

DeploymentManager Ver6.5

Caution Notes and Trouble Shooting Reference Guide

- Second Edition -

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Introduction

Target Audience and Purpose

"Caution Notes and Trouble Shooting Reference Guide" is targeted to system administrators who operate DeploymentManager (hereafter, DPM) and explains DPM operations on the screen, tools, maintenance-related information, and troubleshooting.

Document Structure

- 1 Maintenance: Explains the maintenance information of DPM.
- 2 Precautions: Explains precautions about DPM.
- 3 Troubleshooting: Explains the method to handle error information of DPM.

Appendix

Appendix A	Service List
Appendix B	Event Log
Appendix C	Error Information
Appendix D	Network Port and Protocol List
Appendix E	Log Files Output by DPM
Appendix F	Procedure to Check the Version of Each Component
Appendix G	Glossary
Appendix H	Revision History

Documentation Guidelines for DeploymentManager Manuals

See "Documentation Guidelines for DeploymentManager Manuals" in *First Step Guide*.

1. Maintenance

This chapter explains the information about the maintenance of DPM.

1.1. Procedure to Change the IP Address of the Management Server

Explains the procedure to change the IP address of the Management Server where DPM Server is installed while operating DPM.

Note

DPM Server does not work properly, if you do not follow the procedure. When changing the IP address and network configuration at the same time, see Section 3.5.1, "Edit Machine Group" in *Web Console Reference Guide* and modify **Network Setting** of each group.

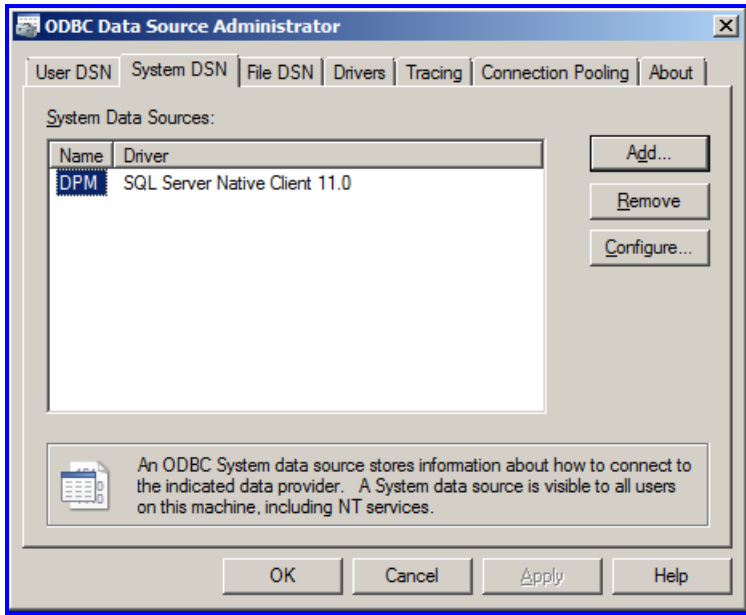
- (1) Log on to the Management Server by a user with administrator authority.
- (2) Check that all operations of DPM (the following) are completed or ended.
 - Operations for managed machines (scenario execution, automatic update, file distribution, file deletion and obtaining the information in **File/Folder List** screen) are completed.
 - Web Console and various tools of DPM are ended.
- (3) Change IP address of the Management Server.
- (4) Restart the Management Server.
- (5) When **ANY** is selected on IP address on Management view -> **DPM Server** -> **Detail Setting** -> **General** tab on the Web Console, select again the IP address for DPM Server and click OK.
- (6) Restart the managed machines.

1.2. Procedure to Change the IP Address of the Database Server

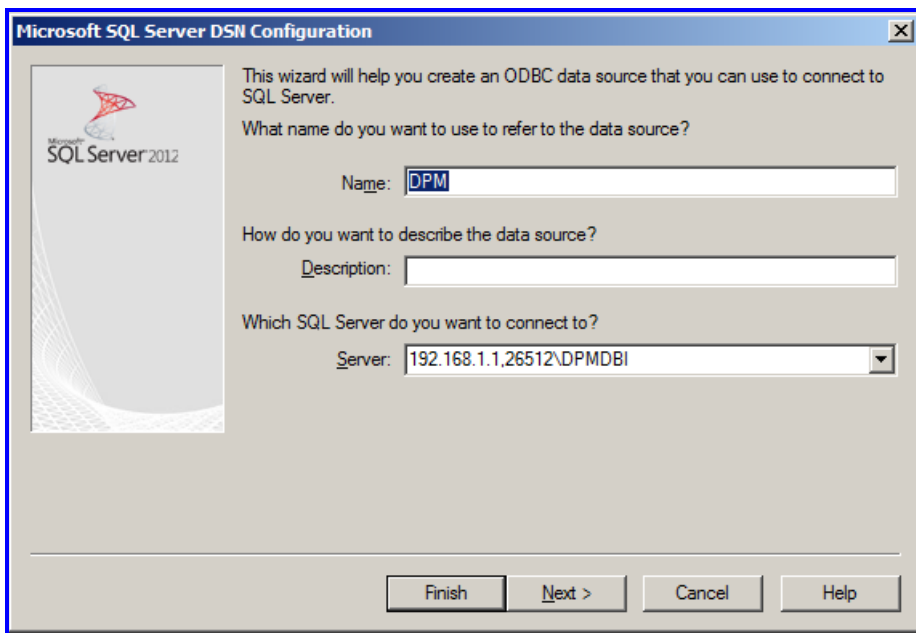
Explains the procedure to change the IP address of the Database Server while operating DPM.

- (1) Log on to the Management Server by a user with administrator authority.
- (2) Check that all operations of DPM (the following) are completed or ended.
 - Operations for managed machines (scenario execution, automatic update, file distribution, file deletion and obtaining the information in **File/Folder List** screen) are completed.
 - Web Console and various tools of DPM are ended.
- (3) Stop all services whose names begin with "DeploymentManager" from **Start** menu -> **Management Tools** -> **Services** on the Management Server.
- (4) Change the IP address on the Database Server.
- (5) Change the value in the **Name** of the following registry to the changed IP address for the Database Server on the registry editor on the Management Server.
 - Key:
 - When OS is x64
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\NEC\DeploymentManager
 - When OS is x86
HKEY_LOCAL_MACHINE\SOFTWARE\NEC\DeploymentManager
 - Name: DBSrvIPAddress
- (6) Start **ODBC Data Source Administrator** screen following the procedure below.
 - When OS is x64
Execute the following command from the command prompt.
%WINDIR%\SysWOW64\odbcad32.exe
 - When OS is x86
From **Start** menu, select **Management Tools** -> **Data Source(ODBC)**.

- (7) **ODBC Data Source Administrator** screen appears. After selecting **System DNS** tab, select **DPM** from the list of **System Data Source** and click **Configure**.



- (8) The following screen appears. Select the Database Server in **Server of Which SQL Server do you want to connect to?** in addition, change it to **IP address. Port of the Database Server after changing Instance name** and click **Finish**.



- (9) Start all services, which were stopped at Step (3) on the Management Server.

1.3. Procedure to Change the IP Address of the Managed Machine

If IP address of the managed machine is changed, the Management Server is notified automatically. It is not necessary to do further action.

However, when changing IP address of the Management Server and IP address of managed machine at the same time, the Management Server is not notified automatically. In this case, see "Upgrading DPM Client by installation media" in Section 3.3.2, "Manual Upgrading for DPM Client" in *Installation Guide* to reconfigure the IP address of the Management Server in DPM Client.

In addition, when DPM Client is not installed in the managed machine, the Management Server is not notified. In this case, see Section 3.7.2, "Edit Managed Machine" in *Web Console Reference Guide* to reconfigure IP address information of the managed machine.

It is recommended that you execute the backup scenario after changing IP address of the managed machine. If you restore the backup image before changing the IP address, the content of the disk is return to the original when executing the backup and IP address will be one before changing it.

1.4. Data Backup Plan

1.4.1. Data Backup Procedure

Explains the procedure to backup the data while operating DPM.

- (1) Log on to the Management Server by a user with administrator authority.
- (2) When you changed detailed settings of DPM Server after installing DPM Server, select **Management** view -> **DPM Server** icon -> **Detailed Setting** on the Web Console and note the displayed setting values.
- (3) Check that all operations of DPM (the following) are completed or ended.
 - Operations for managed machines(scenario execution, automatic update, file distribution, file deletion and obtaining the information in **File/Folder List** screen) are completed.
 - Web Console and various tools of DPM are ended.
- (4) From **Start** menu, select **Administrative Tools** -> **Services** and stop all services whose names begin with "DeploymentManager".
- (5) Backup the data.
Backup the following data.
 - All files under <**DPM Server installation folder**>\DataFile
 - All files under <**DPM Server installation folder**>\Linux
 - All files under <**DPM Server installation folder**>\Log
 - <**DPM Server installation folder**>\WebServer\App_Data\Data
 - Encypted.dat
 - DpmProfile.xml

Tips

The default installation folder of DPM Server is:
"C:\Program Files (x86)\NEC\DeploymentManager".

- All files under Folder for Image

Tips

Select **Management** view -> **DPM Server** -> **Detail Setting** -> **General** tab on the Web Console and check **Folder for Image** of **Image Setting**. The default of **Folder for Image** is "C:\Deploy".

- All files under Folder for Backup Image

Tips

Select **Management** view -> **DPM Server** -> **Detail Setting** -> **General** tab on the Web Console and check **Folder for Backup Image** of **Image Setting**. The default of **Folder for Backup Image** is "C:\DeployBackup".

- The following folders and files under TFTP root folder
 - backup
 - BehaviorOnError
 - DOSFD
 - EFI64
 - EFIBC
 - EFIIA32
 - gpxelinux
 - HW
 - HW64
 - hwinfo
 - kernel
 - NBP
 - probe
 - pxelinux
 - pxelinux.cfg
 - uefipxelinux
 - nbprestvar.ini
 - Port.ini

Note

When you configure the cooperation of TFTP service between DPM Server and MasterScope Network Manager, see Appendix F, "Configuring DPM Server and MasterScope Network Manager on the Same Machine" in *Installation Guide*, TFTP root folder is <**TFTP root folder of MasterScope Network Manager**>.

Tips

The default of TFTP root folder is "C:\Program Files (x86)\NEC\DeploymentManager\PXE\Images".

- Others
 - Files or registries when you changed them manually

(6) Backup the database.

Enter the following backup command on the command prompt, and then extract the backup file (DPM.bak).

When you configure the Database Server, log on by the user other than Administrator, execute the command prompt as administrator.

```
sqlcmd.exe -E -S localhost\Instance name
BACKUP DATABASE DPM
TO DISK='DPM.bak'
WITH INIT
GO
```

Example)

```
sqlcmd.exe -E -S localhost\DPMDBI
BACKUP DATABASE DPM
TO DISK='DPM.bak'
WITH INIT
GO
```

Tips

- The database name is "DPM".(Fixed)
- A backup file (DPM.bak) is created in the following folder:
 <Microsoft SQL Server installation folder>\Backup
 The default of <Microsoft SQL Server installation folder> is
 C:\Program Files\Microsoft SQL Server\MSSQL12.<Instance name>\MSSQL

(7) Backup the registry data.

- DPM Server

By executing the following command on the command prompt, extract the backup file (RegExportDPM.reg).

(The following command is described in two or more lines. Enter it by one line in the actual screen.)

- When OS is x64

```
regedit /e RegExportDPM.reg
"HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\NEC\DeploymentManager"
```

- When OS is x86

```
regedit /e RegExportDPM.reg
"HKEY_LOCAL_MACHINE\SOFTWARE\NEC\DeploymentManager"
```

- Database

By executing the following command on the command prompt, extract the backup file (RegExportDPMDB.reg).

When you configure the Database Server, log on by the user who configured the database on the Database Server and execute the following.

(The following command is described in two or more lines. Enter it by one line in the actual screen.)

- When OS is x64

```
regedit /e RegExportDPMDB.reg
"HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\NEC\DeploymentManager_DB"
```

- When OS is x86

```
regedit /e RegExportDPMDB.reg
"HKEY_LOCAL_MACHINE\SOFTWARE\NEC\DeploymentManager_DB"
```

Tips

Backup files(RegExportDPM.reg and RegExportDPMDB.reg) will be created in the folder where the command is executed.

(8) Start all services that were stopped at Step (4).

The backup of data updated while operating DPM is completed.

1.4.2. Data Recover Procedure

Recover the DPM environment by the data which were backed up in Section 1.4.1, "Data Backup Procedure", following the procedure below.

(1) Log on to the Management Server by a user with administrator authority.

Tips

When you configure the database on the same machine with DPM Server, it is recommended that you log on by Administrator and install DPM Server. When you installed DPM Server by a user with administrator authority except Administrator, you need to launch Image Builder, which is installed on the same machine with DPM Server, as an administrator.

(2) Install DPM Server and configure the detailed setting.

- When you install DPM Server and recover

Install DPM Server(and configure the detailed setting), following the description below.

- Installation Guide

- Setting items that you noted when you installed DPM Server
 - If there are setting values that you noted at Step (2) of Section 1.4.1, "Data Backup Procedure" about the setting in **Detailed Setting** screen displayed when installing DPM Server, enter the values.
- When you only recover the data (DPM Server is already installed.)
 - Specify the setting values that you noted at Step (2) of Section 1.4.1, "Data Backup Procedure", in **Management** view -> **DPM Server** icon -> **Detailed Setting** on the Web Console.
 - If you have not changed the detailed setting after installing DPM Server, configure the setting that you noted when installing DPM Server.

- (3) From **Start** menu, select **Administrative Tools** -> **Services** and stop all services whose names begin with "DeploymentManager".
- (4) Overwrite the same folder or file path as when you backed up by the backup data that were collected at Step (5) of Section 1.4.1, "Data Backup Procedure".
Also, configure the noted setting when there are the setting that you noted at Step (5) "Others" of Section 1.4.1, "Data Backup Procedure"
- (5) Copy the backup file of database, which has been obtained at Step (6) in Section 1.4.1, "Data Backup Procedure" onto the same folder path when you performed back up.
When you configure the Database Server, log on by the user who configured the database on the Database Server to execute.
- (6) Confirm the configuration of the database.
When you configure the Database Server, log on by the user who configured the database on the Database Server and execute the following.
 - 1) From Explorer and others, display the property of DPM.bak and confirm whether the user whose name that start with "MSSQL\$**Instance name**" on **Security** tab exists or not.
 - 2) Click **Detailed Setting** tab, and if there is a user whose name starts with "MSSQL\$**Instance name**" in 1), confirm whether the **Include inheritable permissions from this object's parent** checkbox is checked or not.
If there is no user whose name starts with "MSSQL\$**Instance name**" in 1), check the **Include inheritable permissions from this object's parent** checkbox. (If this checkbox is selected, a user whose name begins with " MSSQL\$**Instance name**" will be added to the **Security** tab.)
- (7) Start the command prompt, and then execute the following command.
When you log on by the user other than Administrator, execute command prompt as administrator.

```
sqlcmd.exe -E -S localhost\Instance name
RESTORE DATABASE DPM
FROM DISK = 'DPM.bak'
WITH REPLACE
GO
```

Example)

```
sqlcmd.exe -E -S localhost\DPMDBI
RESTORE DATABASE DPM
FROM DISK = 'DPM.bak'
WITH REPLACE
GO
```

- (8) Apply the backup file of the registry data extracted at Step (7) of Section 1.4.1, "Data Backup Procedure" on the machine that you backed up. (Double-click from Explorer.)
- (9) Start all services that were stopped at Step (3).
- (10) Start the command prompt and execute the following command.
iisreset /restart

Recovering DPM data is completed.

1.5. Port Change Procedure on DPM

The section explains the procedure to change the port used by DPM.

Note

- If you do not follow the procedure, the Management Server and managed machines do not work properly.
- When you change the port used by `ftsvc.exe` (TCP:26508), specify the same port in the **Setting Connection** screen of Image Builder (Remote Console).
- When you install DPM Server newly, DPM Client of the version earlier than DPM Ver6.1 cannot be upgraded automatically.
Execute the either of the following.
 - Before you install DPM Server newly, set the port, which was used before upgrading, in `Port.ini` by following the procedure in this section.
 - After you installed DPM Server newly, upgrade DPM Client by a scenario, see Section 3.3.2, "Manual Upgrading for DPM Client" in *Installation Guide*. (It takes about 20 minutes until the scenario is completed.)
- The master image for OS installation by disk duplication, created in the version earlier than DPM Ver6.1, cannot be used in the environment that DPM Server is installed newly. Re-create a master image in this version, or set the port, which was used before upgrading, in `Port.ini` following the procedure in this section, before you install DPM Server newly.

Tips

The default values of the ports to be used differ in the version earlier than DPM Ver6.1. For details of the port number, see Appendix D, "Network Port and Protocol List."

- The procedure to change the port before installing DPM Server newly.

- (1) Log on to the Management Server by a user with administrator authority.
- (2) Copy the following file to `%SystemDrive%(Default C:)\DPMPort\
<Installation media>\DPM\Setup\DPM\Port.ini`
- (3) Specify the port to use in the copied file and save the file.
- (4) Install DPM Server newly.

Note

When you upgrade DPM Server, the ports, which were used before upgrading, are taken over.

- The procedure to change the port after installing DPM Server.
Execute the following procedure on the Management Server.

- (1) Log on to the Management Server by a user with administrator authority.
- (2) Check that all following DPM operations are completed.
 - Operations which are being executed for managed machine(scenario execution, automatic update, file distribution, file deletion, and obtaining the information in **File/Folder List** screen) are completed.
 - Web Console and each tool of DPM are ended.
- (3) Edit `<TFTP root folder>\Port.ini`.

Tips

- The default of TFTP root folder is `"C:\Program Files (x86)\NEC\DeploymentManager\PXE\Images"`.
- When you change the port for Web Service (Default:26500), modify the following line in `<TFTP root folder>\WebServer\App_Data\Config\MgrServerList.xml`.

`<Port>The port to change</Port>`

(4) Restart the Management Server.

(5) Restart managed machines.

1.6. Database Transfer Procedure

This chapter explains the procedure to transfer database.

Note

- If you do not follow the procedure, the Management Server does not work properly.
- This procedure supports SQL Server 2012 or later.
- Setting should be the same between install path/architecture/instance name and so on of SQL Server for the transfer destination and that of transfer source.
- When specifying "SQL Authentication", select "Mixed Mode" for SQL instance authentication mode.
- When you configure the database transfer destination on the different machine from the Management Server and specifying "Windows Authentication", both the Management Server and the Database Server should participate in the domain,
- When Microsoft SQL Server 2012 Native Client is already installed, installation SQL Server might fail. In that case, uninstall Microsoft SQL Server 2012 Native Client and install again.

(1) Log on to the Management Server by a user with administrator authority.

(2) Check that all operations of DPM (the following) are completed or ended.

- Operations for managed machines (scenario execution, automatic update, file distribution, file deletion and obtaining the information in File/Folder List screen) are completed.
- Web Console and various tools of DPM are ended.

(3) Configure SQL Server instance on the machine of the database transfer destination.

When specifying "SQL Authentication" for the database authentication, see "Configure the database." in Appendix D "Configuring the Database Server" in *Installation Guide*.

When specifying "Windows Authentication" for the database authentication, see (1) to (6) and (8) to (13) from "Configure the database." in Appendix D "Configuring the Database Server" in *Installation Guide*.

(4) Transfer DB data from the database transfer source to the database transfer destination.

See (6) from Section 1.4.1, "Data Backup Procedure" and (6)(7) from Section 1.4.2, "Data Recover Procedure" for the procedure.

- (5) Create the domain user to access on the database transfer destination.
When the database transfer destination and the Management Server participate in the domain, start the command prompt and execute the following.
In any other case, skip to Step (8).

(The following command is described in two or more lines. Enter it by one line in the actual screen.)

```
C:\>sqlcmd -E -S .\Instance name
1> CREATE LOGIN [domain name\DPM Server user name] FROM WINDOWS
    WITH DEFAULT_DATABASE=DPM
2> go
1> EXEC master..sp_addsrvrolemember @loginame = N' domain name\DPM Server user name',
    @rolename = N'sysadmin'
2> go
1> CREATE LOGIN [domain name\computer name for DPM Server$] FROM WINDOWS
    WITH DEFAULT_DATABASE=DPM
2> go
1> EXEC master..sp_addsrvrolemember @loginame = N' domain name\computer name for DPM
    Server$',
    @rolename = N'sysadmin'
2> go
1> exit
```

Example)

```
C:\>sqlcmd -E -S .\DPMDBI
1> CREATE LOGIN [MCIPT\test2] FROM WINDOWS WITH DEFAULT_DATABASE=DPM
2> go
1> EXEC master..sp_addsrvrolemember @loginame = N'MCIPT\test2', @rolename = N'sysadmin'
2> go
1> CREATE LOGIN [MCIPT\computer2$] FROM WINDOWS WITH DEFAULT_DATABASE=DPM
2> go
1> EXEC master..sp_addsrvrolemember @loginame = N'MCIPT\computer2$', @rolename =
N'sysadmin'
2> go
1> exit
```

- (6) Start the service after changing "Startup Type" to "Auto" for "SQL Server Browser" of the database transfer destination.
- (7) Set Windows Firewall on the database transfer destination and permit the communication of the following program.
- Program: sqlbrowser.exe

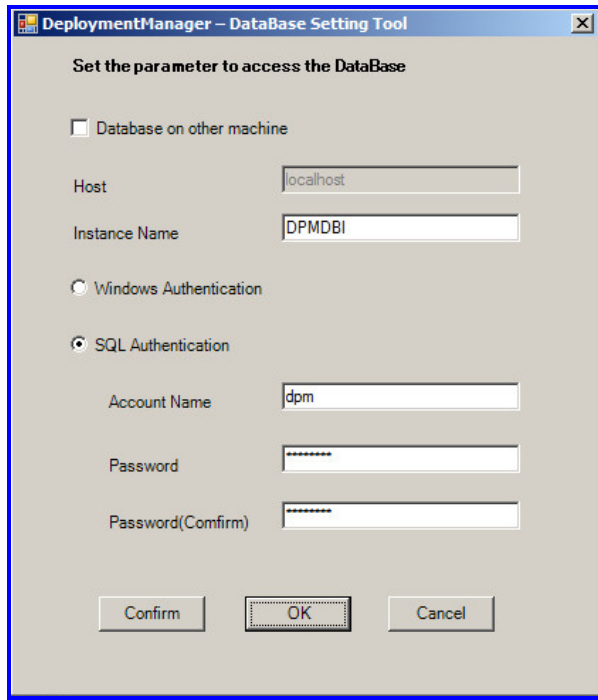
Tips

The default of the install path for sqlbrowser.exe is as follows.
C:\Program Files (x86)\Microsoft SQL Server\90\Shared

- (8) Move to the folder on which DPM Server is installed on the Management Server and execute the database setting tool (DPMDBIConfig.exe).

