

# **NEC SigmaSystemCenter 3.6**

## **Installation Guide**

**- First Edition -**

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# Preface

## How to Use This Manual

*NEC SigmaSystemCenter Installation Guide* is intended for system administrators who perform installation, upgrade installation, and uninstallation of SigmaSystemCenter and provides these methods.

## Manual Organization

### Part I Installation of SigmaSystemCenter

- 1 "SigmaSystemCenter Installation Overview": Provides how to precede installation and the information of the installer.
- 2 "Installing SigmaSystemCenter": Provides installation procedure.
- 3 "Upgrading from Earlier Version": Provides the upgrading procedure from the earlier version.
- 4 "Uninstalling SigmaSystemCenter": Provides uninstallation procedure.
- 5 "Troubleshooting": Provides solutions for problems occurred during installation, upgrade, and uninstallation.

### Appendices

- |            |                                      |
|------------|--------------------------------------|
| Appendix A | "Installing/Uninstalling PostgreSQL" |
| Appendix B | "Networks and Protocols"             |
| Appendix C | "Revision History"                   |
| Appendix D | "License Information"                |

# SigmaSystemCenter Manuals

The manuals of SigmaSystemCenter are configured for the various products and components as follows.

In this manual, each of the following manuals is described as "How Manuals Are Called in This Manual."

Products or Components	Manuals	How Manuals Are Called in This Manual
NEC SigmaSystemCenter 3.6	NEC SigmaSystemCenter 3.6 First Step Guide	NEC SigmaSystemCenter First Step Guide
	NEC SigmaSystemCenter 3.6 Installation Guide	NEC SigmaSystemCenter Installation Guide
	NEC SigmaSystemCenter 3.6 Configuration Guide	NEC SigmaSystemCenter Configuration Guide
	NEC SigmaSystemCenter 3.6 Reference Guide	NEC SigmaSystemCenter Reference Guide
NEC ESMPRO Manager 6.16	NEC ESMPRO Manager Ver.6 Installation Guide	NEC ESMPRO Manager Installation Guide
DeploymentManager 6.6	DeploymentManager Ver6.6 First Step Guide	DeploymentManager First Step Guide
	DeploymentManager Ver6.6 Installation Guide	DeploymentManager Installation Guide
	DeploymentManager Ver6.6 Operation Guide	DeploymentManager Operation Guide
	DeploymentManager Ver6.6 Web Console Reference Guide	DeploymentManager Web Console Reference Guide
	DeploymentManager Ver6.6 Tool Reference Guide	DeploymentManager Tool Reference Guide
	DeploymentManager Ver6.6 Caution Notes and Trouble Shooting Reference Guide	DeploymentManager Caution Notes and Trouble Shooting Reference Guide
System Monitor - Performance Monitoring Services 5.9	System Monitor - Performance Monitoring Services 5.9 User's Guide	System Monitor - Performance Monitoring Services User's Guide
	NEC SigmaSystemCenter ssc Command Reference	ssc Command Reference

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**Reference:** All the latest SigmaSystemCenter manuals are available in the following URL.

<http://www.nec.com/sigmasystemcenter/en/support/index.html>

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The information regarding product summary, installation, configuration, operation and maintenance of SigmaSystemCenter are included in the following four manuals. The purposes of the manuals are as follows.

***NEC SigmaSystemCenter First Step Guide***

This manual is intended for users who use SigmaSystemCenter for the first time and explains the product summary, system design methods and operating environment.

***NEC SigmaSystemCenter Installation Guide***

This manual is intended for system administrators who install, upgrade, or uninstall SigmaSystemCenter and explains how to.

***NEC SigmaSystemCenter Configuration Guide***

This manual is intended for system administrators who configure the whole system after installation and who operate and maintain the system after the configuration. Actual operational flow is used to explain the process from the configuration after installation to the operating procedures. This manual also explains the maintenance process.

***NEC SigmaSystemCenter Reference Guide***

This manual is intended for administrators of SigmaSystemCenter and is a supplement to *NEC SigmaSystemCenter Installation Guide* and *NEC SigmaSystemCenter Configuration Guide*. *NEC SigmaSystemCenter Reference Guide* consists of the following three documents:

***NEC SigmaSystemCenter Reference Guide***

This document describes features and functionalities of SigmaSystemCenter.

***NEC SigmaSystemCenter Data Reference Guide***

This document describes the maintenance information in SigmaSystemCenter.

***NEC SigmaSystemCenter Caution Notes and Trouble Shooting Reference Guide***

This document describes cautions and the information about trouble shooting in SigmaSystemCenter.

# Document Conventions

In this manual, information that needs attention and references are described as follows:

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**Note:** *Note* indicates caution notes, and supplementary explanation for functionalities, operations, and settings.

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**Reference:** *Reference* indicates why and where you should refer to.

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In addition, this manual uses the following document conventions.

Convention	Used Item	Example
Bold font	Items that a user selects on a screen, short text input, screen names, short command-line commands, and command-line options	Type <b>Exit</b> and click <b>Enter</b> . <b>User License Confirmation</b> screen Use the <b>-prt</b> command. Use the <b>/a</b> option.
Italic font	Book or manual titles, and variable names	<i>Configuration Guide</i> add <code>GroupName</code>
Quotation marks	Chapter titles and default values	See Chapter 9, "Add a Computer."
Monospace font (courier)	Long text inputs, messages and command-line commands	Type the following text: <code>Confidential-Class B</code>

# Part I                      Installation                      of SigmaSystemCenter

This section describes how to install, upgrade, and uninstall SigmaSystemCenter, and solutions for problems occurred during the operations.

- 1                      SigmaSystemCenter Installation Overview
- 2                      Installing SigmaSystemCenter
- 3                      Upgrading from Earlier Version
- 4                      Uninstalling SigmaSystemCenter
- 5                      Troubleshooting



# 1. SigmaSystemCenter Overview

## Installation

This chapter describes the document overview and the SigmaSystemCenter installer that installs and uninstalls component(s).

This chapter contains the following sections:

- 1.1 Document Overview .....4
- 1.2 SigmaSystemCenter Installer .....5
- 1.3 Configuration of SigmaSystemCenter 3.6 DVD-R.....6

## 1.1. Document Overview

This document describes how to install, upgrade, and uninstall SigmaSystemCenter.

Refer to the following sections in this chapter to know brief outline of the SigmaSystemCenter installer's functionality.

Refer to Chapter 2, "Installing SigmaSystemCenter" for the new installation of SigmaSystemCenter 3.6.

If any of earlier SigmaSystemCenter versions is installed on your system and if you want to upgrade it to SigmaSystemCenter 3.6, refer to Chapter 3, "Upgrading from Earlier Version" for upgrading.

Refer to Chapter 4, "Uninstalling SigmaSystemCenter" for the uninstallation of SigmaSystemCenter 3.6.

## 1.2. SigmaSystemCenter Installer

The SigmaSystemCenter installer installs and uninstalls the components of SigmaSystemCenter.

The installer installs and uninstalls the management server components on a SigmaSystemCenter management server and the managed machine components on a SigmaSystemCenter managed machine.

Uninstallation can be executed from Programs and Features.

---

**Notes:**

- The installer cannot be launched on the drive to which a UNC path or a network drive letter is assigned. Launch the installer on the DVD drive.
  - When you install SigmaSystemCenter on a remote machine via Remote Desktop, you must run the installer from the DVD drive of the remote machine. If use a UNC path or network drive, you cannot run the installer.
- 

### 1.2.1. SigmaSystemCenter Installation Modes

The SigmaSystemCenter installer has two installation modes:

◆ Individual Installation/Uninstallation

The mode to install/uninstall SigmaSystemCenter by following the installer's wizard.

Installation/Uninstallation can be executed by each individual component in this mode.

◆ Collective Installation/Uninstallation

The mode to install/uninstall SigmaSystemCenter from command line.

Collective Installation installs all the components stored on the *SigmaSystemCenter DVD-R*. Specify options to change the installation information, such as the installation location, Windows Firewall, etc.

Collective Uninstallation uninstalls all the components installed on your system.

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**Note:** Some components are not uninstalled during the Collective Uninstallation.

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During the Collective Installation or Uninstallation, the installer's wizard screens do not appear.

## 1.3. Configuration of SigmaSystemCenter 3.6 DVD-R

The SigmaSystemCenter installer and various software components are stored on the *SigmaSystemCenter DVD-R*, as follows:

SigmaSystemCenter DVD-R	
ManagerSetup.exe	The installer for management server components
ManagerSetup.ini	The configuration file for management server components
AgentSetup.exe	The installer for managed machine components
AgentSetup.ini	The configuration file for managed machine components
dotNet Framework40\	Windows Installer 4.5 Redistributable
dotNet Framework462\	.NET Framework 4.6.2 Redistributable Package
SQLEXPRESS\	SQL Server 2016 SP1 Express
DPM\	DeploymentManager
SMM\	NEC ESMPRO Manager
RMP\	System Monitor - Performance Monitoring Services
PVM\	SystemProvisioning
OpsMgrConnector\	System Center Operations Manager 2007 connector
L Tool	
ConsoleProxy	Virtual Machine Console Proxy
L rescue-vm	Rescue VM

## 2. Installing SigmaSystemCenter

This chapter describes installation procedure of SigmaSystemCenter to a management server and managed machine. Based on the installation modes, this chapter describes installing components individually and collectively.

This chapter contains the following sections:

• 2.1	What You Should Know Before Installation.....	8
• 2.2	Installing Management Server Components .....	21
• 2.3	Installing Management Server Components Individually .....	22
• 2.4	Installing Management Server Component Collectively.....	39
• 2.5	After Installing Management Server Components.....	46
• 2.6	Installing Managed Machine Component .....	49
• 2.7	Installing to a Managed Machine Running Windows (x86/x64) from the Installation Wizard.....	53
• 2.8	Installing to a Managed Machine Running Windows (x86/x64) Without Displaying Installation Wizard .....	59
• 2.9	Installing to a Managed Machine Running Linux.....	62
• 2.10	Installing Virtual Machine Console Proxy .....	65

## 2.1. What You Should Know Before Installation

Before beginning installation of SigmaSystemCenter 3.6, read the information in this section carefully.

### 2.1.1. Prerequisites

You need to install the components of SigmaSystemCenter based on the configuration of a management server and managed machine. Ensure that you know enough about the configuration listed in Section 2.1, "Examining the System Configuration of SigmaSystemCenter" in *NEC SigmaSystemCenter First Step Guide*.

Also, ensure that your management server and managed machine have met the latest hardware and software requirements. See Chapter 3, "Operational Environment" in *NEC SigmaSystemCenter First Step Guide*.

SigmaSystemCenter 3.6 supports NEC ESMPRO Manager Ver. 6.16 or later. If you install NEC ESMPRO Manager through other installer than the SigmaSystemCenter installer and use it, ensure the version of your NEC ESMPRO Manager is NEC ESMPRO Manager Ver. 6.16, or later.

### 2.1.2. Notice for Windows Server 2016

Management servers and management machines support only the Full Installation option. In this reason, it does not support the Server Core option, though this is the default install option for Windows Server 2016. To apply the Full Installation option, select "Windows Server 2016 Standard (Desktop Experience)" or "Windows Server 2016 Datacenter (Desktop Experience)" when installing Windows Server 2016. If you select "Windows Server 2016 Standard" or "Windows Server 2016 Datacenter," the Server Core option is applied.

Note that you cannot switch between the two options after installing Windows Server 2016.

### 2.1.3. Port Conflict

Your environment may experience conflicts between ports used by SigmaSystemCenter and by other products. In that case, you must change those ports.

- ◆ How to change ports used by SigmaSystemCenter

When you intend to change the ports used by SigmaSystemCenter components, see the following information.

**Reference:** For more information about ports used by SigmaSystemCenter, see Appendix B, "Networks and Protocols" in this document, and Appendix A, "Network Ports and Protocols" in *NEC SigmaSystemCenter Data Reference Guide*.

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- **DeploymentManager**  
To change the ports used by DeploymentManager components, see Section 1.6, "Change Port Procedure on DPM" in *DeploymentManager Caution Notes and Trouble Shooting Reference Guide*.
  
  - **System Monitor - Performance Monitoring Services**  
System Monitor - Performance Monitoring Services uses port 26200 for communication from the management console or Web console to the performance monitoring service, port 26202 for communication from the performance monitoring service to the management console.  
To change the ports used by System Monitor - Performance Monitoring Services, see Subsection 2.4.1, "Port Number" in *System Monitor - Performance Monitoring Services User's Guide*.  
To change those ports on the SigmaSystemCenter Web console, see Subsection 5.5.15, "Configuring Settings on the Performance Monitor Tab," 5.6 7, "Configuring Settings on the Performance Monitor Tab" and 5.10.10, "Configuring Settings on the Performance Monitor Tab" in *NEC SigmaSystemCenter Configuration Guide*.
  
  - **NEC ESMPRO Manager**  
See "Management Server" in Appendix B "Networks and Protocols."
- ◆ If ports used by SigmaSystemCenter conflict with those used by related products
- **vCenter Server**  
vCenter Server uses port 80 and port 443 which are default ports for TCP/IP. When it coexists with the SigmaSystemCenter management server or DPM Server, the port 80 used by Internet Information Services (IIS) may conflict between them.  
In this case, change the port by using one of the following methods:
    - If you intend to change the http port number for vCenter Server  
When you install vCenter Server after installing SigmaSystemCenter, change the http port number from 80 to such as 20080 when installing vCenter Server.

- If you intend to change the http port number for IIS  
When you install SigmaSystemCenter after installing vCenter Server, change the http port number from 80 to such as 20080 before installing SigmaSystemCenter as follows:

E.g., For IIS 7.5

1. From the **Start** menu, point to **Administrative Tools**, and then click **Internet Information Services (IIS) Manager**.
  2. Internet Information Services (IIS) Manager starts. On the tree view, click the target computer, click **Web Site**, and click the target Web site. Then click **Bindings...** and edit the http port.
- MasterScope Network Manager  
In case of conflict with the MasterScope Network Manager port, change the port on the MasterScope Network Manager side.  
For how to do it, see the documentation of the MasterScope Network Manager products.

### 2.1.4. Software You Need to Install on the Management Server Before Starting the Installation

There is software that you need to install before installing SigmaSystemCenter on your management server.

The management server requires the following software:

- ◆ .NET Framework 4.6.2
- ◆ Internet Information Services (IIS)
- ◆ ASP.NET 4.0, ASP.NET 4.5, or ASP.NET 4.6

If you want to perform OS installation by disk duplication (Linux) or OS clear installation of DeploymentManager, the machine on which you intend to install DPM Server requires the following software:

- ◆ Java Runtime Environment (JRE) 32-bit 7.0 or 8.0

<For Windows Server 2008 R2>

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**Notes:**

- SQL Server 2016 does not support Windows Server 2008 R2. For this reason, if you install this package on Windows Server 2008 R2, install SQL Server 2014 or earlier before the installation.
  - .NET Framework 4.6.2 is installed by the SigmaSystemCenter installer. So, you do not need to install it separately.
  - ASP.NET v4.0 is automatically installed in the computer that Internet Information Services (IIS) is installed on when installing .NET Framework 4.6.2. So, you do not need to install it separately.
  - If **Web Server (IIS)** is already installed, install the following at **Add Role Services of Web Server (IIS): Static Content, ASP.NET, IIS Management Console, and IIS 6 Metabase Compatibility**.
- 

Follow the procedure below to install DPM Server and SystemProvisioning.

There are two installing methods, installing from the Windows screen manually and using the PowerShell command.

◆ Installation Procedure of Internet Information Services (IIS)

[Installing from the Windows screen]

1. Launch **Server Manager**.
2. Right-click **Roles** in the left pane, and click **Add Roles**.
3. **Add Roles Wizard** appears.
4. Click **Server Roles** in the left pane.
5. Select the **Web Server (IIS)** check box, and click **Next**.
6. On the **Introduction to Web Server (IIS)** screen, click **Next**.
7. On the **Select Role Services** screen, select the **Static Content** check box, the **ASP.NET** check box, **IIS Management Console** check box, and **IIS 6 Metabase Compatibility** check box, and then click **Next**.
8. On the **Confirm Installation Selections** screen, click **Install**.
9. On the **Installation Results** screen, click **Close**.

[Using the PowerShell command]

1. To start PowerShell, click **Start**, click **All Programs**, click **Accessories**, click the **Windows PowerShell** folder, right-click **Windows PowerShell**, and then click **Run as Administrator**.
2. To install Internet Information Services (IIS), run the following commands:

```
PS > Import-Module ServerManager
PS > Add-WindowsFeature Web-Server,
Web-Static-Content, Web-Asp-Net, Web-Mgmt-Console,
```

### Web-Metabase

<For Windows Server 2012, Windows Server 2012 R2, Windows Server 2016>

---

#### Notes:

▪ Since the SigmaSystemCenter installer installs NET Framework 4.6.2 and Windows Server 2016 supports .NET Framework 4.6.2 by default, you do not need to install them separately if these are the case.

▪ If **Web Server (IIS)** is already installed, install the following at **Add Role Services of Web Server (IIS): Static Content, ASP.NET x.x, IIS Management Console, and IIS 6 Metabase Compatibility**.

ASP.NET versions differ depending on Windows Server versions:

- ASP.NET 4.5: For Windows Server 2012, Windows Server 2012 R2
  - ASP.NET 4.6: For Windows Server 2016
- 

Follow the procedure below to install DPM Server and SystemProvisioning.

There are two installing methods, installing from the Windows screen manually and using the PowerShell command.

#### ◆ Installation Procedure of Internet Information Services (IIS) and ASP.NET 4.5/4.6

[Installing from the Windows screen]

1. Launch **Server Manager**.
2. Click **Dashboard** in the left pain, and then choose **Add roles and features**.
3. **Add Roles and Features Wizard** appears. Click **Next**.
4. **Select installation type** appears. Select the **Role-based or feature-based installation** check box, and then click **Next**.
5. On the **Select destination server** screen, choose the server and click **Next**.
6. Select the **Web Server (IIS)** check box in the **Roles** list.
7. On the **Add features that are required for Web Server (IIS)** dialog box, click **Add Features**.
8. On the **Select server roles** screen, click **Next**.
9. On the **Select features** screen, click **Next**.
10. On the **Web Server Role (IIS)** screen, click **Next**.
11. On the **Select role services** screen, select the following check boxes. And then click **Next**.
  - Web Server - Common HTTP Features - the **Static Content** check box
  - Web Server - Application Development - the **ASP.NET 4.5** check box (for Windows Server 2012 or Windows Server 2012 R2)
  - Web Server - Application Development - the **ASP.NET 4.6** check box (for Windows Server 2016)

- Management Tools - the **IIS Management Console** check box
- Management Tools - IIS6 Management Compatibility - the **IIS 6 Metabase Compatibility** check box

**12.** On the **Confirm Installation Selections** screen, click **Install**. Then, install starts.

**13.** Click **Close** to exit the wizard after completing the installation of the selected roles, role services or features.

[Using the PowerShell command]

Installing methods for Internet Information Services (IIS) and ASP.NET 4.5/4.6 differ depending on Windows Server versions.

<Windows Server 2012, Windows Server 2012 R2>

1. To start PowerShell, click **Start**, click **Apps**, click **Windows System**, right-click **Windows PowerShell**, and then click **Run as Administrator**.
2. To install Internet Information Services (IIS) and ASP.NET 4.5, run the following commands:

```
PS > Add-WindowsFeature Web-Server,
Web-Static-Content, Web-Asp-Net45, Web-Mgmt-Console,
Web-Metabase
```

<Windows Server 2016>

1. To start PowerShell, click **Start**, click the **Windows PowerShell** folder, right-click **Windows PowerShell**, and then click **Run as Administrator**.
2. To install Internet Information Services (IIS) and ASP.NET 4.6, run the following commands:

```
PS > Add-WindowsFeature Web-Server,
Web-Static-Content, Web-Asp-Net45, Web-Mgmt-Console,
Web-Metabase
```

## 2.1.5. Setting Up DHCP Server

To use DeploymentManager, a DHCP server is required in the same network with DPM Server. If you do not operate a DHCP server, a part of SigmaSystemCenter features are restricted. Prepare a DHCP server before installing SigmaSystemCenter.

For details and settings of a DHCP server, see Subsection 2.2.1, "Network Environment" in *DeploymentManager First Step Guide* and 1.2.2, "Setting Up the DHCP Server" in *DeploymentManager Installation Guide*.

### 2.1.6. Notes About Setting of Windows Firewall

- ◆ If you set to start the *Windows Firewall / Internet Connection Sharing (ICS)* service before the installation, and specify to add programs or ports to the exceptions list of Windows Firewall from the installer, the installer adds the programs or ports to the exceptions list.
- ◆ If you change to use Windows Firewall after installing SigmaSystemCenter, add programs or ports to the exceptions list manually. For the details, see Appendix B, "Networks and Protocols."

### 2.1.7. Notes on Beginning the Installation

Before beginning the installation of SigmaSystemCenter, end all applications and Web browsers.

### 2.1.8. Notes on Installing to Windows Vista or Later, and to Windows Server 2008 or Later

If you run the installer on Windows Vista or later and on Windows Server 2008 or later, the User Account Control screen may appear. In that case, click Allow to continue the operation.

### 2.1.9. Notes on Installing DPM Server

- ◆ If you use a DHCP server, one network segment cannot be managed with multiple instances of DPM Server.
- ◆ If you are going to install DPM Server and MasterScope Network Manager on the same machine, you need to configure the setting of the TFTP Services of DeploymentManager and MasterScope Network Manager.

If the setting is not configured, each TFTP Service conflicts and they may not work properly.

For more details and the setting, see Appendix F, "Configuring DPM Server and MasterScope Network Manager on the Same Machine" in *DeploymentManager Installation Guide* or *user's manual of MasterScope Network Manager*.

- ◆ Before installing DPM Server, ensure that the LAN for management is connected. If the network is not connected, the initial settings and the installation of DPM Server may fail. In that case, the program rolls back the actions right before the

installation of DPM Server. Install DPM Server and other components that have not installed yet again from the SigmaSystemCenter Installer.

- ◆ Set a fixed IP address to the machine on which DPM Server is to be installed from Network Connections in Control Panel.
- ◆ For other caution notes, see Section 2.1, "Installing DPM Server" in *DeploymentManager Installation Guide*.

## 2.1.10. If You Use a SQL Server Other Than the SQL Server 2016 Express

If you use an SQL Server as the database of SigmaSystemCenter, besides using SQL Server 2016 Express, which is installed along with this package by default, you can also use an SQL Server 2008 R2, 2012, 2014, or 2016 instance by installing the instance in advance.

---

### Notes:

- If the higher edition of SQL Server 2008 R2/2012/2014/2016 is installed, the recovery model of the database is set to full by default. In this model journal logs are recorded and these logs increase the database. To resolve this issue, set the database to the simple recovery model.
  - SQL Server 2016 does not support Windows Server 2008 R2. For this reason, if you install this package on Windows Server 2008 R2, install SQL Server 2014 or earlier before the installation.
- 

### 1. Preparing for the installation of SigmaSystemCenter

If you plan to use a SQL Server other than the SQL Server 2016 Express, install the SQL Server instance before the installation of SigmaSystemCenter.

The following table indicates the instance of each component:

Component	Instance name
SystemProvisioning and System Monitor - Performance Monitoring Services	SSCCMDB (default)
DeploymentManager	DPMDBI (default)

---

**Notes:**

- When installing the instance of SystemProvisioning and System Monitor - Performance Monitoring Services, select the **Database Engine Services** on the **Select features** window.
- When installing the instance of DeploymentManager, select the **Database Engine Services** on the **Select features** window.
- If you manually install the SQL Server 2016 instance, add "NT AUTHORITY\SYSTEM (SYSTEM)" and "BUILTIN\Administrators" to **Specify SQL Server administrators** on the **Database Engine Configuration** screen. For the procedure, see the following <How to install the SQL Server 2016 instance manually>.

For what problems you may face, if not add "NT AUTHORITY\SYSTEM (SYSTEM)" and how to help, see 5.1.7, "Unable to Start Some Services After Installing SigmaSystemCenter."

---

### 2. Installing SigmaSystemCenter

- For SystemProvisioning and System Monitor - Performance Monitoring Services  
Specify the instance name that you want to use while installing SigmaSystemCenter by using either way of the following procedures:
  - Installing the management server components individually.  
Specify the instance name that you want to use on the **Configure the information of database. (Use the existing SQL Server instance.)** window of the SigmaSystemCenter installation wizard. For details, see 2.3.5, "Configuring Database (Using Existing Database)."
  - Installing the management server components collectively  
Specify the instance name that you want to use for the option "/INSTANCENAME" when executing the SigmaSystemCenter installer.  
For details, see Subsection 2.4.1, "Beginning the Installation."
- For DeploymentManager  
Specify the DeploymentManager instance name that you want to use while installing SigmaSystemCenter by using either way of the following procedures:
  - Installing the management server components individually  
Specify the instance name in the "Use SQL Server" window of "Configure database information" in the SigmaSystemCenter Setup wizard. For details, see 2.3.5, "Configuring Database (Using Existing Database)."

- Installing the management server components collectively  
Specify the instance name that you want to use for the option "/DPMINSTANCENAME" when executing the SigmaSystemCenter installer. For details, see Subsection 2.4.1, "Beginning the Installation."

<How to install the SQL Server 2016 instance manually>

The following describes about the procedure to install the SQL Server 2016 instance manually. In this procedure, assume the case you install SQL Server 2016 Enterprise Edition with Windows Authentication mode enabled.

1. Insert the SQL Server 2016 Enterprise Edition DVD to your DVD drive.
2. Double-click setup.exe from the DVD drive folder.
3. The installer starts and the installation screen appears.  
Follow the instruction on the screen to install SQL Server 2016.
4. The **Feature Selection** dialog box appears during setup.  
Select the following check boxes and then click **Next**.
  - SSCCMDB: Select **Database Engine Services**.
  - DPMDBI: Select **Database Engine Services**.
5. The **Instance Configuration** dialog box appears.  
On the dialog box, select **Named Instance**, type "SSCCMDB" or "DPMDBI" in the text box, and click **Next**.
6. The **Database Engine Configuration** dialog box appears during setup.  
Select **Windows authentication mode**.
7. On **Specify SQL Server administrators**, click **Add Current User**.
8. On **Specify SQL Server administrators**, click **Add...**
9. The **Select User or Groups** dialog box appears.  
Under **Enter the object name to select (examples)**, type "SYSTEM" and click **OK**.
10. On **Specify SQL Server administrators**, click **Add...**
11. The **Select User or Groups** dialog box appears.  
Under **Enter the object name to select (examples)**, type "Administrators" and click **OK**.
12. The **Database Engine Configuration** dialog box appears. Click **Next**.

From the step 12, follow the instruction on the screen to complete the setup.

### 2.1.11. Configuring PostgreSQL for SigmaSystemCenter

SigmaSystemCenter supports PostgreSQL.

The installation procedure is the following:

### 1. Before installing SigmaSystemCenter

To use PostgreSQL, install PostgreSQL, which is not provided with the SigmaSystemCenter package, before installing SigmaSystemCenter.

For the installation of PostgreSQL, see Appendix A, "Installing/Uninstalling PostgreSQL."

### 2. Installing SigmaSystemCenter

Specify the installed PostgreSQL information when installing SigmaSystemCenter. There are the following two methods for installing SigmaSystemCenter: installing the management server components of DeploymentManager, System Monitor - Performance Monitoring Services, and SystemProvisioning individually or installing the management server components collectively.

- Installing the management server components individually

Specify the PostgreSQL information in the "Use PostgreSQL" screen of "Configure database information" in the SigmaSystemCenter Setup wizard. For the details, see 2.3.5, "Configuring Database (Using Existing Database)."

- Installing the management server components collectively

Run the SigmaSystemCenter installer with specifying 1 to the "/DBTYPE=" option and the PostgreSQL information to the "/PSQLSERVERIP=", "/PSQLUSERNAME=", "/PSQLPASSWORD=", and "/PSQLPORT=" options. For the details, see 2.4.1, "Beginning the Installation."

## 2.1.12. Notes on Installing DeploymentManager and SystemProvisioning

If IIS does not include Default Web Site in itself, the installation of DeploymentManager and SystemProvisioning will fail. Ensure that there is Default Web Site of IIS before start installation.

If Default Web Site does not exist or if you want to create virtual directories of DeploymentManager and SystemProvisioning on other Web site, execute the following command during executing the SigmaSystemCenter installer.

Set *WebSiteName* to the name of the Web site that exists in IIS.

```
Installation DVD-R:\ManagerSetup.exe /IISWEBSITE="WebSiteName"
```

## 2.1.13. Notes on Installing in Management Server

- ◆ You cannot use a SigmaSystemCenter management server as a domain controller.

- ◆ Microsoft does not recommend installing SQL Server on a domain controller. For this reason, if you use an SQL Server as the database of SigmaSystemCenter, do not install SigmaSystemCenter on a domain controller, otherwise you may encounter an installation error of the SQL Server.

For more information, click the following URLs:

- For SQL Server 2008 R2  
[https://msdn.microsoft.com/en-us/library/ms143506\(v=sql.105\)](https://msdn.microsoft.com/en-us/library/ms143506(v=sql.105))
- For SQL Server 2012  
[https://msdn.microsoft.com/en-us/library/ms143506\(v=sql.110\)](https://msdn.microsoft.com/en-us/library/ms143506(v=sql.110))
- For SQL Server 2014  
[https://msdn.microsoft.com/en-us/library/ms143506\(v=sql.120\)](https://msdn.microsoft.com/en-us/library/ms143506(v=sql.120))
- For SQL Server 2016  
[https://msdn.microsoft.com/en-us/library/ms143506\(v=sql.130\)](https://msdn.microsoft.com/en-us/library/ms143506(v=sql.130))

## 2.1.14. Configuring Database to Different Server from Management Server

The following describes when you configure a database, for which SigmaSystemCenter components are used, to a different server from a management server.

- ◆ For SystemProvisioning
  - If you use SQL Server as the configuration database of SystemProvisioning, you can move the database to a different machine from the management server after installing SigmaSystemCenter. For the details, refer to Appendix C, "Transferring the Configuration Database (For SQL Server)" in *NEC SigmaSystemCenter Data Reference Guide*.
  - If you use PostgreSQL as the configuration database of SystemProvisioning, you can configure the database to a different machine from the management server when installing SigmaSystemCenter. For the details, see 2.3.5, "Configuring Database (Using Existing Database)."

Besides the above, you can also move the database to a different machine from the management server after installing SigmaSystemCenter. For the details, refer to Appendix D, "Transferring the Configuration Database (For PostgreSQL)" in *NEC SigmaSystemCenter Data Reference Guide*.

- ◆ For System Monitor - Performance Monitoring Services
  - If you use SQL Server as the database of System Monitor - Performance Monitoring Services, you can move the database to a different machine from

the management server after installing SigmaSystemCenter. For the details, refer to Appendix B, "Transferring the Database (For SQL Server)" in *System Monitor - Performance Monitoring Services User's Guide*.

- If you use PostgreSQL as the database of System Monitor - Performance Monitoring Services, you can configure the database to a different machine from the management server when installing SigmaSystemCenter. For the details, see 2.3.5, "Configuring Database (Using Existing Database)."

Besides the above, you can also move the database to a different machine from the management server after installing SigmaSystemCenter. For the details, refer to Appendix C, "Transferring the Database (For PostgreSQL)" in *System Monitor - Performance Monitoring Services User's Guide*.

◆ For DeploymentManager

You can configure the database of DeploymentManager to a different machine from the management server when installing SigmaSystemCenter. For the details, see 2.3.5, "Configuring Database (Using Existing Database)."

Besides the above, you can also move the database to a different machine from the management server after installing SigmaSystemCenter. For the details, refer to 1.7, "Database Transfer Procedure" in *DeploymentManager Caution and Trouble Shooting Reference Guide*.

### 2.1.15. Notes on Installing SigmaSystemCenter on Windows Server 2012 R2

Before installing SigmaSystemCenter on Windows Server 2012 R2, you need to install Windows Server 2012 R2 Update (KB2919355), a cumulative set of security updates and critical updates.

Without the update, you cannot install .NET Framework 4.6.2.

Check and install the update as the following:

1. Run Msinfo32.exe to check the version of Windows Server 2012 R2.

With Windows Server 2012 R2 Update (KB2919355), the value of Hardware Abstraction Layer is 6.3.9600.17031.

2. If the value is less than 6.3.9600.17031, install the update. For the details, refer to the following:

<https://www.microsoft.com/en-us/download/details.aspx?id=42334>

## 2.2. Installing Management Server Components

The following sections provide procedures to install the management server components.

For installing the management server components individually, see Section 2.3, "Installing Management Server Components Individually."

For installing the management server components collectively, see Section 2.4, "Installing Management Server Component Collectively."

You may need to configure some more settings after installing all the management server components. After completing the installation of all the components, see Section 2.5, "After Installing Management Server Components" to configure the settings as needed.

## 2.3. Installing Management Server Components Individually

This section provides procedures to install the management server components individually on a management server.

Starting the installer (ManagerSetup.exe) without options or parameters, the installation wizard starts.

If you want to install the necessary components individually, see the following subsections.

### 2.3.1. Beginning the Installation

1. Insert the *SigmaSystemCenter DVD-R* into the DVD drive.
2. Enter the following command from a command prompt to start the installer:  
`Installation DVD-R:\ManagerSetup.exe`
3. The installation wizard starts.



Follow the direction of the wizard to install SigmaSystemCenter.

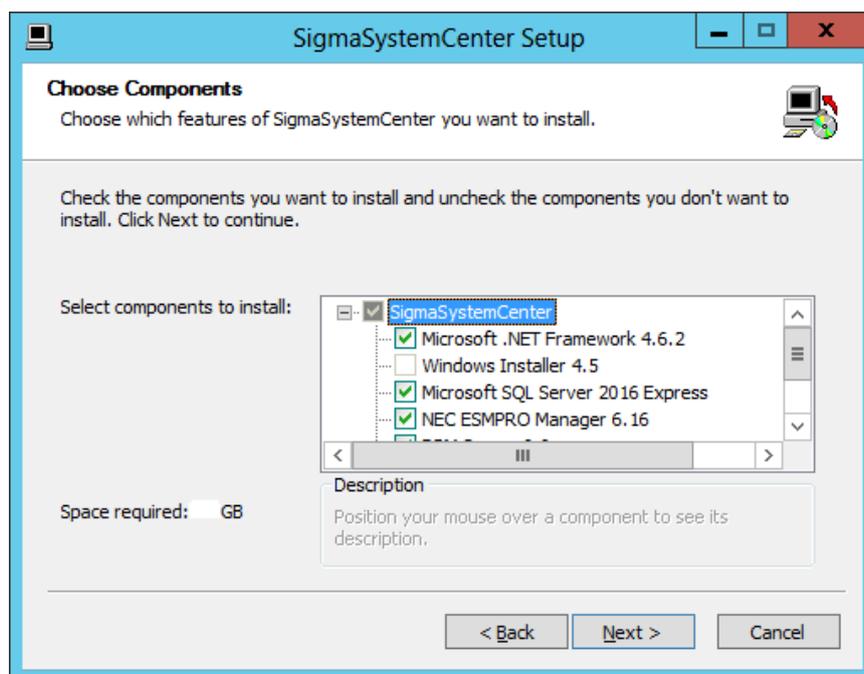
The wizard screens will appear as explained in the next subsections: from Subsection 2.3.2, "Selecting Components" to 2.3.10, "Completing the Installation."

## 2.3.2. Selecting Components

The screen to select components appears.

Select components to install, and click **Next**.

If the current version's component is already installed, the check box cannot be selected.

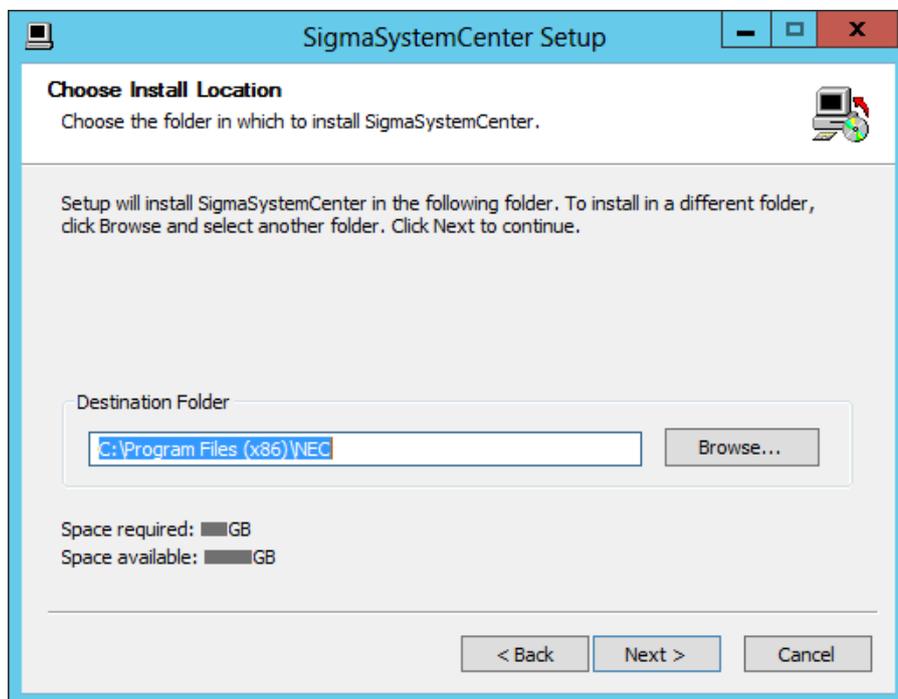


<b>SigmaSystemCenter</b>	If this check box is selected, the following check boxes located under this check box will be selected automatically.
<b>Microsoft .NET Framework 4.6.2</b>	Installs .NET Framework 4.6.2.
<b>Windows Installer 4.5</b>	Installs Windows Installer 4.5.
<b>Microsoft SQL Server 2016 Express</b>	Installs SQL Server 2016 Express. You can use an existing database by clearing this check box.
<b>NEC ESMPRO Manager</b>	Installs NEC ESMPRO Manager. If this check box is selected, <b>.NET Framework 4.6.2</b> will also be selected automatically.
<b>DPM Server</b>	Installs DPM Server. This check box can be selected only if IIS is installed. If this check box is selected, <b>Microsoft .NET Framework 4.6.2</b> and <b>Windows Installer 4.5</b> will also be selected automatically.

<p><b>System Monitor - Performance Monitoring Services</b></p>	<p>Installs System Monitor - Performance Monitoring Services.</p> <p>If this check box is selected, <b>Microsoft .NET Framework 4.6.2, Windows Installer 4.5</b> and <b>Microsoft SQL Server 2016 Express</b> will also be selected automatically.</p> <p>If you use an existing database, clear <b>Microsoft SQL Server 2016 Express</b> check box manually.</p>
<p><b>SystemProvisioning</b></p>	<p>Installs SystemProvisioning.</p> <p>This check box can be selected only if IIS is installed.</p> <p>If this check box is selected, <b>Microsoft .NET Framework 4.6.2, Windows Installer 4.5</b> and <b>Microsoft SQL Server 2016 Express</b> will also be selected automatically.</p> <p>If you use an existing database, clear <b>Microsoft SQL Server 2016 Express</b> check box manually.</p>

### 2.3.3. Specifying the Installation Destination Folder

The screen to specify the installation destination folder appears if any of the following components has been selected on the previous screen: NEC ESM PRO Manager, DPM Server, System Monitor - Performance Monitoring Services or SystemProvisioning. Specify the installation destination folder, and click **Next**.



