# NEC

# NEC ESMPRO Manager Ver.7 Setup Guide

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# Terminology

Term	Description
ESMPRO Extension for	A plugin to display hardware information of Express5800 servers for
Windows Admin Center	Windows Admin Center.
NEC ESMPRO Agent	This is a software that works together with NEC ESMPRO Manager to
8	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
	depending on system status and OS.
Redfish	Redfish is a standard interface that is newer than IPMI, defined by the
	DMTF(Distributed Management Task Force), for managing server
	operations.
iLO	Integrated Lights-Out
	A management controller which is able to monitor the system status or error $\frac{1}{2}$
	regardless of DC off/on.
vPro	Intel platform brand for business users (Intel® vPro™ Technology).
iAMT	Intel® Active Management Technology
	Remote control technology and one of main functions of vPro.
SOL	Serial Over LAN
	A function which BMC converts the serialized data to UDP Packet and
WC M	sends to LAN.
WS-Man	Web Service Management
	Open standard protocol for remotely accessing management data with any
Classic Mode	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	
Component System management	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. Please read the URL below to obtain more detail information. 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.

6 6 1	
TIPS:	••••
<ul> <li>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.</li> </ul>	
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	n.
СНЕСК:	••••
<ul> <li>You can use EXPRESSSCOPE Engine 3 only when the HTTP/HTTPS is enabled.</li> <li>You cannot configure BMCs on ft server with NEC EXPRESSSCOPE Engine 3 We Console. Please choose other method.</li> </ul>	
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:	
<ul> <li>The name of the tool is "BMC Configuration" or "Server Configuration Utility". It is depends on a model of server.</li> </ul>	

#### 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	Э.
------------------------------------	----

Expresss					User:Management Software [ Privilege:Adm Environment   About EXPRESSS	
Server Name:BMC1C6F653E3F6 System F	50 (192.168.15.110) Remote Access	Configuration	Update			
Summary Component IPMI Information Access Information	Mo Pri Lo Re Re Sy BN BN	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	012345 Nor 3 Availat 9 The lic 00.26 #2	mal le le ense has been registered.	Detail Detail Detail Detail	Reload
			ileted Successfu	lly î		

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

EXPRESSE	OPE 3	User:Management Software [Privilege Administrator]	
/er Name:BMC1C6F653E3F50 (		Environment About EXPRESSSCOPE Engin	18.3
Y .	note Access Configuration	Update	
BMC		<ul> <li>Reload</li> </ul>	1
<sup>⊕</sup> Network	Item Nan		
Property	Management LAN	Setup Value	
Service	Management LAN	Management LAN	
<sup>L.</sup> SSL	Basic		
User Management	Connection Type	Auto Negotiation	
• Alert	MAC Address	1C:6F:65:3E:3F:50	
System Operaton	DHCP	Enable	
FCO	IP Address	192.168.15.110	
Miscellaneous	Subnet Mask	255.255.254.0	
* Backup/Restore	Default Gateway	0.0.0	
System BIOS	Dynamic DNS	Disable	
	DNS Server		
	Host Name	BMC1C6F653E3F50	
	Domain Name		
	Access Limitation		
	Limitation Type	Allow All	
	POS	Completed Successfully	
	(U)		

(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.

Server Name:BMC1C6F653E3F60		,				User:Management Software [ Privilege:Administrator Environment About EXPRESSSCOPE Eng	
( Y	mote Access	Configuration	Update				
BMC     Property     Service     Service     SSL     User Management     Alert     System Operaton     ECO     Miscellaneous     Backup/Restore     System BIOS	HT HT SS Opt Op Pow AC De Per Pla Man ES Au	TPS H	<	Enable Enable Enable Laat State 600Second Disable Enable	Edit		
		POST Cor	npleted Succes	sfully	îi		

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 3			User.Management Software [Privilege:Administrator] Logout Environment  about EXPRESSSCOPE Engine 3  Help
Server Name:BMC1C6F6538		Configuration	Undata	
System         Remote           BMC         Network           Property         Service           -SSL         User Management           If Alert         System Operation           -ECO         Set Service	M Basi Cr M Int Di Di Di	Configuration agement LAN anagement LAN c onnection Type AC Address 4CP rnamic DNS NS Server	Auto 10:6 © E	Segement LAN  Negotiation  Foremony on  Enable  Disable
Miscellaneous Backup/Restore System BIOS	D	ost Name omain Name	ВМС	C1C6F663E3F50
		ess Limitation nitation Type	¢,	Allow All C Allow Address C Deny Address           Apply         Default         Cancel
		POST Co	ompleted Successfu	

(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 ● Overwrite oldest SEL
Power Restore Delay AC-LINK	◯ Stay Off ◯ Last State . Power On
Delay Time [Required]	30 seconds (30 - 600)
*If 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
Redirection	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.

	s screen will turn the connection with the BMC off.	<u>^</u>
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	store Dela	y 🚺	) Stay Off	(*) Last Stat	e ( ) Powe
	me [Requir	ed]	30_	seconds (30 –	
*PEF	n Event Fil			Franklar ( ) D	
			o disable.	SNMP alert wi	ll not worl
	ent Softwar		andabro,	Sint aroro in	
	lanagement	ED 1 17	(*)	Enable ( ) Di	sable
- Authentı - Redirect		[Required]		K/K	

#### 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]
AuthenticationKey [Required] 🛛 💊	[****
Redirection :	[Enable]
< OK >	
< Cancel >	
< Load Default Value >	
Select:[Enter] Cancel:[ESC] Help:[Ho	ime or ?]
Note : If PEF Configuration is set t	o 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
Management LAN	: [Management LAN]
Connection Type	: [Auto Negotiation]
BMC MAC Address	: 10:6F:65:3E:3F:50
DHCP	[Enable]
IP Address	: 132.166.15.110
Subnet Mask	: 255.255.254.0
Default Gateway	: 0.0.0.0
Dynamic DNS	: [Disable]
DNS Server	: []
	: [BMC1C6F653E3F50]
	: []
< OK >	
< Cancel >	
< Load Default Value >	
Select:[Enter] Cancel:[ESC] Hel	p:[Home or ?]
Note: To change "Management LAN"	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 🛓 admin 👻
🚯 Dashboard 📲 Register 🚔 Component 🛕 AlertViewer 💥 Tools - 🔅 Settings -	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

SNMP/ICMP Communication	
Packet Resend Count	3 0 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 O IPMI
Redfish no response detection timer value (1 - 30 seconds) [Required]	20 seconds
Self Signed Certificate	<ul> <li>Allow • Not Allowed</li> </ul>
Direct Connection Setting	
Port Number	Serial Port 1 ¢
WS Man Communication / ESXi	
Self Signed Certificate	Allow O N 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

#### 1.3.2 Add component to Group 1.3.2.1 Creating group

(1) Click "Component".

About NEC ESMPRO Manager Help Classic Mode 🛓 admin -							
🕽 Dashboard 🖞 Register 📾 Component 🛕 PertViewer 💥 Tools -							
Alert Status							
No alerts are unread.							

(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 NEC ESMPRO Manager Help Classic	Mode 🛓 admin 🗸
🔇 Dashboard 📲 Register 🚔	Component 🛕 AlertViewer 🎇 Tools 🝷			
Component List			+ ADD GRI OP root	÷
REFRESH	🗹 🔍 Error 🗹 🔍 Warn	ning 🗹 🔍 DC-OFF/POST/OS Panic 🗹 🛡	🛛 Unknown 🛛 🔍 Normal 🔽 🗢 Status Getti	ing 🔽  Not Monitored
✓ Status		♦ IP Address ♦ IP Address	N 🌲 Memo	\$
No data available.	• Type • Ennuge		↓ Incito	•
0 item(s) 0 to 0 is displayed				Previous Next
			DELETE	SELECTED DEVICE/GROUP

(3) Click "+ ADD GROUP"

Component List						+ ADD GROUP	root	\$
REFRESH			🗹 单 Error 🛛 🗹	Warning 🗹 🔍 DC-OF	F/POST/OS Panic 🔽 🔍 Unknow	n 🗹 🛛 Normal 🛛	🖌 🗕 Status Getting 🛛	Not Monitore
Status	Name	≜ Type	Linkage	IP Address	Management LAN IP Address	# Memo		4
o data available.								

(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	×
Create a new group [Please enter within	63 characters]
GroupB	
REG	ISTER

(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

ESMPRO			About NEC	ESMPRO Manager Hel	lp Classic Mode	💄 admin 🗸
🕼 Dashboard 📲 Register 📾 Component 🔒	🛦 AlertViewer 🔀 Tools 👻					
Component List				+ ADD GROUP	root	\$
REFRESH	🗹 🗢 Error 🔽 🔍 Warning	DC-OFF/POST/OS F		🗹 🔍 Normal 🗹 🤇	Status Getting	<ul> <li>Not Monitored</li> </ul>
Status	≑ Linkage	IP Address	Management LAN IP Address	# Memo		\$
GroupB Group	Rename]					
1 tem(s) between 1 and 1 is displayed	>					Previous 1 Next
					DELETE SELEC	TED DEVICE/GROUP

#### 1.3.2.2 Adding a component to a group

(1) Click "Component".

ESN	IPRO					About N	IEC ESMPRO Manager	Help Classic Mode	💄 admin 🕶
<b>G</b> D	ashboard	-🖥 Register 📾	Component 👍 AlertVi	ewer 💥 Tools 👻					
Cor	nponent Lis	st					+ ADD GROUP	root	\$
	REFRESH			🕑 🛡 Error 🗹 🔍 War	ning 🗹 OC-OFF/POST	/OS Panic 🧧 🔍 Unknow	n 🗹 🔍 Normal 🗹	• Status Getting	<ul> <li>Not Monitored</li> </ul>
						Management LAN			
	Status	🜩 Name	Type	Linkage	IP Address	IP Address	# Memo		\$
	•	Server	Server		192.168.8.59				
	•	GroupB	Group[Rename]						
2 ite	m(s) betwe	en 1 and 2 is dis	splayed						Previous 1 Next
								DELETE SELECT	ED DEVICE/GROUP

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

	IPRO Dashboard	📲 Register 🛛 🖴	Component 🔥 AlertViewer	Add devices or groups to the group.	About N ×	EC ESMPRO Manager He	elp Classic Mode	💄 admin 🕶
Coi	mponent Li	st		GroupB 🗢		+ ADD GROUP	root	\$
C	REFRESH		۵	1 device(s) will be added		n 🗹 🔍 Normal 🗹 🔍	Status Getting 🛛 🖉	Not Monitored
	Status	🗢 Name	🗢 Туре			# Memo		\$
	•	Server	Server	REGISTER				
	•	GroupB	Group[Rename]	REDUTER				
2 ite	m(s) betwo	een 1 and 2 is dis	played					Previous 1 Next

(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 Manager He	elp Classic Mode	🛔 admin 🕶
🚯 Dashboard 🛛 🔓 Register 🚔 Compo	onent 🛕 AlertVie	wer 💥 Tools 🔻					
Component List					+ ADD GROUP	GroupB	Ŷ
REFRESH		Error	●Warning 🗹 ●DC-OFF	-/POST/OS Panic 🗹 🔍	Jnknown 🗹 🔍 Normal 🗹 😐	Status Getting 🛛	Not Monitored
				Management LAN			
Gratus - Name	\$ Type \$	Linkage	IP Address	IP Address	# Memo		\$
Server	Server		192.168.8.59				
1 item(s) between 1 and 1 is displayed						Ρ	revious 1 Next
						DELETE SELECTE	D 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 🛓 admin 👻
🚯 Dashboard 🔄 Register 🖨 Component 🛕 AlertViewer 💥 Tools 👻	
$\sim$	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

RO		About NEC ESMPRO Manager	Help Classic Mode	≗ admin <del>-</del>
nboard 📲 Register 📾 Component 🛕 A	AlertViewer 💥 Tools 👻			
Auto Registration Manual Registr	ation			
Server / Storage Network Device	e 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	Aan / ESXi / iStorage			
Management	• Registration O Unregistration			
Management Type	SNMP (NEC ESMPRO Agent, iStorage M series)     WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier)     ESXi (ESXi8)			
	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			
Updates via Management Controller	• Registration 🔿 Unregistration			
"BMC (EXPRESSSCOPE Engine)"/"iL	0"/"BMC(Other)"/"vPro"(Common)			
Management	• Registration O Unregistration			
Management Type	• BMC iLO BMC (Other) vPro			
ADE), BMC(ECO CENTER), BMC(ma	" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ny core server). "ILO" and "vPro", Please select "BMC (Other)".			
Authentication Key [Required]				
"BMC (EXPRESSSCOPE Engine)"/"iL	0"/"BMC(Other)"/"vPro"(LAN)			
Current IP Address	• IP Address 1 O IP Address 2			
Failover	• Enable Oisable			
IP Address 1 [Required]				
IP Address 2				
	ADD			

#### (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
Allas	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.
	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.
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.
	- 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
	- 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).
	<ul> <li>NEC ESMPRO ServerAgentService (Linux) is installed.</li> <li>Select HTTPS.</li> </ul>
	- 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
	<ul> <li>NEC ESMPRO ServerAgentService (Windows) is installed.</li> <li>If you want to use HTTP, enter 5985.</li> <li>If you want to use HTTPS, enter 5986.</li> </ul>
	- 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	<ul> <li>Select "Registration" to manage the RAID system of the component.</li> <li>The operating system of the managed component is VMware ESXi7. WS-Man management must be enabled in addition to this setting.</li> <li>The managed component is Express5800/ft server. The RAID system management feature unregistered because there is no utility to manage the RAID system.</li> </ul>
	- If the managed component is a VMware ESXi8, 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
Management Controller	Controller
	PE 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 (EXPRESSSCO	PE 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. 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 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.
CHECK:	
• *1 If NEC ESM	MPRO Manager is installed on Linux system, "SNMP" server
management are	not supported.
<u> </u>	not supported.
andar	
CHECK:	
• *2 If a self-sig	ned certificate is installed on the managed server for HTTPS
communication,	a setting to allow it is required. Refer to "Chapter2 Environment
setting" for detail	led information.
9	
CHECK:	
<ul> <li>*3 Regarding a p</li> </ul>	ort number for WS-Man communication, refer to "Appendix C. Port
number for WS-M	Man communication".
IMPORTANT:	
• If BMC(EXPRE	ESSSCOPE Engine) management is disabled, NEC ESMPRO
Manager may not	t be able to monitor HW 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.

