operator to directly enter the managed component's information such as the IP address of the vPro and to perform "Check Connection".

Auto Registration

This method automatically searches the network for managed components that are not registered yet on the NEC ESMPRO Manager and registers them.

8.3.1.1 Manual Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator -
😫 Dashboar 🛃 Register 🚘 Component 🔺 AlertViewer 🕂 Advanced - 💥 Tools - 🌩 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availablity	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Manual Registration".

Auto Registration Manual Registra	ation
Server / Storage JPS Netwo	ork Device Other Computer Device Alert Only Management
Component Name [Required]	
Alias	
Destination Group	root e
Common Setting	
OS IP Address [Required]	
SNMP (NEC ESMPRO Agent) / WS-M	fan / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility)	
Management	• Registration O Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iL(0°/"BMC(Other)"/"vPro"(Common)
Management	• Registration O Unregistration
Management Type	• iLO OBMC OBMC (Other) vPro
▲ "BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(mar For cases other than the above and	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ny core server). 'ILO" and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	I
Communication Protocol	O HTTP O HTTPS
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)"/"IL	0°/°BMC(Other)°/°vPro°(LAN)
IP Address 1 [Required]	

(3) Input the following items.

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO Manager.
Ĩ	Assign a name different from other managed component names. Do not
	enter a name including blank characters. Uppercase characters are
	distinguished from lowercase characters.
Alias	Specify the information about the managed component. Do not enter a
	name including blank characters. Only blank characters cannot be entered.
	Also, please do not enter a name containing blank characters. The blank
	characters will be removed if there are half-width blank characters before
	or after the string. Uppercase characters are distinguished from lowercase
	characters. Optional.
Destination Group	Specify the group to which the managed component will belong. See "1.3.2
1	Add component to Group" for the information about creating group.
Common Setting	
OS IP Address	Specify the OS IP Address of the managed component.
SNMP (NEC ESMPRO	Agent) / WS-Man / ESXi / iStorage
Management	Select "Registration" to manage the system of the component.
Management Type	Select a management type of the managed component.
8	- SNMP *1
	NEC ESMPRO Agent or iStorage M series is installed on the managed
	component.
	- WS-Man *1. *2
	NEC ESMPRO ServerAgentService or ESXi7 is installed on the
	managed component.
	The operating system of the managed component is VMware ESXi.
	- ESXi (ESXi8 or later)
	- REST API(iStorage V series)
SNMP Community	SNMP Community Name which is specified at SNMP Agent running on
Name(Get)	the managed component.
	It is necessary to get the information, configure, monitor via SNMP
SNMP Community	When you want to set SNMP Community names for Get and Set separately
Name(Set)	on the managed component, specify the SNMP Community name for Set
	in this field by alphanumeric characters.
	If it is not specified, SNMP Community name for Get will be used.
User Name	Enter the password for communication with WS-Man service.
	- NEC ESMPRO ServerAgentService (Windows) is installed.
Password	Enter Username(Local User Accounts)/Password of Windows system
	Administrator
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter root/Password of Linux operating system
Communication	This is displayed only when WS-Man is selected as the management target.
Protocol	Select protocol HTTP/HTTPS for connection WS-Man service. *2
11000001	
	- NEC ESMPRO ServerAgentService (Windows) is installed.
	If you want to use HTTPS for WS-Man communication with
	ESMPRO/ServerAgentService, refer to Chapter 2, Installation 3.3 HTTPS
	Setting in the ESMPRO/ServerAgentService Installation Guide
	(Windows).
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Select HTTPS.
Port Number	Enter port number where WS-Man service listens for connection *3

	- NEC ESMPRO ServerAgentService (Windows) is installed.			
	If you want to use HTTP, enter 5985.			
	If you want to use HTTPS, enter 5986.			
	- NEC ESMPRO ServerAgentService (Linux) is installed.			
	Enter 5986			
RAID system(Universal RAID Utility)				
Management	Select "Registration" to manage the RAID system of the component.			
NEC ExpressUpdate				
Updates via NEC	Select "Registration" to manage the component using NEC ExpressUpdate.			
ExpressUpdate Agent				
Updates via	Select "Registration" to manage the component using Management			
Management Controller	Controller			
"BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common)				
Management	Select "Registration" otherwise NEC ESMPRO Manager may not monitor			
_	HW status.			
Management Type	Select "vPro".			
User Name	Enter the user name for communication with the vPro,			
Password	Enter the password for communication with the vPro,			
"BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN)				
IP Address 1	Enter the IP address that is specified on LAN of the iAMT configuration			
	for the managed component.			

CHECK:

•	*1 If NEC ESMPRO Manager is installed on Linux system, "SNMP" and VMware
	ESXi server management are not supported.

CHECK:
• *2 If a self-signed certificate is installed on the managed server for HTTPS
communication, a setting to allow it is required. Refer to "1.1 Setup Flow" for
detailed information.

CHECK:

• *3 Regarding a port number for WS-Man communication, refer to "Appendix C. Port number for WS-Man communication".
(4) Click "ADD".

If there is an error in the input content, correct the input content following the message.

Auto Registration Manual Registra	ation
Server / Storage UPS Netwo	rk Device Other Computer Device Alert Only Management
Component Name [Required]	vPro
Alias	
Destination Group	root \$
SNMP (NEC ESMPRO Agent) / WS-M	lan / ESXi / iStorage
Management	Registration Unregistration
RAID system (Universal RAID Utility)	
Management	Registration Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	Registration Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iLC	"/"BMC(Other)"/"vPro"(Common)
Management	Registration Unregistration
▲ If BMC / iLO management is dis Please refer to the result page of con	abled, NEC ESMPRO Manager cannot monitor HW errors of some servers. nnection check.
Management Type	iLO BMC BMC (Other) VPro
▲ "BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(mar For cases other than the above and "	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ny core server). iLO" and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	admin /
"BMC (EXPRESSSCOPE Engine)"/"iLC	"/"BMC(Other)"/"vPro"(LAN)
IP Address 1 [Required]	10 15 228 138

(5) "CHECK CONNECTION" screen is displayed.

Click "CHECK CONNECTION" to start it.

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin -
🚯 Dashboard 📲 Register 📾 Component 🛕 AlertViewer 🏂 Tools 👻	
Auto Registration Manual Registration	
Server / Storage Network Device Other Computer Device	Alert Only Management
	To remotely manage components, please continue to perform check connection.
	CHECK CONNECTION

(6) If the "CHECK CONNECTION" is completed, "Connection check results" screen will be displayed.

ESMF	RO			About NEC ESMPRO Manager Help Cla	assic Mode 💄 admin -
🕒 Das	hboard 📲 Register 🚔 Component 🛕	AlertViewer 💥 Tools 🗸			
	Auto Registration Manual Regis	tration			
	Server / Storage Network Devi	ice Other Computer Devi	ce Alert Only Management		
			Connection check results		
		Management	Detected Detail		
		VPRO	Detected Intel(R) vPro(TM) Technology can be	e used.	
			BACK TO COMPONENT LIST CONTINUE REGIST	ERING	

Detected	Detail
Detected	The feature was detected.
	NEC ESMPRO Manager can use the feature to manage the component.
Not Detected	The feature was not detected.
	NEC ESMPRO Manager cannot use the feature to manage the component.
	Check parameters corresponding to the feature.
	Click the "Name" of the component that could not be registered in the
	"Component List". The connection settings screen in Classic mode will be
	displayed. Please check that there are no errors in the entered items. For more
	details, please refer to the online help for NEC ESMPRO Manager.

8.3.1.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 💄 Administrator -
🕼 Dashbot 1 🗗 Register 🗧 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availablity	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Auto Registration".

Petitivation Giroup Tool: Caccomy Mude IP Address Barge Discovery Barr Address [Regared]
Detensition Gloge not e Cliccovery Ruley Discovery Mode i if Address Barge Discovery Network Address Discovery Start Address Bregared i i i i i i i i i i i i i i i i i i i
Discovery Made Discovery Made Discovery Made Discovery Made Discovery Disco
Discovery Mode
But Address [Required] Cit Address [Required] Stable [Discoury Cit Address [Required] Discoury Cit Address [Required] <
Did Address Nergundi SNUP (MEC EMM400 Agers, Slorage M series) Discovery Discovery SMUP (Community Name [Required] Discovery Status Discovery Status Discovery Exative Discovery <tr< td=""></tr<>
Since / Storey Since
SMMP (REC ESMPRID Agent, Slobage M series) Discovery Exable Obtable SMMP Community Name [Required] public: VIS Man (NEC ESMPRID SeverAgentSerice, ESX7 serier) Discovery Exable Discovery Exable
Discovery
SHMP Community Name [Required] public Vis Man (NEC ESMPRO Severager:Service, ESX7 and/or Discovery • Enable • Disable User Name/Password [Required] •
and controlled your percenter in the server land of the server. Heads of
With Man (NEC ESMPRO ServerAgentService, ESX? anler) Discovery With Man (NEC ESMPRO ServerAgentService, ESX? anler) Discovery User Name(Password [Required] Convery onvery Conve
Discovery Discovery Disco
User Name/Password [Required] / A50 EXXI (ESXI do Italer) Discoler A00 Discovery • Enable Discoler User Name/Password [Required] / A00 REST API (Slorage V series) Discoler A00 Discovery • Enable Discoler User Name/Password [Required] / A00 RAD system (Universial RADU Utility) Discoler A00 Discovery • Enable Discoler NEC Expressibutiste (Expressibutiste Apent) Discoler A00 Discovery • Enable Discoler A. A10 management is disabled. NEC ESMPRO Manager cannot monitor HW errors of none servers. Please refer to enable projections. A00 Discovery • Enable Disable A. A10 management is disabled. NEC ESMPRO Manager cannot monitor HW errors of none servers. Please refer to the result pape of anon registration. Autoricization Key [Required]
EDX (EXX8 or later) EDXCovery EDXCovery EDXCovery EDXCovery EDXCovery EDXCovery EXX8 or later EXX XX8 or later EXX8 or later EXX8
Discovery Enable Disable User Name/Password [Required] / A00 RST API (Storage V series) Disable Discovery Discovery Enable Disable User Name/Password [Required] / A00 RAD bystem (thiversal RAD Utility) Disable A00 Discovery Enable Disable NEC Expressibulate (Expressibulate April) Disable A00 Discovery Enable Disable NCC Expressibulate (Expressibulate April) Disable Discovery Discovery Enable Disable NCC Expressibulate (Expressibulate April)
User Hame/Password [Required] / ADD REST API (Storage V series) Discovery E mable Discovery Discovery E mable Disable User Hame/Password [Required] / ADD RAID system (Universal RAID Unity) Discovery E mable Disable Discovery E mable Disable NEC Expressibulate (Expressibulate Agent) Discovery E mable Disable NEC Expressibulate (Expressibulate Agent) Discovery E mable Disable NEC Expressibulate (Expressibulate Agent) Discovery E mable Disable NEC Expressibulate (Expressibulate Agent) Disable A. # ALO managements is disabled, NEC ESMPHO Manager cannot monitor HW errors of some servers. Please refer to error. ADD Discovery E mable Disable NEC Expressibulate (Expressible) Discovery E mable Disable NEC Expressible) Discovery E mable Disable NEC Expressible) Discovery E mable Disable NEC Expressible) Disable A. # MACIEXPRESSIGNOFE Engres) Expressible) ADD Storeseries (Arror HW errors of some servers.) </td
REST API (Slorage V series) Discoury Enable Disable User Name/Fassword [Reguind] / A00 RAD system (Universal RAD Utility) Disable NCC Expressibulate (Expressibulate Aper) Discoury E mable Disable NCC Expressibulate (Expressibulate Aper) Disable Discoury E mable Disable NCC Expressibulate (Expressibulate Aper) Discoury E mable Disable NCC Expressibulate (Expressibulate Aper) Discoury E mable Disable NCC Expressibulate (Expressibulate Aper) Disable A. # A. If A.D management is disabled, NEC ESMPHO Manager cannot monitor HW errors of some servers. Please refer to each age of auto registration. User Name/Password [Required]
RET API (Glorage V series) Discovery Encovery ncovery Encovery Encovery Encovery Encovery Encovery Encovery Encovery Encovery Encovery Encovery Encovery Encovery Encover Encover Encover E
Discovery
User Name/Password [Required] / AD0 RAD system (Universal RAD Utility) Exable NEC Expressitylater (Expressitylater Apert) Discovery • Exable Otsable NEC Expressitylater (Expressitylater Apert) Discovery • Exable Discovery • Exable Otsable RO Discovery • Exable Otsable RO(DEPRESSCOPE Engine)
RAD system (Universal PAAD Utility) Discovery Enable Disable NCC ExpressityIdate (ExpressityIdate Apert) Discovery Enable Disable Disable Disable Discovery Enable Disable Discovery Enable Disable Discovery Enable Disable Discovery Enable Disable MCIDEMENSISCOPE Engine() Lice Very Enable Disable MCIDEMENSISCOPE Engine() Lice Very Enable Disable And/CDDRESSISCOPE Engine() Lice Very Enable Disable And/CDDRESSISCOPE Engine() Lice Very Enable Disable And/CDDRESSISCOPE Engine() Lice Very Enable Disable And MCIDDRESSISCOPE Engine(
Discovery Enable Discovery Enable Discovers Enable
NEC Expressibulate (Expressibulate Apent) Discovery Enable
Discovery Enable Discovery LO Discovery Enable /ul>
LD Discovery
A If &D. management is disabled, NEC ESM/RIO Manager cannot monitor HW errors of some servers. Please refet to exit page of auto registration. User Name/Password [Required] /
User Name/Password [Required]
User Namo-Plassword [Required]
BMC(IDPRESSSCOPE Engine) Discovery
A "IMAC[DPRESSIGOPE Engine]" is target for EXPRESSECOPE Engine 1/2/3/31/25P/35P. EM Card(SIGMARL: ADC), MAC(ECO CENTER),
evers. Please refer to the result page of auto registration. NEC ExpressUpdate Authentication Key [Required] BMC (Other) Discovery C Enable Enable C Enable C Enable C Enable C Enable C Enable C Enabl
Authentication Key [Required] Authentication Key [Required] BMC (Other) Discovery C Enable Disable A If BMC (Other) Discovery C Enable Disable A If BMC (Other) C Enable Disable A If Auto
Authentication Key [Negular6] 450 BMC (Other) Discovery D Enable Disable
BMC (Other) Discovery
Discovery Enable O isable ▲ If BMC(Other)management is disabled, NCC ESMPRO Manager cannot monitor HW errors of some servers. Please to the result page of auto registration. Access Mode O Auto Redfah IPMI Access Mode O Auto Redfah IPMI Activative selected as an access method and connection is establed with both (PM and Redfah) the access in dis is, then ref* Priority access mode at the time of automatic selector's optimized in classias Mode's Environment-Setti
If BMC(Other)management is disabled, NCC ESMPRO Manager cannot monitor HW errors of some servers. Please to the result page of auto registration. Access Mode O Auto Redfish PPMI A If "Auto" is selected as an access method and connection is established with both (IPM and Redfish) the access in dois 1.e. then refer "Priority access mode at the time of automatic selection" ofgen in classic Mode's Environment-Setti
Access Mode Auto Access Mode Auto Auto Bedfish PMI A If 'Auto' is selected as an access method and connection is established with both (IPMI and Redfish) the access in dois is. then refer 'Photoly access mode at the time of automatic selection' option in Classic Mode's Environment-Setti
A If "Auto" is selected as an access method and connection is established with both (IPMI and Redfish) the access m ods i.e. then refer "Priority access mode at the time of automatic selection" option in Classic Mode's Environment-Setti
Network screen and selected access method will get the priority for server registration process.
User Name/Password (Required) / ADD
Intel(R) vPro(TM) Technology
Discovery O Enable O Disable
User Name/Password [Required]
O UPS
Network Device
Other Computer Device

(3) Input the following items to search managed components based on vPro.

-	
Name	Value
Destination Group	Specify the group to which the managed component will belong. See "1.3.2
	Add component to Group" for the information about creating group.
Discovery Range	
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager searches for the managed components using the IP address range. With "Network Address Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the specified network address.
Start Address	When you select "IP Address Range Search" for "Search Mode", specify
End Address	the start IP address and end IP address of the range in which managed components are to be searched for.
Network Address	When you select "Network Address Search" for "Search Mode", specify the
Network Mask	network address and network mask of the managed component to be searched for.
SNMP (NEC ESMPRO	Agent, iStorage M series)
Discoverv	Select "Enable" to manage the system of the component.*1
SNMP Community	SNMP Community Name which is specified at SNMP Agent running on
Name	the managed component.
	It is necessary to get the information, configure, monitor via SNMP
WS-Man(NEC ESMPR	O ServerAgentService, ESXi7)
Discovery	Select "Enable" to manage the system of the component. *1,*2, *4
User Name/Password	Enter username and password for WS-Man communication. The account
	must be a system administrator of the managed operating system.
	Click "Add" button and you can add a pair of username and password up
	to 5. *3
	- NEC ESMPRO ServerAgentService (Windows) is installed.
	Enter Username(Local User Accounts)/Password of Windows system
	Administrator
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter root/Password of Linux operating system
ESXi (ESXi8 or later)	
Discovery	Select "Disable"
REST API(iStorage V s	eries)
Discovery	Select "Disable"
RAID system managem	ent
Management	Select "Enable" to manage the RAID system of the component.
NEC ExpressUpdate	
Updates via NEC	Select "Enable" to manage the component using NEC ExpressUpdate.
ExpressUpdate Agent	
BMC (EXPRESSSCOP	E Engine)
Discovery	Select "Disable"
iLO	
Discovery	Select "Disable"
BMC (Other)	
Discovery	Select "Disable"
Intel(R) vPro(TM) Tech	nology
Discovery	Select "Enable"
User Name/Password	Enter username and password for communication with the vPro, Clicking "Add" button, you can enter up to 5 pairs of username and password. *3

CHECK:
 *1 If NEC ESMPRO Manager is installed on Linux system "SNMP" and VMware
ESV: management are not supported
ESAT management are not supported.
СНЕСК:
• *2. If a self-signed certificate is installed on the managed server for HTTPS
communication, a setting to allow it is required Refer to "1.1 Setup Flow" for
dealed information, a secting to anow it is required. Refer to 1.1 Secup 110w 101
detailed information.
CHECK:
• *3 On "Settings" - "Environment" - "Auto Registration Setting List" screen you can
manage a list of usersame/assessed and authentication loss. All astrics in the list are
manage a list of username/password and authentication key. An entries in the list are
used for auto registration every time.
CHECK:
*4 If you want to use HTTDS for WS MAN communication with
The source of th
ESMPRO/ServerAgentService, refer to Chapter 2, Installation 3.3 HTTPS Setting
in the ESMPRO/ServerAgentService Installation Guide (Windows).