Tips

The default of the install folder on DPM Server is as follows.
C:\Program Files (x86)\NEC\DeploymentManager



Set each item after appearing the screen and click **Confirm**.
 Click **OK** after "Database connection has succeeded" is appeared.
 "Database settings have been completed" is displayed.
 Click **Cancel** to close tools.

Note

- Set the same value for the instance name, the account name and the password on the screen as those of created at Step (3) the setting value of the database transfer destination.
 - When you configure the database transfer destination on the different machine from the Management Server, select "Configure the database on the other machine" and enter the host name or the IP address of the database transfer destination.
 - When you execute database connection by using the host name, enable "Network Discovery(NB-name-In)" from the Inbound Rules on Windows Firewall for the database transfer destination.
 - When you execute database by using the IP address, to allow DNS reverse resolution.
- When you do not set, there might be a case that database connection and processing might take time and fail in DPM Service start-up.

(9) Start the command prompt of the Management Server and start the followings.

(The following command is described in two or more lines. Enter it by one line in the actual screen.)

```
C:\> "<DPM Server Install Folder>\svcctrl.exe" -remove -c "apiserv.exe" "apiserv"
      "DeploymentManager API Service"
C:\> "<DPM Server Install Folder>\svcctrl.exe" -remove -c "schwatch.exe" "schwatch"
      "DeploymentManager Schedule Management"
C:\> "<DPM Server Install Folder>\apiserv.exe" /service
C:\> "<DPM Server Install Folder>\schwatch.exe" /install
```

(10) Start the following service.

- DeploymentManager API Service
- DeploymentManager Schedule Management will be started automatically.

(11) Uninstall SQL Server instance on the database transfer source

See "Uninstall the database." in Appendix D "Configuring the Database Server" in *Installation Guide* for the procedure.

2. Precautions

This chapter explains precautions for DPM.

2.1. Notes for Device and Storage

2.1.1. The Module for the Machine Model

The module for the machine model is the update module enables the machine model not supported by Deploy-OS which is included as standard to the managed machine.

For notes about the module for the machine model, contact your sales or support representative.

2.2. Notes when You Change the Computer Name (the Host Name) of the Management Server and the Managed Machine

You can change the computer name (the host name) on the OS of the Management Server and the managed machine at any timing.

When you use the host name in the URL on the Web Console, change it to match with the computer name of the Management Server,

When you changed the computer name (the host name) of the managed machine, if you restore the backup image before changing the computer name (the host name), the content of the disk is returned to the original status when executing the backup and the computer name (the host name) will be one before changing it. It is recommended that you execute the backup after changing the name.

2.3. Notes when You Change the User Name/the Password on the OS of the Management Server and the Managed Machine

When you change the user name/the password on the OS of the Management Server and the managed machine, it does not affect the operation later.

However, if you restore the backup image before changing the user name/the password on the OS of the managed machine, the content of the disk is returned to the original status when executing the backup and the user name/the password will be one before changing it. It is recommended that you execute the backup after changing the user name/the password.

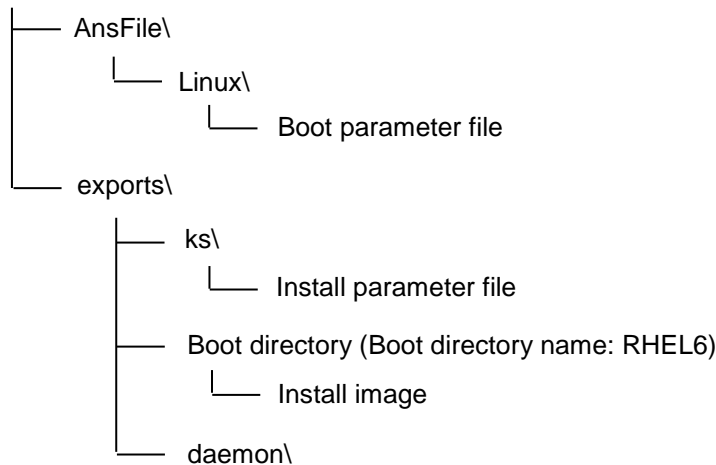
2.4. Notes for OS Clear Installation

When you cannot set up NFS server, you can execute OS clear installation of Red Hat Enterprise Linux 6 by setting up FTP/HTTP server on the Management Server.

This chapter explains notes about the case. In addition, explains as the folder for image has the following configuration.

Management Server(IP address:192.168.0.1)

Folder for image



- See Section 3.5.1, "Creating and Registering an Image" in *Operation Guide*, create and register an image. Replace as the following about Section 3.5.1.1, "Setting up NFS Service".

Seeing manuals of FTP/HTTP server and so on, set "exports" folder under **Folder for Image** set on the Web Console as the virtual directory of FTP/HTTP server after configuring FTP/HTTP server,

- Perform the following before the procedure of Section 3.5.2, "Creating a Scenario" in *Operation Guide*.
 - Open the boot parameter file by text editor and so on and modify the description of the file server(underlined) following the environment, seeing the following example.

Example)

Before modification:

```
append initrd= RHEL6/initrd.img ks=nfs:192.168.0.1:/exports/ks/ks.cfg ksdevice=eth0
```

After modification:

- For FTP server

```
append initrd= RHEL6/initrd.img ks=ftp://192.168.0.1/exports/ks/ks.cfg ksdevice=eth0
```

- For HTTP server

```
append initrd= RHEL6/initrd.img ks=http://192.168.0.1/exports/ks/ks.cfg ksdevice=eth0
```

- Open the installation parameter file by text editor and so on, modify the description of the file server(underlined) following the environment, seeing the following example.

Example)

Before modification:

```
...
nfs --server 192.168.0.1 --dir /exports/RHEL6
...
#Mount /mnt/exports
mkdir /mnt
mkdir /mnt/exports
/bin/mount -o nolock -t nfs $NFSSERVER:/exports /mnt/exports
...
```

After modification:

- For FTP server

```

...
url -url ftp://192.168.0.1/exports/RHEL6
...
#Mount /mnt/exports
mkdir -p /mnt/exports/daemon/redhatall/ia32/
cd /mnt/exports/daemon/redhatall/ia32/
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/depagt
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/depagtd
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/depagtd.res
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/depcancel
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/depinst
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/depinst.res
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/depinst.sh
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/dpmversion.inf
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/GetBootServerIP
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/getinfo.sh
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/server.inf
wget ftp://192.168.0.1/exports/daemon/redhatall/ia32/xdpmmsg
...

```

- For HTTP server

```

...
url -url http://192.168.0.1/exports/RHEL6
...
#Mount /mnt/exports
mkdir -p /mnt/exports/daemon/redhatall/ia32/
cd /mnt/exports/daemon/redhatall/ia32/
wget http://192.168.0.1/exports/daemon/redhatall/ia32/depagt
wget http://192.168.0.1/exports/daemon/redhatall/ia32/depagtd
wget http://192.168.0.1/exports/daemon/redhatall/ia32/depagtd.res
wget http://192.168.0.1/exports/daemon/redhatall/ia32/depcancel
wget http://192.168.0.1/exports/daemon/redhatall/ia32/depinst
wget http://192.168.0.1/exports/daemon/redhatall/ia32/depinst.res
wget http://192.168.0.1/exports/daemon/redhatall/ia32/depinst.sh
wget http://192.168.0.1/exports/daemon/redhatall/ia32/dpmversion.inf
wget http://192.168.0.1/exports/daemon/redhatall/ia32/GetBootServerIP
wget http://192.168.0.1/exports/daemon/redhatall/ia32/getinfo.sh
wget http://192.168.0.1/exports/daemon/redhatall/ia32/server.inf
wget http://192.168.0.1/exports/daemon/redhatall/ia32/xdpmmsg
...

```

- Mount ISO file for installation of Red Hat Enterprise Linux 6 and copy all the contents in ISO to the boot directory.

3. Troubleshooting

This chapter explains how to handle when the problem occurs on DPM.

3.1. Web Console

?

When you click **Detail** under **HotFix/Application** on the **Machine Detail** screen, the **HotFix/Application List** screen items are not displayed.

➡ To manage the managed machine, DPM Client with the same version as DPM Server is need to be installed. If it is already installed, reinstall.For the installation procedure, see Section 2.2, "Installing DPM Client" in *Installation Guide*.

➡ From **Start** menu on the managed machine, select **Administrative Tools -> Services**, and confirm that **DeploymentManager Agent Service** and **DeploymentManager Remote Update Service Client** are running.

?

The screen **Socket error has occurred.** is displayed when you update information. Or, the following message is displayed as detailed information:

No connection could be made because the target machine actively refused it. Management Server IP address:26500

➡ The Management Server may be shut down. From **Start** menu, select **Administrative Tools -> Services** and confirm that all of the services listed in "■DPM Server" in Appendix A, "Service List" are running.

If the service is stopped, start all of the services that are not running. Furthermore, try to reconnect to Management Server after services started.

?

When you start the Web Console from the Web browser, error **The Page cannot be displayed** appears.

One of the following is possible:

- ➡ • The URL to start the Web Console may be incorrect. Confirm that the URL is correct.
- The Web Site might not be running. From **Start** menu, select **Administrative Tools -> Internet Information Services (IIS) Manager**, and confirm that **Default Web Site** is running.

?

The following screen appears when you start Web Console and unable to use.
HTTP error 500.19 This configuration section cannot be used at this path.



There is a possibility "IsapiModule" or "IsapiFilterModule" to operate in classic mode when installing ASP.NET might not be installed.

Above modules are necessary because the communication with Web Server on DeploymentManager is executed in classic mode.

To check whether "IsapiModule" and "IsapiFilterModule" are installed, follow the below procedure.

[Confirmation Procedure]

1. Start IIS manager.
2. Select the in-use server.
3. Open **Module** -> **IIS** on the displayed screen.
4. Check if "IsapiModule" and "IsapiFilterModule" exists or not.

When "IsapiModule" and "IsapiFilterModule" do not exist, add the module by the following procedure.

[Adding procedure]

1. Start IIS manager
2. Select the in-use server.
3. Open Module -> IIS on the displayed screen.
4. Select **Native module configuration...** on the right side of the menu.
5. Check "IsapiModule" or "IsapiFilterModule" from the displayed dialog and click **OK**.
6. Restart IIS.

?

When you access the Web Console from two or more windows or tabs, the following occurs due to the session sharing function of Internet Explorer.

- The user authority of the Web Console will be the same with the authority of the user who logged last.
- An error occurs when you switch the page in window or tab that you opened first, or change the number of lines to be displayed.



When you open two or more Web Consoles, separate sessions in the following procedure.

Launch Internet Explorer as new session and open the Web Console. To launch Internet Explorer as new session, select **File** -> **New Session** in Internet Explorer which is already launched.

?

Error message display error.

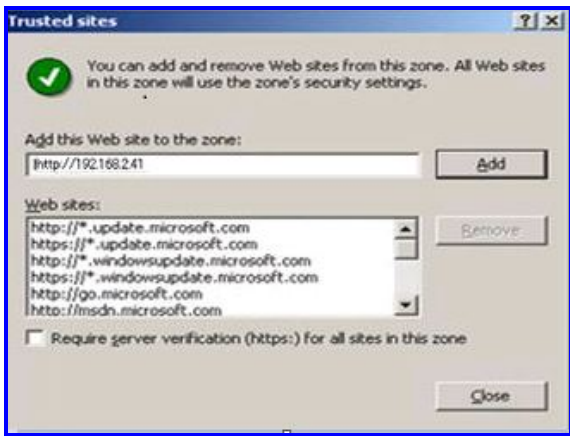
➔ When you use an HTML tag (<xx>) for a computer name or group name and so on, the entered text is interpreted as HTML syntax and may not be properly displayed in the error message. However, operations are not affected.

?

Even if you start the Web Console from the Web browser, nothing is displayed on the Web browser.

➔ From Tools menu -> Internet Options in Internet Explorer, select Trusted Sites on the Security tab. After clicking Sites, add a URL which connects to the Management Server.

Example) When the Management Server IP address is 192.168.2.41



?

When you start the Web Console on Windows Server 2003/Windows Server 2003 R2, the following message is displayed:



➔ Confirm that the URL is not wrong, and then click Add and add the Web site to the Trusted Sites zone.

?

You performed one of the following operations, however the **File Download** screen is not displayed, and you could not download CSV files.

- On the **Monitor** view -> **Scenario Execution Result List** -> **Scenario Execution Result List** screen, click **Save In CSV** in **Operation** menu.
- On the **Monitor** view -> **Automatic Update Result List** -> **Automatic Update Result List** screen, click **Save In CSV** in **Operation** menu.
- On the **Operations** view -> **Group List** screen, click **Export Machine Data** in **Configuration** menu.



Check security setting on Internet Explorer.

Select the Internet Explorer **Tools** menu -> **Internet Options**, then click **Security** tab -> **Security level for this zone** on **Trusted Site** -> **Custom level**, and configure as follows:

- Set **Enable** from **Downloads - File download**.

?

The Web Console cannot be started. In the screen, "Internet Explorer cannot display the webpage" is displayed.



Web Server may not be running. From **Start** menu, select **Administrative Tools** -> **Internet Information Services (IIS) Manager** and confirm whether **Default Web Site** is launched.



Anonymous access of IIS may be disabled. Change the setting as following.

- (1) From **Start** menu, select **Administrative Tools** -> **Internet Information Services (IIS) Manager**.
- (2) **Internet Information Services (IIS) Manager** screen appears. Click **DPM** directly under **Default Web Site** in the left side of the screen.
- (3) Select **Authentication** in **IIS** in the center of the screen and click **Open Feature** in **Actions** in the right of the screen.
- (4) Select **Anonymous Authentication** in **Authentication** screen in the center of the screen and click **Edit...** in **Actions** in the right of the screen.
- (5) **Edit anonymous authentication qualification information** appears. Confirm whether **Specific User** is selected and the user name is "IUSR". If it is not "IUSR", click **Setting** and set "IUSR" in the user name.
- (6) Close the screen by clicking **OK** in **Anonymous authentication qualification information**.
- (7) Select **Anonymous Authentication** in **Authentication** screen and click **Enabled** in **Actions** in the right of the screen.

?

The following phenomenon occurs when operating Web Console.

- Screen transition takes time.(several minutes to several tens of minutes)
- "Unable to get property 'src' of undefined or null reference."is displayed when screen transition and the screen is not displayed.
- Button and menu are not displayed.



Compatibility view on Internet Explorer might be disable.

Click "Compatibility View" displayed on the address bar to enable.

On Internet Explorer 11, Internet Explorer 8 compatible mode is automatically set when starting Web Console. Therefore, setting compatible mode explicitly is not necessary.

?

When you open the Web Console screen (such as **Add Machine** screen or **Add Scenario** screen) the characters displayed on the screen are garbled.



This may be avoided by turning off **Auto-Select** of **Encoding** on Internet Explorer. You can set OFF by clearing **View** menu -> **Encoding** -> **Auto-Select**.

?

On the **Backup/Restore** tab of the scenario, you click **Browse** on the **Image File** and a network drive or USB hard disk is not displayed.



Only local disk is displayed as a drive. When you specify a network drive or USB hard disk, enter the image file path on **Image File** text box directly. See Section 3.13.4, "Backup/Restore Tab" in *Web Console Reference Guide* for the detail.

?

The MAC address of the managed machine is not displayed on the Web Console.



The MAC address may not be displayed temporarily because of replacing LAN board to other machines and so on. If such a phenomenon occurs, manually reboot the managed machine. If the phenomenon occurs after reboot, delete the corresponding managed machine from the Web Console and then reregister.

* When the MAC address of the managed machine is not displayed, you cannot perform the following operations:

- Set the Automatic Update Time for the managed machine
- Obtain the power status
- Obtain the managed machine information
- Execute Scenario
- Power ON
- Shutdown



The MAC address for a managed machine running on Linux OS and mounted with two or more LAN boards may not be displayed during operation. In such a case, the corresponding managed machine may be registered to a New Machine group. Delete the corresponding managed machine from the New Machine group, and then reboot DPM Client on the managed machine. If the phenomenon occurs after reboot, delete the corresponding managed machine from the Web Console and then reregister.

?

After a certain amount of time passes without any operation, the display of the Web Console is returned to **Deployment Manager Login** screen at the next operation.



If session timeout occurs on the Web Console, the display is returned to **Deployment Manager Login** screen. Login again.

You can change the setting of timeout by the following procedure.

- (1) From **Start** menu, select **Administrative Tools** -> **Internet Information Services (IIS) Manager**.
- (2) **Internet Information Services (IIS) Manager** screen appears. Click **Application Pools** in the left side of the screen.
- (3) Select **DeploymentManagerPool** in **Application Pools** in the center of the screen and click **Stop** in **Application Pool Task** in the right side of the screen.
* For Windows Server 2008 and Windows Server 2008 R2, select **SP.NET v4.0 DeploymentManagerPool**.
- (4) Click **Default Web Site** in the left side of the screen and click **Stop** in **Manage Web Site** in the right of the screen.
- (5) Click **DPM** directly under **Default Web Site** in the left side of the screen and select **Session State** in **ASP.NET** in the center of the screen. Click **Open Feature** in **Actions** in the right side of the screen.
- (6) Specify the value of timeout in **Cookie Settings** -> **Time-out (in minutes)(O)**(The default is 20 minutes) in **Session State** screen in the center

- of the screen. Click **Apply** in **Actions** in the right side of the screen.
- (7) Click **DPM** directly under **Default Web Site** in the left side of the screen. Select **Authentication of IIS** in the center of the screen. Click **Open Feature** in **Actions** in the right side of the screen.
 - (8) Select **Forms Authentication** in **Authentication** screen in the center of the screen. Click **Edit...** in **Actions** in the right side of the screen.
 - (9) **Edit Forms Authentication Settings** screen appears. Specify the value of timeout in **Authentication cookie time-out (in minutes)(O)**(The default is 30 minutes). Click **OK**.
 - (10) Click **Application Pools** in the left side of the screen. Select **DeploymentManagerPool** in **Application Pools** in the center of the screen. Click **Advanced Setting** in **Edit Application Pools** in the right side of the screen.
* For Windows Server 2008/Windows Server 2008 R2, select **SP.NET v4.0 DeploymentManagerPool**.
 - (11) **Advanced Settings** screen appears. Specify the value of timeout in the following 2 items. Click **OK**.
 - **Process Model - Timeout in idle status(minute)** (The default is 20 minutes)
 - **Recycle - Periodic Interval (minute)** (The default is 1740 minutes)
 - (12) Click **Start** in **Application Pool Task** in the right side of the screen.
 - (13) Click **Default Web Site** in the left side of the screen and click **Start** in **Manage Web Site** in the right side of the screen.

3.2. Management Server

?

When you set different machines as DHCP server and the Management Server, you cannot obtain the MAC address for the managed machine.

➔ The DHCP service on the Management Server may still be running. On the Management Server, from **Start** menu, select **Administrative Tools** -> **Services**, and confirm that **Status** under **DHCP Server** is not **Started**. If it is **Started**, open the Properties screen, disable Startup type, and stop the service.

➔ In **Detail Setting**, the **DHCP server is installed on an another machine** checkbox may not be checked. Select **Management** view -> **DPM Server** -> **Detail Setting** on the Web Console, click the **DHCP Server tab**, and confirm that the **DHCP server is installed on an another machine** checkbox is checked. If the checkbox is not checked, check it and click **OK**, and then reboot the Management Server. (If the Management Server cannot be rebooted, stop all services listed in Appendix A, "Service List" by selecting **Administrative Tools** -> **Services** from **Start** menu, and then start all of the stopped services.)

?

DPM Server services are not running.

➔ A service may terminate if an error occurs during scenario execution. If a scenario is executing, wait until it completes and then perform the following operations.

From **Start** menu, select **Administrative Tools** -> **Services** on the Management Server, and then restart the following services.

(Start if the service is stopped.)

DeploymentManager API Service

DeploymentManager Backup/Restore Management

DeploymentManager Get Client Information

DeploymentManager PXE Management

DeploymentManager PXE Mftftp (Restart is not needed when startup type is disabled.)

DeploymentManager Remote Update Service

DeploymentManager Schedule Management

DeploymentManager Transfer Management

➔ By performing an overwrite installation of DPM Server, it will be recovered.

?

You cannot start the **DeploymentManager API Service** .

➔ Port (TCP:56050/26500) may be in use by other applications and so on. When Port(TCP:56050/26500) is used by other application, change the setting for the port number of either DPM or other application.

If you change the port number of DPM, see Section 1.5, "Port Change Procedure on DPM".

?

You cannot start the **DeploymentManager Remote Update Service** .

Furthermore, the following error log is listed in **<DPM Server installation folder>\Log\rupdssvc.csv** :

"RUPDSSVC: FUNCTION: CreateSocket(): bind Failed, error code=10048"

➔ Port (TCP:56024/26506, TCP:56028/26507) may be in use by other applications and so on.

When Port(TCP:56024/26506, TCP:56028/26507) is used by other application, change the setting for port number of either DPM or other application.

If you change the port number of DPM, see Section 1.5, "Port Change Procedure on DPM".

?

When you uninstall and then install DPM Server, scenarios and groups existing before the uninstall still remain.



The uninstallation may not be performed properly. Follow the procedure below to reinstall:

- (1) Perform uninstall again.
- (2) Reboot the machine installed with DPM Server.
- (3) Delete the contents under the folder installed with DPM Server and the **Folder for Image** (the defaults are C:\Program Files (x86)\NEC\DeploymentManager and C:\Deploy).
- (4) Install again.

?

When you perform an overwrite installation after interrupting uninstall, an error message appears and you cannot overwrite.



Install DPM Server newly after uninstalling completely.

?

There is no response even if you execute DPM Server silent installation.



The network connection may not be detected.

After confirming the network environment, install DPM Server again.

?

Following message is displayed when DPM Server installation, and fail in installation.

"Failed to install DPM Server(DB)."



When Microsoft SQL Server 2012 Native Client is already installed, there is a possibility installation of DPM Server might fail in.

Uninstall Microsoft SQL Server 2012 Client and reinstall DPM Server.

?

When "" is included in the folder path where DPM Server is installed, "It failed to set DSN." is displayed and fail in overwriting.



Overwrite installation DPM Server again after installing Microsoft SQL Server 2012 Native Client by following steps.