	IPRO		About NEC ESMPRO Manager	Help Classic Mode 💄 adm
Server / Storrg Network Device Other Component Device All Changement     Component Name [Required] BMC   Jans Destination Group root   Destination Group root Destination Group   Storr / KCC ESSHORD Agent) / WSMan / LSKN / Biosnige Biosnige   Mangement Registration Unregistration   Mangement <t< th=""><th>shboard 📲 Register 🚔 Component 🤷</th><th>AlertViewer 🔀 Tools 👻</th><th></th><th></th></t<>	shboard 📲 Register 🚔 Component 🤷	AlertViewer 🔀 Tools 👻		
Component Name (Repaired) MC   Alias	Auto Registration Manual Regi	tration		
Component Name (Required) BMC   Alas   Destination Group   Destination Group   Code   SNAP (NECC SIMPRO Agent) / VKM Aur / ESX / Storage)   Management   Management   Coppossipulates   Updates via MAC Expressipulation   Nuc (EXPRESSIGNCE Expressipulation   Controller   Management To perspectively (SUC / Storage)   Management Storage (Suc )   Management Storage (Suc )   Management To perspectively (SUC / Storage)   Management Storage (Suc )   Management Storag	Server / Storage Network Da	ice Other Computer Device Alert Only Management		
Alas   Destination Group   Tool   SNNP (NECE SMRPA Agent) / WS-Mar / ESXI / Storage   Management   RAD system (Universal RAD Utility)   Management   RECE Express/Update   Updates via Management   Chegistration   Updates via Management   Registration   Updates via Management   States Connection check.   Management Type   Mangement   Registration   Updates via Management   States Connection check.   Mangement Pipe Nume   Registration   Updates Via Management States Coheck.   Mangement Pipe Num	Server / Storage	tee other computer bevice Alertoniy Management		
Destination Group       root       =         SIMP (VEC ESM/R0 Agent) / WS Man / ESX/ / Storage         Management       Registration         Waragement       Registration         Waragement       Registration         Updates via NIC ExpressUpdate       Unregistration         Updates via NIC ExpressUpdate       Registration         Updates via NIC ExpressUpdate       Registration         Updates via Management       Registration         Updates via Management       Registration         Updates via Management       Registration         Updates via Management       Registration         Ubregistration       Unregistration         Management       Registration         Ubregistration       Unregistration         Management       Registration         Management       Registration         Management       Registration         Management       Registration         Vorregistration check.       Management         Management       Registration Notor HW errors of some servers.         Management       Ibao         Management       Ibao         Management       Ibao         Management       Ibao         Registration Checkes       <	Component Name [Required]	BMC		
SMMP (NEC ESMPRO Agent) / WS-Man / ESK / IStorage Management AnD system (Unversal RAID Utility) Management MEC ExpressUpdate Updates via MAC ExpressUpdate Agent Dpdates via MAC ExpressUpdate BMC (EXPRESSEOPE Engine)/TLD/FMC(Other)/Y-Mrc/Common) Management Management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type Management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type Management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type Management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the result page of connection check. Management Type Manage	Alias			
Management: Registration   Updates via Management Registration   Updates via MACE ExpressUpdate   Updates via Management   Opticitie   Registration   Updates via Management   Registration   Unregistration   TBMC (EXPRESSSCOPE Engine)'/LIC/'BMC(Other)'/vFro'(Common)   Management Type   BMC   ILD   Management Type   BMC   Lober Conscion check.   Management Type   BMC (Conscion check)   M	Destination Group	root ¢		
RAID system (Universal RAID Utility)         Management       Registration         NEC ExpressUpdate         Updates via NEC ExpressUpdate         Agent         Updates via Nanagement         Controller         *BMC (EXPRESSECOPE Engine)*/LDC/*BMC(Other)*/v+Pro*(Common)         Management       Registration         *BMC (EXPRESSECOPE Engine)*/LDC/*BMC(Other)*/v+Pro*(Common)         Management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers.         Please effor to the result age of connection check.         Management Type       BMC is 0 BMC of the 0' v+Pro         A. *BMC(EXPRESSECOPE Engine)* is target for EXPRESSESCOPE Engine1/2/3/Bt/25P/35P. EM Card(SIGMABL         ADE; MAC(EXPRESSECOPE Engine)*/TADC/*BMC(Other)*/v+Pro*(LAN)         Current IP Address       IP Address 1         PA ddress 1       PA ddress 2         Failover       Enable       Disable         IP Address 2	SNMP (NEC ESMPRO Agent) / W	-Man / ESXi / iStorage		
Imagement       Registration       Unregistration         NEC ExpressUpdate       Registration       Unregistration         Agent       Registration       Unregistration         Updates via Management       Registration       Unregistration         'BMC (EXPRESSEOPE Engine)'/'LO'/BMC(Other)'/vPro'(Common)       Management       Registration         'BMC (EXPRESSEOPE Engine)'/'LO'/BMC(Other)'/vPro'(Common)       Management       Registration         A 'BMC (EXPRESSEOPE Engine)'/'LO'/BMC(Other)'/vPro'(Common)       Management       Registration         A 'BMC (EXPRESSEOPE Engine)'/ LO 'BMC (Dther)' vPro'(CMP)       BMC       VPro         A 'BMC (EXPRESSEOPE Engine)'/ LO 'Pro'(LAN)       BMC (Dther)' vPro'(LAN)         Coraces othert than the above and Tu'o and VPro' (Resease select 'BMC (Other)'.       VPro'         A 'BMC (EXPRESSEOPE Engine)'/LO'//BMC(Other)'/vPro'(LAN)       Imagement ip P Address 1 (P Address 1 (P Address 2 (P Address 2 (P Address 1 (P Address 2 (P Addr	Management	Registration     Unregistration		
NEC ExpressUpdate         Agent         Updates via NEC ExpressUpdate       Registration         Updates via Management       Registration         'BMC (EXPRESSSCOPE Engine)'/'LO'/'BMC(Other)/'vPro'(Common)         Management       Registration         'BMC (EXPRESSSCOPE Engine)'/'LO'/'BMC(Other)/'vPro'(Common)         Management       Registration         'BMC (EXPRESSSCOPE Engine)'/'LO'/'BMC(Other)/'vPro'(Common)         Management       Registration         'BMC (EXPRESSSCOPE Engine)'/'LO'/'BMC(Other)'.         Amagement Type       BMC         'BMC (EXPRESSSCOPE Engine)'/'LO'/'BMC(Other)'.         Amagement Type       BMC         'BMC (EXPRESSSCOPE Engine)'/'LO'/'BMC(Other)'.         Amagement Type       BMC         'BMC (EXPRESSSCOPE Engine)'/'LO'/'BMC(Other)'.         Authentication Key (Required)       Immediate to the above and 'LO' and 'VPro', Please select 'BMC (Other)'.         Authentication Key (Required)       IP Address 1         'BAckey Engine)'/'LO'/'BMC(Other)'./VPro'(LAN)         Current IP Address 1       IP Address 2         'P Address 1       Plag.         'IP Address 2       Immediate to the second 'LO' and 'LO' 'L	RAID system (Universal RAID Utili	y)		
Updates via NEC ExpressUpdate   Agent   Updates via Management Controller Registration Unregistration Unregistration TeMC (EXPRESSSCOPE Engine)'/'ILO'/EMC(Other)'/'vFro'(Common) Management Registration Unregistration Unregistration Management Registration Unregistration Unregistration Management Registration Unregistration Management Registration Unregistration Management Registration Unregistration Management Type BMC (Other)'/'vFro'(Common) Management Type BMC (Difference) BMC (Difference) Management Type BMC (Difference) BMC (Difference) Management Type BMC (Difference) BMC (Differen	Management	Registration     Unregistration		
Agent       Registration         Updates via Management Controller       Registration         TBMC (EXPRESSSCOPE Engine)'7/LD/'BMC(Other)'/VPro'(Common)         Management       Registration         Jf 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         Matchine above and TuD' and "VPro">(LAM         Current IP Address 1       IP Address 2         Fallover       Enable       Disable <td>NEC ExpressUpdate</td> <td></td> <td></td> <td></td>	NEC ExpressUpdate			
Controller          BMC (EXPRESSSCOPE Engine)'/ILO/'BMC(Other)'/'vPro'(Common)         Management       Registration         Management Type       BMC         Mathematication Key [Required]       Imagement Type         Mathematication Key [Required]       IP Address 1         IP Address 1       IP		Registration     Unregistration		
Management          Registration          Management          Registration          Management          disbled, NEC ESMPRO Manager cannot monitor HW errors of some servers.          Please refer to the result page of connection check.          Management Type          BMC         (i.i.0         BMC (Other)         (vPro             A         "BMC(EXPRESSSCOPE Engine)" is target for EXPRESSECOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SiGMABL         ADE), BMC(concy ore serve).          For cases other than the above and "ILO" and "vPro", Please select "BMC (Other)".          Authentication Key [Required]             mBMC (EXPRESSSCOPE Engine)"/TLO'/PBMC(Other)'/vPro"(LAN)          Current IP Address             Falover             IP Address 1         [Required]             IP Address 1         [Required]             IP Address 1         [Required]		• Registration O Unregistration		
<td< td=""><td>"BMC (EXPRESSSCOPE Engine)"/</td><td>iL0"/"BMC(Other)"/"vPro"(Common)</td><td></td><td></td></td<>	"BMC (EXPRESSSCOPE Engine)"/	iL0"/"BMC(Other)"/"vPro"(Common)		
Please refer to the result page of connection check.         Management Type        BMC       ILO        BMC (Other)        vPro                 * "BMC(EXPRESSSCOPE Engine)" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL             ADE), BMC(ECO CENTER), BMC(Texpresserve).             For cases other than the above and "LO" and "vPro", Please select "BMC (Other)".             Authentication Key [Required]             *************************	Management	• Registration 🔘 Unregistration		
BMC(EXPRESSSCOPE Engine)' is target for EXPRESSSCOPE Engine1/2/3/3fr/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)'. Authentication Key [Required]     ''BMC (EXPRESSSCOPE Engine)'/'ILO'/'BMC(Other)'/'VPro'(LAN) Current IP Address     O IP Address 1 O IP Address 2 Fallover     P Enable     IP Address 1 [Required]     I92 . 168 . 8 . 18 IP Address 2				
ADE), BMC(ECO CENTER), BMC(many core server).         For cases other than the above and "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         IP Address 1 [Required]       192         IP Address 2       .	Management Type	BMC illo BMC (Other) vPro		
*BMC (EXPRESSSCOPE Engine)'/'LO'/'BMC(0ther)'/'VPro'(LAN)         Current IP Address 1       IP Address 2         Failover       Enable         IP Address 1       [Required]         IP Address 2       .	ADE), BMC(ECO CENTER), BMC(	nany core server).		
Current IP Address     IP Address 1     IP Address 2       Failover     Enable     Disable       IP Address 1 [Required]     192     168     8     18       IP Address 2     .     .     .     .	Authentication Key [Required]			
Failover     O     Enable     Disable       IP Address 1 [Required]     192     168     8     18       IP Address 2     .     .     .     .	"BMC (EXPRESSSCOPE Engine)"/	iL0°/"BMC(Other)"/"vPro"(LAN)		
IP Address 1 [Required] 192 . 168 . 8 . 18 IP Address 2	Current IP Address	IP Address 1      IP Address 2		
IP Address 2	Failover	Enable     Disable		
	IP Address 1 [Required]	192 . 168 . 8 . 18		
	IP Address 2			
		ADD		

(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 Regis		Alart Opl	Hannowst			
Server / Stolage Retwork Dev	Server / Storage Network Device Other Computer Device Alert Only Management Connection check results					
	Management		Detail			
	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'. 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".

ESI	MPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin •	
¢	Dashboard 🖓 Register 🎦 Component 🛕 AlertViewer 💥 Tools 👻		
	Component Status	Alert Status	
	The component is not registered.	No alerts are unread.	
(2) Click the "Server / Storage" of "Auto Registration".

Register 🛋 Component 🛕 Alert	Viewer 🎇 Tools *	
Registration Marchal Registratio	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	M series)  C Enable O Disable	
Discovery	C Enable Disable	
SNMP Community Name [Required]	public	
WS-Man (NEC ESMPRO ServerAgentS	ervice, ESXi7 earlier)	
Discovery	Enable Disable	
User Name/Password [Required]	DDA 1	
ESXI (ESXIB)		
Discovery	Enable      Disable	
User Name/Password [Required]	/ ADD	
REST API (iStorage V series)		
Discovery	• Enable 🔿 Disable	
User Name/Password [Required]	/ ADD	
User Name/Password [Required]	/	
RAID system (Universal RAID Utility)		
Discovery	Enable Disable	
NEC ExpressUpdate (ExpressUpdate Discovery	Agent)  C Enable  Disable	
BMC(EXPRESSSCOPE Engine)		
Discovery	• Enable 🔘 Disable	
ADE), BMC(ECO CENTER), BMC(man For cases other than the above and "	LO* and "vPro", Please select "BMC (Other)". management is disabled, NEC ESMPRO Manager cannot monitor HW error.	s of some s
NEC ExpressUpdate	Enable Disable	
Authentication Key [Required]	ADD	
iLO Discovery	• Enable O Disable	
A If iLO management is disabled, N result page of auto registration.	EC ESMPRO Manager cannot monitor HW errors of some servers. Please r	ever to the
User Name/Password [Required]	DDA 1	
BMC (Other)		
Discovery	O Enable O 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 servers. n.	Please refe
Access Mode	Auto     Redfish     IPMI	
☆ If "Auto" is selected as an access ods i.e. then refer "Priority access mo-	method and connection is established with both (IPMI and Redfish) the ac de at the time of automatic selection" option in Classic Mode's Environmer	cess meth it-Settings
	method will get the priority for server registration process.	41.22
User Name/Password [Required]	/ DDA	
Intel(R) vPro(TM) Technology		
Discovery	• Enable O Disable	
User Name/Password [Required]	/ ADD	
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
	Add component to Group" for the information about creating group.
Discovery Range	The compensation of one for the morning of the strength
Discovery Mode	With "IP Address Range Discovery" selected, the NEC ESMPRO Manager
Discovery mode	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
Ena radios	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.
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)
Discovery	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)	
Discovery	Select "Enable" to manage ESXi (ESXi8) of the component. *1,*2
User Name/Password	Enter username and password for ESXi (ESXi8) 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
<b>REST API(iStorage V s</b>	
Discovery	Select "Disable".
RAID system (Universa	
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.
	- The managed component is Express5800/ft server.
	The RAID system management feature unregistered because there is no utility to manage the RAID system
	utility to manage the RAID system.
	-If the managed component is a VMware ESXi8, please select "
	Unregistration ".

NEC ExpressUpdate (Ex	kpressUpdate Agent)					
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.					
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 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 "1.1 Setup Flow" 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.

## CHECK:

- \*4 If you register the "Management Controller" management for a fault tolerant 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 has EXPRESSSCOPE Engine SP3(2BMC model), you should specify the search range which includes both BMC IP addresses of Master and Standby.

## СНЕСК:

 \*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:

 If BMC(EXPRESSSCOPE Engine) 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 "RUN DISCOVERY".

🗴 Register 📾 Component 🛕	AlertViewer 🎗 Tools -	
o Registration Manual Registr	ation	
Destination Group	root ¢	
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	rage M series)	
Discovery	C Enable O Disable	
WS-Man (NEC ESMPRO ServerAg	entService, ESXi7 earlier)	
Discovery	C Enable O Disable	
ESXi (ESXi8)		
Discovery	Enable O Disable	
REST API (iStorage V series)		
Discovery	Enable O Disable	
RAID system (Universal RAID Util	C Enable O Iisable	
Discovery NEC ExpressUpdate (ExpressUpd		
Discovery	Enable Disable	
BMC(EXPRESSSCOPE Engine)		
Discovery	Enable Disable	
ADE), BMC(ECO CENTER), BMC( For cases other than the above a	nd "iLO" and "vPro", Please select "BMC (Other)". ine) management is disabled, NEC ESMPRO Manager cannot monitor HW errors of s	some s
NEC ExpressUpdate	• Enable O Disable	
Authentication Key [Required]	ADD	
iLO		
Discovery	C Enable O Disable	
BMC (Other)		
Discovery	C Enable O Disable	
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" 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 📾 Com	ponent 🛕 AlertViewer 🎇 Tools 🔻			
Auto Registration M	anual Registration			
	Auto Re	egistration in Progress		
	Discovery Mode	IP Address Range Discovery		
	Start Address	192.168.8.18		
	End Address	192.168.8.18		
	$\triangle$ Even if switch screens or log	CANCEL		

(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 nboard 📲 Register 📾 Component 🛕 Aler	tViewer 🎇 Tools -		About NEC Et	SMPRO Manager Help Classic Mode 🛓 admi
Auto Registration Manual Registration	on			
		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.
	ВАС	K TO COMPONENT LIST CONTIN	NUE REGISTERING	

Name	Description
Name	Component name
IP address	IP address
Management LAN IP Address 1	BMC (EXPRESSSCOPE Engine) /iLO/BMC (Other) /vPro)
	O IP address
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.
	<ul> <li>ExpressUpdate is disable</li> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is disable</li> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is enabled, but there is not component that can be installed with ExpressUpdate Agent.</li> </ul>
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.
	can perform me 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.

MPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin -
Dashboard 👌 Register 🚔 Component 🛕 AlertViewer 🂥 Tools 👻 💠 Settings 🔹	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

User Accounts Access Control	Network Option	Auto Registration Setting	
Auto Registration Setting List			
WS-Man (NEC ESMPRO ServerAg	entService, ESXi7 earlier)		
User Name/Password		/	ADD
ESKI (ESX68)			
User Name/Password		/	ADD
iLD			
User Name/Password		1	ADD
BMC(EXPRESSSCOPE Engine)			
Authentication Key		ADD	
BMC (Other)			
User Name/Password		1	ADD
Intel(R) vPro(TM) Technology			
User Name/Password		/	ADD
REST API (IStorage V series)			

#### 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)

- "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.

NEC ESMPRO Agent	Extension	le de la companya de
ConfigurationSet Confi	guration	Confirmation of Alert Alert Test
Read File	Write File	
Select IP address for Agent		Close
BMC IP address	Synchronization	
System Information – BMC Firmware Vers SDR Version 00 1 Sh	ion 00.53	
BIOS Version 6.0.5N	57	
SDR Version 00.15b BIOS Version 6.0.5N	57	

(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 L	AN2   WAN/D	irect Pager			
⊢ Management Inform	ation				
-					
	XXXXX				
Comment 1 :					
Comment 2 :					
BMC Common					
Computer Name :	Blueberry	d	Remote Control	🖲 Enable	C Disable
Authentication Ke	y: *****		Remote Control (WAN/Direct):	Enable	C Disable
Community Name	: public		Redirection (LAN):	Enable	O Disable
Alert:	• Enable	O Disable	Redirection (WAN/Direct):	💿 Enable	C Disable
Alert Process :	C AI	🖲 One	Remote Control (LAN2):	💿 Enable	O Disable
Alert Acknowledge	e: 💿 Enable	C Disable	(LANZ).		
Alert Level:	Level4 ( Non	-recoverble, Critic	al, Non-critical, OK )	•	Alert Order
				01/	Carrie I
Deta	ult 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 Read 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)
Pager Save BMC Configuration Return to previous menu ect [ESC] return

(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 () Disable (*) Enable () Disable	
Alert Level *Remote Control LAN1 LAN2	(*) Enable () Disable (*) Enable () Disable (*) Enable () Disable	#
WAN/Direct *Redirection LAN WAN/Direct	(*) Enable () Disable (*) Enable () Disable (*) Enable () Disable (0K) (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
CH	IECK:
•	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.

-- "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.

Tou can set enable on the term only if the Divic supports this ca

--"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
<u>&lt;0</u>	♥ <cancel></cancel>

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

The following screen shows example.

	1(Alert)
*Alert Receiver/Managemen Alert IP Address *Alert Receiver/Managemen Alert IP Address *Alert Receiver/Managemen Alert IP Address *Alert Retry Alert Retry Alert Retry Alert Timeout	(*) Enable 192.168.14.197 t PC (Secondary) () Enable (*) Disable 0.0.0.0
	OK> <cance i=""></cance>

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

- component's 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.

E 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					X
Common LAN1 LA	N2   WAN/Di	rect Pager			
- Management Information	tion				
Model Name : 🛛 🗙	xxxx				
Comment 1 :					
Comment 2 :					
Comment 2.					
BMC Common					
			- Remote Control	Enable	C Disable
Computer Name :	Blueberry		(LAN1):	ve Enable	o Disable
Authentication Key	*****		Remote Control (WAN/Direct):	Enable	O Disable
Community Name :	public		Redirection (LAN):	Enable	C Disable
Alert:	Enable	O Disable	Redirection (WAN/Direct):	Enable	O Disable
Alert Process :		<ul> <li>Disable</li> <li>One</li> </ul>	Remote Control	Enable	C Disable
Alert Acknowledge:		C Disable	(LAN2):		
Alert Level:					Alert Order
Alent Level:	Level4 ( Non-	recoverble, Uritic	al, Non-critical, OK )		
Defau	lt 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.

BMC Configuration	2
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 : 3times Alert Timeout : 6seconds
	OK Cancel Apply

СН	IECK:
•	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 :
	6
	- Primary :
	IP address of the management PC on which NEC ESMPRO Manager is
	installed.

- (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".

ystem Management	Rev. 5.00P	
Display Firmware Managemen	nt Information	_
Set System Management Para	meters	
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	
Conf iguration	on		-
Alert Test			
Return to p	revious menu		
Select: [Ent	er] Help:[H/h]		

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



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

Common	n	_	
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	
*Management Information	
Model Name	[Express5800/R120b-1]
Comment 1	[]
Comment 2	[]
*BMC Common	
Computer Name	[host1]
Authentication Key	[ <del>*****</del> ]
Consumity Name	[public]
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)]
eturn to previous menu	
Select:[Enter] Help:[H/h]	
derectorizateria anerpotazia	

•	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 : 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".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin -
🚯 Dashboard 🚓 Register 🔓 Component 🛕 AlertViewer 💥 Tools 👻	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

RO			About NEC ESMPRO Manager	Help Classic	Mode 💄 ad	dm
hboard	-🖞 Register 🚔 Component 🛕 Ale	rtViewer 💥 Tools 👻				
A	uto Registration Manual Registrat	on				
-						
	Server / Storage Network Device	Other Computer Device Alert Only Management				
	Component Name [Required]					
	Alias					
	Destination Group	root ¢				
		1001				
	Common Setting					
	OS IP Address [Required]					
	SNMP (NEC ESMPRO Agent) / WS-Ma	n / ESXi / iStorage				
	Management	• Registration Unregistration				
	Management Type	• SNMP (NEC ESMPRO Agent, iStorage M series)				
		WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier)     ESXi (ESXi8)				
		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				
	Updates via Management					
	Controller	• Registration Unregistration				
	"BMC (EXPRESSSCOPE Engine)"/"iLO"	"BMC(Other)"/"vPro"(Common)				
	Management	• Registration O Unregistration				
	Management Type	• BMC illo BMC (Other) vPro				
		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 "il	core server). O" and "vPro", Please select "BMC (Other)".				
	Authentication Key [Required]					
	"BMC (EXPRESSSCOPE Engine)"/"iLO"					
	Current IP Address	IP Address 1				
	Failover	Enable     Disable				
	IP Address 1 [Required]					
	IP Address 2					
		ADD				

## (3) Input the following items:

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO Manager.
component Nume	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	6
Allas	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.
	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.
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
Protocol	Select protocol H I IP/H I IPS for connection w S-Man service. 2
	NEC ECMDDO Semier A contSemice (Windows) is installed
	- 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 11TTD
	If you want to use HTTP, enter 5985.
	If you want to use HTTPS, enter 5986.
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter 5986.
	Eliter 5980.
	- The operating system of the managed component is VMware ESXi7.
	Enter 443.
RAID system managem	ent
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, 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
Management Controller	Controller
	PE 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
5	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
	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.
IP Address 2	Enter the IP address that is specified on LAN2 of the BMC configuration
	for the managed component.
L	tot are manager componenti
## (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	in / ESXi / iStorage			
Management	Registration     Unregistration			
RAID system (Universal RAID Utility)				
Management	Registration      Unregistration			
NEC ExpressUpdate				
Updates via NEC ExpressUpdate Agent	○ Registration <b>O</b> Unregistration			
Updates via Management Controller	Registration Unregistration			
"BMC (EXPRESSSCOPE Engine)"/"iLO"	/"BMC(Other)"/"vPro"(Common)			
Management	• Registration 🔿 Unregistration			
▲ If BMC / iLO management is disated Please refer to the result page of conrelation	bled, NEC ESMPRO Manager cannot monitor HW errors of some servers. nection check.			
Management Type	• BMC iLO BMC (Other) vPro			
ADE), BMC(ECO CENTER), BMC(many	s target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL core server). L0° 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 Oisable			
IP Address 1 [Required]	192 . 168 . 8 . 18			
IP Address 2				
	ADD			

(5) "CHECK CONNECTION" screen is displayed.