<b>Destination Folder</b>	<p>Specify the installation destination folder path of NEC ESMPRO Manager, DPM Server, System Monitor - Performance Monitoring Services and SystemProvisioning.</p> <p>The folder path length must be 80 bytes or less. The default is "%ProgramFiles(x86)%\NEC."</p> <p>Specify an absolute path. The path can contain single-byte alphanumeric characters, single-byte spaces, and single-byte symbols.</p> <p>Do not use the following single-byte symbols: / * ? &lt; &gt; "   : ; % =</p> <ul style="list-style-type: none"> <li>▪ If NEC ESMPRO Manager is to be installed, do not specify a folder path including Unicode unique characters.</li> </ul>
---------------------------	--

---

**Note:** You cannot specify "%ProgramFiles%" as an installation folder.

---

## 2.3.4. Configuring Database (Installing SQL Server From Installer)

When you select SQL Server 2016 Express in 2.3.2, "Selecting Components," the following figures are displayed. If you do not select SQL Server 2016 Express, see 2.3.5, "Configuring Database (Using Existing Database)."

Configure database information for the following management server components and follow the displayed instructions:

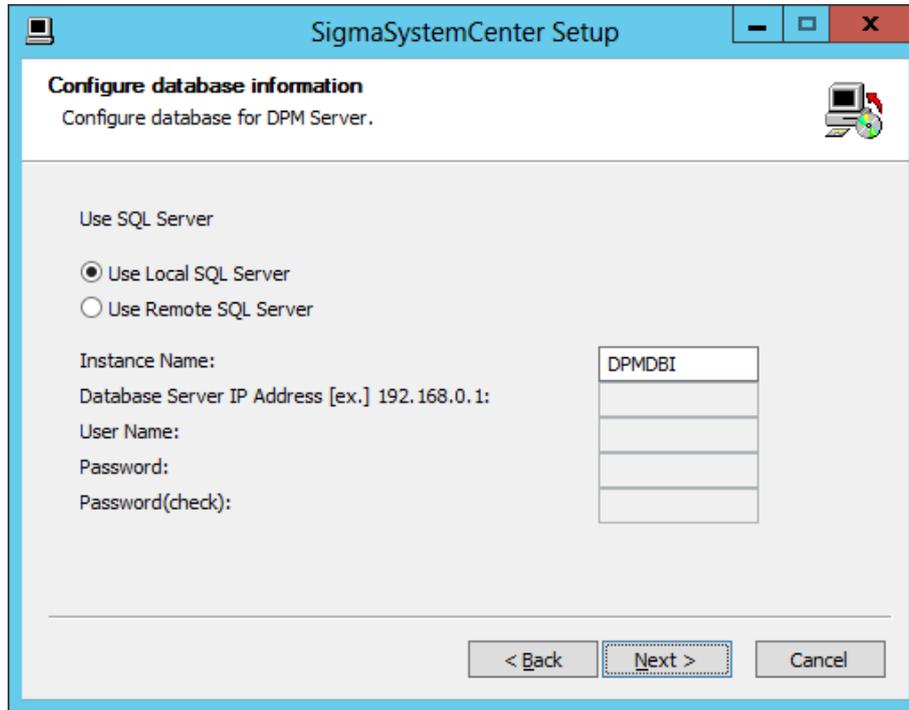
- ◆ DPM Server
- ◆ SystemProvisioning, System Monitor - Performance Monitoring Services

---

**Notes:**

- If you type an existing instance name in the **Instance Name** text box of this screen, the SQL instance is not newly installed.
  - If you install only DPM Server (without SystemProvisioning and/or System Monitor - Performance Monitoring Services), do not select SQL Server 2016 Express in 2.3.2, "Selecting Components." In this case, install the DPM Server by consulting 2.3.5, "Configuring Database (Using Existing Database)." If there is no SQL instance in your system, SQL Server 2016 Express is installed along with the DPM Server.
-

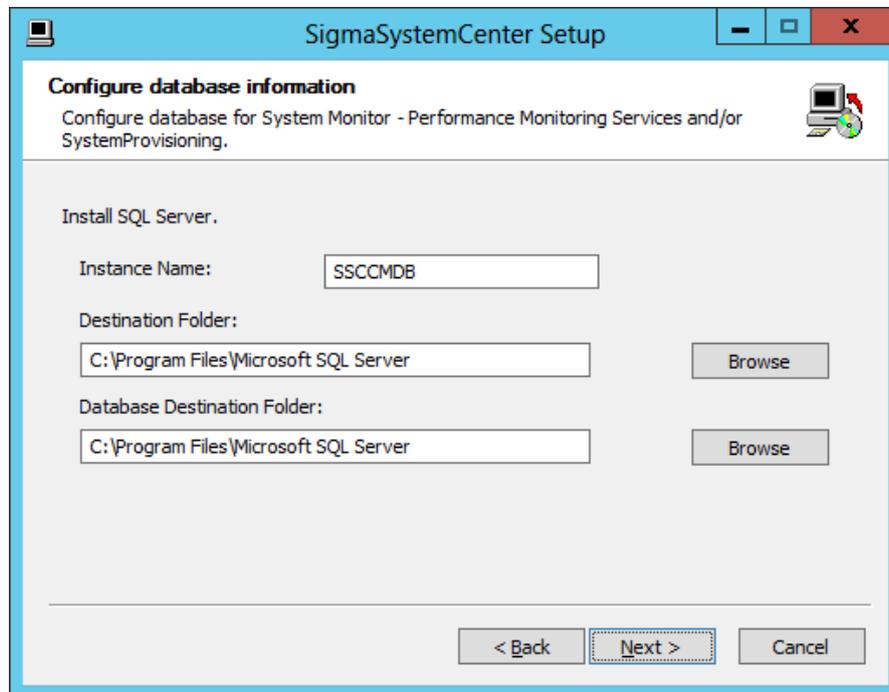
<Configuring database information for DPM Server>



Use SQL Server	
<b>Use Local SQL Server</b>	Installs a new instance of SQL Server 2016 Express on the local machine.
<b>Use Remote SQL Server</b>	Uses an instance of SQL Server configured in a different machine. You must configure the instance in advance. For the configuration, refer to Appendix D, "Configuring the Database Server of SQL Server" in <i>DeploymentManager Installation Guide</i> .  In Instance Name, User Name, and Password, type the same values as the instance is used. If you change the values, refer to 1.7, "Database Transfer Procedure" in <i>DeploymentManager Caution Notes and Trouble Shooting Reference Guide</i> .
<b>Instance Name</b>	Type an instance name of SQL Server. The default is DPMDBI.  Notes: <ul style="list-style-type: none"> <li>▪ Do not use the reserved key words of SQL Server (e.g., Default).</li> <li>If you use the words, a set up error occurs.</li> <li>▪ The name is not case sensitive.</li> <li>▪ The name can contain single-byte alphanumeric characters.</li> <li>▪ The maximum length is 16 bytes.</li> </ul>

<b>Database Server IP Address</b>	When you select Use Remote SQL Server, type the IP address of the SQL Server configured in a different machine.
<b>User Name</b>	When you select Use Remote SQL Server, type the user name of the SQL Server. The name length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters.
<b>Password</b>	When you select Use Remote SQL Server, type the password of the SQL Server. The password length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters.
<b>Password(check)</b>	Type the password for confirmation.

<Configuring database information for SystemProvisioning and/or System Monitor - Performance Monitoring Services>



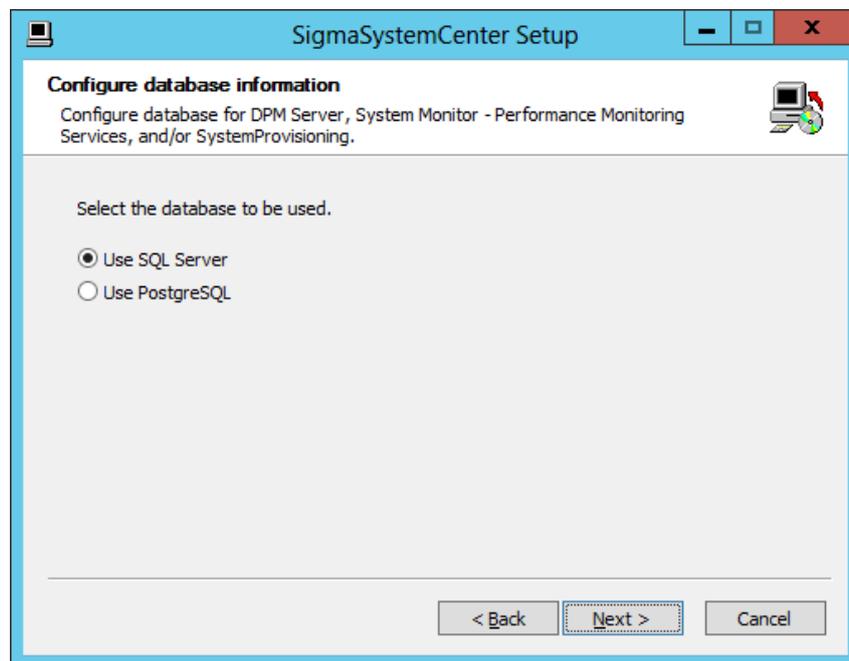
<b>Install SQL Server</b>	
<b>Instance Name</b>	<p>Type an instance name of SQL Server. The default is SSCCMDB.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>▪ Do not use the reserved key words of SQL Server (e.g., Default). If you use the words, a set up error occurs.</li> <li>▪ The name is not case sensitive.</li> <li>▪ The name can contain single-byte alphanumeric characters.</li> <li>▪ The maximum length is 16 bytes</li> </ul>
<b>Destination Folder</b>	<p>Type or select (click Browse) the destination folder of the SQL Server. The maximum length is 57 bytes. The default is %ProgramFiles%\Microsoft SQL Server.</p> <p>Specify an absolute path. The path can contain single-byte alphanumeric characters, single-byte spaces, and single-byte symbols. Do not use the following single-byte symbols: / * ? &lt; &gt; "   : ; % =</p>
<b>Database Destination Folder</b>	<p>Type or select (click Browse) the destination folder of the database. The maximum length is 57 bytes. The default is %ProgramFiles%\Microsoft SQL Server.</p> <p>Specify an absolute path. The path can contain single-byte alphanumeric characters, single-byte spaces, and single-byte symbols. Do not use the following single-byte symbols: / * ? &lt; &gt; "   : ; % =</p> <p>The database is actually installed on "&lt;Database Destination Folder&gt;\MSSQL13.&lt;Instance Name&gt;\MSSQL\Data."</p>

### 2.3.5. Configuring Database (Using Existing Database)

When you do not select SQL Server 2016 Express in 2.3.2, "Selecting Components," the following figures are displayed. If you select SQL Server 2016 Express, see 2.3.4, "Configuring Database (Installing SQL Server From Installer)."

Select one of the following existing databases and follow the displayed instructions:

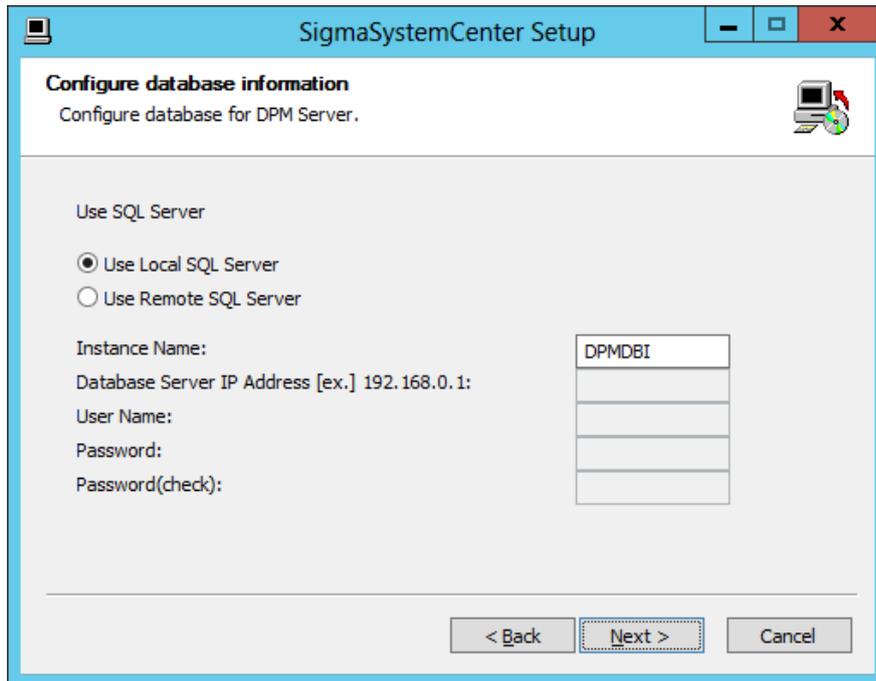
- ◆ SQL Server
- ◆ PostgreSQL



Select the database to be used	
Use SQL Server	Uses SQL Server as the database.
Use PostgreSQL	Uses PostgreSQL as the database.

- ◆ When selecting SQL Server
  - Configure database information for the following management server components:
    - DPM Server
    - SystemProvisioning, System Monitor - Performance Monitoring Services

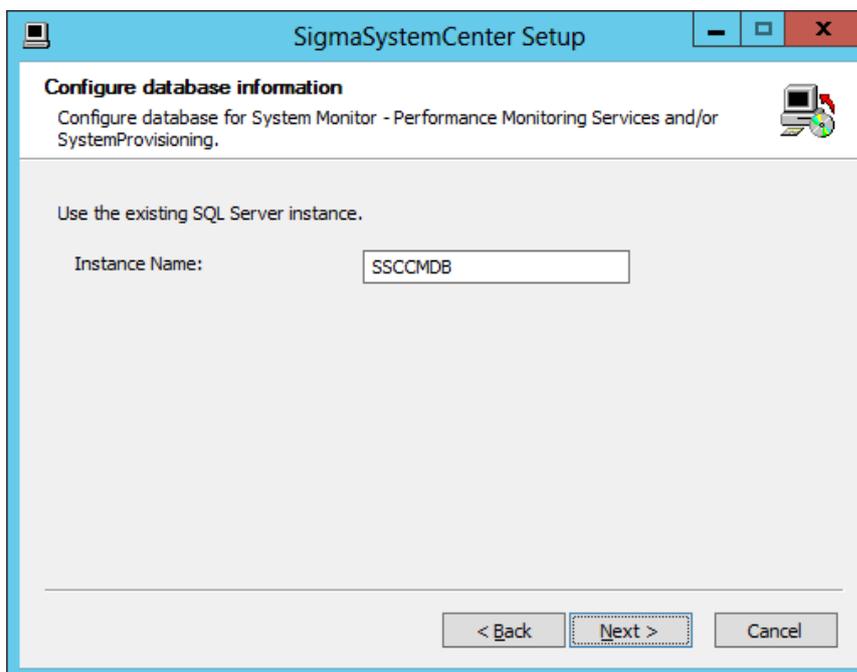
<Configuring database information for DPM Server>



Use SQL Server	
<b>Use Local SQL Server</b>	Uses an instance of SQL Server configured in the local machine.
<b>Use Remote SQL Server</b>	Uses an instance of SQL Server configured in a different machine. You must configure the instance in advance. For the configuration, refer to Appendix D, "Configuring the Database Server of SQL Server" in <i>DeploymentManager Installation Guide</i> .  In Instance Name, User Name, and Password, type the same values as the instance is used. If you change the values, refer to 1.7, "Database Transfer Procedure" in <i>DeploymentManager Caution Notes and Trouble Shooting Reference Guide</i> .
<b>Instance Name</b>	Type an instance name of SQL Server. The default is DPMDBI.  Notes: <ul style="list-style-type: none"> <li>▪ Do not use the reserved key words of SQL Server (e.g., Default).     If you use the words, a set up error occurs.</li> <li>▪ The name is not case sensitive.</li> <li>▪ The name can contain single-byte alphanumeric characters.</li> <li>▪ The maximum length is 16 bytes.</li> </ul>
<b>Database Server IP Address</b>	When you select Use Remote SQL Server, type the IP address of the SQL Server configured in a different machine.

<b>User Name</b>	When you select Use Remote SQL Server, type the user name of the SQL Server. The name length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters.
<b>Password</b>	When you select Use Remote SQL Server, type the password of the SQL Server. The password length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters and single-byte symbols.
<b>Password(check)</b>	Type the password for confirmation.

<Configuring database information for SystemProvisioning and/or System Monitor - Performance Monitoring Services>

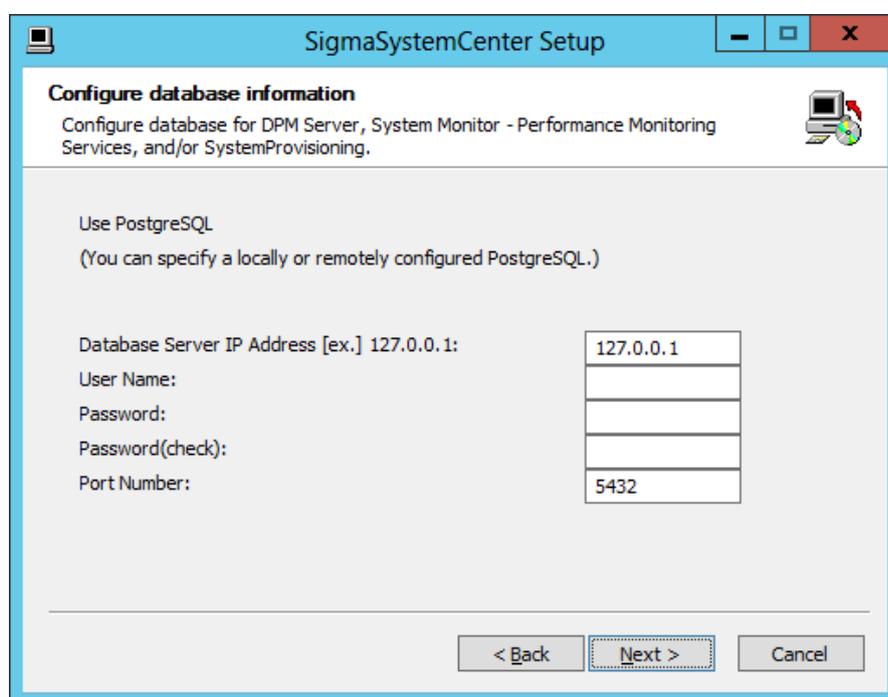


<b>Use the existing SQL Server instance</b>	
<b>Instance Name</b>	Type an instance name of SQL Server. The default is SSCCMDB.  Notes: <ul style="list-style-type: none"> <li>▪ The name is not case sensitive.</li> <li>▪ The name can contain single-byte alphanumeric characters.</li> <li>▪ The maximum length is 16 bytes.</li> </ul>

**Note:** If the specified name in **Instance Name** does not exist, the "The instance does not exist." message is displayed after clicking **Next**. If you install the instance newly, back to 2.3.2, "Selecting Components," and select Microsoft SQL Server 2016 Express.

---

- ◆ When selecting PostgreSQL  
Configure database information for the following management server components:
  - DPM Server, System Monitor - Performance Monitoring Services, SystemProvisioning



The screenshot shows a Windows-style dialog box titled "SigmaSystemCenter Setup". The main heading is "Configure database information" with a sub-heading: "Configure database for DPM Server, System Monitor - Performance Monitoring Services, and/or SystemProvisioning." Below this, it says "Use PostgreSQL (You can specify a locally or remotely configured PostgreSQL.)". There are five input fields: "Database Server IP Address [ex.] 127.0.0.1:" with the value "127.0.0.1", "User Name:" (empty), "Password:" (empty), "Password(check):" (empty), and "Port Number:" with the value "5432". At the bottom, there are three buttons: "< Back", "Next >" (highlighted with a dashed border), and "Cancel".

Use PostgreSQL	
<b>Database Server IP Address</b>	Type the IP address of a machine in which a PostgreSQL is configured. If you use a PostgreSQL configured in a local machine, type 127.0.0.1. If you use a PostgreSQL configured in a different machine, type the IP address of the machine.
<b>User Name</b>	Type the user name of the PostgreSQL. The name length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters.
<b>Password</b>	Type the password of the PostgreSQL. The password length is 1 to 30 bytes. The password can contain single-byte alphanumeric characters and single-byte symbols. Do not use the following single-byte symbols: ^ & =   \ " ; < > , / '
<b>Password(check)</b>	Type the password for confirmation.
<b>Port Number</b>	Type the port number of the PostgreSQL in the range of 1 to 65535. The default is 5432.

**Notes:**

- You must install PostgreSQL before this configuration. For the installation, see Appendix A, "Installing/Uninstalling PostgreSQL."
- If the "It cannot be connected to PostgreSQL." message is displayed after clicking **Next**, check the following:
  - Whether the PostgreSQL is installed
  - Whether the installation path of the PostgreSQL is correctly configured in the environment variable PATH
  - Whether Database Server IP Address, User Name, Password, and Port Number are correctly configured in this screen

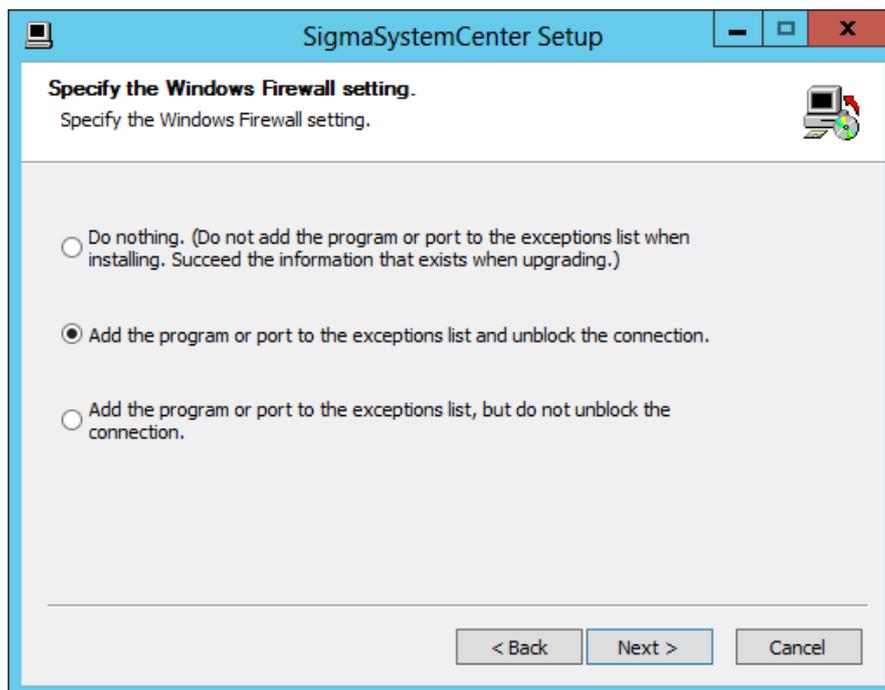
In addition to above, check the following for when configuring PostgreSQL in a different machine.

- Whether the IP address of a management server is correctly configured in the pg\_hba.conf file that located in *PostgreSQL installed path(\*)\data*
  - \* The default is C:\Program Files\PostgreSQL\9.5.
- Whether the port number is opened in the firewall

### 2.3.6. Specifying Windows Firewall Setting

The screen to configure Windows Firewall setting appears if any of the following components has been selected in Subsection 2.3.2, "Selecting Components": NEC ESMPRO Manager, DPM Server, System Monitor - Performance Monitoring Services or SystemProvisioning.

Specify Windows Firewall setting, and click **Next**.



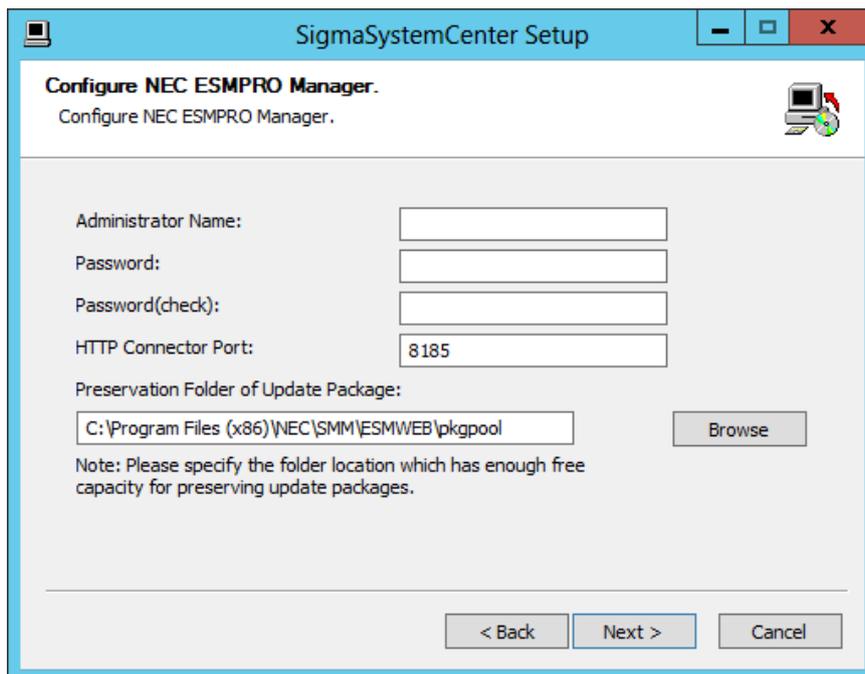
<p><b>Do nothing. (Do not add the program or port to the exceptions list when installing. Succeed the information that exists when upgrading.)</b></p>	<p>If this option is selected, the program or port will not be added to the exceptions list when installing; Add the program or port to the exceptions list manually after the installation.</p>
<p><b>Add the program or port to the exceptions list and unblock the connection.</b></p>	<p>If this option is selected, the program or port will be added to the exceptions list and the connection will be unblocked. This option is selected by default.</p>
<p><b>Add the program or port to the exceptions list, but do not unblock the connection.</b></p>	<p>If this option is selected, the program or port will be added to the exceptions list, but the connection is not unblocked. Unblock the connection manually after the installation.</p>

**Reference:** Regarding added programs or ports to the exceptions list, see Appendix B "Networks and Protocols."

### 2.3.7. Configuring NEC ESMPRO Manager

The screen to configure NEC ESMPRO Manager appears if NEC ESMPRO Manager has been selected in Subsection 2.3.2, "Selecting Components."

Configure the required information to install NEC ESMPRO Manager, and click **Next**.



<b>Administrator Name</b>	Specify NEC ESMPRO Manager Administrator name. The length of this item must be within 1 to 16 bytes.
<b>Password</b>	Specify password to login NEC ESMPRO Manager. The length of this item must be within 6 to 16 bytes.
<b>Password (check)</b>	Enter the password again for confirmation.
<b>HTTP Connector Port</b>	Specify the HTTP connection port that is to be used by NEC ESMPRO Manager. Enter the value within 1 to 65535. The default value is "8185."
<b>Preservation Folder of Update Package</b>	Specify the folder path to save update packages. Prepare enough space capacity for the folder. Update packages of firmware and software will be stored in the folder. The default value is " <i>NEC ESMPRO Manager Installation Folder\ESMWEB\pkgpool.</i> " Specify an absolute path. The path can contain single-byte alphanumeric characters, single-byte spaces, and single-byte symbols. Do not use the following single-byte symbols: / * ? < > "   : ; % =

---

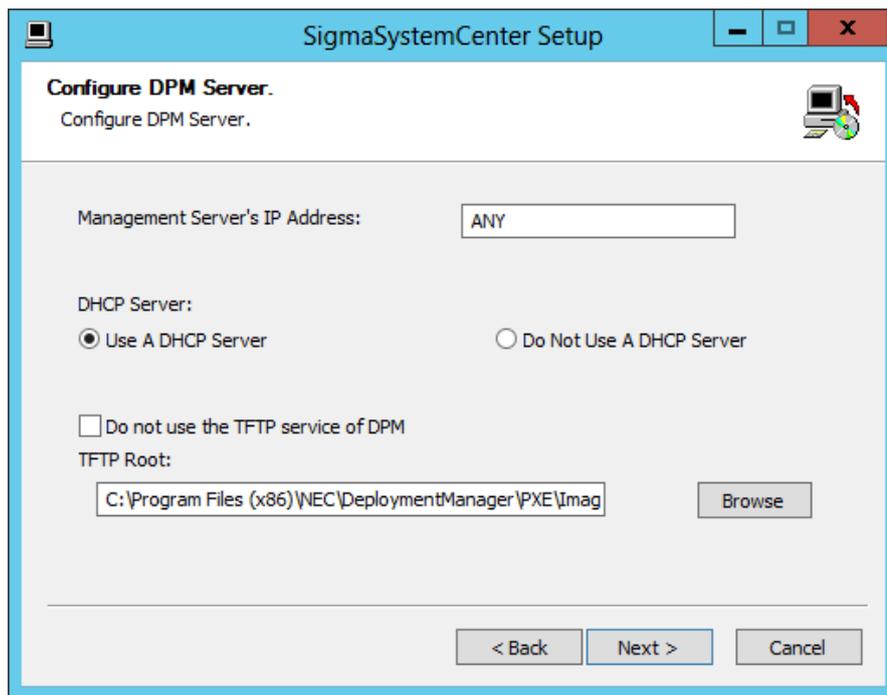
**Note:** The default NEC ESMPRO Manager Installation Folder path is "%ProgramFiles(x86)%\NEC\SMM."

---

### 2.3.8. Configuring DeploymentManager

The screen to configure DPM Server appear if DPM Server has been selected in Subsection 2.3.2, "Selecting Components."

Configure the required information to install DPM Server, and click **Next**.



<b>Management Server's IP Address</b>	Specify the management server IP address. Select either of the following items: ANY: All the LAN board will be used in DPM Server. <i>IP address configured on the LAN board in use: A specific LAN board implemented on DPM Server will be used.</i>
<b>DHCP Server</b>	Specify whether the DHCP Server is used.
<b>Use A DHCP Server</b>	Usually specify this to use all features of DeploymentManager. This item is selected by default.
<b>Do Not Use A DHCP Server</b>	Some features cannot be used. For more details, see Appendix B, "For Customers Who Do Not Install a DHCP Server" in <i>DeploymentManager First Step Guide</i> .
<b>Do not use the TFTP service of DPM</b>	Select this item if you intend to use other TFTP services than DeploymentManager. *1
<b>TFTP Root</b>	Specify the path for the TFTP root. The default value is " <i>DeploymentManager installation folder\PXE\Images</i> ." The path length must be 120 bytes or less.

	<p>Specify an absolute path that consists of alphanumeric characters, spaces, and symbols except the following characters:</p> <pre>/*?&lt;&gt;" :; *1</pre>
--	--

\*1

- You cannot change this setting from the DeploymentManager Web console after DPM Server installation.
- Note the following on the **TFTP Root** setting:
  - If the **Do not use the TFTP service of DPM** check box is selected, you should specify other TFTP root folder than that where DPM Server is installed for **TFTP Root**.
 

If you specify the TFTP root folder where DPM Server is installed, the folder you specified as a TFTP root folder is also removed during DPM Server uninstallation. Because of this behavior, the TFTP services (except DeploymentManager's TFTP service) cannot browse the folder anymore.
  - You cannot specify the following folders:
    - Folders in the (*DeploymentManager installation folder*\PXE\Images) folder
    - Windows system folders
    - Root folders of each drive  
E.g., D:\
    - Network drives
  - Make sure that the folder you specified as a TFTP root has a sufficient free space.

---

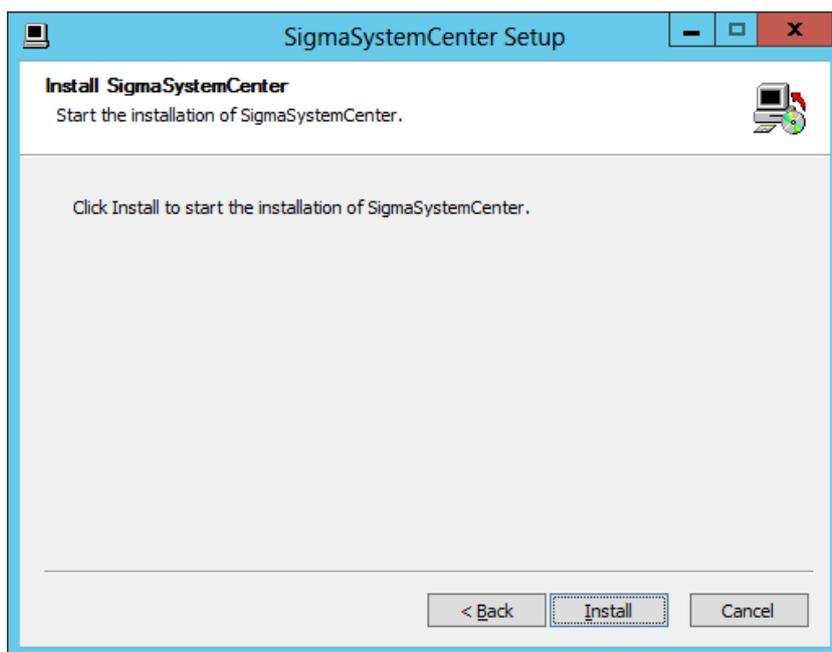
**Note:** The respective settings of the images below cannot be changed through the Web console after DPM Server is installed.

---

### 2.3.9. Starting the Installation

The confirmation dialog box appears before starting installation of the selected components.

Click **Install** to start the installation.



- ◆ If .NET Framework 4.6.2, Windows Installer 4.5, SQL Server 2016 Express and/or DPM Server have been selected

If restart is necessary after installation of .NET Framework 4.6.2, Windows Installer 4.5, SQL Server 2016 Express and/or DPM Server, the restart prompt will appear.

- If you click **Yes**, the Windows is restarted automatically. After the restart, log on to the Windows. Then SigmaSystemCenter installation is resumed automatically.
- If you click **No**, the installation is end. In this case, before you resume the installation, you must restart the Windows manually. After the restart, do the installation again to install the rest of components. For the installation, see 2.3.1, "Beginning the Installation."

---

**Note:** In the above procedure, when you choose Yes and then log on to the Windows, you must log on with the same user as you used when starting the procedure.

---

- ◆ If NEC ESM PRO Manager has been selected

The following message may appear after the installation:

```
This program might not have installed correctly.
```

In such a case, click **This program installed correctly** or **Cancel** to close the dialog because the installation completed successfully.

### 2.3.10. Completing the Installation

When all the selected components have been installed, the installation complete screen appears.

If the restart prompt appears, restart the system.

The management server components individual installation is now complete.

See Section 2.5, "After Installing Management Server Components" to configure some more settings as needed.

## 2.4. Installing Management Server Component Collectively

This section provides procedures to install the management server components collectively to a management server.

Starting the installer with installation options and parameters, the installer installs each component without displaying wizard screen.

If you want to install the components collectively, see the following subsection.

### 2.4.1. Beginning the Installation

1. Insert the *SigmaSystemCenter DVD-R* into the DVD drive.
2. Enter the following command from a command prompt to start the installer:

```
Installation DVD-R:\ManagerSetup.exe /S
[ /DBTYPE=x ]
[ /INSTANCENAME="InstanceName" ]
[ /SQLSERVERIP=xxx.xxx.xxx.xxx ]
[ /SQLUSERNAME="PqslUserName" ]
[ /SQLPASSWORD="PqslPassword" ] [ /SQLPORT=Port ]
[ /FIREWALL=y ]
[ /MANAGEMENTSERVERIP="xxx.xxx.xxx.xxx" ]
[ /DPMINSTANCENAME="DpmInstanceName" ]
[ /DPMDBSRVREMOTE=z ] [ /DPMDBSRVIP=xxx.xxx.xxx.xxx ]
[ /DPMDBSRVUSERNAME="UserName" ]
[ /DPMDBSRVPASSWORD="DpmPassword" ]
/ADMINNAME="AdminName" /PASSWORD="Password"
[ /D=InstallPath ]
```

E.g. 1, for SQL Server

```
D:\ManagerSetup.exe /S
/DBTYPE=0
/INSTANCENAME="SSCCMDB"
/FIREWALL=1 /MANAGEMENTSERVERIP="192.168.1.1"
/DPMINSTANCENAME="DPMDBI" /DPMDBSRVREMOTE=1
/DPMDBSRVIP=192.168.1.10 /DPMDBSRVUSERNAME="DpmUser"
/DPMDBSRVPASSWORD="DpmPassword"
/ADMINNAME="user" /PASSWORD="password"
/D=C:\Program Files (x86)\NEC
```

E.g. 2, for PostgreSQL

```
D:%ManagerSetup.exe /S
/DBTYPE=1
/PSQLSERVERIP=127.0.0.1
/PSQLUSERNAME="PsqlUser"
/PSQLPASSWORD="PsqlPassword" /PSQLPORT=5432
/FIREWALL=1
/MANAGEMENTSERVERIP=192.168.1.1
/ADMINNAME="AdminName" /PASSWORD="Password"
/D=C:\Program Files (x86)\NEC
```

---

**Notes:**

- Do not include quotation marks (") in the specification of the option: **/D**.
    - Correct Example: /D=C:\Program Files (x86)\NEC
    - Incorrect Example: /D="C:\Program Files (x86)\NEC"
  - The specification of the option **/D** must be placed to the last.
  - The following options are required: **/ADMINNAME** and **/PASSWORD**. However, if NEC ESMPRO Manager Ver5 or later is already installed, do not specify them.
  - Just after executing "ManagerSetup.exe /S <other options>" from a command prompt, the prompt appears on the command prompt window. This looks as if installation has completed. If you want to suppress a command prompt until installation has completed, execute "cmd /c "ManagerSetup.exe /S <other options >" from a command prompt.
  - If you want to upgrade management server components, contact your service representative.
- 

Option	Description
/S	Indicates to install components collectively.
/DBTYPE	Specify the type of database for DPM Server, System Monitor - Performance Monitoring Services, and SystemProvisioning. Specify 0 or 1 to x. Without specifying, 0, the default value, is applied.
0	SQL Server is used.
1	PostgreSQL is used. The /PSQLSERVERIP, /PSQLUSERNAME, /PSQLPASSWORD, and /PSQLPORT options are required. Without these, the installation is canceled. You must install PostgreSQL before using this option. For the installation, see Appendix A, "Installing/Uninstalling PostgreSQL."