- 1) Copy below file to arbitrary (C:\).
 - For x64:
<Installation media>:\DPM\Setup\SQLNCLI\sqlncli_x64.msi
 - For x86:
<Installation media>:\DPM\Setup\SQLNCLI\sqlncli_x86.msi
- 2) Rename the copied file to "sqlncli.msi".
- 3) Execute "sqlncli.msi".
- 4) Delete copied file after execution.

3.3. Managed Machine

?

The standby function did not appear when you terminate the managed machine.



Check the following:

- If the Terminal Service is enabled, you cannot use the standby function. From the control panel, disable the Terminal Service.
- Unless the device driver and so on are properly installed, the standby function cannot be used.

?

When you used Remote Desktop to perform installation, upgrading, or uninstallation of DPM Client, the following message was displayed:

```
The following error occurred on the file, xxxxx\DepAgent.dll.  
Access is denied.
```

```
(0x5)
```

```
* xxxxx stands for a file path (variable).
```



If installation, upgrading, or uninstallation is performed while Event viewer on the managed machine is open, the above message may be displayed.
To Install/Upgrade Install/Uninstall, after selecting the **Ignore** and closing the above message, reboot the managed machine and re-execute.
For Uninstall, the DepAgent.dll file is automatically deleted after the machine restarts, so it is not necessary to re-execute.

?

You cannot start **DeploymentManager Remote Update Service Client** service. Furthermore, the following error log is listed in rupdsvc.log.

```
RUPDSVC: bind() failed, code = 10048
```

```
* rupdsvc.log is located in the following folder:
```

- For x64: C:\Program Files (x86)\NEC\DeploymentManager_Client\
- For x86: C:\Program Files\NEC\DeploymentManager_Client\



Port (TCP:56000/26510, TCP:56025/26511) may be in use by other applications and so on.
When Port(TCP:56000/26510, TCP:56025/26511) is used by other application, change the setting for port number of either DPM or other application.
If you change the port number of DPM, see Section 1.5, "Port Change Procedure on DPM".

?

You cannot start **DeploymentManager Update Service Client** service. Furthermore, the following error log is listed in rupdsvc.log.

```
"Multicast receive socket create error, code = 10048"
```

```
* rupdsvc.log is located in the following folder:
```

- For x64: C:\Program Files (x86)\NEC\DeploymentManager_Client\
- For x86: C:\Program Files\NEC\DeploymentManager_Client\



Port (UDP:56001/26529) may be in use by other applications and so on.
When Port(TCP:56001/26529) is used by other application, change the setting for port number of either DPM or other application.
If you change the port number of DPM, please refer 1.5 "Port Change Procedure on DPM".

?

Joining a managed machine of Windows Server 2008/Windows Vista or later to the domain will initialize the setting of Firewall and enable it.



This happens when the domain security policy is undefined in the domain server.
Define the domain security policy before joining to the domain.

?

You cannot WOL (Wake On LAN) remotely the managed machine.
Confirm followings.



- Refer the manual for the hardware and enable the setting of WOL and network boot to the managed machine.
- WOL with on-board LAN is correspond to DPM.
When you use the managed machine by connecting the expanded LAN board, WOL is not supported.
- There is a possibility when turning off the power forcibly by press and hold button, WOL might fail in due to the specification of the hardware.
In that case, turn on the power manually and shut down after starting OS enables WOL next time.
- When Link Speed and Duplex of the switch port connected to the managed machine are not set as Auto, WOL might not be performed.
Check whether LAN is linked up or not while the power of the managed machine is turned on.
There is a possibility that LAN is not linked up, WOL might not be performed from DPM.
Check the setting of the switch port and the driver and set Link Speed and Duplex as Auto.
Turn on the power manually if necessary.
When the Management Server and the managed machine exist in the different segment, following settings are necessary.
 - Group setting for DPM
Confirm the setting of the group by referring Section 3.3.1, "Add Machine Group" in *Web Console Reference Guide*.
 - Setting router/switch Management Server
There is a possibility that the communication of power ON send from the Management Server might not be reached to the managed machine.
See Section 2.2.1, "Network Environment" in *First Step Guide* and check the network setting.
- When Teaming for LAN port for the management machine, set the same value of MAC address registered to DPM Server for the physical LAN and MAC address of virtual LAN which has been performed.
When MAC address of the virtual LAN and MAC address of the physical LAN are different, WOL might not be performed by DPM.
- There is a possibility that the managed machine might not WOL in some machines if you turn off the power when registering machine to DPM by network boot.
In that case, turn on the power manually.

Confirm the specification of the hardware if the phenomenon is not improved despite performing above steps, because WOL by DPM depends on the specification of the hardware.

?

How to display again Automatic update status display on the task tray?



See Section 3.3.1, "Client Setting Tool" in *Tool Reference Guide*.

3.4. Scenario



You cannot assign a scenario to the managed machine.



A scenario cannot be assigned to a machine in the following statuses: Scenario Executing, Scenario Execution Stop, Scenario Execution Error or Remote Power ON Error. Assign a scenario either after scenario execution completes, or clear the machine status.











You want to change the scenario file name.



The scenario name cannot be changed. Please create a new scenario.

3.5. Execute Scenario

3.5.1. General

-  You executed a scenario, however the managed machine **Status** is not Scenario Executing.
-  When you click **Refresh** from **Operation** menu, or refresh the screen by pressing **F5** key, the status changes to **Scenario Executing**. Until the machine icon displays **Running**, do not edit, delete or remove scenario assignment for any running scenario. The scenario may not execute properly.
-  You checked the **Forced Execution Of A Reboot Is Performed Before Execution** checkbox on the scenario **Option** tab, however the machine does not reboot.
-  When installing service packs, hotfixes, and applications, the machine does not reboot before executing a scenario.
-  An error occurred while a scenario was running.
-  Use the following methods to remove the error.
- Next, check the error contents in the Event Viewer, confirm that the machine is in the correct status on the Web Console, and then re-execute the scenario.
- Example 1) Error Removal Method**
- (1) Click the machine in error status on the **Machine List**, and a machine detail screen appears.
 - (2) Click **Remove Error** under **Operation** menu on the machine detail screen.
- Example 2) Error Removal Method**
- (1) Click **Monitor** view - **Scenario Execution List**.
 - (2) In the tree view, click **Scenario Execution List**.
 - (3) In the **Operation** menu, click **Batch Clear Status**.
 - (4) On the **Status Clear** screen, select **Scenario Execution Error**.
 - (5) Click **OK**.
-  A Running Scenario does not complete.
-  Confirm the following:
- Confirm that DPM Client is installed.
If DPM Client is not installed, interrupt the scenario, install DPM Client, and re-execute the scenario.
 - Confirm that the IP address of the Management Server set when DPM Client was installed on the managed machine is correct.
If it is incorrect, either change the following registry, or reinstall DPM Client and set the correct IP address.
<Windows>
Key:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\depagent\Parameters
Key name: ServerIpAddress
<Linux>
Correct the following files in the /opt/dpmclient/agent/etc/ folder.
File Name: server.inf
Key name: dpmserverip=
 - On completion of scenario, the setting is that DPM Client can communicate with the Management Server.
 - When the scenarios is running, if you change the configuration of **Management** view -> **DPM Server** -> **Detail Setting** -> **DHCP Server** tab on the Web Console, PXE boot fails in the managed machine and the completion of the scenario cannot be detected. After stopping the scenario, re-execute the scenario after setting the items in **DHCP Server** tab matching the proper environment.

?

A scenario execution error occurred immediately after you executed a scenario.

➔ The location of installation or settings of DHCP might be wrong, or DHCP Server might not be able to lease IP address or the DHCP server might not operate properly. Check the current situation from the following:

- Select **Management** view -> **DPM Server** -> **Detail Setting** -> **DHCP Server** tab on the Web Console, and confirm that the settings are correct.
- Confirm that the lease IP address in the DHCP scope is not inactive.
- Confirm that the DHCP Server is approved by Active Directory when DHCP Server joins a domain, and The IP address can be leased.
- Confirm that the DHCP address pool has not run out. If the pool has run out, please secure a sufficient pool of addresses.
- If using a DHCP server except Windows, confirm that fixed addresses are configured.

➔ A remote update scenario may have been executed on a machine that exceeded the **Distribution Condition Setting - Maximum Targets** configured in the scenario. Reduce the number of machines to execute, or increase the value of **Maximum Targets**.

➔ HW configuration, OS installation, disk configuration check, or Backup/Restore scenario may have been executed for turned ON machine. When you turned OFF the machine and execute again or execute turned ON machine forcibly, check the check box of **Forced Execution Of A Reboot Is Performed Before Execution** on **Option** tab of scenario.

➔ The command (execute file path + execute file name + setup parameter) of executed package for a remote update scenario may exceed 259 characters. Correct so that the length is 259 character or less by Image Builder and PackageDescriber.

?

An error occurred while running the scenario.

In the Event Viewer, error log information is registered.

➔ Check the log information registered in the Event Viewer, and perform the processes for each item.

A problem that still occurs after re-executing may cause incorrect behavior in related services. If a scenario is executing, wait until it completes and then perform the following operations from the Management Server. From **Start** menu, select **Administrative Tools** -> **Services** on the Management Server, and then restart the following services. (Start if the service is stopped.)

- DeploymentManager API Service
- DeploymentManager Backup/Restore Management
- DeploymentManager Get Client Information
- DeploymentManager PXE Management
- DeploymentManager PXE Mftftp (Restart is not needed when startup type is disabled.)
- DeploymentManager Remote Update Service
- DeploymentManager Schedule Management
- DeploymentManager Transfer Management

• **Log Information 1**

- Error: Timeout error and stop run scenario. No response from target:

Explanation

The scenario execution timed out because there was no response from the machine within a given time. The machine may have stopped due to an awaiting input status, error display, or other reason. After checking the machine, scenario content, setup parameter files and other information, remove the error from the machine. Next, turn the machine power OFF and then re-execute the scenario.

• **Log Information 2**

- Error cannot create thread (xxxxxxxxxxxxxx)
- Error cannot allocate xxxxxxxxxxxxxxxxxxxxxx

Explanation

Failed to create the thread which processes machine requests and to allocate buffer memory. There is the possibility that there are insufficient resources due to factors such as the high load state of Management Server.

After checking the Management Server status, remove the error from the machine. Next, turn the machine power OFF and then re-execute the scenario.

• **Log Information 3**

- Error cannot read CLF
- Error cannot change CLF

Explanation

Failed to read/write managing machine information.

Remove the error from the machine, and then turn the machine power OFF. After waiting a while, re-execute the scenario.

• **Log Information 4**

- Error cannot get xxxxxx path
- Error cannot read xxxxxx
- Error cannot open xxxxxx

Explanation

Failed to obtain the path for, open, and read file xxxxxx.

There may be insufficient resources or registry information may be damaged due to factors such as the high load state of Management Server. After checking the Management Server status, remove the error from the machine. Next, turn the machine power OFF and then re-execute the scenario.

• **Log Information 5**

- Starting process of the computer failed MAC = XX-XX-XX-XX-XX-XX

Explanation

Failed to power on the machine remotely.

The network cable is not connected, or remote power ON is not configured. If the machine is forcibly shut down while the POST screen is displayed, remote power ON may not function the next time the machine boots up.

Confirm HW settings and try again.

• **Log Information 6**

- Starting process of the computer failed when execute scenario
MAC = XX-XX-XX-XX-XX-XX

Explanation

Failed to power on the machine remotely.

The network cable is not connected, or remote power ON is not configured. If the machine is forcibly shut down while the POST screen is displayed, remote power ON may not function the next time the machine boots up.

Confirm HW settings and try again.

• **Log Information 7**

- scenario start write shared memory MAC : error =
XX-XX-XX-XX-XX-XX : XXX

Explanation

The service may have abnormally terminated.

(1) From **Start** menu, select **Administrative Tools** -> **Services** on the Management Server, and then stop the following services:

- DeploymentManager API Service
- DeploymentManager Backup/Restore Management
- DeploymentManager Get Client Information
- DeploymentManager PXE Management
- DeploymentManager PXE Mfttp (Stop is not necessary when startup type is disabled.)
- DeploymentManager Remote Update Service
- DeploymentManager Schedule Management
- DeploymentManager Transfer Management

(2) Start the services you stopped at Step (1).

(3) Execute the scenario again.

· **Log Information 8**

- scenario start write shared memory MAC : error =
XX-XX-XX-XX-XX-XX : 112

Explanation:

WOL has not been executed on the target machine for scenario execution or failed in PXE boot might be the cause.

When executing scenario for the machine whose power is turned off, DPM monitors operation of PXE boot.

When PXE boot is not executed and WOL is not executed and scenario execution error is occurred.

Set WOL and network boot with BIOS setting for the target machine.

See the manual attached to the hard ware for the detail of BIOS setting.

?

The managed machine does not turn on when the power is turned on or a scenario is executed.



If the power is forced turned off during POST, the system may fail in Wake On LAN when restarted.

Turn off the power after completion of POST or start the operating system and perform the shutdown process.

?

The power was turned off during scenario execution by mistake.



On the Web Console, click **Operations** in the title bar to switch to the **Operations** view. In the tree view, click **Machines** icon, and then select the group to which the machine which power was turned off is registered. Select the specified machine, and then select **Scenario Execution Stop** to interrupt the scenario. After the status returns to normal, execute the scenario again.

?

The managed machine is not booted through the network, and the executed scenario becomes time out error.



The network boot priority in the BIOS settings may be lower than the hard disk boot priority. Make the network boot priority higher than the hard disk boot priority, and re-execute the scenario.



There is a possibility that network device has MAC address different from the MAC address registered to DPM Management Server might be set to execute PXE boot. Execute again after checking if the network device has MAC address registered to DPM Management Server is set to execute PXE boot.

For the confirmation and checking method of PXE boot, contact your sales or support representative.



When you manage a machine of UEFI mode, and if you start Windows OS after scenario completion of disk duplication OS installation or after changing UEFI boot option, two or more "Windows Boot Manager" are displayed in UEFI boot option and the boot order of network boot may be changed.

Set the boot order of the network boot higher than "Windows Boot Manager" and execute the scenario again.



There is a possibility that DPM Client might not receive request form DPM Server. Confirm whether the port number DPM Client uses is not used for other application. When the port number is used for other application which DPM Client used, change one port number enable DPM Client to communicate.

See Section 1.5, "Port Change Procedure on DPM" for the port number of DPM.

?

When you execute DPM Command Line, the specified command does not run. In addition, an error does not appear at the command prompt.

➔ You may be using DPM Command Line of the previous version (Command Line for DPM). If you are using DPM Command Line (Command Line for DPM) of the previous version, perform the upgrade installation, see Section 3.5, "Upgrading DPM Command Line" in *Installation Guide*.

?

When you executed a scenario to two or more managed machines simultaneously, a Remote Power On error occurred.

➔ When executing a scenario to two or more managed machines simultaneously, the default timeout value of the Remote Power On, which is specified in the **Management** view -> **DPM Server** -> **Detail Setting - Network** tab, may cause a timeout error. As a guide, set the **Remote Power On Timeout** to the following value: (**Remote Power On Interval**) multiplied by (the number of scenario executing machines) plus (managed machine startup time).

?

When a scenario finishes or the running scenario is stopped, the following message appears on the managed machine and the machine cannot be turned off:

ERROR: Failed to power down by calling APM BIOS. The system has halted.

➔ A machine that does not support Advanced Power Management (APM) may not be automatically turned off at shutdown. In this case, turn off the managed machine manually.

?

When you execute DPM Command Line, the following message appears, and you cannot execute the command:

The system cannot execute the specified program.

➔ This message appears when runtime modules required for running DPM Command Line are not properly installed.

Execute the following file to install the run-time modules:

<**Installation media**>:\DPM\Setup\VCRTL\vcredist_x86_2013.exe

To install the modules, Windows Installer 3.1 or later is required.

?

When you execute DPM Command Line, the following log is output to "System" in the [**Event viewer**].

Source: SideBySide

Event ID:32

Explanation: The dependent assembly Microsoft.VC120.CRT could not be detected.

Error: The referenced assembly is not installed to the system.

➔ This message appears when runtime modules required for running DPM Command Line are not installed properly.

Execute the following file to install the run-time modules:

<**Installation media**>:\DPM\Setup\VCRTL\vcredist_x86_2013.exe

To install the modules, Windows Installer 3.1 or later is required.

?

Following DPM Service does not start.

Message "Error 1067: The process terminated unexpectedly." has been displayed.

DeploymentManager API Service

DeploymentManager PXE Management

DeploymentManager Backup/Restore Management

➔ When IP address for the Management Server has been changed without following regular procedure, this error is occurred.

See Section 1.1, "Procedure to Change the IP Address of the Management Server" to change IP address after returning to previous IP address for the Management Server.

?

"Starting kswapd", "NTFS driver v1.1.2.2[Flags:R/O]" is displayed when executing scenario.

➔ Invalid "USB legacy system" on the keyboard setting for BIOS can avoid this error.

?

"The arguments is invalid."is displayed when executing DPM Command Line.



Error is occurred either blank or ">" is included in the argument.
In this case, enclose relevant argument within double quotation marks.

?

Following errors are displayed when executing DPM Command Line, and does not operate properly.

ERROR:xxxx
ERROR CODE:7304
ERROR MSG:xxxx



Proxy server is set to the machine on which DPM Command Line executes.
Following error might be displayed during DPM Command Line execution when access to DPM Server via proxy server is not necessary.

```
-----  
ERROR: Failed to set the DPM Server.  
      xxx cannot be operated.  
ERROR CODE:7304  
ERROR MSG:Session: DPM Server returned the ending code which is not  
              successful.  
(HTTP Status is not 200)  
-----
```

*xxx varies depending on the execution details.

HTTP is used for communication between DPM Command Line and DPM Server.
HTTP error occurs because access is performed via proxy server for the local server(internal network server).
Set bypass for the proxy setting of WinHTTP.

Set bypass setting on WinHTTP proxy setting.

- Windows Server 2008 or later
Start command prompt and execute following command.
 - For x64OS:
%SystemRoot%\SysWOW64\netsh winhttp set proxy proxy-server="proxy server address" bypass-list="DPM Server address"
 - For x86OS:
netsh winhttp set proxy proxy-server="address of the proxy server" bypass-list="address of DPM Server"

Example are below.

Command

```
\Windows\SysWOW64\netsh winhttp set proxy  
proxy-server="testproxy.co.jp:8080"  
bypass-list="192.168.1.1"
```

Execution result

```
Current WinHTTP proxy setting.  
Proxy server: testproxy.co.jp:8080  
Bypass list: 192.168.1.1
```

- Windows Server 2003 or earlier
Start command prompt and execute followings.

```
proxycfg -p proxy server address DPM Server address
```

Example are below

Command

```
proxycfg -p testproxy.co.jp:8080 192.168.1.1
```

Updated WinHTTP proxy setting

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Inter
```

netSettings\Connections\WinHttpSettings :
Proxy server: testproxy.nec.co.jp:8080
Bypass list: 192.168.1.1

?

Following messages are displayed on the event log and cannot start DPM.

- "The DeploymentManager API Service terminated unexpectedly." has been displayed and DeploymentManager API Service ends soon after starting.
- "Cannot create a file when that file already exists."

is displayed and cannot start DeploymentManager Schedule Management.

➡ Relevant DPM service fails in starting by way of access to SQL Server (DPMDBI) at the timing of starting when SQL Server (DPMDBI) service stops or when you cannot access to the database with any cause.
Restart SQL Server (DPMDBI) and start relevant service again.

?

"Unknown" is displayed on the "Disk Information (Disk Viewer)" screen on the Web Console.

➡ There is a possibility that the file system and the disk type which are not corresponded to DPM might be included in the disk of the managed machine. Confirm whether the state of the disk of the managed machine is formatted with the file system or the disk type which DPM is corresponded. See Appendix A, "Function Tables" in *First Step Guide* for the detail of the file system and disk format corresponded to DPM.

?

Error is displayed when "Disk Information (Disk Viewer)" on the Web Console is displayed and disk configuration is not displayed.

➡ There is a possibility that disk information is damaged or does not exist. Execute disk configuration check scenario again. Followings might be the cause.

- Disk configuration check scenario has never been succeeded.
- Disk configuration check scenario has not been succeeded after changing FC-LUN configuration for the managed machine.
- Disk information obtained by executing disk configuration check scenario is damaged.

3.5.2. Creating a Linux Install Parameter File



When you select **Open** under **File** menu from the installation parameter setting tools and when reading the existing Linux installation parameter file, the following message appears:

```
A candidate host file cannot be read.
```

➔ About the selected Linux installation parameter file, OS may not be supported. For details, see Section 3.9.1, "System Requirements" or Appendix A, "Function Tables" in *First Step Guide*.

➔ The Linux installation parameter file may be damaged.
Check the contents of the Linux setup parameter file and Linux boot parameter file.



When you select **Open** under **File** menu from the installation parameter setting tools and when reading the existing Linux installation parameter file, the following message appears:

```
The Linux OS installation parameter file cannot be read.
```

➔ About the selected Linux installation parameter file, OS may not be supported. For details, see Section 3.9.1, "System Requirements" or Appendix A, "Function Tables" in *First Step Guide*.

➔ The Linux installation parameter file may be damaged.
Check the contents of the Linux setup parameter file and Linux boot parameter file.

3.5.3. OS Installation by Disk Duplication



While you set up the OS by OS installation by disk duplication, the following message appeared on the machine screen and processing stopped.

```
"The parameter file for this system is not prepared, or failed to be copied.  
Follow the wizard to setup displayed after reboot. Press any key to reboot."
```

➔ The number of machines trying to access the Management Server may exceed the maximum number of machines concurrently accessible. Reduce the number of machines concurrently accessing the Management Server concurrently.



During the Windows OS setup by OS installation by disk duplication, the process stopped under the condition of being logged onto the machine.

Furthermore, machine names and so on that were specified by parameters are not set correctly.

➔ It may have failed to reflect the specific information because it took time to initialize the setting of Windows OS.

Open <**Folder for Image**>\Sysprep\Windows\DepConfig.ini by Text Editor and so on, and change the following Timeout value (milliseconds). (Use numeric characters.)

DepConfig.ini can be edited after Copy-ExpressSysprep.vbs script is executed on the master machine when the master image is created.