Click "CHECK CONNECTION" to start it.			
ESMPRO	About NEC ESMPRO Manager	lelp 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 Manage	er Help	Classic Mode	💄 admin 🕶
🕼 Dashboard 🛛 🔒 Register 📾	Component	AlertViewer 🔀 Tools	•						
Auto Registration	Manual Regis	tration							
Server / Storage	Network Dev	ice Other Compute	er Device Alert Onl	y Managemo	ent				
			Conr	ection o	heck results				
		Management	Detected	Detail					
		BMC	Detected	Engine). Se ware error anager's ac	t configuration is not completed on titing up SNMP Alert configuration alert to NEC ESMPRO Manager. Ple Idress as 'Alert Receiver'. Using the ExpressUpdate function can be us	is required to send hard ase set NEC ESMPRO M BMC (EXPRESSSCOPE E			
			BACK TO COMPON	ENT LIST	CONTINUE REGISTERING	I			

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 🛓 admin 🔻
😫 Dashboard 🛃 Register 🚔 Component 🛕 AlertViewer 💥 Tools 👻	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

	21. J. (22.00) 1000	About NEC ESMPRO Manager Help Classic Mode
Register 🕿 Component 🛕 Alert <sup>1</sup>	Viewer 💥 Tools *	
Registration Manual Registration	1	
Destination Group	root e	
Discovery Range		
Discovery Mode	IP Address Range Discovery     O Network Address Discovery	
Start Address [Required]		
End Address [Required]		
Che Address (nedoned)		
C Server / Storage		
SNMP (NEC ESMPRO Agent, iStorage	M series)	
Discovery	• Enable O Disable	
SNMP Community Name [Required]	public	
WS-Man (NEC ESMPRO ServerAgentS Discovery	Enable Disable	
Discovery	Chable Disable	
User Name/Password [Required]	7 ADD	
ESXi (ESXiB)		
Discovery	• Enable 🗍 Disable	
User Name/Password [Required]	1 DOA	
REST API (iStorage V series)	Carabia O Disable	
Discovery	C Enable Disable	
User Name/Password [Required]	7 DOA	
RAID system (Universal RAID Utility)		
Discovery	• Enable O Disable	
NEC ExpressUpdate (ExpressUpdate /	igent)	
Discovery	Enable     Disable	
BMC(EXPRESSSCOPE Engine) Discovery	Enable Disable	
ADE), BMC(ECO CENTER), BMC(many For cases other than the above and "il	.0° and "vPro", Please select "BMC (Other)". nanagement is disabled, NEC ESMPRO Manager cannot monitor HW errors of some s	
NEC ExpressUpdate	• Enable 🔿 Disable	
Authentication Key [Required]	GGA	
Authentication Key [Kequired]	AUU	
iLO		
Discovery	Enable Disable	
▲ If iLO management is disabled, N result page of auto registration.	EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the	
User Name/Password [Required]	7 ADD	
BMC (Other)		
Discovery	• Enable O Disable	
	abled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refe	
Access Mode	Auto     Redfish     IPMI	
ods i.e. then refer 'Priority access mo	method and connection is established with both (IPMI and Redfish) 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]	/ AD0	
Intel(R) vPro(TM) Technology		
Discovery	• Enable 🗍 Disable	
	/ 400	
User Name/Password [Required]		
Network Device		
Network Device		

## (3) Input the following items:

Name	Value
Destination Group	Specify the group to which the managed component will belong.
Discovery Range	speeny the group to which the managed component will belong.
Discovery Mode	With "IP Address Range Search" selected, the NEC ESMPRO Manager
Discovery widde	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
End Address	components are to be searched for.
Naturali Adduaga	*
Network Address Network Mask	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.
SNMD (NEC ESMDDO	
	Agent, iStorage M series)
Discovery SNMD Community	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
	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)	
Discovery	Select "Enable" to manage ESXi (ESXi8) of the component. *1,*2
User Name/Password	Enter username and password for ESXi (ESXi8) 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
<b>REST API(iStorage V set</b>	eries)
Discovery	Select "Disable" .
<b>RAID system managem</b>	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, 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	Select Endere to reduce rate Expresse pade.
Authentication Key	Enter the "authentication key" that you set in "1.2 Configure BMC on
	Enter the automouton Key that you set in 1.2 Conneute DIVIC OI

	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) Technology								
Discovery	When you discover components which have BMC excluding							
	EXPRESSSCOPE Engine3, this item should be "Disable".							

<ul> <li>CHECK:</li> <li>*1 If NEC ESMPRO Manager is installed on Linux system, "SNMP" and VMware ESXi management are not supported.</li> </ul>
CHECK:
<ul> <li>*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.</li> </ul>
СНЕСК:
<ul> <li>*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.</li> </ul>

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## (4) Click "RUN DISCOVERY".

		About NEC ESMPRO Manager Help Cla	assic Mode 💄
🖁 Register 📾 Component 🛕 Alert	Wiewer 🎇 Tools -		
o Registration Manual Registratio	n		
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		
Server / Storage			
SNMP (NEC ESMPRO Agent, iStorage	M series)		
Discovery	C Enable O Disable		
WS-Man (NEC ESMPRO ServerAgentS	Service, ESXi7 earlier)		
Discovery	C Enable O Disable		
ESXi (ESXi8)			
Discovery	🔿 Enable 🔹 Disable		
REST API (iStorage V series)			
Discovery	C Enable • Disable		
RAID system (Universal RAID Utility)			
Discovery	Enable Disable		
NEC ExpressUpdate (ExpressUpdate	Agent)		
Discovery	C Enable O Disable		
BMC(EXPRESSSCOPE Engine)			
Discovery	Enable Disable		
ADE), BMC(ECO CENTER), BMC(man For cases other than the above and "i	iLO" and "vPro", Please select "BMC (Other)". management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some :	i -	
NEC ExpressUpdate	• Enable O Disable		
Authentication Key [Required]	ADD		
iLO			
Discovery	C Enable O Disable		
BMC (Other)			
Discovery	C Enable O Disable		
Intel(R) vPro(TM) Technology			
Discovery	C Enable O Disable		
Network Device			
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.

ESM	PRO				About NEC ESMPRO Manager	Help Classic Mode	💄 admin 🗝
🕼 Da	shboard -🎦 Register 🚍 Co	omponent 🔺 Ale	ertViewer 🎇 Tools 👻				
	Auto Registration	Manual Registrat		gistration in Progress			
			Discovery Mode	IP Address Range Discovery			
			Start Address	192.168.8.18			
			End Address	192.168.8.18			
			$\mathbbm{A}$ Even if switch screens or log o	CANCEL 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 ESM	MPRO Manager Help Classic Mode	🛔 admin 🕶
🕼 Dashboard 📲 Register 📾 Component 🛕 AlertViewe	🗶 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	COMPONENT LIST CONTINUE RE	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)/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 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.

<b>NEC</b> ilo 5 × 1.10 Jun 07 2017	Management - SNMP Settings 🏾 🍅 🧿 🥑	Å ?	
Information	SNMP Settings AlertMail Remote Syslog		
System Information			
Firmware & OS Software		^	1
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.



## 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

Exar	mple)
	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:
ALIAS NAME=esmpro_ilosso
KEYSTÖRE PATH=C:¥¥Users¥¥Administrator¥¥.kevstore
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 $^{\mathrm{iLO}5}_{\mathrm{1.30May232018}}$ $ imes$	Security - Single Sign-On Settings 🍈 🧿 🌐 🔇	A ?
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	разке ине развеля-епісорер ж. риз селинские рака неге	
Remote Console & Media		
Power & Thermal Intelligent System Tuning		
iLO Dedicated Network Port		
iLO Shared Network Port	Apply	
Administration	Import From URL	
Security		
Management EXPRESSBUILDER	Certificate URL	
	Арріу	
	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 Encry	otion 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	Description
Power & Thermal	Trust by name $\bigtriangledown$ Status Certificate	Description
Intelligent System Tuning		192.168.1.2
iLO Dedicated Network Port	n <sup>ot</sup> /	
iLO Shared Network Port	use operation something of	🕂 Import
Administration	USE ORET RUTIN	
Security	🗹 🗹 🔁 Login	
Management	Remote Console	
EXPRESSBUILDER	Virtual Power and Reset	
	✓     ✓     ✓     ✓       ✓     ✓     ✓     ✓       ✓     ✓     ✓     ✓	
	Configure iLO 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.

<b>NEC</b> 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 Firmware & OS Software	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	
iLO Shared Network Port	user Openne permittee
Administration Security	u <sup>get</sup> op <sup>gette</sup> p <sup>gette</sup> ▼ ▼ <del>▼</del> Login
Management EXPRESSBUILDER	Remote Console     Virtual Power and Reset     Virtual Media     V     Virtual Media     V     V     Host BIOS
	Image: Configure iLO Settings         Image: Configure iLO Settings </th
	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".

- CHECK:
  - 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 🕶
🕼 Dashboard 📲 Register 🚔 Component 🛕 AlertViewer 💥 Tools 👻 🗢 Settings 🔹	
Component Status	Aiert Status
The component is not registered.	No alerts are unread.

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

RO		About NEC ESMPRO Manager Help Classic Mode
board 👌 Register 🚔 Component 🛕 AlertViewer 💢 Tools 👻	Settings *	
$\sim$		
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 ILO		
No-response Timeout	20 seconds	
Command Send Retry Count	0 number of times	
Communication Protocol for Auto Registration	HTTPS	
Self Signed Certificate	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	O 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 O Not Allowed	
		CANCEL DEFAULT AF	PPLY

## 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	
Component 🛦 AlertViewer 💥 Tools -		
Component Status	Alert Status	
The component is not registered.	No alerts are unread.	

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

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode	🛔 admin 🗸
Cashboard	-🚡 Register 📾 Component 🛕 Aler	tViewer 🎇 Tools 👻			
Aut	to Registration Manual Registration				
	Server / Storage Detwork 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-Mar	/ ESXi / iStorage			
	Management	• Registration O Unregistration			
	Management Type	SNMP (NEC ESMPRO Agent, iStorage M series)     WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier)     ESXi (ESXi8)     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 Unregistration			
	Updates via Management Controller	• Registration 🔿 Unregistration			
	'BMC (EXPRESSSCOPE Engine)'/'iLO'/	'BMC(Other)"/"vPro"(Common)			
	Management	• Registration O Unregistration			
	Management Type	BMC ILO BMC (Other) VPro			
	ADE), BMC(ECO CENTER), BMC(many	target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL core server). 3° and "vPro", Please select "BMC (Other)".			
	Authentication Key [Required]				
	'BMC (EXPRESSSCOPE Engine)'/'iLO'/	'BMC(Other)''/'vPro''(LAN)			
	Current IP Address	• IP Address 1    IP Address 2			
	Failover	Enable Disable			
	IP Address 1 [Required]				
	IP Address 2				
		ADD			

(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
	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.
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 VM ware ESV:
	- 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.
FIOLOCOI	Select protocol H11F/H11FS for connection w S-wan 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	
Port Number	Select HTTPS.         Enter port number where WS-Man service listens for connection. *2

	<ul> <li>NEC ESMPRO ServerAgentService (Windows) is installed. If you want to use HTTP, enter 5985. If you want to use HTTPS, enter 5986.</li> <li>NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986.</li> <li>The operating system of the managed component is VMware ESXi7. Enter 443.</li> </ul>	
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, please select " Unregistration ".	
NEC ExpressUpdate		
Updates via NEC ExpressUpdate Agent Updates via Management Controller	Select "Unregistration". The managed component in which iLO is integrated does not support updating via NEC ExpressUpdate Agent. Select "Unregistration". The managed component in which iLO is integrated does not support updating via Management Controller.	
	PE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common)	
Management Management Type	Select "Registration". Select "iLO".	
User Name Password	Enter the user name and password for communication with the iLO, *3	
Communication Protocol	Select protocol used by communication with iLO.	
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:

<ul> <li>*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.</li> </ul>
СНЕСК:
• *2 Regarding a port number for WS-Man communication, refer to "Appendix C. Port number for WS-Man communication".
CHECK:
<ul> <li>*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.</li> <li> Administrator of the default user</li> <li> Additional user with all user privileges.</li> </ul>
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.
СНЕСК:
• *4 Set the port number of iLO Web Server. The default value of iLO Web Server is

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.	
IMPORTANT:	
<ul> <li>If iLO management is disabled, NEC ESMPRO Manager may not be able to monitor</li> </ul>	

HW status. Detailed information is shown in the connection check result screen.

(4) Click "ADD".

PRO shboard  🖞 Register 🚔 Com	ponent 🛦 AlertViewer 💥 Tools 🕶	About NEC ESMPRO Manager H	ielp Classic Mode 🛓 ad
Auto Registration Ma	anual Registration		
Server / Storage N	etwork Device Other Computer Device Alert Only Management		
Component Name [Re	iquired] iLO		
Alias			
Destination Group	root +		
SNMP (NEC ESMPRO	Agent) / WS-Man / ESXi / iStorage		
Management	Registration     Unregistration		
RAID system (Univers	al RAID Utility)		
Management	Registration     O     Unregistration		
NEC ExpressUpdate			
Updates via NEC Expr Agent	essUpdate O Registration O Unregistration		
BMC (EXPRESSSCOP	PE Engine)"/"iLO"/"BMC(Other)"/"vPro"(Common)		
Management	• Registration 🔿 Unregistration		
	agement is disabled, NEC ESMPRO Manager cannot monitor HW errors of some servers. sult page of connection check.		
Management Type	O BMC O iLO O BMC (Other) O vPro		
ADE), BMC(ECO CEN	COPE Engine)" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL TER), BMC(many core server). he above and "LO" and "vPro", Please select "BMC (Other)".		
User Name/Password	[Required] Administrator / ······		
Communication Proto	col O HTTP O HTTPS		
Port Number [Require	d] 443		
BMC (EXPRESSSCO	PE Engine)"/"iLO"/"BMC(Other)"/"vPro"(LAN)		
IP Address 1 [Require	d] 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.			

(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".

About NEC ESMPRO Manager Help Classic Mode 🛓 admin 👻				
🕼 Dashboard 🕂 Register 🛋 Component 🛕 AlertViewer 💥 Tools 👻				
Component Status	Alert Status			
The component is not registered.	No alerts are unread.			

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

	Viewer 🎇 Tools -		AI	out HEG EamPRO Mana	iger Help Classic Mod
Registration fanual Registration	n				
Destination Group	root	٥			
Discovery Range					
Discovery Mode	O IP Address Range Discover	y 🚫 Network Address Discovery			
Start Address [Required]					
End Address [Required]					
Co Server / Storage					
SNMP (NEC ESMPRO Agent, iStorage	M series)				
Discovery					
SNMP Community Name [Required]	public				
WS-Man (NEC ESMPRO ServerAgentS	ervice, ESXi7 earlier)				
Discovery	O Enable O Disable				
User Name/Password [Required]	1	ADD			
ESXI (ESXIB)					
Discovery	• Enable 🔘 Disable				
User Name/Password [Required]	1	ADD			
REST API (iStorage V series)					
Discovery	• Enable 🔿 Disable				
User Name/Password [Required]		DOA			
RAID system (Universal RAID Utility)					
Discovery	• Enable O Disable				
NEC ExpressUpdate (ExpressUpdate A	lgent)				
Discovery	O Enable O Disable				
BMC(EXPRESSSCOPE Engine)					
Discovery	O Enable 🔘 Disable				
ADE), BMC(ECO CENTER), BMC(many For cases other than the above and 'll	v core server). LO° and "vPro", Please select "BM0 management is disabled, NEC ESI r of auto registration.	ne1/2/3/3ft/2SP/3SP, EM Card(SIGMA C (Other)*. MPRO Manager cannot monitor HW en			
NEC ExpressUpdate	O Enable O Disable				
Authentication Key [Required]		ADD			
iLO					
Discovery	O Enable O Disable				
▲ If iLO management is disabled, NI result page of auto registration.	EC ESMPRO Manager cannot mor	nitor HW errors of some servers. Pleas	e refer to the		
User Name/Password [Required]	/	ADD			
BMC (Other)					
Discovery	• Enable O Disable				
A If BMC(Other)management is dis-	abled, NEC ESMPRO Manager car	anot monitor HW errors of some server	s. Please refe		
r to the result page of auto registration	n.				
Access Mode	• Auto CRedfish	O IPMI			
	de at the time of automatic select	tion' option in Classic Mode's Environn	access meth nent-Settings		
User Name/Password [Required]	1	ADD			
Intel(R) vPro(TM) Technology					
Discovery	• Enable 🔿 Disable				
1.000 CONTRACTOR (		ADD			
User Name/Password [Required]					
User Name/Password [Required]					
User Name/Password [Required]					
User Name/Password [Required]					
User Name/Password [Required]	RUN DISCOVERY				

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

Name	Value
Destination Group	Specify the group to which the managed component will belong. See
1	"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
5	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 iLO is integrated, this
21000000	item should be "Disable".
WS-Man(NEC ESMPF	O ServerAgentService, ESXi7)
Discovery	When you discover components installed NEC ESMPRO
Discovery	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. *2
	- 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
	- The operating system of the managed component is VMware ESXi7.
	Enter Username/Password of VMware ESXi Administrator
ESXi (ESXi8)	
Discovery	Select "Enable" to manage ESXi (ESXi8) of the component. *1,*2
User Name/Password	Enter username and password for ESXi (ESXi8) 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
<b>REST API(iStorage V s</b>	
Discovery	Select "Disable" .
RAID system managen	
Management	If the operating system of the managed component is ESXi7, refer to
management	"10.3.2.2 Auto Registration".
	If the managed component is a VMware ESXi8, 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 (EXPRESSSCOI	
	When you discover only the components in which iLO is integrated, this
Discovery	when you discover only the components in which into 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 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) Tec	chnology		
Discovery	When you discover only the components in which iLO is integrated, this item should be "Disable".		
communication, a detailed informati	ed certificate is installed on the managed server for HTTPS a setting to allow it is required. Refer to "1.1 Setup Flow" for on.		
manage a list of us	- "Environment" - "Auto Registration Setting List" screen, you can sername/password and authentication key. All entries in the list are stration every time.		
СНЕСК:			
<ul> <li>*3 Set a user nam user's guide" or "i  Administrator o</li> </ul>	e and a password of following user account. Please refer to "iLO5 iLO6 user's guide" for details about a user account of iLO. if the default user with all user privileges.		
	of other than the above is used, there is a possibility that you can't for managing iLO.		
СНЕСК:			
ESMPRO/Server	use HTTPS for WS-MAN communication with AgentService, refer to Chapter 2, Installation 3.3 HTTPS Setting ServerAgentService Installation Guide (Windows).		

in the ESMPRO/ServerAgentService Installation Guide (Windows).