Option	Description						
/INSTANCENAME	<p>When you use SQL Server, specify the instance name of SQL that System Monitor - Performance Monitoring Services and SystemProvisioning use. The instance name length must be 16 bytes or less. If this option is not specified, the installer uses the default value "SSCCMDB."</p> <p>When specifying an instance name, be aware of the following:</p> <ul style="list-style-type: none"> <li>▪ You cannot use SQL Server reserved keywords (such as "Default") to specify an instance name. Using reserved keywords causes a setup error.</li> <li>▪ An instance name is not case sensitive.</li> <li>▪ An instance name can contain only alphanumeric characters.</li> </ul>						
/PSQLSERVERIP	When you use PostgreSQL, specify the IP address of a machine in which the PostgreSQL is configured.						
/PSQLUSERNAME	When you use PostgreSQL, specify the user name of the PostgreSQL. The name length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters.						
/PSQLPASSWORD	<p>When you use PostgreSQL, specify the password of the PostgreSQL. The password length is 1 to 30 bytes. The password can contain single-byte alphanumeric characters and single-byte symbols. Do not use the following single-byte symbols: ^ &amp; =   \ " ; &lt; &gt; , / ' </p>						
/PSQLPORT	When you use PostgreSQL, specify the port number of the PostgreSQL in the range of 1 to 65535.						
/FIREWALL	<p>Specifies the Windows Firewall setting regarding DPM Server, System Monitor - Performance Monitoring Services, SystemProvisioning and NEC ESMPRO Manager. *1</p> <p>Specify one of the following values in <i>y</i>.</p> <p>If this option is not specified, the installer uses the default value "1."</p> <table border="1" data-bbox="459 1473 1431 1863"> <tbody> <tr> <td data-bbox="459 1473 842 1599">0</td> <td data-bbox="842 1473 1431 1599">If this option is selected, the program or port is not added to the exceptions list when installing. Add the program or port to the exceptions list manually after the installation.</td> </tr> <tr> <td data-bbox="459 1599 842 1724">1</td> <td data-bbox="842 1599 1431 1724">If this option is selected, the program or port is added to the exceptions list and the connection is unblocked. This option is selected by default.</td> </tr> <tr> <td data-bbox="459 1724 842 1863">2</td> <td data-bbox="842 1724 1431 1863">If this option is selected, the program or port is added to the exceptions list, but the connection is not unblocked. Unblock the connection manually after the installation.</td> </tr> </tbody> </table>	0	If this option is selected, the program or port is not added to the exceptions list when installing. Add the program or port to the exceptions list manually after the installation.	1	If this option is selected, the program or port is added to the exceptions list and the connection is unblocked. This option is selected by default.	2	If this option is selected, the program or port is added to the exceptions list, but the connection is not unblocked. Unblock the connection manually after the installation.
0	If this option is selected, the program or port is not added to the exceptions list when installing. Add the program or port to the exceptions list manually after the installation.						
1	If this option is selected, the program or port is added to the exceptions list and the connection is unblocked. This option is selected by default.						
2	If this option is selected, the program or port is added to the exceptions list, but the connection is not unblocked. Unblock the connection manually after the installation.						
/MANAGEMENTSERVERIP	<p>Specifies the IP address of the DPM Server. If this option is not specified, all connected IP addresses are assigned as IP addresses that DPM Server uses.</p>						

Option	Description				
/DPMINSTANCENAME	<p>When you use SQL Server, specify the instance name of SQL that DeploymentManager uses.</p> <p>The instance name length must be 16 bytes or less.</p> <p>If this option is not specified, the installer uses the default value "DPMDBI."</p> <p>When specifying an instance name, be aware of the following:</p> <ul style="list-style-type: none"> <li>▪ You cannot use SQL Server reserved keywords (such as "Default") to specify an instance name. Using reserved keywords causes a setup error.</li> <li>▪ An instance name is not case sensitive.</li> <li>▪ An instance name can contain only alphanumeric characters.</li> </ul>				
/DPMDBSRVREMOTE	<p>When you use SQL Server, specify whether the DeploymentManager uses an SQL Server that is configured in a different machine. Specify one of the following values in z.</p> <p>If this option is not specified, the installer uses the default value "0."</p> <table border="1" data-bbox="411 936 794 1711"> <tbody> <tr> <td data-bbox="411 936 794 1155">0</td> <td data-bbox="794 936 1385 1155"> <p>If this option is selected, the DeploymentManager does not use the SQL Server that is configured in a different machine.</p> <p>You cannot specify /DPMDBSRVIP, /DPMDBSRVUSERNAME, and /DPMDBSRVPASSWORD. If they are specified, installation is cancelled.</p> </td> </tr> <tr> <td data-bbox="411 1155 794 1711">1</td> <td data-bbox="794 1155 1385 1711"> <p>If this option is selected, the DeploymentManager uses the SQL Server that is configured in a different machine.</p> <p>You cannot omit to specify /DPMDBSRVIP, /DPMDBSRVUSERNAME, or /DPMDBSRVPASSWORD. If they are not specified, installation is cancelled. In this case, build the database in advance. For how to build a database, see Appendix D, "Configuring the Database Server of SQL Server" in <i>DeploymentManager Installation Guide</i>.</p> <p>Specify the same instance name, the user name and the password as those you specified when building the database. If you specify the different values for them, installation completes successfully but DPM Server does not work properly. In this case, 1.7, "Database Transfer Procedure" in <i>DeploymentManager Caution Notes and Trouble Shooting Reference Guide</i>.</p> </td> </tr> </tbody> </table>	0	<p>If this option is selected, the DeploymentManager does not use the SQL Server that is configured in a different machine.</p> <p>You cannot specify /DPMDBSRVIP, /DPMDBSRVUSERNAME, and /DPMDBSRVPASSWORD. If they are specified, installation is cancelled.</p>	1	<p>If this option is selected, the DeploymentManager uses the SQL Server that is configured in a different machine.</p> <p>You cannot omit to specify /DPMDBSRVIP, /DPMDBSRVUSERNAME, or /DPMDBSRVPASSWORD. If they are not specified, installation is cancelled. In this case, build the database in advance. For how to build a database, see Appendix D, "Configuring the Database Server of SQL Server" in <i>DeploymentManager Installation Guide</i>.</p> <p>Specify the same instance name, the user name and the password as those you specified when building the database. If you specify the different values for them, installation completes successfully but DPM Server does not work properly. In this case, 1.7, "Database Transfer Procedure" in <i>DeploymentManager Caution Notes and Trouble Shooting Reference Guide</i>.</p>
0	<p>If this option is selected, the DeploymentManager does not use the SQL Server that is configured in a different machine.</p> <p>You cannot specify /DPMDBSRVIP, /DPMDBSRVUSERNAME, and /DPMDBSRVPASSWORD. If they are specified, installation is cancelled.</p>				
1	<p>If this option is selected, the DeploymentManager uses the SQL Server that is configured in a different machine.</p> <p>You cannot omit to specify /DPMDBSRVIP, /DPMDBSRVUSERNAME, or /DPMDBSRVPASSWORD. If they are not specified, installation is cancelled. In this case, build the database in advance. For how to build a database, see Appendix D, "Configuring the Database Server of SQL Server" in <i>DeploymentManager Installation Guide</i>.</p> <p>Specify the same instance name, the user name and the password as those you specified when building the database. If you specify the different values for them, installation completes successfully but DPM Server does not work properly. In this case, 1.7, "Database Transfer Procedure" in <i>DeploymentManager Caution Notes and Trouble Shooting Reference Guide</i>.</p>				
/DPMDBSRVIP	<p>Specify the IP address of the SQL Server that is configured in a different machine.</p> <p>This option is available when you specify 1 in the /DPMDBSRVREMOTE option.</p>				

Option	Description
/DPMDBSRVUSERNAME	Specify the user name of the SQL Server that is configured in a different machine. The name length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters. This option is available when you specify 1 in the /DPMDBSRVREMOTE option.
/DPMDBSRVPASSWORD	Specify the user password of the SQL Server that is configured in a different machine. The password length is 1 to 30 bytes. The password can contain single-byte alphanumeric characters and single-byte symbols. This option is available when you specify 1 in the /DPMDBSRVREMOTE option.
/ADMINNAME	Specify NEC ESMPRO Manager Administrator name. The length of this item must be within 1 to 16 bytes. (Required *2)
/PASSWORD	Specify password to login NEC ESMPRO Manager. The length of this item must be within 6 to 16 bytes. (Required *2)
/D	<ul style="list-style-type: none"> <li>▪ Specify the installation destination folder path of NEC ESMPRO Manager, DPM Server, System Monitor - Performance Monitoring Services and SystemProvisioning.</li> <li>▪ The length of this item must be 80 bytes or less.</li> <li>▪ If this option is not specified, the installer uses the default "%ProgramFiles(x86)%\NEC."</li> <li>▪ Specify an absolute path. The path can contain single-byte alphanumeric characters, single-byte spaces, and single-byte symbols.</li> </ul> <p>Do not use the following single-byte symbols: / * ? &lt; &gt; "   : ; % =</p> <ul style="list-style-type: none"> <li>▪ If NEC ESMPRO Manager is to be installed, do not specify a folder path including Unicode unique characters.</li> </ul>

\*1 Regarding added programs or ports to the exceptions list, see Appendix B "Networks and Protocols."

\*2 The options are required basically. However, if NEC ESMPRO Manager Ver5 or later is already installed, do not specify them.

If the /S option is not specified, the installation wizard for the individual installation starts. Continue the individual installation or close the installation wizard and execute the collective installation again.

---

**Notes:**

- If the required options are not specified, installation will be cancelled. In this case, specify the required options correctly and execute the installation again.
  - When installing SQL Server, an SQL instance for System Monitor - Performance Monitoring Services, SystemProvisioning, and DeploymentManager is installed in the default path (%ProgramFiles%\Microsoft SQL Server). You cannot specify another path.
  - You cannot specify "%ProgramFiles%" as an installation folder.
- 

**3.** The installation starts.

The installer installs .NET Framework 4.6.2, Windows Installer 4.5 first.

If restart is necessary after installation of .NET Framework 4.6.2 and Windows Installer 4.5, SQL Server 2016 Express and DPM Server the restart prompt will appear.

If **Yes** is clicked, the system will be restarted automatically. If **No** is clicked, the installer will finish, therefore, restart the system manually. Ensure that the system has been restarted before installing the other selected components. After the restart, execute the installation by following the procedure 2 again.

While installing the components, some screens appear but no action is required. The installation continues and finishes properly.

The installer ends with the end code on the subsequent table. The installer records the installer log and the end code in the following file:

<If you are using Windows Server 2008 R2 or later>

%USERPROFILE%\AppData\Local\SSC\SetupProvisioning.log

---

**Note:** You can refer to the log with the following procedure:

**1.** Move the current directory on the Command Prompt window.

```
cd %USERPROFILE%\AppData\Local\SSC
```

**2.** Open a log file with Notepad.

```
notepad SetupProvisioning.log
```

---

	End code		Component to be installed	Order
	Restart unnecessary	Restart necessary		
Success	0	64	-	-
Error *1	32	96	-	-
Error *2	1	65	.NET Framework 4.6.2	1
Error *2	2	66	Windows Installer 4.5	2

Error *2	3	67	SQL Server 2016 Express	3
Error *2	4	68	NEC ESMPRO Manager	4
Error *2	5	69	DPM Server	5
Error *2	6	70	System Monitor - Performance Monitoring Services	6
Error *2	7	71	SystemProvisioning	7

\*1 When the option is specified incorrectly, stopping the PVM Service failed, the IIS is not installed, and cannot connect a specified PostgreSQL.

\*2 When the installation of the component failed.

The management server components collective installation is now complete.

Restart your system after completing the installation.

After the restart, see Section 2.5, "After Installing Management Server Components" to configure some more settings as needed.

## 2.5. After Installing Management Server Components

There are some more settings that you may need to configure after completing the installation. After completing the installation of SigmaSystemCenter 3.6, configure the settings in this section according to your environment and installed components.

### 2.5.1. If You Installed DPM Server

For details of the DeploymentManager setting, see Section 2.7, "Base Information about the Management Server" in *DeploymentManager Web Console Reference Guide*.

### 2.5.2. Configuring the SNMP Trap Service

SigmaSystemCenter has a feature that can be received SNMP Traps on several components. Perform the following procedure to configure the setting in order to receive the SNMP Traps or the PET.

1. Install the Simple Network Management Protocol (SNMP)

<Windows Server 2008 R2>

1. To open **Server Manager**, click **Start**, double-click **Administrative Tools**, and then double-click **Server Manager**.
2. In the left pane, click **Features**, and then click **Add Features** to start **Add Features Wizard**.
3. Select the **SNMP Services** check box, and then click **Next**.
4. Click **Install**.

<Windows Server 2012/Windows Server 2012 R2/Windows Server 2016>

1. To open **Server Manager**, click **Start**, double-click **Administrative Tools**, and then double-click **Server Manager**.
2. Click **Manage**, and then click **Add Roles and Features**.
3. Follow the instructions until **Select features** appears. Select the **SNMP Services** check box, and then click **Next**.

---

**Note:** If a dialog box appear to add all others required features when selecting the **SNMP Services** check box, click **Add Features** without editing the default.

---

4. Click **Install**.

2. Start the SNMP Trap Service

<Windows Server 2008 R2>

1. To open **Services**, click **Start**, click **Control Panel**, double-click **Administrative Tools**, and then double-click **Services**.
2. To open **SNMP Trap Properties**, double-click **SNMP Trap**.
3. In the **Startup type** section, click **Automatic**, and then click **Start**.
4. Click **OK** to close the properties.
5. In the service list, click **PVMService**, and then click the **Restart Service** button.

<Windows Server 2012/Windows Server 2012 R2/Windows Server 2016>

1. To open **Services**, click **Start**, double-click **Administrative Tools**, and then double-click **Services**.
2. To open **SNMP Trap Properties**, double-click **SNMP Trap**.
3. In the **Startup type** section, click **Automatic**, and then click **Start**.
4. Click **OK** to close the properties.
5. In the service list, click **PVMService**, and then click the **Restart Service** button.

3. If NEC ESMPRO Manager is working on the same management server, change the setting of NEC ESMPRO Manager so that the SNMP Trap Service of Windows can be used.

1. Start NEC ESMPRO Manager AlertViewer.
2. Open the **Alert Receive Setting** dialog box on AlertViewer.
3. Select the **Use SNMP Trap Service** check box and click **OK**.
4. Restart the management server.

---

**Notes:** If you want to use the SNMP trap reception setting as If the "Use own method," the following influences should be considered.

- The PET or the SNMP Traps cannot be received with using the Out-of-Band (OOB) Management feature.
  - The following setting is necessary: On the **Properties** of the SNMP Trap service, select **Disable** in the **Startup Type**.
-

---

**Notes:**

- The message "Receiving SNMP Trap is disabled." will be displayed in the **Operation Log** window if SNMP component is not available or not installed when the PVMService is starting.

Under this condition, the OOB Management event cannot be received and the policy action which is triggered by it is not executed, but there is no influence on other operations.

To avoid this condition, follow the procedure above.

- With using the Out-of-Band (OOB) Management feature, it can be received the PET (Platform Event Trap) which is sent from the BMC (Baseboard Management Controller). This allows activating the policy when the hardware problems are detected.
-

## 2.6. Installing Managed Machine Component

The following sections provide procedures to install a managed machine component. Depending on what OS your managed machine is running, the installation methods vary. Install components required according to your environment.

If you are using:

Managed Machine Running Windows (x86/x64)		
<b>NEC ESMPRO ServerAgentService</b>		Install from EXPRESSBUILDER that is included in the target managed machine.
<b>NEC ESMPRO Agent</b>		<p>Install from EXPRESSBUILDER that is included in the target managed machine.</p> <p>Some target managed machines may need NEC ESMPRO Agent (for SigmaSystemCenter). For more information, click the following URL:</p> <p><a href="http://www.58support.nec.co.jp/global/download/index.html">http://www.58support.nec.co.jp/global/download/index.html</a></p> <p>Select <b>NEC ESMPRO Agent (Windows) for SigmaSystemCenter</b> in <b>ESMPRO</b> tab.</p>
<b>DPM Client</b>	Other than Server Core of Windows Server 2008 or later	<p>Install with the procedure in:</p> <p>Section 2.7, "Installing to a Managed Machine Running Windows (x86/x64) from the Installation Wizard."</p> <p>or</p> <p>Section 2.8, "Installing to a Managed Machine Running Windows (x86/x64) Without Displaying Installation Wizard."</p>

Managed Machine Running Linux	
<b>NEC ESMPRO ServerAgentService</b>	<p>Install from EXPRESSBUILDER that is included in the target managed machine.</p> <p>If you update your OS or Kernel, download the component from "The details and download of NEC ESMPRO ServerAgentService" in the following URL:</p> <p><a href="http://www.58support.nec.co.jp/global/download/index.html">http://www.58support.nec.co.jp/global/download/index.html</a></p> <p>Select model name in <b>Documents &amp; Software</b> tab.</p>
<b>NEC ESMPRO Agent</b>	<p>Install from EXPRESSBUILDER that is included in the target managed machine.</p> <p>If you update your OS or Kernel, download the component from "The details and download of NEC ESMPRO Agent" in the following URL:</p> <p><a href="http://www.58support.nec.co.jp/global/download/index.html">http://www.58support.nec.co.jp/global/download/index.html</a></p> <p>Select model name in <b>Documents &amp; Software</b> tab.</p> <p>Some target managed machines may need NEC ESMPRO Agent (for SigmaSystemCenter). For more information, click the following URL:</p> <p><a href="http://www.58support.nec.co.jp/global/download/index.html">http://www.58support.nec.co.jp/global/download/index.html</a></p> <p>Select <b>NEC ESMPRO Agent (Linux) for SigmaSystemCenter</b> in <b>ESMPRO</b> tab.</p>
<b>DPM Client</b>	<p>Install with the procedure in Section 2.9, "Installing to a Managed Machine Running Linux."</p>

VMware ESXi Managed Machine	
<b>NEC ESMPRO Agent</b>	Unnecessary to install
<b>DPM Client</b>	Unnecessary to install

<b>Citrix XenServer Managed Machine</b>	
<b>NEC ESMPRO Agent</b>	Install NEC ESMPRO Agent for XenServer. Contact our sales representative for NEC ESMPRO Agent for XenServer.
<b>DPM Client</b>	Install with the procedure in Section 2.9, "Installing to a Managed Machine Running Linux."

<b>Microsoft Hyper-V Managed Machine</b>	
<b>NEC ESMPRO ServerAgentService</b>	Install from EXPRESSBUILDER that is included in the target managed machine.
<b>NEC ESMPRO Agent</b>	Install from EXPRESSBUILDER that is included in the target managed machine.  Some target managed machines may need NEC ESMPRO Agent (for SigmaSystemCenter). For more information, click the following URL:  <a href="http://www.58support.nec.co.jp/global/download/index.html">http://www.58support.nec.co.jp/global/download/index.html</a>  Select <b>NEC ESMPRO Agent (Windows) for SigmaSystemCenter</b> in <b>ESMPRO</b> tab
<b>DPM Client</b>	Install with the procedure in: Section 2.7, "Installing to a Managed Machine Running Windows (x86/x64) from the Installation Wizard." or Section 2.8, "Installing to a Managed Machine Running Windows (x86/x64) Without Displaying Install."

Red Hat KVM Managed Machine	
<b>NEC ESMPRO ServerAgentService</b>	<p>Install from EXPRESSBUILDER that is included in the target managed machine.</p> <p>If you update your OS or Kernel, download the component from "The details and download of NEC ESMPRO ServerAgentService" in the following URL:</p> <p><a href="http://www.58support.nec.co.jp/global/download/index.html">http://www.58support.nec.co.jp/global/download/index.html</a></p> <p>Select model name in <b>Documents &amp; Software</b> tab.</p>
<b>NEC ESMPRO Agent</b>	<p>Install from EXPRESSBUILDER that is included in the target managed machine.</p> <p>If you update your OS or Kernel, download the component from "The details and download of NEC ESMPRO Agent" in the following URL:</p> <p><a href="http://www.58support.nec.co.jp/global/download/index.html">http://www.58support.nec.co.jp/global/download/index.html</a></p> <p>Select model name in <b>Documents &amp; Software</b> tab.</p> <p>Some target managed machines may need NEC ESMPRO Agent (for SigmaSystemCenter). For more information, click the following URL:</p> <p><a href="http://www.58support.nec.co.jp/global/download/index.html">http://www.58support.nec.co.jp/global/download/index.html</a></p> <p>Select <b>NEC ESMPRO Agent (Linux) for SigmaSystemCenter</b> in <b>ESMPRO</b> tab.</p>
<b>DPM Client</b>	<p>Install with the procedure in Section 2.9, "Installing to a Managed Machine Running Linux."</p>

A managed machine is a virtual machine	
<b>NEC ESMPRO Agent</b>	<p>Unnecessary to install</p>
<b>DPM Client</b>	<p>According to the OS of your virtual machine, install with the procedure in:</p> <p>Section 2.7, "Installing to a Managed Machine Running Windows (x86/x64) from the Installation Wizard."</p> <p>Section 2.8, "Installing to a Managed Machine Running Windows (x86/x64) Without Displaying Installation Wizard."</p> <p>or</p> <p>Section 2.9, "Installing to a Managed Machine Running Linux."</p>

## 2.7. Installing to a Managed Machine Running Windows (x86/x64) from the Installation Wizard

You need to install DPM Client to your managed machine which is running Windows (x86/x64). This section provides procedures to install DPM Client from the installation wizard.

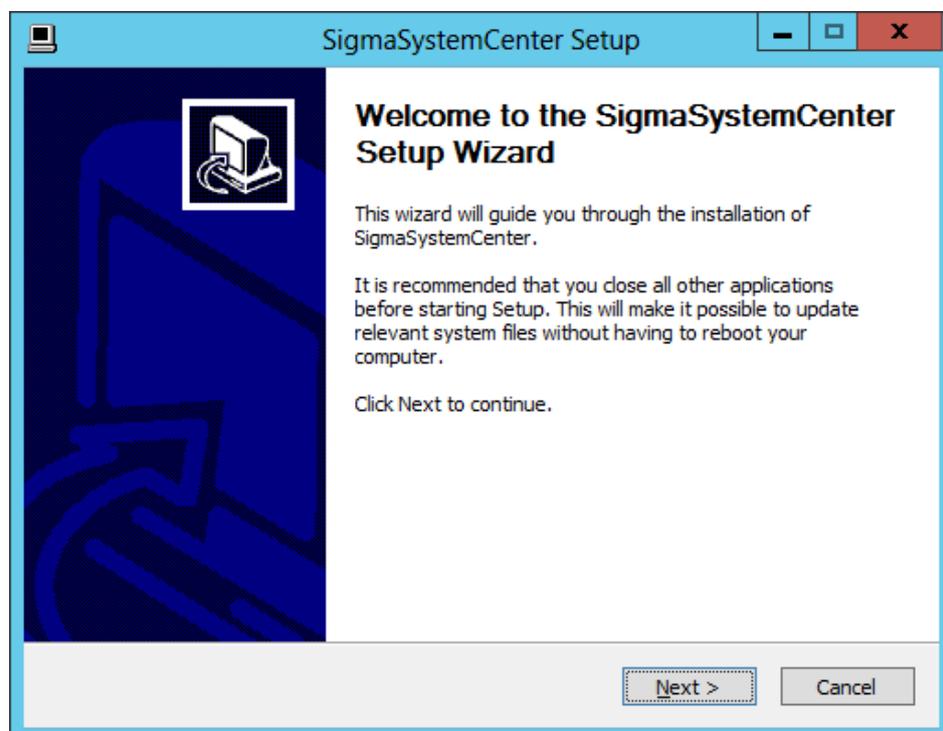
Starting the installer (AgentSetup.exe) without options or parameters, the installation wizard starts.

### 2.7.1. Beginning the Installation

1. Insert the *SigmaSystemCenter DVD-R* into the DVD drive.
2. Enter the following command from a command prompt to start the installer:

```
Installation DVD-R:\AgentSetup.exe
```

3. The installation wizard starts.



Follow the direction of the wizard to install SigmaSystemCenter.

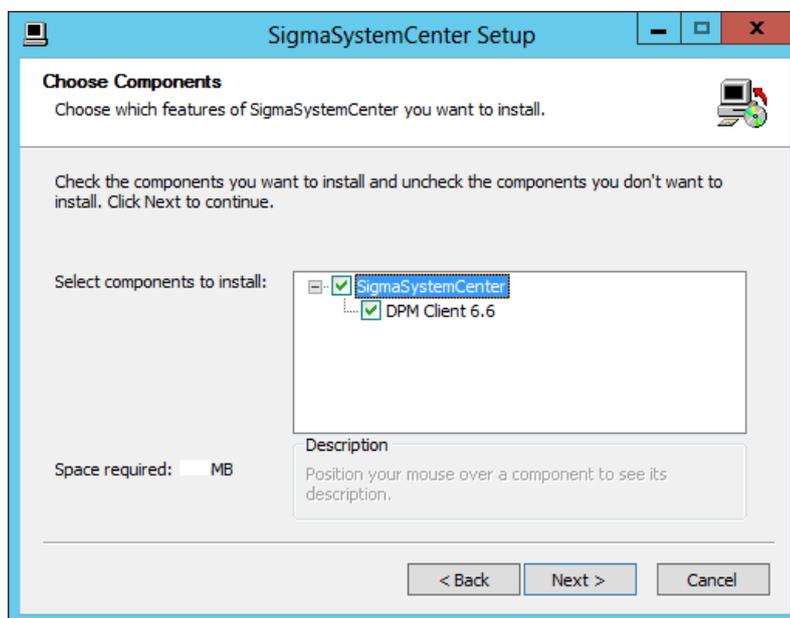
The wizard screens will appear as explained in the next subsections: from Subsection 2.7.2, "Selecting the Component" to 2.7.7, "Completing the Installation."

## 2.7.2. Selecting the Component

The screen to select the component appears.

Select the component to install, and click **Next**.

If the current version's component is already installed, the check box cannot be selected.

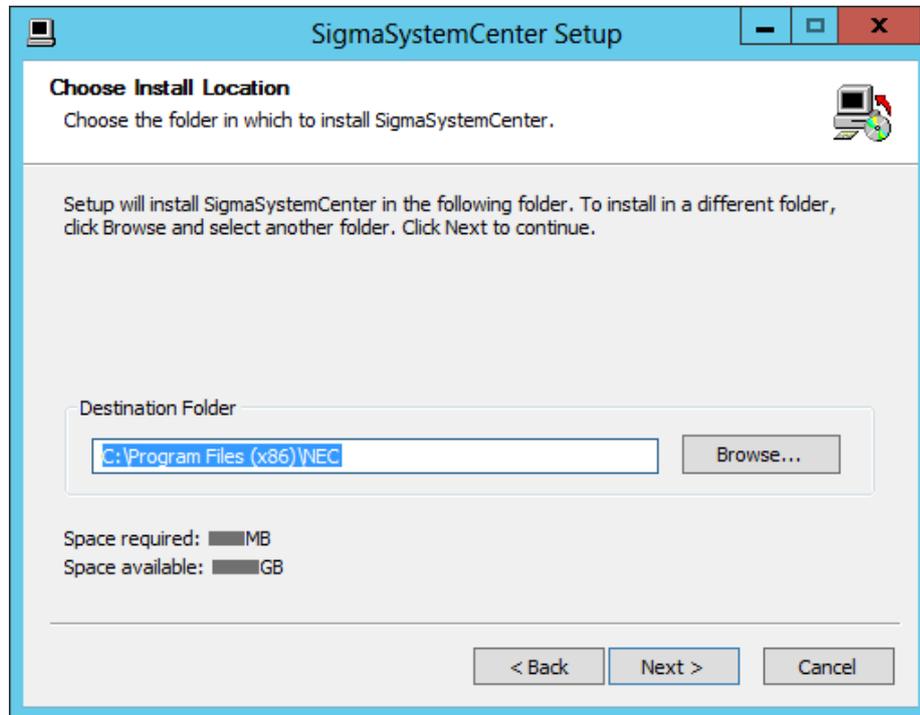


<b>SigmaSystemCenter</b>	If this check box is selected, the following check box located under this check box will be selected automatically.
<b>DPM Client</b>	Installs DPM Client.

### 2.7.3. Selecting Installation Folder

The **Choose Install Location** screen appears.

Specify each item, and click **Next**.

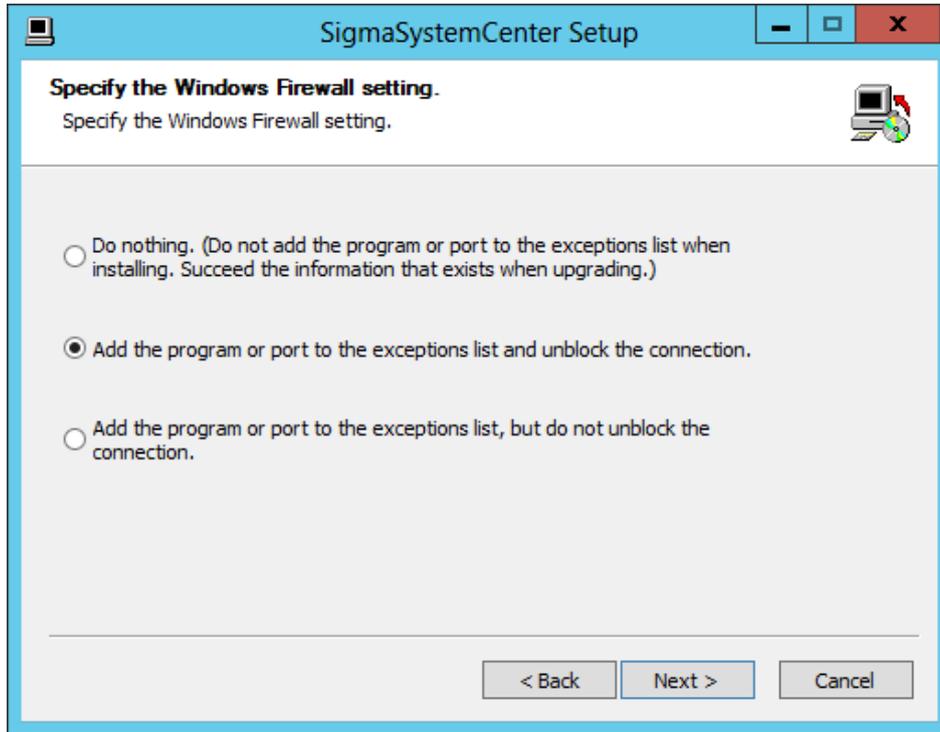


<p><b>Destination Folder</b></p>	<p>Specify the folder where you intend to install DPM Client. *1                  The length of the folder name must be 70 bytes or less.                  The default is:                  For x86 OS: (%ProgramFiles%\NEC)                  For x64 OS: (%ProgramFiles(x86)%\NEC)                  • Specify an absolute path that consists of alphanumeric characters, spaces, and symbols except the following characters:                  / * ? &lt; &gt; "   : ; % =</p>
----------------------------------	---

\*1 When performing OS installation by disk duplication, specify the drive that is not affected by reassignment of the drive letter as an installation destination (we recommend drive C).

### 2.7.4. Specifying Windows Firewall Setting

The screen to specify Windows Firewall setting appears.  
 Select the Windows Firewall setting, and click **Next**.



<p><b>Do nothing. (Do not add the program or port to the exceptions list when installing. Succeed the information that exists when upgrading.)</b></p>	<p>If this option is selected, the program or port will not be added to the exceptions list when installing; Add the program or port to the exceptions list manually after the installation.</p>
<p><b>Add the program or port to the exceptions list and unblock the connection.</b></p>	<p>If this option is selected, the program or port will be added to the exceptions list and the connection will be unblocked.                      This option is selected by default.</p>
<p><b>Add the program or port to the exceptions list, but do not unblock the connection.</b></p>	<p>If this option is selected, the program or port will be added to the exceptions list, but the connection is not unblocked. Unblock the connection manually after the installation.</p>

---

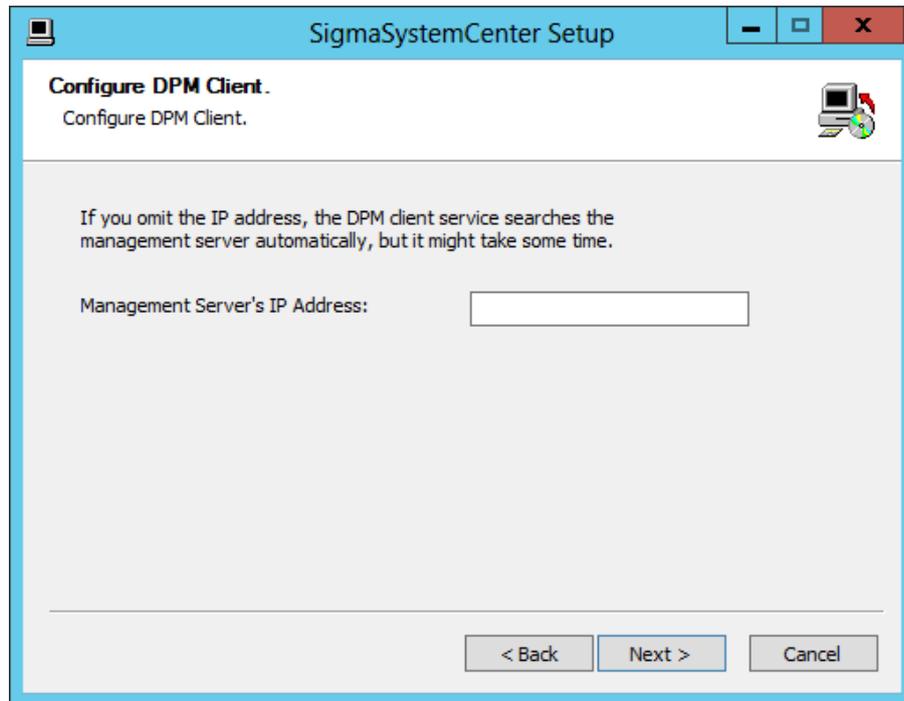
**Reference:** Regarding added programs or ports to the exceptions list, see Appendix B "Networks and Protocols."

---

## 2.7.5. Configuring DeploymentManager

The screen to configure DPM Client appears.

Configure the required information to install DPM Client, and click **Next**.

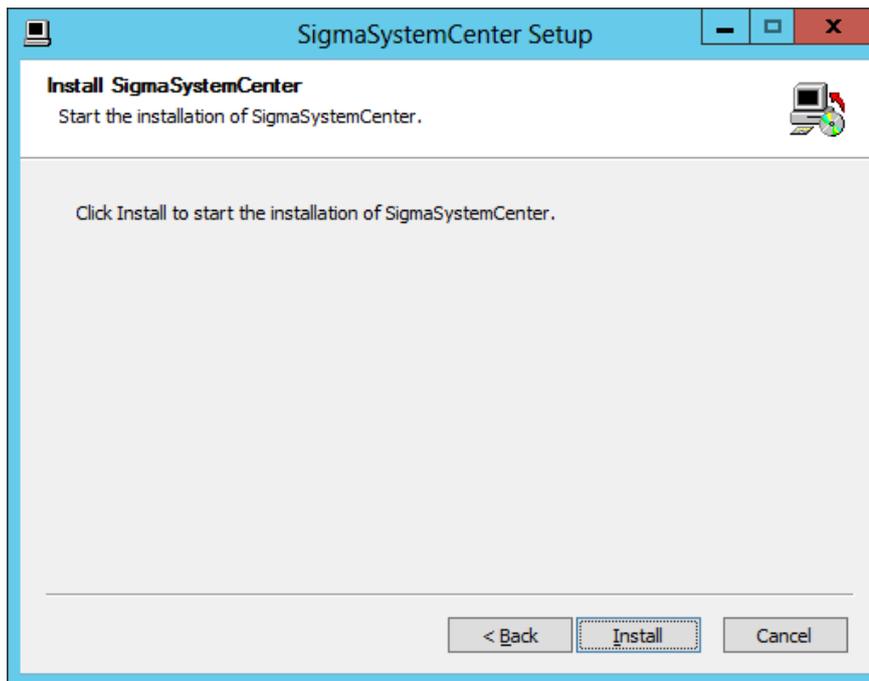


<b>Management Server's IP Address</b>	Specify the IP address of the management server where DPM Server is installed. If you omit the IP address, the DPM client service searches the management server automatically, but it might take some time.
---------------------------------------	--

### 2.7.6. Starting the Installation

The confirmation dialog box appears before starting the installation of the selected component.

Click **Install** to start the installation.



### 2.7.7. Completing the Installation

When the selected component has been installed, the installation complete screen appears.

The managed machine component installation with the wizard is now complete.

## 2.8. Installing to a Managed Machine Running Windows (x86/x64) Without Displaying Installation Wizard

You need to install DPM Client to your managed machine which is running Windows (x86/x64). The following subsection describes the installation of DPM Client without using the installation wizard.

Starting the installer with installation options and parameters, the installer installs DPM Client without using the wizard.

### 2.8.1. Beginning the Installation

1. Insert the *SigmaSystemCenter DVD-R* into the DVD drive.
2. Enter the following command from a command prompt to start the installer:

```
Installation DVD-R:\AgentSetup.exe /S [/FIREWALL=x]
[/DPMSERVERIP="xxx.xxx.xxx.xxx"] [/D=InstallPath]
```

E.g., D:\AgentSetup.exe /S /FIREWALL=1 /DPMSERVERIP="192.168.1.1"  
/D=C:\Program Files (x86)\NEC

---

#### Notes:

- Do not include a double quotation (") into the path for the "/D" option.  
Correct: /D=C:\Program Files (x86)\NEC  
Incorrect: /D="C:\Program Files (x86)\NEC"
  - The "/D" option must be the last option on the command line.
  - Just after executing "AgentSetup.exe /S <other options>" from a command prompt, the prompt appears on the command prompt window. This looks as if installation has completed. If you want to suppress a command prompt until installation has completed, execute "cmd /c "AgentSetup.exe /S <other options>" from a command prompt.
  - If you want to upgrade, contact your service representative.
- 

Option	Description
/S	Indicates to install component(s) collectively.
/FIREWALL	Specifies the Windows Firewall setting regarding DPM Client. *1 Specify one of the following values in x. If this option is not specified, the installer uses the default value "1."

0	If this option is selected, the program or port is not added to the exceptions list when installing; you need to add the program or port to the exceptions list manually after the installation.
1	If this option is selected, the program or port is added to the exceptions list and the connection is unblocked. This option is selected by default.
2	If this option is selected, the program or port is added to the exceptions list, but the connection is not unblocked; you need to unblock the connection manually after the installation.
/DPMSERVERIP	Specifies the IP address of the DPM Server. If this option is not specified, the DPM client service searches the management server automatically, but it might take some time.
/D	Specify the installation destination folder path of DPM Client. The length of this item must be 70 bytes or less. *2 If this option is not specified, the default is as follows: "%ProgramFiles%\NEC" for x86 OS "%ProgramFiles(x86)%\NEC" for x64 OS ▪ Specify an absolute path that consists of alphanumeric characters, spaces, and symbols except the following characters: / * ? < > "   : ; % =

- \*1 Regarding added programs or ports to the exceptions list, see Appendix B "Networks and Protocols."
- \*2 When performing OS installation by disk duplication, specify the drive that is not affected by reassignment of the drive letter as an installation destination (we recommend drive C).

If the **/S** option is not specified, the installation wizard will start. In this case, continue the individual installation or click **Cancel** and execute the collective installation again.

3. The installation of DPM Client starts. This takes several minutes to complete.

The installer ends with the end code on the subsequent table. The installer records the installer log and the end code in the following file:

- If you are using Windows Vista or later or Windows Server 2008 or later  
%USERPROFILE%\AppData\Local\SSC\SetupProvisioning.log

**Note:** You can refer to the log with the following procedure:

1. Move the current directory on the Command Prompt window.

```
cd "%USERPROFILE%\Local Settings\Application Data\SSC"
```

or

```
cd %USERPROFILE%\AppData\Local\SSC
```

2. Open a log file with Notepad.

```
notepad SetupProvisioning.log
```

---

	End code	Component to be installed	Order
Success	0 (Restart unnecessary)	-	-
Error *1	32 (Restart unnecessary)	-	-
Error *2	1 (Restart unnecessary)	DPM Client	1

\*1 If you specified the option incorrectly.

\*2 If the installation of the component failed.

The managed machine component installation without using the installation wizard is now completed.

## 2.9. Installing to a Managed Machine Running Linux

You need to install DPM Client to your managed machine which is running Linux. The following subsection describes the installation of DPM Client.

The SigmaSystemCenter installer does not support Linux managed machines so if you want to install DPM Client to a Linux managed machine, you need to install DPM Client from the *SigmaSystemCenter DVD-R* individually.

Before beginning the installation, see the following Subsection 2.9.1, "Preparing for the Installation of DPM Client" to prepare the environment for installing DPM Client. For cautions of installing DPM Client, see Subsection 2.2.2, "Installing the Linux (x86/x64) Version" in *DeploymentManager Installation Guide*.