```
[SYSPREP]  
Timeout=60000
```

Example)

```
[SYSPREP]  
Timeout=300000
```

?

Following message is displayed and processing has been stopped during OS set up by disk duplication installation.

linftc: ERROR: ioctl - SIOCGIFADDR<iLocalSocket>(99 - Cannot assign requested address).

➔ Disk duplication module could not obtain the IP address to communicate with the Management Server.

Confirm whether LAN board of the managed machine is ready to communicate or not.

Confirm whether the IP address is assigned to the LAN board to communicate with the managed server when LAN board of the managed machine is in the state of communication.

?

During the OS setup by OS installation by disk duplication of Windows Server 2008/Windows Vista or later, either of the following messages appeared and the process stopped.

- "Windows could not parse or process the unattended answer file for pass [specialize]. The settings specified in the answer file cannot be applied. The error was detected while processing settings for component [Microsoft-Windows-Shell-Setup]."

- "The computer restarted unexpectedly or encountered an unexpected error. Windows installation cannot proceed. To install Windows, click "OK" to restart the computer and then restart the installation."

➔ The **OS type** in the disk duplication data file for the duplication destination machine may differ from the **OS type** of the master machine. Also, **Product Key** may not be specified in the disk duplication data file correctly.

Change the **OS type** in the disk duplication data file so that it matches that of the master machine and specify **Product Key** correctly. Then, distribute the disk image again.

?

While you setup the OS by OS installation by disk duplication, the following message appeared on the machine screen and processing stopped.

"The system registry contains invalid file paths. Installation cannot proceed. This system image was applied without guaranteeing that drive-letter assignments would match across computers."

➔ This error may be displayed if the system configuration of the master image is multiboot. Confirm that the master image is not a system configuration of multiboot. OS installation by disk duplication in the multiboot environment cannot be executed. (Be sure to construct the master image from the master machine which is configured as a single system.)

?

After you set up the OS by OS installation by disk duplication, the characters of the connection name registered in **Network and Dial-up Connections** were garbled.

➔ If this occurs, change the connection name manually.

?

When you execute Sysprep command on the master machine in setting up OS by OS installation by disk duplication, **Windows Security Alert** dialog appears and the message that "Do you want to keep blocking this program? Name: Microsoft Remote Desktop Help Session Manager" is displayed.

➔ For Windows Server 2003 R2, this may be displayed. The processing continues automatically after a while and there is no problem. Wait for a while.

?

The screen requires IMJPZP.DI_file or others is displayed while disk duplication OS installation.

➔ When IMJPZP.DI_ is required, copy IMJPZP.DI_file from the following to \SYSPREP\I386\LANG folder of the master machine (for OS of Windows Server 2003 R2/Windows XP or earlier: \SYSPREP\I386\LANG\JPN) which has been created in the procedure of "Executing the tool in the installation media manually" in 3.3.1.3, "Preparing for Creating the Master Image" in *Operation Guide*.

Create LANG folder when there is no LANG folder under I386.

- For Windows Server 2003 R2(x64):(CD-ROM)drive:\AMD64\LANG\IMJPZP.DI_
- For Windows XP/Windows Server 2003/Windows Server 2003 R2 (x86): (CD-ROM)drive:\I386\LANG\IMJPZP.DI_

After copying above file, refer to "Executing the tool in the installation media manually" in 3.3.1.3, "Preparing for Creating the Master Image" in *Operation Guide* and execute disk

duplication OS installation again.

When the other file is required, add the file to the master machine by the same procedure and execute disk duplication OS installation again.

?

After OS installation by disk duplication, messages such as the following appear at Linux OS startup. Or, X-Window does not start.

"Could not look up internet address for "Hostname"(*) This prevents GNOME from operating correctly. It may be possible to correct the problem by adding "hostname"* to the file /etc/hosts."

* "Hostname" is the host name of each machine after OS installation by disk duplication.

➡ An error may occur at X-Windows startup because a host name is not registered to the file /etc/hosts. Register the hostname in the /etc/hosts file. If the environment uses a static IP address, register the line as the following.

Example) 192.168.0.1 *servername*

If the computer obtains an IP address from DHCP, register the hostname with a loopback address as follows:

Example) 127.0.0.1 localdomain.localhost localhost *servername*

?

IP address conflict occurred after OS installation by disk duplication.

➡ If an alias interface is configured in the master machine, IP address conflict occurs after OS installation by disk duplication. Use the following procedure to delete the alias interface configuration file, and then restart the machine.

```
# cd /etc/sysconfig/network-scripts
# rm -f ifcfg-eth*:*
# rm -f ifcfg-bond*:*
```

?

When you execute backup of OS installation by disk duplication of a Linux-installed VMware ESX/ESXi virtual machine as a master machine, the following error appears and the machine has been shut down during OS start-up after completion of backup and restarting.

"Determining IP information for ethX ...failed; no link present. Check cable?"

➡ Configuration described in "Executing the tool in the installation media manually" of Section 3.4.1.3, "Preparing for Creating the Master Image" in *Operation Guide* may not have been done correctly in the preparation for OS installation by disk duplication on the master machine.

Confirm the procedure and configuration, and then execute OS installation by disk duplication again.

?

When you execute OS installation by disk duplication for a VMware ESX/ESXi virtual machine, the following error appears and network adaptor has not been recognized during OS start-up after restarting the machine by reflecting the specific information and restarted.

"Determining IP information for ethX ...failed; no link present. Check cable?"

➡ When the disk duplication data file was created, the script data listed in Section 1.4.3, "Creating a Disk Duplication Data File (Linux)" in *Tool Reference Guide*. may not have been properly configured.

Confirm the procedure and configuration, and then execute OS installation by disk duplication again.

?

Though execution of scenarios for setting up of a master machine (System_LinuxMasterSetup/System_WindowsMasterSetup/System_WindowsMasterSetupVM) succeeded OS installation by disk duplication fails.

➡ DPM Client earlier than DPM Ver6.12 may be used. After upgrading DPM Client, execute OS installation by disk duplication again.

?

When I make mistake the turn of procedure to create the master image of disk duplication installation, is it possible to make another try from the wrong step?

➡ Follow the step of the *Operation Guide* from the beginning again after restoration of the backup image of the master you created before.

If you retry from the wrong step, there is a possibility that the master image of the disk duplication installation might not be created properly.

?

Parameter file does not exist on disk duplication installation.

➔ There is a possibility that connection to the Management Server might be failed because the managed machine obtains the disk duplication data file from the Management Server. In that case, there is a possibility that the domain which belongs to the Management Server might not allow the user authorization for "Access to the computer via network"
->This user authority to connect with the managed server is necessary.

?

There are some items setup parameter is not applied after disk duplication installation.

➔ There is a possibility that some items are not reflected when installing disk duplication. In that case, set manually after completion of the disk duplication.

?

During disk duplication installation, stops at the login screen.
(Password error has been occurred).

➔ Password has been set when you prepare for disk duplication installation on the master machine. Set as "no password" of the master machine and execute backup again. Execute disk duplication OS installation again by using the backup image you set as above.

3.5.4. OS Clear Installation

?

After Distribution of floppy disk image for BIOS/firmware and an OS clear installation scenario was executed, a scenario execution error occurs before you reboot the machine.

➔ Is there a check-in on the **Forced Execution Of A Reboot Is Performed Before Execution** checkbox on the scenario **Options** tab? If not, a scenario will not be executed for any machine that has been turned ON. Modify the scenario or turn the machine OFF and execute the scenario again.

?

Scenario execution has stopped and the following message appears on the screen of machine while execution of OS clear installation scenario.

`"Cannot connect data server. Please stop running scenario on management server and press any key to reboot"`

➔ The maximum number of machines that accessing the Management Server simultaneously may have been exceeded. Reduce the number of machines which accesses Management Server simultaneously and execute again.

?

The OS installation has stopped due to an error.

➔ OS installation will stop with error if you specify unusable character in the machine name. For a list of unusable characters, see the manual of OS and others you are using.

?

During Linux installation, the following message appears, and the installation unable to be completed.

`Could not allocate requested partitions; Partitioning failed:
Could not allocate partitions as primary partitions`

➔ The partition settings may be wrong. (For example, if the number of primary partitions on one basic disk exceeds the upper limit (4))
While creating the Linux installation parameter file, select **Disk Information Settings - Partition Settings - Delete All Existing Partitions** and execute the Linux installation again.

?

During Linux installation, the following message appears, and the installation unable to be completed.

```
+----- Kickstart Error -----+
Error opening: kickstart file
/tmp/ks.cfg: No such file or
directory
[OK]
+-----+
```

- ➔ Confirm if NFS shared folder is configured correctly. See Appendix C, "Configuring NFS Server" in *Installation Guide* to configure the folder correctly, and then install Linux.
- ➔ If you uninstall DPM Server with the exports folder as an NFS shared folder as previously mentioned in **Setting Up the NFS Service**, and then reinstall DPM Server, the NFS shared property is configured in Explorer, however the above error may occur when you actually perform the installation. In this situation, release and then reconfigure the NFS shared property again.
- ➔ Confirm that the install device you are using is configured to **Installation Device** of Linux installation parameters. See Section 1.4.5, "Creating a Parameter File for OS Clear Installation (Linux)" in *Tool Reference Guide* to configure **Installation Device** correctly, and then install Linux again.

?

Network device exist as unknown device after OS installation.

- ➔ Register appropriate device driver on DPM and specify as scenario to install device driver. For the detail, contact your sales or support representative.

3.5.5. Installing Service Packs / HotFixes / Linux Patch Files / Application

?

Perform the following operations if scenario execution errors continue to occur in remote update.

- ➔ Restart the Management Server. (If the Management Server cannot be rebooted, stop all services described in Appendix A, "Service List" by selecting **Management Tools** -> **Services** from **Start** menu, and then start all of the services you stopped.)

?

When you executed the scenario of installing service packs, hotfixes, Linux patch files, and applications, however the machine in the **Status** column of the **Monitor** view -> **Scenario Execution List** remains in **Scenario Executing**, and the scenario execution does not complete.

- ➔ If the setup parameter is not configured correctly, a confirmation dialog box appears on the machine and the scenario execution does not complete. You can check the setup parameter by running the service pack or the hotfix with the option /h or -? , or see the web site of the distributor and others. Make sure to specify the setup parameter to execute silent installation and not to restart after installation.

?

Failed to create an image file during the registration of Installing service packs, hotfixes, Linux patch files, and applications by Image Builder.

- ➔ In installing service packs, hotfixes, Linux patch files, and applications, image file is saved in ZIP file. If these ZIP files size exceed 2GByte, creation of the image file fails.

?

When you modified a package by Image Builder, the message "Failed to compress the file." or "Failed to register in the Management Server." is displayed and package modification fails.

- ➔ If the modification date is earlier than the package creation date, package modification fails. There may be some reasons, such as, the date-time of the machine was changed after creating the package, or that date-time of the Management Server is different from one of Image Builder (Remote Console) machine. After the date that the package was created, modify the package, or delete the package and create the package again.

The packages are stored in the either Folder for Image\HotFix folder or Image \PP for the Management Server.

(The default of the Folder for Image is

C:\Deploy, and the package file name is "ServerID"- "PackageID".zip.)

?

Even if applying a service pack/hotfix/Linux patch file fails, the Web Console displays that scenario execution completed successfully.

➔ When the execution of a service pack or hotfix fails, the failure may not be detected. In such case, fix the cause of the execution failure, and then execute the scenario again.

?

A scenario execution error occurs if you execute a scenario Distribution of floppy disk image for BIOS/firmware or apply Installing service packs, hotfixes, Linux patch files, and applications install.

➔ Confirm that the execution interruption processing is completed properly. If interruption is cancelled before execution and then the scenario is executed, the scenario execution error may occur.

Furthermore, if you execute the same scenario simultaneously on two or more machines, set the maximum target number of multicast distribution conditions to the number of machines you want to interruption process is completed, and then execute the scenario.

?

A scenario execution error occurs if you try to execute two or more service pack/hotfix/Linux patch file/application install scenarios at the same time.

➔ See the **Scenario Details** screen and check whether the same multicast IP address is specified. If the same multicast IP address is not being used, reduce the maximum transfer rate, or execute the scenarios one by one. (If the scenario is the same, you may also execute the scenario on two or more machines.)

?

A scenario of installation service packs, hotfixes, Linux patch files, and applications does not start.

➔ If the maximum target is not configured, or is greater than the machine attempting to execute, the scenario executes after the maximum wait time passes. (The default setting of the maximum wait time is 10 minutes.)

?

The maximum transmission rate has been set higher, however the scenario execution time does not decrease.

➔ Maximum transmission rate varies depending on the network environment of the customers. Transmission rate cannot be higher than the performance of the network environment.

?

When you register an application or service pack/hotfix by Image Builder (Remote Console), the error **Failed to register to Management Server** is displayed.

➔ This error may occur when the size of the file to register is extremely large.

To prevent this error, edit the timeout value (number of seconds) that is specified by the following registry:

Hive : HKEY_LOCAL_MACHINE

KEY : SOFTWAREWow6432Node\NEC\DeploymentManager

NAME : DIBReqTimeout

Type : REG_DWORD

Value : 120

-> The default is 120 seconds. Set the timeout value.

Even if an error is displayed, registration is succeeded. Re-registration is unnecessary.

When you exit Image Builder, perform the following operations:

(1) Select **Yes (Register)** at batch registration.

(2) Select **No (Delete)** at the confirmation of overwriting.

?

When you register a service pack/hotfix/Linux patch file by Image Builder (Remote Console), the data creation has succeeded. However, the registration to the Management Server fails.

➔ This may occur if the path for the setup command name is extremely long.

If registering to the Management Server from the Remote Console, the upload process checks the full path, including the Folder for Image path on the Management Server side as the maximum path length. If the full path exceeds upper limit, registration is not be

completed properly. Register shorter full path by moving files to be registered to location close to the drive root on the Remote Console, and register the files again.

?

When you interrupt the execution of the scenario of installing service packs, hotfixes, Linux patch files, and applications, and then cancel the interruption and execute the scenario again, a scenario execution error occurs.



If the interruption occurs when communications with the managed machine is disrupted for some reason, the interruption process cannot be completed, and the machine remains in an interrupt status. In this status, even if a scenario is executed after the interruption is cancelled, a scenario execution error occurs.

In this case, wait for a while (approximately 10 minutes) and before executing the scenario again.

If scenario execution errors continues, perform the following operations.

On the managed machine, select **Management Tools ->Services** from **Start** menu, and restart **DeploymentManager Remote Update Service Client**. (Start if the service is stopped.)

?

After executing DPM Client automatic upgrade scenario for a Linux managed machine, and then execute another remote update scenario, which does not start.



When another remote update is executed within two minutes of executing DPM Client automatic upgrade scenario and DPM Client service does not start properly. Restart DPM Client service or restart the OS. To restart DPM Client service, start the Console and execute the following:

- For Red Hat Enterprise Linux 7 or later.
 - >systemctl stop depagt.service
 - >systemctl start depagt.service
- For Red Hat Enterprise Linux 6 or earlier/SUSE Linux Enterprise
 - >service depagt stop
 - >service depagt start

?

If remote update is executed for a Linux managed machine, a scenario execution error occurs.



When installing service packs, hotfixes, Linux patch files, and applications in Image Builder, an option that outputs to the console may be specified to Setup Parameters on the Execution Configuration screen. The option may be specified.

See Section 1.5.3, "Create Linux Package" in *Tool Reference Guide* and confirm that relevant options are not specified.

If the relevant options are specified, delete scenarios including that packages, correct the packages from which relevant options were removed. Recreate the scenario file with the corrected packages, and then execute the scenario again.

?

If a remote update is executed by multicast for the x64 Linux managed machine, a scenario execution error occurs.



The necessary libraries may not be installed. Confirm that `/lib/libgcc_s.so.1` exists.

If `/lib/libgcc_s.so.1` does not exist, install the following rpm package:

`libgcc-3.4.5-2.i386.rpm`

After the installation, restart DPM Client service or restart the OS.

To start DPM Client service, start the Console and execute the following:

- For Red Hat Enterprise Linux 7 or later
 - >systemctl start depagt.service
- For Red Hat Enterprise Linux 6 or earlier/SUSE Linux Enterprise
 - >service depagt start

?

When remote update scenario is distributed by multicast, scenario execution error is occurred on some of the managed machines.



If all of the following is applied and remote update scenario is distributed by multicast, scenario execution error occurs.

If managed machines are connected to two or more LAN boards on the Management Server, create and execute different scenarios for each LAN board.

- ANY is selected on the Web Console screen under Management View -> DPM Server icon -> Detail Setting screen -> General tab -> IP Address.
- The managed machines are connecting with two or more LAN boards on the Management Server.

?

Fail in the automatic installation for Service pack/HotFix.



Specify "/passive /norestart" to the command option when registering Windows Server 2003 Service Pack 1/2.

Specify as is the case with HotFix by checking the command option.

?

Fail in Linux patch application.

Followings might be the cause.



1. Dependency for other rpm packages.

->Distribute package which has dependencies and deliver the patch.

2. Same patch has been already applied.

3. The rpm package has not been signed.

->Set the appropriate command option.

See Section 1.5.3, "Create Linux Package" in *Tool Reference Guide* for the detail.

3.5.6. Backup/Restore/Disk Configuration Check

- ?

Partition number displayed on the machine is different from the partition number specified when creating scenario.

➔ A hidden partition may exist in the target hard disk. The hidden partition will not be included in the total count if the check box was checked for **Hidden Partition Is Disregarded** in partition specification Backup/Restore. Clear the check box, or enter the corresponding partition number correctly.
- ?

Only several tens of MBs are transferred per minute during Backup/Restore operations.

➔ The maximum transmission rate may be specified too low, such as 1-10MByte/minute. Confirm the Maximum transmission Rate column on the Multicast Condition Setting panel in Backup/Restore tab on the Scenario Edit screen. If you save time, clear the check box. To reduce network workload, check the check box and specify the appropriate values. Data may not be transferred smoothly due to a high network workload. Minimize use of the network as much as possible during the scenario execution.
- ?

Scenario execution error has been occurred suddenly while backup data transfer.

➔ Data transmission may not be possible due to sufficient free space on the Management Server. Make sure there is insufficient free space on Management Server where the backup data is to be saved. Backup will not operate properly if there is not enough free space. Reconsider the backup file destination, or reserve sufficient free space.
- ?

Restoration with specified backup image file has been executed, however, unintended OS has started.

➔ The image files that you backed up may have been overwritten with the backup image of another machine. When executing backup, make sure that you do not use a redundant image file name. Otherwise, the previous data will be overwritten. Furthermore, if the same scenario is assigned to two or more machines and execute backup simultaneously, check whether machine name, MAC address, or UUID under the textbox on the scenario file **Backup/Restore** tab is selected.
- ?

Even if restore is executed simultaneously, several of the managed machines do not execute scenarios, and **Waiting for Restore Execution** is displayed on the **Backup/Restore Execution List** screen.

➔ The **Maximum Targets** set for the scenario file may be less than the actual machine number you are trying to execute. In this case, after completing the execution of preceding scenario, and then the scenarios for the rest machines start.
- ?

The restore operation has been in waiting for restore execution status and does not start.

➔ The setting of the **Maximum Waiting Time** under the **Distribution Condition Setting** group box on the **Backup/Restore** tab for the scenario file can not to be configured. If the column is blank, the scenario will not execute until the number of machines ready to execute scenarios reaches the **Maximum Target** value. Click **Run Now** on the **Backup/Restore Execute List** screen, or interrupt the execution and specify an appropriate value for **Maximum Wait Time** of the scenario file.
- ?

Even if you the maximum target number as 10 in the restore scenario, and then execute the scenario on 10 machines simultaneously, the scenario executes on only 5 machines at once.

➔ If the **Management** view -> **DPM Server** -> **Detail Setting** -> **Network** tab -> **Machines For Simultaneous Execution** value is 5, the scenario executes on only 5 machines at once, although the maximum target value is specified as 10. If you want to execute on 10 machines simultaneously, change the value of **Machines For Simultaneous Execution** under **Detail Setting** to 10.

?

Although maximum transmission rate has been set higher, the scenario execution time is not shortened.

- ➔ Maximum transmission rate depends on network environment of each customer.
Transmission rate cannot be higher than the performance of the network environment.

?

Even through the execution of a backup scenario, a unicast restore scenario, or disk configuration check scenario completed, the status of **Scenario Execution List** status remains **Preparing**.

- ➔ If you executed a backup scenario, a unicast restore scenario, or disk configuration check scenario on another machine before the same scenario execution has completed, the status of **Scenario Execution List** on the Web Console may display **Preparing** from the time the backup, restore, disk configuration check completes to the time that the execution of the scenario completes. However, it does not affect the operation.

?

When checking scenario execution status on **Backup/Restore Execution List** while a multicast restore scenario is executing, the scenario status is displayed as already complete although execution was still in progress, or it may not be displayed.

- ➔ **Backup/Restore Execution List** cannot be updated immediately, after executing scenarios. The status is updated at the timing of start of reading or writing to the Backup/Restore disk. Until then, the status before execution is displayed. When displaying the screen before update, open the screen again after a while or click **Refresh**.

?

During backup, a scenario execution error occurs, however no error message is displayed.

- ➔ If the OS did not shut down properly when the machine was power off, the delayed write to disk process may not have been completed during shutdown, and the file system may be damaged. Furthermore, if the machine was power off and shutdown was not performed while the disk was accessing, physical damage on the disk may have occurred. If backup was executed on such a disk, a scenario execution error may occur. In such case, reinstall the OS, or use a file system fix tool, and so on to fix the file system, and then execute backup again. Furthermore, if there is a physical damage on the disk (bad sector), you cannot backup/restore using a fix tool and so on. If there are bad sectors, change a new HDD and recover it by physically formatting and then execute a restore from a previous backup image.

?

When two or more restore scenarios are executed simultaneously, a scenario starts on the first machine booted up, however after **getting Backup System image** is displayed on the other machines, a scenario execution error has occurred, and the error is displayed on the **Scenario Execution List** screen. On the machine screen, the following error message was displayed:

```
"ERROR: Received the error from the PXE server.  
Please contact your system administrator or support group."
```

- ➔ The same multicast IP address is specified when the scenario was created may be specified in all scenario files. Open the **Edit Scenario** screen, and check the value of multicast IP address on the **Distribution Condition Setting** group box in the **Backup/Restore** tab. If the specified IP address is the same to another restore scenario, one of two scenarios may not start properly. Enter a non-redundant IP address again on the **Modify Scenario** screen. If **Remove Scenario Execute Error** is selected for the machine on which an error was occurred, error display disappears, and the scenario can be executed again.

?

When you execute a restore scenario by specifying a partition, either of the following error messages is displayed and the scenario execution error occurs.

Cannot restore the data to a partition of a different size than the size you backed up.

Specify a partition with the following size.

(required size of a partition to restore)

(size of the specified partition)

(XXXXX bytes)

(XXXXX bytes)

Cannot restore the data to a partition of a different type than the type you backed up.

Specify a partition with the type same as you backed up.

(ID of the backed-up partition)

(ID of the specified partition)

(0xXX)

(0xXX)

- ➔ Confirm the partition size and the type of file system are matched between the original disk and the destination disk. Open the **Edit Scenario** screen, set the applicable partition, and then execute the scenario again.
- ➔ You may have specified a partition which is different from one that you backed up. Restore the image file to the same partition when it was backed up. Open the **Edit Scenario** screen, set the applicable partition and then execute the scenario again.
- ➔ When the **Hidden Partition Is Disregarded** checkbox was selected and hidden partitions exist on the managed machine, you may specify a partition that is different from when backup. In this case, clear the **Hidden Partition Is Disregarded** checkbox, and then execute the scenario again.

?

Without ending processing, while executing a backup/restore scenario, and the following messages are displayed on the managed machine:

```
FS: Cannot open root device "" or xx:xx
```

```
Please append a correct "root=" boot option
```

```
Kernel panic: VFS: Unable to mount root fs on xx:xx
```

- ➔ There may be a problem in the LAN connection between the Management Server and the managed machine, or the workload on the Management Server may be high. Check the LAN connection and the Management Server workload, and then turn off the machine and execute the scenario again.

?

While executing a restore scenario, the following message is displayed on the managed machine, and a scenario execution error occurs.

The size of the backup data to be restored is larger than that of the destination storage device. It cannot be restored. Specify a destination device whose size is larger than or equal to the following size.

(minimum required size of a destination device)

(the specified device: its size)

(XXXXX bytes)

(DeviceName: XXXXX bytes).

- ➔ Check HDD size of the backup source and the restore destination.
When the HDD size of the restore destination is smaller, above message may be displayed.
Use HDD with the same or larger size than the backup source.

?

When you execute a backup scenario, the following message is displayed on the managed machine and the scenario execution error occurs.