(4) Click "RUN DISCOVERY".

Auto Registration Manual Regist	ration	
Destination Group	root ¢	
Discovery Range		
Discovery Mode	IP Address Range Discovery Network Address Discovery	
Start Address [Required]	10 . 15 . 228 . 138	
End Address [Required]	10 . 15 . 228 . 138	
Server / Storage		
SNMP (NEC ESMPRO Agent, iSto	rage M series)	
Discovery	C Enable O Disable	
WS-Man (NEC ESMPRO ServerAg	gentService, ESXi7 earlier)	
Discovery	C Enable O Disable	
ESXi (ESXi8 or later)		
Discovery	C Enable O Disable	
REST API (iStorage V series)		
Discovery	Enable O Disable	
RAID system (Universal RAID Util	ity)	
Discovery	C Enable O Disable	
NEC ExpressUpdate (ExpressUpd	date Agent)	
Discovery	C Enable O Disable	
iLO		
Discovery	Enable Disable	
BMC(EXPRESSSCOPE Engine)		
Discovery	C Enable O Disable	
BMC (Other)		
Discovery	C Enable O Disable	
Intel(R) vPro(TM) Technology		
Discovery	• Enable O Disable	
User Name/Password [Required]	admin / ADD	
UPS		
Network Device		
Other Computer Device		

CHECK:

When you click the "RUN DISCOVERY", you may see a message "The search cannot be started.". If you have enabled "WS-Man Discovery", please check whether a "Self Signed Certificate" is allowed in section "1.3.1 Environment setting".

.....

When you click the "RUN DISCOVERY", the discovery for components will begin and the "Auto Registration in Progress" screen will be displayed.

ESMPRO		About NEC ESMPRO Manager Help Classic Mode 🛓 admin 🕶
🚯 Dashboard 📲 Register 🚔 Component 🛕	AlertViewer 💥 Tools 🔻	
Auto Registration Manual Regis	tration	
		$\overline{}$
	Auto Re	gistration in Progress
	Discovery Mode	IP Address Range Discovery
	Start Address	10.15.228.138
	End Address	10.15.228.138
		CANCEL
	${\ensuremath{\Delta}}$ Even if switch screens or log o	ut, you can check the progress by opening this screen again.

(5) If the "Auto Registration" is completed, following message will be displayed. Click "OK".



(6) The components registered will be displayed on "Auto Registration Results".

Clicking the "name" will open the Classic mode, where you can confirm the registered information.

ESMPRO						About NEC ESMPRO	Manager Help Classic Mode	💄 admin 🕶
C Dashboard	l -🛅 Register 📾 C	Component 🕰 Alert	Viewer 🎘 Tools 🔻					
4	Auto Registration	Manual Registratio	n					
				Auto Registratio	on Resul	ts		
	Entry Count: 1item/e	A						
	Entry Count. Memos	9						
	Name	IP Address	Management LAN IP Address 1	Management LAN IP A	ddress 2	Install NEC ExpressUpdate Agent	Contents	
	ManagementContr oller		10.15.228.124			ExpressUpdate Disable	The component was added.	
			BACK T	COMPONENT LIST	CONTINU	EREGISTERING		

Description
Component name
IP address
IP address of BMC (EXPRESSSCOPE Engine) /iLO/BMC
(Other) /vPro)
It is not displayed.
• ExpressUpdate is enable
When "NEC ExpressUpdate(ExpressUpdate Agent)" is
enabled, and a component that can be installed with
ExpressUpdate Agent is discovered.
• ExpressUpdate is disable
- "NEC ExpressUpdate(ExpressUpdate Agent)" is disable
- "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled,
but there is not component that can be installed with
ExpressUpdate Agent.
• A component has been added.
This message will be displayed if the component is
successfully registered.
• Management Controller management cannot be used.
Hardware monitoring function is unavailable.
This message will be displayed when BMC
(EAPKESSSCOPE engine)/ILO/BMC (other)/VPro
OS IP address. If you want to register the Management
Controller management function click the "Name" The
connection settings screen in Classic mode will be
displayed, so you can perform the registration here.

TIPS:

 If the system management cannot discover the managed component name, the "Name" of "Component List" will be "ManagementController". The following components will be named "ManagementController + number". If you want to change the name, click the "Name" in the "Component List" to launch Classic mode, and then click "Setting" -> "Connection Setting" ->"Edit" to change component name.

.....

8.3.1.3 Auto Registration Setting

Before executing auto registration, User Name/Password and Authentication Key can be registered up to 5. For more details, please refer to "1.3.3.3 Auto Registration Setting".

Chapter9 Setup for NEC Scalable Modular Server DX2000

9.1 Overview

The NEC ESMPRO Manager can manage following modules of NEC Scalable Modular Server DX2000:

Server Module

NEC ESMPRO Manager manages each server module on the enclosure as same as the server which has integrates EXPRESSSCOPE Engine 3.

CSC Module

NEC ESMPRO Manager collects the following information of the enclosure by managing the CSC module.

- -- STATUS lamp:
- You can monitor the status of the whole enclosure.
- -- Constitution information:
 - You can monitor each sensor status (fan, voltage, temperature, etc.) in the enclosure.
- -- Power measurement:

You can measure the power consumption of the whole enclosure.

Network Switch Module

NEC ESMPRO Manager collects the following information of the Network Switch by managing the Network Switch module.

- -- Constitution information:
- You can monitor each sensor status (voltage, temperature.) in the Network Switch.
- -- Power measurement:

You can measure the power consumption of the Network Switch.

- CHECK:
 - When registering CSC Module, Network Switch Module is registered automatically. Network Switch Module can not be registered individually.
- Network Switch Module and CSC Module are deleted together as related component. When Network Switch Module is registered, it is not possible to delete Network Switch Module and CSC Module separately.

Switch Module and CSC Module separately.

Setup Flow 9.2

Setup by the following setup procedures:

- (1) Connect the management PC on which NEC ESMPRO Manager is installed and the managed component on the same network.
- (2) Configure BMC on the managed component to enable ESMPRO Management.

(3) Register the managed component on NEC ESMPRO Manager.

СНЕСК:

- Refer to "Chapter1 Setup for Managed Component in which EXPRESSSCOPE • Engine 3 is integrated".
- You can configure CSC module only with EXPRESSSCOPE Engine 3 Web Console. Refer "1.2.1Configuration with EXPRESSSCOPE Engine 3 WebConsole" and the

user's guide for the NEC Scalable Modular Server DX2000.

Chapter10 Setup for the VMware ESXi server

10.1 Setup Flow

Setup by the following setup procedures:

(1) Connect the management PC on which NEC ESMPRO Manager is installed and the VMware ESXi server as a managed component on the same network.

IMPORTANT:	
 Regarding making the WBEM service effective. 	
On a new install of VMware ESXi, WBEM services may be disabled by default.	You
can check the status of the WBEM service with the following command:	
# esxcli system wbem get	
Enable: false Disabled Enable: true Enabled	
So you will need to use the following command to enable WBEM services.	
# esxcli system wbem setenable true	
(*)If you installed SMI-S provider, WBEM services are enabled. So you don't	need
to use this command.	
(*)This command is not required on FT server. Regarding the settings	for
WBEM(WS-MAN) service on FT server, refer to "7. NEC ESMPRO" of Chap	ter 3
in Maintenance Guide (VMware) for FT server.	
Set-up for sfcbd service restart	
sfcbd service starts in the state to which CIM Indication can't be transmitted.	
We confirmed that this issue is improved by restarting sfebd service.	
To manage the RAID System by NEC ESMPRO Manager, please insert the follow	wing
line just before the line "exit 0" in the /etc/rc.local.d/local.sh.	
/etc/init.d/sfcbd-watchdog restart	
Stebd service will restarts automatically.	
Notes on Service Location Protocol Service Disabled Service	
For the release of VMware ESXi 7.0 Update 2c or later, the SLP service is disa	bled
by default.	
If the SLP service is disabled, new VMware ESXi server cannot be monitored	and
connected.	
If NEC ESMPRO Manager registers VMware ESXi server and performs connect	ction
checks as a monitored server, the SLP service must be running and firewall setti	ings.
To perform monitoring registration and connection checking of new VMware I	ESXi
server, follow these steps:	
1. Start SLP service on an ESXi host.	
Configure firewalls and enable SLP services and start SLP services.	
Perform the Solution "To remove the perform the perform the following steps	:"
of the following knowledge information.	
How to Disable/Enable the SLP Service on VMware ESXi.	
https://kb.vmware.com/s/article/76372	
2. Register a new ESXi server as a monitored server with NEC ESMPRO Man	ager
and perform connection checks.	

- (2) Configure the management controller on VMware ESXi server if you want to manage the management controller.
- (3) Register VMware ESXi server as a managed component on NEC ESMPRO Manager.

10.2 Configure the management controller on the Managed Component

Configure the management controller on the VMware ESXi server if you want to manage the management controller.

In case that VMware ESXi server in which EXPRESSSCOPE ENGINE3 is integrated: See 1.2Configure BMC on Managed Component.

In case that VMware ESXi server in which a BMC excluding EXPRESSSCOPE ENGINE3 is integrated: See 2.2Configure BMC on Managed Component (for LAN connection).

TIPS:

• To check the BMC type of the managed component, see Appendix D. Managed Components Summary

In case that VMware ESXi server in which iLO is integrated:

See 3.2 Configure iLO on Managed Component.

10.3 Register the managed component on NEC ESMPRO Manager

To register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform in the following order:

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

10.3.1 Set the Environment

When using VMware ESXi in the following environment, set the "Self Signed Certificate" to "Allowed" on "Network" tab of "Environment".

Please refer to "1.3.1 Environment setting" for the detail.

10.3.2 Register the Managed Component

Use either of following two methods to register the managed component.

Manual Registration

This method requires the operator to directly enter the VMware ESXi server's information such as the IP address.

Auto Registration

This method automatically searches the network for VMware ESXi servers and managed components that are not registered yet on the NEC ESMPRO Manager and registers them.

10.3.2.1 Manual Registration

(1) Click "Register".

SMPRO		About NEC ESMPRO Manager Help	Classic Mode	Administrator -
😫 Dashboar 🔄 Register 🖨 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣	l Settings -			
Component Status	New Alert Status			
The component is not registered.	No alerts are unread.			
SW/SW Update Availability	Alert Unread/Read Status			
The component is not registered.	There are no alerts.			

(2) Click the "Server / Storage" of "Manual Registration" tab.

Auto Registration Manual Registr	ation
Server / Storage JPS Netwo	ork Device Other Computer Device Alert Only Management
Component Name [Required]	
Alias	
Destination Group	root ¢
Common Setting	
OS IP Address [Required]	
SNMP (NEC ESMPRO Agent) / WS-M	fan / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
SNMP Community Name(Get)	public
SNMP Community Name(Set)	
RAID system (Universal RAID Utility)	
Management	• Registration O Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	• Registration O Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iLt	D*/*BMC(Other)*/"vPro*(Common)
Management	• Registration O Unregistration
Management Type	• ILO BMC BMC (Other) vPro
▲ "BMC(EXPRESSSCOPE Engine)' ADE), BMC(ECO CENTER), BMC(ma For cases other than the above and	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ny core server). "ILO" and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	T
Communication Protocol	O HTTP O HTTPS
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)"/"ILI	D"/"BMC(Other)"/"vPro"(LAN)
IP Address 1 [Required]	

(3) Input the following items.

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO
1	Manager.
	Assign a name different from other managed component names. Do
	not enter a name including blank characters. Uppercase characters
	are distinguished from lowercase characters.
Alias	Specify the information about the managed component. Do not enter
	a name including blank characters. Only blank characters cannot be
	entered. Also, please do not enter a name containing blank
	characters. The blank characters will be removed if there are half-
	width blank characters before or after the string. Uppercase
	characters are distinguished from lowercase characters. Optional.
Destination Group	Specify the group to which the managed component will belong. See
	"1.3.2 Add component to Group" for the information about
	creating group.
Common Setting	
OS IP Address	Specify the OS IP Address of the managed component.
SNMP (NEC ESMPRO) Agent) / WS-Man / ESXi / iStorage
Management	Select "Registration" to manage the system of the component.
Management Type	Select WS-Man *1.
User Name/Password	Enter an administrative user's account of VMware ESXi server.
Communication	This is displayed only when WS-Man is selected as the management
Protocol	target.
	Select protocol HTTP/HTTPS for connection WS-Man service. *1
	 NEC ESMPRO ServerAgentService (Windows) is installed. If you want to use HTTPS for WS-Man communication with ESMPRO/ServerAgentService, refer to Chapter 2, Installation 3.3 HTTPS Setting in the ESMPRO/ServerAgentService Installation Guide (Windows).
	 NEC ESMPRO ServerAgentService (Linux) is installed. Select HTTPS.
	- The operating system of the managed component is VMware ESXi7. Select HTTPS.
Port Number	Enter port number where WS-Man service listens for connection. *2
	1
	 NEC ESMPRO ServerAgentService (Windows) is installed. If you want to use HTTP, enter 5985. If you want to use HTTPS, enter 5986.
	- NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986.
	- The operating system of the managed component is VMware
	ESXi7.
	Enter 443.
RAID system manager	nent
Management	Select "Registration" to manage the RAID system of the component.
	If the operating system of the managed component is VMware ESXi,

	WS-Man management must be enabled in addition to this setting.	
NEC ExpressUpdate		
Updates via NEC	Select "Registration" to manage the component using NEC	
ExpressUpdate Agent	ExpressUpdate.	
Updates via	Select "Registration" to manage the component using Management	
Management	Controller	
Controller		
"BMC (EXPRESSSCO	OPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common)	
Management	Select "Registration" otherwise NEC ESMPRO Manager may not monitor HW status.	
Management Type	In the case of VMware ESXi server integrated BMC:	
8 71	Select "BMC".	
	In the case of VMware ESXi server integrated iLO: Select "iLO".	
	In the case of VMware ESXi server integrated BMC other than	
	"BMC (EXPRESSSCOPE Engine)": Select "BMC (Other)"	
Authentication Key	Select DIVIC (Other).	
Authentication Key	Type" this item will be displayed	
	Enter the "authentication key" that you set in "1.2 Configure BMC	
	on Managed Component".	
User Name	If select "iLO" or "BMC (Other)" in "Management Type", this item	
Password	will be displayed.	
	If select "iLO" in "Management Type", enter the user name and	
	password for communication with the iLO, *3	
	If select "BMC (Other)" in "Management Type", enter the user name	
	and password for communication with the BMC (Other). *4	
	Select "Access Mode" used by communication with BMC(Other).	
	*5	
	• Auto	
	If "Auto" is selected as an access method and connection is	
	then refer "Priority access mode at the time of automatic selection"	
Access Mode	ontion in Classic Mode's Environment-Settings Network screen	
necess mode	and selected access method will get the priority for server	
	registration process.	
	• Redfish	
	Specify Redfish as the "Access Mode" for BMC (other).	
	• IPMI	
	Specify IPMI as the "Access Mode" for BMC (other).	
Port Number	Specify the Connection Port Number used by Redfish.	
	If you select "Auto" or "Redfish" as the access method, port number	
	settings are Mandatory.	
<u>BMC (EXPRESSSCC</u>	DPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN)	
Current IP Address	If you set both "IP Address1" and "IP Address2", specify which IP	
Failovar	address you want to use for connection.	
Fallovel	Address?" are set Determine whether to enable/disable the	
	"Failover" feature.	
IP Address 1	Enter the IP address that is specified on LAN1 of the BMC	
	configuration for the managed component.	
	If the managed component is a fault tolerant server, you should enter	
	the IP address of the management LAN port for the CPU/IO module	
	0 to the form.	
	If the managed component is a server which has EXPRESSSCOPE	

	Engine SP3(2BMC model), you should enter the IP address of the
IP Address 2	No input is required
IF Address 2	No liput is required.
CHECK: • *1 If a self-sig communication, detailed informat CHECK: • *2 Regarding a p number for WS-1	ned certificate is installed on the managed server for HTTPS a setting to allow it is required. Refer to "1.1 Setup Flow" for tion. ort number for WS-Man communication, refer to "Appendix C. Port Man communication".
CHECK: • *3 Set a user nar user's guide" or Administrator Additional use	ne and a password of following user account. Please refer to "iLO5 'iLO6 user's guide" for details about a user account of iLO. of the default user r with all user privileges.
If a user account use some functio	of other than the above is used, there is a possibility that you can't n for managing iLO.
CHECK: • *4 Set a user n "BMC/CMC Ma BMC (Other). Administrator Additional use	ame and a password of following user account. Please refer to nagement Console User's Guide" for details about a user account of of the default user r with all user privileges.
If a user account use some functio	of other than the above is used, there is a possibility that you can't n for managing BMC (Other).
CHECK.	
 *5 When using "I certificates, it ESMPRO/Server between the BM 	Redfish" as the access method for BMC (other) and using self-signed is necessary to refer to "4.3.1 Environment setting" in Manager to allow self-signed certificates for communication C (other) component and ESMPRO/ServerManager.
IMPORTANT:	
If BMC(EXPRE (Other) manager status. Detailed i	SSSCOPE Engine) management and iLO management and BMC nent are disabled, NEC ESMPRO Manager cannot monitor HW nformation is shown in the connection check result screen.
 IMPORTANT: When the access and console log functionality bet 	method for BMC (other) is Redfish, the remote console function settings cannot be used. Other than that, there is no difference in ween IPMI and Redfish.