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

			About NEC ESMPRO Manager	Help Classic Mode	1
I 📲 Register 📾 Co	omponent 🛕 AlertV	iewer 🎉 Tools 👻			
Auto Registration	Manual Registration				
Destination Gro	up	root ÷			
Discovery Range	6				
Discovery Mode		• IP Address Range Discovery O Network Address Discovery			
Start Address [F	Required]	192 . 168 . 8 . 28			
End Address [Re	equired	192 168 8 28			
Server /	Storage				
SNMP (NEC ES	MPRO Agent, iStorage N	1 series)			
Discovery		C Enable O Disable			
WS-Man (NEC E	SMPRO ServerAgentSe	rvice, ESXi7 earlier)			
Discovery		C Enable • Disable			
ESXi (ESXi8)					
Discovery		C Enable O Disable			
REST API (iStora	age V series)				
Discovery		C Enable O Disable			
RAID system (II)	niversal RAID Utility)				
Discovery	inversion to the outing)	C Enable Disable			
	date (ExpressUpdate Ag				
Discovery		C Enable O Disable			
BMC(EXPRESSS	COPE Engine)				
Discovery		C Enable O Disable			
iLO					
Discovery		• Enable 🔿 Disable			
		C ESMPRO Manager cannot monitor HW errors of some servers. Please refer t	o the		
result page of a	uto registration.				
User Name/Pas	sword [Required]	Administrator / ADD			
BMC (Other)					
Discovery		C Enable O Disable			
Intel(R) vPro(TM	<ol> <li>Technology</li> </ol>				
Discovery		C Enable O Disable			
Network	Device				
Network					
Other Co	omputer Device				
		$\frown$			
		RUN DISCOVERY			

#### **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						
		)					
	Auto Reg	gistration in Progress					
	Discovery Mode	IP Address Range Discovery					
	Start Address	192.168.8.28					
	End Address	192.168.8.28					
		CANCEL					
${\mathbb A}$ Even if switch screens or log 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.

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

SMPRO			About NE	C ESMPRO Manager Help Classic Mode	💄 admin 🗸
🕼 Dashboard - 🐴 Register 📾 Component 🔺 AlertView	er 💥 Tools -				
Auto Registration Manual Registration					
		Auto Registration Resu	lts		
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.	
	BAC	K TO COMPONENT LIST CONTINU	E REGISTERING		
	UAC		e hear reality		

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.
	<ul> <li>ExpressUpdate is disable</li> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is disable</li> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is enabled, but there is not component that can be installed with ExpressUpdate Agent.</li> </ul>
Contents	<ul> <li>A component has been added. This message will be displayed if the component is successfully registered.</li> <li>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.</li> </ul>

\_\_\_\_\_

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.

https://192.168.1.1/		https:	//192.	168.	1.1/
----------------------	--	--------	--------	------	------

.....

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 -	
🚯 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 iLO			
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 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 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 🔿 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 💄 admin -
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode	💄 admin 🕶
🔇 Dashboard 📲 Register 🚔	Component 🛕 AlertViewer 🎇 Tools 👻				
	$\frown$				
Auto Registration	Manual Registration				
Server / Storage	etwork Device Other Computer Device	Alert Only Management			
Component Nan	e [Required]				
Alias					
Destination Grou	p root	÷			
Common Setting					
OS IP Address [F	equired]				
SNMP (NEC ESM	IPRO Agent) / WS-Man / ESXi / iStorage				
Management	• Registration 🔿 Unregis	ration			
Management Ty		erverAgentService, ESXi7 earlier)			
SNMP Commun	ty Name(Get) public				
SNMP Commun	ty Name(Set)				
RAID system (Ur	iversal RAID Utility)				
Management	● Registration ○ Unregis	ration			
NEC ExpressUpo	ate				
Updates via NEC Agent	ExpressUpdate O Registration O Unregis	ration			
Updates via Mar Controller	agement O Registration O Unregis	ration			
"BMC (EXPRESS	SCOPE Engine)"/"iLO"/"BMC(Other)"/"vPro"(Common)				
Management	■ Registration ○ Unregistration ○ ○ Unregistration ○	ration			
Management Ty	e OBMC OiLO	O BMC (Other) VPro			
ADE), BMC(ECO	ESSSCOPE Engine)" is target for EXPRESSSCOPE Eng CENTER), BMC(many core server). than the above and "iLO" and "vPro", Please select "BI				
Authentication K	ey [Required]				
'BMC (EXPRESS	SCOPE Engine)"/"iLO"/"BMC(Other)"/"vPro"(LAN)				
Current IP Addre	ss O IP Address 1 O IP Addre	ess 2			
Failover	• Enable Obisable				
IP Address 1 [Re	quired]				
IP Address 2					
	ADD				

### (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	"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.
	) 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-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.
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	System Administrator.
	- 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 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.		
DAID system managem	Enter 443.		
RAID system managem	Select "Registration" to manage the RAID system of the component.		
Management	- 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, 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		
	"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).		
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.		
User Name	Enter the user name and password for communication with the BMC		
Password	(Other), *3		
	PE Engine)" / "iLO" / "BMC (Other)" / "vPro" (LAN)		
IP Address 1	Enter the IP address of BMC (Other).		
L	X /		

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 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).
СНЕСК:
<ul> <li>*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.</li> </ul>
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.
50000
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.

### NEC ESMPRO Manager Setup Guide

ESMPRO		About NEC ESMPRO Manager	Help Classic Mode 💄 admin 🗸
🚯 Dashboard 📲 Register 🚔 Component 🛕 Alert	Viewer 💥 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     O     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 O Unregistration		
▲ If BMC / iLO management is disable Please refer to the result page of conner	Id, NEC ESMPRO Manager cannot monitor HW errors of some servers. ction check.		
Management Type	BMC iLO BMC (Other) vPro		
ADE), BMC(ECO CENTER), BMC(many c	arget for EXPRESSSCOPE Engine1/2/3/sft/2SP/3SP, EM Card(SIGMABL ore server). and 'YPro', Please select "BMC (Other)".		
Access Mode	Auto      Redfish      IPMI		
s methods i.e. then refer "Priority access	ethod and connection is established with both (IPMI and Redfish) the acces s 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		
	r used by Redfish. eb service of BMC Management Console.		
User Name/Password [Required]	Administrator /		
"BMC (EXPRESSSCOPE Engine)"/"iL0"/"	BMC(Other)"/"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 7			

(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	nt 🛕 AlertViewer 💥 Tools 🝷				
Auto Registration Manual	Registration				
Server / Storage Networ	rk 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	l		

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".

ESI	MPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin 🗸
¢	Dashboard 🝊 Register 🕞 Component 🛕 AlertViewer 🛠 Tools 👻	
	Component Status	Alert Status
	The component is not registered.	No alerts are unread.

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

Register 🛋 Component 🛕 Alert	Viewer 🎇 Tools *		
egistration M-wal Registratio			
Destination Group	root	0	
Discovery Range			
Discovery Mode	IP Address Range Discov	very O Network Address Discovery	
Start Address [Required]			
End Address [Required]			
C Server / Storage			
SNMP (NEC ESMPRO Agent, iStorage	M series)		
Discovery	• Enable O Disable		
SNMP Community Name [Required]	public		
WS-Man (NEC ESMPRO ServerAgentS			
Discovery	O Enable O Disable		
User Name/Password [Required]	· · ·	DDA	
ESXi (ESXiB)			
Discovery	O Enable 🔘 Disable		
User Name/Password [Required]	1	ADD	
REST API (iStorage V series)			
REST API (iStorage V series) Discovery	O Enable O Disable		
User Name/Password [Required]		DDA	
RAID system (Universal RAID Utility)			
Discovery	O Enable O Disable		
NEC ExpressUpdate (ExpressUpdate			
Discovery BMC(EXPRESSSCOPE Engine)	O Enable O Disable		
Discovery	O Enable 🔘 Disable		
ADE), BMC(ECO CENTER), BMC(many For cases other than the above and "i	/ core server). LO* and "vPro", Please select "B management is disabled, NEC E	igine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL IMC (Other)*. ESMPRO Manager cannot monitor HW errora of some	5
NEC ExpressUpdate	O Enable O Disable		
Authentication Key [Required]		DDA	
iLO			
Discovery	• Enable O Disable		
	EC ESMPRO Manager cannot m	nonitor HW errors of some servers. Please refer to the	
result page of auto registration.			
User Name/Password [Required]	1	ADD	
BMC (Other)			
Discovery	O Enable O Disable		
☆ If BMC(Other)management is dis r to the result page of auto registratio	abled, NEC ESMPRO Manager o	cannot monitor HW errors of some servers. Please rel	le
Access Mode	• Auto CRedfish		
	method and connection is esta	blished with both (IPMI and Redfish) the access met	
ods i.e. then refer "Priority access mo Network screen and selected access	de at the time of automatic sele	ection <sup>®</sup> option in Classic Mode's Environment-Setting	
User Name/Password [Required]	1	ADD	
	·/`		
Intel(R) vPro(TM) Technology			
Discovery	O Enable O Disable		
User Name/Password [Required]	· · · · · · · · · · · · · · · · · · ·	ADD	
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	<ul> <li>Enter username and password for WS-Man communication. The account must be a system administrator of the managed operating system.</li> <li>Click "Add" button and you can add a pair of username and password up to 5. *2</li> <li>NEC ESMPRO ServerAgentService (Windows) is installed. Enter Username(Local User Accounts)/Password of Windows system Administrator</li> <li>NEC ESMPRO ServerAgentService (Linux) is installed. Enter root/Password of Linux operating system</li> <li>The operating system of the managed component is VMware ESXi. Enter Username/Password of VMware ESXi Administrator</li> </ul>	
ESXi (ESXi8)		
Discovery User Name/Password	Select "Enable" to manage ESXi (ESXi8) of the component. *1 Enter username and password for ESXi (ESXi8) 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 Enter Username/Password of VMware ESXi Administrator	
<b>REST API(iStorage V s</b>		
Discovery	Select "Disable" .	
RAID system managem		
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 ExpressUpdate Agent	Select "Enable" to manage the component using NEC ExpressUpdate.	
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	
Ugan Nama/Daggwand	Specify IPMI as the "Access Mode" for BMC (other).	
User Name/Password Enter username and password for communication with the Bl Clicking "Add" button, you can enter up to 5 pairs of u password. *2, *3		
Intel(R) vPro(TM) Technology		
Discovery When you discover only the components of BMC (Other), this 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
	detailed 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).

.....

#### 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.

to Registration Manual Registrati	on	
	root +	
Destination Group	root	
Discovery Range Discovery Mode	IP Address Range 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	C Enable O Disable	
WS-Man (NEC ESMPRO ServerAgent	tService, ESXI7 earlier)	
Discovery	Enable Obisable	
ESXI (ESXI8)		
Discovery	Enable O Disable	
REST API (iStorage V series)		
Discovery	Enable O Disable	
RAID system (Universal RAID Utility)		
Discovery	Enable O Disable	
NEC ExpressUpdate (ExpressUpdate	Agent)	
Discovery	O Enable O Disable	
BMC(EXPRESSSCOPE Engine)		
Discovery	Enable Oisable	
iLO		
Discovery	Enable Oisable	
BMC (Other)		
Discovery	• Enable O Isable	
▲ If BMC(Other)management is di r to the result page of auto registrati		
Access Mode	• Auto CRedfish IPMI	
ods i.e. then refer "Priority access m	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.

( )			_
( )			
()			
$\bigcirc$			
egistration in Progress			
IP Address Range Discovery			
192.168.8.26			
192.168.8.26			
CANCEL			
	192.168.8.26	IP Address Range Discovery 192.168.8.26 192.168.8.26 CANCEL	IP Address Range Discovery 192.168.8.26 192.168.8.26 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.
ОК

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

icking the 1	value to c	open the Classic	mode where yo	ou can confirm th	le registered information
MPRO				About NEG	C ESMPRO Manager Help Classic Mode 💄 admin 🗸
Dashboard - 🖺 Register 📾	Component 🛕 AlertView	wer 💥 Tools 🔻			
Auto Registration	Manual Registration				
			Auto Registration Resu	llts	
Entry Count:1item	(s)				
Name	IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents
ManagementCont	roller	192.168.8.26		ExpressUpdate Disable	The component was added. Hardware monitoring function via BMC (Oth er) is available.
		BAC	K TO COMPONENT LIST CONTIN	JE 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".
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.

### 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

CHECK:
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 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".

ESMF	PRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin 🔻	
🖨 Das	hboard 🗗 Register 🛋 Component 🔺 AlertViewer 🛠 Tools 🝷		
_			
	Component Status	Alert Status	
	The component is not registered.	No alerts are unread.	

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

ESMPRO		About NEC ESMPRO Manager	Help Classic Mode	≗ admin <del>-</del>
🔇 Dashboard 📲 Register 🚔 Compon	ent 🛦 AlertViewer 🎇 Tools 👻			
Auto Registration Manu	al Registration			
Server / Storage	ork Device Other Computer Device Alert Only Management			
Component Name <mark>(Requi</mark>	red]			
Alias				
Destination Group	root 🗢			
Common Setting				
OS IP Address [Required]				
SNMP (NEC ESMPRO Ag	ent) / 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)     REST API (iStorage V series)			
SNMP Community Name	(Get) public			
SNMP Community Name	(Set)			
RAID system (Universal R	AID Utility)			
Management	• Registration 🔿 Unregistration			
NEC ExpressUpdate				
Updates via NEC Express Agent	Update • Registration   Unregistration			
Updates via Management Controller	• Registration O Unregistration			
'BMC (EXPRESSSCOPE E	ngine)"/"iL0"/"BMC(Other)"/"vPro"(Common)			
Management	• Registration 🔿 Unregistration			
Management Type	BMC OILO BMC (Other) VPro			
ADE), BMC(ECO CENTER)	PE Engine)" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ), BMC(many core server). above and "iLO" and "vPro", Please select "BMC (Other)".			
Authentication Key [Regu	ired]			
'BMC (EXPRESSSCOPE E	ngine)"/"iLO"/"BMC(Other)"/"vPro"(LAN)			
Current IP Address	IP Address 1 🔿 IP Address 2			
Failover	• Enable Obisable			
IP Address 1 [Required]				
IP Address 2				
	ADD			

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

(4) Click "ADD".

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode	💄 admin 🗸
C Dashboard	🖥 Register 📾 Component 🛕 Aler	tViewer 💥 Tools 👻			
					_
Auto	Registration Manual Registratio	nc			
Se	erver / Storage Network Device	Other Computer Device Alert Only Management			
	Component Name [Required]	EM			
	Alias				
	Destination Group	root +			
	Common Setting				
	OS IP Address [Required]	192 . 168 . 8 . 103			
	SNMP (NEC ESMPRO Agent) / WS-Man	/ ESXi / iStorage			
	Management	• Registration O Inregistration			
	Management Type	SNMP (NEC ESMPRO Agent, Istorage M series)     W5-Man (NEC ESMPRO ServerAgentService, ESX17 earlier)     ESX1 (ESX18)     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 🔿 Unregistration			
	"BMC (EXPRESSSCOPE Engine)"/"iLO"/"	'BMC(Other)'/"vPro"(Common)			
	Management	• Registration O Inregistration			
	Management Type	• BMC illo BMC (Other) vPro			
	ADE), BMC(ECO CENTER), BMC(many of	target for EXPRESSSCOPE Engine1/2/3/5tr/2SP/3SP, EM Card(SIGMABL core server). 3° and "vPro", Please select "BMC (Other)".			
	Authentication Key [Required]				
	"BMC (EXPRESSSCOPE Engine)"/"iLO"/"	'BMC(Other)'/'vPro'(LAN)			
	Current IP Address	O IP Address 1 O IP Address 2			
	Failover	• Enable O Disable			
	IP Address 1 [Required]	192 . 168 . 8 . 104			
	IP Address 2				
		ADD			

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

SMPR Cashboa		Component 🔺 AlertView	er 🎇 Tools -		About NEC E	SMPRO Manager	Help	Classic Mode	≗ admin •	
	Auto Registration	Manual Registration								
	Server / Storage	Network Device Ot	her 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.					
			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 ESM/PRO Manager. Please set NEC ESM/PRO M anager's address a Xilert Receiver/ Using the BMC (EXPRESSSCOPE E ngine) NEC ExpressUpdate function can be used.					
			BA	CK TO COMPONE	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.
	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".

ESMP	RO	About NEC ESMPRO Manager Help Classic Mode 💄 admin 🕶
🖨 Dasi	board 🚯 Register 🖨 Component 🛕 AlertViewer 💥 Tools 👻	
_		
4	Component Status	Alert Status
	The component is not registered.	No alerts are unread.

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

Register 🛋 Component 🛕 Alert	Viewer 🎉 Tools *		
Registration anual Registratio	n		
Destination Group	root	٠	
Discovery Range			
Discovery Mode	O IP Address Range Discovery	Network Address Discovery	
Start Address [Required]			
End Address [Required]			
Senier / Storage			
C Server / Storage		-	
SNMP (NEC ESMPRO Agent, iStorage			
Discovery	• Enable		
SNMP Community Name [Required]	public		
WS-Man (NEC ESMPRO ServerAgentS	ervice, ESXi7 earlier)		
Discovery	• Enable O Disable		
User Name/Password [Required]	7	ADD	
ESXI (ESXIB)			
Discovery	O Enable 🗍 Disable		
User Name/Password [Required]	1	ADD	
REST API (iStorage V series)			
Discovery	• Enable O Disable		
User Name/Password [Required]		ADD	
	P		
RAID system (Universal RAID Utility)			
Discovery	• Enable O Disable		
NEC ExpressUpdate (ExpressUpdate /	Enable Disable		
BMC(EXPRESSSCOPE Engine)			
Discovery	• Enable O Disable		
ADE), BMC(ECO CENTER), BMC(many For cases other than the above and 'i	core server). .0° and "vPro", Please select "BMC i management is disabled, NEC ESMI	1/2/3/3ft/2SP/3SP, EM Card(SIGMABL (Other)*. PRO Manager cannot monitor HW errors of some s	
NEC ExpressUpdate	O Enable 🔘 Disable		
Authentication Key [Required]	A	<b>-</b>	
iLO			
Discovery	• Enable O Disable		
▲ If iLO management is disabled, N	EC ESMPRO Manager cannot monit	tor HW errors of some servers. Please refer to the	
result page of auto registration.			
User Name/Password [Required]	1	ADD	
BMC (Other)			
Discovery	• Enable O Disable		
A If BMC(Other)management is dia	abled, NEC ESMPRO Manager canno	ot monitor HW errors of some servers. Please refe	
r to the result page of auto registratio	n.		
Access Mode	• Auto Redfish	IPMI hed with both (IPMI and Redfish) the access meth	
	de at the time of automatic selectio	on' option in Classic Mode's Environment-Settings	
User Name/Password [Required]	1	ADD	
Intel(R) vPro(TM) Technology			
Discovery	• Enable O Disable		
User Name/Password [Required]	/	ADD	
Network Device			
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
1	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
NT ( 1 A 11	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.
SNMD (NEC ESMDDO	Agent, iStorage M series)
Discovery	Select "Enable".
SNMP Community	SNMP Community Name which is specified at SNMP Agent running on
Name	the EM card.
	O ServerAgentService, ESXi7)
Discovery	Select "Disable"
ESXi (ESXi8)	
Discovery	Select "Disable"
<b>REST API (iStorage V s</b>	
Discovery	Select "Disable"
RAID system managem	ent
Management	Select "Disable"
NEC ExpressUpdate	
Updates via NEC	Select "Disable"
ExpressUpdate Agent	
BMC (EXPRESSSCOP	
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	
Discovery	Select "Disable".