```
Failed to backup.
```

```
There is something wrong with the management information of the GPT disk.  
Check and repair the disk by CHKDSK or other tools,  
and re-execute the scenario.
```

- ➔ When Hyper-V virtual disk is GPT style, above message may be displayed.
In this case, execute the full sector backup. Select **Full Sector Option** on **Backup/Restore** tab of **Edit Scenario** screen and execute the scenario.

?

When you execute a restore scenario, the following message is displayed on the managed machine and the scenario execution error occurs.

```
Failed to restore.
```

```
The data is not written to the destination storage device.
```

```
Invalid data in the backup image.
```

```
For this error, contact your sales or support representative.
```

- ➔ When original Hyper-V virtual disk is GPT style, above message may be displayed if you restore the backup image file created in the version earlier than DPM Ver6.2.

You cannot restore it because the backup image file includes invalid data.
In this case, recreate a backup image file by selecting **Full Sector Option** on **Backup/Restore** tab when creating a scenario, and executing the backup scenario.

?

When the following error occurs and a process ends with error for some reason, you cannot execute a shutdown or re-boot even if you press **p** or **r** (Key input cannot be recognized).

```
ERROR: <error message>
```

Press the **p** key to power off, and the **r** key to reboot:

➡ Key input may not function on certain kinds of machines using a USB keyboard/mouse which cannot be recognized.

Press (and hold down) the power button to turn off the power.

?

When you interrupted the execution of a restore scenario, the following message is displayed on the managed machine:

```
Failed to read or write the data in the managed machine.
```

```
For this error, contact your sales or support representative.
```

➡ This message is displayed when a scenario execution is interrupted. This message displays because the data of the intended size could not be obtained due to disconnected communication between Management Server and the managed machine.

This is not problematic to the scenario execution interruption process.

➡ While executing a restore scenario, the restore data cannot be read.

Confirm that the backup image is not damaged and there is no trouble on the network.

?

Following message is displayed when executing backup and becomes scenario execution error.

```
Failed to backup.
```

```
The basic disks with non-512-byte sector is not supported.
```

```
(sector size of the specified device)
```

```
-----
```

```
(xxxxxx)
```

➡ There is a possibility that above message might be output when you backup from the hard disk also, it is the basic MBR disk of 4K sector.

Execute full sector backup.

Execute scenario again by checking "Full Sector" check box on "Backup/Restore" tab in the screen of "Scenario Editing".

?

Following message is displayed when executing backup and becomes scenario execution error.

```
Failed to backup.
```

```
The dynamic disks with non-512-byte sector is not supported.
```

```
(sector size of the specified device)
```

```
-----
```

```
(xxxxxx)
```

➡ There is a possibility that above message might be output when you backup from the hard disk also, it is the dynamic disk of 4k sector.

Execute Full Sector backup.

Execute scenario again by checking "Full Sector" check box on "Backup/Restore" tab in the screen of "Scenario Editing".

?

Following message is displayed when restoring and becomes scenario execution error.

```
Failed to restore.
```

```
The data is not written to the destination storage device.
```

```
The dynamic disks with non-512-byte sector is not supported.
```

```
(sector size of the specified device)
```

```
-----
```

```
(xxxxxx)
```

➡ When you restore by assigning partition, there is a possibility that above message might be displayed in case the destination hard disk is a dynamic disk with 4K sector.

Execute scenario again by assigning 512 sector basic disk (MBR).

?

Following message is displayed when restoring and becomes scenario execution error.

```
Failed to restore.  
The data is not written to the destination storage device.  
The basic disks with non-512-byte sector is not supported.  
(sector size of the specified device)  
-----  
(xxxxxx)
```

- ➔ When you restore by assigning partition, there is a possibility that above message might be displayed in case the destination hard disk is a basic MBR disk with 4K sector. Execute scenario again by assigning 512 sector basic disk (MBR).

?

Following message is displayed when restoring and becomes scenario execution error.

```
Failed to restore.  
The data is not written to the destination storage device.  
Cannot restore the data of a different sector size.  
Please specify the appropriate device, and check  
if the specified Deploy-OS is correct.  
(required sector size of a destination device)  
(the specified device: its sector size)  
-----  
(xxxxxx bytes)  
(DeviceName: xxxxxx bytes)
```

- ➔ There is a possibility that above message is displayed when the sector size which you backup and that of restoration destination are different. Confirm the sector size of the disk of restoration destination and select disk which matches the sector size which you back up. If there is no problem with the size, confirm designated Deploy-OS. For the detail of correspondence depending on the model, contact your sales or support representative.

?

When a restore scenario is multicast distributed, the restore does not executed, and scenario execution is interrupted.

Furthermore, the following message was displayed on the managed machine, and then the machine restarted.

(After restarting, scenario execution error was displayed on the status of the managed machine on the Web Console.)

```
Failed to read or write the data in the managed machine.  
For this error, contact your sales or support representative.  
This System is reboot after XX seconds.  
gzip: stdin: Unexpected end of file.
```

- ➔ This phenomenon may occur when both **ANY** is specified for the IP address used by Management Server and the restore scenario is distributed by multicast. Configure except **ANY** for the IP Address used by Management Server (the IP address configured by the using LAN board). For the details, see Section 2.7.1.1, "General Tab" in *Web Console Reference Guide*.
- ➔ Confirm whether the switching hub and router in use are set to send multicast or not.

?

When scenario is running, "boot:" or "login:" is displayed on the managed machine, and the processing does not proceed.

- ➔ You may have entered the key to stop processing such as "Ctrl" + "C". Do not enter a key on the managed machine when backup or restore scenario is running.

?

PXE boot fails on the managed machine.

- ➔ Is the **Management view -> DPM Server -> Detail Setting -> DHP Server** tab set to **Do Not Use a DHCP Server**? If **Do Not Use a DHCP Server** is selected, a PXE boot cannot be executed on the managed machine.

If PXE boot is necessary, configure a DHCP server, and select **Use a DHCP server**. Furthermore, restart the Management Server after changing it since the configurations are enabled after Management Server restarts.

?

When you execute backup/restore scenario, the following message is displayed on the screen of the managed machine and a scenario execution error occurs.

```
ERROR: FC storage configuration is different from the result of the disk configuration check scenario.
```

Please retry the disk configuration check scenario.

➡ When the configuration includes FC LUN, an error occurs because the information is different from that obtained by disk configuration check. When you change either of the following configuration, the error may occur.

- Adding, changing, or deleting LUN
- Changing the redundancy configuration of the path
- Change the configuration including FC LUN to other configuration (internal RAID configuration and so on.) and vice versa.

Execute disk configuration check to obtain new configuration information and re-execute a scenario.

Recheck the disk number as necessary.

➡ When the configuration includes FC LUN(LUN configuration, redundancy configuration), an error occurs because the information is different from that obtained by disk configuration check. When the part of paths cannot be connected due to physical problem and so on, the above message may be displayed.

Recheck the connection status of the path or the redundancy configuration, or execute disk configuration check to obtain new configuration information and re-execute a scenario.

Recheck the disk number as necessary.

?

Restoration requires more time than backup.

➡ Because writing speed to storage device for the client is slower than writing speed to the storage device for the server.

Following might be the cause.

- RAID setting
- NTFS compression on the file system is valid.
- Fragmentation has been occurred on the hard disk.

If fragmentation is the cause, defragmentation might improve the speed.

?

When you execute restore scenario, the following message is displayed on the screen of the managed machine and a scenario execution error occurs.

```
Failed to restore.
```

```
The data is not written to the destination storage device.
```

```
Cannot restore the data to a disk of a different type than you backed up.
```