### 2.9.1. Preparing for the Installation of DPM Client

- ◆ DPM Client is installed in the folder in /opt/dpmclient and you cannot change the installation folder.
- ◆ To run DPM Client, the following libraries are required:  
Supported features depend on an OS on a managed machine. For more information, see Appendix A, "Function Tables" in *DeploymentManager First Step Guide*.

	x86	x64
When installing DPM Client	<ul style="list-style-type: none"> <li>▪ libpthread.so.0</li> <li>▪ libc.so.* (*1)</li> <li>▪ ld-linux.so.* (*1)</li> </ul>	<ul style="list-style-type: none"> <li>▪ libpthread.so.0 (*2)</li> <li>▪ libc.so.* (*1, 2)</li> <li>▪ ld-linux.so.* (*1, 2)</li> </ul>
When executing OS installation by disk duplication	<ul style="list-style-type: none"> <li>▪ Libraries listed in DPM Client installation.</li> <li>▪ libcrypt.so.* (*1)</li> <li>▪ libfreebl3.so</li> </ul>	<ul style="list-style-type: none"> <li>▪ Libraries listed in DPM Client installation.</li> <li>▪ libcrypt.so.* (*1, 3)</li> <li>▪ libfreebl3.so (*3)</li> </ul>
When executing remote update	<ul style="list-style-type: none"> <li>▪ Libraries listed in DPM Client installation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Libraries listed in DPM Client installation.</li> <li>▪ /lib/libgcc_s.so.1 (*4)</li> </ul>

- \*1           The asterisk (\*) represents a number.
- \*2           When using Red Hat Enterprise Linux 6 or later without required libraries, install the following rpm.
  - glibc-\*-.i686.rpm(\*5)
- \*3           When using Red Hat Enterprise Linux 6 or later without required libraries, install the following rpm.
  - nss-softokn-freebl-\*-.i686.rpm(\*5)
- \*4           This is necessary even if the library with the same name exists under "/lib/x64." Install the following library.
  - libgcc-\*-.i386.rpm
  - libgcc-\*-.i686.rpm
 The asterisk (\*) represents a number (version number and release number).
- \*5           The "-\*" stand for a "version-release" number.  
 For your information: (1) the lack of required libraries may occur if you use the "-nodeps" option, which ignores dependencies among packages when installing the Linux packages. (2) If you install Compatibility libraries (provide compatibility between an x64 OS and x86 modules), you do not need to install this rpm.

Run the following command through the command prompt to confirm the installed library. Then, the library information is displayed.

```
find / -name library name
```

E.g.,

```
find / -name libpthread.so.0
```

or

```
find / -name "libpthread*"
```

(The asterisk (\*) acts as a wild card).

In this example, the library has already installed if the result of running this command includes the information below:

```
/lib/libpthread.so.0
```

- ◆ If you install DPM Client on a managed machine that Red Hat Enterprise Linux has been already installed, open the following ports used by DPM Client.

Protocol	Port Number
UDP	68
TCP	26509
TCP	26510
TCP	26520
UDP	26529

## 2.9.2. Installing DPM Client

---

**Note:** For SUSE Linux Enterprise 10, substitute `"/media/DVD-R volume label"` for `"/mnt/dvd."`

---

1. Log in to the system as a root user.
2. Insert the *SigmaSystemCenter DVD-R* into the DVD drive.
3. Enter the following command from a command prompt to mount the DVD-R. In this example, the mount point is assumed to be `"/mnt/dvd"`:

```
# mount /mnt/dvd
```

4. Enter the following command to change the directory:

```
# cd /mnt/dvd/DPM/Linux/ia32/bin/agent
```

5. Enter the following command to run `depinst.sh`:

```
# ./depinst.sh
```

---

**Note:** The above command located on the installation *DVD-R* cannot be executed according to the environment due to the lack of execute permission for `depinst.sh` and `getrhelver.sh`.

In that case, copy the DPM Client modules existing under *Linux* directory on the installation *DVD-R* to an arbitrary directory on the hard disk. Then, grant execute permission to all the files with `chmod` command, and execute `depinst.sh`.

E.g.)

```
# cd /mnt/An Arbitrary Directory/agent
# chmod 755 *
```

---

6. The IP address input request of the management server of DeploymentManager, as shown below, is displayed. If you omit the IP address, the DPM Client service searches the management server automatically, but it might take some time.

```
Enter the IP address of the management server.
(If you omit the IP address, the DPM client service searches
the management server automatically, but it might take some
time.)
>
```

Type the IP address of the management server of DeploymentManager and press **Enter**.

The DPM Client installation is now complete.

## 2.10. Installing Virtual Machine Console Proxy

With Virtual Machine Console Proxy, you can use the Virtual Machine Console of ESXi in VMware environment from your Web browser even if your browser cannot connect the ESXi directly.

---

**Note:** The Virtual Machine Console Proxy supports Windows Server 2012 or later.

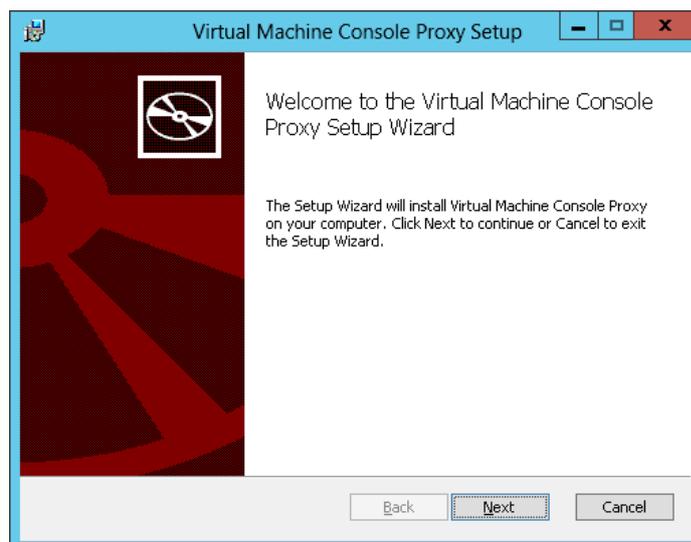
---

The installation procedure is the following:

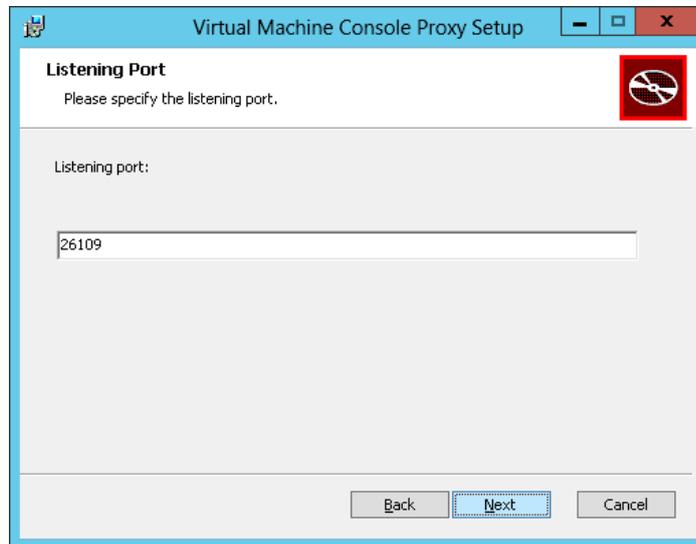
1. Insert the SigmaSystemCenter DVD-R into your DVD drive.
2. Run the following to start the installer.

*SigmaSystemCenter DVD-R:\Tool\ConsoleProxy\PVMProxySetup.msi*

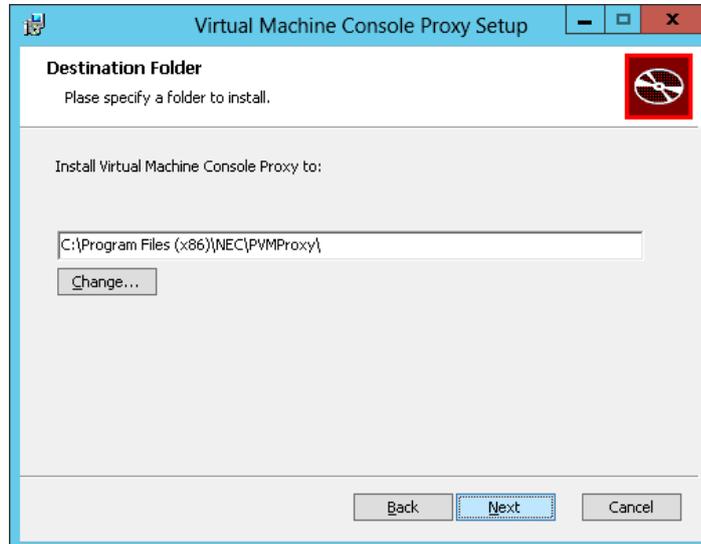
3. The following screen is displayed:



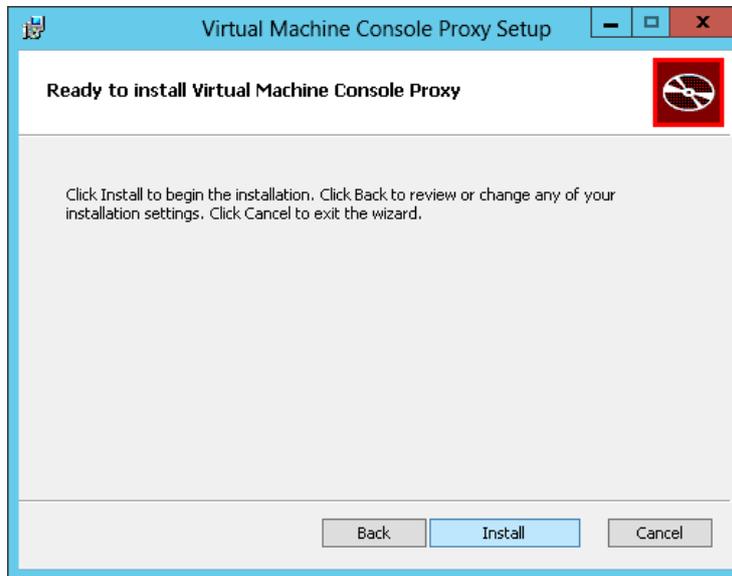
4. Type a port number for the proxy in **Listening Port** and click **Next**.



5. Type or select (click Browse) a destination folder for the installation in **Destination Folder** and click **Next**.



6. Click **Install** to start the installation.



7. The completion screen is displayed after completing the installation.

End of the procedure.



## 3. Upgrading from Earlier Version

This chapter describes the procedure to upgrade the environment where the earlier version of SigmaSystemCenter is installed to SigmaSystemCenter 3.6.

This chapter contains the following sections:

• 3.1	Upgrading to SigmaSystemCenter 3.6 .....	70
• 3.2	What You Should Know Before Upgrade Installation .....	71
• 3.3	Upgrading the Management Server Components .....	85
• 3.4	Uninstalling Apache Tomcat .....	103
• 3.5	After Upgrading Management Server Components .....	104
• 3.6	Upgrading the Managed Machine Component .....	127
• 3.7	Upgrading on a Managed Machine Running Windows (x86/x64) .....	129
• 3.8	Upgrading on a Managed Machine Running Server Core of Windows Server 2008 or Later .....	134
• 3.9	Upgrading on a Managed Machine Running Linux .....	135
• 3.10	Upgrading DPM Client Automatically .....	136

## 3.1. Upgrading to SigmaSystemCenter 3.6

The following sections provide procedures to upgrade your management server and managed machine, on which the earlier version of the product is installed, to SigmaSystemCenter 3.6.

Follow the flow below to upgrade your management server:

1. Preparing for upgrade installation  
See Section 3.2, "What You Should Know Before Upgrade Installation."
2. Upgrading to SigmaSystemCenter 3.6  
See Section 3.3, "Upgrading the Management Server Components."
3. Uninstalling Apache Tomcat as necessary (optional)  
If uninstallation of Apache Tomcat is planned, it must be executed manually. See Section 3.4, "Uninstalling Apache Tomcat" to uninstall Apache Tomcat as you need.
4. Configuring some more settings after upgrade installation  
Some more settings may be required after completing the upgrade installation of all management server components. See Section 3.5, "After Upgrading Management Server Components" to configure the settings as needed.

For upgrading your managed machine, see Section 3.6, "Upgrading the Managed Machine Component."

## 3.2. What You Should Know Before Upgrade Installation

Before beginning upgrade installation of SigmaSystemCenter 3.6, read the information in this section carefully.

### 3.2.1. Prerequisites

Ensure that your managed server and managed machine have met the latest hardware and software requirements. If needed, you need to upgrade your environment to meet the system requirements.

See Chapter 3 "Operational Environment" in *NEC SigmaSystemCenter First Step Guide*.

### 3.2.2. Backing Up Your Environment Before Performing an Upgrade Installation

Back up your computer environment before you perform an upgrade installation. See Chapter 10, "Backup and Restoration" in *NEC SigmaSystemCenter Configuration Guide* for a detailed procedure.

### 3.2.3. Port Conflict

Your environment may experience conflicts between ports used by SigmaSystemCenter and by other products. In that case, you must change those ports. For more information about the followings, see Subsection 2.1.3, "Port Conflict."

- ◆ How to change the ports used by SigmaSystemCenter:
  - DeploymentManager
  - System Monitor - Performance Monitoring Services
  - NEC ESMPRO Manager
  
- ◆ In case of port conflict between SigmaSystemCenter and related products:
  - MasterScope Network Manager

### **3.2.4. About End of Support of Windows Server 2003 as the Operating System for a Management Server**

SigmaSystemCenter 3.1 and its subsequent releases do not support Windows Server 2003 anymore as the management server's OS.

If you want to upgrade SigmaSystemCenter 3.0 or earlier to SigmaSystemCenter 3.6, contact your service representative.

### **3.2.5. About End of Support of Windows Server 2008 as the Operating System for a Management Server**

SigmaSystemCenter 3.2 and its subsequent releases do not support Windows Server 2008 anymore as the management server's OS.

When you upgrade SigmaSystemCenter 3.1 update 1 or earlier to SigmaSystemCenter 3.6 on Windows Server 2008, contact our service representative.

### **3.2.6. Notes on Upgrading**

When you upgrade SigmaSystemCenter, upgrade all components that are installed on your environment with the earlier version. Operation with upgrading a part of the components is not supported.

- ◆ If multiple VM server models exist in one group  
Resource pool management feature has been added in SigmaSystemCenter 3.0.  
In accordance with this functional enhancement, the unit of optimized placement feature's load balancing of virtual machines has been changed from a group to a model.

Therefore, if you plan to upgrade from SigmaSystemCenter 2.0 or 2.1 to SigmaSystemCenter 3.6 and the following conditions are met in your environment, change the setting of a group from the Operations view before upgrading.

Check the settings of groups with the following procedure: [Conditions requiring change the setting]. If the conditions are met, change the setting of the group with the following procedure: [How to change the setting].

[Conditions requiring change the setting]

If both of the following 1 and 2 are met, change the setting of the group.

1. Multiple VM server models exist in one group  
Multiple models whose types are the VM Server exist on the Model tab of the Group Property Setting.
2. A VM model is related to one of the multiple VM server models  
On the General tab of the Model Property Setting of a model whose type is the VM, one of the multiple models described in 1 is configured as the VM Server Model.

[How to change the setting]

Change the setting of the group so that one VM server model is configured for one group.

◆ If you use EMC Storage (VNX)

If the information of SP that is connected to each HBA that is configured on the machine on the Resource view does not correspond with the information of SP that is configured in the host on the Operations view, a disk volume will not be set in the Host Setting after upgrade installation.

Before beginning upgrade installation, perform the following procedure to confirm the setting.

1. To check the information of SP that is connected to each HBA, use `getall -sg` command which is a `naviseccli` command.

```
> naviseccli getall -sg
```

---

**Reference:** For details of the command, see the Navisphere manual.

---

2. Click an icon of the operation group on the **Operations** view and click the **Host Name** under **Host List** to display details of the host on the main window.
3. Click the **Property** on the **Configuration** menu and select the **Storage** tab. Confirm that SP names and SP port numbers of disk volumes on the **Storage List** correspond with the information of SP connected to an HBA.

If you execute upgrade installation with configuring the different SP information (disk volume) on the host, the disk volume will not be set in the host settings. In that case, reconfigure the disk volume after the upgrade installation.

For the settings of a disk volume, see Subsection 4.10.3, "Configuring Settings on the Storage Tab" in *NEC SigmaSystemCenter Configuration Guide*.

- ◆ If you upgrade the managed virtual machine server to ESXi  
If you upgrade the managed virtual machine server to ESXi, refer to Subsection 1.4.1, "Upgrade of the Virtual Machine Server to ESXi 5.0 or Later" in *NEC SigmaSystemCenter Caution Notes and Trouble Shooting Reference Guide*.  
Some DeploymentManager features such as obtaining the installed software information will not be available, because DPM Client is not allowed to be installed on ESXi. For details this feature, refer to "Support for each OS on the Managed Machine" in Appendix A, "Function Tables" in *DeploymentManager First Step Guide*.  
That is why the information about the installed software displayed on machine details in Resource view is not updated and old information of it remains. Run the following command to remove this.  
Then execute machine collecting, and ensure that the installed software has been removed.

```
ssc dpminformation delete
```

- ◆ If you import a policy that is exported from previous versions of SigmaSystemCenter  
The policy (an XML file) is may not work properly after importing the policy to upgraded SigmaSystemCenter by using ssc command. To avoid this, import the policy by using ssc command before upgrading SigmaSystemCenter.  
The imported policy will be converted to the correct format when upgrading SigmaSystemCenter.

### 3.2.7. Software You Need to Install on the Management Server Before Beginning the Upgrade Installation

There is software that you need to install, depending on your environment, before upgrading SigmaSystemCenter on your management server:

The software and the installation procedure are the same as when installing SigmaSystemCenter.

If you use Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, or Windows Server 2016 on the management server, see Subsection 2.1.4, "Software You Need to Install on the Management Server Before Starting the Installation."

### 3.2.8. Notes About Setting of Windows Firewall

- ◆ If you set to start the *Windows Firewall / Internet Connection Sharing (ICS)* service before the upgrade installation, and specify to add programs or ports to the exceptions list of Windows Firewall from the installer, the installer adds the programs or ports to the exceptions list.

- ◆ If you change to use Windows Firewall after upgrading SigmaSystemCenter, add programs or ports to the exceptions list manually. For the details, see Appendix B, "Networks and Protocols."

### 3.2.9. Notes on Beginning the Upgrade Installation

Before beginning the upgrade installation of SigmaSystemCenter, end all applications and Web browsers.

### 3.2.10. Notes on Upgrading DPM Server (Management Server for DPM)

- ◆ During the upgrade installation from DeploymentManager 5.1 or earlier, the setting of LAN board connectable to the remote Image Builder that was configured in the previous version will not be succeeded. From DeploymentManager 5.2 or later, the setting of LAN board connectable to the remote Image Builder can be configured from the **IP Address** located on the **General** tab in **Details** window of DeploymentManager Web Console.

- ◆ If DeploymentManager is working with the TFTP service of MasterScope Network Manager, you need to perform the procedure again; step (4) through (7) of the procedure in "To install MasterScope Network Manager on a machine on which DPM Server is installed, follow the procedure below:" in Appendix F, "Configuring DPM Server and MasterScope Network Manager on the Same Machine" in *DeploymentManager Installation Guide* after upgrading DPM Server to this version.

- ◆ In upgrading from SigmaSystemCenter 2.1 or earlier, SigmaSystemCenter will use not the previous Administrator password but the password of *deployment\_user* to work with DPM Server.

The default value of the *deployment\_user's* password is "dpmmgr" and the Administrator password is not succeeded.

When upgrading from SigmaSystemCenter 2.0 or 2.1 and the Administrator password is not "dpmmgr," warnings or malfunctions will occur when SigmaSystemCenter works with DPM Server. Therefore, change the Administrator password with the following procedure before upgrading.

1. Start the DeploymentManager Web Console.
2. Select the management server in the tree view, and select the **Update Mode** on the **Change Access Mode** of the management server.
3. Select the **Change Administrator Password** on the **Settings** to change the password to "dpmmgr."
4. Select the management server in the tree view; select the **Browse Mode** on the **Change Access Mode** of the management server.

5. Launch the SigmaSystemCenter Web Console, and switch to the **Management** view.
6. Click the **Subsystem** in the **Management** tree.
7. Click **Edit** of **DeploymentManager (Windows/Linux)** under **Subsystem List**.
8. Select the **Update Password** check box to enter "dpmmgr" in the **Password** box.
9. Click **OK**.

- ◆ The following registry is not succeeded while upgrading, configure the setting again as necessary.

**Registry key:**

- For x86 OS  
HKEY\_LOCAL\_MACHINE\SOFTWARE\NEC\PVMDPMPProvider
- For x64 OS  
HKEY\_LOCAL\_MACHINE\SOFTWAREWow6432Node\NEC\PVMDPMPProvider

**Names of the values:**

RebootTimeout  
ShutdownTimeout

For registry values, see "(3) Timeout Time of Power Control Through DeploymentManager" of 1.8.7, "Setting Timeout Time and Waiting Time" in *NEC SigmaSystemCenter Reference Guide*.

- ◆ You cannot use slashes (/) in names of machine groups or scenario groups in SigmaSystemCenter 3.0 update 1 or later. Thus, slashes in group names are automatically converted to underscores (\_) at upgrade installation. If the same group names exist concurrently, this conversion merges contents of those two groups.
- ◆ For other notes, see Section 3.1, "Before Upgrading DPM" and Section 3.2, "Upgrading DPM Server" in *DeploymentManager Installation Guide*.
- ◆ Configuring the database of DeploymentManager not on the management server of DeploymentManager but on a different machine, execute upgrade according to "Upgrade the database" in Appendix D, "Configuring the Database Server of SQL Server" in *DeploymentManager Installation Guide*.

### 3.2.11. Upgrade Notes for SystemProvisioning

---

**Note:** You do not need to perform this procedure if you upgrade from SigmaSystemCenter 3.1 or later.

---

From SigmaSystemCenter 3.1, SigmaSystemCenter uses the Default Web Site of Internet Information Server (IIS) to create the virtual directory of SystemProvisioning by default.

For this reason, when you upgrade SigmaSystemCenter from version 3.0 (including an updated version) or before, be sure to confirm that the Default Web Site exists in the IIS or refer the following to avoid installation errors.

If SigmaSystemCenter that to be upgraded uses a different site from Default Web Site, add the following command option when upgrading from an installer.

Note that specify the different site name to "WebSiteName."

```
Installation DVD-R:\ManagerSetup.exe /IISWEBSITE="WebSiteName"
```

### 3.2.12. Notes on Upgrading in the Environment Where the HTTP Port in IIS is NOT Port 80

If you intend to upgrade your SystemProvisioning to SigmaSystemCenter 3.6 in the environment where the http port in IIS is not port 80, change the http port to port 80 before you start upgrading.

---

**Note:** You do not perform this procedure when you intend upgrade from SigmaSystemCenter 3.0 or later.

---

Perform the following procedure to do so.

The following procedure assumes the case that the http port for Default Web Site is set to port 81.

1. From the **Start** menu, point to **Administrative Tools**, and then click **Internet Information Services (IIS) Manager** to start Internet Information Services (IIS) Manager.
2. In the tree view on the left, expand the *Machine Name* node, and then expand the **Default Web Site** node under the **Sites** node.
3. In the **Actions** pane on the right, click **Bindings...** under **Edit Site**.
4. The **Site Bindings** dialog box appears. Select "http" and then click **Edit....**
5. The **Edit Site Binding** dialog box appears. Change the port from "81" to "80."
6. Upgrade your SigmaSystemCenter to SigmaSystemCenter 3.6.

7. Change the http port from "80" to "81" using the same procedure 1 through 5 in the above.

The following describes about influences when upgrading without performing the procedure above and how to resolve the issues:

- ◆ If upgraded from SigmaSystemCenter 2.0 to 3.6

**[Phenomenon]**

SystemProvisioning upgrade may fail.

**[Solution]**

Change the http port to "80," and then retry upgrade.

- ◆ If upgraded from SigmaSystemCenter 2.1 to 3.6

You may encounter the following symptoms depending on the edition of your SigmaSystemCenter 2.1 update:

**[Phenomenon]**

SystemProvisioning upgrade may fail.

**[Solution]**

Change the http port to "80," and then retry upgrade.

### 3.2.13. Notes on Upgrading SystemProvisioning and System Monitor - Performance Monitoring Services

When you use SQL Server, ensure that the services of the SQL instance used by SystemProvisioning and System Monitor - Performance Monitoring Services have been started before upgrading SystemProvisioning and System Monitor - Performance Monitoring Services.

Click **Start, Control Panel, Administrative Tools**, and then **Services**. On the **Services** window, ensure the following service is started. If not, start the service.

- ◆ SQL Server (SSCCMDB) \*

\* If you changed the instance name from the default (SSCCMDB), the service name is displayed as "SQL Server (*Instance name*)."

### **3.2.14. Notes on Installing on Windows Vista or Later, or on Windows Server 2008 or Later**

If you launch the installer on Windows Vista or later, or on Windows Server 2008 or later, the **User Account Control** screen may appear. In that case, click **Allow**, and continue the operation.

### **3.2.15. If You Set Up the Configuration Database of SystemProvisioning on a Remote SQL Server**

When upgrading from SigmaSystemCenter 2.0 or 2.1, if the configuration database of SystemProvisioning is set up on a remote SQL Server, configure the setting so that the configuration database can connect to the remote SQL using Windows Authentication before upgrading.

### **3.2.16. Notes on Upgrading in Management Server**

You cannot make a SigmaSystemCenter management server a domain controller. For details, see Subsection 2.1.13, "Notes on Installing in Management Server."

### **3.2.17. Notes on Upgrading NEC ESMPRO Manager**

◆ NEC ESMPRO Manager Ver. 6 does not support some features that Ver. 5 and before are supported. Before upgrading Ver. 5 or before to Ver. 6, see the following and also refer to "2. Installation 1. Before Installation, If an older version of NEC ESMPRO Manager or DianaScope Manager has already been installed" in NEC ESMPRO Manager Ver. 6 Installation Guide.

◆ In the case that NEC ESMPRO Manager Ver. 4 is bundled in your SigmaSystemCenter, you cannot upgrade to NEC ESMPRO Manager Ver. 6. If you upgrade from NEC ESMPRO Manager Ver. 4 to Ver. 6, once you need to upgrade from NEC ESMPRO Manager Ver. 4 to Ver. 5. After that, upgrade to Ver. 6.

Execute the following procedures to upgrade from NEC ESMPRO Manager Ver. 4 to Ver. 6 of your SigmaSystemCenter.

1. Change "Manual" in PVMService of Startup Type, and then stop service
2. Upgrade from NEC ESMPRO Manager Ver. 4 to Ver. 5
3. Restart system
4. Start SigmaSystemCenter installer, and then upgrade to SigmaSystemCenter 3.6

5. Restart system
6. Restore "Automatic" in PVMService of Startup Type, and then start service

---

### References:

- NEC ESMPRO Manager Ver. 6 is bundled in SigmaSystemCenter 3.6.
- You can confirm the version of the installed NEC ESMPRO Manager by selecting **Version Detector** from **Start** menu. (The menu of expressing the version information varies from environment.)

E.g., The menu of expressing the version information

- **Start** menu - **All Programs** - **NEC ESMPRO Manager** - **About NEC ESMPRO**
  - About a getting NEC ESMPRO Manager Ver. 5, contact your service representative.
- 

After upgrading to NEC ESMPRO Manager Ver. 5, execute automatic registration on Web GUI in NEC ESMPRO Manager.

When executing automatic registration, you should system management be effective on the screen of automatic registration of Web GUI and configure the scope of all monitor targeted machines whose IP address is also included.

---

### Notes:

- In case that DianaScope Manager was installed, after upgrading, the status will be that only management machines of DianaScope Manager are registered on Web GUI.
  - Out of managed machines which are earlier version than NEC ESMPRO Agent Ver. 4.1 and maps are not registered in Web GUI.
- 

- ◆ If you upgrade from NEC ESMPRO Manager Ver. 5 to Ver. 6, resetting Windows applications which were used in NEC ESMPRO Manager Ver. 5 is required in some cases. (If you were not used Windows applications in NEC ESMPRO Manager Ver. 5, you do not need to do it.) For resetting, see Appendix 4, "4. Procedure to disable the Windows application setting" in *NEC ESMPRO Manager Installation Guide*.

## 3.2.18. Note on Logging on Different User from Which Was Used When Installing

When using SQL Server, you cannot upgrade the following components if you log on to the Windows with a different user from the one that was used for installing SigmaSystemCenter.

- ◆ DPM Server

- ◆ System Monitor - Performance Monitoring Services
- ◆ SystemProvisioning

Execute any of these following solution methods.

**[Solution method 1]**

Upgrade by using same user which was used installing SigmaSystemCenter for log in.

**[Solution method 2]**

Before upgrade installing, configure access right, and then make it possible to log in database.

- ◆ Method for the confirmation of execution right  
Confirm the user name by using the following command.

```
sqlcmd -E -S .\SSCCMDB
1> select name from sys.syslogins
2> go
```

```
sqlcmd -E -S .\DPMDBI
1> select name from sys.syslogins
2> go
```

- ◆ Method for the configuration of execution right  
If login user is not appeared, add it according to these procedures.

<In case of SSCCMDB>

- If SQL Server is SQL Server 2012 or later.  
Log in by user account which was used when you installed SQL Server, and then execute the following command.

```
sqlcmd -E -S (local)\SSCCMDB
1> CREATE LOGIN [SSC Management server name\user name] FROM
WINDOWS
2> GO
1> ALTER SERVER ROLE [sysadmin] ADD MEMBER [SSC Management
server name\user name]
2> GO
```

- If SQL Server is SQL Server 2008 R2 or earlier.  
Execute the following command.

```
sqlcmd -E -S (local)\SSCCMDB
```

```
1> exec master..sp_addsrvrolemember @loginame = N'SSC
Management server name\user name', @rolename = N'sysadmin'
2> GO
```

<In case of DPMDBI>

- If SQL Server is SQL Server 2012 or later.  
Log in by user account which was used when you installed SQL Server, and then execute the following command.

```
sqlcmd -E -S (local)\DPMDBI
1> CREATE LOGIN [SSC Management server name\user name] FROM
WINDOWS
2> GO
1> ALTER SERVER ROLE [sysadmin] ADD MEMBER [SSC Management
server name\user name]
2> GO
```

- If SQL Server is SQL Server 2008 R2 or earlier.  
Execute the following command.

```
sqlcmd -E -S (local)\DPMDBI
1> exec master..sp_addsrvrolemember @loginame = N'SSC
Management server name\user name', @rolename = N'sysadmin'
2> GO
```

## 3.2.19. SigmaSystemCenter Components Installed on Multiple Management Servers

Keep in mind the following when you upgrade SigmaSystemCenter components installed on multiple management servers.

- ◆ DeploymentManager
  - When you install a DPM Server on a different machine from a machine on which SigmaSystemCenter is installed, upgrade the DPM Server in the following order. This method also applies to when you install a DPM Server on multiple management servers.
    1. Stop the following service in the SigmaSystemCenter management server.

PVMService

2. Upgrade the DPM Server.
3. Upgrade the SystemProvisioning in the SigmaSystemCenter management server.

- When you install the following DeploymentManager component on a SigmaSystemCenter management server, upgrade the component in the following order.

DeploymentManager component

- DPM Command Line

1. Stop the following service in the SigmaSystemCenter management server.

PVMService

2. Upgrade the DeploymentManager component.
3. Upgrade the SystemProvisioning in the SigmaSystemCenter management server.

◆ System Monitor - Performance Monitoring Services

If you install System Monitor - Performance Monitoring Services on multiple management servers, you need to upgrade all System Monitor - Performance Monitoring Services. In this case, you can upgrade SystemProvisioning and System Monitor - Performance Monitoring Services in any order.

### 3.2.20. Notes on Upgrading SigmaSystemCenter on Windows Server 2012 R2

Before upgrading SigmaSystemCenter on Windows Server 2012 R2, you need to install Windows Server 2012 R2 Update (KB2919355), a cumulative set of security updates and critical updates.

Without the update, you cannot install .NET Framework 4.6.2.

Check and install the update as the following:

1. Run Msinfo32.exe to check the version of Windows Server 2012 R2.

With Windows Server 2012 R2 Update (KB2919355), the value of Hardware Abstraction Layer is 6.3.9600.17031.

2. If the value is less than 6.3.9600.17031, install the update. For the details, refer to the following:

<https://www.microsoft.com/en-us/download/details.aspx?id=42334>

## 3.3. Upgrading the Management Server Components

This section provides the procedures to install or upgrade the management server components.

Starting the installer (ManagerSetup.exe) without options or parameters, the installation wizard starts.

The following components are upgraded during the installation.

- ◆ NEC ESM PRO Manager
- ◆ DPM Server
- ◆ System Monitor - Performance Monitoring Services
- ◆ SystemProvisioning

### 3.3.1. Stopping the Services of DeploymentManager

In some cases, services must be stopped before upgrade installation.

Perform the following procedures according to your environment.

- ◆ Apache Tomcat service  
If you are upgrading from SigmaSystemCenter 2.0 or 2.1 and if Tomcat is installed in your environment, stop the Apache Tomcat service.
- ◆ DeploymentManager services  
If you want to upgrade SigmaSystemCenter 2.0 or 2.1 in the environment where management server for DPM (that corresponds to DPM Server in SigmaSystemCenter 3.0 or later) is installed on a server which is different from the server on which database (DPM instance) is installed, you need to stop the services of Management Server for DPM before upgrading.  
Perform the following "[Procedure to stop Management Server for DPM services](#)" to stop the services of Management Server for DPM.

<[Procedure to stop Management Server for DPM services](#)>

1. Click the **Start** menu, and click **Control Panel**. From **Control Panel**, double-click **Administrative Tools**. From **Administrative Tools**, double-click **Services** to start the Services Snap-in.
2. From **Services**, click services that start with **DeploymentManager**. For example, DeploymentManager API Service, and click **Stop**. Stop all the services starting with **DeploymentManager**.

**Note:** If there is a service that you cannot stop, perform the following procedure to stop the process of the service, and stop the remaining services from the Services Snap-in.

1. Click the **Start** menu, and click **Run**. Enter **taskmgr** in the **Open** box, and click **OK** to start Windows Task Manager.
2. Select the **Processes** tab. Click the process corresponding to the service you cannot stop (see the following table), and click **End Process** to end the process.

Service Name	Process Name
DeploymentManager API Service	apiserv.exe
DeploymentManager Backup/Restore Management	bkressvc.exe
DeploymentManager Client Management	cliwatch.exe
DeploymentManager client start	clistart.exe
DeploymentManager Get Client Information	depssvc.exe
DeploymentManager PXE Management	pxesvc.exe
DeploymentManager PXE Mtftp	pxemtftp.exe
DeploymentManager Remote Update Service	rupdssvc.exe
DeploymentManager Scenario Management	snrwatch.exe
DeploymentManager Schedule Management	schwatch.exe
DeploymentManager Transfer Management	ftsvc.exe

### 3.3.2. Beginning the Installation (Upgrade Installation)

1. Insert the *SigmaSystemCenter DVD-R* into the DVD drive.
2. Enter the following command from a command prompt to start the installer:

```
Installation DVD-R:\ManagerSetup.exe
```

3. The installation wizard starts.



Follow the direction of the wizard to install SigmaSystemCenter.

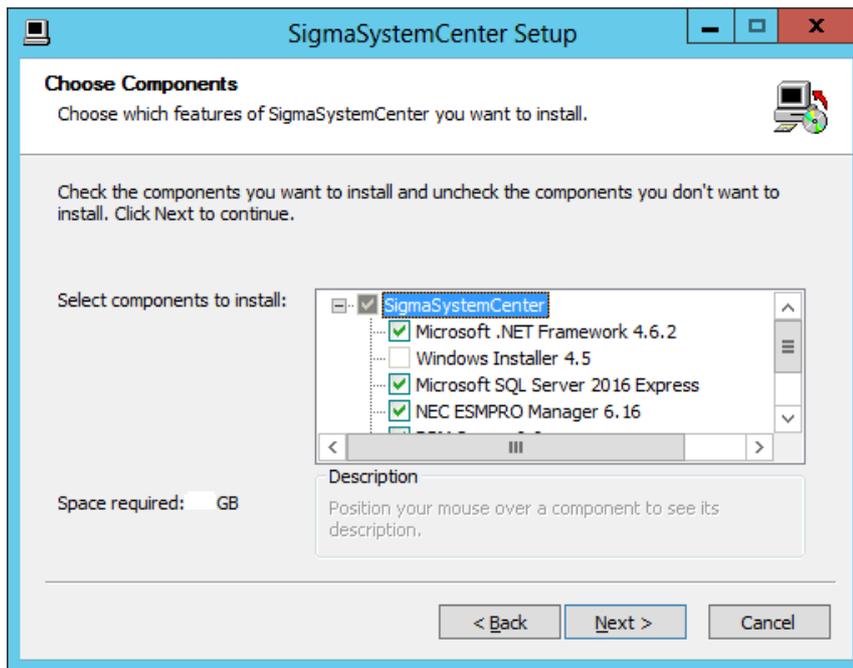
The wizard screens will appear as explained in the next subsections: from Subsection 3.3.3, "Selecting Components" to 3.3.10, "Completing the Installation (Upgrade Installation)."

### 3.3.3. Selecting Components

The screen to select components appears.

Select components to install, and click **Next**.

If the current version's component is already installed, the check box cannot be selected.



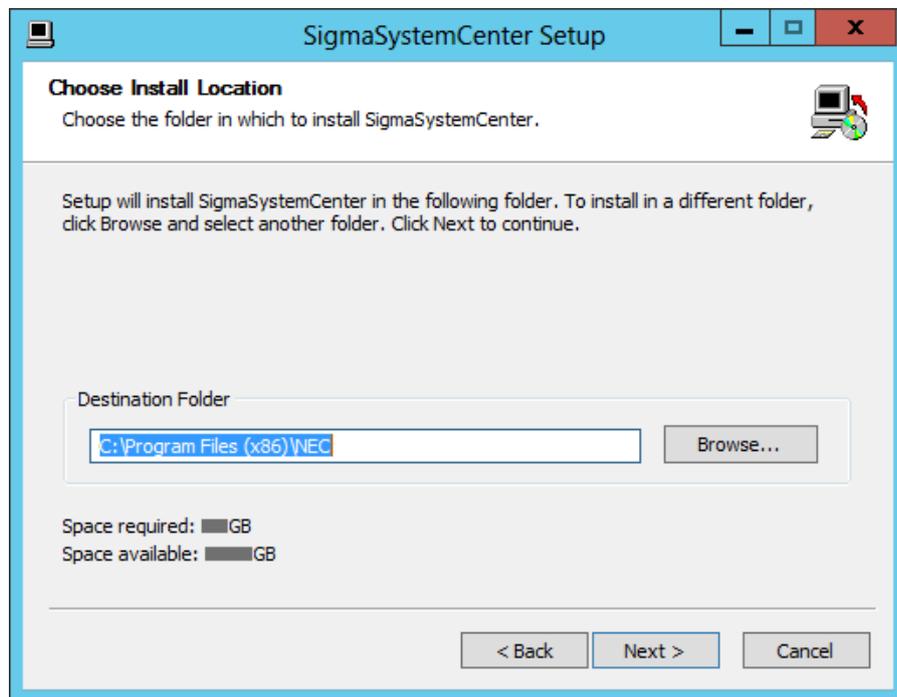
<b>SigmaSystemCenter</b>	If this check box is selected, the following check boxes located under this check box will be selected automatically.
<b>Microsoft .NET Framework 4.6.2</b>	Installs .NET Framework 4.6.2
<b>Windows Installer 4.5</b>	Installs Windows Installer 4.5.
<b>Microsoft SQL Server 2016 Express</b>	Installs SQL Server 2016 Express.
<b>NEC ESMPRO Manager</b>	Installs NEC ESMPRO Manager. If this check box is selected, <b>Microsoft .NET Framework 4.6.2</b> will also be selected automatically.
<b>DPM Server</b>	Installs DPM Server. This check box can be selected only if IIS is installed. If this check box is selected, <b>Microsoft .NET Framework 4.6.2</b> and <b>Windows Installer 4.5</b> will also be selected automatically.
<b>System Monitor - Performance Monitoring Services</b>	Installs System Monitor - Performance Monitoring Services. If this check box is selected, <b>Microsoft .NET Framework 4.6.2</b> , <b>Windows Installer 4.5</b> and <b>Microsoft SQL Server 2016 Express</b> will also be selected automatically. When you use an existing database, clear <b>Microsoft SQL Server 2016 Express</b> check box manually.