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

	rtViewer 💥 Tools 👻		
to Registration Manual Registrati	ion		
Destination Group	root	÷	
Discovery Range			
Discovery Mode	IP Address Range Discov	very O Network Address Discovery	
Start Address [Required]	192 . 168 . 8	B . 103	
End Address [Required]	192 . 168 . 8	B . 104	
Server / Storage			
SNMP (NEC ESMPRO Agent, iStorag	ge M series)		
Discovery	• Enable 🔿 Disable		
SNMP Community Name [Required]	public		
WS-Man (NEC ESMPRO ServerAgen	tService, ESXi7 earlier)		
Discovery	🔵 Enable 💿 Disable		
ESXi (ESXi8)			
Discovery	🔿 Enable 🝳 Disable		
REST API (iStorage V series)			
Discovery	🔿 Enable 🝳 Disable		
RAID system (Universal RAID Utility)	)		
Discovery	🔵 Enable 🔹 Disable		
NEC ExpressUpdate (ExpressUpdate	e Agent)		
Discovery	🔵 Enable 🔹 Disable		
BMC(EXPRESSSCOPE Engine)			
Discovery	Enable Oisable		
ADE), BMC(ECO CENTER), BMC(ma For cases other than the above and	iny core server). "iLO" and "vPro", Please select "Bi e) management is disabled, NEC E	gine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL MC (Other)*. SMPRO Manager cannot monitor HW errors of some s	
NEC ExpressUpdate	O Enable ○ Disable		
Authentication Key [Required]		ADD	
iLO			
Discovery	🔿 Enable 🔹 Disable		
BMC (Other)			
Discovery	🔵 Enable 🧿 Disable		
Intel(R) vPro(TM) Technology			
Discovery	🔿 Enable 🝳 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.

SMPRO			About	t NEC ESMPRO Manager H	elp Classic Mode	💄 admin 🕶
Dashboard 📲 Register 📾	Component 🛕 AlertViewer 🕽	🕻 Tools 👻				
Auto Registration	Manual Registration					
			$\bigcirc$			
		Auto Re	gistration in Progress			
		Discovery Mode	IP Address Range Discovery			
		Start Address	192.168.8.103			
		End Address	192.168.8.104			
			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 🗸
🕻 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	GISTERING		

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	<ul> <li>ExpressUpdate is enable When "NEC ExpressUpdate(ExpressUpdate Agent)" is enabled, and a component that can be installed with ExpressUpdate Agent is discovered.</li> <li>ExpressUpdate is disable <ul> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is disable</li> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is enabled,</li> </ul> </li> </ul>		
	but there is not component that can be installed with ExpressUpdate Agent.		
Contents	<ul> <li>A component has been added. This message will be displayed if the component is successfully registered.</li> <li>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.</li> </ul>		

# 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 🛓 admin 🔻
🚯 Dashboard 🐴 Register 🛋 Component 🛕 AlertViewer 🔀 Tools 👻	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

ESMPRO				About NEC ESMPRO Manager	Help Classic Mode	≗ admin <del>-</del>
🔇 Dashboard 📲 Register 🚔	Component AlertViewer	🕻 Tools 👻				
Auto Registration	Manual Registration					
Server / Storage	Network Device Other	omputer Device A	lert Only Management			
Component Nar	ne [Required]					
Alias						
Destination Grou	ip root		÷			
Common Setting	1					
OS IP Address [	Required]					
SNMP (NEC ES	IPRO Agent) / WS-Man / ESXi / is	orage				
Management	O Regis	ation 🔿 Unregistratio	n			
Management Ty	O WS-N O ESXi		Storage M series) AgentService, ESXi7 earlier)			
SNMP Commun	ity Name(Get) public					
SNMP Commun	ity Name(Set)					
RAID system (U	niversal RAID Utility)					
Management	O Regis	ration 🔿 Unregistratio	n			
NEC ExpressUp	late					
Updates via NEC Agent	ExpressUpdate O Regis	ation 🔿 Unregistratio	n			
Updates via Mai Controller	agement O Regis	ration 🔿 Unregistratio	n			
'BMC (EXPRESS	SCOPE Engine)"/"iLO"/"BMC(Othe	)"/"vPro"(Common)				
Management	Regis	ation 🔿 Unregistratio	n			
Management Ty	pe O BMC	O iLO	O BMC (Other) VPro			
ADE), BMC(ECO	ESSSCOPE Engine)" is target for CENTER), BMC(many core serve than the above and "iLO" and "vP		/2/3/3ft/2SP/3SP, EM Card(SIGMABL Other)".			
Authentication F	ey [Required]					
'BMC (EXPRESS	SCOPE Engine)"/"iLO"/"BMC(Othe	)"/"vPro"(LAN)				
Current IP Addre	ss O IP Ad	ress 1 🔵 IP Address 2				
Failover	O Enab	O Disable				
IP Address 1 [Re	quired]					
IP Address 2						
	ADD					

(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
1	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
G	"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.
	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 ESXi.
	- ESXi (ESXi8)
	- REST API(iStorage V series)
SNMP Community	Enter the "SNMP community name" specified on iSMClient.
Name(Get)	
SNMP Community	Enter the "SNMP community name" specified on iSMClient.
Name(Set)	<b>5</b> I
RAID system(Universal	RAID Utility)
Management	Select "Unregistration".
NEC ExpressUpdate	
Updates via NEC	Select "Unregistration".
ExpressUpdate Agent	-
Updates via	Select "Unregistration".
Management Controller	
<b>"BMC (EXPRESSSCO</b>	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 Registration Server / Storage Network Device Component Name [Required] Alias Destination Group			
Server / Storage Network Device Component Name [Required] Alias	Other Computer Device Alert Only Management IStorageM		
Component Name [Required] Alias	iStorageM		
Alias			
	root •		
Destination Group	root ¢		
Common Setting			
OS IP Address [Required]	10 . 15 . 228 . 146		
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)     ESX (ESXI8)     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     Unregistration		
"BMC (EXPRESSSCOPE Engine)"/"iLO"/"	'BMC(Other)"/"vPro"(Common)		
Management	Registration Unregistration		

(5) "CHECK CONNECTION" screen is displayed.

Click "CHECK CONNECTION" to start it.

ESMP	80	About NEC ESMPRO Manager	Help Classic Mode	🛔 admin <del>-</del>
🕻 Dashi	oard 🚡 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 <del>-</del>
🚯 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	ed The feature was not detected.			
	NEC ESMPRO Manager cannot use the feature to manage the componen			
	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".

ESI	MPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin 🗸
¢	Dashboard 👌 Register ) 📾 Component 🛕 AlertViewer 🔀 Tools 👻	
	Component Status	Alert Status
	The component is not registered.	No alerts are unread.

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

		About NEC ESMPRO Manager Help Classic Mode
🕽 Register 🛋 Component 🛕 Alert	Viewer 🔀 Tools *	
Registration Machael Registratio	n	
Destination Group	root	
Discovery Range	IP Address Range Discovery     Network Address Discovery	
Discovery Mode	Verwork Address biscovery	
Start Address [Required]		
End Address [Required]		
C Server / Storage		
SNMP (NEC ESMPRO Agent, iStorage	M series)	
Discovery	• Enable O Disable	
SNMP Community Name [Required]	public	
WS-Man (NEC ESMPRO ServerAgentS	Service, ESXi7 earlier)	
Discovery	Enable Disable	
User Name/Password [Required]	7 ADD	
ESXI (ESXIB)		
Discovery	Enable      Disable	
User Name/Password [Required]	/ ADD	
REST API (iStorage V series)		
Discovery	• Enable O Disable	
User Name/Password [Required]	/ ADD	
RAID system (Universal RAID Utility)		
Discovery NEC ExpressUpdate (ExpressUpdate	O Enable O Disable .	
Discovery	• Enable O Disable	
BMC(EXPRESSSCOPE Engine)		
Discovery	• Enable O Disable	
ADE), BMC(ECO CENTER), BMC(man For cases other than the above and "i	iL0° and "vPro", Please select "BMC (Other)". management is disabled, NEC ESMPRO Manager cannot monitor HW errors of some s	
NEC ExpressUpdate	• Enable O Disable	
	DDA	
Authentication Key [Required]	ADD	
iLO		
Discovery	Enable Disable	
If iLO management is disabled, N result page of auto registration.	IEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the	
User Name/Password [Required]	/ ADD	
BMC (Other)		
Discovery	Enable Disable	
A If BMC(Other)management is dis r to the result page of auto registration	abled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refe	
Access Mode	Auto   Redfish   IPMI	
▲ If "Auto" is selected as an access	method and connection is established with both (IPMI and Redfish) the access meth	
ods i.e. then refer "Priority access mo	ode 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]	0 DDA	
Intel(R) vPro(TM) Technology		
Discovery	• Enable O Disable	
User Name/Password [Required]	/ ADD	
Network Device		
Network 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
<u>Ct.</u> ( ) 11	address.
Start Address End 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
Network Address	Storage's floating IP 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
INCLWORK IVIASK	address.
SNMD (NEC ESMDDO	Agent, iStorage M series)
Discovery	Select "Enable".
SNMP Community	"SNMP Community Name" is the "SNMP Community Name" specified on
Name	iSMClient.
	O ServerAgentService, ESXi7)
Discovery	Select "Disable"
ESXi (ESXi8)	
Discovery	Select "Enable" to manage ESXi (ESXi8) of the component. *1,*2
User Name/Password	Enter username and password for ESXi (ESXi8) 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
<b>REST API(iStorage V set</b>	
Discovery	Select "Enable" to manage REST API(iStorage V series) of the component. *1,*2
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
	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

Management	Select "Disable"
NEC ExpressUpdate	
Updates via NEC	Select "Disable"
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 "Disable".

# (4) Click "RUN DISCOVERY".

RO			About NEC ESMPRO Manager	Help Classic N	Node 💄 admin
nboard - 🗗	Register 📾 Component 🛕 Alert	.Viewer 🕻 Tools 🔻			
Auto R	egistration 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	Service, ESXi7 earlier)			
	Discovery	Enable Oisable			
	ESXi (ESXi8)				
	Discovery	C Enable O Disable			
	REST API (iStorage V series)				
	Discovery	🔵 Enable 🝳 Disable			
	RAID system (Universal RAID Utility)				
	Discovery	C Enable O Disable			
	NEC ExpressUpdate (ExpressUpdate	Agent)			
	Discovery	🔵 Enable 🝳 Disable			
	BMC(EXPRESSSCOPE Engine)				
	Discovery	Enable O Disable			
	iLO				
	Discovery	Enable O Disable			
	BMC (Other)				
	Discovery	Enable O Disable			
	Intel(R) vPro(TM) Technology				
	Discovery	🔵 Enable 🔹 Disable			
	Network Device				
	Other Computer Device				

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

ESMPRO			About NEC ESMPRO Manage	r Help	Classic Mode	💄 admin 🕇	•
🚯 Dashboard 📲 Register 📾 Component 🛕 AlertViewe	er 💥 Tools 🔻						
Auto Registration Manual Registration							
		$\bigcap$					
	Auto Do	ristuation in Duamaga					
	Auto Re	gistration in Progress					
	Discovery Mode	IP Address Range Discovery					
	Start Address	10.15.228.146					
	End Address	10.15.228.146					
		CANCEL					
	▲ Even if switch screens or log o	ut, you can check the progress by opening this screen	i again.				
							_

(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 ESM	MPRO Manager Help Classic Mode 💄 admin -
🕻 Das	hboard	📲 Register 🛛 📾 Co	mponent 🛕 AlertView	ver 💥 Tools 👻			
	AL	uto Registration	Manual Registration				
					Auto Registration Resul	ts	
	E	Entry Count:1item(s)					
		Name	IP Address	Management LAN IP Address 1	Management LAN IP Address 2	Install NEC ExpressUpdate Agent	Contents
		2000743A65EA5233	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 CONTINUE	: 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".

About NEC ESMPRO Manager Help Classic Mode 🛓 admin 🔻
Alert Status
No alerts are unread.

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

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode	💄 admin 🕶
🕼 Dashboard 🛛 🖞 R	legister 🚔 Component 🛕 Alert	Viewer 💥 Tools 👻			
1. m 1. m					
Auto Re	egistration Manual Registratio				
Serve	er / Storage	Other Computer Device Alert Only Management			
Cor	mponent Name <mark>[Required]</mark>				
Alia	as				
Des	stination Group	root +			
Co	mmon Setting				
os	IP Address [Required]				
SN	IMP (NEC ESMPRO Agent) / WS-Man	/ ESXi / iStorage			
Ma	inagement	Registration      Unregistration			
Ма		SNMP (NEC ESMPRO Agent, IStorage M series)     WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier)     ESXi (ESXi8)     REST API (IStorage V series)			
SN	IMP Community Name(Get)	public			
SN	IMP Community Name(Set)				
RAI	ID system (Universal RAID Utility)				
Ma	anagement	• Registration 🔿 Unregistration			
NE	C ExpressUpdate				
	dates via NEC ExpressUpdate ent	• Registration 🔘 Unregistration			
	dates via Management ntroller	• Registration 🔾 Unregistration			
"BN	MC (EXPRESSSCOPE Engine)"/"iLO"/"	BMC(Other)"/"vPro"(Common)			
Ma	anagement	• Registration O Unregistration			
Ма	anagement Type	BMC iL0 BMC (Other) vPro			
AD	E), BMC(ECO CENTER), BMC(many c	arget for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL ore server). " and "vPro", Please select "BMC (Other)".			
Aut	thentication Key [Required]				
"BN	MC (EXPRESSSCOPE Engine)"/"iLO"/"	BMC(Other)"/"vPro"(LAN)			
Cur	rrent IP Address	IP Address 1			
Fai	llover	Enable      Disable			
IP /	Address 1 [Required]				
IP /	Address 2				
		QQ			

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.
<b>SNMP (NEC ESMPRO</b>	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.

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]	iStorageV
Alias	
Destination Group	root ¢
SNMP (NEC ESMPRO Agent) / WS-Man	ı / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	<ul> <li>SNMP (NEC ESMPRO Agent, iStorage M series)</li> <li>WS-Man (NEC ESMPRO ServerAgentService, ESXI7 earlier)</li> <li>ESXI (ESXi8)</li> <li>REST API (iStorage V series)</li> </ul>
IP Address 1 [Required]	10 . 15 . 228 . 121
IP Address 2	10 . 15 . 228 . 122
User Name/Password [Required]	maintenance / ······
	ADD

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

ESMPR Cashb		Component 🛕 AlertVie	ewer 💥 Tools 🗸							About NEC I	SMPRO Manag	er Help	Classic Mode	💄 ad	min •	
	Auto Registration	Manual Registration	]													
	Server / Storage	Network Device	Other Computer Device	Alert (	Only Manage	ection ch	neck res	sults								
			Management REST API (iStorage V serie	es)		Detail iStorage V se	eries can be	used.								
				BACK	TO COMPONE	NT LIST	CONT	INUE REGISTEF	ING							

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".

ESI	<b>I</b> PRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin 🗸
¢	Dashboard 🕂 Register 🔥 Component 🛕 AlertViewer 🧏 Tools 👻	
	Component Status	Alert Status
	The component is not registered.	No alerts are unread.

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

Register 🛋 Component 🛕 Alert\	Viewer 🔆 Tools *	About NEC ESMPRO Manager Help Classic Mode
tegistration Manual Registration		
Destination Group	root 🗢	
Discovery Range	1001	
Discovery Mode	IP Address Range Discovery     Network Address Discovery	
Start Address [Required]		
End Address [Required]		
C Server / Storage		
SNMP (NEC ESMPRO Agent, iStorage		
Discovery	Enable Disable	
SNMP Community Name [Required]	public	
WS-Man (NEC ESMPRO ServerAgentS	ervice. ESX(7 earlier)	
Discovery	Enable Disable	
User Name/Password [Required]	/ ADD	
ESXi (ESXi8)		
Discovery	C Enable Disable	
User Name/Password [Required]	/ ADD	
REST API (iStorage V series)		
Discovery	• Enable 🔿 Disable	
User Name/Password [Required]	daa l	
over reality assessed predented		
RAID system (Universal RAID Utility)		
Discovery	Enable Disable	
NEC ExpressUpdate (ExpressUpdate A		
Discovery BMC(EXPRESSSCOPE Engine)	Enable Disable	
Discovery	• Enable 🔘 Disable	
ADE), BMC(ECO CENTER), BMC(many For cases other than the above and '11	.0° and "vPro", Please select "BMC (Other)". nanagement is disabled, NEC ESMPRO Manager cannot monitor HW errors of some s of auto registration.	
NEC ExpressUpdate	Enable Disable	
Authentication Key [Required]	DDA	
iLO		
Discovery	• Enable Disable	
	EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the	
User Name/Password [Required]	/ ADD	
BMC (Other)		
Discovery	• Enable O Disable	
	abled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refe	
r to the result page of auto registration		
Access Mode	Auto     Redfish     IPMI method and connection is established with both (IPMI and Redfish) the access meth	
ods i.e. then refer "Priority access mo	method and connection is established with both (IPMI and readish) the access methode 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]	/ 400	
Network Device		
Contract Operation Developer		
Other Computer Device	9	
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
1	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
	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.
	Agent, iStorage M series)
Discovery	Select "Disable"
· · · · · · · · · · · · · · · · · · ·	O ServerAgentService, ESXi7)
Discovery	Select "Disable"
ESXi (ESXi8)	
Discovery	Select "Disable"
<b>REST API(iStorage V set</b>	
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	
Discovery	Select "Disable".
iLO	
Discovery	Select "Disable".
BMC (Other)	
Discovery	Select "Disable".
Intel(R) vPro(TM) Tech	
Discovery	Select "Disable".

СНЕСК:

\*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".

ESMPRO		About NEC ESMPRO Manager	Help Classic	Mode 💄 admin 🗸
🚯 Dashboard 📲 Register 📾 Component 🛕 Alert	Viewer 💥 Tools 👻			
Auto Registration Manual Registratio	n			
Destination Group	root	\$		
Discovery Range				
Discovery Mode	IP Address Range Discovery	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	O Enable O Disable			
WS-Man (NEC ESMPRO ServerAgentS	ervice ESXi7 earlier)			
Discovery	Enable O Disable			
ESXi (ESXi8)	0 - ···			
Discovery	🔵 Enable 🝳 Disable			
REST API (iStorage V series)				
Discovery	• Enable O Disable			
User Name/Password [Required]	maintenance / ·····	ADD		
RAID system (Universal RAID Utility)				
Discovery	O Enable O Disable			
NEC ExpressUpdate (ExpressUpdate /	Agent)			
Discovery	Enable ODisable			
BMC(EXPRESSSCOPE Engine)				
Discovery	🔵 Enable 🧿 Disable			
iLO				
Discovery	Enable O Disable			
BMC (Other)				
Discovery	O Enable O Disable			
Intel(R) vPro(TM) Technology				
Discovery	O Enable O Disable			
Network Device				
Other Computer Device				
	RUN DISCOVERY			

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

ESM	PRO		About	NEC ESMPRO Manager Help	Classic Mode	💄 admin 🕶
🕒 Das	shboard 📲 Register 📾 Component	🛦 AlertViewer 💥 Tools 👻				
	Auto Registration Manual R	tegistration				
			$\left( \right)$			
			$\bigcirc$			
		Auto	Registration in Progress			
		Discovery Mode	IP Address Range Discovery			
		Start Address	10.15.228.121			
		End Address	10.15.228.122			
			CANCEL			
		${\ensuremath{\vartriangle}}$ Even if switch screens or	log 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.