(4) Click "ADD".

If there is an error in the input content, correct the input content following the message.

PRO shboard 📲 Register 📾 Component 🛕 A	lertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -
Auto Registration Manual Registra	ation
Server / Storage UPS Netwo	rk Device Other Computer Device Alert Only Management
Component Name [Required]	ESXi
Alias	
Destination Group	root +
Common Setting	
OS IP Address [Required]	10 . 15 . 228 . 44
SNMP (NEC ESMPRO Agent) / WS-M	lan / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	 SNMP (NEC ESMPRO Agent, iStorage M series) WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier) ESXi (ESXi8 or later) REST API (iStorage V series)
User Name/Password [Required]	Administrator /
Communication Protocol	• HTTP O HTTPS
Port Number [Required]	5985
RAID system (Universal RAID Utility)	
Management	Registration Unregistration
NEC ExpressUpdate	
Updates via NEC ExpressUpdate Agent	Registration Unregistration
"BMC (EXPRESSSCOPE Engine)"/"iLC	0"/"BMC(0ther)"/"vPro"(Common)
Management	• Registration O Unregistration
▲ If BMC / iLO management is disa Please refer to the result page of con	abled, NEC ESMPRO Manager cannot monitor HW errors of some servers. anection check.
Management Type	● iL0 ○ BMC ○ BMC (Other) ○ vPro
▲ "BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(mar For cases other than the above and "	is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ny core server). 1LO° and "vPro", Please select "BMC (Other)".
User Name/Password [Required]	Administrator /
Communication Protocol	O HTTP O HTTPS
Port Number [Required]	443
"BMC (EXPRESSSCOPE Engine)"/"iLC	0"/"BMC(Other)"/"vPro"(LAN)
IP Address 1 [Required]	10 . 15 . 228 . 140

(5) "CHECK CONNECTION" is displayed.

Click "CHECK	CONNECTION"	to start it.
--------------	-------------	--------------

ESMPRO	About NEC ESMPRO Manager	Help Classic Mode	🛔 admin 🕶
🕼 Dashboard - 🤷 Register 📾 Component 🛕 AlertViewer 💥 Tools 👻			
Auto Registration Manual Registration			
Server / Storage Network Device Other Computer Device Alert Only Management			
To remotely manage components, please continue to perform check connection.			
CHECK CONNECTION			

(6) If the "CHECK CONNECTION" is completed, "Connection check results" screen will be displayed.

ESMPRO		About NEC ESMPRO Manager Help Classic Mode 🛓 admin -
🚯 Dashboard 🛛 🛃 Register 📾 Component	🛦 AlertViewer 🕻 Tools -	
Auto Registration Manual Reg	jistration	
Server / Storage Network D	evice Other Computer Devic	e Alert Only Management
		Connection check results
	Management	Detected Detail
	WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier)	Detected WS-Man management can be used.
	BA	CK TO COMPONENT LIST CONTINUE REGISTERING

Detected	Detail
Detected	The feature was detected.
	NEC ESMPRO Manager can use the feature to manage the component.
Not Detected	The feature was not detected.
	NEC ESMPRO Manager cannot use the feature to manage the component.
	Check parameters corresponding to the feature.
	Click the "Name" of the component that could not be registered in the
	"Component List". The connection settings screen in Classic mode will be
	displayed. Please check that there are no errors in the entered items. For more
	details, please refer to the online help for NEC ESMPRO Manager.

10.3.2.2 Auto Registration

(1) Click "Register".

SMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator -
🗄 Dashboa fi 🔄 Register 🧳 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Se	iettings -
Component Status	A New Alert Status
The component is not registered.	No alerts are unread.
EW/SW lindate Availability	Alert Harand/Dead Statue
The component is not registered.	There are no alerts.

(2) Click the "Server / Storage" of "Auto Registration".

Registration Manual Registratio	n
Distance Page	root ¢
Discovery Mode	IP Address Range Discovery Network Address Discovery
Start Address [Required]	
End Address [Required]	
Server / Storage	
SMMR (NEC ESMPRO Agent (Storage	M series)
Discovery	Crable Disable
SNMP Community Name Required	public
WS-Man (NEC ESMPRO ServerAgents	C Enable Disable
User Name/Password [Required]	7 ADD
ESXI (ESXIB or later)	
Discovery	C Enable Disable
User Name/Password [Required]	/ ADD
REST API (iStorage V series)	
Discovery	O Enable O Disable
User Name/Password [Required]	/ ADD
RAID system (Universal RAID Utility)	
Discovery	• Enable O Disable
NEC ExpressUpdate (ExpressUpdate	Agent) O Enable O Disable
Discovery	• Enable 🔿 Disable
∴ If iLO management is disabled, N	IEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the
esult page of auto registration.	
User Name/Password [Required]	ADD .
BMC(EXPRESSSCOPE Engine)	
Discovery	• Enable O Disable
▲ "BMC(EXPRESSSCOPE Engine)" ADE), BMC(ECO CENTER), BMC(man For cases other than the above and " ▲ If BMC(EXPRESSSCOPE Engine) ervers. Please refer to the result page	is target for EXPRESSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL y core server). KC and YHPO', Please select "BMC (Other)". management is disabled, MEC ESMPRO Manager cannot monitor HW errors of some or dato registration.
NEC ExpressUpdate	O Enable 🔘 Disable
Authentication Key [Required]	ADD
BMC (Other)	
Discovery	• Enable Disable
A If BMC(Other)management is dis	sabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please ref
r to the result page of auto registratio	R. Datto Dedich IPMI
▲ If "Auto" is selected as an access ods i.e. then refer "Priority access mo Network screen and selected access	method and connection is established with both (IPMI and Redfish) the access method at the time of automatic selection" option in Classic Mode's Environment-Setting method will get the priority for server registration process.
User Name/Password [Required]	/ ADD
intel(R) vPro(TM) Technology	
Discovery	• Enable O Disable
User Name/Password [Required]	/ ADD
💽 UPS	
Network Device	
Other Computer Device	

(3) Input the following items to search VMware ESXi servers.

Name	Value
Destination Group	Specify the group to which the managed component will belong. When
1	you add the group to which the managed component will belong, See
	"1.3.2 Add component to Group" for the information about creating
	group.
Discovery Range	
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the IP address range.
	With "Network Address Search" selected, the NEC ESMPRO Manager
	searches for the managed components using the specified network
	address.
Start Address	When you select "IP Address Range Search" for "Search Mode", specify
End Address	the start IP address and end IP address of the range in which managed
N. (components are to be searched for.
Network Address	when you select "Network Address Search" for "Search Mode", specify
Network Mask	the network address and network mask of the managed component to be
SNMP (NFC FSMPRO	Agent iStorage M series)
Discovery	Select "Disable"
WS-Man(NEC ESMPR	O ServerAgentService, ESXi7)
Discovery	Select "Enable". *1
User Name/Password	Enter an administrative user's account of VMware ESXi server.
	Click "Add" button and you can add a pair of username and password up
	to 5. *2
ESXi (ESXi8 or later)	
Discovery	Select "Enable". *1
User Name/Password	Enter username and password for ESXi (ESXi8 or later) communication.
	The account must be a system administrator of the managed operating
	system.
	Click "Add" button and you can add a pair of username and password up
	to 5. *2
REST API(iStorage V s	eries)
Discovery	Select "Disable".
RAID system managem	
Management	Select "Enable" to manage the RAID system of the component.
	Solat "Disable" when the energing system of the managed common of the
	is VMware FSXi8 or later
NEC ExpressUndate	
Undates via NEC	Select "Disable"
ExpressUpdate Agent	
BMC (EXPRESSSCOP	'E Engine)
Discovery	If you search for VMware ESXi server in which BMC is integrated, select
2	"Enable" otherwise NEC ESMPRO Manager cannot monitor HW status.
Features NEC	Select "Enable" to feature NEC ExpressUpdate.
ExpressUpdate	
Authentication Key	Enter the "authentication key" that you set in "1.2 Configure BMC on
	Managed Component". *2 *3
iLO	
Discovery	If you search for VMware ESXi server in which iLO is integrated, select
	"Enable" otherwise NEC ESMPRO Manager cannot monitor HW status.
User Name/Password	Enter username and password for communication with the iLO,

	Clicking "Add" button, you can enter up to 5 pairs of username and password. *5	
BMC (Other)		
Discovery	If you search for VMware ESXi server in which BMC other than "BMC	
	(EXPRESSSCOPE Engine)" is integrated, select "Enable" otherwise	
	NEC ESMPRO Manager cannot monitor HW status.	
	Select "Access Mode" used by communication with BMC(Other). *7	
	• Auto	
	If "Auto" is selected as an access method and connection is established	
	with both (IPMI and Redfish) the access methods i.e. then refer	
	"Priority access mode at the time of automatic selection" option in	
Access Mode	Classic Mode's Environment-Settings Network screen and selected	
	access method will get the priority for server registration process.	
	• Redfish	
	Specify Redfish as the "Access Mode" for BMC (other).	
	• IPMI	
	Specify IPMI as the "Access Mode" for BMC (other).	
User Name/Password	Enter username and password for communication with the BMC (Other).	
	Clicking "Add" button, you can enter up to 5 pairs of username and	
	password. *6	
Intel(R) vPro(TM) Tecl	hnology	
Discovery	Select "Disable"	

•	*1 If a self-signed certificate is installed on the managed server for HTTPS
	communication, a setting to allow it is required. Refer to "1.1 Setup Flow" for
	detailed information.
СЦ	ECV.
	*2 On "Settings" - "Environment" - "Auto Registration Setting List" screen you ca
	manage a list of username/password and authentication key. All entries in the list ar used for auto registration every time
•••••	
СН	ECK:
•	*3 If you register the "Management Controller" management for a fault tolerar
	server, you should specify the search range which includes BMC IP addresses of
	CPU/IO module 0 and 1.
•	*4 If you register the "Management Controller" management for a server which ha EXPRESSSCOPE Engine SP3(2BMC model), you should specify the search range
	which includes both BMC IP addresses of Master and Standby.
СН	ECK:
•	*5 Set a user name and a password of following user account. Please refer to "iLO
	user's guide" or "iLO6 user's guide" for details about a user account of iLO.
	Administrator of the default user
	Additional user with all user privileges.
	If a user account of other than the above is used, there is a possibility that you can
	use some function for managing iLO.

"BMC/CMC Management Console User's Guide" for details about a user account of BMC (Other)
- Administrator of the default user
Additional user with all user privileges
Additional user with an user privileges.
If a user account of other than the above is used, there is a possibility that you can't use some function for managing BMC (Other).
CHECV.
CHECK:
• */ when using "Realish" as the access method for BMC (other) and using self-signed
ESMDDO/ServerMenager to allow colfisioned cortificates for communication
ESMPRO/Servermanager to allow self-signed certificates for communication
between the BMC (other) component and ESMPRO/ServerManager.
ΙΜΦΩΡΤΑΝΤ.
IVITORIANI:
(Other) responses and dischard NEC ESMPRO Management and BMC
(Other) management are disabled, NEC ESMPRO Manager may not be able to
monitor HW status. Detailed information is shown in the connection check result
screen.
IMPORTANT:
• When the access method for BMC (other) is Redfish, the remote console function
and console log settings cannot be used. Other than that, there is no difference in

(4) Click "RUN DISCOVERY".

RO xoard 📲 Register 📾 Component 🛕 Ale	ertViewer 🕂 Advanced - 🏌 Tools - 🌣 Settings -
Auto Desistration Menual Desistrat	
Auto Registration Manual Registrat	
Destination Group	root ¢
Discovery Range	
Discovery Mode	IP Address Range Discovery Network Address Discovery
Start Address [Required]	192 . 168 . 8 . 9
End Address [Required]	192 . 168 . 8 . 9
Server / Storage	
SNMP (NEC ESMPRO Agent, iStorag	ge M series)
Discovery	C Enable O Disable
WS-Man (NEC ESMPRO ServerAgen	ntService, ESXi7 earlier)
Discovery	Enable Disable
User Name/Password [Required]	root / ADD
ESXi (ESXi8 or later)	
Discovery	C Enable O Disable
REST API (iStorage V series)	
Discovery	C Enable O Disable
RAID system (Universal RAID Utility))
Discovery	C Enable O Disable
NEC ExpressUpdate (ExpressUpdate	e Agent)
Discovery	C Enable O Disable
iLO	
Discovery	C Enable O Disable
BMC(EXPRESSSCOPE Engine)	
Discovery	C Enable O Disable
BMC (Other)	
Discovery	C Enable O Disable
Intel(R) vPro(TM) Technology	
Discovery	C Enable O Disable
DUPS	
Network Device	
Other Computer Device	
	RUN DISCOVERY

CHI	ECK:
•	When you click the "RUN DISCOVERY", you may see a message "The search cannot be started.". If you have enabled "WS-Man Discovery", please check whether a "Self Signed Certificate" is allowed in section "1.3.1 Environment setting".

When you click the "RUN DISCOVERY", the discovery for components will begin and the "Auto Registration in Progress" screen will be displayed.

ESMPRO					About NEC ESMPRO Manager He	lp Classic Mode	💄 admin 🗝
Cashboard	-🗗 Register	E Component	🛦 AlertViewer 🔀 Tools 🗸				
				Auto Re;	gistration in Progress		
			Discovery Mode		IP Address Range Discovery		
			Start Address		192.168.8.9		
			End Address		192.168.8.9		
			the tween if switch	h screens or log o	CANCEL	een again.	

(5) When the "Auto Registration" is completed, following message will be displayed. Click "OK".



(6) Component registered is displayed on "Auto Registration Results".

Clicking the "name" will open the Classic mode, where you can confirm the registered information.

ESMP	RO					About NEC ESMPR	O Manager Help Classic Mode 💄 admin	•
🕻 Dash	nboard 📲 Register 📾	Component 🔺 Aler	tViewer 🕻 Tools 🔻					
	Auto Registration	Manual Registrati	on					
				Auto Registrat	ion Resul	lts		
	Entry Count:1item((s)						
	Name	IP Address	Management LAN IP Address 1	Management LAN IP	Address 2	Install NEC ExpressUpdate Agent	Contents	
	ESXi6_7u2	192.168.8.9				ExpressUpdate Disable	The component was added. Management Controller management cannot be used. Hardware monitoring function is unavailable.	
			ВАСК	TO COMPONENT LIST	CONTINUI	E REGISTERING		

Name	Description
Name	Component name
IP address	IP address
Management LAN IP Address 1	IP address of BMC (EXPRESSSCOPE Engine) /iLO/BMC
	(Other) /vPro)
Management LAN IP Address 2	IP address of BMC (EXPRESSSCOP Engine) (LAN port2 is supported.)
Install NEC ExpressUpdate Agent	ExpressUpdate is enable
	When "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled, and a component that can be installed with ExpressUpdate Agent is discovered.
	• ExpressUpdate is disable
	 "NEC ExpressUpdate(ExpressUpdate Agent)" is disable "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled, but there is not component that can be installed with ExpressUpdate Agent.
Contents	• A component has been added.
	This message will be displayed if the component is
	successfully registered.
	 Management Controller management cannot be used.
	Hardware monitoring function is unavailable.
	This message will be displayed when BMC
	(EXPRESSSCOPE engine)/iLO/BMC (other)/vPro
	cannot be discovered for a component registered by an
	Controller management function click the "Name" The
	connection settings screen in Classic mode will be
	displayed, so you can perform the registration here.

10.4 Upgrading to VMware ESXi 8.0 or later

10.4.1 Changing the Managed device

Change to ESXi management from WS-Man management when being upgraded by VMware ESXi8 or later.

- (1) In the ESXi management, it does not use when setting the following to manage WS-Man in NEC ESMPRO Manager.
 - Enable the WBEM service.
 - · Configure the sfcbd service to restart automatically when VMware ESXi boots.
 - Enable the Service Location Protocol service.

Therefore, the following configure when not using except NEC ESMPRO Manager.

- Disable the WBEM service.
 Execute following command to disable the WBEM service.
 # esxcli system wbem set --enable false
- Do not automatically restart the sfcbd service when VMware ESXi boots. Delete the following line added to /etc/rc.local.d/local.sh. /etc/init.d/sfcbd-watchdog restart
- Disable the Service Location Protocol service.
 Perform the Solution "To implement the workaround perform the following steps:" of the following knowledge information.
 How to Disable/Enable the SLP Service on VMware ESXi (76372)
 https://kb.vmware.com/s/article/76372
- (2) Click "Classic Mode"

ESI	ESMPRO About NEC ESMPRO Manager Hep Classic Mode Administrator				
🚯 Dashboard 🐴 Register 📾 Component 🛕 AlertViewer 🕂 Advanced - 🛠 Tools - 🌣 Settings -					
	Component Status	New Alert Status			
	The component is not registered.	No alerts are unread.			
	FW/SW Update Availability	Alert Unread/Read Status			
	The component is not registered.	There are no alerts.			

(3) Click the component of the VMware ESXi 7 or earlier server

FOURDO		User Name : admin [Authority : Administrator] Close
ESMPRO		ExpEther Tools Environment About NEC ESMPRO Manager Help
Group	root	[RAID System Management Mode : Advanced Mode]
Cittip Coot	Group Information Server Control Schedule	
L 🖉 🚊 ESXI6	Group Information Component List	Page [1]
	Group Information	manazement UP Address System manazement NEC ExpressUpdate RAID s
	- 🕀 📑 Alert Status	Not Registered Registered (valid) Not Registered Not Reg
	🦾 🔝 Remote KVM and Media License List	

(4) Click "Connection Setting" from "Setting" tab of the managed component. "Connection Setting" view is displayed. Click "Edit".