<p><b>SystemProvisioning</b></p>	<p>Installs SystemProvisioning.                  This check box can be selected only if IIS is installed.                  If this check box is selected, <b>Microsoft .NET Framework 4.6.2, Windows Installer 4.5 and Microsoft SQL Server 2016 Express</b> will also be selected automatically.                  When you use an existing database, clear <b>Microsoft SQL Server 2016 Express</b> check box manually.</p>
----------------------------------	--

**Note:** If both System Monitor - Performance Monitoring Services and SystemProvisioning have already been installed, **Microsoft SQL Server 2016 Express** check box cannot be selected.

### 3.3.4. Specifying the Installation Destination Folder

The screen to specify the installation destination folder appears if any of the following components has been selected on the previous screen: NEC ESM PRO Manager, DPM Server, System Monitor - Performance Monitoring Services or SystemProvisioning. Specify the installation destination folder, and click **Next**.



<p><b>Destination Folder</b></p>	<p>Specify the installation destination folder path of NEC ESMPRO Manager, DPM Server, System Monitor - Performance Monitoring Services and SystemProvisioning. The folder path length must be 80 bytes or less. The default is as follows:                  "%ProgramFiles%\NEC" for x86 OS.                  "%ProgramFiles(x86)\NEC" for x64 OS.                  Specify an absolute path. The path can contain single-byte alphanumeric characters, single-byte spaces, and single-byte symbols.                  Do not use the following single-byte symbols:                  / * ? &lt; &gt; "   : ; % =                  ▪ If NEC ESMPRO Manager is to be installed, do not specify a folder path including Unicode unique characters.</p>
----------------------------------	--

---

**Notes:**

- You cannot specify "%ProgramFiles%" as an installation folder.
  - If NEC ESMPRO Manager is already installed, the installation destination folder path specified here will be ignored and the existing NEC ESMPRO Manager installation folder will be used.
  - If DPM Server is already installed, the installation destination folder path specified here will be ignored and the existing DPM Server installation folder will be used.
- 

### 3.3.5. Configuring Database (Installing SQL Server From Installer)

When you select SQL Server 2016 Express in 3.3.3, "Selecting Components," the following figures are displayed. If you do not select SQL Server 2016 Express, see 3.3.6, "Configuring Database (Using Existing Database)."

Configure database information for the following management server components and follow the displayed instructions:

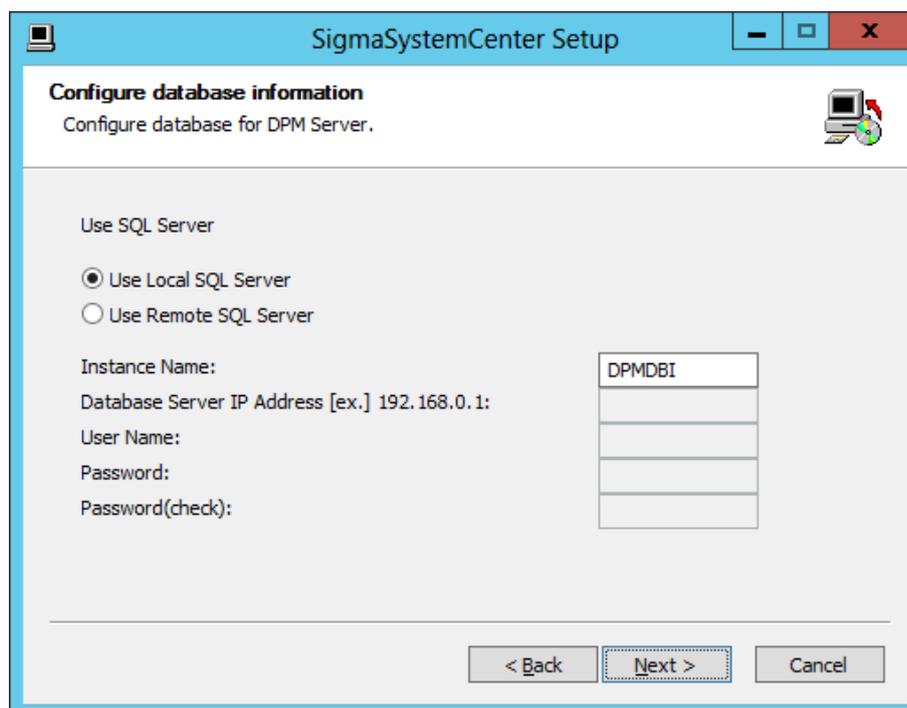
- ◆ DPM Server
- ◆ SystemProvisioning, System Monitor - Performance Monitoring Services

---

**Notes:**

- If DPM Server, SystemProvisioning, and/or System Monitor - Performance Monitoring Services are already exist, the following figures are not displayed.
  - If you type an existing instance name in the Instance Name text box of this screen, the SQL instance is not newly installed.
-

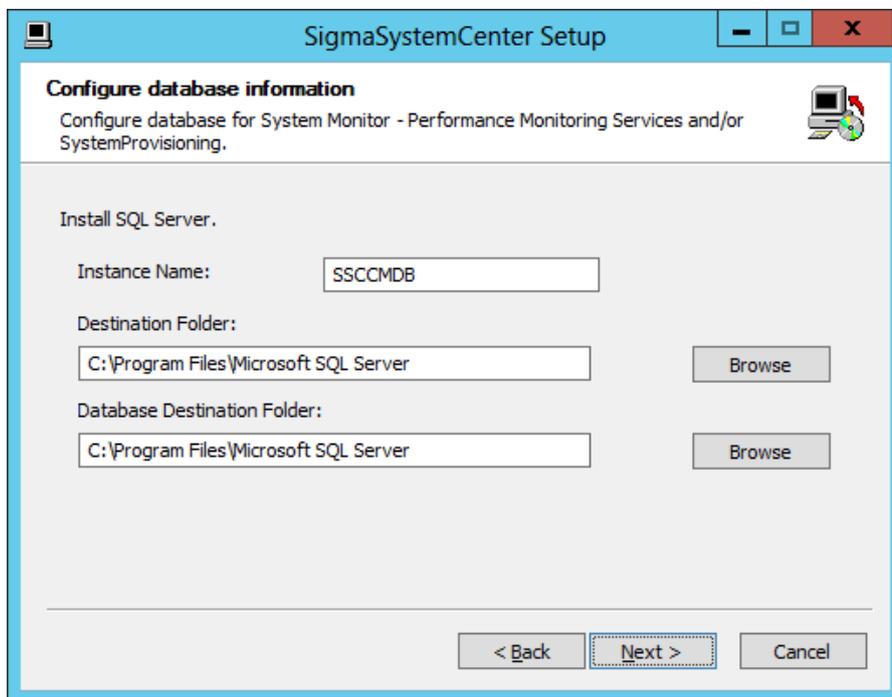
<Configuring database information for DPM Server>



Use SQL Server	
<b>Use Local SQL Server</b>	Installs a new instance of SQL Server 2016 Express on the local machine.
<b>Use Remote SQL Server</b>	<p>Uses an instance of SQL Server configured in a different machine. You must configure the instance in advance. For the configuration, refer to Appendix D, "Configuring the Database Server of SQL Server" in <i>DeploymentManager Installation Guide</i>.</p> <p>In Instance Name, User Name, and Password, type the same values as the instance is used. If you change the values, refer to 1.7, "Database Transfer Procedure" in <i>DeploymentManager Caution Notes and Trouble Shooting Reference Guide</i>.</p>
<b>Instance Name</b>	<p>Type an instance name of SQL Server. The default is DPMDBI.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>▪ Do not use the reserved key words of SQL Server (e.g., Default).</li> </ul> <p>If you use the words, a set up error occurs.</p> <ul style="list-style-type: none"> <li>▪ The name is not case sensitive.</li> <li>▪ The name can contain single-byte alphanumeric characters.</li> <li>▪ The maximum length is 16 bytes.</li> </ul>

<b>Database Server IP Address</b>	When you select Use Remote SQL Server, type the IP address of the SQL Server configured in a different machine.
<b>User Name</b>	When you select Use Remote SQL Server, type the user name of the SQL Server. The name length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters.
<b>Password</b>	When you select Use Remote SQL Server, type the password of the SQL Server. The password length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters and single-byte symbols.
<b>Password(check)</b>	Type the password for confirmation.

<Configuring database information for SystemProvisioning and/or System Monitor - Performance Monitoring Services>



<b>Install SQL Server</b>	
<b>Instance Name</b>	<p>Type an instance name of SQL Server. The default is SSCCMDB.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>▪ Do not use the reserved key words of SQL Server (e.g., Default). If you use the words, a set up error occurs.</li> <li>▪ The name is not case sensitive.</li> <li>▪ The name can contain single-byte alphanumeric characters.</li> <li>▪ The maximum length is 16 bytes</li> </ul>

<p><b>Destination Folder</b></p>	<p>Type or select (click Browse) the destination folder of the SQL Server.</p> <p>The maximum length is 57 bytes.</p> <p>The default is %ProgramFiles%\Microsoft SQL Server.</p> <p>Specify an absolute path. The path can contain single-byte alphanumeric characters, single-byte spaces, and single-byte symbols.</p> <p>Do not use the following single-byte symbols: / * ? &lt; &gt; "   : ; % =</p>
<p><b>Database Destination Folder</b></p>	<p>Type or select (click Browse) the destination folder of the database.</p> <p>The maximum length is 57 bytes.</p> <p>The default is %ProgramFiles%\Microsoft SQL Server.</p> <p>Specify an absolute path. The path can contain single-byte alphanumeric characters, single-byte spaces, and single-byte symbols.</p> <p>Do not use the following single-byte symbols: / * ? &lt; &gt; "   : ; % =</p> <p>The database is actually installed on "&lt;Database Destination Folder&gt;\MSSQL13.&lt;Instance Name&gt;\MSSQL\Data."</p>

### 3.3.6. Configuring Database (Using Existing Database)

When you do not select SQL Server 2016 Express in 3.3.3, "Selecting Components," the following figures are displayed. If you select SQL Server 2016 Express, see 3.3.5, "Configuring Database (Installing SQL Server From Installer)."

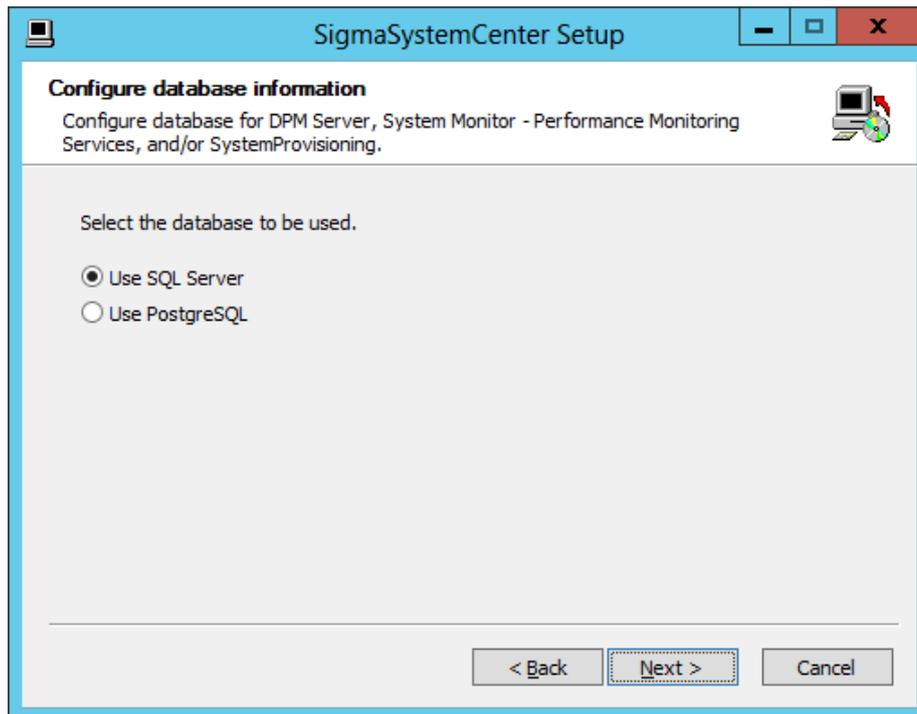
---

**Note:** If DPM Server, SystemProvisioning, and/or System Monitor - Performance Monitoring Services are already exist, the following figures are not displayed.

---

Select one of the following existing database and follow the displayed instructions:

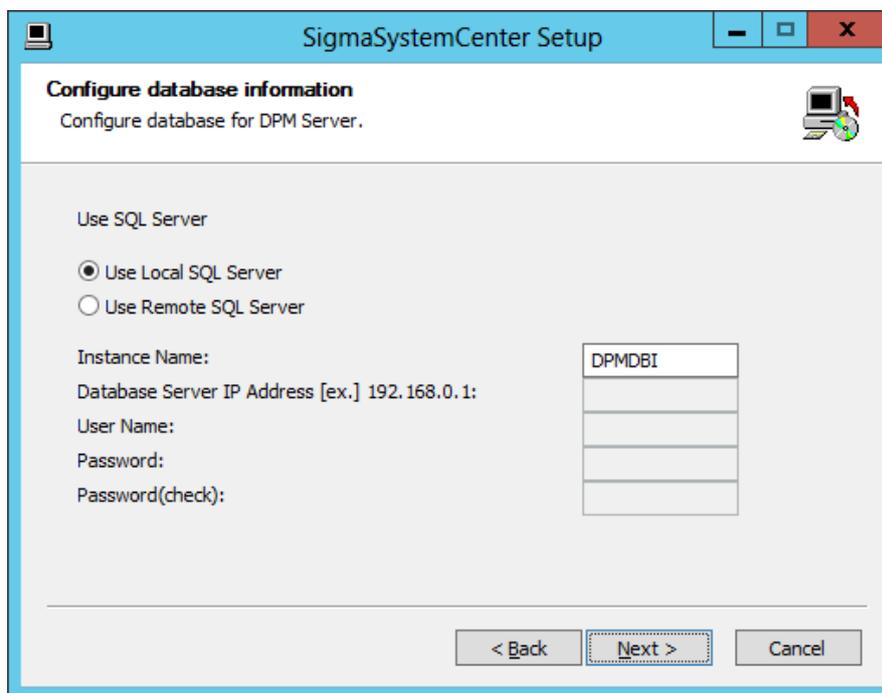
- ◆ SQL Server
- ◆ PostgreSQL



Select the database to be used	
Use SQL Server	Uses SQL Server as the database.
Use PostgreSQL	Uses PostgreSQL as the database.

- ◆ When selecting SQL Server
  - Configure database information for the following management server components:
    - DPM Server
    - SystemProvisioning, System Monitor - Performance Monitoring Services

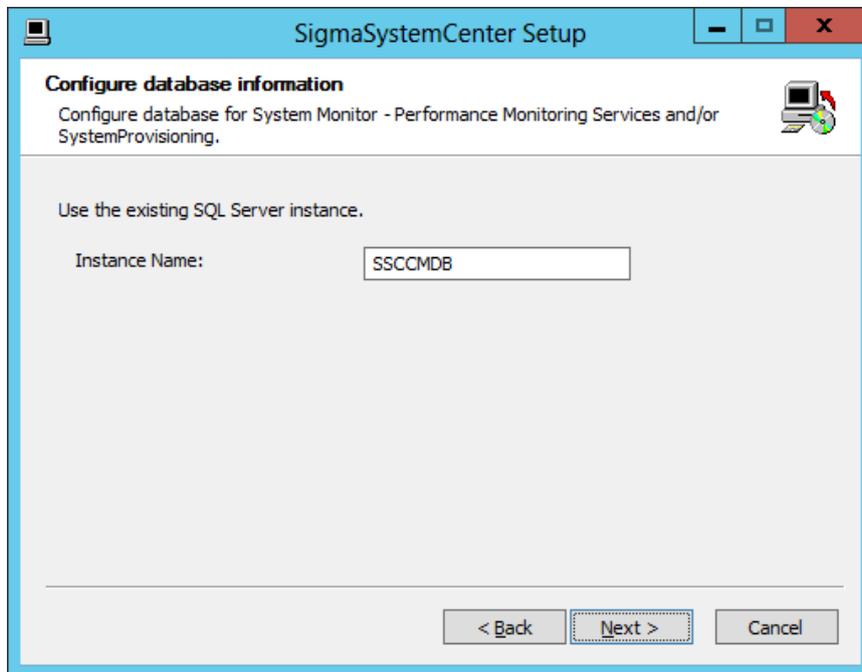
<Configuring database information for DPM Server>



Use SQL Server	
<b>Use Local SQL Server</b>	Uses an instance of SQL Server configured in the local machine.
<b>Use Remote SQL Server</b>	<p>Uses an instance of SQL Server configured in a different machine. You must configure the instance in advance. For the configuration, refer to Appendix D, "Configuring the Database Server of SQL Server" in <i>DeploymentManager Installation Guide</i>.</p> <p>In Instance Name, User Name, and Password, type the same values as the instance is used. If you change the values, refer to 1.7, "Database Transfer Procedure" in <i>DeploymentManager Caution Notes and Trouble Shooting Reference Guide</i>.</p>
<b>Instance Name</b>	<p>Type an instance name of SQL Server. The default is DPMDBI.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>▪ Do not use the reserved key words of SQL Server (e.g., Default). If you use the words, a set up error occurs.</li> <li>▪ The name is not case sensitive.</li> <li>▪ The name can contain single-byte alphanumeric characters.</li> <li>▪ The maximum length is 16 bytes.</li> </ul>

<b>Database Server IP Address</b>	When you select Use Remote SQL Server, type the IP address of the SQL Server configured in a different machine.
<b>User Name</b>	When you select Use Remote SQL Server, type the user name of the SQL Server. The name length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters.
<b>Password</b>	When you select Use Remote SQL Server, type the password of the SQL Server. The password length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters and single-byte symbols.
<b>Password(check)</b>	Type the password for confirmation.

<Configuring database information for SystemProvisioning and/or System Monitor - Performance Monitoring Services>



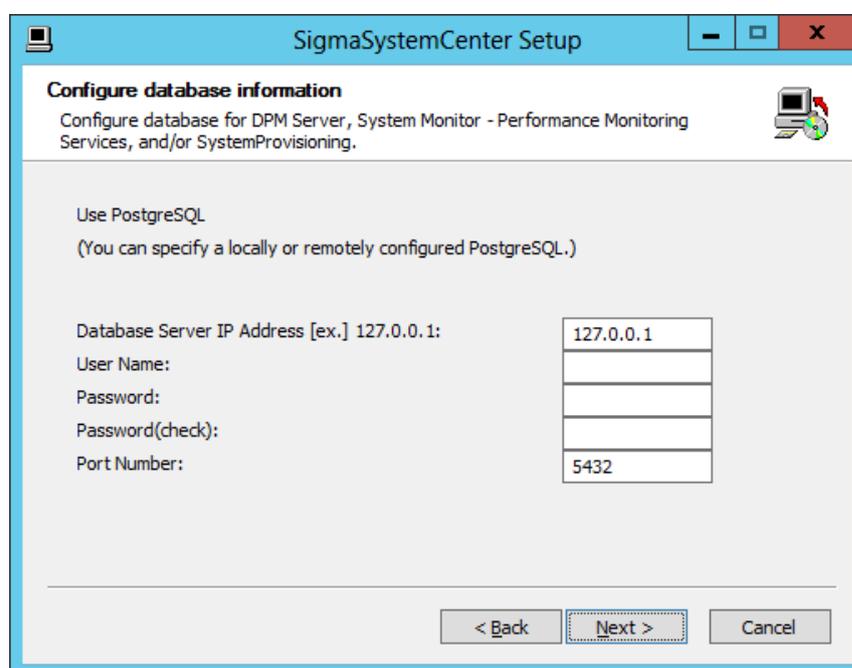
<b>Use the existing SQL Server instance</b>	
<b>Instance Name</b>	Type an instance name of SQL Server. The default is SSCCMDB.  Notes: <ul style="list-style-type: none"> <li>▪ The name is not case sensitive.</li> <li>▪ The name can contain single-byte alphanumeric characters.</li> <li>▪ The maximum length is 16 bytes.</li> </ul>

**Note:** If the specified name in Instance Name does not exist, the "The instance does not exist." message is displayed after clicking **Next**. If you install the instance newly, back to 3.3.2, "Beginning the Installation (Upgrade Installation)," and select Microsoft SQL Server 2016 Express.

◆ When selecting PostgreSQL

Configure database information for the following management server components:

- DPM Server, System Monitor - Performance Monitoring Services, SystemProvisioning



Use PostgreSQL	
<b>Database Server IP Address</b>	Type the IP address of a machine in which a PostgreSQL is configured. If you use a PostgreSQL configured in a local machine, type 127.0.0.1. If you use a PostgreSQL configured in a different machine, type the IP address of the machine.
<b>User Name</b>	Type the user name of the PostgreSQL. The name length is 1 to 30 bytes. The name can contain single-byte alphanumeric characters.

<b>Password</b>	Type the password of the PostgreSQL. The password length is 1 to 30 bytes. The password can contain single-byte alphanumeric characters and single-byte symbols. Do not use the following single-byte symbols: ^ & =   \ " ; < > , / '
<b>Password(check)</b>	Type the password for confirmation.
<b>Port Number</b>	Type the port number of the PostgreSQL in the range of 1 to 65535. The default is 5432.

---

**Notes:**

- You must install PostgreSQL before this configuration. For the installation, see Appendix A, "Installing/Uninstalling PostgreSQL."
  - If the "It cannot be connected to PostgreSQL." message is displayed after clicking **Next**, check the following:
    - Whether the PostgreSQL is installed
    - Whether the installation path of the PostgreSQL is correctly configured in the environment variable PATH
    - Whether Database Server IP Address, User Name, Password, and Port Number are correctly configured in this window

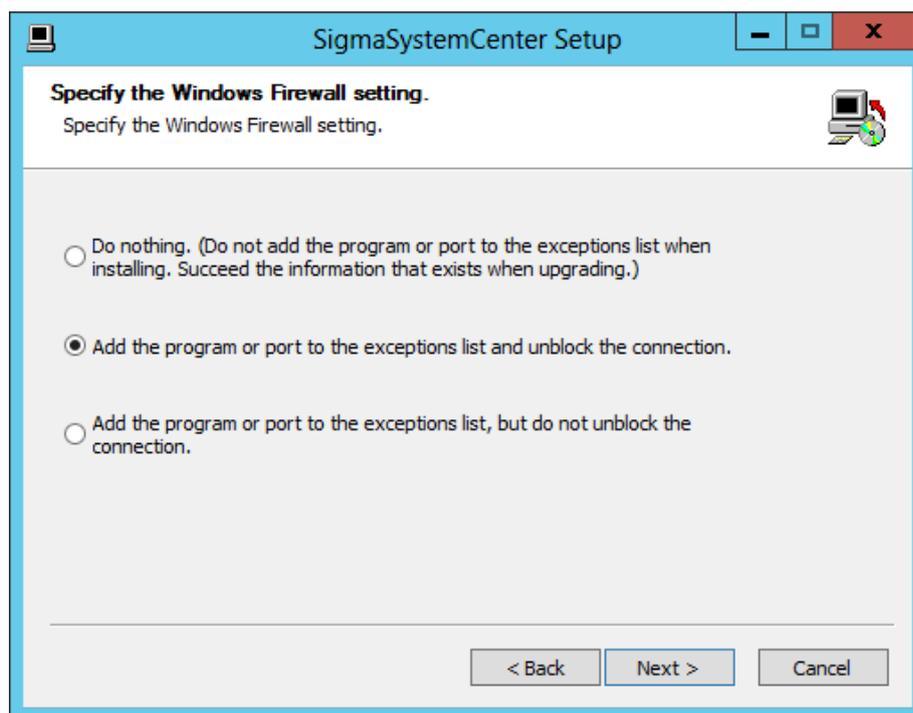
In addition to above, check the following for when configuring PostgreSQL in a different machine.

    - Whether the IP address of a management server is correctly configured in the pg\_hba.conf file that located in *PostgreSQL installed path(\*)\data*
      - \* The default is C:\Program Files\PostgreSQL\9.5.
    - Whether the port number is opened in the firewall
- 

### 3.3.7. Specifying Windows Firewall Setting

The screen to configure Windows Firewall setting appears if any of the following components has been selected in Subsection 3.3.3, "Selecting Components": NEC ESMPRO Manager, DPM Server, System Monitor - Performance Monitoring Services or SystemProvisioning.

Specify the item, and click **Next**.



<p><b>Do nothing. (Do not add the program or port to the exceptions list when installing. Succeed the information that exists when upgrading.)</b></p>	<p>If this option is selected, the previous information before the upgrade installation is succeeded except for the information of SystemProvisioning. Add the program or port to the exceptions list manually.</p>
<p><b>Add the program or port to the exceptions list and unblock the connection.</b></p>	<p>If this option is selected, the program or port will be added to the exceptions list and the connection will be unblocked. This option is selected by default.</p>
<p><b>Add the program or port to the exceptions list, but do not unblock the connection.</b></p>	<p>If this option is selected, the program or port will be added to the exceptions list, but the connection is not unblocked. Unblock the connection manually after the installation.</p>

**Note:** If the Do Nothing. (Do not add the program or port to the exceptions list when installing. Succeed the information that exists when upgrading.) is selected here, SystemProvisioning will not succeed the previous version's information, so the programs and ports must be added to the exceptions list manually after the upgrade installation. For details, see Appendix B, "Networks and Protocols."

**Reference:** Regarding added programs or ports to the exceptions list, see Appendix B, "Networks and Protocols."

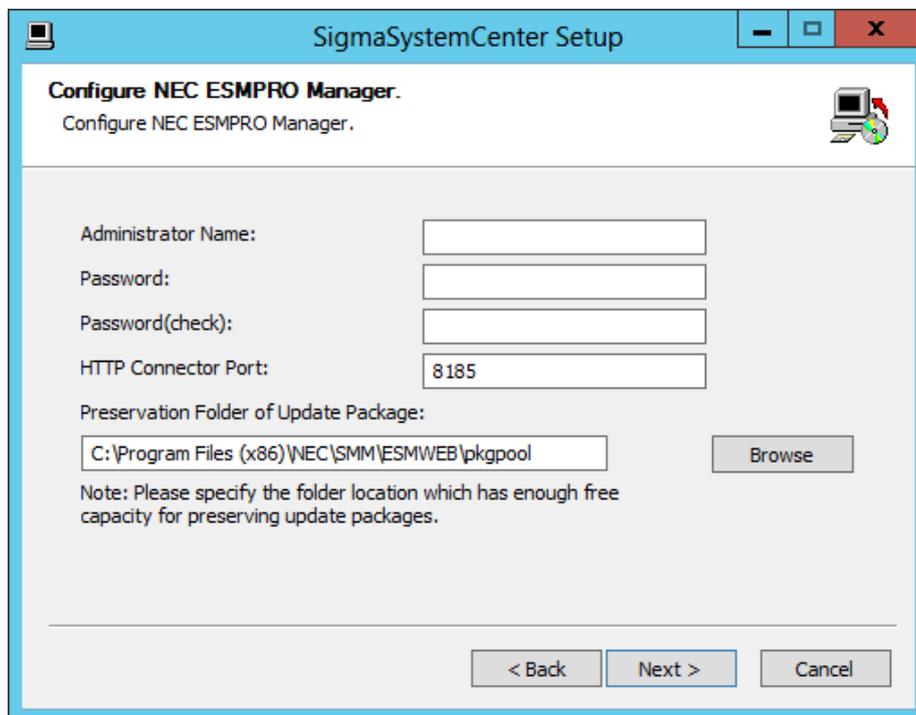
### 3.3.8. Configuring NEC ESMPRO Manager

The screen to configure NEC ESMPRO Manager appears if NEC ESMPRO Manager has been selected in Subsection 3.3.3, "Selecting Components."

Configure the required information to install NEC ESMPRO Manager, and click **Next**.

**Notes:**

- If NEC ESMPRO Manager Ver.5 is installed, the following setting window does not appear.
- The default value of the NEC ESMPRO Manager Installation Folder path is as follows:  
 "%ProgramFiles%\NEC\SMM" for x86 OS  
 "%ProgramFiles(x86)%\NEC\SMM" for x64 OS



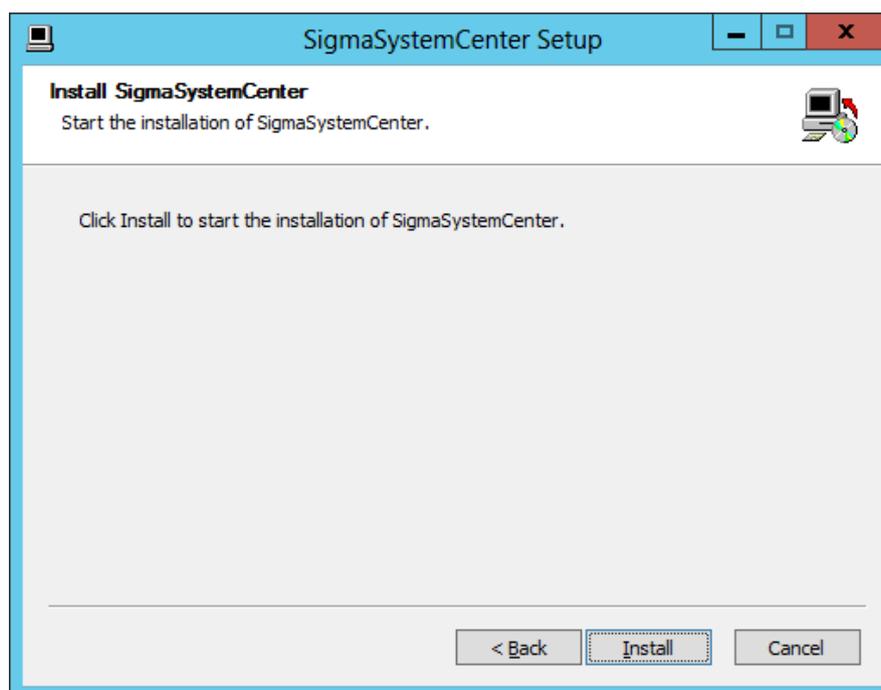
<b>Administrator Name</b>	Specify NEC ESMPRO Manager Administrator name. The length of this item must be within 1 to 16 bytes.
<b>Password</b>	Specify password to login NEC ESMPRO Manager. The length of this item must be within 6 to 16 bytes.
<b>Password (check)</b>	Enter the password again for confirmation.
<b>HTTP Connection Port</b>	Specify the HTTP connection port that is to be used by NEC ESMPRO Manager. Enter the value within 1 to 65535. The default is "8185."

<p><b>Preservation Folder of Update Package</b></p>	<p>Specify the folder path to save update packages. Prepare enough space capacity for the folder.</p> <p>Update packages of firmware and software will be stored in the folder.</p> <p>The default is "<i>NEC ESMPRO Manager Installation Folde\ESMWEB\pkgpool.</i>"</p> <p>Specify an absolute path. The path can contain single-byte alphanumeric characters, single-byte spaces, and single-byte symbols.</p> <p>Do not use the following single-byte symbols: / * ? &lt; &gt; "   : ; % =</p>
---	---

### 3.3.9. Starting the Installation (Upgrade Installation)

The confirmation dialog box appears before starting upgrade installation of the selected components.

Click **Install** to start the upgrade installation.



- ◆ When .NET Framework 4.6.2 and/or Windows Installer 4.5 have been selected  
If restart is necessary after installation of .NET Framework 4.6.2 and/or Windows Installer 4.5, the restart prompt will appear.
  - If you click **Yes**, the Windows is restarted automatically. After the restart, log on to the Windows. SigmaSystemCenter installation is resumed automatically. Then a dialog box that prompts you to start PVMSservice and the services of the DPM Server appears. Do the following procedure:
    1. Search PVMSservice and services that begin with "DeploymentManager," and confirm all the services are started.

2. Stop the DeploymentManager services. For details, see 3.3.1, "Stopping the Services of DeploymentManager."
  3. Click **Yes** to start installation (if you click **No**, the installation is end).
- If you click **No**, the installation is end. In this case, before you resume the installation, you must restart the Windows manually. After the restart, stop the DeploymentManager services. For details, see 3.3.1, "Stopping the Services of DeploymentManager." Then do the installation again to install the rest of components. For the installation, see 3.3.2, "Beginning the Installation (Upgrade Installation)."

---

**Note:** Please keep the following in mind when you click **Yes** in the above procedure:

- When log on to the Windows after the restart, you must log on with the same user as you used when starting the procedure.
  - Confirm the start of PVMService only when SystemProvisioning is already installed before this upgrading process.
  - Confirm the start of the DPM Server services only when a DPM Server is already installed before this upgrading process.
- 

- ◆ If NEC ESMPRO Manager has been selected

The following message may appear after the installation:

```
This program might not have installed correctly.
```

In such case, click **This program installed correctly** or **Cancel** to close the dialog because the installation completed successfully.

### 3.3.10. Completing the Installation (Upgrade Installation)

When all the selected components have been installed, the installation complete screen appears.

If the restart prompt appears, restart the system.

The management server components individual installation (upgrade installation) is now complete.

If uninstallation of Apache Tomcat is necessary, see Section 3.4, "Uninstalling Apache Tomcat."

See Section 3.5, "After Upgrading Management Server Components" to configure some more settings as needed.

## 3.4. Uninstalling Apache Tomcat

DeploymentManager of SigmaSystemCenter 3.0 or later does not use Apache Tomcat. Additionally, the Apache Tomcat that was used in the previous DeploymentManager version will not be deleted during the upgrade installation from SigmaSystemCenter 2.0 or 2.1. If the uninstallation of Apache Tomcat is necessary, perform the procedure described in this section.

Check the following two registries:

1. The registry to check is different according to the OS architecture:
    - For x86 OS  
HKEY\_LOCAL\_MACHINE\SOFTWARE  
  \Apache Software Foundation\Tomcat\6.0
    - For x64 OS  
HKEY\_LOCAL\_MACHINE\SOFTWAREWow6432Node  
  \Apache Software Foundation\Tomcat\6.0
  2. The registry to check is different according to the OS architecture:
    - For x86 OS  
HKEY\_LOCAL\_MACHINE\SOFTWARE  
  \Microsoft\Windows\CurrentVersion\Uninstall\Apache Tomcat 6.0
    - For x64 OS  
HKEY\_LOCAL\_MACHINE\SOFTWAREWow6432Node  
  \Microsoft\Windows\CurrentVersion\Uninstall\Apache Tomcat 6.0
- ◆ If both of them exist, uninstall Apache Tomcat from Programs and Features.
  - ◆ If only the above (Number 1) registry exists, run the following file stored in the *SigmaSystemCenter DVD-R* to remove Apache Tomcat:

```
\DPM\TOOLS\TomcatUninstall\Tomcat_Silent_Uninst_60.bat
```

The uninstallation of Apache Tomcat of SigmaSystemCenter 2.0 or 2.1 is now complete.

## 3.5. After Upgrading Management Server Components

There are some more settings that you may need to configure after completing the upgrade installation. After completing the upgrade installation of SigmaSystemCenter 3.6, configure the settings in this section according to your environment and upgraded components.

### 3.5.1. If You Upgraded DPM Server

- ◆ About DPM Client

If you upgraded DPM Server, upgrade DPM Client after all the installation/upgrade installation of the management server component(s).

For the upgrade installation of DPM Client, see Section 3.6, "Upgrading the Managed Machine Component" in this document and Section 3.3, "Upgrading DPM Client" in *DeploymentManager Installation Guide*.

- ◆ If you want to restore backup images of the managed machines in a RAID configuration obtained before SigmaSystemCenter 3.0 update 1 on SigmaSystemCenter 3.0 update 1 or later, see Appendix D "For Customers Who Configure RAID on the Managed Machine" in *DeploymentManager First Step Guide*.

- ◆ If machine resources are managed with machine names

DeploymentManager Ver.6.02 included in SigmaSystemCenter 3.0 update 1 allows you register machines with same names each other, so, the machine names moved to a group pool after machine replacement are not changed after upgraded has been executed, although they are changed previously to "(machine name) x" (x means any number). If a machine resource is managed with machine names and some impacts on operation potentially exist, please reconsider how to operate. If you intend to distinguish machine resources with their names, use the Identification Name of DeploymentManager. The Identification Name is not changed during operation, and it is applied to the machine name in SystemProvisioning. Refer to how to set an Identification Name for "3.7.2 Edit Managed Machine" in *DeploymentManager Web Console Reference Guide*.

### 3.5.2. If You Installed DeploymentManager and SystemProvisioning on Different Machines in SigmaSystemCenter 2.1 or Earlier

If DeploymentManager and SystemProvisioning had been installed different machines, the previous version's Command Line for DPM must be removed after the upgrade installation.

Uninstall the previous version's Command Line for DPM by performing the following procedure:

---

**Note:** Be sure to finish the processes of DeploymentManager before the uninstallation.

---

1. Click **Start** menu, click **Control Panel**, and click **Programs and Features**.
2. Select **DeploymentManager (Command Line for DPM)**. Click **Uninstall** or **Change**.
3. **Setup Type** dialog box appears. Select **Uninstall**, and click **Next**.
4. **Confirm Uninstall** dialog box appears. Click **OK**.
5. **Setup Status** dialog box appears and the uninstallation starts.
6. **Maintenance Complete** dialog box appears. Click **Finish**.

The uninstallation of Command Line for DPM is now complete.

### 3.5.3. If You Upgraded System Monitor - Performance Monitoring Services

- ◆ If a managed machine running Linux is used in your system that is multipath I/O configuration with StoragePathSavior and if upgraded from SigmaSystemCenter 2.1 update 2 or update 3, the service configuration file must be edited.  
For details, see Section 10.6, "Notes on Upgrading/Updating" in *System Monitor - Performance Monitoring Services User's Guide*.
- ◆ If upgraded from SigmaSystemCenter 3.1 update 1 or earlier, the protocol used on a Linux management machine which uses telnet in the purpose of connection will be changed to SSH.

- ◆ If upgraded from SigmaSystemCenter 3.2 or earlier, add the following performance indicators to *Monitoring Profile (5min)* and *VM Standard Monitoring Profile (30min)*, which are the default monitoring profile used to collect performance information of a virtual machine.

For how to add performance indicators, see Subsection 4.12.3, "How to Create a Monitoring Profile" in *NEC SigmaSystemCenter Configuration Guide*.

Guest Disk IO Count (IO/sec)

Guest Disk Read Transfer Rate (Bytes/sec)

Guest Disk Read Count (IO/sec)

Guest Disk Write Transfer Rate (Bytes/sec)

Guest Disk Write Count (IO/sec)

- ◆ SigmaSystemCenter 3.4 or before cannot collect the following performance information from the virtual machine on KVM if the OS of the virtual machine is Linux.

Disk Transfer Rate (Bytes/sec)

Disk IO Count (IO/sec)

Disk Read Transfer Rate (Bytes/sec)

Disk Read Count (IO/sec)

Disk Write Transfer Rate (Bytes/sec)

Disk Write Count (IO/sec)

For this reason, after upgrading from SigmaSystemCenter 3.4 or before, you must modify a configuration file to obtain the information.

Follow the procedure below:

1. Stop the Management Console
2. Stop the System Monitor Performance Monitoring Service
3. Backup the configuration file (`\bin\rm_service_init.xml`) in the installed directory (see below) to any location, and then open the file by a text editor.

Default installed directory:

`%ProgramFiles(x86)%\NEC\SystemMonitorPerformance`

4. Add "`|vd`" within the `LinuxDiskDeviceNameRegex` tag as the following:

```
<LinuxDiskDeviceNameRegex>(?:hd|sd|xvd|dd|vd)[a-z]+</LinuxDiskDeviceNameRegex>
```

5. Save and close the file, and then restart the System Monitor Performance Monitoring Service.

- ◆ From SigmaSystemCenter 3.5, the way of collecting performance data by the remote user script is changed because of replacing the SSH connection library of SigmaSystemCenter. This change applies only when performing the collecting performance data function on the following environment.