ESM	PRO				About NEC E	SMPRO Manager Help Classic Mode	🛓 admin 🗸
🖨 Das	shboard -붭 Register 📾	Component 🛕 AlertVi	iewer 💥 Tools 🔻				
	Auto Registration	Manual Registration					
				Auto Registration Resu	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	UE 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 🛓 admin •
	C
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 💄 admin 🕶
🔇 Dashboard 📲 Register 📾 Con	nponent 🛕 AlertViewer 💥 Tools 👻
Auto Registratio Ma	anual Registration
Server / Storage	etwork Device Other Computer Device Alert Only Management
Component Name [Re	quired]
Alias	
Destination Group	root 🗢
Common Setting	
OS IP Address <mark>(Requir</mark>	ed]
SNMP (NEC ESMPRO	Agent) / WS-Man / ESXi / iStorage
Management	• Registration O Unregistration
Management Type	<ul> <li>SNMP (NEC ESMPRO Agent, IStorage M series)</li> <li>WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier)</li> <li>ESXi (ESXi8)</li> <li>REST API (IStorage V series)</li> </ul>
SNMP Community Na	me(Get) public
SNMP Community Na	me(Set)
RAID system (Universit	al RAID Utility)
Management	• Registration O Unregistration
NEC ExpressUpdate	
Updates via NEC Expr Agent	essUpdate O Registration O Unregistration
Updates via Managem Controller	ent O Registration O Unregistration
"BMC (EXPRESSSCOP	'E Engine)"/"iLO"/"BMC(Other)"/"vPro"(Common)
Management	• Registration O Unregistration
Management Type	• BMC iLO BMC (Other) vPro
ADE), BMC(ECO CENT	COPE Engine)" is target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL TER), BMC(many core server). he above and "iLO" and "vPro", Please select "BMC (Other)".
Authentication Key [Re	aquired]
"BMC (EXPRESSSCOP	PE Engine)"/"iLO"/"BMC(Other)"/"vPro"(LAN)
Current IP Address	• IP Address 1    IP Address 2
Failover	Enable Obisable
IP Address 1 [Required	
IP Address 2	
	ADD

(3) Input the following items.

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO Manager.
F	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 thas	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
Destination Group	Add component to Group" for the information about creating group.
Common Sotting	Add component to Group for the mornation about creating group.
Common Setting OS IP Address	Specify the OS IP Address of the managed component.
	Agent) / WS-Man / ESXi / iStorage
	Select "Registration" to manage the system of the component.
Management	
Management Type	Select a management type of the managed component.
	- 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)
	- 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.
D	- 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
	- 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

<ul> <li>NEC ESMPRO ServerAgentService (Windows) is installed. If you want to use HTTP, enter 5985. If you want to use HTTPS, enter 5986.</li> <li>NEC ESMPRO ServerAgentService (Linux) is installed. Enter 5986</li> </ul>			
RAID system(Universal			
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 (EXPRESSSCO	PE 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.

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 detailed information.
OHEOV.

#### 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.

SMPRO		About NEC ESMPRO Manager	Help	Classic Mode	💄 admin 🕶
🗘 Dashboard 🛛 📲 Register 🛛 📾 Compon	nent 🛕 AlertViewer 💥 Tools 🝷				
Auto Registration Manual Registrat	tion				
Server / Storage Network Device	Other Computer Device Alert	t Only Management			
Component Name [Required]	vPro				
Alias					
Destination Group	root 🗢				
SNMP (NEC ESMPRO Agent) / WS-Ma	an / ESXi / iStorage				
Management	Registration O Unregistration				
RAID system (Universal RAID Utility)					
Management	Registration • Unregistration				
NEC ExpressUpdate					
Updates via NEC ExpressUpdate Agent	Registration • Unregistration				
"BMC (EXPRESSSCOPE Engine)"/"iLO	"/"BMC(Other)"/"vPro"(Common)				
Management	• Registration 🔘 Unregistration				
▲ If BMC / iLO management is disa Please refer to the result page of con	bled, NEC ESMPRO Manager cannot mor nection check.	nitor HW errors of some servers.			
Management Type	O BMC O ilo O	BMC (Other) O vPro			
ADE), BMC(ECO CENTER), BMC(many	is target for EXPRESSSCOPE Engine1/2/3 y core server). LO" and "vPro", Please select "BMC (Othe				
User Name/Password [Required]	admin / ······				
"BMC (EXPRESSSCOPE Engine)"/"iLO	"/"BMC(Other)"/"vPro"(LAN)				
IP Address 1 [Required]	10 . 15 . 228 .	138			
	ADD				

(5) "CHECK CONNECTION" screen is displayed.

Click "CHECK CONNECTION" to start it.

ESMPRO			About NEC ESMPRO Manager	Help	Classic Mode	💄 admin <del>-</del>
🔇 Dashboard - 🖥 Register 🚔	Component 🔺 AlertVi	ewer 💥 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 💥 Tool		
Auto Registration Manual Registration		
Server / Storage Network Device Other Compu	Alert Only Management	
	Connection check results	
Management	Detected Detail	
VPRO	Detected Intel(R) vPro(TM) Technology can be used.	
	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.

# 8.3.1.2 Auto Registration

(1) Click "Register".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 💄 admin 👻	
🕼 Dashboard 🚯 Register 🗧 Component 🔺 AlertViewer 💥 Tools 👻		
Component Status	A Alert Status	
The component is not registered.	No alerts are unread.	

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

Juaru 📲 Register 📾 Component 🛕	AlertViewer 💥 Tools -
Registration Manual Registration	n
Destination Group	root ¢
Discovery Range Discovery Mode	IP Address Range Discovery     Network Address Discovery
	IP Address Kange Discovery     Hetwork Address Discovery
Start Address [Required]	
End Address [Required]	
Server / Storage	
SNMP (NEC ESMPRO Agent, iStorage	M series)
Discovery	• Enable O Disable
SNMP Community Name [Required]	public
WS-Man (NEC ESMPRO ServerAgentS	Service, ESXi7 earlier)
Discovery	• Enable O Disable
User Name/Password [Required]	DDA 1
ESXI (ESXI8)	
Discovery	Enable Disable
User Name/Password [Required]	/ ADD
REST API (iStorage V series)	
Discovery	• Enable 🔿 Disable
User Name/Password [Required]	/ ADD
RAID system (Universal RAID Utility)	
Discovery	Enable Disable
NEC ExpressUpdate (ExpressUpdate A	
Discovery	• Enable O Disable
BMC/EXPRESSSCOPE Engine)	
BMC(EXPRESSSCOPE Engine)	• Enable 🔿 Disable
Discovery	
Discovery ▲ "BMC(EXPRESSSCOPE Engine)" ii ADE), BMC(ECO CENTER), BMC(many For cases other than the above and "ii	is target for EXPRESSSCOPE Engine 1/2/3/3fr/2SP/3SP, EM Card(SIGMABL y core server). LO <sup>2</sup> and YPM <sup>2</sup> , Please select "BMC (Other)". management ii disabled, MEC ESM/RO Manager cannot monitor HW errors of som
Discovery      "BMC(EXPRESSSCOPE Engine)" If     ADE), BMC(ECO CENTER), BMC(many     For cases other than the above and "II     A If BMC(EXPRESSSCOPE Engine) I	is target for EXPRESSSCOPE Engine 1/2/3/3fr/2SP/3SP, EM Card(SIGMABL y core server). LO <sup>2</sup> and YPM <sup>2</sup> , Please select "BMC (Other)". management ii disabled, MEC ESM/RO Manager cannot monitor HW errors of som
Discovery	s target for EXPRESSCOPE Engine1/2/3/3ft/2SP/3SP; EM Card(\$IGMABL y core server). LO <sup>2</sup> and YPro <sup>2</sup> , Please select "BMC (Other)". management is disabled, NEC ESM/RO Manager cannot monitor HW errors of some of auto registration.
Discovery ▲ "BMC(EXPRESSSCOPE Engine)" is ADE), BMC(ECO CENTER), BMC(many For cases other than the above and "I A If BMC(EXPRESSSCOPE Engine) ) ervers. Please refer to the result page	s target for EXPRESSCOPE Engine 1/2/3/3fr/2SP/3SP, EM Card(SIGMABL y core server). LO <sup>2</sup> and YPM <sup>2</sup> , Please select "BMC (Other)". management id ababled, NEC ESMPRO Manager cannot monitor HW errors of some of auto registration.
Discovery	s target for EXPRESSCOPE Engine1/2/3/3ft/2SP/3SP; EM Card(\$IGMABL y core server). LO <sup>2</sup> and YPro <sup>2</sup> , Please select "BMC (Other)". management is disabled, NEC ESM/RO Manager cannot monitor HW errors of some of auto registration.
Discovery ▲ "BMC(EXPRESSSCOPE Engine)" is ADD), BMC(ECO CENTER), BMC(many For cases other than the above and "I A If BMC(EXPRESSSCOPE Engine) ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required]	s target for EXPRESSCOPE Engine1/2/3/3ft/2SP/3SP; EM Card(\$IGMABL y core server). LO <sup>2</sup> and YPro <sup>2</sup> , Please select "BMC (Other)". management is disabled, NEC ESM/RO Manager cannot monitor HW errors of some of auto registration.
Discovery	a target for EXPRESSSCOPE Engine 1/2/3/3ft/25P/3SP, EM Card(SiGMABL y core server), LD* and VPfor, "Please select TBMC (Other)". management id adabled, REC ESMPRO Manager cannot monitor HW errors of some of auto registration.  Enable Disable ADD  Enable Disable
Discovery	a target for EXPRESSSCOPE Engine 1/2/3/3ft/25P/3SP, EM Card(SiGMABL y core server), LD* and YPfor, "Please select TBMC (Other)". management id adabled, REC ESMPRO Manager cannot monitor HW errors of some of auto registration.  Enable Disable ADD  Enable Disable
Discovery	a target for EXPRESSSCOPE Engine 1/2/3/3ft/25P/3SP, EM Card(SiGMABL y core server), LD* and YPfor, "Please select TBMC (Other)". management id adabled, REC ESMPRO Manager cannot monitor HW errors of some of auto registration.  Enable Disable ADD  Enable Disable
Discovery	Is target for EXPRESSSCOPE Engine 1/2/3/3ft/2SP/3SP, EM Card(SIGMABL y core server). LD' and YPro", Plasse select 'BMC (Other)'. management id adabled, REC ESMPRO Manager cannot monitor HW errors of some of auto registration. Enable Disable ED Esable Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the
Discovery	Is target for EXPRESSSCOPE Engine 1/2/3/3ft/2SP/3SP, EM Card(SIGMABL y core server). LD' and YPro", Plasse select 'BMC (Other)'. management id adabled, REC ESMPRO Manager cannot monitor HW errors of some of auto registration. Enable Disable ED Esable Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the
Discovery	a target for EXPRESSCOPE Engine 1/2/3/3ft/25P/3SP, EM Card(SiGMABL y core server), LD' and VH'or, 'Please select TIMC (Other)', management idealed, NEC ESMPRO Manager cannot monitor HW errors of some of auto registration.  Enable Disable  EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to th  C Enable Disable  E Enable Disable  E Enable Disable
Discovery	a target for EXPRESSCOPE Engine 1/2/3/3ft/2SP/3SP, EM Card(SIGMABL y core server), LD* and VH*o*, Please select TIMC (Other)*, management id adabled, NEC ESM/PRO Manager cannot monitor HW errors of some of auto registration.  Enable Disable  EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to th  C Enable Disable  EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to th  C Enable Disable  EX Enable Disable
Discovery	a target for EXPRESSCOPE Engine 1/2/3/3ft/25P/3SP, EM Card(SiGMABL yoors server), UD' and VPro", Please select TIMC (Other)*, management id adabled, NEC ESMPRO Manager cannot monitor HW errors of some of auto registration.
Discovery	a target for EXPRESSCOPE Engine 1/2/3/3fr/2SP/3SP, EM Card (SiGMABL LO° and YPO*, Please select "IMC (Other)". management id alsabled, MEC ESMPRO Manager cannot monitor HW errors of some of auto registration. Enable Disable ED EsmPRO Manager cannot monitor HW errors of some servers. Please refer to th ED ESMPRO Manager cannot monitor HW errors of some servers. Please refer to th ED EsmPRO Manager cannot monitor HW errors of some servers. Please refer to th ED EsmPRO Manager cannot monitor HW errors of some servers. Please refer to th ED EsmPRO Manager cannot monitor HW errors of some servers. Please refer to th Disable ED EsmPRO Manager cannot monitor HW errors of some servers. Please refer to the Disable Disable Mato Please Please reference of some servers. Plea
Discovery	a target for EXPRESSCOPE Engine 1/2/3/3H/25P/3SP, EM Card(SiGMABL to core server). LD' and VPro", Please select TIMC (Other)". management id adseled, NEC ESMPRO Manager cannot monitor HW errors of some of auto registration. Enable Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the Enable Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the Enable Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the Enable Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer MOD Enable Disable E Enable Disable
Discovery  A. "DAC(EXPRESSCOPE Engine)" i ADE, BAC(ECO GETTE), BAC(express) Processes where than the object of the secure page of the secure object of the result page NEC Express/Update Authentication Key [Required] IDiscovery  A. If ILO management is disabled, N result page of auto registration.  User Name/Password [Required] Discovery  A. If BAC(Other) Discovery  A. If BAC(Other) Access Mode Access Access Access Mode Access Access Access Access Mode Access	a target for EXPIRESSCOPE Engine 1/2/3/3H/2SP/3SP, EM Card (SIGMABL y core server). LD' and VPro", Please select TIMC (Other)". management id adabled, NEC ESMPRO Manager cannot monitor HW errors of some of auto registration. Enable Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the Market Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the method and connection is established with both (PMI and Redfish) the access method at the time of automatic selection option in Classic Models Environment-Setting method will get the priority for server registration process. Market Disable
Discovery	a target for EXPRESSCOPE Engine 1/2/3/3ft/25P/3SP, EM Card(SIGMABL yours server). LOF and VHYor', Plaase safect TIMC (Other)*. Immangement idealed, NEC ESM/PRO Manager cannot monitor HW errors of some of auto registration.  Enable Disable EEC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to th Disable EEC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to th Disable EEC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to th Disable C ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to th Disable Disa
Discovery	a target for EXPIRESSCOPE Engine 1/2/3/3H/2SP/3SP, EM Card (SIGMABL y core server). LD' and VPro", Please select TIMC (Other)". management id adabled, NEC ESMPRO Manager cannot monitor HW errors of some of auto registration. Enable Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the Market Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the method and connection is established with both (PMI and Redfish) the access method at the time of automatic selection option in Classic Models Environment-Setting method will get the priority for server registration process. Market Disable
Discovery	a target for EXPRESSCOPE Engine 1/2/3/3H/2SP/3SP, EM Card(SiGMABL y core serve). LD' and VHYor', Plaase select TIMC (Other)'. management i databale, NEC ESM/PRO Manager cannot monitor HW errors of some of auto registration. Enable Disable EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the Babled, NEC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer n. ADD mathod and connections is established with both (IPMI and Redfish) the access met mathod will get the priority for server registration process. ADD Enable Disable
Discovery	a target for EXPRESSCOPE Engine 1/2/3/3H/2SP/3SP, EM Card(SiGMABL y core serve). LD' and VHYor', Plaase select TIMC (Other)'. management i databale, NEC ESM/PRO Manager cannot monitor HW errors of some of auto registration. Enable Disable EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the Babled, NEC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer n. ADD mathod and connections is established with both (IPMI and Redfish) the access met mathod will get the priority for server registration process. ADD Enable Disable
Discovery	a target for EXPRESSCOPE Engine 1/2/3/3H/2SP/3SP, EM Card(SiGMABL y core serve). LD' and VHYor', Plaase select TIMC (Other)'. management i databale, NEC ESM/PRO Manager cannot monitor HW errors of some of auto registration. Enable Disable EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the EC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer to the Babled, NEC ESM/PRO Manager cannot monitor HW errors of some servers. Please refer n. ADD mathod and connections is established with both (IPMI and Redfish) the access met mathod will get the priority for server registration process. ADD Enable Disable
(3) Input the following items to search managed components based on vPro.

Specify the group to which the managed component will belong. See "1.3.2 Add component to Group" for the information about creating group.
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.
When you select "IP Address Range Search" for "Search Mode", specify
the start IP address and end IP address of the range in which managed
components are to be searched for.
When you select "Network Address Search" for "Search Mode", specify the
network address and network mask of the managed component to be
searched for.
Agent, iStorage M series)
Select "Enable" to manage the system of the component.*1
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
O ServerAgentService, ESXi7)
Select "Enable" to manage the system of the component. *1,*2, *4
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
Select "Disable"
ries)
Select "Disable"
ent
Select "Enable" to manage the RAID system of the component.
Select "Enable" to manage the component using NEC ExpressUpdate.
E Engine)
Select "Disable"
Select "Disable"
Select "Disable"
nology
Select "Enable"
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
ESXi management are not supported.
CHECK:
• *2 If a self-signed certificate is installed on the managed server for HTTPS
6
communication, a setting to allow it is required. Refer to "1.1 Setup Flow" for
detailed information.
CHECK:
<ul> <li>*3 On "Settings" - "Environment" - "Auto Registration Setting List" screen, you can</li> </ul>
manage a list of username/password and authentication key. All entries in the list are
used for auto registration every time.
used for auto registration every time.
CHECK:
<ul> <li>*4 If you want to use HTTPS for WS-MAN communication with</li> </ul>
ESMPRO/ServerAgentService, refer to Chapter 2, Installation 3.3 HTTPS Setting
in the ESMPRO/ServerAgentService Installation Guide (Windows).