FONDRO			User Name : admin [Authority : Administrator] Close
ESMPRO			ExpEther Tools Environment About NEC ESMPRO Manager Hel
	root > ESXi6 > Connection Setting		[RAID System Management Mode : Advanced Mode
Group	a strat Sattian		
🕑 🛄 root	Constitution Octume Remo	te Control	
ESXI6	The second		
	E Connection Setting	Item Name	Setup Value
	A Manitoring G	Component Name	ESXIG
		Allas	ESAIO
	- Marchael Wake Up Setting	Group Connection Tune	root
	- B Alert Destination	Common Settion	LAN
		OS P Address	102 169 8 9
		SNMP (NEC ESMPRO Agent) / WS-Man / ESXi	102.100.0.0
		Manacement	Registered (valid)
		Management Type	WS-Man (NEC ESMPRO ServerAgentService, before ESXi7)
		User Name	root
		Password	**********
		Communication Protocol	HTTPS
		Port Number	443
		RAID system management	
		Management	Not Registered
		NEC ExpressUpdate	
		Updates via NEC ExpressUpdate Agent	Not Registered
		"BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)"	/ "vPro" (Common)
		Management	Apt Registered
		Ed	lit Check Connection

(5) Change into ESXi management from WS-Man management.

gent) / WS-Man / ESXi hange to ESXi from WS-Man. nter an administrative user's account of VMware ESXi server. his is displayed only when WS-Man is selected as the management arget.		
hange to ESXi from WS-Man. nter an administrative user's account of VMware ESXi server. his is displayed only when WS-Man is selected as the management arget.		
nter an administrative user's account of VMware ESXi server. his is displayed only when WS-Man is selected as the management arget.		
his is displayed only when WS-Man is selected as the management urget.		
urget.		
target.		
elect protocol HTTP/HTTPS for connection WS-Man service. *1		
NEC ESMPRO ServerAgentService (Windows) is installed. If you want to use HTTPS for WS-Man communication with SMPRO/ServerAgentService, refer to Chapter 2, Installation 3.3 ITTPS Setting in the ESMPRO/ServerAgentService Installation Guide Windows).		
NEC ESMPRO ServerAgentService (Linux) is installed. Select HTTPS.		
The operating system of the managed component is VMware ESXi7. elect HTTPS.		
nter port number where WS-Man service listens for connection. *2		
NEC ESMPRO ServerAgentService (Windows) is installed. If you want to use HTTP, enter 5985. If you want to use HTTPS, enter 5986.		

	Enter 5986.	
	- The operating system of the managed component is VMware ESXi7. Enter 443.	
RAID system management		
Management	In case of Registration, choose Unregistration.	

(6) Click "Apply".

FOMDEO			User Name : admin [Authority : Administrator] Close
ESMPRO			ExpEther Tools Environment About NEC ESMPRO Manager Hel
	root > ESXi6 > Connection Setting		[RAID System Management Mode : Advanced Mode
Group	Constitution Setting Rome	ata Castral	
🔮 📁 root	Constitution Constitution	Ste Control	
😔 📕 ESXi6	🔁 Server setting	Item Name	Setun Value
	🚽 🛃 Connection Setting	Component Name [required]	ESXi6
	- 📑 Alive Monitoring Setting	Alias	ESXi6
	Remote Wake Up Setting	Brown	root ×
	- III Alert Destination	Connection Type	I AN Direct Modern
	w [*]		CHINO DI SCI O MODEIN
		OS IP Address [required]	192 168 8 9
		SNMP (NEC ESMPRO Agent) / WS-Man / ESXi	
		Management	Registration Ourregistration
		Manarament Tuna	SNMP (NEC ESMPRO Agent, NEC Storage) WS-Mae (NEC ESMPRO Sequer Agent/Sequer Sequer Agent/Security Internet Security Internet Secu
		indiagona in a spo	 ESXI (ESXIB)
		User Name [required]	administartor
		Password [required]	
		Management	O Registration Unregistration
		NEC ExpressUpdate	
		"DMC (EVDESSSCORE English)" / "II O" / "PMC (Other)"	C Registration Unregistration
		Management	Revistration
		If BMC / ILO management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check.	
		Management Type OBMC @ LO OBMC(Other) OvPro	
		"BMO(EXPRESSSCOPE Engine)" is target for EXPRESSSCOPE BMC(many core server). For cases other than the above and "LO" and "vPro", please s	Engine1/2/3/3ft/2SP/3SP,EM Card(SIGMABLADE), BMC(ECO CENTER), select "EMC(Other)".
		User Name (required)	administrator
		Password [required]	
		Communication Protocol	OHTTP @ HTTPS
		Port Number [required]	443
		"BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other)"	/ "vPro" (LAN)
		P Address1 [required]	E [0]. [0]. [0]. [0]. [0]. [0]. [0]. [0].

(7) Click the "Connection Setting" from "Setting" tab of the managed component. Click "Check Connection" to collect the VMware ESXi server information for the management.

When the "Check Connection" is completed, the NEC ESMPRO Manager starts to control the VMware ESXi server.

Detected	Detail
Detected	The feature was detected.
	NEC ESMPRO Manager can use the feature to manage the component.
Not Detected	The feature was not detected.
	NEC ESMPRO Manager cannot use the feature to manage the component.
	Check parameters corresponding to the feature.

Chapter11 Setup for the Alert only Component

NEC ESMPRO Manager ver.6.02 or later can receive SNMP Trap from registered component as "Alert Only Management".

This chapter explains the setup procedure for the NEC ESMPRO Manager to manage the Alert only Component

11.1 Setup Flow

Perform the following setup procedure:

- (1) Connect the management PC on which NEC ESMPRO Manager is installed and the managed SNMP Trap component on the same network.
- (2) Configure SNMP Trap on the managed Alert only component by NEC ESMPRO Manager to enable SNMP Trap.

* Please refer to procedure manual of component to enable SNMP Trap.

(3) Register the managed component on NEC ESMPRO Manager.

11.2 Register a managed component on NEC ESMPRO Manager

To register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform in the following order:

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

CHECK:
Alert Only Management can be registered from "Manual Registration". Cannot be registered from "Auto Registration"

registered from "Auto Registration".

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator •
😫 Dashboar 🔒 Register 🖨 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Alert Only Management" of "Manual Registration" tab.

ESMPRO		About NEC ESMPRO Manager	Help Classic Mode	🛔 admin 🗝
🖨 Dashboard 📲 Register 📾 Component ,	🛦 AlertViewer 🔀 Tools 👻			
Auto Registration Manual Reg	istration			
Server / Storage Network D	evice Other Computer Device Alert Only Management	BACK TO COMPONENT LIST		
Component Name [Required]				
Alias				
Destination Group	root ¢			
IP Address [Required]				
	ADD			
(3) Click the managed component's "Group name".

Name	Value						
Component Name	Specify the name of the managed component on NEC ESMPRO Manager.						
_	Assign a name different from other managed component names. Do not						
	enter a name including blank characters. Uppercase characters are						
	distinguished from lowercase characters.						
Alias	Specify the information about the managed component. Do not enter a						
	name including blank characters. Only blank characters cannot be entered.						
	Also, please do not enter a name containing blank characters. The bl						
	characters will be removed if there are half-width blank characters before						
	or after the string. Uppercase characters are distinguished from lowercase						
	characters. Optional.						
Destination Group	Specify the group to which the managed component will belong.						
Common Setting							
IP Address	Specify the OS IP Address of the managed component.						

(4) Click "ADD".

If there is an error in the input content, correct the input content following the message. If the registration is successful, "Alert Only Management registration was successful." will be displayed.

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode	💄 admin 🕶
🕼 Dashboard 📲 Register 🚔 Component	🛦 AlertViewer 💥 Tools 👻				
Auto Registration Manual Re	gistration				
Server / Storage Network D	evice Other Computer Device	Alert Only Management	BACK TO COMPONENT LIST		
Component Name [Required]	AlertOnly				
Alias					
Destination Group	root +				
IP Address [Required]	192 . 168 . 8	. 11			
	ADD				

(5) Component registered is displayed in"Component List".

Chapter12 Setup for ExpEther

NEC ESMPRO Manager ver.6.15 or later can manage ExpEther.

12.1 Notes of before setup

NEC ESMPRO Manager cooperates with ExpEther Manager to manage ExpEther. ExpEther must have its host's serial number in own EEPROM so that NEC ESMPRO Manager can manage ExpEther. So User should set host's serial number to the EEPROM on ExpEther board by using ExpEtherConfigTool.

For the ExpEtherConfig Tool, see the user's guide of ExpEther IO Expansion Unit (40G).

12.2 Setup Flow

Perform the following setup procedure:

(1) Install ExpEther Manager on the server which is connected to the same network as NEC ESMPRO Manager.

For the installation of ExpEther Manager, see the user's guide of ExpEther IO Expansion Unit (40G).

(2) Register the ExpEther Manager on NEC ESMPRO Manager by using "Discovery ExpEther Manager API".

Perform "Discovery ExpEther Manager API" after performing "Login API". Refer to "NEC ESMPRO Manager Ver.7 RESTful API Reference" for details of API. When executing "Diascovery ExpEther Manager API", you can use a sample script which is mentioned in "Appendix E. Means to perform REST API using a sample script".

Chapter13 Setup for Managed Component of Network Device

This chapter explains the setup procedure for the NEC ESMPRO Manager to manage the Network Device.

13.1 Setup Flow

Setup by the following setup procedure:

- (1) Connect the management PC on which NEC ESMPRO Manager is installed and the Network Device on the same network.
- (2) Perform the necessary setup for registering the Network Device.

Enable SNMP communication for the Network Device that support SNMPv1 MIB2.

(3) Register the Network Device in NEC ESMPRO Manager.

13.2 Register a managed component on NEC ESMPRO Manager

In order to register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform the following procedure:

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

13.2.1 Register the Network Device

Use either of following two methods to register the managed component.

Manual Registration

This method requires the operator to directly enter the managed component's information such as the IP address of Network Device.

Auto Registration

This method automatically searches the network for managed components and Network Device that are not registered yet in the NEC ESMPRO Manager and registers them.

13.2.1.1 Manual Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator •
😢 Dashbd rd 🔒 Register 🚔 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
EW/SW Update Availablity	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Network Device" of "Manual Registration" tab.

Auto Registration Manual Registratio	n	
Server / Storal e Network Device	ner Computer Device Alert Only Management	BACK TO COMPONENT LIST
Component Name [Required]		
Alias		
Destination Group	root ¢	
IP Address [Required]		
SNMP Community Name [Required]	public	
	ADD	

(3) Input the following items.

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO Manager. Assign a name different from Network Device names. Do not enter a name including blank characters. Uppercase characters are distinguished from lowercase characters.
Alias	Specify the information about the managed component. Do not enter a name including blank characters. Only blank characters cannot be entered. Also, please do not enter a name containing blank characters. The blank characters will be removed if there are half-width blank characters before or after the string. Uppercase characters are distinguished from lowercase characters. Optional.
Destination Group	Specify the group to which the managed component will belong. When you add the group to which the managed component will belong, See "1.3.2 Add component to Group" for the information about creating group.
IP Address	Enter IP Address of the Network Device.
SNMP Community Name	SNMP Community Name which is specified at SNMP Agent running on the managed component.

(4) Click "ADD".

If the registration is successful, "Network device registration was successful." will be displayed. If the registration fails, "Failed to register network device." will be displayed. Please ensure that the entered information is correct.

Auto Registra	ation Manual Registratio	n		
Server / St	orage Network Device	Other Computer Device Alert Only Management	BACK TO COMPONENT LIST	
Compon	ent Name <mark>(Required)</mark>	NetWork		
Alias				
Destinat	ion Group	root ¢		
IP Addre	ss (Required)	192 . 168 . 8 . 107		
SNMP C	ommunity Name [Required]	public		
	0	ADD		

(5) The Network Device registered is displayed in "Component List"

13.2.1.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator -
🚯 Dashbord 🔄 Register 🛟 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Undate Availability	Alert Unread/Bead Status
The component is not registered	There are no alerte

(2) Click the "Network Device" of "Auto Registration".

ESMPRO				About NEC ESMPRO Manager	Help	Classic Mode	💄 admin 🗸
C Dashboard	-S Register 📾 Component 🛕 Alert	iewer 💥 Tools 🔻					
Aut	to Registration Manual Registration						
	Destination Group	root	\$				
	Discovery Range						
	Discovery Mode	• IP Address Range Discovery	O Network Address Discover	у			
	Start Address [Required]						
	End Address [Required]						
	Sepuer / Storage						
	Server / Storage						
	Network Device						
	SNMP Community Name [Required]	public					
	Other Computer Device						
		RUN DISCOVERY					

(3) Input the following items to search managed components based on Network Device.

Name	Value		
Destination Group	Specify the group to which the managed component will belong. When you add the group to which the managed component will belong, see "1.3.2 Add		
	component to Group" for the information.		
Discovery Range			
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager		
	searches for the managed components using the IP address range.		
	With "Network Address Search" selected, the NEC ESMPRO Manager		
	searches for the managed components using the specified network address.		
Start Address	When you select "IP Address Range Search" for "Search Mode", specify		
End Address	the start IP address and end IP address of the range in which managed		
	components are to be searched for.		
Network Address	When you select "Network Address Search" for "Search Mode", specify the		
Network Mask	network address and network mask of the managed component to be		
	searched for.		
Network Device			
SNMP Community	SNMP Community Name which is specified at SNMP Agent running on		
Name	the managed component.		

(4) Click "RUN DISCOVERY".

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode	🛓 admin 🕇
C Dashboard	-🚡 Register 📾 Component 🛕 AlertV	riewer 💥 Tools -			
Au	to Registration Manual Registration	1			
	Destination Group	root ¢			
	Discovery Range				
	Discovery Mode	● IP Address Range Discovery ○ Network Address Disc	overy		
	Start Address [Required]	192 . 168 . 8 . 107			
	End Address [Required]	192 . 168 . 8 . 107			
	Server / Storage				
	Network Device				
	SNMP Community Name [Required]	public			
	Other Computer Device				
		RUN DISCOVERY			

Click "RUN DISCOVERY" and then the search for the managed components will start. The screen "Auto Registration in Progress" is displayed.

ESMPRO		About NEC ESMPRO Manager H	elp Classic Mode	🛓 admin -
🕏 Dashboard 📲 Register 📾 Component 🔒	🛕 AlertViewer 🛛 💥 Tools 👻			
Auto Registration Manual Reg	istration			
		\bigcirc		
	Auto Re	gistration in Progress		
	Discovery Mode	IP Address Range Discovery		
	Start Address	192.168.8.107		
	End Address	192.168.8.107		
	${\mathbb A}$ Even if switch screens or log o	CANCEL	n again.	

(5) When the "Auto Registration" is completed, following message will be displayed. Click "OK".



(6) Component registered is displayed on "Auto Registration Results".

ESMF	PRO				About NEC ESM	IPRO Manager Help	Classic Mode	🛓 admin 🕶
🕒 Dasi	hboard 📲 Register 📾	Component 🔺 Ale	rtViewer 🕻 Tools 🔹					
	Auto Registration	Manual Registrat	ion					
					Desults			
				Auto Registratio	on Results			
Entry Count:1item(s)								
	Name	IP Address	Management LAN IP Address 1	Management LAN IP Ad	idress 2 Install N	VEC ExpressUpdate Agent	Contents	
	Network	192.168.8.107			Expres	sUpdate Disable	The com	ponent was added.
			BACK TO C	COMPONENT LIST	CONTINUE REGISTE	RING		

Name	Value
Name	Component name
IP address	IP address
Management LAN IP Address 1	It is not displayed.
Management LAN IP Address 2	It is not displayed.
Install NEC ExpressUpdate Agent	• ExpressUpdate is disable
	This function is not supported.
Contents	• The component has been added.
	This message is displayed when a component has been
	successfully registered.

TIPS:

If the system management cannot discover the managed component name, the "Name" of "Component List" will be "ManagementController".

.....

The following components will be named "ManagementController + number". If you want to change the name, click the "Name" in the "Component List" to launch Classic mode, and then click "Setting" -> "Connection Setting" -> "Edit" to change component name.

Chapter14 Setup for Managed Component of Other Computer Device

This chapter explains the setup procedure for the NEC ESMPRO Manager to manage the Other Computer Device component.

14.1 Setup Flow

Setup by the following setup procedure:

- (1) Change account of ESMPRO/SM Task Service according to the following procedure for managing Other Computer Device.
- 1. Launch "Services" from "Administrative Tools" of "Control Panel".
- 2. Stop ESMPRO/SM Web Service.
- 3. Stop ESMPRO/SM Task Service.
- 4. Double-click ESMPRO/SM Task Service and the property screen is displayed.
- 5. Select "This account" instead of "Local System account" on "LogOn" tab.
- 6. Enter "account" and "Password" with administrator privileges, and click "OK".
- 7. Start ESMPRO/SM Task Service.
- 8. Start ESMPRO/SM Web Service.
- (2) Connect the management PC on which NEC ESMPRO Manager is installed and the Network Device on the same network.
- (3) Perform the necessary setup to register the Other Computer Device.

The following settings are required according to OS of Other Computer Device.

- Windows Server 2016 / 2019 / 2022 / 2025, Windows 10 / 11
- Please Setting category of network to domain or private network.
- If windows firewall is enabled, the communication will be interrupted, so you won't be able to manage it correctly. Open following port that is not opened.

Function	PC for management		protocol/	Other Computer Device	
	Component	Port	direction	Port	Component
Detail display,		TT 1	ТСР	5005	
remote control	NEC ESMPRO Manager	Unknown	$\stackrel{\rightarrow}{\leftarrow}$	5985	WinRM Service

- Run PowerShell with "Run as Administrator", execute the following command in Windows 2016. Set-WSManQuickConfig –Force
- Red Hat Enterprise Linux

- For Red Hat Enterprise Linux 9, it is necessary to enable SSH login for the root account.
- Open the following port if it is not opened.