```
(Type of the backed-up disk)
```

```
(Type of the specified disk)
```

```
(X)
```

```
(X)
```

➡ When the management form of the partition for the backup source is not matched with the form of the restoration destination, this message might be displayed.

Execute scenario again after changing scenario according to the result of the disk configuration check.

Specify GPT style for the restoration destination when the backup source is in GPT style.

Specify MBR style for the restoration destination when the backup source is in GPT style.

?

When you execute backup scenario, the following message is displayed on the screen of the managed machine and a scenario execution error occurs.

Failed to backup.

The specified disk size is smaller than the calculated minimum disk size to restore. Check and repair the disk by fsck or other tools, then re-execute the scenario.

Or execute the scenario with full sector option specified.

(Disk Size)

(Minimum Disk Size)

(XXXXXXXXXX)

(XXXXXXXXXX)

➡ When the disk capacity calculated by the managed data is larger than the actual capacity, this message might be displayed.

Execute scenario again after executing disk check/recover on OS.

If you cannot improve even after executing disk check/recover, set the full sector option for the scenario and execute scenario again.

?

"Cannot find the corresponding disk(2)" is displayed while backup/restoration.

➡ There might be mistake in specification of the disk number when you execute scenario creation. Specify the disk number after checking the followings.

- Check whether the disk number is correspond to the disk to backup or to restore.
- The storage device which is recognized to the destination machine for backup/restoration is connected.

?

"Cannot find the corresponding partition (Disk:XX, Partition:XX)" is displayed while backup/restoration.

➡ The partition you set as the scenario might not exist.

Execute scenario again after changing scenario according to the result of the disk configuration check.

?

Scenario execution error occurs while backup due to capacity shortage of the Management Server side.

➡ Size up the free area of HDD of backup destination for the Management Server.

Create backup image file as temporary and overwrite on the previous file at the timing of completion of backup.

Therefore, the free space is necessary for this step temporarily.

?

Following error is displayed, without starting backup/restore.

"Could not find IP address and NetworkDeviceName."

➡ There is a possibility that LAN board mounted on the Managed Machine might not be corresponded to DPM. Check and follow the step as below.

For the detail of the corresponding model list, contact your sales or support representative.

?

Time is required on scenario execution by CD boot until the actual process begins.

➡ Scenario execution by CD boot makes an attempt to the Management Server by using NIC in order which is detected on the managed machine.

To identify NIC connected to the Management Server needs several tens of minutes on the managed machine mounted multiple NIC.

Add "ClientEth:x" on "DPMIP.conf" to specify eth number to save time when eth number of NIC which is connected to the Management Server is clear.

See "Executing Backup, Restore, or Disk Configuration Check" in Appendix A "Operating DPM without Using the DHCP Server" in *Operation Guide* for the detail of setting.



Either of the error messages listed below is displayed on the screen of the managed machine and the event log of the Management Server when executing backup/restore/disk configuration check scenario.

On the screen of the managed machine

- AddDrv.sh: ERROR: <driver file name>: Cannot get driver file.

Event log of the Management Server

- ft: ERROR: Failed to search folder, Path =..\<driver file name> ftsvc.cpp:xxx:xxx xx xxxx
- File Download Failed.File Name:<driver file storage folder>\scsi\<driver file name>, ClientMac:xx-xx-xx-xx-xx-xx
*<driver file name>: The name of the driver which problem has been occurred
*<driver file storage folder>:Differs depending on the environment

➡ There is a possibility that the driver file (xxxx.o/xxxx.ko) which is included in the error message output to the screen of the managed machine and the event log of the Management Server might not be installed to the Management Server.
Check whether the driver file is installed or not with either of the following steps.

Countermeasure 1: Confirm the event log "File Download Failed" of the Management Server.

Check whether the driver file specified by the message "File Name:" exist or not when above error message is output.

- File Download Failed. File Name:<driver file storage folder>\scsi\xxxx, ClientMac:xx-xx-xx-xx-xx-xx.

Example: Output event log:

File Download Failed.

File Name:C:\Deploy\FD-Linux\drivers\ia32_121228_26\scsi\megasr.ko,

Client Mac: 12-34-56-78-9a-bc .

->Check whether C:\Deploy\FD-Linux\drivers\ia32_121228_26\scsi\megasr.ko exists or not.

Countermeasure2: Confirm "AddDrv.sh: ERROR: xxxxx" on the screen of the managed machine or the event log of the Management Server "ft: ERROR: Failed to search folder xxxxx".

1. Confirm the path of the driver file storage folder from below table by checking type of "Deploy-OS" which is assigned to the managed machine on the Web Console.

Value set to Deploy-OS	Path of the Driver file Storage Folder*
Use the default value	<Image storage folder>\FD-Linux\drivers\<default value> <default value>is the name displayed in "Detail Setting" ->"General" on the DPM Server. Default is "ia32_110331_26".
NEC Express5800 001	< Image storage folder >\FD-Linux\drivers\ia32_080331_24
NEC Express5800 002	< Image storage folder >\FD-Linux\drivers\ia32_110331_26
VMware ESX Virtual Machine 001	
Microsoft Hyper-V Virtual Machine 001	
NEC Express5800 006	< Image storage folder >\FD-Linux\drivers\ia32_121228_26
VMware ESXi Virtual Machine 002	
Microsoft Hyper-V Virtual Machine 002	

VMware ESXi Virtual Machine 003	< Image storage folder >\FD-Linux\drivers\ia32_150413_26
Others	< Image storage folder >\FD-Linux\drivers\<ia32_xxxxxx_xx> Refer to the manual of the module for the machine model for <ia32_xxxxxx_xx>.

*Default for Image storage folder is C:\Deploy.

*For the bootable CD, driver file storage folder should be the same of Deploy-OS for the Management Server.

2. Confirm whether the driver file (xxxx.o/xxxx.ko) is included in the error message exists under the driver storage folder path.

Example:

Output event log:

ft: ERROR: Failed to search folder, Path = ..\megasr.ko, ftsvc.cpp:874:Dec 22 2014

Deploy-OS of the managed machine

NEC Express5800 002

->Confirm whether C:\Deploy\FD-Linux\drivers\ia32_110331_26

megasr.ko exists in C:\Deploy\FD-Linux\drivers\ia32_110331_26\scsi or not.

For the detail of driver pack installation, contact your sales or support representative.

Re-execute the scenario after above procedures.

?

When executing backup/restore/disk configuration check scenario by using SATA RAID configuration on DPM60_009, either of the followin message will be displayed on the managed machine screen or on the event log.

Managed machine screen:

- AddDrv.sh: ERROR: megasr.ko: Cannot insmod driver file.
- AddDrv.sh: ERROR: megasr.ko: Cannot get driver file.

Event log:

ft:ERROR; Failed to search folder, Path = ..\megasr.ko, .\ftsvc.cpp:xxx:xxx xx xxxx



This is occurred because the driver (megasr.ko) which is included in the Management Serever is not installed.

For the detail of driver pack installation, contact your sales or support representative.

?

Following error message is displayed on the managed machine when executing backup/restore/disk configuration.

BUG: soft lockup - CPU#0 Stuck for 67s!

*CPU number differs depending on the operation environment.



There is a possibility that operation delay is occurred on Deploy-OS and soft lockup error is detected when managed machine is the virtual machine of VMware ESXi 5.1 or later and configurated with one and more CPUs.

Applicable condition/source of supply for the patch module to avoid this phenomenon is decribed as follows.

[Applicable condition]

- The managed machine is the virtual machine for VMware ESXi 5.1 or later.

[Source of supply of the patch module to avoid this phenomenon]

- <Installation media>\DPM\TOOLS\PreventSoftLockup_Module

* Refer to the manual for the detail of application procedure under the folder.

Applying patch module might inhibit soft lockup error and improve this phenomenon.

?

Is the backup image file enable to output to the storage device which is connected to the network such as NAS and so on?



Depends on the specification of the storage device whether it is possible to output the backup image file on the storage device which is connected to the network directly.

Possible when there is authority to create files on the storage device for the Management Server in case embedded drive is recognized like D drive or E drive for the Management Server. (Validate beforehand)

See "When specifying the path of the image file in another computer connected to the network (hereafter referred to as file server), perform the following." in Section 3.13.4, "Backup/Restore Tab" in *Web Console Reference Guide* for the details.

3.5.7. Distribution of Floppy Disk Image for BIOS/Firmware

?

The managed machine does not boot by the network boot after scenario that Distribution of floppy disk image for BIOS/firmware is executed.



If BIOS is upgraded, the BIOS configuration may return to the default settings. Check whether the priority order of the network boot is not changed. If the priority order is changed, set network boot to the top priority.

?

A scenario execution error occurs when you execute a Distribution of floppy disk image for BIOS/firmware, Installing service packs, hotfixes, Linux patch files, and applications install scenario.



Confirm that the execution interruption processing is completed properly. If interruption is cancelled before the process of the interruption completes and then the scenario is executed, a scenario execution error may occur.



Are you trying to execute the same scenario which is being executed on another machine? If you want to execute the same scenario on two or more machines simultaneously, specify the maximum target number under Multicast Condition to the number of machines that you want to execute, and then execute the scenario.

?

A scenario execution error occurs before the machine restarts after a scenario of Distribution of floppy disk image for BIOS/firmware and a scenario of OS clear installation is executed.



Did you specify the **Forced Execution Of A Reboot Is Performed Before Execution** on the scenario **Options** tab before execution? If not, a scenario is not executed for any machine that is power on. Modify the scenario, or turn off the machine and execute the scenario again.

3.6. Registering a Managed Machine

Even if you turn on a managed machine, a new registration is not performed.

?



The DHCP configuration may be wrong, or the DHCP server may not operate properly. Check the following items:

- Select **Management** view -> **DPM Server** -> **Detail Setting** -> **DHCP Server** tab on the Web Console, and confirm that the **Use A DHCP Server** configurations are correct.
- Confirm that the lease IP address in the DHCP scope is not inactive.
- Confirm that the DHCP server is approved and the IP address can be leased.
- Confirm that the DHCP address pool has not run out. If the pool has run out, please secure a sufficient amount of addresses.
- If using a DHCP server except Windows, confirm that fixed addresses are configured.



The managed machine may be a model that does not support PXE boot, or the network startup order may be set lower than the HDD.

Check the network startup order in BIOS/UEFI settings. For the details to check BIOS/UEFI, contact your sales or support representative.

If you operate without using the DHCP Server, and the setting is changed to **Do Not Use A DHCP Server** in the **Management** view -> **DPM Server** -> **Detail Setting** -> **DHCP Server** tab, it is necessary to restart the Management Server to enable the setting. Restart the Management Server, and then restart the managed machine.

If two or more LAN boards are mounted on the managed machine, confirm that the LAN board used for DPM communications is registered on DPM Server.

3.7. Automatic Update



Open **Monitor** view -> **Automatic Update Result List** screen, and check the detailed information of the corresponding machine and date/time, then registration of error log information can be confirmed.



Check the detailed information, and fix each problem.

If you execute automatic update after fixing the problem, reboot the managed machine.

<Detailed Information 1>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update begins
- An error occurred while preparing for the automatic update.
-

Explanation: Management Server resource may be insufficient. Restart the Management Server.

<Detailed Information 2>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update begins
- A socket error occurred.
-

Explanation: WinSock initialization failed.

Check the network configuration of the Management Server (if TCP/IP protocol is installed). If there is no problem, restart the Management Server.

<Detailed Information 3>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update begins
- The connection to the client failed.
-

Explanation: The Management Server could not connect to the managed machine.

(1) Use the following procedures to execute **ping** for the machine.

Enter **ping IP address** or **ping hostname** on the command prompt and press **Enter**.
(Enter a space between ping and the IP address/host name.)

If there is no response, check whether there is a problem in the network configuration.

(2) If there is no problem in the network, restart the following services on the machine side. (If the service is stopped, start again.)

DeploymentManager Agent Service

DeploymentManager Remote Update Service Client

<Detailed Information 4>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update begins
- Search for the packages that are applicable to the client failed.
-

Explanation: Automatic update function may not be supported on the OS of the machine on which the error occurred. Check the OS of the machine and language. The following is the list of OS that automatic update function is supported. The supported language of the machine is **English** only.

OS Name
Windows XP Professional
Windows Server 2003 Standard Edition
Windows Server 2003 Enterprise Edition
Windows Server 2003 Standard x64 Edition
Windows Server 2003 Enterprise x64 Edition
Windows Server 2003 R2 Standard Edition
Windows Server 2003 R2 Enterprise Edition
Windows Server 2003 R2 Standard x64 Edition
Windows Server 2003 R2 Enterprise x64 Edition
Windows Vista Business
Windows Vista Enterprise
Windows Vista Ultimate
Windows Server 2008 Standard
Windows Server 2008 Enterprise
Windows Server 2008 Standard x64
Windows Server 2008 Enterprise x64
Windows Server 2008 R2 Standard
Windows Server 2008 R2 Enterprise
Windows Server 2008 R2 Datacenter
Windows 7 Professional
Windows 7 Ultimate
Windows 7 Enterprise
Windows 7 Professional x64
Windows 7 Ultimate x64
Windows 7 Enterprise x64
Windows Server 2012 Standard
Windows Server 2012 Datacenter
Windows 8 Pro
Windows 8 Enterprise
Windows 8 Pro x64
Windows 8 Enterprise x64
Windows Server 2012 R2 Standard
Windows Server 2012 R2 Datacenter
Windows 8.1 Pro
Windows 8.1 Enterprise
Windows 8.1 Pro x64
Windows 8.1 Enterprise x64
Windows 10 Pro
Windows 10 Enterprise
Windows 10 Pro x64
Windows 10 Enterprise x64
Windows Server 2016 Standard
Windows Server 2016 Datacenter

<Detailed Information 5>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update begins
- Reconfirmation of the connection to the client failed.
-

Explanation: A communication error occurred with the machine.

- (1) Use the following procedures to execute **ping** for the machine.
Enter **ping IP address** or **ping host name** and click **Enter** on the command prompt.
(Enter a space between ping and the IP address/host name.)

If there is no response, check whether there is a problem in the network configuration.

- (2) If there is no problem in the network, restart the following services on the machine side.(Start if the service is stopped.)
 - DeploymentManager Agent Service
 - DeploymentManager Remote Update Service Client

<Detailed Information 6>

- Computer: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update Begins
- Creating file in the client failed.
-

Explanation: The disk space of the machine may be insufficient. Check the machine disk free space. Normally, it required free disk space that at least three times the size of the package to send.

Example) To apply a 100MByte package, it is necessary that the free space of the managed machine system drive should be at least 300MByte.

<Detailed Information 7>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update Begins
- An error occurred while preparing for the file transfer.
-

Explanation: An error occurred in the process before the file is transferred. The Management Server may have insufficient resources. Restart the Management Server.

<Detailed Information 8>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update Begins
- Creating file transfer control thread failed.
-

Explanation: Failed to call WindowsAPI (CreateThread()). The resource on the Management Server may be insufficient. Restart the Management Server.

<Detailed Information 9>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update Begins
- Creating file transfer control thread failed.
-

Explanation: Failed to call WindowsAPI (CreateThread()). The resource on the Management Server may be insufficient. Restart the Management Server.

<Detailed Information 10>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update Begins
- An error occurred during the transfer of xxxxxxxx.
-

Explanation: A communications error occurred when sending a file.

- (1) Use the following procedures to execute **ping** for the machine.
Enter **ping IP address** or **ping hostname** and press **Enter** on the command prompt.(Enter a space between ping and the IP address/host name.)
If there is no response, check whether there is a problem in the network configuration.

- (2) If there is no problem in the network, restart the following services on the machine side.(Start if the service is stopped.)
DeploymentManager Agent Service
DeploymentManager Remote Update Service Client

<Detailed Information 11>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update Begins
- File transfer to the client failed.
-

Explanation: A communications error occurred when sending a file.

- (1) Use the following procedures to execute **ping** for the machine.
Enter **ping IP address** or **ping host name** and click **Enter** on the command prompt.
(Enter a space between ping and the IP address/host name.)
If there is no response, check whether there is a problem in the network configuration.
- (2) If there is no problem in the network, restart the following services on the managed machine side.
(Start if the service is stopped.)
DeploymentManager Agent Service
DeploymentManager Remote Update Service Client
- (3) A file in transit may be in use by another process on the machine.
If virus scan or other such software is running on the machine, a file in transit may be locked by the virus scan software, and transmission may fail. In such a case, when the next automatic update is executed, the file is sent again and applied.

<Detailed Information 12>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update Begins
- During the execution of xxxxxxxx package, an error occurred.
-

Explanation: The package was sent to the machine, however an error occurred during execution.

- (1) Use the following procedures to execute **ping** for the machine.
Enter **ping IP address** or **ping host name** and click **Enter** on the command prompt.
(Enter a space between ping and the IP address/host name.)
If there is no response, check whether there is a problem in the network configuration.
- (2) The disk space may be insufficient.
This error occurs when the machine disk space is insufficient. Check the machine disk free space. Normally, it requires free disk capacity that at least three times the size of the package to send.
Example)
To apply a 100MByte package, it is necessary that the free space of the managed machine system drive should be at least 300MByte.
- (3) Uncompressing failed.
Check whether there is a problem in the package sent to the machine. Confirm whether the package can be uncompressed on the machine.

<Detailed Information 13>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update Begins
- "Automatic update completed" response could not be received from the client.
-

Explanation:

- (1) Use the following procedures to execute **ping** for the machine.
Enter **ping IP address** or **ping host name** and click **Enter** on the command prompt.
(Enter a space between ping and the IP address/host name.)
If there is no response, check whether there is a problem in the network configuration.
- (2) If there is no problem in the network, restart the following services on the managed machine side. (Start if the service is stopped.)

DeploymentManager Agent Service
DeploymentManager Remote Update Service Client

<Detailed Information 14>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- automatic update notice begins
- A socket error occurred.
No such host is known.
-

Explanation:

- (1) Use the following procedures to execute **ping** for the machine.
Enter **ping IP address** or **ping host name** and click **Enter** on the command prompt.(Enter a space between ping and the IP address/host name.)
If there is no response, check whether there is a problem in the network configuration.
- (2) If there is no problem in the network, restart the following services on the managed machine side. (Start if the service is stopped.)
DeploymentManager Agent Service
DeploymentManager Remote Update Service Client

<Detailed Information 15>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update time setting begins
- Automatic update or scenario execution is in progress in the client.
Automatic update time setting will become valid after restarting the client.
-

Explanation:

The automatic update time configurations will be enabled when the machine is started next time.

<Detailed Information 16>

- Machine: xxx (MAC:xx-xx-xx-xx-xx-xx)
- Automatic update time setting begins
- Setting in the client failed.
Automatic update time setting will be valid after restarting the client.
-

Explanation:

Connection to the managed machine failed because the managed machine power status is OFF, or the communications port is closed. The automatic update time configurations will be enabled after the client is restarted.

?

The same package is distributed repeatedly in automatic update.



Until the Management Server recognizes that the package has been applied, the distribution is repeated at every automatic update. Check the following items, and perform the process for each.

- When the package type is HotFix
 - The MS number is wrong
Check the MS number and correct it.
 - The HotFix that cannot be discerned from the MS number
Set the ID information.
 - OS and language are not correct
Check the OS and language, and correct them.
 - ID information is wrong
If a file such as text format (*.txt) without file version is specified for ID information file path, the applied status cannot be recognized if the file version is specified. If the file version is need to be specified, make the item blank. Also, if it is specified to **replace** or **version up** as the changed type using text format file, the applied status cannot be correctly recognized. In the case of text format, specify **new** or **delete** for the changed type
- When the package type is service pack
 - Major version and minor version are wrong.
Check major version and minor version and correct them.
 - OS and language are not correct
Check the OS and language, and correct them.
 - ID information is wrong
ID information is not necessary for the service pack. Set the correct values to for major version and minor version.
- When the package type is application
 - Display name, display version is wrong.
Check the display name and display version and correct them.
 - OS and language are not correct.
Check the OS and language, and correct them.
 - ID information is wrong
If a file such as text format (*.txt) without file version is specified for ID information file path, the applied status cannot be recognized if the file version is specified. If the file version is need to be specified, make the item blank. Also, if it is specified to **replace** or **version up** as the changed type using text format file, the applied status cannot be correctly recognized. In the case of text format, specify **new** or **delete** for the changed type.

?

An automatic update error is displayed on the screen, and automatic update fails.



The disk capacity of the Management Server may be insufficient.
Check the disk capacity of the Management Server. If disk capacity is insufficient, secure the necessary disk capacity, and then restart the Management Server.

3.8. Automatic Download

?

An error occurred in automatic download. In **Management** view -> **DPM Server** icon -> **Package Download Settings** screen -> **Latest Download Information** column, `XXXX/XX/XX XX:XX:XX` **Automatic Download Failed** is displayed, and check the **Event Viewer** to find an error log registered.



Check the log information registered in the Event Viewer, and perform the processes for each item.

After the processes complete, execute the automatic download again.

<Log Information 1>

- DownloadFile: Failed to create the download directory, Dir = XXX.

Explanation:

Failed to create directory.

This error occurs when the disk space of the managed machine is insufficient. Check the disk free space.

<Log Information 2>

- DownloadFile: Failed to parse URL, URL = XXX.

Explanation:

Unable to analyze address.

IP address of the Package Web Server may not be correct. Confirm items such as whether only valid characters are used, or port configurations are correct. For details, see Section 2.7.3, "Package Download Setting" in *Web Console Reference Guide*.

<Log Information 3>

- DownloadFile: Failed to connect proxy server, Serve Name = XXX.

Explanation:

Cannot connect to the proxy server.

Check the below items in the following order:

- (1) The proxy server address may not be correct. Confirm items such as whether only valid characters are used, or port configurations are correct.
- (2) The network settings may not be correct.
Check whether user identification is set to the proxy server. Use an HTTP proxy if using a proxy.

<Log Information 4>

- DownloadFile: Failed to connect server, Serve Name = XXX.

Explanation:

Failed to connect to the Package Web Server.

Check the below items in the following order:

- (1) IP address of the Package Web Server may not be correct. Confirm items such as whether only valid characters are used, or port configurations are correct.
- (2) The network settings may not be correct.
Check whether user identification is set in the proxy server. Use the HTTP proxy when you use the proxy.

<Log Information 5>

- DownloadFile: Web server happened exception, Serve Name = YYY.

Refer to the following detailed message in the log information registered to the event viewer.

SendRequest: Http response error status = XXX.

(Possible values for XXX are: 500, 501, 502, 503, 504, 505)

The error code XXX is specified in **RFC2616**. See "**RFC2616**" for the details.
For details, see "**RFC2616**".

<Log Information 6>

- DownloadFile: Failed to get response or response is error, URL = YYY.
Refer to the following detailed message in the log information registered to the event viewer.
SendRequest: Http response error status = XXX.
(Possible values for XXX are: 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415).

The error message XXX is added the error code conformable to "**RFC2616**".
For the details, see "**RFC2616**".

Example) SendRequest: Http response error status = 404
->The specified URL does not exist.

<Log Information 7>

- DownloadFile: The free disk isn't enough to download, URL = XXX.
Explanation:
This error occurs when the disk space of the Management Server is insufficient. Check the disk free space.

<Log Information 8>

- DownloadFile: The file cannot be refresh, Filename = xxx.
Explanation:
Failed to update the file. Check whether a file named xxx is in use.
If the file is in use, close it, and then download again.

<Log Information 9>

- PmDlDownloadPackages: Failed to compress files, Web Server ID = xxx, Package ID = xxx.
Explanation:
This error occurs when the disk space of the Management Server is insufficient. Check the disk free space.

?

Automatic download is configured, however it is not executed even when the set time is reached.
Check the items below by the following order:



- (1) In **Management** view -> **Package Download Setting** screen, check **Latest Download Information**.
If XXXX/XX/XX XX:XX:XX Automatic Download Failed is displayed, see Log Information 1 through 9 of Section 3.8, "Automatic Download."
- (2) Check if the Package Web Server is added as the target of automatic download on the **Package Download Setting** screen. If none of the Package Web Servers are added, automatic download is not executed. After adding a Package Web Server, perform an automatic download again.
- (3) Check whether the **Perform Automatic Download** checkbox is checked on the **Package Download Setting** screen. If not, the automatic download cannot be performed.
If the above procedure does not solve the problem, confirm that automatic update is not in progress, and then restart the Management Server.

3.9. Power On

- ?

The machine cannot be turned ON when executing Power On or executing scenario.

➔ When the machine was forcibly shut down on the POST screen, Remote Power On may not function at the next time.
In this case, turn off the power after POST is completed, or start up the OS and then shut it down.
- ?

Although the power is ON, the icon displayed on the machine is power OFF.

➔ The screen may not be updated. Click **Refresh** on the **Operation** menu, or enter F5 to refresh the screen.
- ?

The power is turned ON, however a remote power ON error is displayed on the machine list.

➔ The managed machine may not support PXE boot, or the network boot order may be set lower than the HDD.
Check the network boot order in the BIOS/UEFI settings. For the details to check BIOS/UEFI, contact your sales or support representative.
- ?

The VMware ESX/ESXi virtual machine cannot be turned ON when executing Power On or executing scenario.

➔ The VMware ESX/ESXi virtual machine cannot be turned on because Remote Power On is not support for these machines. Turn the power ON manually.

3.10. Schedule Management

- ?

Although you set the power management schedule, the machine power is not turned ON/shut down at the specified time.

➔ The machine may have been running a scenario. If the machine is running a scenario at the time set to Power ON/shutdown, the power will not be turned ON/shut down.

3.11. Machine Information Import/Export

- ?

Although the machine information is imported, the machine is not displayed on the managed machine list.

➔ Click **Refresh** on the **Operation** menu, or refresh the screen by pressing **F5** key, and then the machine will be displayed.

3.12. Network Settings

?

The following error message is displayed:

Failed to delete the computer name of the server.
Check the network environment, and restart.

- ➔ The machine may not be connected to the network.
Check whether the network cable is connected to the machine, and then restart.

?

Once DHCP server and the Management Server have been separately on the different machines, the MAC address of the machine cannot be obtained.

- ➔ The DHCP server on the Management Server may be running. On the Management Server, select **Management Tools** -> **Services** from **Start** menu, and confirm that "DHCP Server" is stop. If it is running, disable Startup Type on the Properties screen, and stop the service.
- ➔ On the Web Console, **Management** view -> **DPM Server** icon -> **Detail Setting**, -> **DHCP Server** tab -> **DHCP Server is installed on an another machine** checkbox may be cleared. Check if **DHCP Server is installed on another machine** is checked. If the checkbox is not checked, check it and click **OK**, and then reboot the Management Server. (If the Management Server cannot be rebooted, stop all services listed in Appendix A, "Service List" by selecting **Management Tools** -> **Services** from **Start** menu, and then start them.)

?

The scenario cannot be executed because the managed machine cannot execute network boot.

- ➔ Network booting order may be set lower than the HDD in the BIOS configuration. Set the start order of the PXE network boot higher than the HDD, and then execute the scenario again.

?

When you try to manage different network by using two or more LAN boards, the following errors are displayed.

PXE-E51: No DHCP or proxyDHCP offers were received.

PXE-E55: ProxyDHCP service did not reply to request on port 4011.

- ➔ Perform the following procedures Step (1) and (2).
 - (1) Change the IP address used by the DHCP server.
 - 1) From **Start** menu, select **Administrative Tools** -> **DHCP**.
 - 2) **DHCP** screen appears. Right-click the server name from the tree view, and then select **Properties**.
 - 3) **Properties** screen appears. Select the **Advanced** tab and click **Binding**.
 - 4) **Binding** screen appears. Select only the IP address to be used and click **OK**.
 - 5) From **Start** menu, select **Management Tools** -> **Services**, and then restart the **DHCP Server**.
 - (2) Change the IP used by DPM.
 - 1) From **Management View** -> **DPM Server** icon -> **Detail Setting** screen -> **General** tab -> -> **Server Information** -> **IP Address** on the Web Console screen, set the IP address which was set at Step (1).

?

When DHCP Server and the Management Server have been separately on the different machines, the following error was displayed at network boot execution.

PXE-E55: ProxyDHCP service did not reply to request on port 4011.

- ➔ A DHCP server may exist which is set to option 60(060 Class ID) in DHCP server options. Check the DHCP server option settings, and delete the option 60(060 Class ID) setting.

?

Following error is displayed after changing the default gateway of the Management Server.

PXE-E55: ProxyDHCP service did not reply to request on port 4011.

- ➔ There is a case when network profile is changed by changing default gateway on Windows OS.
There is possibility that the port used on DPM might not be opened on the changed network profile.
Confirm the network profile currently valid and whether the port used on DPM is opened or not.
Open the port used on DPM when it is not opened.
See Section 3.1, "Port Opening Tool" in *Tool Reference Guide*.

?

When you execute a scenario, the following errors are displayed.

PXE-E16:No offers were received

PXE-E51:No DHCP or proxyDHCP offers were received.

PXE-E53:No boot filename received

PXE-E55:ProxyDHCP service did not reply to request on port 4011.

- ➔ The DHCP server installation location configuration is incorrect.
Open **Management View** -> **DPM Server** icon -> **Detailed Setting** screen on the DPM main window screen, and check that the setting of **DHCP server** tab is correct.
Even if configuration is already correct, reconfigure the settings.

If an error is displayed despite correct settings, first change the current settings to different settings (if the actual environment is **DHCP Server is installed on the machine**, then change it to **DHCP Server is installed on an another machine**, and if it is **DHCP Server is installed on an another machine**, then change it to **DHCP Server installed on the machine**), and then reconfigure the settings correctly.

Example) If **DHCP Server is installed on the machine** is selected:

- (1) Select **DHCP Server is installed on an another machine**
- (2) Click **OK**
- (3) According to the message displayed on the screen to restart the services
- (4) Select **DHCP Server is installed on the machine**
- (5) Click **OK**
- (6) According to the message displayed on the screen to restart the services

- ➔ Confirm whether the address pool of DHCP is starved or not.
When it is starved, keep adequate address pool.
- ➔ Confirm that STP (spanning tree protocol) is not executed on LAN switch.

?

When you assigned IP addresses of the same segment to a machine with two or more LAN boards, power status cannot be detected properly.

- ➔ If static IP addresses are assigned to LAN boards which are not connected to LAN cables, the machine may not be able to communicate normally. If any LAN boards are not connected to LAN cables, either use DHCP settings without assigning static IP addresses, or set nothing for them.

?

During network boot, the following message is displayed on the screen of the managed machine, and a scenario execution error occurs.

PXE-E32: TFTP open timeout

- ➔ The TFTP port (port number: 69) may be blocked due to the port blocking functionality of Windows Firewall, or other security software. Confirm that the TFTP port is not blocked on the Management Server. It is necessary to unblock the TFTP port in order to perform operations on DPM.

?

When you execute network boot for the managed machine which exist in different segment, the following error displayed.

PXE-E16: No offer received.

- ➔ There is a possibility that the router option might not set on the scope option for DHCP.
Execute the network boot again after setting the router option.
See Section 2.2.1, "Network Environment" in First Step Guide to check the network setting.

3.13. Operation Without DHCP Server



An error occurs in **Power ON**, or **Add Machine**.

- ➔ Confirm if DPM Client is installed on the managed machine. See Section 2.2, "Installing DPM Client" in *Installation Guide* for the installation procedure.



Failed in executing Backup scenario/restore scenario/ disk configuration check scenario from bootable CD.

- ➔ Check the following:
 - Is the managed machine registered?
 - Is a scenario assigned to the managed machine?
 - Is the scenario assigned to the managed machine correct?
 - Is a **Multicast Scenario** assigned?
 - Does the scenario specify two or more tabs, such as specifying both the **Backup/Restore** tab and the **HW Setting** tab selected?
- An error occurs by scenarios excluding **backup** scenario, **restore (unicast)** scenario, or **disk configuration** scenario.



When you insert a bootable CD into the managed machine and execute Backup/Restore Scenario from the Web Console, the scenario executes on a machine except the machine specified and the scenario completes properly, however a scenario execution error occurs on the machine specified in Operation.

- ➔ The machine may be mounted to two or more LAN boards which are executed the scenario, and each of those boards may be registered to DPM. If there are two or more registrations for the same machine, delete the unnecessary registrations, and then execute backup/restore again.



Even if you set a bootable CD to start the machine, the backup/restore scenario does not start.

- ➔ Is the CD listed at the beginning of the boot order?
 - If not, change the boot order so that CD boot listed at the beginning.



When you insert the bootable CD and start the machine, **A state of communication was bad condition** is displayed on the screen.

- ➔ Some kind of error may have occurred.
 - If timeout occurs before the managed machine connect to the Management Server:
 - Set a greater value for **Remote Power ON Timeout** on the **Network** tab of the **Detail Setting** screen, and then run backup/restore again.
 - For details, see Section 2.7.1.3, "Network Tab" in *Web Console Reference Guide*.
 - If using a bootable CD and **Do Not Use A DHCP Server** is not selected on the **DHCP Server** tab of the Management Server **Detail Setting** screen:
 - see Section 2.7.1.4, "DHCP Server Tab" in *Web Console Reference Guide* and set the **DHCP Server** tab items which correspond to the correct environment.
 - * Restart the Management Server after changing the configuration is necessary.
 - If the MAC address of the LAN board on the managed machine is not registered to DPM, which is in communication with the Management Server:
 - Register an appropriate MAC address to DPM, and execute backup/restore again.
 - If neither of the above apply:
 - For reasons such as the network being unconnected or influences from the network, the Management Server and the managed machine may be under a condition where they cannot connect with each other. Check the network status between the Management Server and the managed machine, and then execute backup/restore again.



When you insert the bootable CD and start the managed machine, the following message is displayed on the screen, and processing is interrupted:

```
linuxrc: Cannot find CD-ROM Drives.
```

- ➔ This error occurs when the bootable CD is unable to recognize a device.

If using a USB CD/FD drive, change the port which connects to the drive, and then try again. The CD drive used may not be supported by DPM.

➡ If you are using such drives, prepare another CD drive, or execute backup/restore by using **Use A DHCP Server**.

➡ When the managed machine has embedded SATA RAID configuration and the bootable CD storage file which has been used when creating bootable CD is other than "ia32_080331_24", there is a possibility that the driver file to recognize CD drive to the bootable CD might not be installed.

For the detail, contact your sales or support representative.

Backup/restore does not start, and the following message appears on the screen.
(The x below is a number.)