The target environment:

SigmaSystemCenter 3.5 that upgraded from 3.4 or before that uses Cygwin for the collecting function to collect the performance data from the Windows managed target machines.

In this environment, you must change a configuration and syntax as follows:

- You must use "/bin/bash" as the default login shell of a connecting account. If "/bin/bash" is not default, specify it to the "/etc/passwd" file in the Cygwin installed directory.
- Syntax has changed when using a batch file that uses collecting performance data. You must add "cmd /c" before the path of the batch file.

Example:

(Before upgrade)

```
remote+ssh://C:\PerformanceMonitor\Script\test.bat
```

(After upgrade)

```
remote+ssh://cmd /c "C:\PerformanceMonitor\Script\test.bat"
```

- Syntax has changed when using a powershell file that uses collecting performance data. You must change "< NUL" to "< /dev/null."

Example:

(Before upgrade)

```
remote+ssh://PowerShell.exe -File
```

```
"C:\PerformanceMonitor\Script\test.ps1" < NUL
```

(After upgrade)

```
remote+ssh://PowerShell.exe -File
```

```
"C:\PerformanceMonitor\Script\test.ps1" < /dev/null
```

- The slash character (/) is no longer available for the group name of System Monitor - Performance Monitoring Services. In this reason, "/" is converted to "-" (hyphen) when upgrading SigmaSystemCenter to 3.5 if the group name contains "/" (Note: if the converted name already exists, a number with

brackets, such as (1), will be added to the name automatically to avoid duplication.)

### 3.5.4. If You Upgraded System Provisioning

◆ Replacing licenses

Perform the following procedure to replace licenses before operating SigmaSystemCenter. Be sure not to start a machine or create a virtual machine during replacing licenses because such operations will cause an error owing to lack of licenses.

---

**Note:** When **Add** is clicked after entering the license keys, the following message appears:

Please restart PVMService to make the license effective.  
However, you need not to restart every time the message appears.

---

1. Start the Web Console and switch to the Management view.
2. Click the License in the Management tree.
3. Details of licenses of the earlier version appear on the Main Window.
4. Select all the check boxes except the Edition License and click **Delete**.
5. Select the check box of the Edition License and click **Delete**.
6. If you directly type the license keys, select **License Key** and type the license keys of the new version's Edition License in the text box. If you register the license keys from the license file, select **Select File** and specify the file location.
7. Click **Add**.

8. If you directly type the license keys, add the other new version license keys one by one. If you register the license keys from the license file, go to step 9.

Management > License

**Media Information**

Version

**Edition Information**

Edition: SigmaSystemCenter Enterprise Edition  
 Option: VM, UCS  
 Expiration Date:

**Target License**

Type	Available	Used
Network Appliance Control	10	0

**License Details**

License Key	Option	Type	Version	License Count
	Base, VM, UCS			

**Add License**

License Key

Select File

9. Restart SystemProvisioning.

◆ About the backup file of the configuration database

The backup file of the configuration database is saved in the following path. The saved backup file is not required after the upgrade installation, so delete it.

- If upgraded from SigmaSystemCenter 2.0 or 2.1

```
%ProgramFiles%\Microsoft SQL Server\  
MSSQL.x\MSSQL\Backup\pvminf\YYYYMMDDhhmmss.dat *1, *2
```

E.g.,

```
C:\Program Files\Microsoft SQL Server\  
MSSQL.1\MSSQL\Backup\pvminf\20090703123456.dat
```

- If upgraded from SigmaSystemCenter 3.0 or 3.1

```
%ProgramFiles%\Microsoft SQL Server\  
MSSQL10_50.SSCEMDB\MSSQL\Backup\pvminf\YYYYMMDDhhmmss.dat  
*1
```

E.g.,

```
C:\Program Files\Microsoft SQL Server\  
MSSQL10_50.SSCEMDB\MSSQL\Backup\pvminf\20090703123456.dat
```

- If upgraded from SigmaSystemCenter 3.1 update1, 3.2, or 3.3  
%ProgramFiles%\Microsoft SQL Server\  
MSSQL11.SSCCMDB\MSSQL\Backup\pvminfYYYYMMDDhhmmss.dat \*1

E.g.,

C:\Program Files\Microsoft SQL Server\  
MSSQL11.SSCCMDB\MSSQL\Backup\pvminf20090703123456.dat

- If upgraded from SigmaSystemCenter 3.4 or 3.5  
%ProgramFiles%\Microsoft SQL Server\  
MSSQL12.SSCCMDB\MSSQL\Backup\pvminfYYYYMMDDhhmmss.dat \*1

E.g.,

C:\Program Files\Microsoft SQL Server\  
MSSQL12.SSCCMDB\MSSQL\Backup\pvminf20090703123456.dat

\*1 The date and time when the configuration database is backed up is displayed in *YYYYMMDDhhmmss*.

In the example, it indicates 12:34:56 on July 3rd, 2009.

\*2 *x* in *MSSQL.x* indicates a level where *pvminf.mdf* exists in

%ProgramFiles%\Microsoft SQL Server\MSSQL.x\MSSQL\Data.

If *pvminf.mdf* exists in *MSSQL.1*, the backup file is saved in *MSSQL.1*.

- ◆ Added policy rules (HW predictive, CPU temperature, memory failure recovery, and non-recovery) to the standard policy, and removed Universal RAID Utility policy rules.

In SigmaSystemCenter 3.2, the policy rules against HW predictive, CPU temperature, memory failure recovery and non-recovery have been added to the standard policy.

Also, events in the Universal RAID Utility policy rules have been moved to the disk policy rules and the Universal RAID Utility policy rules have been removed.

If upgraded, SigmaSystemCenter inherits the former settings. If you used a policy created from the standard policy template, you need to create the policy again from the policy template.

---

**Note:** Standard Policy was renamed Standard Policy (Physical machine) in SigmaSystemCenter 3.3.

---

- ◆ Removed HW predictive events, and added non-recovery policy rules.

In SigmaSystemCenter 3.2, some of the HW predictive events have been removed, and the non-recovery policies have been added:

- Standard policy (N+1)
- Standard Policy (VM Server)
- Standard Policy (VM Server Power save)
- Standard Policy (VM Server Predictive)
- Standard Policy (VM Server ESXi)
- Standard Policy (VM Server Hyper-V)
- Standard Policy (VM Server Hyper-V Power save)
- Standard Policy (VM Server Hyper-V Predictive)

If upgraded, SigmaSystemCenter inherits the former settings. If you used a policy created from the standard policy template, you need to create the policy again from the policy template.

---

**Note:** Standard Policy (VM Server ESXi) was renamed Standard Policy (VM Server Standalone ESXi) in SigmaSystemCenter 3.2.

---

- ◆ Notes for using NEC ESMPRO ServerAgentService

Starting with SigmaSystemCenter 3.5, NEC ESMPRO ServerAgentService is added as one of the target products of managed machines (physical machines)

When registering an NEC ESMPRO ServerAgentService installed machine to NEC ESMPRO Manager by using the Change Configuration feature, the registering process takes more time than when registering NEC ESMPRO Agent and this may occur a time out error.

Although the time that lead to the error differs depending on machine types or environment, you can avoid the error by increasing the **Retry Count** value (click **Management** on the title bar, click **Environment** in the **Management** tree, and then click the **Other** tab).

From SigmaSystemCenter 3.5 or later, the default **Retry Count** value changed from 15 to 30, though this value do not change when upgrading SigmaSystemCenter.

If not use NEC ESMPRO ServerAgentService, you do not have to change the **Retry Count** value.

- ◆ If upgraded from SigmaSystemCenter 2.0 or later

Some settings for the products and components that had been configured in the previous version are not succeeded. See Subsection 3.5.5, "If You Upgraded from SigmaSystemCenter 2.0 or Later" to configure the settings again.

### 3.5.5. If You Upgraded from SigmaSystemCenter 2.0 or Later

If upgraded from SigmaSystemCenter 2.0 or later, confirm the following settings after the upgrade installation:

Versions Before Upgrading	Correspondent Number
SigmaSystemCenter 2.0	(1), (2), (3), (6), (7), (8), (10), (12), (15), (16) , (17)
SigmaSystemCenter 2.1	(1), (2), (3), (5), (6), (7), (8), (10), (12), (15), (16) , (17)
SigmaSystemCenter 2.1 update 1	(1), (2), (3), (5), (6), (7), (8), (10), (12), (15), (16) , (17)
SigmaSystemCenter 2.1 update 2	(1), (2), (3), (5), (6), (7), (8), (10), (12), (15), (16) , (17)
SigmaSystemCenter 2.1 update 3	(1), (2), (3), (5), (6), (7), (8), (10), (11), (12), (15), (16) , (17)
SigmaSystemCenter 2.1 update 3+	(1), (2), (3), (4), (5), (7), (8), (12), (15), (16) , (17)
SigmaSystemCenter 3.0	(1), (2), (3), (4), (5), (7), (8), (9), (12), (15), (16), (17), (18), (19)
SigmaSystemCenter 3.0 update 1	(1), (2), (3), (4), (5), (8), (9), (12), (13), (15), (16), (17), (18), (19)
SigmaSystemCenter 3.1	(1), (2), (3), (4), (9), (12), (13), (15), (16), (17), (18), (19)
SigmaSystemCenter 3.1 update 1	(1), (3), (4), (9), (12), (13), (15), (16), (17), (18)
SigmaSystemCenter 3.2	(1), (3), (4), (9), (13), (14), (15), (16), (17), (18)
SigmaSystemCenter 3.3	(1), (3), (4), (14), (15), (16), (17), (18)
SigmaSystemCenter 3.3 update 1	(1), (3), (4), (14), (15), (16), (17), (18)
SigmaSystemCenter 3.4	(1), (3), (4), (14), (15), (16), (17), (18)
SigmaSystemCenter 3.5	(1), (3), (4), (14), (17)

[Correspondence Table]

Number	Title
(1)	About SQL Server
(2)	If EMC Storage (VNX) is being used
(3)	If the setting file has been modified
(4)	If the collection at the PVM Service startup is set to OFF
(5)	Notes regarding templates
(6)	If the role feature is used
(7)	If a machine is set to register to the DPM Server when VM is activated
(8)	About the resource pool monitoring feature
(9)	About the VM Optimized Placement feature
(10)	About viewing and setting a template
(11)	Recovery actions of HW Predictive alert events
(12)	Machine type in the operation group

(13)	Updating the machine type conditions in the default smart group (Free physical machines)
(14)	When using the file delivery feature
(15)	When specifying the bandwidth control on each NIC of virtual machines
(16)	When specifying the resource control on each disk of virtual machines
(17)	When using any kinds of tags
(18)	When using a sysprep answer file
(19)	When using Standard Policy (VM Server ESXi)

**(1) About SQL Server**

- SigmaSystemCenter 3.2 and its subsequent releases do not support SQL Server 2005 and SQL Server 2008. So, note the following matters when upgrading your SigmaSystemCenter:

<Upgrading from SigmaSystemCenter 2.0-3.1 update 1>

If you used SQL Server 2005 or SQL Server 2008 before upgrade, manually upgrade the existing SQL Server instance to SQL Server 2008 R2, SQL Server 2012, SQL Server 2014, or SQL Server 2016 after completing installation (upgrade) of all components.

Note that you cannot upgrade SQL Server installed on Windows Server 2008 R2 to SQL Server 2016 because SQL Server 2016 does not support Windows Server 2008 R2.

- SigmaSystemCenter installs SQL Server 2016 Service Pack 1 Express since SigmaSystemCenter 3.6.

<Upgrading from SigmaSystemCenter 3.0-3.5>

SigmaSystemCenter keeps using the SQL instance that was used in the previous version.

To upgrade the existing SQL Server 2008 R2, SQL Server 2012, or SQL Server 2014 instance to SQL Server 2016, complete the upgrade installation of all the components beforehand, and execute upgrading of the SQL Server manually.

Note that you cannot upgrade SQL Server installed on Windows Server 2008 R2 to SQL Server 2016 because SQL Server 2016 does not support Windows Server 2008 R2.

**(2) If EMC Storage (VNX) is being used**

The default value of the failover mode is changed to "4" in SigmaSystemCenter 3.1 update 1 and its subsequent releases, although it was "1" in SigmaSystemCenter 3.1 or earlier. If you want to use other values than the default in your configuration, you can change the value in a registry.

#### <Upgrading from SigmaSystemCenter 2.0-2.1 update 2>

The information of the HBA and storage configured on a stopped host will not be succeeded. Collect and register the storage information again and register the HBA to the host by performing the following procedure.

On the other hand, the information of the HBA and storage configured on a host running at a group will be succeeded. In this case, re-registration is unnecessary.

Collect the information of the storage, and register the disk volume as a management target of SigmaSystemCenter.

For details, see Section 4.7, "Registering Storage" in *NEC SigmaSystemCenter Configuration Guide*.

After registration of the disk volume, register the HBA to connect by performing either of the following two procedures:

- Re-register the HBA to connect by using commands, and then re-register the HBA to a host

For details, see both of the following references:

=>Subsection 2.12.3, "Setting HBA" in *ssc Command Reference*

=>Subsection 4.10.3, "Configuring Settings on the Storage Tab" in *NEC SigmaSystemCenter Configuration Guide*.

- Assign a logical disk and a host to the storage group and collect the HBA information to set the HBA to the host.

For details, see the following reconfiguration procedures of the storage:

=>Subsection 3.5.1, "Preparing Storage" in *NEC SigmaSystemCenter Configuration Guide*

=>Subsection 4.10.3, "Configuring Settings on the Storage Tab" in *NEC SigmaSystemCenter Configuration Guide*.

If the SP information (disk volume) which is different from the other SP information which is connected to an HBA is configured on the host, the disk volume will not be set in the host setting during the upgrade installation. For how to deal with this issue, see Subsection 3.2.6, "Notes on Upgrading."

#### <Upgrading from SigmaSystemCenter 2.1 update 3-3.1>

The managed disk volume of VNX has been changed to LUN from storage groups since SigmaSystemCenter 2.1 update 3; this requires storage settings for a standby machine after upgrade. You should set up the followings.

**1. Creating a storage group for standby machines**

You should create a storage group for standby machines since SigmaSystemCenter 2.1 update 3.

**1. Run the following Navisphere CLI on the management server.**

```
naviseccli -h "IP of SP" storagegroup -create -gname
"Storage Group Name" -o
```

**2. Collect storages from the Storage in the Resource view on the management server, and apply the created storage group to SigmaSystemCenter.**

**2. Registering an HBA and the path information of the standby machine**

The HBA and the information of a standby machine are not inherited, so you need to register them.

**1. Run the following command on the management server to review the path information of the standby machine.**

```
ssc show diskarraypath "Disk Array Name"
```

**2. Run the following command on the management server to register the HBA and the path information of the standby machine.**

```
ssc set hba "Disk Array Name" "Disk Array Path" WWPN -
wwnn WWNN
```

**3. Set up the HBA for the standby machine.**

Register the HBA information to the standby machine on the Storage tab in the machine property setting in the Resource view.

**(3) If the setting file has been modified**

The following files are overwritten by the initial files of SigmaSystemCenter 3.6 during the upgrade installation.

The files before the upgrade installation are stored in the backup folder under the SystemProvisioning installation folder. If the files have been modified in any version of SigmaSystemCenter 2.0 through SigmaSystemCenter 3.5, modify the files again manually after the upgrade installation.

In the SystemProvisioning installation folder

(The default installation path is:

"%Program Files%\NEC\PVM\" for x86 OS,

"%Program Files(x86)%\NEC\PVM\" for x64 OS).

---

**Note:** If you want to reuse "PVMServiceProc.exe.config" in the "backup" folder in SigmaSystemCenter 2.0 through SigmaSystemCenter 3.1, you must add the following entry to the file.

```
<runtime>
  <legacyCorruptedStateExceptionsPolicy enabled="true" />
</runtime>
```

---

The files which should be modified differ depending on what version of SigmaSystemCenter is before upgrade installation.

The following shows files which requires to be modified per each version of SigmaSystemCenter:

### <Upgrading from SigmaSystemCenter 2.0-2.1 update 3>

- bin\PVMServiceProc.exe.config
- bin\pvmutil.exe.config
- bin\ssc.exe.config
- bin\ManagementServer.config
- bin\EsmEvents.xml
- bin\EventFormattor.xml
- Provisioning\Web.config
- Provisioning\Log4net.config
- Provisioning\App\_Data\Config\CustomizationConfig.xml

The following files are changed to be installed under the *conf* folder from SigmaSystemCenter 3.0.

- bin\EsmEvents.xml
- bin\EventFormattor.xml
- bin\PIMSensorTemplate.xml
- bin\SensorEventID.xml
- bin\PolicyTemplate.xml (this file is installed under *conf\policy* folder with being divided)

### <Upgrading from SigmaSystemCenter 3.0-3.5>

- bin\PVMServiceProc.exe.config
- bin\pvmutil.exe.config

- bin\ssc.exe.config
- bin\ManagementServer.config
- Provisioning\Web.config
- Provisioning\Log4net.config
- Provisioning\App\_Data\Config\CustomizationConfig.xml
- conf\log\_base.config
- conf\log.config
- conf\EsmEvents.xml
- conf\EventFormattor.xml
- conf\VimCim.xml
- conf\VMwareEvents.xml
- conf\StandaloneEsxEvents.xml
- conf\TimeZone.xml
- conf\oscustom\sysprep\_win2k3.inf
- conf\oscustom\sysprep\_win2k8r2.xml
- conf\oscustom\sysprep\_win7.xml
- conf\oscustom\sysprep\_win7x64.xml
- conf\oscustom\sysprep\_winxp.inf
- conf\scripts\Linux\CollectDaemon.sh
- conf\scripts\Linux\SetStaticRoute.sh
- conf\scripts\Linux\WaitForDaemonStarted.sh
- conf\scripts\Windows\CollectService.ps1
- conf\scripts\Windows\RevokeAdmin.bat
- conf\scripts\Windows\SetStaticRoute.ps1
- conf\scripts\Windows\WaitForServiceStarted.ps1
- conf\LdapConfig.xml
- conf\OSLicenseGroup.xml

If you preconfigure the following feature, which enables PerforNavi to start from the Web Console, to "true," reconfigure it after upgrading SigmaSystemCenter from 3.3 update 1 or later.

- Provisioning\App\_Data\Config\CustomizationConfig.xml

```
<Configuration>
  <Common>
    ---omission---
    <CallPerforNavi>
      <Enable>true</Enable>
    ---omission---
  </Common>
</Configuration>
```

The default value is "false."

- true: enables PerforNavi to start from the Web Console of SigmaSystemCenter.
- false: disables PerforNavi to start from the Web Console of SigmaSystemCenter.

The following file has been changed to be installed in the *conf* folder from SigmaSystemCenter 3.2:

- bin\ucsm.xml

**(4)** If the collection at the PVM Service startup is set to OFF

<Upgrading from SigmaSystemCenter 2.1 update 3 or after>

If the collection at the PVM Service startup was set to OFF before upgrade installation, the setting is overwritten to ON, the default value of the Collect action, while the upgrade installation.

To set to OFF again, configure the setting with the command.

Reference: Subsection 2.3.2, "Start Up Collecting Setting" in *ssc Command Reference*.

**(5)** Notes regarding templates

<Upgrading from SigmaSystemCenter 2.1-3.0 update 1>

There are some notes regarding templates created in any of SigmaSystemCenter 2.1 through SigmaSystemCenter 3.0 update 1.

For details, see Subsection 1.2.6, "About Template," 2.2.1, "Cannot Use Differential Clone Templates After Upgrade to SigmaSystemCenter 3.0 or Later" and 2.2.2, "Cannot Use Disk Clone Templates After Upgrade to SigmaSystemCenter 2.1 Update 3 or Later" in *NEC SigmaSystemCenter Caution Notes and Trouble Shooting Reference Guide*.

**(6)** If the role feature is used

<Upgrading from SigmaSystemCenter 2.0-2.1 update 3>

The role feature has been enhanced in SigmaSystemCenter 3.0. In accordance with this enhancement, the previous settings of the role feature configured in SigmaSystemCenter 2.0 or SigmaSystemCenter 2.1 are not succeeded.

Configure the new settings of the role feature for SigmaSystemCenter 3.0.

For details, see Section 1.1, "User and Role" in *NEC SigmaSystemCenter Reference Guide*.

- (7) If a machine is set to register to the DPM Server when VM is activated

<[Upgrading from SigmaSystemCenter 2.0-3.0](#)>

SigmaSystemCenter 3.0 update 1 allows you to create and register a hierarchy where a virtual machine belongs to on DeploymentManager if you want to register a running virtual machine to DeploymentManager. Because of this, SigmaSystemCenter 3.0 update 1 executes a process to apply the operation group configuration of SystemProvisioning to DeploymentManager. If the process has failed because of errors such as communication errors, remove errors that caused the failure before you run the following command. Then execute Refresh Machine of the virtual machine in Resource view.

```
ssc dpm-location notify -all
```

- (8) About the resource pool monitoring feature

<[Upgrading from SigmaSystemCenter 2.0-3.0](#)>

Resource pool monitoring feature is added in SigmaSystemCenter 3.0 update 1, which is defined to notify you of information of the resource pool based on the standard policy for the virtual machine server.

But notifying by this feature is not enabled automatically because the previous settings of the existed and standard policies are inherited during upgrade.

To notify by this feature, you should add an action manually for the event of this feature to the existing policy, or create policies again from the policy template.

For more details, refer to Section 4.6, "Resource Pool" in *NEC SigmaSystemCenter Reference Guide* and Section 1.2, "About Standard Policy" in *NEC SigmaSystemCenter Data Reference Guide*.

<[Upgrading from SigmaSystemCenter 3.0 update 1](#)>

In SigmaSystemCenter 3.1, the event of resource pool monitoring feature is separated for root pool and sub pool.

This means that event for the sub pool after upgrade is changed from the event in previous versions and that the event for the sub pool is not monitored anymore.

If you want to continuously monitor events for the sub pool with the resource pool monitoring feature, add the action manually for the sub pool event.

For more details, refer to Section 4.6, "Resource Pool" in *NEC SigmaSystemCenter Reference Guide* and Section 1.2, "About Standard Policy" in *NEC SigmaSystemCenter Data Reference Guide*.

- (9) About the VM Optimized Placement feature

<[Upgrading from SigmaSystemCenter 3.0-3.1](#)>

If you used the VM Placement Rule feature in SigmaSystemCenter 3.1 or earlier, execute the following command after upgrade to validate the placement rule.

```
ssc vmop verify-rule
```

You cannot edit the EQ rule, which is one of the placement rules set before upgrade, until it has been validated. Also, the EQ rule set before upgrade will not be applied when the machines are starting or moving.

(The Pin rule will be applied.)

If the placement rule before upgrade contains invalid rules (except "Loop"), the invalid EQ rules are not inherited.

For details of the invalid rule, see Subsection 2.11.12, "Setting VM-VMS (Pin) Rule and VM-VM (EQ) Rule Together," in *NEC SigmaSystemCenter Overview Reference Guide*. (Section number may be shifted according as the versions.)

#### <Upgrading from SigmaSystemCenter 3.1 update 1-3.2>

If you used the EQ Rule in SigmaSystemCenter 3.1 or earlier and you don't validate the placement rules setting in SigmaSystemCenter 3.1 update1 or later, the EQ rule set before upgrading will not be applied when the machines are starting or moving. (The Pin rule will be applied.)

Validate the placement rule setting, with following to the procedure of when you upgrade it from SigmaSystemCenter 3.0-3.1.

#### (10) About viewing and setting a template

##### <Upgrading from SigmaSystemCenter 2.0-2.1 update 3>

- The Disk Clone template created before upgrade is displayed the OS type is "Unknown" in the basic information on the Resource view. To show it properly, set again on the Edit Template.
- For HW Profile Clone templates created before update or operation groups registered Disk Clone templates, Owner Name, Organization Name and Product Key on the Host Profile tab are not set up automatically. So set them up after upgrade.

#### (11) Recovery actions of HW Predictive alert events

##### <Upgrading from SigmaSystemCenter 2.1 update 3>

Recovery actions of HW Predictive alert events have been changed in SigmaSystemCenter 3.0.

- Standard Policy (VM Server)
- Standard Policy (VM Server Power save)
- Standard Policy (VM Server Predictive)
- Standard Policy (VM Server ESXi)
- Standard Policy (VM Server Hyper-V)
- Standard Policy (VM Server Hyper-V Predictive)

If you use a policy made from these policy templates, you need to make again policies from the following new policy templates, or change recovery actions of HW Predictive alert events with the following contents.

1. In the case of policy templates except Standard Policy (VM Server ESXi)  
Action settings that Event Handler Settings Name is "Move all running VMs/Server shutdown"

<Before the change>

- Machine status/Set faulted status by an analysis of HW sensor conditions
- Notification/E-mail, Event Log
- Action for VMS/Move all running VMs on the VM server. (Hot Migration, Failover)
- Action for machine/Shutdown machine

<After the change>

- Machine status/Set faulted status by sensor diagnosis
- Notification/E-mail, Event Log
- Action for VMS/Move all running VMs on the VM server. (Migration, Failover)
- Action for machine/Shutdown VM Server (Predictive)

\* You must set execute condition of the action "Action for VMS/Shutdown VM Server (Predictive)" as completed.

2. In the case of policy template Standard Policy (VM Server ESXi)  
Action settings that Event Handler Settings Name is "Move all VMs on the VM server/Server shutdown"

<Before the change>

- Machine status/Set faulted status by an analysis of HW sensor conditions
- Notification/E-mail, Event Log
- Action for machine/Shutdown machine
- Action for VMS/Move all VMs on the VM server. (Failover)

<After the change>

- Machine status/Set faulted status by sensor diagnosis
- Notification/E-mail, Event Log
- Action for VMS/Move all VMs on the VM server (Quick Migration, Failover)
- Action for VMS/Shutdown VM Server (Predictive)

\* You must set execute condition of the action "Action for VMS/Shutdown VM Server (Predictive)" as completed.

#### (12) Machine type in the operation group

<Upgrading from SigmaSystemCenter 2.0-3.1 update 1>

Since SigmaSystemCenter 3.2, you must specify a machine type when creating an operation group.

If no model is created in the operation group before upgrade, the machine type in the group is "*Physical*" after upgrade.

If you intend to use the machine as the "*VM*" or "*VM Server*" typed machine, change its machine type.

You can change the machine type only when both of the following conditions are met:

- No model is created in the operation group.
- No active machine or pool machine is added to the operation group.

#### (13) Updating the machine type conditions in the default smart group (Free physical machines)

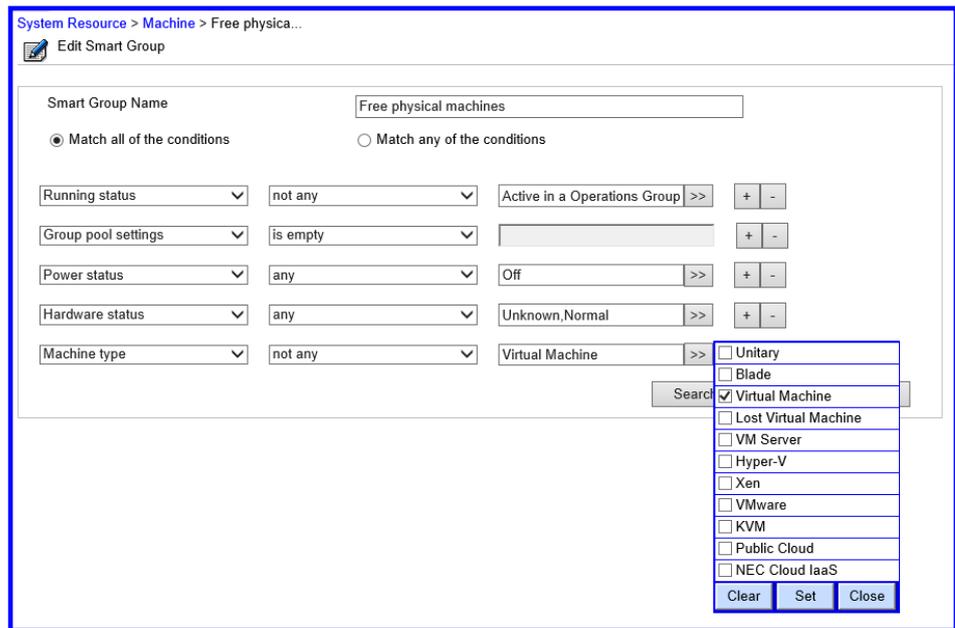
<Upgrading from SigmaSystemCenter 3.0 update 1-3.2>

Since SigmaSystemCenter 3.3, the machine type conditions in the default smart group (Free physical machines) are changed.

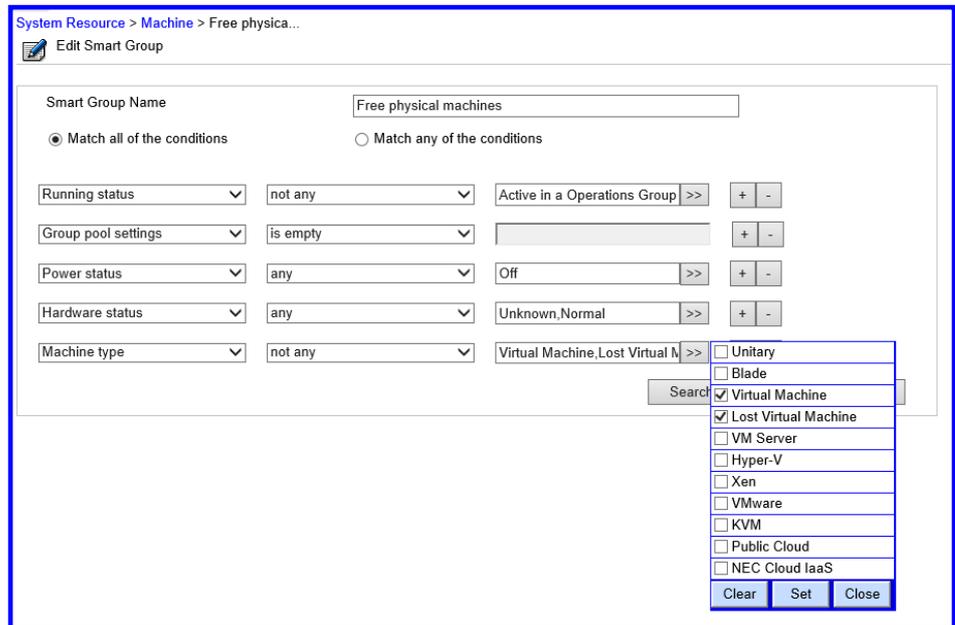
The machine type conditions will not be changed if the default smart group (Free physical machines) has been moved, if its name has been changed, or if the smart group conditions have been changed.

To change the machine type conditions, perform the procedure below:

1. Start the Web Console and switch to the **Resource** view.
2. Under the **System Resource** tree, select the default smart group (Free physical machines) of Machine.
3. Click **Edit Smart Group** on the **Configuration** menu to open the **Edit Smart Group** window.
4. Click [**>>**] on the right side of **Virtual Machine** in the **Machine Type** row (bottom row) to display the pop-up window to select the machine type.



5. On the pop-up window, select the **Lost Virtual Machine** check box and click **Set**.



6. Ensure that both the **Virtual Machine** check box and **Lost Virtual Machine** check box are selected and click **Close**.
7. Click **OK** on the **Edit Smart Group** window to register the smart group conditions.

**(14)** When using the file delivery feature

<Upgrading from SigmaSystemCenter 3.2-3.5>

Perform the following only when you are using the file delivery feature.

If you changed the SystemProvisioning installation folder from that before upgrading, manually move the *deployfiles* folder to the location described below because it is not deployed to its original directory after upgrading.

*SystemProvisioning Installation Folder*\deployfiles

(Default: %ProgramFiles(x86)%\NEC\PVM)

E.g.,

- Before upgrading (source directory):  
C:\Program Files (x86)\NEC\PVM\deployfiles
- After upgrading (destination directory):  
E:\Program Files (x86)\NEC\PVM\deployfiles

However, if you changed settings of the destination folder for delivered files from its default in the following registry, you do not need to move the *deployfiles* folder.

Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\NEC\PVM

\DPMPProvider

Name: DeployFile

**(15)** When specifying the bandwidth control on each NIC of virtual machines

Configuring the bandwidth control on each NIC of virtual machines is available on SigmaSystemCenter 3.4. By specifying the machine profile, you can configure the feature in such operation as **Create and Assign Machine**, **Reconfigure VM**, or **Edit VM**.

If the bandwidth control has been configured in an existing environment, specify the feature to the machine profile according to the setting of this environment.

If the operation of **Create and Assign Machine** or **Reconfigure VM** is executed without specifying the bandwidth control to the machine profile, the bandwidth control setting consists of the default values.

**(16)** When specifying the resource control on each disk of virtual machines

SigmaSystemCenter configuring the resource control on each disk of virtual machines is available on SigmaSystemCenter 3.4. By specifying the machine profile, you can configure the feature in such operation as **Create and Assign Machine**, **Reconfigure VM**, or **Edit VM**.

If the resource control has been configured in an existing environment, specify the feature to the machine profile according to the setting of this environment.

If the operation of **Create and Assign Machine** or **Reconfigure VM** is executed without specifying the resource control to the machine profile, the resource control setting consists of the default values.

**(17)** When using any kinds of tags

How to use any tags was changed to the following from SigmaSystemCenter 3.4. If you use tags in existing environment, you need to use the changed ones.

- "New line" is treated as delimiter.
- "Tab" is treated as delimiter.

In addition, how to use "Machine tag" and "Host tag" in smart group and tag cloud was changed to the following.

- Case sensitive.

**(18)** When using a sysprep answer file

<[Upgrading from SigmaSystemCenter 3.0-3.4](#)>

From SigmaSystemCenter 3.5, the default sysprep answer file, which is written by the XML format, is changed. Note that you can still use a sysprep answer file that was used SigmaSystemCenter 3.4 or before, except the creating local account function.

**(19)** When using Standard Policy (VM Server ESXi)

<[Upgrading from SigmaSystemCenter 3.0-3.1](#)>

In a policy created from Standard Policy (VM Server ESXi), a policy template, Quick Migration does not be executed as the corresponding action of a predictable event.

To execute Quick Migration, you need to re-create the policy from Standard Policy (VM Server Standalone ESXi) or configure Quick Migration manually for the policy as the following:

1. In the Management view, select Policy and then click the policy.
2. In the Policy Rule tab, click Edit in "Predictive alert: voltage failure."
3. In Event Handler Actions, click "Action for VMS / Move all VMs on the VM server. (Quick Migration, Failover)" to blank the drop-down box, and then click Apply.
4. In Event Handler Actions, click Add Action and then select "Action for VMS / Move all VMs on the VM server. (Quick Migration, Failover)." Click the far left side check box, click the Up arrow icon in the right side to back to 3, and then click Apply.

5. Repeat 3 and 4 for "Predictive alert: chassis temperature failure," "Predictive alert: power unit failure," "Predictive alert: FAN/Cooling device failure," and "Predictive alert: Coolant leak" in the Policy Rule tab.

## 3.6. Upgrading the Managed Machine Component

The following sections provide procedures to upgrade a managed machine component, DPM Client (corresponds to Client Service for DPM of the previous SigmaSystemCenter versions).

You do not need to upgrade NEC ESMPRO ServerAgentService or NEC ESMPRO Agent with upgrading SigmaSystemCenter.

Depending on what OS your managed machine is running, the upgrade installation methods vary.

See the section for the upgrade installation according to your environment.

If you are using:

- ◆ A Windows (x86/x64) managed machine:  
See Section 3.7, "Upgrading on a Managed Machine Running Windows (x86/x64)," 3.8, "Upgrading on a Managed Machine Running Server Core of Windows Server 2008 or Later."  
Or  
Section 3.10, "Upgrading DPM Client Automatically."
  
- ◆ A Linux managed machine:  
See Section 3.9, "Upgrading on a Managed Machine Running Linux"  
Or  
Section 3.10, "Upgrading DPM Client Automatically."
  
- ◆ A Citrix XenServer managed machine:  
See Section 3.9, "Upgrading on a Managed Machine Running Linux."
  
- ◆ A Microsoft Hyper-V managed machine:  
See Section 3.7, "Upgrading on a Managed Machine Running Windows (x86/x64)."  
Or  
Section 3.10, "Upgrading DPM Client Automatically."

- ◆ A virtual machine as a managed machine:  
According to an OS on the virtual machine, see Section 3.7, "Upgrading on a Managed Machine Running Windows (x86/x64)."  
Or  
Section 3.9, "Upgrading on a Managed Machine Running Linux."  
To upgrade SigmaSystemCenter on the virtual machine automatically, see Section 3.10, "Upgrading DPM Client Automatically."

## 3.7. Upgrading on a Managed Machine Running Windows (x86/x64)

You need to upgrade DPM Client on your managed machine which is running Windows (x86/x64). The following subsections describe the upgrade installation of DPM Client using the installation wizard.

Starting the installer (AgentSetup.exe) without options or parameters, the installer starts the installation wizard.

---

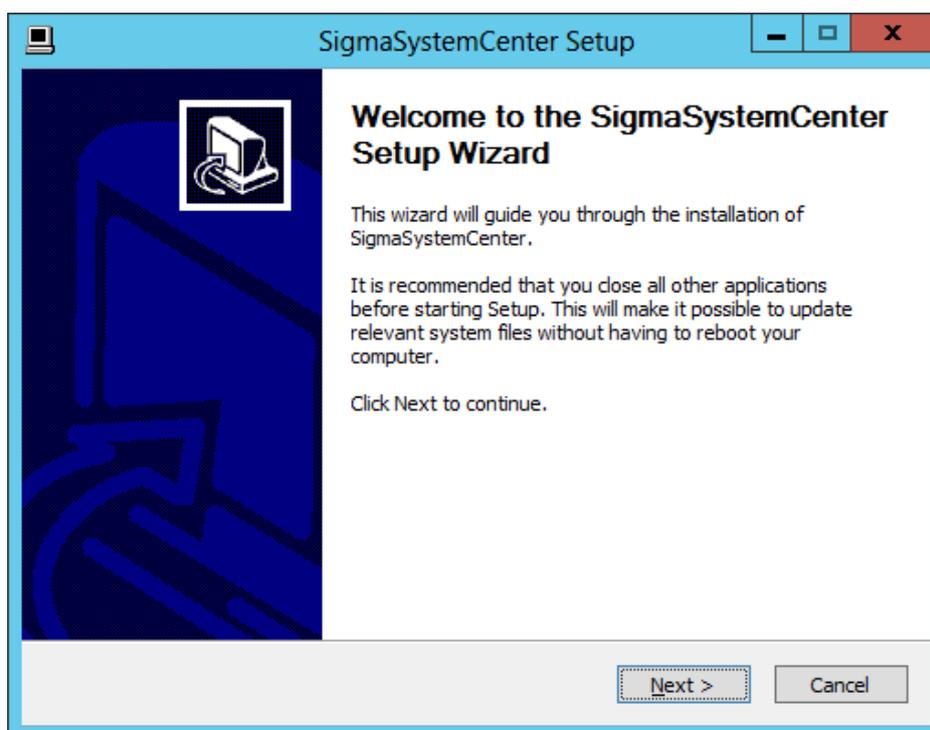
**Note:** When performing upgrade installation of DPM Client, be sure to confirm the connection between the managed machine and the LAN for management. If it is not connected, the installation will be failed. In this case, you must perform the upgrade installation directly after ending the installer. For details, refer to "Upgrading DPM Client by installation media" under 3.3.2, "Manual Upgrading for DPM Client" in *DeploymentManager Installation Guide*.

---

### 3.7.1. Beginning the Installation (Upgrade Installation)

1. Insert the *SigmaSystemCenter DVD-R* into the DVD drive.
2. Enter the following command from a command prompt to start the installer:  

```
Installation DVD-R:\AgentSetup.exe
```
3. The installation wizard starts.