Function	PC for management		protocol/	Other Computer Device	
FUNCTION	Component	Port	direction	Port	Component
Detail display			ТСР		
remote control	NEC ESMPRO Manager	Unknown	\rightarrow	22	SSH
control			\leftarrow		

(4) Register the Other Computer Device in NEC ESMPRO Manager.

14.2 Register Other Computer Device on NEC ESMPRO Manager

In order to register the managed component on the NEC ESMPRO Manager, login to the NEC ESMPRO Manager and perform the following procedure:

If necessary, see "1.3.2 Add component to Group" and add the group to which the managed component will belong.

14.2.1 Register the Other Computer Device

Use either of following two methods to register the managed component.

Manual Registration

This method requires the operator to directly enter the managed component's information such as the IP address of Other Computer Device.

Auto Registration

This method automatically searches the network for managed components and Other Computer Device that are not registered yet on the NEC ESMPRO Manager and registers them.

14.2.1.1 Manual Registration

(1) Click "Register".

IPRO	About NEC ESMPRO Manager Help Classic Mode
shboa Register - Component 🛦 AlertViewer + Advanced - 💥 Tools -	🂠 Settings -
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availablity	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Other Computer Device" of "Manual Registration" tab.

	About NEC ESMPRO Manager Help Classic Mode 🛓 admin -
lertViewer 🔀 Tools 👻	
ation	
Other Computer Device lert Only Management	BACK TO COMPONENT LIST
root ¢	
ADD	
	AlertViewer 🔀 Tools -

(3) Input the following items.

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO Manager.
	Assign a name different from Other Computer Device names. Do not enter
	a name including blank characters. Uppercase characters are distinguished
	from lowercase characters.
Alias	Specify the information about the managed component. Do not enter a
	name including blank characters. Only blank characters cannot be entered.
	Also, please do not enter a name containing blank characters. The blank
	characters will be removed if there are half-width blank characters before
	or after the string. Uppercase characters are distinguished from lowercase
	characters. Optional.
Destination Group	Specify the group to which the managed component will belong. When you
	add the group to which the managed component will belong, See "1.3.2
	Add component to Group" for the information about creating group.
IP Address	Enter IP Address of the Other Computer Device.
User Name	Enter the user name and password for communication with Other Computer
Password	Device.
	- Windows
	Enter Username/Password of Windows system Administrator.
	- Linux
	Enter root/Password of Linux operating system.

(4) Click "ADD".

If the registration is successful, "Other Computer Device registration was successful." will be displayed. If the registration fails, "Failed to register Other Computer Device. Please check the input information or the ESMPRO/SM Task Service logon account" will be displayed. Please ensure that the entered information is correct. If "Failed to register Other Computer Device" is displayed, please check whether procedure2 in "14.1 Setup Flow" is executed.

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode	Ladmin -
🕒 Dashboard 📲 Register 📾 Component 🛕 Al	ertViewer 💥 Tools -				
Auto Registration Manual Registra	tion				
Server / Storage Network Device	Other Computer Device	Alert Only Management	BACK TO	COMPONENT LIST	
Component Name [Required]	OtherComputer				
Alias					
Destination Group	root				
IP Address [Required]	192 . 168 . 8	. 59			
User Name [Required]	root				
Password [Required]					
(ADD				

(5) The Other Computer Device registered will be displayed in "Component List".

14.2.1.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator -
🚯 Dashbos II 👍 Register 🗧 Component 🛕 AlertViewer 🕂 Advanced - 💥 Tools - 🌣 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availablity	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click the "Other Computer Device" of "Auto Registration".

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode	🛓 admin 🗸
Cashboard	-🚡 Register 📾 Component 🛕 Aler	rtViewer 💥 Tools 🔻			
Aut	to Registration Manual Registration	on			
	Destination Group	root ¢			
	Discovery Range				
	Discovery Mode	• IP Address Range Discovery O Network Address Discov	ery		
	Start Address [Required]				
	End Address [Required]				
	Server / Storage				
	Network Device				
	Other Computer Device				
	User Name/Password [Required]				

(3) Input the following items to search managed components based on Other Computer Device.

Name	Value
Destination Group	Specify the group to which the managed component will belong. When you
	add the group to which the managed component will belong, see "1.3.2 Add
	component to Group" for the information.
Discovery Range	
Discovery Mode	With "IP Address Range Discovery" selected, the NEC ESMPRO Manager
	searches for the managed components using the IP address range.
	With "Network Address Discovery" selected, the NEC ESMPRO Manager
	searches for the managed components using the specified network address.
Start Address	When you select "IP Address Range Discovery" for "Discovery Mode",
End Address	specify the start IP address and end IP address of the range in which
	managed components are to be searched for.
Network Address	When you select "Network Address Discovery" for "Discovery Mode",
Network Mask	specify the network address and network mask of the managed component
	to be searched for.
Network Device	
User Name/ Password	Enter the user name and password for communication with Other Computer
	Device.
	- Windows
	Enter Username/Password of Windows system Administrator.
	- Linux
	Enter root/Password of Linux operating system.

(4)Click "RUN DISCOVERY".

ESMPRO		About NEC ESMPRO Manager	Help Classic Mode	🛓 admin -
🕒 Dashboard 📲 Register 📾 Component 🛕 Aler	Viewer 🔀 Tools -			
Auto Registration Manual Registration	'n			
Destination Group	root \$			
Discovery Range				
Discovery Mode	• IP Address Range Discovery O Network Address Disc	covery		
Start Address [Required]	192 . 168 . 8 . 59			
End Address [Required]	192 . 168 . 8 . 59			
Server / Storage				
Network Device				
Other Computer Device				
User Name/Password [Required]	root / A	DD		
	RUN DISCOVERY			

Click "RUN DISCOVERY" and then the discovery for the managed components will start.

"Auto Registration in Progress" screen will be displayed.

ESMPRO			About NEC ESMPRO Manager Help	Classic Mode 💄 admin 👻
🔇 Dashboard - 🗗 Reg	ister 📾 Component	🛕 AlertViewer 🛛 💥 Tools 👻		
Auto Regi	stration Manual Re	jistration		
		Auto F	Registration in Progress	
		Discovery Mode	IP Address Range Discovery	
		Start Address	192.168.8.59	
		End Address	192.168.8.59	
		${\mathbb A}$ Even if switch screens or lo	CANCEL g out, you can check the progress by opening this screen	again.

(5) When the "Auto Registration" is completed, following message will be displayed. Click "OK".



(6) Component registered is displayed on "Auto Registration Results"

ESMPF	RO			About	NEC ESMPRO Manager Help Clas	sic Mode 💄 admin -
🕻 Dashb	ooard 📲 Register 📾 (Component 🔺 Ale	ertViewer 💥 Tools -			
-						
	Auto Registration	Manual Registrat	ion			
				Auto Registration Res	ults	
	Entry Count:1item(s	5)				
	Name	IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents
	OtherComputer	192.168.8.59			ExpressUpdate Disable	The component was added.
			BACK TO C	COMPONENT LIST CONTIN	UE REGISTERING	

Name	Description
Name	Component name
IP address	IP address
Management LAN IP Address 1	It is not displayed.
Management LAN IP Address 2	It is not displayed.
Install NEC ExpressUpdate Agent	• ExpressUpdate is disable
	This function is not supported.
Contents	• The component has been added.
	This message is displayed when a component has been
	successfully registered.

TIPS:

 In Auto Registration, If the system management cannot discover the managed component name, the "Name" of "Component List" will be "OtherComputer". The following components will be named "OtherComputer + number".

.....

 If you want to change the name, click the "Name" in the "Component List" to launch Classic mode, and then click "Setting" -> "Connection Setting" -> "Edit" to change component name.

Chapter15 Operating groups

This chapter explains the procedure for the NEC ESMPRO Manager to add group or change name or delete name.

See "1.3.2.1 Creating group" to create group.

15.1 Adding group

(1) Click "Component".

	About NEC ESMPRO Manager Help Classic Mode 🛓 Administrator -
G Dashooard G Hegrer Component A Lettviewer + Advanced - 🗶 Ioois - 🖬 Settings -	
Component Status	New Alert Status
The component is not registered.	No alerts are unread.
FW/SW Update Availability	Alert Unread/Read Status
The component is not registered.	There are no alerts.

(2) Click "checkbox" of component listed on "Component List", and click "+ ADD GROUP".

ESM	PRO	Register 🛛 🖨 Compo	nent 🛕 AlertViewer 🕂 Advanced -	🎗 Tools - 🌣 Settings -			About NEC ESMPRO Ma	nager Help Classic Mo	Administrator -
Com	ponent List						+ ADD GROU	JP Joot	٠
	REFRESH			Error	🛛 🗹 🗢 Warning 🛛 🗹	OC-OFF/POST/OS Panic	🗹 🖲 Unknown 🗹 🔍 Norm	al 😦 🛛 Status Getting	Not Monitored
	Status		≑ Type	Linkage	IP Address	Management LAN	≑ Memo		÷
	• 🛃	PaleEpoch2	Server			192.168.1.240			
\checkmark	• 🛃	RedPick	Server	Windows Admin Center	192.168.1.221	192.168.1.220			
	• 💷	rubycannon	Server	Windows Admin Center	192.168.1.231	192.168.1.230			
	•	device	Alert Only		10.32.150.170				
	• 💷	newdevice	Other Computer Device		10.32.150.163				
	• 👺	Server	Server	Windows Admin Center	10.32.150.138				
6 iten	n(s) between	1 and 6 is displayed						DELETE SEL	Previous 1 Next

(3) Select group from group list, and click "REGISTER".

If you want create a new group for component here, click "+ ADD New Group" and enter group name.

Add devices or groups to the group.					
	GroupB 1 device(s) will be added	\$			
	REGISTER	>			

(4) The following message will be displayed, and click "OK".

localhost:21120 says	
GroupB to 1 component(s) have been added.	
	ОК

(5) If you select a group that contains a component from the group list, the component or group will be displayed in the "Component List".

ESMPRO			About NEC ESMPRO Manag	jer Help Classic Mode	Administrator •
😫 Dashboard 📲 Register 📾 Component 🛕 AlertViewer 🕂 Advanced 👻 💥 Tools - 🌣 Sa	ettings +				
Component List			+ ADD GROUP	GroupB	•
		_			
REFRESH	🗹 🛛 Error 🗹 🔍 V	Jarning 🗹 🛛 DC-OFF/POST/OS Panic	ා 🗹 🖲 Unknown 🔽 🔍 Normal	. 🧧 😐 Status Getting	Not Monitored
C Status A Marco A Turos A Lipicaso	≜ ID Addroop	Management LAN	÷ Momo		Â
Status PaleEpoch2 Server	 IP Address 	192.168.1.240			
1 item(s) between 1 and 1 is displayed					Previous 1 Next

15.2 Changing group name

(1) In "Component List", click "Rename" on the right of the group under the "Type" column.

🖨 Das	hboard 📲	Register 📾 Compon	ent 🛕 AlertViewer 🕂 Advanc	ed 🔹 💥 Tools 👻 🌣 Set	tings -		About NEC ESMPRO Manager Hel	p Classic Mode 💄 Adm	ninistrator *
Comp	onent List				-		+ ADD GROUP	root	•
RE	EFRESH				🗹 单 Error 🛛 🖉 🔍 Warning	DC-OFF/POST/OS Pa	nic 🗹 🛛 Unknown 🔽 🛛 Normal 🗹 🗕	Status Getting 🔽 🔍 Not	t Monitored
	Status	Name	🗧 Туре	Linkage	IP Address	Management LAN	Memo		\$
	• 🗱	GroupB	Group[Rename])					
1 item((s) between	1 and 1 is displayed						Previous Delete selected devic	1 Next

(2) Enter a new group name, and click "APPLY".

GroupB is renaming	×
[Please enter within 63 characters]	
GroupC	
Registration components 1item(s)	
APPLY	>

(3) Check the group name changed on "Component List".



15.3 Removing groups

If you delete a group, all components and sub-groups under this group will also be deleted.

(1) Select a group which target groups belong to.

E	SMPRO						About NEC ESMPRO Manager Help	Classic Mode Administrate	· nox
	C Dashboard	👌 Register 🚔 Componen	nt 🔺 AlertViewer 🕂 Advanced	- 🎘 Tools - 🌣 Settings	-				
	Component Lis	t					+ ADD GROUP	root ¢	
	REFRESH				🗹 🛛 Error 🔽 🔍 Warning	 DC-OFF/POST/OS Panic 	🗹 🖲 Unknown 🗹 🔍 Normal 🗹 🔍 St	tatus Getting 🗹 🔍 Not Monito	ored
	Status	Name	Type	Linkage Linkage	IP Address	Management LAN	Memo		÷
	- • 課	GroupC	Group[Rename]						
	1 item(s) betwe	en 1 and 1 is displayed						Previous 1	Next
								DELETE SELECTED DEVICE/GROUP	P

(2) Check target groups, click "DELETE SELECTED DEVICE/GROUP".

You can check the components/groups displayed on the screen by clicking the checkbox located to the left of the status column.

E		🖥 Register 📾 Compone	ent 🛕 AlertViewer 🕂 Advance	ed - 🎉 Tools - 🛱 Sett	inas -		About NEC ESMPRO Manager H	elp Classic Mode Administrat	tor •
T	Component List	t					+ ADD GROUP	root	•
	REFRESH				🗹 单 Error 🔽 😐 Warning	DC-OFF/POST/OS Panic	🗹 ● Unknown 🗹 ● Normal 🗹	Status Getting Status Getting	tored
(Status	Name GroupC	Type Group[Rename]	Linkage	IP Address	Management LAN	Memo		•
	1 item(s) betwee	en 1 and 1 is displayed						Previous 1	Next
								DELETE SELECTED DEVICE/GROU	

(3) Click "DELETE" and you can remove checked groups from NEC ESMPRO Manager.

	×
Deletes the specified device/group. Please note that if a device or group is registered under a group, it will be dele together.	ted
DELETE CANCEL	

If delete start,"Group deletion started." message is displayed and click "OK".



Chapter16 Removing components

This chapter explains the procedure for the NEC ESMPRO Manager to remove components.

16.1 Removing components

(1) Select a group which target components belong to.



(2) Check target groups, click "DELETE SELECTED DEVICE/GROUP".

You can check the components/groups displayed on the screen by clicking the checkbox located to the left of the status column.



(3) Click "DELETE" and "Deleting components.Please wait a minutes." will be displayed. If the deletion finish, "The deletion process is complete." will be displayed, and click "OK".



Appendix A. How to setup for the managed component that does not has local console

Even if a managed component does not have local consoles like a keyboard, you can operate BIOS setup and DOS tools of the managed component using NEC ESMPRO Manager. Here procedure of the minimum in order to use the remote control for the managed component is shown.

- 1. Install NEC ESMPRO Manager and set the Environment.
- 2. Configure BMC on a managed component.
- 3. Register a managed component on NEC ESMPRO Manager.
- 4. Open the remote console.

1. Install NEC ESMPRO Manager and set the Environment.

- (1) Install NEC ESMPRO Manager on a management PC. Refer to NEC ESMPRO Manager Ver.7 Installation Guide.
- (2) Confirm that you can login to the NEC ESMPRO Manager.
- (3) When you use LAN connection, connect the NEC ESMPRO Manager server and the managed component on the network.
- (4) Install NEC ESMPRO BMC Configuration on any PC.

2. Configure BMC on a managed component.

(1) Configure BMC of the managed component. When you use LAN connection, refer to 2.2.2"Configuration with NEC EXPRESSBUILDER DOS based with remote console feature (for LAN connection)".

3. Register a managed component on NEC ESMPRO Manager.

- (1) After login to NEC ESMPRO Manager, register Add a new group that the managed component will belong. Refer to 2.3.1"Add Group to which the managed component will belong".
- (2) Register the managed component.For LAN connection, refer to 2.3.2.2"Auto Registration".

4. Open the remote console.

(1) Select the managed component on NEC ESMPRO Manager and click remote console tab to open the remote console.

(2) Select the managed component on NEC ESMPRO Manager and click remote control tab. Reboot the managed component using some remote control command. When the managed component is booted using NEC EXPRESSBUILDER CD-ROM, the main menu of NEC EXPRESSBUILDER will be displayed on the remote console of NEC ESMPRO Manager.

TIPS:

- If you use DOS based tool on the managed component, execute a remote control command with checking the check box of "Utility Boot" on remote control tab. If the anything is not displayed on the remote console.
- For LAN connection input ESC+{ key on the remote console.

Appendix B. How to setup for using NEC ESMPRO Agent Extension or NEC DianaScope Agent on the managed component that is set LAN teaming

Please setup NEC ESMPRO Manager with the procedure below using NEC ESMPRO Agent Extension, or NEC DianaScope Agent ver.2.00.00 and above.

The operation for NEC ESMPRO Agent Extension is explained.

How to setup is depended on the type of the managed component on which NEC ESMPRO Agent Extension has been installed.

- On the managed component that BMC uses standard LAN port.

- On the managed component that BMC uses Management LAN port.

Please see the appropriate explanation.

B.1 On the managed component that BMC uses standard LAN port

CHECK:

• DO NOT refer this description for the managed component in which EXPRESSSCOPE Engine series is integrated.

Refer to "NEC ESMPRO Manager Ver.6 Installation Guide" about the setting of LAN Teaming that is available for NEC ESMPRO Manager.

If OS on the managed component is Linux, how to setup the NEC ESMPRO Manager is not depended on LAN teaming.

If OS on the managed component is Windows, please setup the NEC ESMPRO Manager with the procedure below.

- 1. Invalidate BMC IP address synchronization function of NEC DianaScope Agent.
- 2. Set BMC configuration by using the NEC DianaScope Agent.
- 3 Select IP address for NEC DianaScope Agent.
- 4. Register the managed component on the NEC DianaScope Agent.

1. Invalidate BMC IP address synchronization function of the NEC DianaScope Agent.

(1) Click "NEC DianaScope Agent" - "NEC DianaScope Agent" from the start menu on Windows.