#### (4) Click "RUN DISCOVERY".

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 . 225 . 138
Server / Storage	
SNMP (NEC ESMPRO Agent, iStorage	a M series)
Discovery	C Enable O Disable
WS-Man (NEC ESMPRO ServerAgent	Service, ESXi7 earlier)
Discovery	C Enable • Disable
ESXi (ESXi8)	
Discovery	🔿 Enable 🔹 Disable
REST API (iStorage V series)	
Discovery	Enable O Disable
RAID system (Universal RAID Utility)	
Discovery	Enable Disable
NEC ExpressUpdate (ExpressUpdate	
Discovery	C Enable O Disable
BMC(EXPRESSSCOPE Engine)	
Discovery	Enable O Disable
iLO	
Discovery	C Enable O Disable
BMC (Other)	
Discovery	C Enable • Disable
Intel(R) vPro(TM) Technology	
Discovery	• Enable 🔿 Disable
User Name/Password <mark>[Required]</mark>	admin / ADD
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
	${\ensuremath{\underline{\wedge}}}$ 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(s	A						
	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	D COMPONENT LIST	CONTINU	EREGISTERING		

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.
	<ul> <li>ExpressUpdate is disable</li> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is disable</li> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is enabled,</li> </ul>
	but there is not component that can be installed with ExpressUpdate Agent.
Contents	<ul> <li>A component has been added. This message will be displayed if the component is successfully registered.</li> <li>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</li> </ul>

#### 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. Yo	u
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 nee	d
to use this command.	
(*)This command is not required on FT server. Regarding the settings for	r
WBEM(WS-MAN) service on FT server, refer to "7. NEC ESMPRO" of Chapter	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 sfcbd service.	_
To manage the RAID System by NEC ESMPRO Manager, please insert the followin	g
line just before the line "exit 0"in the /etc/rc.local.d/local.sh. /etc/init.d/sfcbd-watchdog restart	
Sfebd service will restarts automatically.	
Stebu 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 disable	d
by default.	
If the SLP service is disabled, new VMware ESXi server cannot be monitored an	d
connected.	
If NEC ESMPRO Manager registers VMware ESXi server and performs connection	n
checks as a monitored server, the SLP service must be running and firewall settings	
To perform monitoring registration and connection checking of new VMware ESX	ï
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 Manage	r
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".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin •
😫 Dashboard - Register 🖨 Component 🛕 AlertViewer 💥 Tools 👻	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

ESMPRO		About NEC ESMPRO Manager Help Classic Mode 🛓 admin 🗸
🔇 Dashboard	-🖁 Register 📾 Component 🛕 Ale	ertViewer 💥 Tools 👻
_		
Auto	o Registration Manual Registratio	nc
	erver / Storage Network 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)     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
	Updates via Management Controller	• Registration O Unregistration
	"BMC (EXPRESSSCOPE Engine)"/"iL0"/	'BMC(Other)''/'vPro'(Common)
	Management	• Registration O Unregistration
	Management Type	• BMC iLO BMC (Other) vPro
	ADE), BMC(ECO CENTER), BMC(many	target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL core server). 3° 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]	
	IP Address 2	
		ADD

#### (3) Input the following items.

Name	Value
Component Name	Specify the name of the managed component on NEC ESMPRO
component rame	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
Allas	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 Crosse	
Destination Group	Specify the group to which the managed component will belong. See
	"1.3.2 Add component to Group" for the information about
C C 41	creating group.
Common Setting OS IP Address	Smooth the OS ID Address of the menaged common ont
	Specify the OS IP Address of the managed component.
	) 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 ESMDDO Server (gentService (Linux)) is installed
	- NEC ESMPRO ServerAgentService (Linux) is installed. Select HTTPS.
	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
ron Number	Enter port number where w S-Mail 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.
	If you want to use III II 5, enter 5760.
	- NEC ESMPRO ServerAgentService (Linux) is installed.
	Enter 5986.
	- The operating system of the managed component is VMware
	ESXi7.
	Enter 443.
RAID system manager	
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	
	<b>DPE Engine)" / "iLO" / "BMC (Other)" / "vPro" (Common)</b>
Management	Select "Registration" otherwise NEC ESMPRO Manager may not monitor HW status.
Management Type	In the case of VMware ESXi server integrated BMC:
	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	If select "BMC (EXPRESSSCOPE Engine)" in "Management 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.
Password	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
	established with both (IPMI and Redfish) the access methods i.e.
	then refer "Priority access mode at the time of automatic selection"
Access Mode	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).
Port Number	Specify the Connection Port Number used by Redfish.
1 oft 1 (anoti	If you select "Auto" or "Redfish" as the access method, port number
	settings are Mandatory
"BMC (EXPRESSSCO	DPE 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.
	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 t management LAN port for the Master BMC to the form.				
P Address 2	No input is required.				
1 11441055 2					
CHECK:					
communicatio	signed certificate is installed on the managed server for HTTPS on, a setting to allow it is required. Refer to "1.1 Setup Flow" for mation.				
CHECK:					
	a port number for WS-Man communication, refer to "Appendix C. Port				
number for W	/S-Man communication".				
CHECK:					
	name and a password of following user account. Please refer to "iLO5				
	or "iLO6 user's guide" for details about a user account of iLO.				
0	tor of the default user				
Additional	user with all user privileges.				
	unt of other than the above is used, there is a possibility that you can't				
use some fund	ction for managing iLO.				
autou					
CHECK:	n name and a necessary of following year account Places refer to				
	r name and a password of following user account. Please refer to Management Console User's Guide" for details about a user account of				
BMC (Other)					
	tor of the default user				
Additional	user with all user privileges.				
10					
	unt of other than the above is used, there is a possibility that you can't action for managing BMC (Other)				
use some rund	ction for managing BMC (Other).				
CHECK:					
	$a \parallel D = df = h \parallel a = th = a = a = a = a = a = DMC(-41) = 1 = 1 = 1 = 1$				
	2 Realish as the access method for BIVIC (other) and using self-signed				
certificates,	g "Redfish" as the access method for BMC (other) and using self-signed it is necessary to refer to "4.3.1 Environment setting" in				
	g "Redfish" as the access method for BMC (other) and using self-signed it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication				
ESMPRO/Ser	it is necessary to refer to "4.3.1 Environment setting" in				
ESMPRO/Ser	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication				
ESMPRO/Ser	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication				
ESMPRO/Ser between the E	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication				
ESMPRO/Ser between the E IMPORTANT:	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication BMC (other) component and ESMPRO/ServerManager.				
ESMPRO/Ser between the E IMPORTANT: • If BMC(EXP	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication BMC (other) component and ESMPRO/ServerManager. RESSSCOPE Engine) management and iLO management and BMC				
ESMPRO/Set between the E IMPORTANT: • If BMC(EXP (Other) mana	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication BMC (other) component and ESMPRO/ServerManager. RESSSCOPE Engine) management and iLO management and BMC agement are disabled, NEC ESMPRO Manager cannot monitor HW				
ESMPRO/Set between the E IMPORTANT: • If BMC(EXP (Other) mana	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication BMC (other) component and ESMPRO/ServerManager. RESSSCOPE Engine) management and iLO management and BMC				
ESMPRO/Set between the E IMPORTANT: • If BMC(EXP (Other) mana	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication BMC (other) component and ESMPRO/ServerManager. RESSSCOPE Engine) management and iLO management and BMC agement are disabled, NEC ESMPRO Manager cannot monitor HW				
ESMPRO/Set between the E IMPORTANT: If BMC(EXP (Other) mana status. Detaile IMPORTANT:	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication BMC (other) component and ESMPRO/ServerManager. RESSSCOPE Engine) management and iLO management and BMC agement are disabled, NEC ESMPRO Manager cannot monitor HW				
ESMPRO/Ser between the E IMPORTANT: • If BMC(EXP (Other) mana status. Detaile IMPORTANT: • When the acc	it is necessary to refer to "4.3.1 Environment setting" in rverManager to allow self-signed certificates for communication BMC (other) component and ESMPRO/ServerManager. RESSSCOPE Engine) management and iLO management and BMC agement are disabled, NEC ESMPRO Manager cannot monitor HW ed 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	C	About NEC ESMPRO Manager Help Classic Mode 💄 admin 👻
C Dashboa	ard 📲 Register 🛋 Component 🛕	AlertViewer 💥 Tools -
Auto F	egistra on Manual Registration	
		Lauren and La
	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 I	M series)
	Discovery	• Enable Oisable
	SNMP Community Name [Required]	public
	WS-Man (NEC ESMPRO ServerAgentSe	
	Discovery	Enable Disable
	User Name/Password [Required]	/ ADD
	ESXI (ESXI8)	
	Discovery	• Enable 🔷 Disable
	User Name/Password (Required)	/ ADD
	REST API (iStorage V series)	
	Discovery	C Enable Disable
		/ DDA
	User Name/Password [Required]	7 ADD
	RAID system (Universal RAID Utility)	
	Discovery	Enable Disable
	NEC ExpressUpdate (ExpressUpdate A	
	Discovery	• Enable O Disable
	BMC(EXPRESSSCOPE Engine)	
	Discovery	C Enable Disable
	ADE), BMC(ECO CENTER), BMC(many	target for EXPRESSSCOPE Engine1/2/3/3ft/2SP/3SP, EM Card(SIGMABL core server).
	▲ If BMC(EXPRESSSCOPE Engine) m	O" and "vPro", Please select "BMC (Other)". nanagement is disabled, NEC ESMPRO Manager cannot monitor HW errors of some s
	ervers. Please refer to the result page	
	NEC ExpressUpdate	Enable Disable
	Authentication Key [Required]	DDA
	ilo	
	Discovery	Enable Disable
	▲ If iLO management is disabled, NE result page of auto registration.	C ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the
	51-0-535 - 155-0-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5-	
	User Name/Password [Required]	/ ADD
	BMC (Other)	
	Discovery	• Enable 🔵 Disable
	▲ If BMC(Other)management is disa	bled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refe
	r to the result page of auto registration	L
	Access Mode	Auto     Redfish     IPMI method and connection is established with both (IPMI and Redfish) the access meth
	ods i.e. then refer "Priority access more	nethod and connection is established with both (IPMI and Redfish) the access meth de at the time of automatic selection" option in Classic Mode's Environment-Settings nethod will get the priority for server registration process.
	restrict to bureen and selected access r	needed and get the priority for server registration process.
	User Name/Password [Required]	/ ADD
	Intel(R) vPro(TM) Technology	
	Discovery	• Enable 🔿 Disable
	User Name/Password [Required]	7 ADD
	Network Device	
	Other Computer Device	
		RUN DISCOVERY
		- 12 I.S.

(5) "CHECK CONNECTION" is 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				
	-				
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 De	evice Other Computer Devic	ce Alert Only Management				
	Connection check results					
	Management	Detected Detail				
	WS-Man (NEC ESMPRO ServerAgentService, ESXi7 earlier)	Detected WS-Man management can be used.				
	BA	ACK 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".

ESMPRO Bashboard Bregister Component A AlertViewer 🌣 Tools -	About NEC ESMPRO Manager Help Classic Mode 💄 admin -
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

Registration Manual Registration	1
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 I	M saries)
Discovery	Enable Disable
SNMP Community Name [Required]	public
WS-Man (NEC ESMPRO ServerAgentSe	ervice, ESXi7 earlier)
Discovery	Enable Disable
Harry Margaret and Description	/ ADD
User Name/Password [Required]	7
ESXI (ESXI8)	
Discovery	Enable Disable
User Name/Password [Required]	/ ADD
REST API (IStorage V series)	Enable Disable
Discovery	Friende Ontragile
User Name/Password [Required]	./ ADD
RAID system (Universal RAID Utility)	
Discovery	• Enable O Disable
NEC ExpressUpdate (ExpressUpdate A	vgent)
Discovery	• Enable 🔘 Disable
BMC(EXPRESSSCOPE Engine)	
Discovery	Enable Disable
ADE), BMC(ECO CENTER), BMC(many For cases other than the above and "IL If BMC(EXPRESSSCOPE Engine) m	.0° and "vPro", Please select "BMC (Other)". nanagement is disabled, NEC ESMPRO Manager cannot monitor HW errors of som
ervers. Please refer to the result page	
ervers. Please refer to the result page NEC ExpressUpdate	O Enable 🔘 Disable
ervers. Please refer to the result page NEC ExpressUpdate	
ervers. Please refer to the result page	Enable     Disable     ADD
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO	DDA
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required]	
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] LO Discovery fi LO management is disabled, NI	DDA
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO Discovery	ADD • Enable   Disable
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO Discovery fi LO management is disabled, NI	ADD • Enable   Disable
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO Discovery	Enable Disable ECESMPRO Manager cannot monitor HW errors of some servers. Please refer to th
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO Discovery	Enable Disable EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to the
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO Discovery	
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO Discovery	
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] LLO Discovery	
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO Discovery	Enable Disable  EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to th      Enable Disable      Enable Disable      Enable Disable      Comparison of the servers of some servers. Please r      Comparison of the servers of some servers of some servers. Please r      Comparison of the servers of some servers o
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO Discovery	ADD      Enable Disable  EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to th      Enable Disable      Enable Disable  ADD
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] LLO Discovery	Enable Disable  EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to th      Enable Disable      Enable Disable      ADD      Enable Disable      Add      Enable Disable      Add      Enable Disable
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] LLO Discovery	Enable Disable  EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to th      Enable Disable      Enable Disable      ADD      Enable Disable      Add      Enable Disable      Add      Enable Disable
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] LO Discovery	Enable Disable  EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to th      Enable Disable  E Enable Disable  E Enable Disable  Auto Redfish PMI  method and connection is established with both (IPMI and Redfish) the access me de at the time of automatic selection <sup>2</sup> option in Classic Mode Environment-Settin method will get the priority for server registration process.      I Disable Disable  Disable Disable Disable  Disable Disable Disable  Disable Disable Disable  Disable Disable Disable  Disable Disable Disable Disable  Disable Disable Disable Disable  Disable Disab
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] iLO Discovery	Enable Disable  EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to th      Enable Disable  abled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer      Auto Redfish IPMI      Auto IPMI      Auto IPMI      Londer Disable      Auto IPMI      Londer Disable
ervers. Please refer to the result page NEC ExpressUpdate Authentication Key [Required] ILO Discovery	Enable Disable  EC ESMPRO Manager cannot monitor HW errors of some servers. Please refer to th      Enable Disable  abled, NEC ESMPRO Manager cannot monitor HW errors of some servers. Please refer      Auto Redfish IPMI      Auto IPMI      Auto IPMI      Londer Disable      Auto IPMI      Londer Disable

#### (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			
	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.			
<b>SNMP (NEC ESMPRO</b>	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)				
Discovery	Select "Enable". *1			
User Name/Password	Enter username and password for ESXi (ESXi8) 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			
<b>REST API(iStorage V s</b>	eries)			
Discovery	Select "Disable".			
RAID system managem	ient			
Management	Select "Enable" to manage the RAID system of the component.			
	WS-Man management must be enabled in addition to this setting.			
	Select "Disable" when the operating system of the managed component			
NEC ExpressUpdate	Select "Disable" when the operating system of the managed component is VMware ESXi8.			
Updates via NEC	Select "Disable" when the operating system of the managed component			
Updates via NEC ExpressUpdate Agent	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable".			
Updates via NEC ExpressUpdate Agent BMC (EXPRESSSCOP	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>PE Engine</b> )			
Updates via NEC ExpressUpdate Agent	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>E Engine)</b> If you search for VMware ESXi server in which BMC is integrated, select			
Updates via NEC ExpressUpdate Agent BMC (EXPRESSSCOP Discovery	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>E Engine)</b> If you search for VMware ESXi server in which BMC is integrated, select "Enable" otherwise NEC ESMPRO Manager cannot monitor HW status.			
Updates via NEC ExpressUpdate Agent BMC (EXPRESSSCOP	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>E Engine)</b> If you search for VMware ESXi server in which BMC is integrated, select			
Updates via NEC ExpressUpdate Agent BMC (EXPRESSSCOP Discovery	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>E Engine)</b> If you search for VMware ESXi server in which BMC is integrated, select "Enable" otherwise NEC ESMPRO Manager cannot monitor HW status.			
Updates via NEC ExpressUpdate Agent BMC (EXPRESSSCOP Discovery Features NEC	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>E Engine)</b> If you search for VMware ESXi server in which BMC is integrated, select "Enable" otherwise NEC ESMPRO Manager cannot monitor HW status. Select "Enable" to feature NEC ExpressUpdate. Enter the "authentication key" that you set in "1.2 Configure BMC on			
Updates via NEC ExpressUpdate Agent BMC (EXPRESSSCOP Discovery Features NEC ExpressUpdate	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>E Engine)</b> If you search for VMware ESXi server in which BMC is integrated, select "Enable" otherwise NEC ESMPRO Manager cannot monitor HW status. Select "Enable" to feature NEC ExpressUpdate.			
Updates via NEC ExpressUpdate Agent BMC (EXPRESSSCOP Discovery Features NEC ExpressUpdate	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>E Engine)</b> If you search for VMware ESXi server in which BMC is integrated, select "Enable" otherwise NEC ESMPRO Manager cannot monitor HW status. Select "Enable" to feature NEC ExpressUpdate. Enter the "authentication key" that you set in "1.2 Configure BMC on			
Updates via NEC ExpressUpdate Agent BMC (EXPRESSSCOP Discovery Features NEC ExpressUpdate Authentication Key	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>E Engine)</b> If you search for VMware ESXi server in which BMC is integrated, select "Enable" otherwise NEC ESMPRO Manager cannot monitor HW status. Select "Enable" to feature NEC ExpressUpdate. Enter the "authentication key" that you set in "1.2 Configure BMC on			
Updates via NEC ExpressUpdate Agent BMC (EXPRESSSCOP Discovery Features NEC ExpressUpdate Authentication Key iLO	Select "Disable" when the operating system of the managed component is VMware ESXi8. Select "Disable". <b>E Engine)</b> If you search for VMware ESXi server in which BMC is integrated, select "Enable" otherwise NEC ESMPRO Manager cannot monitor HW status. Select "Enable" to feature NEC ExpressUpdate. Enter the "authentication key" that you set in "1.2 Configure BMC on Managed Component". *2 *3			

	Clicking "Add" button, you can enter up to 5 pairs of username and password. *5		
	password. '5		
BMC (Other)	I contraction of the second		
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) Technology			
Discovery	Select "Disable"		

# СНЕСК:

СН	
•	*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.
СН	IECK:
•	*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.
•••••	
СН	ECK:
•	*3 If you register the "Management Controller" management for a fault toleran
	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 has
	EXPRESSSCOPE Engine SP3(2BMC model), you should specify the search range
	which includes both BMC IP addresses of Master and Standby.
•••••	
 СП	ECK:
Сн	
•	*5 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.
СН	IECK:
•	*6 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).
CHECK:
• *7 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(EXPRESSSCOPE Engine) management and iLO 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
functionality between IPMI and Redfish.