```
ERROR: Failed to read a file (x)
```

➡ If backup target correspond to one of the following situation, error is displayed because the following target is recognized before the disk,

- If a USB device is connected to backup target machine.
- When interface is existing for backup target machine in order to connect USB device.
- When CD-DVD drive is built in the chassis of BladeServer.

In this case, change the disk number of the scenario, and then execute the scenario.

Also, the recognized disk number depends on the device, so if the same error occurs after changes, change the device numbers again and then execute backup.

If restore is interrupted, the following messages are displayed:

```
ERROR: Found the eof during the input of a binary stream.  
gzip: stdin: unexpected end of file.
```

➡ When restore is interrupted during data transfer, these messages may be displayed. If this message was displayed after restore was interrupted, execute restore again, or setup the OS.

3.14. Local Restoration without using the Management Server

If any problem occurs in local restoration, contact your sales or support representative.

3.15. PackageDescriber



Following error is displayed when you try to start PackageDescriber on Windows Vista.

"Unable to access jarfile PackageDescriber.jar"



There is a possibility that setting of "Temporary Folder" has not been changed from default. Execute either of following settings.

- Invalidate "User Account Control: UAC" and use PackageDescriber.
To invalidate, uncheck **Use User Account Control (UAC) to help protect your computer** from **Start** menu, click **Control Panel -> User Accounts -> Turn User Account Control on or off**.
- Execute as administrator
 - (1) Click **Start** menu -> **All programs** -> right click **DPM PackageDescriber** and select **Properties**
 - (2) **Properties of DPM PackageDescriber** is displayed, click **OK** after checking **Run this program as an Administrator** on **Privilege Level** on **Compatibility** tab.
 - (3) Click **Continue** when **Access Denied** is displayed.
 - (4) Right click the short cut icon of DPM PackageDescriber on desktop and select Properties and follow Steps (2) and (3).

Click **Accept** when **User Account Control** screen is displayed when PackageDescriber is started after setting above.

3.16. Collecting the Data in Case of Trouble

- When you would like to inquire a failure while you use DPM, please send the following information:
 - Information of DPM version/the module for the machine model
 - Managed machine information
 - Machine model/Product number
 - Configuration of optional products/Product number
 - Machine name
 - MAC address
 - OS type
 - Date and time that the obstacle occurred
 - Failure information
 - How to operate DPM, and what occurred.
 - Display on screen
 - Management Server
 - Managed machine
 - Repeatability
 - Always occurs
 - There is a case that it succeeds
 - Succeeded in the past, however it began to fail one day
 - On other managed machine, it occurred or not
 - DPM log collected by DPM Log tool
 - Management Server
 - Managed machine
- *When the failure occurred, please collect log immediately
 - If a scenario is executed on the same machine again, the log file may be overwritten.
 - After about 1 week since the failure occurred, the log of DHCP Server will be overwritten.
- The figure of network configuration

The procedure to collect the DPM log is listed below.

Target machines of collecting logs are the Management Server, the Database Server(only when the database is configured on the different machine from the Management Server), and managed machines.

■ Log collection Procedure (Windows x86/x64)

Collect logs on the Management Server, the Database Server (only when the database is configured on the different machine from the Management Server), and the managed machine on which the error occurred, following the procedure below.

- (1) Check that all operations of DPM (the following) are completed or ended.
 - Operations for managed machines (scenario execution, automatic update, file distribution, file deletion and obtaining the information in **File/Folder List** screen) are completed.
 - Web Console and various tools of DPM are ended.
- (2) Log on to the machine by a user with administrator authority.
Log on to the Management Server (in the environment that the database is configured on the same machine as DPM Server) by a user who installed DPM Server.
Log on to the Database Server by a user who configured the database.
- (3) When you collect logs on the Management Server, it is unnecessary to do this procedure.
Skip to Step (4). When you collect logs on the Database Server or the managed machine, copy the following folder to the arbitrary folder.
<**Installation media**>:\DPM\TOOLS\DpmLog
- (4) Start the command prompt and move to the following folder.
 - On the Management Server:
<**DPM Server installation folder**>\DpmLog
 - On the Database Server or the managed machine:
The folder which was copied in the Step (3).

Example) If the location of the folder copied at Step (3) is "C:\\"

```
cd /d C:\DpmLog
```

- (5) Add option **-A**, and execute DpmLog.exe. See the following message and send the collected log.

```
C:\DpmLog>DpmLog -A [Enter]
The program is collecting logs. Please wait a moment.
Collecting logs has finished. Compress the folder and send it.
Save location: log
C:\DpmLog>
```

Note

■ While DpmLog.exe is running, do not perform any DPM operation.

- (6) Delete the saved **log** folder because it is unnecessary after sending logs.

■ Log collection Procedure (Linux)

Collect the following files. When you collect the files, try not to change the time stamp (for example, -p option of cp command and so on), then use a command such as zip or gzip to compress on Linux, and then send.

- System Setting File

- /etc/hosts
 - /etc/resolv.conf
 - /etc/sysconfig/network
 - /etc/sysconfig/clock (only when you use earlier than Red Hat Enterprise Linux 7)
 - /etc/sysconfig/iptables (only when you use earlier than Red Hat Enterprise Linux 7)
 - /etc/sysconfig/ipchains (only when you use earlier than Red Hat Enterprise Linux 7)
 - /etc/rc.d/rc (only when you use earlier than Red Hat Enterprise Linux 7)
 - /etc/sysconfig/network-scripts/ifcfg-*

- Version Information

- For Red Hat Enterprise Linux 7 or later:
 - /etc/redhat-release
 - /etc/os-release
 - For Red Hat Enterprise Linux 6 or earlier:
 - /etc/redhat-release
 - For SUSE Linux Enterprise:
 - /etc/SuSE-release

- Files related to DPM Client

- All files located in folder /opt/dpmclient/
 - /var/log/messages* (All files whose name begin with "messages")
 - All files located in folder /tmp/dpm/ (If existed)

- Disk and partition Information

- Collect the execution result of the following command.

```
fdisk -l
```

- Network Information

- Collect the execution results of the following command.

```
ifconfig -a
ip addr show
netstat -anp
route
ps -axm | grep depagtd
iptables -L
```

- System Information

- Collect the execution results of the following command.

```
uname -a
lspci -vx
dmidecode
biosdecode
dmesg -s 524288
```

Appendix A Service List

The following is DPM services and processes.

Tips

"Automatic" listed in the column of "Startup Type" in the following table is resident service.

■ DPM Server

Service Name	Display Name	Startup Type	Process Name *1	The Number of Process	Function
APIServ	DeploymentManager API Service	Automatic	apiserv.exe	1	Setting of scenario execution and each item
	(Child process)	/	mkParams.exe	1 or more	Tool to create a Windows disk duplication data file
			magicsend.exe	1	Executing remote power-on
			ipconfig.exe	1 or more	Setting of Network
			nbtstat.exe	1 or more	Setting of Network
bkressvc	DeploymentManager Backup/Restore Management	Automatic	bkressvc.exe	1	Executing backup/restore
depssvc	DeploymentManager Get Client Information	Automatic	depssvc.exe	1	Receiving the information of OS/service packs/patches from the managed machine
PxeSvc	DeploymentManager PXE Management	Automatic	pxesvc.exe	1	Controlling network (PXE) boot
	(Child process)	/	ipconfig.exe	1 or more	Setting of network
			nbtstat.exe	1 or more	Setting of network
PxeMftftp	DeploymentManager PXE Mftftp	Automatic (*2)	pxemftftp.exe	1	TFTP server function

rupdssvc	DeploymentManager Remote Update Service	Automatic	rupdssvc.exe	1	Executing remote update
	(Child process)		zip.exe	1	File compressing command
			unzip.exe	1	File extracting command
schwatch	DeploymentManager Schedule Management	Automatic	schwatch.exe	1	Managing schedule
	(Child process)		magicsend.exe	1	Executing remote power-on
			ipconfig.exe	1 or more	Setting of network
			nbtstat.exe	1 or more	Setting of network
ftsvc	DeploymentManager Transfer Management	Automatic	ftsvc.exe	1	File transfer service
	(Child process)		CHKOS32.exe	1 or more	Tool for obtaining OS type

*1

The default installation folder is
C:\Program Files (x86)\NEC\DeploymentManager.

*2

When you install DPM Server, if you select **Do not use the TFTP service of DPM on TFTP Server** tab of the **Detailed Setting** screen, this item will be disabled.

■ Database *1

Service Name	Display Name	Startup type	Process Name	The Number of Process	Function
MSSQL\$ <i>Instance Name</i>	SQL Server (<i>Instance Name</i>)	Automatic	sqlservr.exe *2	1	SQL database (DPM)

*1

This runs on the machine on which the database is configured.

*2

The default installation folder is
C:\Program Files\Microsoft SQL Server\MSSQL11.*Instance Name*\MSSQL12\Binn.

■ Image Builder (Remote Console)

Service Name	Display Name	Startup Type	Process Name *1	The Number of Process	Function
None	(Child process)		DIBuilde.exe	1	Image Builder
			DIBPkgMake.exe	1	Tool for creating a package
			DIBPkgDel.exe	1	Tool for deleting a package
			mkParams.exe	1	Tool for creating a Windows disk duplication data file
			ExecLinuxIParm.jar	1	Tool for creating a Linux install parameters
			ExecLinuxSysRep.jar	1	Tool for creating a Linux disk duplication data file
			winfte.exe	1	File transferring tool
			zip.exe	1	File compressing command
			CHKOSCD.EXE	1	Tool for checking OS media

*1
The default installation folder is C:\Program Files (x86)\NEC\DeploymentManager.

■ DPM Command Line

Service Name	Display Name	Startup Type	Process Name *2	The Number of Process	Function
None	None		dpmcmd.exe	1 or more	Scenario execution and so on from DPM Command Line

*1
The default installation folder is C:\Program Files (x86)\NEC\DeploymentManager.

■ DPM Client (Windows)

Service Name	Display Name	Startup Type	Process Name *1	The Number of Process	Function	
depagent	DeploymentManager Agent Service	Automatic	DepAgent.exe	1	Powering off the managed machine from DPM Server	
rupdsvc	DeploymentManager Remote Update Service Client	Automatic	rupdsvc.exe	1	Executing remote update Sending the information of OS/service packs/patches to DPM Server	
			(Child process)	unzip.exe	1	File extracting command
			(Child process)	Execution File	1	Installer of the package
			(Child process)	GetBootServer IP.exe	1	Searching the Management Server
None	None		DPMTray.exe	1 or more	Automatic update status display	

*1

The default installation folder is:

- x64: C:\Program Files (x86)\NEC\DeploymentManager_Client
- x86: C:\Program Files\NEC\DeploymentManager_Client

■ DPM Client (Linux)

Service (daemon) Name	Display Name	Startup Type	Process Name	The Number of Process	Function
For Red Hat Enterprise Linux 7 or later : depagt.service For Red Hat Enterprise Linux 6 or earlier/ SUSE Linux Enterprise: depagt	None	Automatic	depagtd *1	1,2	DPM Client Service
	(Child process) Executed by system function		depagtd	1	Powering off from DPM Server Executing remote update Sending the information of OS/patches of the managed machine to DPM Server
			rpm	1	rpm package installer
			shutdown	1	Shutdown command
			mv	1	Command for moving files
			echo	1	Command for displaying messages
			unzip	1	Command for extracting compressed files
			touch	1	Command for changing the time stamp
			GetBootServerIP	1	Searching the Management Server

*1
The installation directory is /opt/dpmclient/agent/bin (fixed value).

Procedure and Order of Starting and Stopping the Service

DPM Server is linked to and dependent on each DPM related service. Therefore, if you start or stop services manually, execute by following order.
About DPM Client services (daemon), according to a given order for start/stop.

- Start service order
- (1) SQL Server (**Instance name**)
- (2) Services that begin with "DeploymentManager"

- Stop service order
- (1) Services that begin with "DeploymentManager"
 - (2) SQL Server (*Instance name*)

Appendix B Event Log

About the event log, contact your sales or support representative.

Appendix C Error Information

About error information, contact your sales or support representative.

Appendix D Network Port and Protocol List

■ Communication Ports used by DPM

Tips

- When you configure DHCP server and NFS Server on the Management Server, the communication which is described in each table is done between the Management Server and the managed machines.
- About opening the communication port (Windows OS), which is used by DPM, automatically or manually, see Section 3.1, "Port Opening Tool" in *Tool Reference Guide*.

- Communications between the Management Server and managed machines

Item	Management Server			Protocol	Con necti on Dire ction	Address Specifica tion	Managed Machine		
	Executable File Name	Port No.	Availa bility of Modif ying Port No.				Port No.	Availa bility of Modif ying Port No.	Executab le File Name
Power On	magicsend.exe	*1	No	UDP	->	DirectBro adcast *2	5561	No	
Shutdown	apiserv.exe schwatch.exe	*1	No	TCP	->	Unicast	2650 9 *10	Yes	For Windows: DepAgent .exe For Linux: depagtd
Shutdown (only for SSC product)	apiserv.exe schwatch.exe	*1	No	TCP	->	Unicast	2650 9 *10	Yes	For Windows: DepAgent .exe For Linux: depagtd
	rupdssvc.exe	26507 *10	Yes	TCP	<-	Unicast	*1	No	For Windows: DepAgent .exe For Linux: depagtd
Monitoring DPM Client	apiserv.exe schwatch.exe	*1	No	TCP	->	Unicast	2650 9	Yes	For Windows:

(Only for SSC product)	e						*10		DepAgent.exe For Linux: depagtd
Existence Confirmation (Power ON/OFF Status Check)	apiserv.exe schwatch.exe	- *3	No	ICMP Echo request	->	Unicast	8 *3	No	
	apiserv.exe schwatch.exe	0 *3	No	ICMP Echo request	<-	Unicast	- *3	No	
Network Boot	pxesvc.exe	67	No	UDP (DHCP)	<-	Broadcast *4 *5	68	No	
	pxesvc.exe	67	No	UDP (DHCP)	->	Broadcast *4 *5	68	No	
	pxesvc.exe	67	No	UDP	->	Unicast	68	No	
	pxesvc.exe	4011	No	UDP	<-	Unicast	68	No	
	pxesvc.exe	4011	No	UDP	<-	Unicast	4011	No	
	pxesvc.exe	67	No	UDP	->	Unicast	4011	No	
	pxemftpt.exe	69	No	UDP (TFTP)	<-	Unicast	*6	No	
	pxemftpt.exe	69	No	UDP (TFTP)	->	Unicast	*6	No	
	bkressvc.exe	26503 *10	Yes	TCP	<-	Unicast	*1	No	
	bkressvc.exe	26502 *10	Yes	TCP	<-	Unicast	*1	No	
OS installation by disk duplication *7	ftsvc.exe	26508 *10	Yes	TCP	<-	Unicast	*1	No	
Restore (Multicast) *8	ftsvc.exe	26508 *10	Yes	TCP	<-	Unicast	*1	No	
	bkressvc.exe	26501 *10	Yes	TCP	<-	Unicast	*1	No	
	bkressvc.exe	26530 *10	Yes	UDP	->	Multicast	26530 *10	Yes	
Restore (Unicast) *9	ftsvc.exe	26508 *10	Yes	TCP	<-	Unicast	*1	No	
	bkressvc.exe	26501 *10	Yes	TCP	<-	Unicast	*1	No	
Backup *9	ftsvc.exe	26508 *10	Yes	TCP	<-	Unicast	*1	No	
	bkressvc.exe	26501 *10	Yes	TCP	<-	Unicast	*1	No	
CD Boot	pxesvc.exe	26505 *10	Yes	TCP	<-	Unicast	*1	No	
Disk Configuration Check *9	ftsvc.exe	26508 *10	Yes	TCP	<-	Unicast	*1	No	

Installing service packs, hotfixes, Linux patch files, and applications by remote update	rupdssvc.exe	*1	No	TCP	->	Unicast	26510 *10	Yes	For Windows: rupdssvc.exe For Linux: depagtd
	rupdssvc.exe	*1	No	UDP	->	Multicast	26529 *10	Yes	For Windows: rupdssvc.exe For Linux: depagtd
	rupdssvc.exe	26507 *10	Yes	TCP	<-	Unicast	*1	No	rupdssvc.exe (Windows only)
Send managed machine information *11	depssvc.exe	26504 *10	Yes	TCP	<-	Unicast	*1	No	For Windows: rupdssvc.exe For Linux: depagtd
	rupdssvc.exe	26507 *10	Yes	TCP	<-	Unicast	*1	No	rupdssvc.exe (Windows only)
Automatic Update Request *12	rupdssvc.exe	26506 *10	Yes	TCP	<-	Unicast	*1	No	rupdssvc.exe
	rupdssvc.exe	26507 *10	Yes	TCP	<-	Unicast	*1	No	rupdssvc.exe
Automatic update notice	rupdssvc.exe	*1	No	TCP	->	Unicast	26511 *10	Yes	rupdssvc.exe
Searching the Management Server *13	pxesvc.exe	67	No	UDP (DHCP)	<-	Broadcast *4	68 *14	No	Windows: GetBootServerIP.exe Linux: GetBootServerIP
	pxesvc.exe	67	No	UDP (DHCP)	->	Broadcast *4	68 *14	No	Windows: GetBootServerIP.exe Linux: GetBootServerIP
	pxesvc.exe	4011	No	UDP	<-	Unicast	*1	No	Windows: GetBootServerIP.exe Linux: GetBootServerIP
	pxesvc.exe	4011	No	UDP	->	Unicast	*1	No	Windows: GetBootServerIP.exe

									e Linux: GetBootS erverIP
	pxemftftp.exe	69	No	UDP (TFTP)	<-	Unicast	*1	No	
	pxemftftp.exe	69	No	UDP (TFTP)	->	Unicast	*1	No	
File distribution, File deletion, Acquisition of the information in File/Folder List *15	apiserv.exe	*1	No	TCP	->	Unicast	26520	Yes	For Windows: rupdsvc.e xe For Linux: depagtd

- *1
The port is automatically assigned.
- *2
A machine on the same segments as the Management Server is addressed 255.255.255.255.
If the segments are different than those of the Management Server, the address specification is direct broadcast.
Example)
The segment 192.168.0.0(MASK=255.255.255.0) is addressed 192.168.0.255.
- *3
With ICMP (Internet Control Message Protocol), communication specifying the port number is not performed, however it is routed by using the value in the ICMP Type field value.
- *4
A packet relayed by DHCP relay may be addressed as Unicast.
- *5
Only if the DHCP and the Management Server are installed on different machines.
- *6
Undefined. Depends on the LAN board ROM of the machine.
- *7
The protocols and port numbers listed in **Restore** are also required.
- *8
The protocol and the port number in the table of Network Boot are also needed. (You can restore by multicast only when you use DHCP server.)
- *9
If operations are performed using DHCP, the protocols and port numbers listed in **Network Boot** items are also required.
If operations are performed without using DHCP, the protocols and port numbers listed in **CD Boot** are also required.

*10

The default values of the ports to be used were changed from DPM Ver6.1. When you upgraded from the version earlier than DPM Ver6.1, the port numbers used before upgrading are taken over. Therefore, the port numbers are different from them (Values in the above table) of when you install DPM Server newly. However, the port for Web service (56050) is not taken over and new port (26500) is used. When you use the port which was used before upgrading, modify manually. The following is the default port when you install DPM Server newly and when you upgrade DPM Server.

When you install DPM Server newly	When you upgrade DPM Server from the version earlier than DPM Ver6.1
26500	26500
26501	56020
26502	56022
26503	56030
26504	56011
26505	56060
26506	56024
26507	56028
26508	56023
26509	56010
26510	56000
26511	56025
26529	56001
26530	56021

*11 Send managed machine information at the time of client service startup.

*12 Request the automatic update for service pack/hotfix/applications from the managed machine to the Management Server at the specified timing.

*13 Necessary if you search the Management Server when the client service start-up or scenario execution.

*14 When both you operate DPM with DHCP server and you operate DPM without DHCP server, the part of the communication sequence of DHCP is used and UDP:68 is used.

*15 Necessary if you distribute file to the managed machine, when you delete files on the managed machine and when displaying **File/Folder** List screen.

Note

■ When OS of managed machine is either of the following, ports and programs are opened as the following, depending on the status of the network which is used when DPM Client is installed.

- For Windows Server 2008/Windows Vista
Ports and programs are opened for either of public profile, private profile, or domain profile of Windows Firewall.
- For Windows Server 2008 R2/Windows 7 or later
 - About DeploymentManager (DepAgent.exe) and DeploymentManager (rupdsvc.exe), ports and programs are opened for active public profile, private profile, or domain profile of Windows Firewall.
 - About File and Printer Sharing (Echo Request - ICMPv4-In), ports and programs are opened for either of public profile, private profile, or domain profile of Windows Firewall.

Example)

When the managed machine joins domain and the **Domain Profile** was changed, the port and the product which are used by DPM will be blocked, and the machine cannot communicate anymore.

Open the ports or programs used by DPM in **Domain Profile** in advance on the managed machine that joins domain or the master machine of OS installation by disk duplication.

You can open the ports of the managed machine or programs in **Domain Profile**, following the procedure below.

- Setup by domain policy:
Specify in the domain policy of domain controller on Windows Server 2008/Windows Vista or later.

- Setup locally on the managed machine:
 - (1) On the managed machine, from **Inbound Rules** of **Windows Firewall with Advanced Security**, right-click the following items and select **Properties**.
 - DeploymentManager(DepAgent.exe)
 - DeploymentManager(rupdsvc.exe)
 - File and Printer Sharing (Echo Request - ICMPv4-In)(*)
 - * For Windows Vista/Windows 7
Network - Echo Request(ICMPv4-In)
 - (2) In **Advanced** tab of **Properties** dialog, select **Domain** checkbox in **Profiles**.
- For Windows Server 2003(SP1/SP2)/Windows Server 2003 R2, all connection request are blocked by security update(Post-Setup Security Updates:PSSU) until latest update program is applied.
Update the managed machine to latest status by Windows Update and so on, or release PSSU manually. To release PSSU manually, log on by administrator and close the security update window.
When you set the firewall service on the managed machine to automatic start, all ports are closed from when the machine is started to when the firewall service is started regardless of that the firewall function is enabled or disabled. At this timing, if you operate the following, the processing will fail.
 - If you execute a scenario or shut down, an error occurs because the Management Server cannot communicate with the managed machine.
In this case, after confirming that the managed machine is powered on the Web Console, execute a scenario or shut down.
 - When the version and revision of DPM Client is not matched with that of DPM Server, automatic upgrade of DPM Client will be done. However, the automatic upgrade fails because the Management Server cannot communicate with the managed machine at this timing.
In this case, upgrade by a scenario, see Section 3.3.2, "Manual Upgrading for DPM Client" in *Installation Guide*.

• Communication between the Database Server and the Management Server

Item	Database Server			Protocol	Connection Direction	Address Specification	Management Server		
	Executable File Name	Port No.	Availability of Modifying Port No.				Port No.	Availability of Modifying Port No.	Executable File Name
Database		26512 *2	Yes	TCP	<-	Unicast	*1	No	apiserv.exe bkressvc.exe depssvc.exe ftsvc.exe pxesvc.exe rupdssc.exe schwatc h.exe

*1

The port is assigned automatically.

*2

When you change the port number, change before installing DPM Server newly. After that, you cannot change.

• Communication between DHCP server and managed machines

Item	DHCP Server			Protocol	Connection Direction	Address Specification	Managed Machine		
	Executable File Name	Port No.	Availability of Modifying Port No.				Port No.	Availability of Modifying Port No.	Executable File Name
Obtaining the IP address		67	No	UDP (DHCP)	<-	Broadcast *1	68	No	
		67	No	UDP (DHCP)	->	Broadcast *1	68	No	

*1

A packet relayed by DHCP relay may be addressed as Unicast.

• Communication between NFS Server and managed machines

Item	NFS Server			Protocol	Connection Direction	Address Specification	Managed Machine		
	Executable File Name	Port No.	Availability of Modifying Port No.				Port No.	Availability of Modifying Port No.	Executable File Name
OS Clear Installation		111	No	TCP	<-	Unicast	*1	No	
		111	No	UDP	<-	Unicast	*1	No	
		1048 *2	No	TCP	<-	Unicast	*1	No	
		1048 *2	No	UDP	<-	Unicast	*1	No	
		2049	No	TCP	<-	Unicast	*1	No	
		2049	No	UDP	<-	Unicast	*1	No	

*1

The port is automatically assigned.

*2

There is a case that the port number might be changed automatically. when communication fails in, use "rpcinfo -p" command to check the port number being used by mountd (NFS mount daemon) service, and then open the port. If the problem is not solved by this procedure, turn off the Windows Firewall.

• Communication between HTTP Server and the managed machine

Item	HTTP Server			Protocol	Connection Direction	Address Specification	Managed Machine		
	Executable File Name	Port No.	Availability of Modifying Port No.				Port No.	Availability of Modifying Port No.	Executable File Name
OS Clear Installation		80	No	TCP (HTTP)	<-	Unicast	*1	No	

*1

The port is automatically assigned.

- Communication between FTP Server and the managed machine

Item	FTP Server			Protocol	Connection Direction	Address Specification	Managed Machine		
	Executable File Name	Port No.	Availability of Modifying Port No.				Port No.	Availability of Modifying Port No.	Executable File Name
OS Clear Installation		21	Yes	TCP (FTP)	<-	Unicast	*1	No	

*1 The port is automatically assigned.

- Communication between the Web Console and the Management Server

Item	Machine used for Web Console			Protocol	Connection Direction	Address Specification	Management Server *2		
	Executable File Name	Port No.	Availability of Modifying Port No.				Port No.	Availability of Modifying Port No.	Executable File Name
Web Console		*1	No	TCP (HTTP)	->	Unicast	80 *3	Yes	Web service (IIS)

*1 The port is automatically assigned.

*2 Because the Management Server uses the port (TCP:26500) for the internal processing (the communication between DPM Server and Web Service (IIS)), do not use this port by other applications.

*3 You can change the port to be used by the following procedure.
Example) For IIS 7.0

- 1) Select **Administrative Tools -> Internet Information Services (IIS) Manager** from **Start** menu.
- 2) **Internet Information Services (IIS) Manager** screen appears. Right-click *computer name* -> **Sites** -> *Web Site name* on the tree view, and select **Edit Bindings...** and change the port number.

- Communication between Image Builder (Remote Console) and the Management Server

Item	Machine used for Image Builder (Remote Console)			Protocol	Connection Direction	Address Specification	Management Server		
	Executable File Name	Port No.	Availability of Modifying Port No.				Port No.	Availability of Modifying Port No.	Executable File Name
Image Builder (Remote Console)	DIBuild.exe	*1	No	TCP	->	Unicast	26508 *2	Yes	ftsvc.exe

*1 The port is automatically assigned.

*2 When you upgrade DPM Server from the version earlier than DPM Ver6.1, the port before upgrading (56023) is taken over.

• Communication between DPM Command Line and the Management Server

Item	Machine used for DPM Command Line			Protocol	Connection Direction	Address Specification	Management Server *2		
	Executable File Name	Port No.	Availability of Modifying Port No.				Port No.	Availability of Modifying Port No.	Executable File Name
DPM Command Line	dpmcmd.exe	*1	No	TCP (HTTP)	->	Unicast	80 *3	Yes	Web service (IIS)

* 1

The port is automatically assigned.

* 2

Because the Management Server uses the port (TCP:26500) for the internal processing (the communication between DPM Server and Web Service(IIS)), do not use this port by other applications.

* 3

You can change the port to be used by the following procedure.

Example) For IIS 7.0

- 1) Select **Administrative Tools -> Internet Information Services (IIS) Manager** from **Start** menu.
- 2) **Internet Information Services (IIS) Manager** screen appears. Right-click *computer name* -> **Sites** -> *Web Site name* on the tree view, and select **Edit Bindings...** and change the port number.

Note

Depending on the type of OS, the DPM service may not be able to start if there is a port conflict between the DPM service and other service or application causing by the Ephemeral port. For the details of checking and handling problems with ephemeral ports, see "Regarding ports used by DPM" of Section 2.2.1, "Network Environment" in *First Step Guide*.

Tips

For router and switch configuration, see the manual of the network device or contact the vendor.

Appendix E Log Files Output by DPM

■ DPM Server

The following are logs which are output on the machine on which DPM Server is installed.

Tips

In the machine on which DPM Server is installed, Image Builder and DPM Command Line are also installed. See also the description of Image Builder (Remote Console) and DPM Command Line below.

Folder	< DPM Server installation folder >\Log (Default: C:\Program Files (x86)\NEC\DeploymentManager\Log)
File	apiserv.csv apitrace.log bkressvc.csv Deplnit.csv depssvc.csv DIBPkgMake.csv DPMDBIConfig.log ftsvc.csv pmdb.log pminfo.log pxemftp.csv pxesvc.csv rupdssvc.csv schwath.csv rupdssvc_ <i>managed machine MachineName_ managed machine MACAddress</i> .log
Output Content	DPM Server trace log, monitor log, error information, database access log
Recording Method	The maximum size of apitrace.log is 1MByte. The maximum size of pmdb.log and pminfo.log is 128KByte. There is no restriction of the file size for DPMDBIConfig.log. The maximum size of the other files is 10MByte. If the size of apitrace.log exceeds the maximum file size, the file is overwritten in order from the top location in the file. The pmdb.log and pminfo.log and rupdssvc_ <i>manmaged machine MachineName_ managed machine MACAddress</i> .log are managed by 2 generations. (If the size exceeds the maximum file size, *.log.bak is deleted. The file name of *.log is renamed to *.log.bak.) The *.csv files are managed by 5 generations. (If the size of *.csv exceeds the maximum file size, *.csv.4 is deleted. The file name of *.csv n is renamed to *.csv.[n+1] and *.csv is renamed to *.csv.1.) Also, each file can be deleted manually. (Delete *.csv and apitrace.log manually after stopping the DPM services.)

Folder	< DPM Server installation folder >\DataFile\LogFile\SnrReport (Default: C:\Program Files (x86)\NEC\DeploymentManager\DataFile\LogFile\SnrReport)
File	Scenario.rpt
Output Content	Scenario Execution Results
Recording Method	There is no restriction for the file size. Furthermore, you can delete it from the Web Console. (For delete procedure details, see Section 4.5.2, "Delete Log" in <i>Web Console Reference Guide</i> .)

Folder	< <i>DPM Server installation folder</i> >\DataFile\LogFile\AuReport (Default: C:\Program Files (x86)\NEC\DeploymentManager\DataFile\LogFile\AuReport)
File	Index.rpt managed machine MACaddress.rpt
Output Content	Execution log for automatic update (application automatic delivery) on a managed machine
Recording Method	<p>Each managed machine is individually managed by MAC address. There is no restriction for the file size. The maximum record numbers of the logs can be set from the Web Console.</p> <p>According to the setting of maximum number of logs, if the log number exceeds it, the logs will be deleted from index.rpt file from the oldest in order, or 10% of the logs will be deleted from the oldest.</p> <p>For maximum number of log settings, see Section 4.7.2, "Maximum Number of Logs Settings" in <i>Web Console Reference Guide</i>.</p> <p>Furthermore, when the oldest log records from Index.rpt are deleted, the related information is deleted from managed machine MACaddress.rpt. Also, you can delete the log file from the Web Console. (For delete procedure details, see Section 4.7.4, "Delete Log" in <i>Web Console Reference Guide</i>.)</p>

Folder	< <i>DPM Server installation folder</i> >\DataFile\JSLog (Default: C:\Program Files (x86)\NEC\DeploymentManager\DataFile\JSLog)
File	CmdSelfJSLog_YYYYMMDD.csv MngUserJSLog_YYYYMMDD.csv MngSelfJSLog_YYYYMMDD.csv * YYYYMMDD is a date.
Output Content	Monitor log (the user operations/DPM Server internal operations)
Recording Method	<p>Each file is saved to a file dated to the current day. There is no restriction for the file size.</p> <p>The files dated to the current day cannot be deleted while DPM Services are running. Only those files whose dates have already passed can be deleted even if those services are running. Furthermore, a file is automatically deleted when 30 days have elapsed from the file creation date.</p>

Folder	< DPM Server installation folder >\WebServer\Logs (Default: C:\Program Files (x86)\NEC\DeploymentManager\WebServer\Logs)
File	Browser.log Error.log JSOX-Event.csv LibAPI.log Polling.log Trace.log WebConsole.log
Output Content	Web Console error notifications, traces, and monitor logs
Recording Method	The maximum size of Polling.log is 1MByte. The maximum size of the other files is 10MByte. Polling.log is increased in one file, and the JSOX-Event.csv file is managed by 2 generations. (If the size exceeds the maximum file size, the file name is renamed to JSOX-Event.csv.1, and the original JSOX-Event.csv.1 is deleted.) The other files are managed by 6 generations. (If the size of *.log exceeds the maximum file size, *.log.5 is deleted. The file name of *.log.n is renamed to *.log.[n+1], and *.log is renamed to *.log.1) Each file can also be deleted manually.

Folder	< Folder for Image >\upload\dpmupload (Default: C:\Deploy\upload\dpmupload)
File	managed machine MACaddress_B.zip managed machine MACaddress_B.Error.zip managed machine MACaddress_R.zip managed machine MACaddress_R.Error.zip managed machine MACaddress_P.zip managed machine MACaddress_P.Error.zip managed machine MACaddress.zip managed machine MACaddress_Error.zip
Output Content	managed machine-side results from execution of backup/restore/disk format check
Recording Method	Each managed machine is individually managed by MAC address. The maximum size of each file is approx. 310KByte + (the number of target disks * approx. 50KByte). In the case of the managed machine in UEFI mode, approx. 460KByte + (the number of target disks * approx. 50KByte). The file is overwritten each time a scenario is executed. You can delete each file manually.

Folder	%SystemRoot% (Default: C:\WINDOWS)
File	Inst_Dpm_Db.log Inst_Dpm_Dbadmin.log Inst_DPM_Mng.log
Output Content	DPM Server installation log
Recording Method	There is no limit for the file size. Inst_Dpm_Db.log is overwritten each time DPM Server is installed, and the size does not increase after installing. Other files increase monotonically. Each file can be deleted manually. When you configure the Database Server, Inst_Dpm_Db.log and Inst_Dpm_Dbadmin.log are not created.

■ Database Server

The following are logs which are output on the machine on which the database is installed.

Folder	< SQL Server installation folder >\MSSQL12. Instance name \MSSQL\Log (Default: C:\Program Files\Microsoft SQL Server\MSSQL12. Instance name \MSSQL\Log)
File	ERRORLOG log_ n .trc (n is a number)
Output Content	SQL Server log
Recording Method	There are no file size restrictions on any of the files. ERRORLOG is managed by 7 generations. (If SQL Server(Instance name) restarts, ERRORLOG.6 is deleted The file name of ERRORLOG.n is renamed ERRORLOG.[n+1] and ERRORLOG is renamed to ERRORLOG.1. log_ n .trc is managed by 5 generations. (If SQL Server(Instance name) service is restarted at a state in which log_1.trc to log_5.trc exist, log_1.trc is deleted, and new log_6.trc is created.) ERRORLOG cannot be deleted. The log_ n .trc cannot be deleted while SQL Server(Instance name) service is running. Past logs can be deleted even if the service is running.

■ DPM Client (Windows)

The following are logs which are output on the managed machine on which DPM Client (Windows) is installed.

Folder	< <i>DPM Client installation folder</i> > (Default: C:\Program Files (x86)\NEC\DeploymentManager_Client)
File	DepAgent.log rupdsvc.log DPMTray.log GetBootServerIP.log WindowsChgIP.log
Output Content	DPM Client trace log Logs of Automatic Update Status Display Tool Logs of searching the Management Server by DPM Client
Recording Method	The maximum file size of DPMTray.log is 1MByte. The maximum file size of other files is 2MByte. If the size of DPMTray.log exceeds the maximum size of the file, all logs are cleared and the log is recorded newly. DepAgent.log, rupdsvc.log, GetBootServerIP.log, and WindowsChgIP.log are managed by 2 generations. (If the size exceeds the maximum file size, *.log.bak is deleted. The file name of *.log is changed to *.log.bak.) Each file can also be deleted manually.

Folder	%SystemRoot%\DeploymentManager\JSLog (Default: C:\WINDOWS\DeploymentManager\JSLog)
File	CliSelfJSLog_YYYYMMDD.csv * YYYYMMDD is a date.
Output Content	Monitor log (DPM Client internal operations)
Recording Method	There is no restriction for the file size. Saved to a file dated to the current day. Files dated to the current day cannot be deleted while DPM Services are running. Only those files whose dates have already passed can be deleted even if those services are running. The file is automatically deleted when 30 days have elapsed from the file creation date.

Folder	%SystemRoot% (Default: C:\WINDOWS)
File	Inst_DPM_Win_Cli.log Inst_Dpm_Ports.log
Output Content	Install log of DPM Client
Recording Method	There is no limit of the file size on each file. Each time DPM Client is installed, the file size is increased monotonically. Each file can be deleted manually.

■ DPM Client (Linux)

The following are logs which are output on the managed machine on which DPM Client (Linux) is installed.

Folder	/opt/dpmclient/agent/log
File	depinst.log depagtd.log GetBootServerIP.log LinuxChgIP.log
Output Content	Install log of DPM Client Trace log of DPM Client Logs of searching the Management Server by DPM Client
Recording Method	There is no limit for the file size in depinst.log, and the file is overwritten each time DPM Client is installed. The depagtd.log, GetBootServerIP.log, and LinuxChgIP.log are managed by 2 generations. (If the size exceeds the maximum file size(2MByte), *.log.bak is deleted. The file name of *.log. is renamed to *.log.bak.) The file can be deleted manually.

■ Image Builder (Remote Console)

The following are logs which are output on the machine on which Image Builder (Remote Console) is installed.

Folder	< Image Builder (Remote Console) installation folder >\DataFile\JSLog (Default: C:\Program Files (x86)\NEC\DeploymentManager\DataFile\JSLog)
File	ImgUserJSLog_YYYYMMDD.csv ImgSelfJSLog_YYYYMMDD.csv * YYYYMMDD is a date.
Output Content	Monitor log (operations performed by the user/Image Builder internal operations)
Recording Method	There is no limit for the file size, and each file is saved to a file dated to the current day. Files dated to the current day cannot be deleted while DPM Services are running. Thus, only those files whose dates have already passed can be manually deleted even if those services are running. The file is automatically deleted when 30 days have elapsed from the file creation date.

■ DPM Command Line

The following are logs which are output on the machine on which DPM Command Line is installed.

Folder	< DPM Command Line installation folder >\Log (Default: C:\Program Files (x86)\NEC\DeploymentManager\Log)
File	DPM_Trace1.csv
Output Content	Monitor log (operations performed by the user/DPM Command Line internal operations)
Recording Method	The maximum file size of DPM_Trace1.csv is 10MByte. It is managed by 10 generations. (If the size of DPM_Trace1.csv exceeds the maximum file size, DPM Trace10.csv is deleted. The file name of DPM Trace n .csv is renamed to DPM Trace [$n+1$].csv.) Each file can also be deleted manually. Files cannot be deleted while DPM Command Line is running.

Appendix F Procedure to Check the Version of Each Component

■ DPM Server

Check the bottom (footer) of the Web Console.

About starting the Web Console and logging into DPM, see from Section 5.1.1, "Starting the Web Console" to Section 5.1.2, "Logging into DPM" in *Installation Guide*.

Example) DeploymentManager 6.5-XXXXX

* XXXXX stands for the number.

■ DPM Client (Windows)

1) Select **Setting** from displayed charm by pointing the mouse pointer at the top right corner (or the bottom right corner) of Windows desktop.

Setting screen will be displayed.

Select **Control Panel->Program->Programs and Features**.

2) Select **Views** menu-> **Choose Details**.

3) On the **Choose Details** screen, check the **Version** check box and click **OK**.

4) Check the **Version** displayed on **DeploymentManager**.

Example) 6.50.000

■ DPM Client (Linux)

Execute the command below, and check the version displayed.