(2) Click "synchronization" on the dialog box of the NEC DianaScope Agent.

(3) Set the BMC IP address synchronization to disable.

2. Set BMC configuration by using the NEC DianaScope Agent.

(1) See 2.2.1"Configuration with NEC ESMPRO Agent Extension ver1.xx (for LAN connection)" and set BMC configuration information.

Note the followings:

- Set LAN1 IP address to same value of the teaming-set IP address.

- Even if the configuration of LAN2 for the BMC on the managed component is available, do not set LAN2 in the BMC configuration information. (If LAN2 IP address for BMC is already set, change it to "0.0.0.0".)

..... **CHECK:**

Even if the BMC configuration has been already set, confirm the LAN1 IP address and register it again after invalidating BMC IP address synchronization function.

3 Select IP address for NEC DianaScope Agent.

(1) Select "Select IP address for Agent" on NEC DianaScope Agent.

(2) Enter the teaming address for LAN1.

4. Register the managed component on the NEC ESMPRO Manager.

(1) See 2.3"Register a managed component on NEC ESMPRO Manager (for LAN connection)" and register the managed component.

.....

CHECK:

Confirm the IP address of the managed component even if the "Check Connection" for the managed component has been completed. If the IP address is different from the teaming-set IP address that is set in the procedure "2. Set BMC configuration through NEC DianaScope Agent", edit it and perform "Check Connection" again.

B.2 On the managed component that BMC uses Management LAN port

Please setup the NEC ESMPRO Manager with the procedure below. This procedure does not depend on OS of the managed component.

- 1. Set IP address that NEC ESMPRO Agent Extension uses on NEC ESMPRO Agent Extension.
- 2. Register the managed component on the NEC ESMPRO Manager.

1. Set IP address that NEC ESMRPO Agent Extension uses on NEC ESMPRO Agent Extension.

(1) Click "Set Agent IP address" of NEC ESMPRO Agent Extension and set the IP address that is used for Teaming on any LAN.

2. Register the managed component on the NEC ESMPRO Manager.

(1) See 2.3"Register a managed component on NEC ESMPRO Manager (for LAN connection)" and register the managed component.

.....

CHECK:

If the "Check Connection" for the managed component has been completed, perform "Check Connection" again after performing "Set IP address that NEC ESMPRO Agent Extension uses on NEC ESMPRO Agent Extension".

Appendix C. Port number for WS-Man communication

A port number where WS-Man service listens for connection is as follow.

- Windows system
 WS-Man service listens for HTTPS connection at port 5986, for HTTP connection at port 5985.
- (2) Linux system WS-Man service listens for HTTPS connection at port 5986. Linux system does not support HTTP connection.
- (3) VMware ESXi system WS-Man service listens for HTTPS connection at port 443. VMware ESXi system does not support HTTP connection.

Appendix D. Managed Components Summary

Component which is installed BMC/iLO/BMC(Other)

The NEC ESMPRO Manager has following functions for BMC conforming to management components.

- Remote console
- Information collection
- Power control
- Component monitoring
- Remote batch
- Operation through the command line

Some available functions are dependent on the product type of the managed component. See the following managed component list.

The notes and restrictions of each component product are also explained in the user's guide provided with the managed component. See the user's guide.

<Explanation of the managed components list>

Product Name: Indicates the name of the product that NEC ESMPRO Manager can control.

МС Туре:	"BMC":	means that the managed component pre-contains BMC other the EXPRESSSCOPE Engine or EXPRESSSCOPE Engine 2 EXPRESSSCOPE Engine 3 or EMS (Embedded Manageme Software).				
	"BMC (EE)": means that the managed component pre-contains EXPRESSSCO Engine or EXPRESSSCOPE Engine 2.					
	"BMC (EE3)":	means that the managed component pre-contains EXPRESSSCOP Engine 3.				
	"iLO":	means that the managed component pre-contains iLO.				
	"BMC(Other)":	means that the managed component pre-contains EMS.				
Standard LAN2:	"Supported" means that MC and system BIOS on the managed component can communicate the NEC ESMPRO Manager via standard LAN port 2. (Advanced Remote Management Card, the function which is equal to Advanced Remote Management Card or EXPRESSSCOPE Engine series uses a dedicated LAN port, not use standard LAN port on the managed component.)					
Management LAN Port:	"Use" means that MC on the managed component uses a Management LAN Port. "-" me that BMC on the managed component uses a standard LAN Port.					
Remote Console:	"Supported" means that the managed component supports the Remote Console function.					
Scheduled "Supported" me Running:		is that the managed component supports the scheduled running function.				
Power option "Supported" mean setting: function.		s that the managed component supports the "Power Restore Delay"				
SOL:	"Supported" means that the managed component supports the SOL (Serial over LAN. A kin of the system actualizing remote console function.)					
force network- boot:	"Supported" means that the managed component supports the "force network-boot" function, by which NEC ESMPRO Manager can indicate the managed component to force a network boot regardless of the boot order in Bios Setup menu. * It can operator the command line interface of NEC ESMPRO Manager.					

Electric Power Management	"Supported" means that the managed component supports the "Electric Power Management" function.									
ECO Setting	"Supported" means that the managed component supports the "ECO Setting" function.									
Redfish	"Supported" means that the connection method to the component supports Redfish.									
Notes:	Refer the note number of the section "Notes for Each Managed Component".									

Component which is installed BMC

Express5800/100 series (Tower/Rack Server)

Product name	МС Туре	Standard LAN2	Managem ent LAN Port	Remote Console	Scheduled running	Power option setting	SOL	Electric Power Managem ent	ECO Settin g	force network boot	Notes
110Ek	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	2-(a)
110EI	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	2-(a)
110GR-1d	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
110Rb-1h	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	2-(a)
110Rc-1h	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	2-(a)
110Rh-1	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
110Ri-1	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
120Eh	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	2-(a)
120Ei	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	2-(a)
120Gc	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	2-(a)
120Gd	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	2-(a)
120Li	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	2-(a)
120Lj	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	2-(a)
120Rg-1	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	
120Rh-1	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	
120Ri-2	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	
120Rj-2	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	
140Rf-4	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	

Product name	МС Туре	Standard LAN2	Managem ent LAN Port	Remote Console	Scheduled running	Power option setting	SOL	Electric Power Managemen t	ECO Setting	force network boot	Notes
R110a-1	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
R110b-1	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
R110c-1	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
R110d-1E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R110d-1M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R110e-1E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R110e-1M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R110f-1E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R110h-1	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R110i-1	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120a-1	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120a-2	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120b-1	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120b-2	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120d-1E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120d-2E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120d-1M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120d-2M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120e-1E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120e-2E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120e-1M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120e-2M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120f-1M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120f-2M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120g-1M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120g-2M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120f-1E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120f-2E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R120g-1E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
Product name	МС Туре	Standard LAN2	Manageme nt LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Management	ECO Setting	force network boot	Notes
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R120g-2E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R140a-4	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
R140b-4	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
E120d-1	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
E120d-M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
E120e-M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
E120f-M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
E120g-M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
T110a	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
T110b	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
T110c	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
T110d	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T110e-M	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T110f-E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T110f-S	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T110h	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T110h-S	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T120a-E	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
T120a-M	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
T120b-M	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
T120d	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T120e	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T120f	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T120g	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T110i	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
T110i-S	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)

Express5800/Blade Server

Product name	МС Туре	Standard LAN2	Managem ent LAN Port	Remote Console	Scheduled running	Power option setting	SOL	Electric Power Management	ECO Setting	force network boot	Notes
120Bb-6	BMC(EE)	-	supported	supported	supported	supported	supported	-	-	supported	3-(a)
120Bb-d6	BMC(EE)	-	supported	supported	supported	supported	supported	-	-	supported	3-(a)
120Bb-m6	BMC(EE)	-	supported	supported	supported	supported	supported	-	-	supported	3-(a)
140Ba-10	BMC(EE)	-	supported	supported	supported	supported	supported	-	-	supported	3-(a)
B110d	BMC(EE3)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(b)
B120a	BMC(EE)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(a)
B120a-d	BMC(EE)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(a)
B120b	BMC(EE)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(a)
B120b-d	BMC(EE)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(a)
B120b-Lw	BMC(EE)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(a)
B120b-h	BMC(EE)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(a)
B120d	BMC(EE3)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(b)
B120e	BMC(EE3)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(b)
B120f	BMC(EE3)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(b)
B120d-h	BMC(EE3)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(b)
B120e-h	BMC(EE3)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(b)
B120f-h	BMC(EE3)	-	supported	supported	supported	supported	supported	supported	-	supported	3-(b)
B140a-T	BMC(EE)	-	supported	supported	supported	supported	supported	-	-	supported	3-(a)

Product name	МС Туре	Stand ard LAN2	Managem ent LAN Port	Remote Console	Scheduled running	Power option setting	SOL	Electric Power Management	ECO Setting	force network boot	Notes
E110b-M	BMC(EE)	-	supported	supported	supported	supported	supported	supported	-	supported	
E110d-1	BMC(EE3)	-	supported	supported	supported	supported	supported	supported	supported	supported	
E120a [NE1100-001Y, NE1100-002Y, NE1100-001PY]	BMC	-	supported	supported	-	-	supported	supported	-	-	2-(e), 2-(f)
E120b-1	BMC(EE)	-	supported	supported	supported	supported	supported	-	-	supported	
E120b-M [NE1200-001Y, NE1200-002Y, NE1200-003Y]	BMC	-	supported	supported	-	-	supported	supported	-	-	2-(e), 2- (f)

Express5800/ECO CENTER (Energy Efficient Server)

Fault tolerant server

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
R320c-E4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320c-M4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320d-M4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320e-E4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320e-M4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320f-E4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320f-M4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320g-M4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320g-E4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R310g-E4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320h-M4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R320h-E4	BMC (EE3)	-	use	-	supported	supported	-	-	-	supported	
R32Ba-E2	iLO	-	use	-	-	-	-	supported	-	-	2-(h)

Express5800/iModel (Data Center Server)

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
i110Rh-1	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
i110Ri-1	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
i120Ra-e1	BMC(EE)	-	use	supported	supported	supported	supported	-	supported	supported	
iR110a-1	BMC(EE)	-	use	supported	supported	supported	supported	-	-	supported	
iR110a-1H	BMC(EE)	-	use	supported	supported	supported	supported	-	supported	supported	
iR120a-1E	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)

Express5800/ Low cost entry model (G Model)

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
GT110d	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
GT110e	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
GT110f	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
GT110d-S	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
GT110e-S	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
GT110f-S	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
GT110h	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
GT110i	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
GT120a	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	
GT120b	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	

Express5800/office rack server

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
R110a-1H	BMC(EE)	-	use	supported	supported	supported	supported	-	supported	supported	

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
HR120a-1	BMC	-	use	supported	-	-	supported	supported	-	-	1-(a),1-(b),2-(c),2-(d), 2-(i)
HR120b-1	BMC	-	use	supported	-	-	supported	supported	-	-	1-(a),1-(b),2-(c),2-(d), 2-(i)
HR110c-M	BMC	-	use	supported	-	-	supported	supported	-	-	1-(a),1-(b),2-(c),2-(d), 2-(i)

Express5800/The highly parallel computing server

NEC Scalable Modular Server

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
DX2000 (Server module)	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	1-(a),1-(b)
DX2000 (CSC module)	BMC (EE3)	-	use	-	-	-	-	supported	-	-	1-(a),1-(b),2-(b),2-(c), 2-(i),2-(j)

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
A1020a	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A1020b	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A1080a-D	BMC	-	use	supported	supported	-	supported	supported	supported	-	2-(d),2-(g)
A1080a-E	BMC	-	use	supported	supported	-	supported	supported	supported	-	2-(d),2-(g)
A1080a-S	BMC	-	use	supported	supported	-	supported	supported	supported	-	2-(d),2-(g)
A1040a	BMC	-	use	supported	supported	-	supported	supported	supported	-	2-(d),2-(g)
A1040b	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A2010b	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A2020b	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A2040b	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R140e-4	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A1040c	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A2010c	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A2020c	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A2040c	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R140f-4	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A1040d	BMC(EE3)		use	supported	supported	supported	supported	supported	supported	supported	
A2010d	BMC(EE3)		use	supported	supported	supported	supported	supported	supported	supported	
A2020d	BMC(EE3)		use	supported	supported	supported	supported	supported	supported	supported	
A2040d	BMC(EE3)		use	supported	supported	supported	supported	supported	supported	supported	
R140g-4	BMC(EE3)		use	supported	supported	supported	supported	supported	supported	supported	
A1040e	BMC(EE3)		use	supported	supported	supported	supported	supported	supported	supported	
A2040e	BMC(EE3)		use	supported	supported	supported	supported	supported	supported	supported	
R140h-4	BMC(EE3)		use	supported	supported	supported	supported	supported	supported	supported	

Express5800/Scalable HA Server (Expandable Enterprise Server)

Express5800/many core server

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Manageme nt	ECO Setting	force network boot	Notes
HR120a-1	ВМС	-	use	supporte d	-	-	supporte d	supported	-	-	2-(c),2-(d),2-(h)
HR120b-1	BMC	-	use	supporte d	-	-	supporte d	supported	-	-	2-(c),2-(d),2-(h)
HR110c-M	BMC	-	use	supporte d	-	-	supporte d	supported	-	-	2-(c),2-(d),2-(h)

Express5800/Appliance server

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Manageme nt	ECO Setting	force network boot	Notes
CS300e	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
CS300f	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
CS300g	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
CS400g	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
CS400h	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
CS500e	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	-	supported	
CS500f	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	-	supported	
FW300e	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	

FW500e	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	-	supported	
LB300e	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
LB300f	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
LB300g	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
LB400g	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
LB400h	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
MW300e	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
MW300f	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
MW300g	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
MW400g	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
MW400h	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
MW500e	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
MW500f	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	-	supported	
SG300e	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
VC300e	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
VC300f	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
VC300g	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
VC400g	BMC(EE)	-	use	supporte	supporte	supporte	supporte	supported	supported	supported	

				d	d	d	d				
VC400h	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	

Express5800/Off-continuity asset inheritance(600 series)

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Manageme nt	ECO Setting	force network boot	Notes
640xi [N8610-746 ,	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)
N8610-749]	. ,										
650xi [N8610-756 , N8610-759]	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)
670xi [N8610- 778]	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)
680xi [N8610- 788]	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)
690xi [N8610- 798]	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)

Product name	МС Туре	Standard LAN2	Managem ent LAN Port	Remote Console	Scheduled running	Power option setting	SOL	Electric Power Manageme nt	ECO Setting	force network boot	Notes
V608-H			use	supported	supported	supported	supported	supported	supported	supported	
[N8610-1012,	BMC(EE3)	_									2-(2)
N8610-1022,	DINC(LL3)	-									z -(a)
N8610-1032]											
V608-L			use	supported	supported	supported	supported	supported	supported	supported	
[N8610-1011,	BMC(FE3)	_									2-(a)
N8610-1021,	Dino(LL0)										2 (u)
N8610-1031]											
V618-H			use	supported	supported	supported	supported	supported	supported	supported	
[N8610-905,											
N8610-906,											
N8610-915,	BMC(EE)	-									2-(a)
N8610-916,											
N8610-1005,											
N8610-1006]											ļ
V618-H	BMC(EE3)		use	supported	supported	supported	supported	supported	supported	supported	
[N8610-1025,											
N8610-1026,		-									2-(a)
N8610-1035,											
N8610-1036]											
V618-L			use	supported	supported	supported	supported	supported	supported	supported	
[N8610-903,											
N8610-904,											
N8610-913,	BMC(EE)	-									2-(a)
N8610-914,											
N8610-1003,											
N8610-1004]											
V618-L	BMC(EE3)		use	supported	supported	supported	supported	supported	supported		
[N8610-1023,											
N8610-1024,		-									2-(a)
N8610-1033,											
N8610-10341	1				1	1	1	1	1		1

Product name	МС Туре	Standard LAN2	Managem ent LAN Port	Remote Console	Scheduled running	Power option setting	SOL	Electric Power Manageme nt	ECO Setting	force network boot	Notes
V628-H			use	supported	supported	supported	supported	supported	supported	supported	2-(a)
[N8610-908,		_									
N8610-918,		-									
N8610-1008]											
V628-H			use	supported	supported	supported	supported	supported	supported	supported	2-(a)
[N8610-1028,	BMC(EE3)	-									
N8610-1038]											
V628-L			use	supported	supported	supported	supported	supported	supported	supported	2-(a)
[N8610-907,		_									
N8610-917,		-									
N8610-1007]											
V628-L			use	supported	supported	supported	supported	supported	supported	supported	2-(a)
[N8610-1027,	BMC(EE3)	-									
N8610-1037]											
V640xi	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	2-(a)
V650xi	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	2-(a)
V670xi	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	2-(a)
V680xi	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	2-(a)
V690xi	BMC(EE)	-	use	supported	supported	supported	supported	supported	-	supported	2-(a)

iStorage NS series

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Manageme nt	ECO Setting	force network boot	Notes
NS47P	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)
NS48P	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)
NS49P	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)
NS100Tb	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	2-(a)
NS100Td	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	2-(a)
NS100Tg	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	2-(a)
NS100Th	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	2-(a)
NS150h	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)
NS300Ra	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS300Rb	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS300Rd	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS300Rg	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS300Rh	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS300Ta	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS300Tc	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	2-(a)

NS300Tf	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	2-(a)
NS460	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	
NS470	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	-	supported	
NS480	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS500Ba	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	-	supported	3-(a)
NS500Ra	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS500Rb	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS500Rc	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS500Rd	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	
NS500Rf	BMC(EE3)	-	use	supporte d	supporte d	supporte d	supporte d	supported	supported	supported	

NX7700x/Enterprise Server

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
A2010M-60	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A2010M-30	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A2010M-15	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A2010L-60	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A3012M-4	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A3012L-2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A3012L-1	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A3010M-4	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A3010E-2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
A4010E-2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A4012M-4	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A4012L-2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A4012L-1	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A4010M-4	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A4012L-2D	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A4012L-1D	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A5012M-4	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A5012L-2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A5010M-4	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A5012L-2D	BMC (EE3)	_	use	supported	supported	supported	supported	supported	supported	supported	
A5012L-1D	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
A5012M-4 v2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A5012L-2 v2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A5010M-4 v2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A5012L-2D v2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
A5012L-1D v2	BMC (EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	

NEC Scalable Modular Server

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Manageme nt	ECO Setting	force network boot	Notes
DX2000 (server module)	BMC(EE3)	_	use	supported	supported	supported	supported	supported	supported	supported	
DX2000 (CSC module)	BMC(EE3)	_	use		_	_	_	supported	_	_	2-(b),2-(c), 2-(h),2-(i)

Component in which iLO is integrated <u>Express5800/100 series (Tower/Rack Server)</u>

Product name	MC Type	Stand ard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
R120h-1M	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-2M	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120i-1M	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120i-2M	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-1E	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-2E	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
T120h	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R110j-1	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-1M(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-2M(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-1E(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-2E(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
T120h(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-1M(3rd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-2M(3rd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R110j-1(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R110j-1M	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R110k-1	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-1E(3rd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120h-2E(3rd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
T120h(3rd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120j-1M	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120j-2M	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R110k-1M	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
T110k-M	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R110m-1	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120j-1M(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120j-2M(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)

R110k-1M(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
T110k-M(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R110m-1(2nd-Gen)	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
R120k-1M	iLO	-	use	-	-	-	-	supported	-	-	2-(h), 2-(j)
R120k-2M	iLO	-	use	-	-	-	-	supported	-	-	2-(h), 2-(j)

iStorage NS series

Product name	MC Type	Stand ard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
NS500Ri	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
NS500Rj	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
NS300Ri	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
NS300Rj	iLO	-	use	-	-	-	-	supported	-	-	2-(h)

NX7700x/Enterprise Server

Product name	МС Туре	Stand ard LAN2	Manage ment LAN Port	Remote Console	Schedule d running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Notes
A5010E-2	iLO	-	use	-	-	-	-	supported	-	-	2-(h)
A5010E-2 v2	iLO		use	-	-	-	-	supported	-	-	2-(h)
A6010E-2	iLO		use	-	-	-	-	supported	-	-	2-(h)
A7010E-2c	iLO		use	-	-	-	-	supported	-	-	2-(h)
A7010E-2	iLO		use	-	-	-	-	supported	-	-	2-(h)
A7012M-2	iLO		use	-	-	-	-	supported	-	-	2-(h)

CHECK:

• The component in which iLO is integrated is displayed in the screen of [Server Control], but you can't use the following function for the component.