#### (4) Click "RUN DISCOVERY".

Auto Registration	anual Registration				
Destination Group	root		\$		
Discovery Range	1001		•		
Discovery Mode	O IP Add	ress Range Discove	ry 🔿 Network Address	s Discovery	
Start Address [Rec		168 8	9	-	
End Address <mark>(Requ</mark>	ired] 192	. 168 . 8	. 9		
Server / St	orage				
SNMP (NEC ESMP	RO Agent, iStorage M series)				
Discovery	Enable	Disable			
WS-Man (NEC ESN	PRO ServerAgentService, ESXi7	earlier)			
Discovery	Enable	O Disable			
User Name/Passw	ord [Required] root	/		ADD	
ESXi (ESXi8)					
Discovery	Enable	O Disable			
REST API (iStorage	V series)				
Discovery	Enable	O Disable			
RAID system (Univ	ersal RAID Utility)				
Discovery	🔘 Enable	Disable			
NEC ExpressUpdat	e (ExpressUpdate Agent)				
Discovery	Enable	Disable			
BMC(EXPRESSSC		District			
Discovery	Enable	<ul> <li>Disable</li> </ul>			
iLO	0				
Discovery	⊖ Enable	<ul> <li>Disable</li> </ul>			
BMC (Other)					
Discovery	C Enable	<ul> <li>Disable</li> </ul>			
Intel(R) vPro(TM)					
Discovery	Enable	Disable			
Network D	evice				
Other Com	puter Device				

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 H	Help 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	creen 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 ESMPF	RO Manager Help Classic Mode 💄 adn	nin 🕶
🕻 Dash	board 📲 Register 📾	Component 🔺 Ale	rtViewer 🏾 💥 Tools 👻					
	Auto Registration	Manual Registrati	on					
				Auto Registra	tion Resu	Ilts		
	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.	
			BACK	TO COMPONENT LIST	CONTIN	JE 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.
	<ul> <li>ExpressUpdate is disable</li> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is disable</li> <li>"NEC ExpressUpdate(ExpressUpdate Agent)" is enabled, but there is not component that can be installed with ExpressUpdate Agent.</li> </ul>
Contents	<ul> <li>A component has been added. This message will be displayed if the component is successfully registered.</li> <li>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.</li> </ul>

# 10.4 Upgrading to VMware ESXi 8.0

#### 10.4.1 Changing the Managed device

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

- (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) <u>https://kb.vmware.com/s/article/76372</u>
- (2) Click "Classic Mode"



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

ESMPRO			ExpEther   Tr	User Name : admin [ Au ools   Environment   Abo		
Group 🗸	Group Information Server Control	Schedule -		[ RAID System Man	agement Mode : Advar	nced Mode ]
ESXI6	Stoup Information	Registration count : locunt]	"Manascoment Controller"         Manascoment L/ B <sup>2</sup> Address           Not Registered         B <sup>2</sup> Address	AN System management Registered (valid)		ze [1] te RAID s Not Rei

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

SMPRO			User Name : admin [ Authority : Administrator ] 🖸
SMPRO			ExpEther   Tools   Environment   About NEC ESMPRO Manager
Group	root > ESXi6 > Competition Setting		[ RAID System Management Mode : Advanced M
	Constitution Setting	Repote Control	
🔉 门 root			
😔 🧾 ESXi6	Server setting	Item Name	Setup Value
	🔚 😰 Connection Setting	Component Name	ESXI6
	- ile announce cotting	Alias	ESXI6
	- Remote Wake Up Setting	Group	root
	Alert Destination	Connection Type	LAN
	By Aler Clescifiction	Common Setting	
		OS IP Address	192.168.8.9
		SNMP (NEC ESMPRO Agent) / WS-Man / ESX	i de la constante de
		Management	Registered <valid></valid>
		Management Type	WS-Man (NEC ESMPRO ServerAgentService, before ESXi7)
		User Name	root
	8	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" / "E	
		Management	Net Registered
			Edit Cleck Connection

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

Name	Value
<b>SNMP (NEC ESMPRO</b>	Agent) / WS-Man / ESXi
Management Type	Change to ESXi from WS-Man.
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
	- 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	In case of Registration, choose Unregistration.

(6) Click "Apply".

#### NEC ESMPRO Manager Setup Guide

			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		emote Control	
	Server setting - Convenction Setting - (*) Aller Monitorine Setting - (*) Remote Wele Us Setting - (*) Remote Wele Us Setting - (*) Alert Destination	Item Name Component Name [required] Alias Group Connection Type O P Adves [required] SNMF (NEC ESMPRO Agent) / WS-Man / ESXI Management Management Type User Name [required]	Sector Value           ESX/6
		Password [required]	
		Management NEC ExpressUpdate	O Registration  Unregistration
		Updates via NEC ExpressUpdate Agent "BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other	
		Management M If BMC / iLO management is disabled, NEC ESMPRO Manage of connection check.	Registration O Unregistration er cannot monitor HW errors of some servers. Please refer to the result page
		Management Type Monosecope Engine)" is target for EXPRESSO BMC(many core server). For cases other than the above and "LO" and "vPro", plea	○ EMC ● ILO ○ EMC(Other) ○ vPro OPE Engine1/2/3/3tt/2SP/3SP,EM Card(SIGMABLADE), EMC(ECO CENTER), see select "EMC(Other)".
		User Name [required]	administrator
		Password [required]	
		Communication Protocol	O HTTP ® HTTPS
		Port Number [required]	443
		"BMC (EXPRESSSCOPE Engine)" / "iLO" / "BMC (Other	
		P Address1 [required]	0 0 0 0 0 0 0 0 0 0 0 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	tted 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".

About NEC ESMPRO Manager Help Classic Mode 💄 admin 🔻
tus
are unread.

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

ESMPRO	🛦 AlertViewer 💥 Tools -	About NEC ESMPRO Manager Help Classic Mode 💄 admin •
Auto Registration Manual Reg	istration	
Server / Storage Network D	vice 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 blank		
	characters will be removed if there are half-width blank characters be		
	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 & Dashboard 📲 Register 🖨 Component	🛦 AlertViewer 💥 Tools 👻	About NEC ESMPRO Manager	Help Classic Mode	≗ admin <del>-</del>
Auto Registration Manual Rev Server / Storage Network D		BACK TO COMPONENT LIST		
Component Name [Required]	AlertOnly			
Alias				
Destination Group	root ¢			
IP Address [Required]	192 . 168 . 8 . 11			

(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 💄 admin 🕶
C Dashboard Register S mponent A AlertViewer 🛠 Tools 👻	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

ESMPRO		About NEC ESMPRO Manager Help Classic Mode 🛓 admin •
🚯 Dashboard 📲 Register 📾 Component 🛕 Ale	tViewer 🔀 Tools 🗸	
Auto Registration Manual Registrati	on	
Server / Stora e Network Device	Oher 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	SNMP Community Name which is specified at SNMP Agent running on		
Name	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.

ESMPRO		About NEC ESMPRO Manager Help Classic Mode 🛓 admin •
🚯 Dashboard 📲 Register 🚔 Component	🛦 AlertViewer 🔀 Tools -	
Auto Registration Manual Re	egistration	
Server / Storage Network	Device Other Computer Device Alert Only Management	BACK TO COMPONENT LIST
Component Name [Required]	NetWork	
Alias		
Destination Group	root ¢	
IP Address [Required]	192 . 168 . 8 . 107	
SNMP Community Name [Req	uired] public	
	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 🛓 admin -
	A Margan
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

ESMPRO				About NEC ESMPRO Manage	r Help Cl	lassic Mode	💄 admin 🗸
C Dashboard	-🚡 Register 📾 Component 🛕 AlertV	liewer 💥 Tools 👻					
Aut	to Registration Manual Registration	1					
	Destination Group	root	\$				
	Discovery Range						
	Discovery Mode	• IP Address Range Discovery	O Network Address Discovery	y			
	Start Address [Required]						
	End Address [Required]						
	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.
<b>Discovery Range</b>	
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 Mo	
End Address the start IP address and end IP address of the range in which 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 Name	SNMP Community Name which is specified at SNMP Agent running on the managed component.

(4) Click "RUN DISCOVERY".

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode	🛓 admin -
🚯 Dashboard 🛛 🔒 R	Register 📾 Component 🛕 AlertVi	iewer 💥 Tools -			
Auto Re	egistration Manual Registration				
	Destination Group	root ¢			
	Discovery Range				
I.	Discovery Mode	• IP Address Range Discovery O Network Address Disco	overy		
\$	Start Address [Required]	192 . 168 . 8 . 107			
E	End Address [Required]	192 . 168 . 8 . 107			
	Server / Storage				
	Network Device				
ş	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 He	Ip Classic Mode	💄 admin -
🚯 Dashboard 📲 Register 📾 Component 🛕	AlertViewer 💥 Tools 👻			
Auto Registration Manual Regis	stration			
		$\bigcirc$		
	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 ut, 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".

ESMF	RO				About NEC ESMPR	RO Manager Help	Classic Mode 💄 ad	dmin •
🕒 Dasi	hboard -🎦 Register 📾	Component 🔺 Ale	rtViewer 🕻 Tools 🔹					
	Auto Registration	Manual Registrat	ion					
					n Deculto			
				Auto Registratio	n Results			
	Entry Count:1item	(s)						
	Name	IP Address	Management LAN IP Address 1	Management LAN IP Ad	ldress 2 Install NEC	ExpressUpdate Agent	Contents	
	Network	192.168.8.107			ExpressU	pdate Disable	The componen	t was added.
			BACK TO C	COMPONENT LIST	CONTINUE REGISTERIN	IG		

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, 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 C		Computer Device	
FUNCTION	Component	Port	direction	Port	Component	
Detail display			ТСР			
remote control	NEC ESMPRO Manager	Unknown	$\rightarrow$	5985	WinRM Service	
			$\leftarrow$			

- 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		ent protocol/		Other Computer Device		
FUNCTION	Component	Port	direction	Port	Component		
Detail display			ТСР				
remote control NEC	NEC ESMPRO Manager	Unknown	$\rightarrow$	22	SSH		
remote 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".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin •
Component 🛦 AlertViewer 🛠 Tools -	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

ESMPRO			About NEC ESMPRO Manager	Help Classic Mode 💄 admin 🗸
🚯 Dashboard 📲 Register 📾 Component 🛕 A	lertViewer 🔀 Tools 👻			
Auto Registration Manual Registra	ation			
Server / Storage Network Device	Other Computer Device	A ert Only Management	BACK TO COMP	PONENT LIST
Component Name [Required]				
Alias				
Destination Group	root	\$		
IP Address [Required]				
User Name [Required]				
Password [Required]				
	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 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.
	Enter root/Password of Linux operating system.
	Enter root/r assword of Enter 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	💄 admin -
🕒 Dashboard	-🖥 Register 📾 Component 🛕 Ale	ertViewer 💥 Tools -				
А	Auto Registration Manual Registrat	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]					
	6	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 🛓 admin -
🚯 Dashboard 🕴 Register 🚔 🖨 mponent 🛕 AlertViewer 💥 Tools 👻	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

ESMPRO		About NEC ESMPRO Mana	jer Help	Classic Mode	💄 admin 🕶
🚯 Dashboard 📲 Register 📾 Component 🛕 Ale	ertViewer 🔀 Tools 👻				
Auto Registration Manual Registrat	tion				
Destination Group	root ¢				
Discovery Range					
Discovery Mode	IP Address Range Discovery     Network Address Discov	ery			
Start Address [Required]					
End Address [Required]					
Server / Storage					
Network Device					
C 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"

ESMPR	0			Abour	t NEC ESMPRO Manager Help Clas	sic Mode 💄 admin -	
🖨 Dashbo	ESMPRO About NEC ESMPRO Manager Help Classic Mode admined a						
	Auto Registration	Manual Registra	lion				
				Auto Registration Res	ults		
	Entry Count:1item(s	s)					
	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	IUE 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.

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# 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".

ESMPRO	About NEC ESMPRO Manager Help Classic Mode 🛓 admin -
🏶 Dashboard 📲 Register 📾 Component 🛕 JertViewer 🌫 Tools 👻	
Component Status	Alert Status
The component is not registered.	No alerts are unread.

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

ESI	MPRO			About NEC ESMPRO Manager Help Classic Mode 💄 admin 🕶				
¢	Dashboard	-🖥 Register 🛛 📾 Co	mponent 🛕 AlertViewer 💥 Tools 🔻					
Co	Component List root + ADD GROUP root +							
	REFRESH		Error Section Section Section 10 (1997)	ST/OS Panic 🛛 • Unknown 🗹 • Normal 🗹 • Status Getting 💟 • Not Monitor	əd			
	Status 🖨	Name 🌲	Type 💠 Linkage	Management LAN	\$			
	•	ESXi6_7u2	Server	192.168.8.9				
	•	AlertOnly	Alert Only	192.168.8.11				
	•	Network	Network Device	192.168.8.107				
	•	OtherComputer	Other Computer Device	192.168.8.59				
	•	GroupB	Group[Rename]					
5 it	em(s) betwe	een 1 and 5 is displa	yed	Previous 1 N	ext			
				DELETE SELECTED DEVICE/GROUP				

г

(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".



(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".

SMPRO			About N	EC ESMPRO Manager Help	Classic Mode 💄 admin 🗸
🕏 Dashboard 🛛 📲 Register 📾 Compor	nent 🛕 AlertViewer 🎇 To	bls 👻			
Component List				+ ADD GROUP	GroupB ÷
REFRESH	🗹 🛡 Error 🔽 🔍 Wa	rning 🔽 🔍 DC-OFF/POST,	/OS Panic 🛛 🔍 Unknown	n 🗹 🔍 Normal 🗹 🔍 Sta	atus Getting 🛛 🔍 Not Monitored
Status 🗘 Name	🗧 Type 🌐 Linkage	IP Address	Management LAN	Memo	\$
ESXi6_7u2	Server	192.168.8.9	÷ ir Address	↓ Mento	*
I item(s) between 1 and 1 is displayed					Previous 1 N

# 15.2 Changing group name

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

ESMPRO			About NE	C ESMPRO Manager	Help Classic Mod	e 💄 admin <del>-</del>
🕻 Dashboard 🛛 🔓 Register	🛋 Component 🔺 AlertViewer 🔀 Tools	-				
Component List				+ ADD GROUP	root	\$
REFRESH	🛛 🛛 Error 🔽 🔍 Warning 🔽 🔍	DC-OFF/POST/OS Panic	Unknown	🗹 🔍 Normal 🕑	<ul> <li>Status Getting</li> </ul>	Not Monitored
Status 🗘 Name	≜ Tinkage	IP Address	Management L	AN	0	÷
GroupB	Group[Rename]				•	
1 item(s) between 1 and 1 is	displayed					Previous 1 Next
					DELETE SELEC	CTED DEVICE/GROUP

(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".

ESMPRO				About NEC	ESMPRO Manager H	lelp Classic Mode	💄 admin 🕶
🕼 Dashboard 🛛 - 🚡 Register 📾	Component 🛕 A	ertViewer 🛛 🛠 Tools 🔻					
Component List					+ ADD GROUP	root	\$
REFRESH	<ul> <li>Error</li> </ul>	🗹 🛡 Warning 🗹 🔍	DC-OFF/POST/OS Panic			<ul> <li>Status Getting</li> </ul>	<ul> <li>Not Monitored</li> </ul>
Status 🚖 Name	Type	Linkage	IP Address	Management I	.AN	10	\$
GroupC	Group[Rename	l					
1 item(s) between 1 and 1 is dis	splayed						Previous 1 Next
						DELETE SELE	CTED DEVICE/GROUP

## 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.

🕼 Dashboard 📲 Register 📾 Component 🗛				onn no manager men	Classic Mode 💄 ad	min <del>•</del>
Vashboard Markeyister E Component A	AlertViewer 🛛 🛠 Tools 🔻					
Component List				+ ADD GROUP	root	÷
REFRESH Servor	🗹 🔍 Warning 🔽 🔍 DO	C-OFF/POST/OS Panic	<ul> <li>Unknown</li> </ul>	🗹 🔍 Normal 🔽 🔍	Status Getting 🔽 🔍 N	ot Monitored
			Management LA			
Status 🗢 Name 🌲 Type GroupC Group[Renam	Linkage	IP Address	IP Address	# Memo		÷

- (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.

ESMPRO					About NEC	ESMPRO Manager	Help Classic Mode	💄 admin 🗸
Cashboard	-🖺 Register	📾 Component 🛛 🗛	lertViewer 🕻 Tools 🕈					
Component L	.ist					+ ADD GROUP	root	\$
REFRESH		Error	🗹 🔍 Warning 🔽 🔍	DC-OFF/POST/OS Panic	Unknown Management L		Status Getting	<ul> <li>Not Monitored</li> </ul>
Status	Name	Type	Linkage	IP Address	IP Address	≑ Me	mo	\$
🖸 )•	GroupC	Group[Rename	]					
1 item(s) betw	veen 1 and 1 is	displayed				(	DELETE SELE	Previous 1 Next

(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 deleted together.	
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.

SMPRO		About NE	C ESMPRO Manager Help Classic Mode	e 💄 admin ◄
🕻 Dashboard 🛛 🖞 Register 📾 🕻	Component 🛕 AlertViewer 💥 Too	Is 🔻		
Component List			+ ADD GROUP GroupB	<b>&gt;</b>
REFRESH	🗹 🛛 Error 🛛 🖉 🔍 Warnir	ng 🗹 🔍 DC-OFF/POST/OS Panic 💆 🔍 Unknow	rn 🔽 🔍 Normal 🗹 🔍 Status Getting	<ul> <li>Not Monitored</li> </ul>
Status 🗘 Name			🚖 Memo	\$
Status Viname	Server	192.168.8.59	• Meno	
1 item(s) between 1 and 1 is disp	blayed		DEI ETE SEI	Previous 1 Nex

(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.".)

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

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 than EXPRESSSCOPE Engine or EXPRESSSCOPE Engine 2 or EXPRESSSCOPE Engine 3 or EMS (Embedded Management Software).
	"BMC (EE)":	means that the managed component pre-contains EXPRESSSCOPE Engine or EXPRESSSCOPE Engine 2.
	"BMC (EE3)":	means that the managed component pre-contains EXPRESSSCOPE Engine 3.
	"iLO":	means that the managed component pre-contains iLO.
	"BMC(Other)":	means that the managed component pre-contains EMS.
Standard LAN2:	communicate the N (Advanced Remote Management Card	s that MC and system BIOS on the managed component can EC ESMPRO Manager via standard LAN port 2. Management Card, the function which is equal to Advanced Remote or EXPRESSSCOPE Engine series uses a dedicated LAN port, not use on the managed component.)
Management LAN Port:		C on the managed component uses a Management LAN Port. "-" means maged component uses a standard LAN Port.
Remote Console:	"Supported" means	that the managed component supports the Remote Console function.
Scheduled Running:	"Supported" means	that the managed component supports the scheduled running function.
Power option setting:	"Supported" means function.	that the managed component supports the "Power Restore Delay"
SOL:		that the managed component supports the SOL (Serial over LAN. A kind lizing remote console function.)
force network- boot:	function, by which N a network boot rega	that the managed component supports the "force network-boot" NEC ESMPRO Manager can indicate the managed component to force rdless of the boot order in Bios Setup menu. 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
R120g-2E	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	
R140a-4	BMC(EE)	-	use	supported	supported	supported	supported	-	suppor		
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	BMC	-	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	

1		1				1			r	r	1
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, N8610-749]	BMC(EE)	-	use	supporte d	supporte d	supporte d	supporte d	-	-	supported	2-(a)
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 [N8610-1012, N8610-1022, <b>N8610-1032]</b>	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
V608-L [N8610-1011, N8610-1021, <b>N8610-1031]</b>	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
V618-H [N8610-905, N8610-906, N8610-915, N8610-916, N8610-1005, <b>N8610-1006</b> ]	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
V618-H [N8610-1025, N8610-1026, N8610-1035, N8610-1036]	BMC(EE3)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
V618-L [N8610-903, N8610-904, N8610-913, N8610-914, N8610-1003, <b>N8610-1004</b> ]	BMC(EE)	-	use	supported	supported	supported	supported	supported	supported	supported	2-(a)
V618-L [N8610-1023, N8610-1024, N8610-1033, <b>N8610-1034</b> ]	BMC(EE3)	-	use	supported	supported	supported	supported	supported	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
V628-H			use	supported	supported	supported	supported	supported	supported	supported	2-(a)
[N8610-908,	BMC(EE)	-									
N8610-918,	BINC(EE)	-									
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,	BMC(EE)	-									
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)

#### 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	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
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	

#### 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.

- 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.

		ifAdminStatus					
		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		
ifOper 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

#### NEC ESMPRO Manager Setup Guide

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 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.

:	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
:	Shutdown, Shutdown Reboot
:	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 and "Type" is "Server".

- The managed server registered by OS IP address with Windows Server 2016 / 2019 / 2022 / 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.

%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 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, 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, 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. EThe 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-STD2024/11/15Revised the environment setting usage guide in chapters 1.3.1, 1.3.3.3, 3.3.1, and<br/>4.3.1.1 has been changed from classic mode to ESMPRO SM7 UI.<br/>Added IX-R2530 to UNIVERGE IX-R series of network devices in Appendix D.<br/>Added IX-V100 to UNIVERGE IX-V series of network devices in Appendix D.<br/>Added revision history.