```
cd /opt/dpmclient/agent/bin
```

```
depagtd -v
```

Example) DeploymentManager Ver6.5

■ Image Builder (Remote Console)

1) Select **Setting** from displayed charm by pointing the mouse pointer at the top right corner (or the bottom right corner) of Windows desktop.

Setting screen will be displayed.

Select **Control Panel->Program->Programs and Features**.

2) Select **Views** menu-> **Choose Details**.

3) On the **Choose Details** screen, check the **Version** check box and click **OK**.

4) Check the **Version** displayed on **DeploymentManager (Image Builder)**.

Example) 6.50.000

■ DPM Command Line

1) Select **Setting** from displayed charm by pointing the mouse pointer at the top right corner (or the bottom right corner) of Windows desktop.

Setting screen will be displayed.

Select **Control Panel->Program->Programs and Features**.

2) Select **Views** menu-> **Choose Details**.

3) On the **Choose Details** screen, check the **Version** check box and click **OK**.

4) Check the **Version** displayed on **DeploymentManager (DPM Command Line)**.

Example) 6.50.000

■ PackageDescriber

1) Select **Setting** from displayed charm by pointing the mouse pointer at the top right corner (or the bottom right corner) of Windows desktop.

Setting screen will be displayed.

Select **Control Panel->Program->Programs and Features**.

2) Select **Views** menu-> **Choose Details**.

3) On the **Choose Details** screen, check the **Version** check box and click **OK**.

4) Check the **Version** displayed on **DPM PackageDescriber**.

Example) 6.50.000

Appendix G Glossary

- Alphabetical order

A

Automatic Download	Function which automatically downloads a new package from the Package Web Server to the Management Server at timing configured in advance.
automatic update	The managed machine checks the Management Server at timing configured in advance, if there has packages which has not been applied. It will send distribution request and automatically apply those packages.
automatic update notice	Notification that the Management Server issues to the managed machine so that automatic update can be executed in real time when a package of highest urgency is registered to the Management Server and when issuing automatic notification to the managed machine from Web Console.

B

Backup/Restore	Function to backup or restore data contained on a disk by either disk unit or partition unit.
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D

Deploy-OS	A Linux OS (kernel) customized for DPM that runs on the managed machine. Deploy-OS is sent to the managed machine from the Management Server, and is deployed on the memory of the managed machine during backup/restore/disk configuration check. Furthermore, if operating DPM without using a DHCP server, Deploy-OS is included in the bootable CD.
DHCP server	DHCP (Dynamic Host Configuration Protocol) is a protocol that dynamically modifies the IP address. DHCP server refers to the machine or network device which has the functionality to provide configuration information by DHCP. In DPM, the DHCP server is used when a managed machine performs a PXE boot, or to assign an IP address during OS installation by disk duplication.
Disk configuration check	Function to check disk configuration before backup/restore is executed. You can check the disk number specified at the time of backup/restore.
DPM Client	DPM component. It runs on a managed machine and transfers data to DPM Server. Also controls the managed machines (shutdown and so on) and sends information such as package applied/not applied.
DPM Command Line	DPM component. It performs processing such as status check of the managed machine and scenario execution from the command line.
DPM Server	DPM component. It performs processing to the managed machine through Web Console operations or DPM Command Line.

E

Effective sector backup	Backup of the only effective sectors of a hard disk.
ESX, ESXi	Virtualization software offered by VMware, Inc.

Express5800 Series Business-oriented workstation server offered by NEC.

Full Sector backup Backup all sectors of hard disk.

F

File Operation Function to copy or overwrite the file on the Management Server to the arbitrary place on the managed machine. Also, you can see the detail information of files and folders on the managed machine and delete a file.

G

Guest OS The OS operating on the virtual machine.

H

Host OS Indicates the OS which is the infrastructure on which virtualization software runs.

Hyper-V Microsoft virtualization software offered by Microsoft.

I

IIS Abbreviation for Internet Information Services, software for internet services offered by Microsoft.

Image Builder Create packages, and disk duplication data files used by OS installation by disk duplication, and then registers them to the Management Server.

Image Builder (Remote Console) Image Builder used on machine except the Management Server.

Installation media Indicates the media bundled in DPM product.

L

LAN board Board used to connect to a LAN (Local Area Network). Also called NIC (Network Interface Card) or LAN adaptor.

Local restoring Function to store a backup image file, which is created by DPM, in DVD(CD) media and restore the image only on the managed machine by using the media.

M

MAC Address Abbreviation for Media Access Control address, which is a fixed ID number for each LAN board.

Managed Machine	Machine which managed by DPM. May be noted as Computer, Client, or Client Computer.
Management Server	The physical server that DPM Server is installed.
Master Image	Disk image of the machine which is the master of OS installation by disk duplication source.
Master Machine	The machine which is the master of OS installation by disk duplication source.

O

OS clear Installation	Function that installs Red Hat Enterprise Linux while setting detailed configurations for the managed machine.
OS installation by disk duplication	Machine cloning function using Sysprep tools (master image creation tools) and DPM backup/restore functionality.

P

Package	The combination of patch, application or package application file. Created by either Image Builder or PackageDescriber.
Package Information File	File that basic information, execution information, applicable OS information, dependent information and identification information of a patch or an application are stored. Created by either Image Builder or PackageDescriber.
Package Registration	Upload a package created by PackageDescriber to the Package Web Server. Furthermore, the package needs to be re-uploaded if has been modified by PackageDescriber to the Package Web Server.
Package Web Server	The web server which stores the packages. The Package Web Server can share packages for two or more Management Servers. Access should be allowed by HTTP protocol.
PackageDescriber	DPM component. A tool that creates packages and registers them to the Package Web Server.
Patch	Windows OS service packs and hotfixes released by Microsoft.
PXE boot (network boot)	Abbreviation for Preboot eXecution Environment boot. Booting method using PXE (network booting standard) by the LAN board to start the program through the network. It is used by DPM to detect a managed machine, or to execute backup/restore/disk configuration check or package distribution.

R

Remote update	Installing service packs, hotfixes, Linux patch files, and applications, and applications
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S

Scenario	A configuration used to execute processing such as Distribution of floppy disk image for BIOS/firmware, OS clear installation, Installing service packs, hotfixes, Linux patch files, and applications, and backup/restore/disk configuration check.
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SigmaSystemCenter	The management software of IT platforms including virtual environment. DPM is bundled into SSC software suit.
SQL Server	Relational model database server provided by Microsoft. The data of DPM is stored in SQL Server.
Sysprep	Windows OS deployment tool provided by Microsoft.

V

Virtual Machine	Indicates the machines virtually run on the virtual machine server.
VLAN	Technology which builds a logical network, and then divides the network into two or more broadcast domains, unlike physically network configuration.

W

Web Console	Checks the status of a managed machine and executes processing to a managed machine.
WOL(Wake On LAN)	Function which allows a machine connected to LAN to be turned on the power from another machine via network.

X

XenServer	Virtualization software provided by Citrix.
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Appendix H Revision History

- ◆ Second Edition(Rev.001)(2016.11): New

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