- [Remote Power Control] - [Power Cycle] and [OS Shutdown] *1

*1 When the component is registered with WS-Man management, you can use the

function of [OS Shutdown].
Other company's iLO devices not made by NEC are not supported.

Component of BMC(Other)

Express5800/100 series (Tower/Rack Server)

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedul ed running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Redfish	Notes
D120h (Server module)	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	-	
D120h (CMC module)	BMC(Other)	-	use	-	-	-	-	-	-	-	-	
T110j	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	-	
T110j-S	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	-	
T110j(2nd-Gen)	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	-	
T110j-S(2nd-Gen)	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	-	
T110k	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	supported	
T110k-S	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	supported	
GT110j	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-		
T110m	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	supported	
T110m-S	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	supported	
T110m(2nd-Gen)	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	supported	
T110m-S(2nd-Gen)	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	supported	

iStorage NS series

Product name	МС Туре	Standard LAN2	Manage ment LAN Port	Remote Console	Schedul ed running	Power option setting	SOL	Electric Power Managem ent	ECO Setting	force network boot	Redfish	Notes
NS100Ti	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	-	
NS100Tj	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	-	
NS100Tk	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	supported	
NS100Tm	BMC(Other)	-	use	supported	-	supported	supported	supported	supported	-	supported	

<Notes for Each Managed Component>

This section explains the functional difference and notes of each managed component.

If note number for the managed component is displayed on the column "notes" of "Managed Components List", refer the notes of the note number.

- 1. About the connection type or the connection port.
- 2. About function
- 2-(a) This product has no function to identify the chassis like UID lamp, however "Identify Chassis" command of the NEC ESMPRO Manager is executer successfully.
- 2-(b) This product does not support remote console function.
- 2-(c) NEC ESMPRO Agent Extension or NEC DianaScope Agent cannot be installed on this product. Some functions of NEC ESMPRO Manager are not supported for the product if the functions need to communicate with NEC ESMPRO Agent Extension or NEC DianaScope Agent.
- 2-(d) BMC on this product cannot be configured using either NEC ESMPRO Agent Extension, NEC DianaScope Agent or NEC ESMPRO Manager PXE Service. Please refer to the user's guide that is attached in this product for BMC configuration.
- 2-(e) The power measurement for the server 1 reads a total of the server 1 and the server 2. The power measurement for the server 2 always reads 0.
- 2-(f) Please execute "check connection" for the managed component when BMC FW is updated on the managed component. If "check connection" is not executed, the remote console function may not run normally.
- 2-(g) If the managed component is Dual Server System, the power measurement for each server reads a total of the server 1 and the server 2.
- 2-(h) NEC ExpressUpdate Agent cannot be installed on this product. NEC ExpressUpdate of NEC ESMPRO Manager is not support for the product.
- 2-(i) Power consumption value of the whole enclosure is shown when power measurement is executed to CSC module.

When not wanting to do electric power measurement of the whole enclosure, Please set "Display Nominal Value" to the Power Measurement.

- 2-(j) For this device, the communication protocol used for iLO management cannot be HTTP. Please specify HTTPS.
- 3. About the operation
- 3-(a) Please do not change the delay time on the Power Restore Delay function for this product. This product is turned on after the waiting time ((slot number 1) * 2sec). If the delay time is changed from 0 sec (the default value), the waiting time is not set correct value.
- 3-(b) NEC ESMPRO Manager does not change the power restore delay time for this product even if you order NEC ESMPRO manager to set the delay time. Because the waiting time ((slot number 1) * 2sec) should be guaranteed before this product is turned on.

EM Card

NEC ESMPRO Manager can get a blade enclosure information by communication with the following EM Card in the blade enclosure.

--EM Card [N8405-019A]

--EM Card [N8405-27]

--EM Card [N8405-043]

Power Bay

NEC ESMPRO Manager can manage the following Power Bay remotely.

--EcoPowerGateway [N8142-36F]

Component based on vPro

NEC ESMPRO Manager can manage Express5800/Workstation based on the vPro including the iAMT firmware version 6.0 and later.

Storage

iStorage(M series)

iStorage(M series) supported by iStorage (M series) NEC ESMPRO Manager relative module is described.

Details, Alive Monitoring and Configuring the iSM Server can be used.

Storage Details	:	Alive Monitoring Status, NEC Storage state, Disk Array Name, Monitoring, Resource State, Model Name, Version Information, Serial Number, IP Address,
		WebSAM iStorageManager
Storage Alive	:	Watch Status, Register Alert Upon No Response, Polling Interval, Max
Monitoring		Retries on Error $(0 - 100 \text{ number of times})$
Configuring the	:	Launch tool for Configuring the iSM Server
iSM Server		

* It is necessary that WebSAM iStorageManager 12.3 or later is installed on the server where NEC ESMPRO Manager is installed.

* For launching iSM client(Web GUI) from WebSAM iStorageManager link, license of WebSAM iStorageManager is required. Refer to the "ESMPRO Installation Tool User's Guide" for information about License management.

Note: After installation of WebSAM iStorageManager, if you execute following steps, Storage monitoring become disable.

- Re-installation of NEC ESMPRO Manager
- VersionUp for NEC ESMPRO Manager
- · Uninstall iStorage (M series) NEC ESMPRO Manager relative module

In the case, re-install iStorage (M series) NEC ESMPRO Manager relative module.

• iStorage(V series)

iStorage(V series) is described.

Details, Edit, Alive Monitoring and Storage System Management can be used.

Storage Details	:	Alive Monitoring Status, NEC Storage state, Disk Array Name, Monitoring, Resource State, Model Name, Version Information, Serial Number, IP Address, WebSAM iStorageManager
Edit	:	Component Name, Alias, IP Address 1, IP Address 2, User Name, Password
Storage Alive Monitoring	:	Watch Status, Register Alert Upon No Response, Polling Interval, Max Retries on Error $(0 - 100$ number of times)

Network Device

Network Devices that support SNMPv1 MIB-2, UNIVERGE IX serials, and UNIVERGE QX serials will be managed.

Detail, Edit, and Alive Monitoring can be used.

Detail	:	See "Detail" below about item displayed.
Edit	:	Component Name, Alias, IP Address, SNMP Community Name
Alive	:	Watch Status, Register Alert Upon No Response, Polling Interval, Max Retries on
Monitoring		Error $(0 - 100 \text{ number of times})$

Following items are displayed in"Detail".

Item	UNIVERGE	UNIVERGE	Network device
	IX series	QX series	
Machine Name	supported	supported	supported
Model Name	supported	supported	-
FW Version	supported	supported	-
Startup Time	supported	supported	supported
Location	supported	supported	supported
IP Address	supported	supported	supported
Description	supported	supported	supported
Temperature(C)	supported	-	-
Voltage(mV)	supported	-	-
Power Unit 1	supported	supported	-
Power Unit 2	supported	supported	-
Fan1	supported	supported	-
Fan2	supported	supported	-
Alive Monitoring Status	supported	supported	supported
CPU Usage(%)	-	supported	-
Memory Percent Used(%)	supported	supported	-
Interface	supported	supported	supported
Connection Status	supported	supported	supported
Туре	supported	supported	supported
Network speed(Mbps)	supported	supported	supported
Status Change Time	supported	supported	supported

supported: Display available. -: Display unavailable.

Note: It is different that displayed items according to device type.

Note: About the display for interface of UNIVERGE IX series on NEC ESMPRO Manager, port of SW-HUB is "interfaceName -x" (x is sequential number from 1).

Refer to examples of UNIVERGE IX series manual about interfaceName.

NEC ESMPRO Manager Setup Guide

The information displayed on the "Connection Status" of the "Interface" is determined by the combination of the current status of the interface (ifOperStatus) and the configuration information of the interface (ifAdminStatus) and please refer to status below. If the status displayed on NEC ESMPRO Manager is not the intended status, please change the interface configuration on the Network Device.

			ifAdmi	nStatus	
		Up (1)	Down (2)	Testing (3)	Others
	Up (1)	Normal	Not Monitored	Normal	Not Monitored
	Down (2)	Error	Not Monitored	Normal	Not Monitored
	Testing (3)	Warning	Not Monitored	Normal	Not Monitored
::0	Unknown (4)	Warning	Unknown	Unknown	Not Monitored
Status	Dormant (5)	Normal	Not Monitored	Normal	Not Monitored
Status	NotPresent (6)	Warning	Not Monitored	Normal	Not Monitored
	LowerLayerDown	Warning	Not Monitored	Warning	Not Monitored
	(7)				
	Others	Not Monitored	Not Monitored	Not Monitored	Not Monitored

The information displayed on the"Connection Status" of the "Interface".

Models supported by NEC ESMPRO Manager are following.

- TIPS:
 - If you want to register the model that is not supported by UNIVERGE IX series or UNIVERGE QX series, Model Name will not be displayed. Addition, the general traps sent by the device cannot be received by default.
- Stack connection of QX series is not supported.

UNIVERGE IX series

IX1010	IX1011	IX1020	IX1035	IX1035I
IX1036	IX1036I	IX1050	IX2003	IX2004
IX2005	IX2010	IX2015	IX2025	IX2105
IX2106	IX2200	IX2207	IX2215	IX2216
IX2235	IX2310	IX3010	IX3015	IX3110
IX3315				

UNIVERGE QX-S series

QX-S1008GT-2G	QX-S1008GT-2G-PW	QX-S1016GT-4G	QX-S1016GT-4G-PW
QX-S1024GT-4G	QX-S1024GT-4G-PW	QX-S1048GT-4G	QX-S1108GT-2G
QX-S1108GT-2G-PW	QX-S1116GT-4G	QX-S1116GT-4G-PW	QX-S1124GT-4G
QX-S1124GT-4G-PW	QX-S1148GT-4G	QX-S2008	QX-S2017
QX-S2026	QX-S2108	QX-S2109T-PW	QX-S2110P-I
QX-S3020TP	QX-S3026	QX-S3026C-BS	QX-S3026C-PW
QX-S3026E	QX-S3026T	QX-S3050	QX-S3109T-BS
QX-S3109TP	QX-S3117T-BS	QX-S3118TP	QX-S3126C-BS
QX-S3126T-BS	QX-S3126TP	QX-S3209TP	QX-S3209TP-PW
QX-S3218TP	QX-S3218TP-PW	QX-S3226TP	QX-S3226TP-PW
QX-S3309TP	QX-S3318TP	QX-S3318TP-PW	QX-S3326TP
QX-S3326TP-PW	QX-S3408FT-2G	QX-S3408FT-2G-PW	QX-S3416FT-2G
QX-S3416FT-4G-PW	QX-S3424FT-4G	QX-S3424FT-4G-PW	QX-S3448FT-4G
QX-S3526	QX-S3528P	QX-S3552P	QX-S3628P
QX-S3628TP-BS	QX-S3652P	QX-S3652P-BS	QX-S3652P-BS-PW
QX-S3710P	QX-S3828TP	QX-S3828TP-BS	QX-S3852TP
QX-S3852TP-BS	QX-S4009P	QX-S4009P-PW	QX-S4020P
QX-S4028P	QX-S4028P-PW	QX-S4052P	QX-S4108GT-2G
QX-S4108GT-2G-I	QX-S4108GT-2G-PW	QX-S4108GT-2G-PW-I	QX-S4116GT-4G
QX-S4116GT-4G-PW	QX-S4124GT-4G	QX-S4124GT-4G-PW	QX-S4148GT-4G
QX-S4148GT-4G-PW	QX-S4308XT-2X	QX-S4308XT-2X-PW	QX-S4312XT-4X-PW

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QX-S4314XT-2X	QX-S4508GT-4G-I	QX-S4808XT-2X	QX-S4814XT-2X
QX-S5012G	QX-S5012T	QX-S5024G	QX-S505MT-2X-PW
QX-S510MT-2X-PW	QX-S5116P	QX-S5124GP-4X	QX-S5124GT-4X
QX-S5124GT-4X-PW	QX-S5124P	QX-S5126P-PW	QX-S5148GT-4X
QX-S5148GT-4X-PW	QX-S5148P	QX-S5224GP-4X	QX-S5224GT-4X
QX-S5224GT-4X-PW	QX-S5226P	QX-S5248GT-4X	QX-S5248GT-4X-PW
QX-S5250P	QX-S5324GT-4X1C	QX-S5327P	QX-S5348GT-4X1C
QX-S5351P	QX-S5432XT-8X2Q	QX-S5448XP-4Q	QX-S5516
QX-S5524GP-4X1C	QX-S5524GT-4X1C	QX-S5524GT-4X2Q	QX-S5526P
QX-S5526P(DC)	QX-S5526T	QX-S5548GT-4X1C	QX-S5548GT-4X2Q
QX-S5550P	QX-S5624GP-4X1C	QX-S5624GT-4X1C	QX-S5625P
QX-S5625T	QX-S5628GT-4X2Q	QX-S5648GT-4X1C	QX-S5648GT-4X2Q
QX-S5649P	QX-S5732P	QX-S5756P	QX-S5824XP-2Q2C
QX-S5828T	QX-S5948GT-4X2Q	QX-S5948XP-4Q	QX-S5948XT-4Q
QX-S6502-XG	QX-S6503	QX-S6503-XG	QX-S6506
QX-S6506R	QX-S6506R-XG	QX-S6506-XG	QX-S6632QP
QX-S6648XP-6Q	QX-S6648XT-6Q	QX-S6832-QP	QX-S708B
QX-S708E	QX-S716BP	QX-S716EP	QX-S724BP
QX-S724EP	QX-S7502R	QX-S7503R	QX-S7506R
QX-S808E	QX-S810EP-PW	QX-S816EP	QX-S816EP-PW
QX-S824EP	QX-S4824XT-1C	QX-S6748XP-6H	QX-S6748XT-6H
QX-S7532HP	QX-S708GT-2X-PW	QX-S716GT-4X-PW	

UNIVERGE QX-W series

QX-W1010	QX-W1020	QX-W1030	QX-W1030-ANCHOR
QX-W1120	QX-W1130	QX-W2120AC	QX-W2230AC
QX-W1110	QX-W610	QX-W1240	QX-W2330AC

UNIVERGE PF series

PF5459-48GT-4X2Q PF5459-48XP-4Q PF5459-48XT-4Q PF5468-32QP
--

UNIVERGE QX-R series

QX-R2809	QX-R2810	QX-R2811	QX-R2830
QX-R2831	QX-R2840	QX-R2880	

UNIVERGE IX-R series

IX-R2530

UNIVERGE IX-V series

IX-V100

Other Computer Device

Servers or PC with following operating system is described.

- Windows Server 2025
- Windows Server 2022
- Windows Server 2019
- Windows Server 2016
- Windows 11
- Windows 10
- Red Hat Enterprise Linux 9
- Red Hat Enterprise Linux 8
- Red Hat Enterprise Linux 7

Detail, Remote Control, Edit and Alive Monitoring can be used.

Detail	:	Alive Monitoring Status
		System
		OS Name, Version, System Name, System Manufacturer, System Model
		BIOS
		Manufacturer Name, Version, Release Date
		Hardware
		CPU Name, Clock Speed、Max Core Counts, Number of Logical CPUs,
		Number of Physical CPUs, Total Capacity of Physical Memory, Available
		Capacity of Physical Memory, Total Capacity of Disk
Remote Control	:	Shutdown, Shutdown Reboot
Alive Monitoring	:	Watch Status, Register Alert Upon No Response, Polling Interval, Max Retries on Error $(0 - 100$ number of times)

Appendix E. Means to perform REST API using a sample script

NEC ESMPRO Manager uses REST API to manage ExpEther. A sample script of a ruby is prepared to perform REST API.