Follow the direction of the wizard to install SigmaSystemCenter.

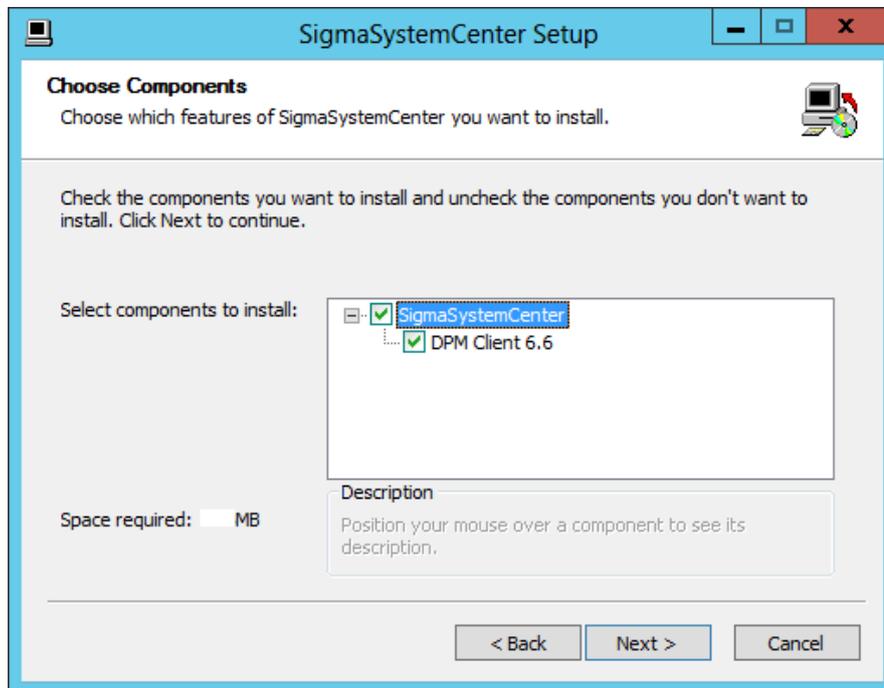
The wizard screens will appear as explained in the next subsections: from Subsection 3.7.2, "Selecting the Component" to 3.7.6, "Completing the Upgrade Installation."

### 3.7.2. Selecting the Component

The screen to select the component appears.

Select the component to install, and click **Next**.

If the current version's component is already installed, the check box cannot be selected.

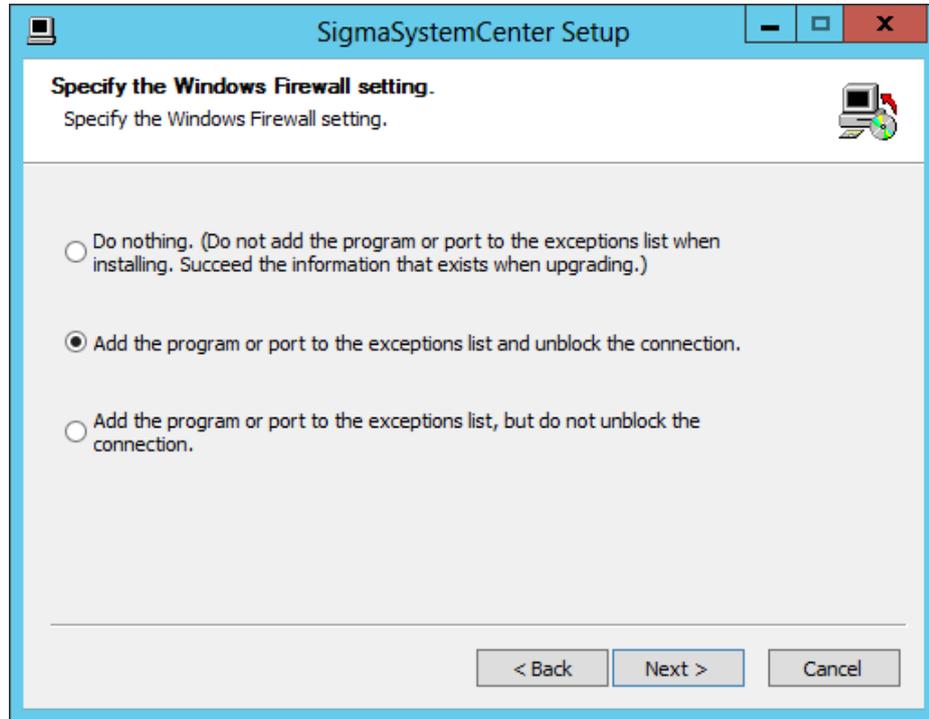


<b>SigmaSystemCenter</b>	If this check box is selected, the following check box located under this check box will be selected automatically.
<b>DPM Client</b>	Installs DPM Client.

### 3.7.3. Specifying Windows Firewall Setting

The screen to configure Windows Firewall setting appears.

Specify Windows Firewall setting, and click **Next**.



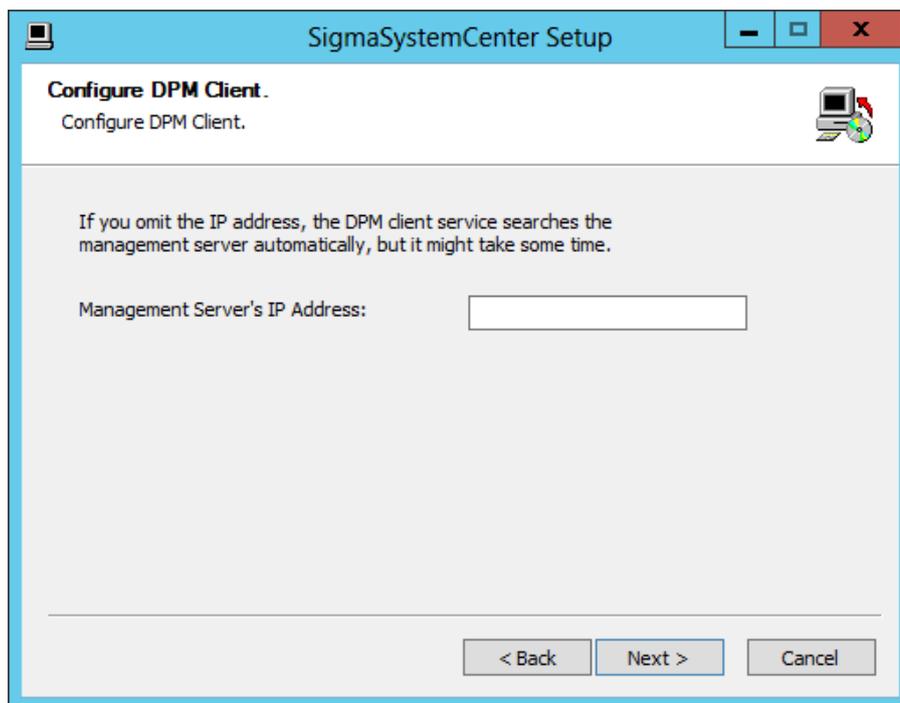
<p><b>Do nothing. (Do not add the program or port to the exceptions list when installing. Succeed the information that exists when upgrading.)</b></p>	<p>If this option is selected, the previous information before the upgrade installation is succeeded. Add the program or port to the exceptions list manually.</p>
<p><b>Add the program or port to the exceptions list and unblock the connection.</b></p>	<p>If this option is selected, the program or port will be added to the exceptions list and the connection will be unblocked. This option is selected by default.</p>
<p><b>Add the program or port to the exceptions list, but do not unblock the connection.</b></p>	<p>If this option is selected, the program or port will be added to the exceptions list, but the connection is not unblocked. Unblock the connection manually after the installation.</p>

**Reference:** Regarding added programs or ports to the exceptions list, see Appendix B "Networks and Protocols."

### 3.7.4. Configuring DeploymentManager

The screen to configure the DPM Client setting appears.

Configure the required information to install DPM Client, and click **Next**.

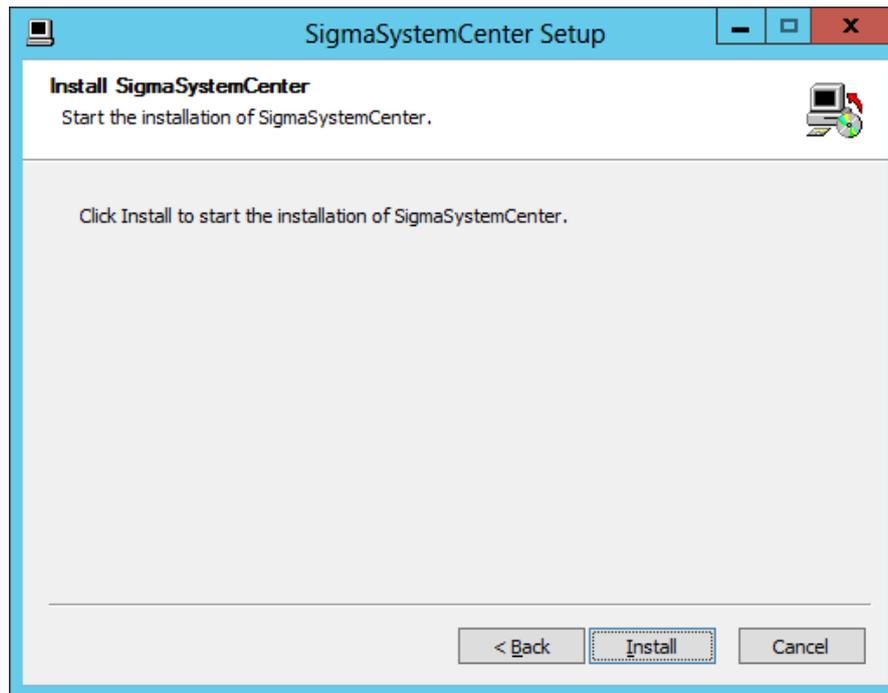


<b>Management Server's IP Address</b>	Specify the IP address of the management server where DPM Server is installed. If you omit the IP address, the DPM Client service searches the management server automatically, but it might take some time.
---------------------------------------	--

### 3.7.5. Starting the Upgrade Installation

The confirmation dialog box appears before starting the upgrade installation of the selected component.

Click **Install** to start the upgrade installation.



### 3.7.6. Completing the Upgrade Installation

When the selected component has been installed, the installation complete screen appears.

The upgrade installation of the managed machine component with the wizard is now complete.

### **3.8. Upgrading on a Managed Machine Running Server Core of Windows Server 2008 or Later**

The SigmaSystemCenter 3.4 installer does not support managed machines running Server Core of Windows Server 2008 or later.

Upgrading from the version earlier than SigmaSystemCenter 3.4 to SigmaSystemCenter 3.6, contact your service representative.

## 3.9. Upgrading on a Managed Machine Running Linux

You need to upgrade DPM Client on your managed machine which is running Linux.

The SigmaSystemCenter installer does not support Linux managed machines so if you want to upgrade DPM Client on a Linux managed machine, you need to upgrade DPM Client from the *SigmaSystemCenter DVD-R*.

The upgrading procedure is the same as the installing procedure; see Section 2.9 "Installing to a Managed Machine Running Linux."

## 3.10. Upgrading DPM Client Automatically

If the OS of your managed machine is Windows or Linux, and if DeploymentManager Ver. 4.0 or later is installed on the machine, you can upgrade DPM Client automatically by a functionality of DeploymentManager.

Perform the following steps to upgrade automatically.

---

**Note:** For notes on automatic upgrade of DPM Client, see Subsection 3.3.1, "Automatic Upgrading for DPM Client" in *DeploymentManager Installation Guide*.

---

1. Launch the DeploymentManager Web Console.
2. Click **Management** on the title bar to switch to the **Management** view.
3. Click the **DPM Server** located on the tree view, or located under **Management Function List** displayed on the Main Window.
4. **Base Information** appears. Click the **Detail Setting** on the Configuration menu.
5. Select the **General** tab and select the **Upgrade DPM Client automatically** check box.
6. Restart the managed machine, or restart the following services. Automatic upgrading of DPM Client will start.
  - For Windows  
DeploymentManager Remote Update Service Client
  - For Linux (earlier than Red Hat Enterprise Linux 7, or SUSE Linux Enterprise)  
depagt
  - For Linux (Red Hat Enterprise Linux 7 or later)  
depagt.service
7. Click the **Operations** on the title bar to switch to the **Operations** view.
8. Click **Image** on the **Resource** tree to display **Image List**. To confirm the completion of upgrading, display **Package Applying Status (Machine List)** by clicking [**>>**] on **Applying Status** located on AgentUpgrade (for Windows) under **Image List**.

The automatic upgrading of DPM Client is now complete.

---

**Note:** Be sure to clear the **Upgrade DPM Client automatically** check box after completed DPM Client automatic upgrade. If this check box remains selected, DeploymentManager cannot work properly with SystemProvisioning.

---

## 4. Uninstalling SigmaSystemCenter

This chapter describes uninstallation procedures of SigmaSystemCenter from a management server. Based on the installation modes, this chapter describes uninstalling components individually and collectively. The instructions on how to uninstall the managed machine component are also described.

This chapter contains the following sections:

- 4.1 Uninstalling Management Server Components ..... 138
- 4.2 What You Should Know Before Uninstallation ..... 139
- 4.3 Uninstalling Management Server Component Individually ..... 140
- 4.4 Uninstalling Management Server Component Collectively ..... 150
- 4.5 Uninstalling Managed Machine Component ..... 153
- 4.6 Uninstalling Virtual Machine Console Proxy ..... 155

## **4.1. Uninstalling Management Server Components**

The following sections provide procedures to uninstall the management server components.

For uninstalling the management server components individually, see Section 4.3, "Uninstalling Management Server Component Individually."

For uninstalling the management server components collectively, see Section 4.4, "Uninstalling Management Server Component Collectively."

## 4.2. What You Should Know Before Uninstallation

Before beginning uninstallation of SigmaSystemCenter 3.6, read the information in this section carefully.

### 4.2.1. Notes on Beginning the Uninstallation

- ◆ Before beginning the uninstallation of SigmaSystemCenter, be sure to end all applications and Web browsers.  
Quit any running Explorer.

- ◆ After uninstallation, the setting files stored in *opt* folder and *conf* folder located under SystemProvisioning installation folder, are deleted.  
Therefore, back up these files as necessary before uninstallation.

---

**Note:** The default installation path of SystemProvisioning is as follows:  
"%Program Files(x86)%\NEC\PVM\" for x64 OS

---

### 4.2.2. Notes on Uninstalling from Windows Vista or Later, or from Windows Server 2008 or Later

If you launch the installer on Windows Vista or later, or on Windows Server 2008 or later, the User Account Control screen may appear. In that case, click Allow, and continue the operation.

### 4.2.3. Notes on Uninstalling SigmaSystemCenter in the Environment Where the Image Builder (Remote Console) Is Installed.

If you intend to execute an uninstallation SigmaSystemCenter in the environment where the DeploymentManager Image Builder (Remote Console) is installed, DPM Server can be selected on the Choose Components screen. However, you should not choose DPM Server because the uninstallation will be failed.

## 4.3. Uninstalling Management Server Component Individually

This section provides procedures to uninstall the management server components individually from a management server.

To uninstall the unnecessary component(s) individually, see the following subsections.

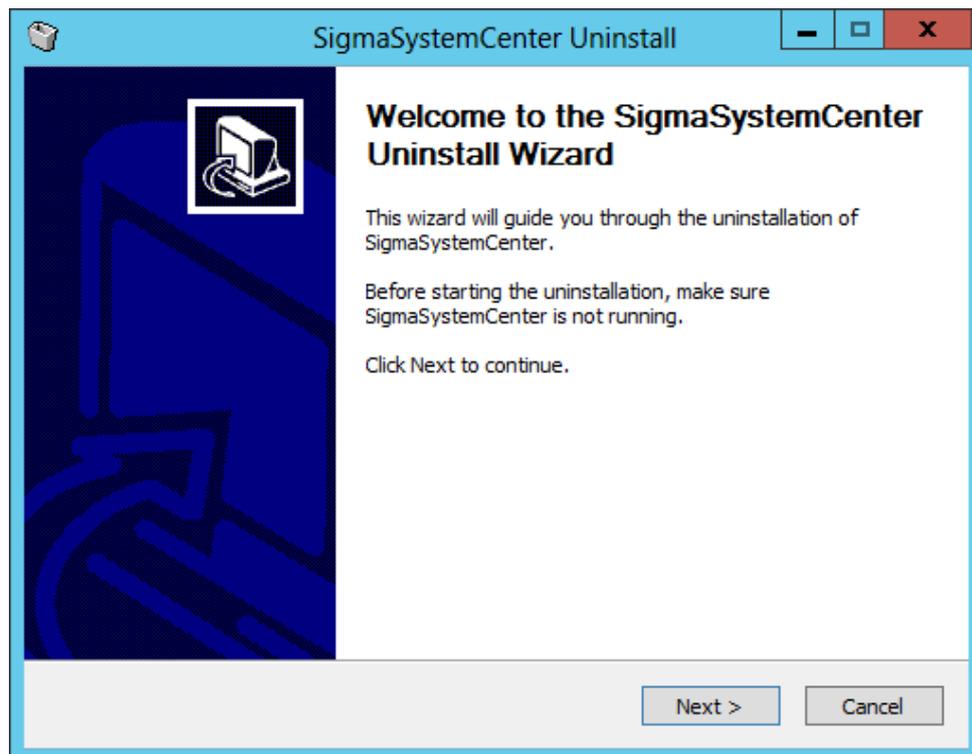
### 4.3.1. Beginning the Uninstallation

---

**Note:** End all the running applications before starting the uninstallation.

---

1. Click **Start** menu, click **Control Panel** and click **Programs and Features**.
2. The **Programs and Features** screen appears. Select **SigmaSystemCenter** and click **Uninstall**.
3. **SigmaSystemCenter Uninstallation Wizard** starts with the following dialog:



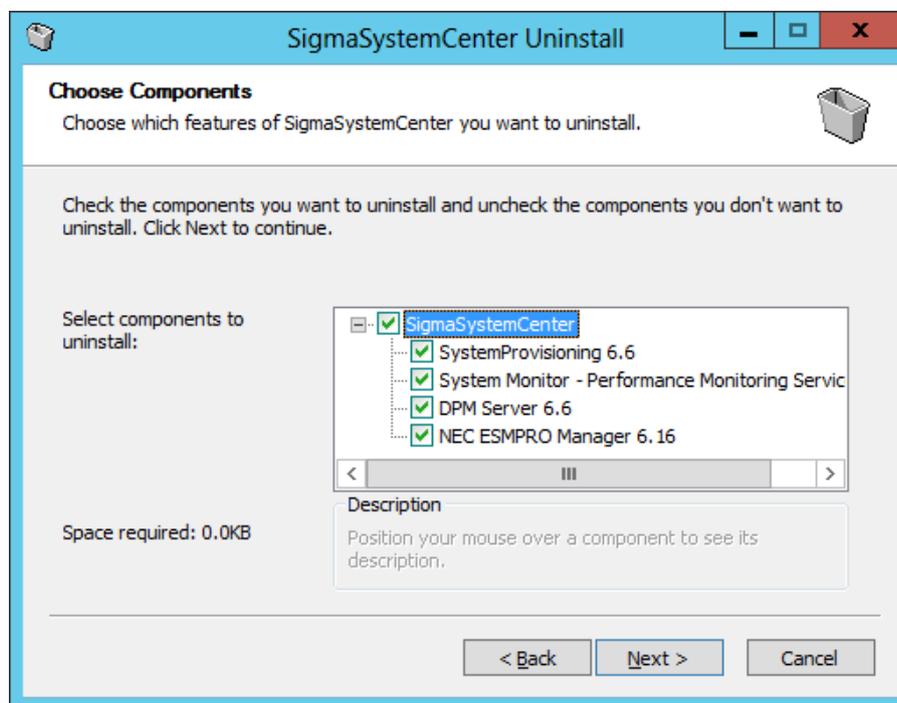
Follow the direction of the wizard to uninstall SigmaSystemCenter.

The wizard screens will appear as explained in the next subsections: from Subsection 4.3.2, "Selecting Components" to 4.3.6, "Completing the Uninstallation."

### 4.3.2. Selecting Components

The screen to select components appears.

Select components to uninstall, and click **Next**.

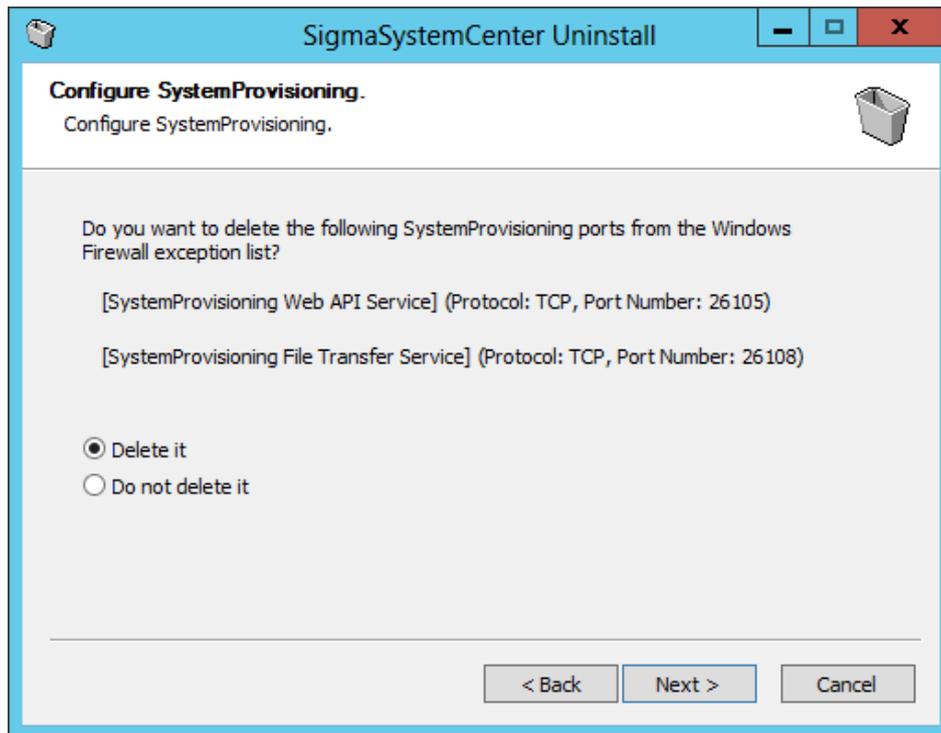


<b>SigmaSystemCenter</b>	If this check box is selected, the following check boxes located under this check box will be selected automatically.
<b>SystemProvisioning</b>	Uninstalls SystemProvisioning.
<b>System Monitor - Performance Monitoring Services</b>	Uninstalls System Monitor - Performance Monitoring Services.
<b>DPM Server</b>	Uninstalls DPM Server.
<b>NEC ESMPRO Manager</b>	Uninstalls NEC ESMPRO Manager.

### 4.3.3. Configuring SystemProvisioning

If you select "SystemProvisioning" in the procedure described in Subsection 4.3.2 "Selecting Components," the Configure SystemProvisioning screen appears.

Configure the required information to uninstall SystemProvisioning, and click **Next**.

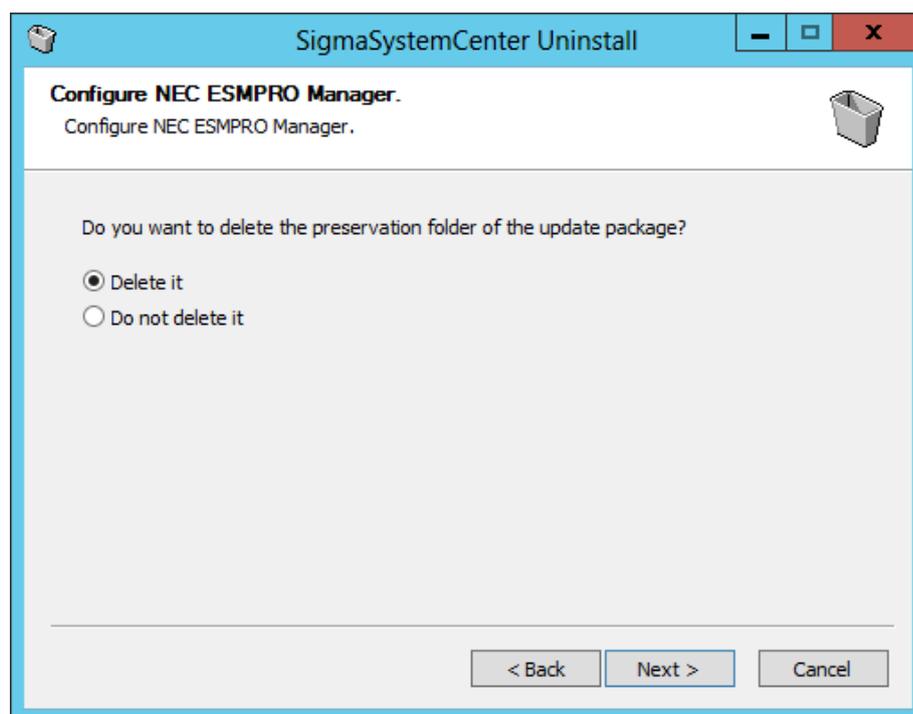


<p><b>Do you want to delete the following SystemProvisioning ports from the Windows Firewall exceptions list?</b></p> <p><b>[SystemProvisioning Web API Service] (Protocol: TCP, Port Number: 26105)</b></p> <p><b>[SystemProvisioning File Transfer Service] (Protocol: TCP, Port Number: 26108)</b></p>	<p>Select one of the options: whether you want to delete [SystemProvisioning Web API Service] (Protocol: TCP, Port Number: 26105) and [SystemProvisioning File Transfer Service] (Protocol: TCP, Port Number: 26108) from the Windows Firewall exceptions list or not.</p>
<p><b>Delete it</b></p>	<p>[SystemProvisioning Web API Service] and [SystemProvisioning File Transfer Service] will be deleted from the Windows Firewall exceptions list. This option is selected by default.</p>
<p><b>Do not delete it</b></p>	<p>[SystemProvisioning Web API Service] and [SystemProvisioning File Transfer Service] will not be deleted from the Windows Firewall exceptions list.</p>

#### 4.3.4. Configuring NEC ESMPRO Manager

The screen to configure NEC ESMPRO Manager appears if NEC ESMPRO Manager has been selected in Subsection 4.3.2, "Selecting Components."

Configure the required information to uninstall NEC ESMPRO Manager and click **Next**.

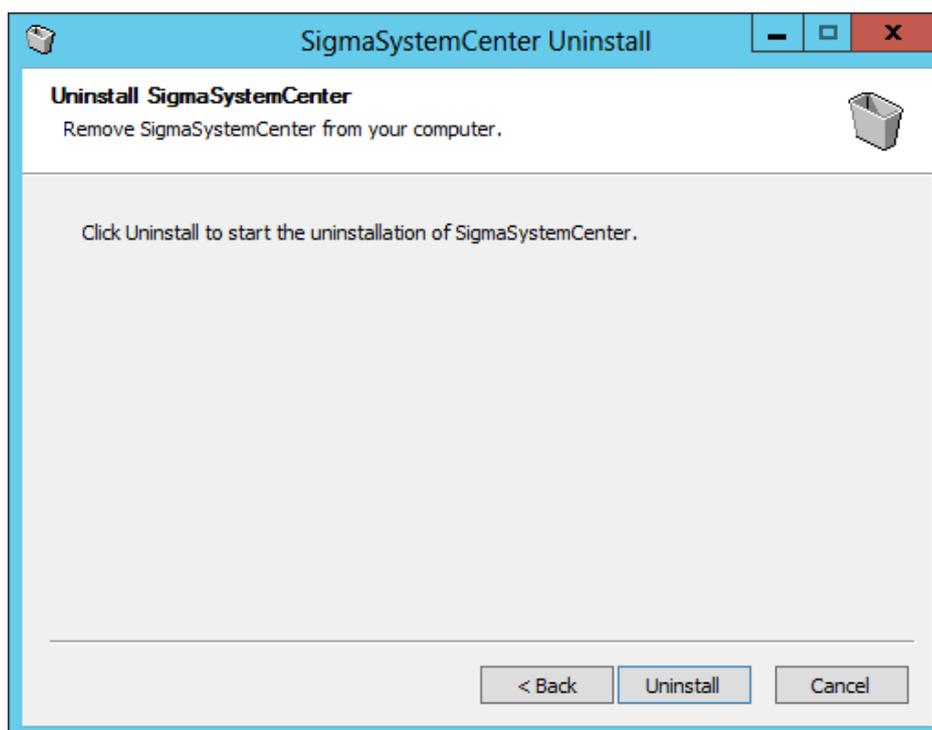


<b>Do you want to delete the preservation folder of the update package?</b>	Select whether to delete the preservation folder of the update package or not.
<b>Delete it.</b>	Deletes the preservation folder of the update package. This item is selected by default.
<b>Do not delete it.</b>	Not delete the preservation folder of the update package.

#### 4.3.5. Starting the Uninstallation

The confirmation dialog box appears before starting the uninstallation of the selected components.

Click **Uninstall** to start the uninstallation.



- ◆ If NEC ESM PRO Manager has been selected  
The following message may appear after the uninstallation:

This program might not have uninstalled correctly.

In such a case, click **This program uninstalled correctly** or **Cancel** to close the dialog because the uninstallation completed successfully.

### 4.3.6. Completing the Uninstallation

When all the selected components have been uninstalled, the uninstallation complete screen appears.

If the restart prompt appears, restart the system.

The management server components individual uninstallation is now complete.

Some more steps are required according to your environment or components you uninstalled. After completing uninstallation of SigmaSystemCenter, follow the steps explained in the following subsections as needed.

### 4.3.7. Notes on a Case You Uninstalled NEC ESMPRO Manager

If NEC ESMPRO Manager has been uninstalled, note the following points.

The following inbound rules might remain on the [Inbound Rules] of the [Windows Firewall with Advanced Security] after uninstalling NEC ESMPRO Manager.

Delete them if needed.

◆ If NEC ESMPRO-related products are installed

Inbound Rules:

- Alert Manager HTTPS Service
- Alert Manager WMI Service
- Alert Manager Socket(R) Service
- NVBase System Service
- SNMP Trap Service

NEC ESMPRO-related products are as follows:

- NEC ESMPRO ServerAgentService
- NEC ESMPRO Agent
- ClientManager
- MasterScope Network Manager
- UXServerManager

◆ If you have uninstalled NEC ESMPRO Manager from Programs and Features

Inbound Rules:

- Alert Manager HTTPS Service
- Alert Manager WMI Service
- Alert Manager Socket(R) Service
- NVBase System Service
- SNMP Trap Service

**[Procedure to delete the inbound rules]**

1. Start the **Windows Firewall with Advanced Security** screen from the **Administrative Tools** under the Windows Firewall with Advanced Security of a management server.
2. Click **Inbound Rules** in the pane left.
3. Select relevant **Inbound Rules** under the **Inbound Rules** list and then right-click **Delete**.
4. The confirmation message appears. Click **Yes**.
5. Close the **Windows Firewall with Advanced Security** screen.

Note that after NEC ESMPRO Manager was deleted, some folders (files) might remain in the installation directory. Delete as necessary.

### [The procedure for deleting]

1. Restart the system after uninstalling NEC ESMPRO Manager.
2. Delete all files in "<Installation folder>\SMM\ESMWEB\jre\lib\fonts\."
3. Delete "<Installation folder>\SMM\ESMWEB\jre\lib\fonts."
4. Delete "<Installation folder>\SMM\ESMWEB\lib."
5. Delete all files and folders in "<Installation folder>\SMM\ESMWEB\."
6. Delete "<Installation folder>\SMM\ESMWEB."
7. Delete "<Installation folder>\SMM."

### 4.3.8. Notes on a Case You Uninstalled Both SystemProvisioning and NEC ESMPRO Manager

If both SystemProvisioning and NEC ESMPRO Manager have been uninstalled, note the following points.

The following inbound rules might remain on the inbound rules of Windows Firewall with advanced Security after uninstalling SystemProvisioning and NEC ESMPRO Manager.

Delete it if needed.

Inbound Rules:

- ◆ SNMP Trap Service

---

**Note:** Note that "SNMP Trap Service," which is the exception added by the SigmaSystemCenter installer, is independent of "SNMP Trap."

---

### [Procedure to delete the inbound rules]

1. On a management server, click **Administrative Tools** to open **Windows Firewall with Advanced Security**.
2. Click **Inbound Rules** in the pane left.
3. Select relevant items in the **Inbound Rules** and right-click **Delete**.
4. The confirmation message appears. Click **Yes**.
5. Close the **Windows Firewall with Advanced Security** dialog box.

### 4.3.9. Uninstalling SQL Server 2016 Express

The SigmaSystemCenter installer does not support the uninstallation of SQL Server 2016 Express. Perform the following steps to uninstall SQL Server 2016 Express:

---

**Reference:** If you build the DeploymentManager database on a different machine, see Appendix D "Configuring the Database Server of SQL Server" in *DeploymentManager Installation Guide*.

---

1. Click the **Start** menu, and click **Control Panel**. From **Control Panel**, double-click **Programs and Features**.
2. The **Programs and Features** screen appears. Select **Microsoft SQL Server 2016 (64 bit)**, and click **Uninstall/Change**.
3. **SQL Server 2016** screen appears. Click **Remove**.
4. **Select Instance** screen appears. Select the instance that was installed from the SigmaSystemCenter installer in the **Instance to remove features from:** list.

---

**Note:** If you have installed SigmaSystemCenter with the default SQL instance name, the instance you need to remove is displayed as *SSCCMDB* and *DPMDBI*.

---

5. Click **Next**.
6. **Select Features** screen appears. Select all check boxes under the instance selected in the step 4 (In case of *SSCCMDB*, select **Database Engine Services** check box. In case of *DPMDBI*, select **Database Engine Services** check box and **SQL Server Replication** check box).

---

**Note:** In some environment, the **SQL Server Replication** check box of *DPMDBI* may not be displayed.

---

Click **Next**.

Follow the instruction in the wizard to uninstall SQL Server 2016 Express.

7. When the uninstallation process completed, the **Programs and Features** screen appears again.

In addition, if no other applications are using Microsoft SQL Server 2016 Express, delete the following components from Programs and Features.

---

**Notes:**

- Some components related to the deleted components may be deleted automatically; press **F5** to update to the latest information.
  - In case of existing Microsoft VSS Writer for SQL Server 2016 in your computer, be sure to delete it if no other applications are using it, otherwise, an error is displayed when starting up the server next time.
- 

- ◆ Microsoft SQL Server 2012 Native Client
- ◆ Microsoft ODBC Driver 13 for SQL Server
- ◆ Microsoft SQL Server 2016 T-SQL Language Service
- ◆ Microsoft SQL Server Data-Tier Application Framework (x86)

The uninstallation of SQL Server 2016 Express is now complete.

### 4.3.10. If You Uninstalled SystemProvisioning

The configuration database with the SQL authentication of SQL Server is sometimes not deleted along with SystemProvisioning. In this case, delete the database manually by running the following command on the command prompt after the uninstallation of the SystemProvisioning including its components is completed.

```
sqlcmd -S HostName\SSCCMDB -U UserName -P Password -Q "drop database pvminf "
```

---

**Note:** If you changed instance name from default value (SSCCMDB), change a part of above command to "*HostName\InstanceName*".

---

### 4.3.11. If You Uninstalled System Monitor - Performance Monitoring Services

When System Monitor - Performance Monitoring Services is uninstalled, its database is not deleted.

To delete, execute the following commands in the command prompt:

- ◆ For SQL Server
  - Windows authentication

```
sqlcmd -E -S HostName\SSCCMDB -Q "drop database RM_PerformanceDataBase2"
```

- SQL authentication

```
sqlcmd -S HostName\SSCCMDB -U UserName -P Password -Q "drop
database RM_PerformanceDataBase2"
```

---

**Note:** If you change the default instance name (SSCCMDB), replace "HostName\SSCCMDB" with "HostName\InstanceName."

---

- ◆ For PostgreSQL

```
psql -h localhost -p 5432 -U UserName -d postgres -c "Drop
Database \"RM_PerformanceDataBase2\""
```

## 4.4. Uninstalling Management Server Component Collectively

This section provides procedures to uninstall the management server components collectively from a management server.

The SigmaSystemCenter uninstaller was registered in the prescribed folder on your system's hard disk. If the uninstaller is run with options, it uninstalls the components without displaying the wizard.

See this section to uninstall the components collectively.

### 4.4.1. Beginning the Uninstallation

---

**Note:** End all the running applications before starting the uninstallation.

---

1. Enter the following command from a command prompt to start the installer:

```
Uninstaller stored folder\ManagerUninstall.exe /S
```

---

**Note:** Just after executing "ManagerUninstall.exe /S " from a command prompt, the prompt appears on the command prompt window. This looks as if uninstallation has completed. You cannot suppress a command prompt before management server components have been uninstalled.

---

Option	Description
/S	Indicates to uninstall components collectively.

If the **/S** option is not specified, the uninstallation wizard starts.

---

**Note:** The uninstaller stored folder (default) is as follows:

"%ProgramFiles(x86)%\NEC\SSC\36\ManagerUninstall.exe" for x64 OS.

---

2. The uninstallation starts.

While uninstalling the components, some screens may appear but no action is required. The uninstallation continues and finishes properly.

The uninstallation takes several minutes to complete.

The installer ends with the end code on the subsequent table. The installer records the installer log and the end code in the following file:

<If you are using Windows Server 2008 R2 or later>  
 %USERPROFILE%\AppData\Local\SSC\SetupProvisioning.log

**Note:** You can refer to the log with the following procedure:

1. Move the current directory on the Command Prompt window.

```
cd %USERPROFILE%\AppData\Local\SSC
```

2. Open a log file with Notepad.

```
notepad SetupProvisioning.log
```

	End code		Component to be uninstalled	Order
	Restart unnecessary	Restart necessary		
Success	0	64	-	-
Error *1	32	96	-	-
Error *2	7	71	SystemProvisioning	1
Error *2	6	70	System Monitor - Performance Monitoring Services	2
Error *2	5	69	DPM Server	3

\*1 If stopping the PVM Service failed.

\*2 If the uninstallation of the component failed.

The management server components collective uninstallation is now complete.  
 If the end code is a code needs restart, restart the system.

Some more steps are required according to your environment or components you uninstalled. After completing uninstallation of SigmaSystemCenter, follow the steps explained in the following subsections as needed.

#### 4.4.2. Uninstalling NEC ESMPRO Manager

NEC ESMPRO Manager is not uninstalled in the collective uninstallation process. To uninstall NEC ESMPRO Manager, remove it from Programs and Features manually. After uninstalling NEC ESMPRO Manager, see Subsection 4.3.7, "Notes on a Case You Uninstalled NEC ESMPRO Manager" for the points to note.

#### **4.4.3. Notes on a Case You Uninstalled Both SystemProvisioning and NEC ESMPRO Manager**

For notes on if uninstalled SystemProvisioning and NEC ESMPRO Manager, see Subsection 4.3.8, "Notes on a Case You Uninstalled Both SystemProvisioning and NEC ESMPRO Manager."

#### **4.4.4. Uninstalling SQL Server 2016 Express**

The SigmaSystemCenter installer does not support the uninstallation of SQL Server 2016 Express. If the uninstallation of SQL Server 2016 Express is necessary, uninstall SQL Server 2016 Express by reference to Subsection 4.3.9, "Uninstalling SQL Server 2016 Express."

#### **4.4.5. If You Uninstalled SystemProvisioning**

If you uninstalled SystemProvisioning, see Subsection 4.3.10, "If You Uninstalled SystemProvisioning."

#### **4.4.6. If You Uninstalled System Monitor - Performance Monitoring Services**

When System Monitor - Performance Monitoring Services is uninstalled, its database is not deleted.