There is a sample script of 3 of REST API.

- Discovery ExpEther Manager API
- Deletion ExpEther Manager API
- Get ExpEther Manager list API

Prepare

Ruby has to be installed in the management PC of NEC ESMPRO Manager.

Edit sample script

A sample script has a parameter and sets the information which accesses NEC ESMPRO Manager and request data of each API as a parameter.

Therefore edit these parameters according to the environment beforehand.

A parameter with the necessity to edit is indicated in the following.

(1) search_eem.rb

This script perform "Discovery ExpEther Manager API". Correct the following parameter according to the environment.

- HOST

Write host or IP address of NEC ESMPRO Manager. Ex) IP Address of NEC ESMPRO Manager is "192.168.1.1" HOST="192.168.1.1" The same host as NEC ESMPRO Manager. HOST="localhost"

- PORT

Write the port number NEC ESMPRO Manager is using. An initial value of port number of NEC ESMPRO Manager is "21112". Ex) PORT=21112

- login_account

Write user name and password of NEC ESMPRO Manager Account. Ex) login_account = {'user'=>'Administrator', 'password'=>'Password'}

- request_data

Write a request of "Discovery ExpEther Manager API". Refer to "Diascovery ExpEther Manager API" in "NEC ESMPRO Manager Ver.6 RESTful API Reference" for details of a request.

(2) delete_eem.rb

This script perform "Deletion ExpEther Manager API". Correct the following parameter according to the environment.

- HOST

This parameter is same as a "Discovery ExpEther Manager API".

- PORT

This parameter is same as a "Discovery ExpEther Manager API".

- login_account This parameter is same as a "Discovery ExpEther Manager API".
- name Write a target ExpEther Manager name.

(3) list_eem.rb

This script perform "Get ExpEther Manager list API". Correct the following parameter according to the environment.

- HOST

This parameter is same as a "Discovery ExpEther Manager API".

- PORT

This parameter is same as a "Discovery ExpEther Manager API".

- login_account

This parameter is same as a "Discovery ExpEther Manager API".

Sample code

```
(1) search_eem.rb
```

NEC ESMPRO Manager REST API Sample

require 'openssl' require 'base64' require 'net/http' require 'json'

```
session_id = nil
```

def make_header(session_id=nil)
httpheader = {};

```
httpheader['X-ESMPRO-API-Version'] = "1.0";
httpheader['Content-Type'] = "application/json; charset=utf-8";
httpheader['Cookie'] = "JSESSIONID=#{session_id}" if session_id != nil;
```

```
return httpheader;
end
```

def send_restreq(method ,session_id, url, req_body)

response = nil http = Net::HTTP.new(HOST,PORT);

req_header = make_header(session_id);

```
if (method == :post)
time1 = Time.now;
response = http.post(url, req_body.to_json, req_header);
time2 = Time.now;
time3 = time2 - time1;
```

```
end
if (method == :get)
time1 = Time.now;
response = http.get(url,req header);
time2 = Time.now;
time3 = time2 - time1;
end
if (method == :delete)
transaction = Net::HTTP::Delete.new(url,req_header);
time1 = Time.now;
response = http.request(transaction)
time2 = Time.now;
time3 = time2 - time1;
end
if (req body == nil)
req body = \{\};
end
puts "------
                                                 _____
puts "---- Request Data -----"
print(" Method : ", method, "¥n");
print(" URL
                         : ", url, "¥n");
print(" Request Header : ", req_header, "¥n");
print(" Session ID : ", session_id, "¥n");
print(" Request Time : ", time1, "¥n");
                        : ", req_body, "¥n");
print(" Request Body
puts "---- Response Data -----"
print(" Status Code : ", response.code, " ", response.message, "¥n");
#print(" Response Header : ", response.header, "¥n");
print(" Response Body : ", response.body, "¥n");
print(" Response Time : ", time2, "¥n");
print(" Elapsed Time : ", time3, "¥n");
puts "-----"
if (response.body == "")
return nil
else
res_body = JSON.parse(response.body);
end
end
# Login
login_url = "/esmpro/api/login-session";
count = 0;
result = send_restreq(:post ,nil, login_url, login_account);
session_id = result['sessionId'];
# Discover EEM
url = "/esmpro/api/eem"
result = send_restreq(:post ,session_id, url, request_data);
```

```
jobstate url = result['url'];
```

```
while true do
    # Job status
    result = send_restreq(:get ,session_id, jobstate_url, nil);
    if ( result['jobStatus'] == "Running" || result['jobStatus'] == "Waiting")
        sleep(1);
    elsif ( result['jobStatus'] == "Completed" )
        # Job result
        result_url = result['url'];
        result = send_restreq(:get ,session_id, result_url, nil);
        break;
    else
        break;
    end
end
```

Logout

result = send_restreq(:delete ,session_id, login_url, nil);

```
(2) delete_eem.rb
```

```
#
# NEC ESMPRO Manager REST API Sample
#
```

require 'openssl' require 'base64' require 'net/http' require 'json'

 $session_id = nil$

```
def make_header(session_id=nil)
httpheader = {};
```

```
httpheader['X-ESMPRO-API-Version'] = "1.0";
httpheader['Content-Type'] = "application/json; charset=utf-8";
httpheader['Cookie'] = "JSESSIONID=#{session_id}" if session_id != nil;
```

```
return httpheader;
end
```

def send_restreq(method ,session_id, url, req_body)

response = nil http = Net::HTTP.new(HOST,PORT);

req_header = make_header(session_id);

```
if (method == :post)
time1 = Time.now;
response = http.post(url, req_body.to_json, req_header);
time2 = Time.now;
time3 = time2 - time1;
end
```

```
if (method == :get)
time1 = Time.now;
response = http.get(url,req_header);
time2 = Time.now;
```

```
time3 = time2 - time1;
end
if (method == :delete)
transaction = Net::HTTP::Delete.new(url,req_header);
time1 = Time.now;
response = http.request(transaction)
time2 = Time.now;
time3 = time2 - time1;
end
if (req body == nil)
req body = \{\};
end
puts "------
puts "---- Request Data -----"
print(" Method : ", method, "¥n");
print(" URL
                         : ", url, "¥n");
print(" Request Header : ", req_header, "¥n");
print(" Session ID : ", session_id, "¥n");
print(" Request Time : ", time1, "¥n");
print(" Request Body : ", req body, "\u00e4n");
puts "---- Response Data -----"
print(" Status Code : ", response.code, " ", response.message, "¥n");
#print(" Response Header : ", response.header, "¥n");
print(" Response Body : ", response.body, "\u00e4n");
print(" Response Time : ", time2, "¥n");
print(" Elapsed Time : ", time3, "¥n");
puts "-----"
if (response.body == "")
return nil
else
res body = JSON.parse(response.body);
end
end
# Login
login url = "/esmpro/api/login-session";
count = 0;
result = send_restreq(:post ,nil, login_url, login_account);
session id = result['sessionId'];
# Delete EEM
url = "/esmpro/api/eem"
resource = url + "?name=" + name
result = send_restreq(:delete ,session_id, resource, nil);
# Logout
result = send_restreq(:delete ,session_id, login_url, nil);
```

(3) list_eem.rb

```
#
# NEC ESMPRO Manager REST API Sample
#
```

require 'openssl' require 'base64' require 'net/http' require 'json'

 $session_id = nil$

```
def make_header(session_id=nil)
httpheader = {};
```

```
httpheader['X-ESMPRO-API-Version'] = "1.0";
httpheader['Content-Type'] = "application/json; charset=utf-8";
httpheader['Cookie'] = "JSESSIONID=#{session_id}" if session_id != nil;
```

```
return httpheader;
end
```

def send_restreq(method ,session_id, url, req_body)

response = nil
http = Net::HTTP.new(HOST,PORT);

req_header = make_header(session_id);

```
if (method == :post)
time1 = Time.now;
response = http.post(url, req_body.to_json, req_header);
time2 = Time.now;
time3 = time2 - time1;
end
```

```
if (method == :get)
time1 = Time.now;
response = http.get(url,req_header);
time2 = Time.now;
```
```
time3 = time2 - time1;
end
if (method == :delete)
transaction = Net::HTTP::Delete.new(url,req header);
time1 = Time.now;
response = http.request(transaction)
time2 = Time.now;
time3 = time2 - time1;
end
if (req body == nil)
req body = \{\};
end
puts "===
         puts "---- Request Data -----"
print(" Method : ", method, "¥n");
print(" URL
                         : ", url, "¥n");
print(" Request Header : ", req_header, "¥n");
print(" Session ID : ", session_id, "¥n");
print(" Request Time : ", time1, "¥n");
print(" Request Body : ", req body, "\u00e4n");
puts "---- Response Data -----"
print(" Status Code : ", response.code, " ", response.message, "¥n");
#print(" Response Header : ", response.header, "¥n");
print(" Response Body : ", response.body, "\u00e4n");
print(" Response Time : ", time2, "¥n");
print(" Elapsed Time : ", time3, "¥n");
puts "-----"
if (response.body == "")
return nil
else
res body = JSON.parse(response.body);
end
end
# Login
login url = "/esmpro/api/login-session";
count = 0;
result = send_restreq(:post ,nil, login_url, login_account);
session id = result['sessionId'];
# List EEM
url = "/esmpro/api/eem"
result = send_restreq(:get ,session_id, url, nil);
# Logout
result = send_restreq(:delete ,session_id, login_url, nil);
```

Appendix F. View Windows Admin Center screen

Provides step-by-step instructions on how to view the Windows Admin Center from NEC ESMPRO Manager. Please use Microsoft Edge as your browser to use this function.

Windows Admin Center can be installed from installation media downloaded from the web.

There are two methods available:

1. The procedure to display "Linkage" of server on "Component List"

[Premise]

- The managed server registered by OS IP address with Windows Server 2016 / 2019 / 2022 / 2025 and "Type" is "Server".
- The managed server registered by OS IP address with Windows Server 2016 / 2019 / 2022 / 2025 Windows 10/ 11 and "Type" is "Other Computer Device".
- Windows Admin Center Version2009 or later

The procedure is executed on the PC for management where NEC ESMPRO Manager is installed.

- (1) Edit the configuration file.
 - Logout from NEC ESMPRO Manager.
 - Use the comment line that begins with the following file to specify the Windows Admin Center host name (or IP address) and port number.

 $\label{eq:second} \ensuremath{\texttt{SMPRO\%}\xspace{\texttt{WEB-INF}\xspace{\texttt{WEB-INF}\xspace{\texttt{WEB-INF}\xspace{\texttt{SMPRO}\xspace{\texttt{WEB-INF}\xspace{\texttt{SMPRO}\xspace{\texttt{WEB-INF}\xspace{\texttt{SMPRO}\xspace{\texttt{SMPro}\xspace{\texttt{SMPro}\xspace{\texttt{SMPRO}\xspace{\texttt{SMPro}\xspace{\texttt{S$

* %ESMPRO% : where to install NEC ESMPRO Manager * The default value for installs NEC ESMPRO Manager is < C:/Program Files (x86)/ESMPRO>

- (2) Component registration Login to NEC ESMPRO Manager. Register the server that can display Windows Admin Center screen.
- (3) The link to Windows Admin Center Click "Windows Admin Center" link of "Linkage" of server on "Component List". Please enter the account for the Windows Admin Center server on the authentication screen.

- 2. The procedure to display Windows Admin Center screen from NEC ESMPRO Manager Alert Viewer [Premise]
 - The managed server with Windows Server 2016 / 2019 / 2022 / 2025, integrated NEC iLO.

Verify that NEC ESMPRO Extension for Windows Admin Center(*1) is installed in Windows Admin Center.

(*1) THE NEC ESMPRO Extension for Windows Admin Center is an extension that displays information about the hardware of the NEC Express5800 server to the Windows Admin Center.

The procedure is executed on the PC for management where NEC ESMPRO Manager is installed.

(1) Edit the configuration file.

Logout from NEC ESMPRO Manager.

Use the comment line that begins with the following file to specify the Windows Admin Center host name (or IP address) and port number.

%ESMPRO%¥ESMWEB¥wbserver¥webapps¥esmpro¥WEB-INF¥service¥alertviewer¥WindowsAdminCenter settings.txt

* %ESMPRO% : where to install NEC ESMPRO Manager
 * The default value for installs NEC ESMPRO Manager is < C:¥Program Files (x86)¥ESMPRO¥>

(2) Component registration

Login to NEC ESMPRO Manager.

Register the Component in which iLO is integrated with enabling system management(WS-Man) and MC management(iLO) on NEC ESMPRO Manager.

*The OS of integrates iLO is a Windows OS for servers such as Windows Server 2019 etc. that support Windows Admin Center.

(3) The link to EC ESMPRO Extension for Windows Admin Center Make sure that there are alerts for the device on the alert list screen. Click the Components section of the alert to display the LINKED NEC ESMPRO Extension for Windows Admin Center screen.

Appendix G. configure the NEC ICT Device Visualize Service Agent

Here are the steps to display or configure the information of the NEC ICT Device Visualize Service Agent from NEC ESMPRO Manager.

[Premise]

• Managed servers with Windows Server 2016/2019/2022 / 2025, NEC ESMPRO ServerAgentService Ver2.3 or above installed, and NEC ICT Device Visualize Service Agent installed.

• NEC ICT Device Visualize Service Agent is running with child mode.

CHECK :

Independent mode of NEC ICT Device Visualize Service Agent is not supported.

Please perform these steps on the management PC where NEC ESMPRO Manager is installed.

(1) Component registration

Login to NEC ESMPRO Manager.

Enable the System Management (WS-Man) and register managed device in NEC ESMPRO Manager.

(2) Display the settings screen

On the "Component List", click on the "NEC ICT Device Visualize Service Agent" link on the "Linkage" of the registered server.

(3) Settings of NEC ICT Device Visualize Service Agent Configure the NEC ICT Device Visualize Service Agent on its settings screen. For more details, please refer to the online help for NEC ESMPRO Manager.

(3) URL

NEC ESMPRO ServerAgentService https://www.58support.nec.co.jp/global/download/index.html

Appendix H. The procedure to execute a Test Report by using the Event log monitoring (Windows) or Syslog monitoring(Linux) of NEC ESMPRO Agent or NEC ESMPRO ServerAgentService

■ Event log monitoring(Windows)

(1) Start "NEC ESMPRO Agent" from "Control Panel", and click "Report Setting" in "NEC ESMPRO Agent".

If NEC ESMPRO ServerAgentService, click "Report Setting" from "Start".

(2) Expand the "EventLog" tree on the left of the "Alert Manager" screen.

(3) Right-click on the event ID and select "Test".

Note that you cannot perform a "Test" if no "Report Destination" (Manager, SNMP, TCP/IP In-Band, CIM-Indication) is specified for that event ID.

(4) When "Are you sure you want to write a test event?" is displayed, click "OK".

The test event will be registered into the event log.

The Event log monitoring will immediately detect and report to reporting destination(s) about the test event.

<Additional Information>

If the channel is undefined or a channel other than the focused channel is defined, a reporting test cannot be performed.

In the case, even if a reporting test is performed, one of the followings will happen:

- An error message will be displayed.

- Events from the channel other than the focused channel will be registered into Event log.
- No event will be registered into Event log.
- Syslog monitoring(Linux)
- (1) Login with the root user.
- (2) Move to the directory where the Control Panel (ESMamsadm) is installed.
- # cd /opt/nec/esmpro_sa/bin/
- (3) Launch ESMamsadm. # ./ESMamsadm
- (4) Launch ESMamsadm and choose "Syslog Events Setting".
- (5) Choose any you prefer from "Source". (Choose by " \uparrow " or " \downarrow ")
- (6) Check "OFF" for "Operation on source".

(Set this using the space key.)

- (7) Choose any event ID in the "Event ID" field.
 (Choose by "↑" or "↓")
- (8) Press the "Settings..." to open the "Syslog Application Setting" screen.

Confirm that the "Action After Report" is set to "None".

Confirm that the "Report to" is set to "SNMP".

If the "Action After Report" is set to "Shutdown" or "Reboot", the action will be executed.

(9) Press "ok" to return the "Syslog Application Setting" screen.

- (10) Press "Test" button.
 - The test message will be registered into the syslog. If the syslog Monitor Interval (default : 300 seconds) is exceeded, the test message will be detected and a reporting will be sent.

<Additional Information>

- When adding or deleting syslog events, or changing settings, it is necessary that reload the Syslog Event information.

Press "Close" button on the "Syslog Event Settings" screen to reload the Event information, and then perform the Test.

- For detailed operations such as the Control Panel (ESMamsadm), please refer to "NEC ESMPRO Agent (Linux) User's Guide".

https://www.58support.nec.co.jp/global/download/index.html

Revision History

E7.24-01-STD	2024/11/15	Revised the environment setting usage guide in chapters 1.3.1, 1.3.3.3, 3.3.1, and 4.3.1.1 has been changed from classic mode to ESMPRO SM7 UI. Added IX-R2530 to UNIVERGE IX-R series of network devices in Appendix D. Added IX-V100 to UNIVERGE IX-V series of network devices in Appendix D. Added revision history.
E7.24-03-STD E7.25.01-STD E7.26.01-STD	2025/01/27 2025/03/31 2025/05/23	 Added Windows Server 2025 to the supported OS. Replaced related images to reflect the new version. Added T110m(2nd-Gen), T110m-S(2nd-Gen) to Component of BMC(Other) in Appendix D. Added R110m-1(2nd-Gen) to Express5800/100 series (Tower/Rack Server) of Component in which iLO is integrated in Appendix D. Added R120k-1M, R120k-2M to Express5800/100 series (Tower/Rack Server) of Component in which iLO is integrated in Appendix D.