In this case, you need to delete it manually. See 4.3.11, "If You Uninstalled System Monitor - Performance Monitoring Services."

## 4.5. Uninstalling Managed Machine Component

This and subsequent sections provide procedures to uninstall a managed machine component (DPM Client).

Depending on what OS your managed machine is running, the uninstallation methods vary.

See the section for the uninstallation according to your environment.

---

**Note:** End all the running applications before starting the uninstallation.

---

If you are using:

- ◆ A Windows (x86/x64) managed machine

Uninstall DPM Client from **Programs and Features**:

1. Click the **Start** menu, and click **Control Panel**. From **Control Panel**, double-click **Programs and Features**.
2. Select **DeploymentManager** and Click **Uninstall**.
3. The **Setup Type** screen appears. Select **Uninstall** and click **Next**.
4. The **Confirm Uninstall** screen appears. Click **OK**.
5. The **Setup Status** screen appears and the uninstallation of DPM Client begins. After DPM Client is automatically and successfully uninstalled, the **Maintenance Complete** screen appears. Click **Finish**.

- ◆ A Linux managed machine

---

**Note:** For SUSE Linux Enterprise 10, substitute `"/media/DVD-R volume label"` for `"/mnt/dvd."`

---

1. Log in to the system as a root user.
2. Insert the *SigmaSystemCenter DVD-R* into the DVD drive.
3. Enter the following command from a command prompt to mount the *DVD-R*. In this example, the mount point is assumed to be `"/mnt/dvd"`:

```
# mount /mnt/dvd
```

4. Enter the following command to change the directory:

```
# cd /mnt/dvd/DPM/Linux/ia32/bin/agent
```

5. Enter the following command to run depuninst.sh:

```
# ./depuninst.sh
```

---

**Note:** Depending on your environment, you cannot follow these procedures because you are unauthorized to execute depuninst.sh and getrhelver.sh on the installation DVD-R.

In this case, copy DPM Client modules under Linux directory on the installation DVD-R under an appropriate directory, grant the execute permission to all the files with chmod command as following example, and then execute depuninst.sh.

E.g.,

```
# cd /mnt/An Arbitrary Directory/agent
# chmod 755 *
```

---

The DPM Client uninstallation is now complete.

## 4.6. Uninstalling Virtual Machine Console Proxy

This chapter describes how to uninstall Virtual Machine Console Proxy.

The procedure is the following:

1. Click **Start**, click **Control Panel**, and then click **Programs and Features**.
2. Right-click **Virtual Machine Console Proxy**, and then click **Uninstall**.

End of the procedure.



# 5. Troubleshooting

This chapter describes solutions for problems occurred during installation, upgrade, and uninstallation of SigmaSystemCenter.

This chapter contains the following sections:

- 5.1 Errors of Installation, Upgrade Installation, and Uninstallation..... 158
- 5.2 Collecting Installer-Related Logs..... 167

## 5.1. Errors of Installation, Upgrade Installation, and Uninstallation

### 5.1.1. Fails to Convert the Configuration Database During Upgrade Installation

#### [Phenomenon]

When upgrading SystemProvisioning during upgrade installation of management server components, any of the following messages is displayed and the installation terminates:

#### [Message 1]

Failed to connect to the configuration database.

There is a possibility that the service of the configuration database does not start.

Please check the "SQL Server (SSCCMDB)" (default value) service.

#### [Cause 1]

This message is displayed when SystemProvisioning cannot connect to the configuration database because the service of the configuration database is not started.

#### [Message 2]

An error occurred by the conversion of the database.

Please restore backup data before the conversion.

Or

An error occurred by the conversion of the database.

Or

The database conversion does not end properly because an error occurred during the conversion.

#### [Cause 2]

This message is displayed when an internal process error is generated in the process of conversion from the configuration database of before the conversion to the new configuration database.

**[Message 3]**

A timeout occurred by the conversion of the database.  
Please restore backup data before the conversion.

**[Cause 3]**

This message is displayed when a timeout error occurs during the internal processing of converting the previous configuration database to a new one.

**[Solution]**

If these messages are displayed, contact your service representative.

## **5.1.2. Error Messages During Installation/Uninstallation of NEC ESMPRO Manager**

**[Phenomenon]**

Depending on your OS, the following message may appear when installing or uninstalling NEC ESMPRO Manager.

**[Message]**

Windows Explorer has stopped working

**[Cause]**

This issue is caused by the compatibility problem between NEC ESMPRO Manager and the installation software.

**[Solution]**

The installation/uninstallation successfully completed without influence on the system.

## **5.1.3. Error Message After the Uninstallation of NEC ESMPRO Manager**

**[Phenomenon]**

After the uninstallation of NEC ESMPRO Manager, the following error message might appear during the first restart of the machine.

**[Message]**

'setup.exe' Make sure you typed the name correctly, and then try again. To search for a file, click the Start button, and then click Search.

**[Cause]**

This issue is caused by the flaw of InstallShield 2008.

**[Solution]**

The uninstallation successfully completed without influence on the system.

## 5.1.4. Contents Are Not Displayed on the Web Console

**[Phenomenon]**

After upgrading SigmaSystemCenter, if you log into SystemProvisioning from a browser, contents might not be displayed correctly on the part of Web Console window, such as the Configuration menu is not displayed.

**[Cause]**

If SigmaSystemCenter 2.0 or later is installed on your management server and you use a browser to display the Web Console, this phenomenon might occur due to inconsistency of the remained browser's cache information and the updated information on your management server.

**[Solution]**

Clear your browser cache on a terminal that starts a browser.

The method to clear the browser cache differs depending on browsers. Check and execute the method of your browser.

The methods of the two main browsers are as follows:

- ◆ Internet Explorer 10
  1. On Internet Explorer, from the **Tools** menu, click **Internet Options**.
  2. On the **Internet Options** dialog box, click the **General** tab and click **Delete** under **Browsing History**.
  3. The **Delete Browsing History** dialog box appears. Check **Temporary Internet File** and click **Delete**.
  
- ◆ Firefox 44
  1. On Firefox, from the History menu, click **Clear Recent History**.
  2. The **Clear Recent History** dialog box appears. Select **Everything** in the **Time range to clear** list.  
Confirm that the **Cache** and **Cookie** check boxes are selected under **Details**.
  3. Click **Clear Now**.

## 5.1.5. Fails to Launch the Web Console After Installation on the Management Server

### [Phenomenon]

After installing SigmaSystemCenter on the management server, if you try to launch the Web console, the following message may be displayed and the Web console fails to launch.

### [Message]

Internet Explorer cannot display the webpage.

### [Cause]

This issue occurs because other port than the port 80 (default value) may be set as the Default Web Site port.

### [Solution]

Check the port number for Default Web Site on Internet Information Service (IIS) Manager, and if other port than the port 80 is set as the Default Web Site port, specify that port for the starting URL for the Web console.

E.g.,

<http://localhost:8080/Provisioning/Default.aspx>

Follow the procedure below to check the port number.

1. From the **Start** menu, point to **Administrative Tools**, and then click **Internet Information Services (IIS) Manager** to start Internet Information Services (IIS) Manager.
2. In the tree view on the left, expand the *Machine Name* node, and then expand the **Default Web Site** node under the **Sites** node.
3. In the **Actions** pane on the right, click **Bindings...** under **Edit Site**.
4. The **Site Bindings** dialog box appears. Check the port number on this dialog box.

<To start the Web console from the Start menu>

To make it possible for you to start the Web console from the Start menu on a management server, perform the following procedure:

1. Open the following file in Notepad.

*SystemProvisioning Installation Folder*\bin\SystemProvisioning.url  
(Default: %ProgramFiles(x86)%\NEC\PVM)

2. Edit the file as the following example.

E.g.,  
URL=http://localhost:8080/Provisioning/Default.aspx

3. Save and overwrite the file.

## 5.1.6. SQL Server Installation Fails

### [Phenomenon]

SQL Server installation fails while installing SigmaSystemCenter on a management server. The following error message is logged to the SQL Server setup log file.

The specified sa password does not meet strong password requirements.

The SQL Server 2016 setup log file is stored in one the following locations:

%ProgramFiles%\Microsoft SQL Server\130\Setup Bootstrap\Log

### [Cause]

The SigmaSystemCenter installer specifies the fixed value "Rc76duvg" as an sa logon password when installing an SSCMDB instance.

This issue occurs if you specified over 8 characters for Minimum password length in Password Policy in Account Policy of Windows Local Security Policy.

### [Solution]

When running the SigmaSystemCenter installer, specify the sa logon password for the following option. The password must be decided by an administrator. You can use only alphanumeric characters and symbols for the password.

Do not use the following single-byte symbols:

^ & = | \ " ; < > , / '

*Installation DVD-R:\ManagerSetup.exe /SAPWD="sapassword"*

E.g., D:\ManagerSetup.exe /SAPWD="sapassword"

## 5.1.7. Unable to Start Some Services After Installing SigmaSystemCenter

### [Phenomenon]

When you install SigmaSystemCenter while specifying the installed SQL Server 2016 instances, the services below cannot start.

- ◆ PVMService
- ◆ System Monitor Performance Monitoring Service
- ◆ DeploymentManager API Service
- ◆ DeploymentManager Schedule Management

### [Cause]

This issue occurs since you have insufficient authority to access SQL connection at the start of the services. When SQL Server 2016 is installed manually, "NT AUTHORITY\SYSTEM (SYSTEM)" is not added and this causes the problem.

### [Solution]

Execute these commands below at the command prompt.

```
sqlcmd -E -S (local)\SSCCMDB
1> ALTER SERVER ROLE [sysadmin] ADD MEMBER [NT AUTHORITY\SYSTEM]
2> go
```

```
sqlcmd -E -S (local)\DPMDBI
1> ALTER SERVER ROLE [sysadmin] ADD MEMBER [NT AUTHORITY\SYSTEM]
2> go
```

Start the services again which was unable to start at an earlier time.

## 5.1.8. Database Errors During Upgrade Installation

### [Phenomenon]

The upgrade installation is interrupted by error messages. This phenomenon occurs during installation of the following components:

- ◆ DPM Server
- ◆ System Monitor - Performance Monitoring Services
- ◆ SystemProvisioning

The messages are vary depending on the components as follows:

**[DPM Server message]**

Failed to install DPM Server(DB).  
Please check the access right of the database.

**[System Monitor - Performance Monitoring Services message]**

Failed to login to the database of System Monitor - Performance Monitoring Services.  
Please check the access right of the database.

**[SystemProvisioning message]**

Failed to login to the configuration database.  
Please check the access right of the configuration database.

**[Cause]**

The logged on user has no access privileges to the database because the user is different from the installed user of SigmaSystemCenter

**[Solution]**

See 3.2.18, "Note on Logging on Different User from Which Was Used When Installing."

### 5.1.9. Installing .NET Framework on Windows Server 2012 R2

#### Fails

**[Phenomenon]**

Installing SigmaSystemCenter on Windows Server 2012 R2 fails with the following message:

```
Failed to install: Microsoft .NET Framework 4.6.2
The user's computer does not meet system requirements.
Error Code: 5100
```

**[Cause]**

Before installing .NET Framework 4.6.2, which is installed along with SigmaSystemCenter, on Windows Server 2012 R2, you need to install Windows Server 2012 R2 Update (KB2919355), a cumulative set of security updates and critical updates.

Without the update, you cannot install .NET Framework 4.6.2.

**[Solution]**

Check and install the update as the following:

1. Run Msinfo32.exe to check the version of Windows Server 2012 R2.

With Windows Server 2012 R2 Update (KB2919355), the value of Hardware Abstraction Layer is 6.3.9600.17031.

2. If the value is less than 6.3.9600.17031, install the update. For the details, refer to the following:

<https://www.microsoft.com/en-us/download/details.aspx?id=42334>

## 5.1.10. Installing .NET Framework on Windows Server 2008 R2 Service Pack 1 Fails

**[Phenomenon]**

Installing SigmaSystemCenter on Windows Server 2008 R2 Service Pack 1 fails with the following message:

```
Failed to install: Microsoft .NET Framework 4.6.2  
The error occurred.
```

**[Cause]**

Before installing .NET Framework 4.6.2, which is installed along with SigmaSystemCenter, on offline Windows Server 2008 R2 Service Pack 1, you need to install Microsoft Root Certificate Authority 2011.

Without the certificate, you cannot install .NET Framework 4.6.2.

**[Solution]**

Import the certificate of "Microsoft Root Certificate Authority 2011" to install .NET Framework 4.6.2.

To import the certificate into the target environment, connect to the following URL, and then download the certificate.

Refer to Method 4 of Resolution in "<https://support.microsoft.com/en-us/help/3149737>."

### 5.1.11. Installing SQL Server on Restart Pending Machine Fails

**[Phenomenon]**

Installing SQL Server, which is installed along with SigmaSystemCenter, on a management server fails with the following message in the SQL Server setup log file(\*):

```
A computer restart is required. You must restart this computer before installing SQL Server.
```

\* The setup log file of SQL Server 2016 is stored in:

```
%ProgramFiles%\Microsoft SQL Server\130\Setup Bootstrap\Log
```

**[Cause]**

Some Windows Update requires restarting an OS. If you try to install SQL Server on the OS before restarting the OS, the installation fails.

**[Solution]**

Install SigmaSystemCenter after restarting the OS.

## 5.2. Collecting Installer-Related Logs

If an error occurred while installing/upgrading/uninstalling SigmaSystemCenter and its components, and if you want to ask our PP Support Service to investigate the error, follow the steps in this section to collect required logs. Plus please provide us the information about the error wherever possible.

---

**Reference:** For extracting except installer-related logs, refer to 9.11, "Extracting Logs" in *NEC SigmaSystemCenter Configuration Guide*.

---

### 5.2.1. Collecting SigmaSystemCenter Installer Logs

In case of error while installing/upgrading/uninstalling SigmaSystemCenter, collect the following SigmaSystemCenter installer log files.

Collect all information in the following folder, along with the folder:

- ◆ For Windows Vista or later/Windows Server 2008 or later  
%USERPROFILE%\AppData\Local\SSC

### 5.2.2. Collecting NEC ESMPRO Manager Logs

In case of error while installing/upgrading/uninstalling NEC ESMPRO Manager, collect the following NEC ESMPRO Manager log files and registries if they exist.

Collect all information in the following folder, along with the folder.

- ◆ For x86 OS
  - %ProgramFiles%\InstallShield Installation Information\{6C0B147E-EC72-46B4-95B8-84CC8274C462}
  - %ProgramFiles%\InstallShield Installation Information\{6342F89D-C2A1-480C-B76D-A9CDF25D1994}
  - %ProgramFiles%\InstallShield Installation Information\{13B6C6BA-1FD4-4B26-9E14-10321686FFD8}
  - *NEC ESMPRO Manager installation folder*  
ESMWEB\wbserver\webapps\esmpro\WEB-INF\service  
(Default: %ProgramFiles%\NEC\SMM)

- ◆ For x64 OS
  - %ProgramFiles(x86)%\InstallShield Installation Information\  
{6C0B147E-EC72-46B4-95B8-84CC8274C462}
  - %ProgramFiles(x86)%\InstallShield Installation Information\  
{6342F89D-C2A1-480C-B76D-A9CDF25D1994}
  - %ProgramFiles(x86)%\InstallShield Installation Information\  
{13B6C6BA-1FD4-4B26-9E14-10321686FFD8}
  
  - *NEC ESMPRO Manager installation folder*  
ESMWEB\wbserver\webapps\esmpro\WEB-INF\service  
(Default: %ProgramFiles(x86)%\NEC\SMM)

Export the following registries:

- ◆ For x86 OS
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\NEC\ESMPROSetup
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\  
CurrentVersion\Uninstall\{6342F89D-C2A1-480C-B76D-A9CDF25D1994}
  
- ◆ For x64 OS
  - HKEY\_LOCAL\_MACHINE\SOFTWAREWow6432Node\NEC\  
ESMPROSetup
  - HKEY\_LOCAL\_MACHINE\SOFTWAREWow6432Node\Microsoft\  
Windows\CurrentVersion\Uninstall\  
{6342F89D-C2A1-480C-B76D-A9CDF25D1994}

Run collectm.exe in the following folder, and then collect the smlog folder generated by collectm.exe.

---

**Note:** You do not have to perform the following if collectm.exe does not exist.

---

- ◆ For x86 OS
  - %ProgramFiles%\NEC\SMM\ESMSM\collectm
  - Or
  - %ProgramFiles%\ESMPRO\ESMSM\collectm
  
- ◆ For x64 OS
  - %ProgramFiles(x86)%\NEC\SMM\ESMSM\collectm
  - Or
  - %ProgramFiles(x86)%\ESMPRO\ESMSM\collectm

### 5.2.3. Collecting DeploymentManager Logs

In case of error while installing/upgrading/uninstalling DeploymentManager, collect the following DeploymentManager log files and registries.

For how to collect DeploymentManager log files, see Section 3.16, "Collecting the Data in Case of Trouble" in *DeploymentManager Caution Notes and Trouble Shooting Reference Guide*.

### 5.2.4. Collecting System Monitor - Performance Monitoring Services Logs

In case of error while installing/upgrading/uninstalling System Monitor - Performance Monitoring Services, collect the following System Monitor - Performance Monitoring Services log files:

Collect the log files from the following:

- ◆ Windows Server 2008 or later
- ◆ %USERPROFILE%\AppData\Local\SSC

### 5.2.5. Collecting SystemProvisioning Logs

In case of error while installing/upgrading/uninstalling SystemProvisioning, collect the following SystemProvisioning log files, registries, and backup files.

Collect all information in the following folder, along with the folder:

- ◆ Windows Server 2008 or later  
%USERPROFILE%\AppData\Local\SSC

Export the following registries:

- ◆ For x86 OS
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\NEC\PVM
- ◆ For x64 OS
  - HKEY\_LOCAL\_MACHINE\SOFTWAREWow6432Node\NEC\PVM
  - HKEY\_LOCAL\_MACHINE\SOFTWAREWow6432Node\NEC\SystemProvisioningInstaller

Collect the log files in the following folder only if an error occurs during SystemProvisioning upgrade:

- ◆ For x86 OS  
*SystemProvisioning installation folder*\log\CmdbConvert.log  
(Default: %ProgramFiles%\NEC\PVM)
  
- ◆ For x64 OS  
*SystemProvisioning installation folder*\log\CmdbConvert.log  
(Default: %ProgramFiles(x86)%\NEC\PVM)

Collect the configuration database backup files only if an error occurs during SystemProvisioning upgrade.

For the information where the configuration database backup files are stored, see "◆ About the backup file of the configuration database" in Subsection 3.5.4, "If You Upgraded SystemProvisioning."

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# Appendix A Installing/Uninstalling PostgreSQL

This chapter describes how to configure a database for SigmaSystemCenter by using PostgreSQL.

SigmaSystemCenter supports the following version:

- ◆ PostgreSQL 9.5.x

## Installing PostgreSQL

To configure the database, you must install PostgreSQL before installing SigmaSystemCenter.

The procedure is the following:

- ◆ When configuring the database to a management server
  1. Log on to the management server with an administrator privilege.
  2. Download and install PostgreSQL. The download website is the following:

<https://www.postgresql.org/download/>

3. Set "PostgreSQL installation folder\bin" to the system environment variable PATH.

---

### Notes:

- The default installation folder of PostgreSQL is C:\Program Files\PostgreSQL\9.5.
  - You can edit the system environment variable PATH in the Environment Variables screen (Control Panel > System and Security > System > Advanced system settings > the Advanced tab > Environment Variables).
- 

4. Run the following by using the Command Prompt to create a new user for PostgreSQL:

```
C:\>psql.exe -h 127.0.0.1 -U postgres -p Port number
```

```
postgres=# create user "User name" with password 'Password'
superuser;
CREATE ROLE
postgres=# \q
```

---

**Notes:**

- The name length is up to 30 bytes. The name can contain single-byte alphanumeric characters.
- The password length is up to 30 bytes. The password can contain single-byte alphanumeric characters and single-byte symbols.

Do not use the following single-byte symbols:

`^ & = | \ " ; < > , / '`

---

E.g.,

`C:\>psql.exe -h 127.0.0.1 -U postgres -p 5432`

```
postgres=# create user "PsqlUser" with password 'PsqlPassword' superuser;
CREATE ROLE
postgres=# \q
```

5. Download and install the pgsqLODBC driver (x86). The download website is the following:

<https://www.postgresql.org/ftp/odbc/versions/>

- ◆ When configuring the database to a machine (database server) different from a management server

---

**Note:** For the database server, we confirm the operation only with Windows servers.

---

1. Configuring the database server

1. Log on to the database server with an administrator privilege.
2. Download and install PostgreSQL. The download website is the following:

<https://www.postgresql.org/download/>

3. Open "pg\_hba.conf" (PostgreSQL installation folder\data) by using a text editor and add the following:

```
host    all         all         The management server IP
address/32    md5
```

---

**Note:** The default installation folder of PostgreSQL is C:\Program Files\PostgreSQL\9.5.

---

- 
4. Set "PostgreSQL installation folder\bin" to the system environment variable PATH.

---

**Notes:**

- The default installation folder of PostgreSQL is C:\Program Files\PostgreSQL\9.5.
  - You can edit the system environment variable PATH in the Environment Variables screen (Control Panel > System and Security > System > Advanced system settings > the Advanced tab > Environment Variables).
- 

5. Run the following by using the Command Prompt to create a new user for PostgreSQL:

```
C:\>psql.exe -h 127.0.0.1 -U postgres -p Port number

postgres=# create user "User name" with password
'Password' superuser;
CREATE ROLE
postgres=# \q
```

---

**Notes:**

- The name length is up to 30 bytes. The name can contain single-byte alphanumeric characters.
- The password length is up to 30 bytes. The password can contain single-byte alphanumeric characters and single-byte symbols.

Do not use the following single-byte symbols:

```
^ & = | \ " ; < > , / ' 
```

---

E.g.,

```
C:\>psql.exe -h 127.0.0.1 -U postgres -p 5432
```

```
postgres=# create user "PsqlUser" with password 'PsqlPassword'
superuser;
CREATE ROLE
postgres=# \q
```

6. Add the following TCP port number to **Inbound Rules** in **Windows Firewall with Advanced Security**.
  - TCP 5432 (for the default PostgreSQL)

The procedure is the following:

1. In the **Start** menu, click **Run**, type **WF.msc**, and then click **OK**.

2. In the **Windows Firewall with Advanced Security**, in the left pane, click **Inbound Rules**, and then click **New Rule** in the **Actions** pane.
  3. In the **Rule Type** dialog box, select **Port**, and then click **Next**.
  4. In the **Protocol and Ports** dialog box, select **TCP**. Select **Specific local ports**, and then type the port number, such as 5432 for the default PostgreSQL instance. Click **Next**.
  5. In the **Action** dialog box, select **Allow the connection**, and then click **Next**.
  6. In the **Profile** dialog box, select any profiles that describe the computer connection environment when you want to connect to PostgreSQL, and then click **Next**.
  7. In the **Name** dialog box, type a name and description for this rule, and then click **Finish**.
- 
2. Configuring the management server
    1. Log on to the management server with an administrator privilege.
    2. Download and install pgAdmin III. The download website is the following:

<https://www.postgresql.org/ftp/pgadmin/pgadmin3/>

3. Set the installation folder of the pgAdmin III to the system environment variable PATH.

---

**Notes:**

- The default installation folder of pgAdmin III is C:\Program Files (x86)\pgAdmin III\ (x.x is the version number of pgAdmin III).
- You can edit the system environment variable PATH in the Environment Variables screen (Control Panel > System and Security > System > Advanced system settings > the Advanced tab > Environment Variables).

4. Download and install the pgsqLODBC driver (x86). The download website is the following:

<https://www.postgresql.org/ftp/odbc/versions/>

5. Run the following by using the Command Prompt to check the connection to the database server. When the connection is confirmed, 0 (zero) is displayed:

```
C:\>psql.exe -h The database server IP address -p Port number -U User name -d postgres -c ""
C:\>echo %errorlevel%
```

---

E.g.,

```
C:\>psql.exe -h 192.168.1.10 -p 5432 -U PsqlUser -d postgres -c ""
```

```
C:\>echo %errorlevel%
```

End of the procedure.

## Uninstalling PostgreSQL

The SigmaSystemCenter installer does not support uninstalling PostgreSQL.

The procedure is the following:

1. Click **Start**, click **Control Panel**, and then click **Programs and Features**.
2. Click **PostgreSQL 9.5**, and then click **Uninstall or change a program**.
3. Click **Yes** in the **Are you sure you want to uninstall...** dialog box.
4. After the uninstallation is completed successfully, the screen backs to **Programs and Features**.

End of the procedure.



## Appendix B Networks and Protocols

SigmaSystemCenter components are configured to use the following network ports by default. Open the following ports in your system, including a management server and managed machine when the firewall feature, such as Windows Firewall, is ON.

Programs and ports can be added to the exceptions list of Windows Firewall from the SigmaSystemCenter installation wizard.

- ◆ Automatic: The programs and ports that can be registered from the SigmaSystemCenter installer.
- ◆ Manual: The programs and ports that cannot be registered from the SigmaSystemCenter installer.

---

### References:

- For the detailed information including connection targets, directions, and feature overviews, see Appendix A, "Network Ports and Protocols" in *NEC SigmaSystemCenter Data Reference Guide*.
  - See also Subsection 3.1.1, "Port Number Setting" in *DeploymentManager Tool Reference Guide* about the settings in DeploymentManager.
- 

**Note:** If you are using an x86 OS, substitute "\Program Files\NEC" for "\Program Files (x86)\NEC."

---

## Management Server

	Item	Protocol	Port Number	Program Name	Automatic /Manual
DeploymentManager *1	DPM Server (Windows)	UDP	69	\Program Files (x86)\NEC\Deployment Manager\pxemftp.exe	Automatic
		UDP	4011	\Program Files (x86)\NEC\Deployment Manager\pxesvc.exe	Automatic
		UDP	67	\Program Files (x86)\NEC\Deployment Manager\pxesvc.exe	Automatic
		TCP	26504	\Program Files (x86)\NEC\Deployment Manager\depssvc.exe	Automatic
		TCP	26503, 26501, 26502	\Program Files (x86)\NEC\Deployment Manager\bkressvc.exe	Automatic
		TCP	26508	\Program Files (x86)\NEC\Deployment Manager\ftsvc.exe	Automatic

	Item	Protocol	Port Number	Program Name	Automatic/Manual
		TCP	26506, 26507	\Program Files (x86)\NEC\Deployment Manager\rupdssvc.exe	Automatic
		TCP	26505 *2	\Program Files (x86)\NEC\Deployment Manager\pxesvc.exe	Automatic
	Internal Processing with Web Service (IIS)	TCP	26500 *3	\Program Files (x86)\NEC\Deployment Manager\apiserv.exe	Automatic
	Connection to Web Console	HTTP	80	Windows\system32\svchost.exe (The path is different depending on the OS environment.)	Manual
	Connection to DPM Command Line	HTTP	80	Windows\system32\svchost.exe (The path is different depending on the OS environment.)	Manual
	Connection to Image Builder (Remote Console)	TCP	26508	\Program Files (x86)\NEC\Deployment Manager\ftsvc.exe	Automatic
SystemProvisioning	SystemProvisioning	UDP	26115	\Program Files (x86)\NEC\PVM\bin\PVMServiceProc.exe	Automatic
	SystemProvisioning	TCP	26102	\Program Files (x86)\NEC\PVM\bin\PVMServiceProc.exe	Automatic
	SystemProvisioning	TCP	26110	\Program Files (x86)\NEC\PVM\bin\PVMServiceProc.exe *4	Manual
	SystemProvisioning	TCP	26150 *5	\Program Files (x86)\NEC\PVM\bin\PVMServiceProc.exe	Manual
	SystemProvisioning Web API Service	TCP	26105	\Program Files (x86)\NEC\PVM\bin\PVMServiceProc.exe	Automatic
	SystemProvisioning File Transfer Service	TCP	26108	\Program Files (x86)\NEC\PVM\bin\PVMServiceProc.exe	Automatic
	ICMP Echo Reply *6	ICMP	-	\Program Files (x86)\NEC\PVM\bin\PVMServiceProc.exe	Manual

	Item	Protocol	Port Number	Program Name	Automatic /Manual
	SNMP Trap Service	UDP	162	\\WINDOWS\System32\snmptrap.exe	Automatic *7
System Monitor - Performance Monitoring Services	System Monitor - Performance Monitoring Services	TCP	26200	\\Program Files (x86)\NEC\SystemMonitorPerformance\bin\rm_pfm_service.exe	Automatic
NEC ESMPRO Manager	NEC ESMPRO Manager	UDP	162 *8	\\WINDOWS\System32\snmptrap.exe	Automatic *7
		UDP	162 *8	\\Program Files (x86)\NEC\SMM\NVBASE\bin\nvbase.exe	Automatic
		UDP	7893 *9		Automatic
		TCP	8807 *10	\\Program Files (x86)\NEC\SMM\NVBASE\bin\esmasvnt.exe	-
		TCP	31134 *11	\\Program Files (x86)\NEC\SMM\NVBASE\bin\amvsckr.exe	Automatic
		UDP	47115	\\Program Files (x86)\NEC\SMM\ESMWEB\jslcmn\jsl.exe	Automatic
		UDP	47116		
		UDP	47117 *12		
		UDP	47170 - 47179 *13		
		UDP	47180 - 47189 *13		
		TCP	1099		
		UDP	51099 - 51107 *13		
		TCP	47140 - 47149 *13	\\WINDOWS\system32\DianaScopeModemAgent.exe	Automatic
TCP	6736 *14	\\Program Files (x86)\NEC\SMM\ESMWEB\jslem\jsl.exe	Automatic		
TCP	8185, 21113, 21114 *15	\\Program Files (x86)\NEC\SMM\ESMWEB\jslweb\jsl.exe	Automatic		

\*1 In new installation of DeploymentManager 6.1 or later, the port numbers to be used are changed from those of DeploymentManager 6.0 or earlier. When your DeploymentManager is upgraded from DeploymentManager 6.0 or earlier, the port numbers in new installation of DeploymentManager 6.1 are different from the port numbers in the table above, because the very port numbers which have been used previously are inherited. For port numbers in older versions, see the appropriate users guide.

\*2 In the case of the operation form without DHCP server, open the port.

\*3 Because this port (TCP: 26500) is utilized for internal processing (connection between a DPM Server and Web service (IIS)), you do not have to add it to the firewall exceptions.

- \*4 For receiving CIM Indication, the OS function (HTTP.sys) is used.  
In addition, it is necessary to specify the port number (26110) in Windows Firewall setting when creating Inbound Rules on a management server.
- \*5 If you use the managed servers in Monitor view, open the port manually.
- \*6 For settings ICMP firewall exception, see "Adding ICMP Echo Reply to the Exceptions List of Windows Firewall" in "Appendix A, Network Ports and Protocols" in *NEC SigmaSystemCenter Data Reference Guide*.
- \*7 Installer adds the program to the Windows firewall exceptions list in clean installation only
- \*8 If the Use SNMP Trap Service is set for the SNMP trap reception setting, use "%windir%\system32\snmptrap.exe."  
If the "Use own method" is set for the SNMP trap reception setting, use "\\Program Files (x86)\NEC\SMM\NVBASE\bin\nvbase.exe."  
The SNMP trap reception setting can be checked by either of the following procedures:
  - From Web GUI, click **Alert Receive Setting** and check the **SNMP Trap Setting** on the AlertViewer.
- \*9 Adding the value to a Firewall exception is unnecessary.
- \*10 Adding the value to a Firewall exception is unnecessary.  
The port is for the backward compatibility.
- \*11 This value can be changed by the following procedures of NEC ESMPRO Manager:  
From Web GUI, click **Alert Receive Setting** and check the **TCP/IP Report Settings** on the AlertViewer.
- \*12 This value can be changed from **Environment** of NEC ESMPRO Manager.
- \*13 A port which is unused and whose port number is the smallest within the range of the described ports will be used.
- \*14 This value can be changed only from NEC ESMPRO Manager Web GUI.  
From Web GUI, click **Alert Receive Setting** and click **CIM-Indication Setting - Port Number** on **AlertViewer**.
- \*15 If you want to change the port to communicate with a Web client, see "■Changing the port number" and "■Coexistence with Tomcat" in Chapter 6, "After Installation" in *NEC ESMPRO Manager Installation Guide*.

## Managed Machine

	Item	Protocol	Port Number	Program Name	Automatic/ Manual
DeploymentManager *1	ICMP Echo *2	ICMP	-	DeploymentManager	Automatic (for Windows) Manual (for Linux)
	Backup Data	UDP	26530	DeploymentManager	-
	DPM Client (Windows) *2	UDP	26529	<ul style="list-style-type: none"> <li>•For x64 OS</li> <li>\Program Files (x86)\NEC\DeploymentManager_Client\rupdsvc.exe</li> <li>•For x86 OS</li> <li>\Program Files\NEC\DeploymentManager_Client\rupdsvc.exe</li> </ul>	Automatic
		TCP	26510, 26511, 26520		Automatic
		TCP	26509	<ul style="list-style-type: none"> <li>•For x64 OS</li> <li>\Program Files (x86)\NEC\DeploymentManager_Client\DepAgent.exe</li> <li>•For x86 OS</li> <li>\Program Files\NEC\DeploymentManager_Client\DepAgent.exe</li> </ul>	Automatic
		UDP	68	<ul style="list-style-type: none"> <li>•For x64 OS</li> <li>\Program Files (x86)\NEC\DeploymentManager_Client\GetBootServerIP.exe</li> <li>•For x86 OS</li> <li>\Program Files\NEC\DeploymentManager_Client\GetBootServerIP.exe</li> </ul>	Manual
	DPM Client (Linux)	UDP	26529	/opt/dpmclient/agent/bin/depagtd	Manual
		TCP	26510, 26509, 26520		Manual
UDP		68	/opt/dpmclient/agent/bin/GetBootServerIP	Manual	
Out-of-Band Management	RMCP/RMCP+	UDP	623 *3	-	Manual
System Monitor - Performance Monitoring Services	Collecting Performance Data	UDP	137 *4	(system)	Automatic
		TCP	139, 445 *4	(system)	Automatic

	Item	Protocol	Port Number	Program Name	Automatic/ Manual	
			22, 23 *5		Automatic	
			443 *6		Automatic	
			135 1024-65535 *7		Automatic	
NEC ESMPRO ServerAgentService Monitoring	NEC ESMPRO ServerAgentService (Windows)	TCP	5985 *8 (80) *9		Automatic	
			5986 *10 (443) *9		Manual	
			Auto- assignment		Automatic	
	NEC ESMPRO ServerAgentService (Linux)	UDP	111 *11		Automatic	
			TCP	5986		Automatic
				5988		Automatic
				5989		Automatic
		111, Auto- assignment *11		Automatic		
NEC ESMPRO Agent Monitoring	ICMP Echo	ICMP	-		Manual	
	Remote Wake Up	UDP	10101	Network Card	Manual	
	NEC ESMPRO Agent (Windows)	UDP	161 *8		Automatic	
		TCP	Auto- assignment		Automatic	
	NEC ESMPRO Agent (Linux)	UDP	161		Manual	
			111 *11		Automatic	
TCP		111, Auto- assignment *11		Automatic		
NEC ESMPRO Agent Extension	Information Collection, Scheduled Running	TCP	47120 - 47129 *12		Manual	
NEC ExpressUpdate Agent, Universal RAID Utility	Search of NEC ExpressUpdate Agent	UDP	427		Automatic	
	Search of Universal RAID Utility					
	NEC ExpressUpdate	UDP	Auto- assignment		Automatic	
	Universal RAID Utility					
System BIOS	Remote Console (CUI, non-SOL)	UDP	2069		Manual	

	Item	Protocol	Port Number	Program Name	Automatic/ Manual
OS	Remote installation of the NEC ExpressUpdate Agent (When managed server's OS is Windows type)	TCP	137		Automatic
		UDP	445		Automatic
	Remote installation of the NEC ExpressUpdate Agent (When managed server's OS is Linux type)	TCP	22		Automatic
vPro	Communication with the vPro	HTTP	16992		Automatic
	Remote Console	TCP	16994		Automatic
VMware ESXi5	Discovering Vmware ESXi5 server	UDP	427		Automatic
	Server Monitoring (WS-Man)	TCP	443		Automatic
	CIM Indication Subscription	TCP	5989		Automatic

- \*1 In new installation of DeploymentManager 6.1 or later, the port numbers to be used are changed from those of DeploymentManager 6.0 or earlier. When your DeploymentManager is upgraded from DeploymentManager 6.0 or earlier, the port numbers in new installation of DeploymentManager 6.1 are different from the port numbers in the table above, because the very port numbers which have been used previously are inherited. For port numbers in older versions, see the appropriate users guide.
- \*2 To use a managed machine as a master machine or a master VM and join it to a domain, the port of the domain network must be open. For details, see Subsection 1.1.1, "Notes for Environment Setup When Executing OS Installation by Disk Duplication" and notes regarding virtual environments described in 1.2.1, "About System Configuration" in *NEC SigmaSystemCenter Caution Notes and Trouble Shooting Reference Guide*.
- \*3 The port is used not by the NIC which is recognized by an OS, but by the network interface of BMC.
- \*4 The performance data on Windows can be collected when either NetBIOS (UDP-137, TCP-139) or SMB/CIFS (TCP-445) is enabled.
- \*5 The ports are used to collect performance data via SSH (22).
- \*6 The port is used to collect performance data of VMware ESX or Citrix XenServer. For details, see Subsection 1.7.4, "Ports Used between Management Servers and Monitored Machines" in *System Monitor - Performance Monitoring Services User's Guide*.
- \*7 These port numbers are used for collecting performance information of disk capacity from a Hyper-V host. See Microsoft KB300083 and KB154596 when you intend to restrict those ports.
- \*8 You might require to change this port number depending on your OS or network environment. For details, refer to "*NEC ESMPRO ServerAgentService Installation Guide (Windows)*" or "*NEC ESMPRO Agent Installation Guide (Windows)*."
- \*9 You must specify HTTP/80 for Windows Server 2008 and HTTPS/443 for NEC ESMPRO ServerAgentService when NEC ESMPRO ServerAgentService is installed on Windows Server

2008.

- \*10 This port number is required only when using the HTTPS protocol. For details, refer to "*NEC ESMPRO ServerAgentService Installation Guide (Windows)*."
- \*11 111 (UDP/TCP) and Auto-assignment (TCP) are internal ports that are used by NEC ESMPRO ServerAgentService (Linux) or NEC ESMPRO Agent (Linux). To configure them by using iptables, modify iptables to allow access.  
Auto-assignment (TCP) ports will be assigned by the OS within the usable range of ports. Refer to the following for the port range.  
`/proc/sys/net/ipv4/ip_local_port_range`
- \*12 A port which is unused and whose port number is the smallest within the range of the described ports will be used.

## Others

	Item	Protocol	Port Number	Program Name	Automatic/ Manual
DHCP Server	Network Boot	UDP	67		Automatic
NFS	Linux OS Clear Installation	UDP	111, 1048, 2049		Automatic
		TCP	111, 1048, 2049		Automatic
System Monitor - Performance Monitoring Services	System Monitor Management Console	TCP	26202	\Program Files (x86)\NEC\SystemMonitorPerformance\bin\RM_PFMCO NSOLE.exe	Automatic

If the DeploymentManager database server is built on a different machine, the communication between the DeploymentManager database server and the DPM Server occurs.  
For more information, see "Communication between the Database Server and the Management Server" in Appendix D, "Network Port and Protocol List" in *DeploymentManager Caution Notes and Trouble Shooting Reference Guide*.

# Appendix C Revision History

- ◆ First Edition (August 2017): New



## Appendix D License Information

This product includes certain open source software.

Details of individual licenses are provided on the *SigmaSystemCenter DVD*

<*SigmaSystemCenter Installation DVD*>\doc\OSS directory.

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