FUJITSU

FUJITSU Software Systemwalker Software Configuration Manager

Software Parameter Setting Guide for ServerView Resource Orchestrator

Windows/Linux

B1X1-0134-04ENZ0(00)
March 2014

Preface

Purpose of This Document

The software parameter setting function sets the parameters for installed software when a linkage is established with ServerView Resource Orchestrator and L-Platform is deployed using ServerView Resource Orchestrator.

This document provides the following information about the software parameter setting function provided by Systemwalker Software Configuration Manager V15.2.0.

- Function Overview
- Operation and setting necessary for introduction
- The function necessary for operation and How to use
- Method of operation of function
- Various commands and files
- Various messages that function outputs

Intended Readers

This document targets the use of Software parameter setting function.

This manual assumes that readers already have the following knowledge:

- Basic knowledge of the operating system being used
- Knowledge of the ServerView Resource Orchestrator

Structure of This Document

This document is structured as follows:

Conventions Used in This Document

Refer to the "Documentation Road Map" for information on the names, abbreviations, and symbols used in this manual.

Abbreviations and Generic Terms Used for Operating Systems

This document uses the following abbreviations and generic terms to indicate operating systems.

Full Name	Abbreviation	
Microsoft(R) Windows Server(R) 2012 Datacenter Microsoft(R) Windows Server(R) 2012 Standard	Windows Server 2012	Windows
Microsoft(R) Windows Server(R) 2012 R2 Datacenter Microsoft(R) Windows Server(R) 2012 R2 Standard	Windows Server 2012 R2	
Microsoft(R) Windows Server(R) 2008 Standard Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V Microsoft(R) Windows Server(R) 2008 Enterprise Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V	Windows Server 2008	
Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise	Windows Server 2008 R2	
Microsoft(R) Windows Server(R) 2003 R2, Standard Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition	Windows Server 2003 R2	
Red Hat(R) Enterprise Linux(R) (for x86)	RHEL (x86)	RHEL
Red Hat(R) Enterprise Linux(R) (for Intel64)	RHEL (Intel64)	

Export Restrictions

If this document is to be exported or provided overseas, confirm the regulations of Foreign Exchange and Foreign Trade Control laws, and adhere to all legal requirements in those laws.

Trademarks

- Interstage, ServerView, and Systemwalker are registered trademarks of Fujitsu Limited.
- Linux is a trademark or registered trademark of Mr Linus Torvalds in the United States and other countries.
- Microsoft, Internet Explorer, Hyper-V, Windows, and Windows Server are registered trademarks of the Microsoft Corporation in the United States and other countries.
- Red Hat, RPM, and all trademarks and logos based on Red Hat are trademarks or registered trademarks of Red Hat, Inc. in the United States and other countries.
- VMware, the VMware logo, Virtual SMP, and VMotion are trademarks or registered trademarks of VMware, Inc. in the United States and other countries.
- Other company names and product names are trademarks or registered trademarks of respective companies.

Note that system names and product names in this document are not accompanied by trademark symbols such as (TM) or (R).

Issue Date and Version

Month/Year Issued, Edition	Manual code
July 2012: First edition	B1X1-0134-02ENZ0(00) / B1X1-0134-02ENZ2(00)

Month/Year Issued, Edition	Manual code
January 2013: Second edition	B1X1-0134-03ENZ0(00) / B1X1-0134-03ENZ2(00)
March 2014: Third edition	B1X1-0134-04ENZ0(00) / B1X1-0134-04ENZ2(00)

Contents

Part 1 Overview

This part presents an overview of this product.

Chapter 1 Function Overview

This chapter presents an overview of the software parameter setting function.

1.1 What is Software Parameter Setting Function?

The software parameter setting function sets the parameters of loaded software when an L-Platform is deployed using ServerView Resource Orchestrator. This function can reduce the workload of Infrastructure Administrators and Tenant Administrators by setting software parameters automatically. In addition, since the parameter information for multiple software products can be defined for cloning images, the number of cloning images can be reduced, thus reducing management costs. At the time of L-Platform deployment, software parameter information that has been defined for specific L-Server purposes can be set automatically so that Tenant Users can use the L-Servers immediately.

The software parameter setting function is provided as an additional function for ServerView Resource Orchestrator. To enable this function, the settings for ServerView Resource Orchestrator must be changed.

1.2 Function Overview of Software Parameter Setting Function

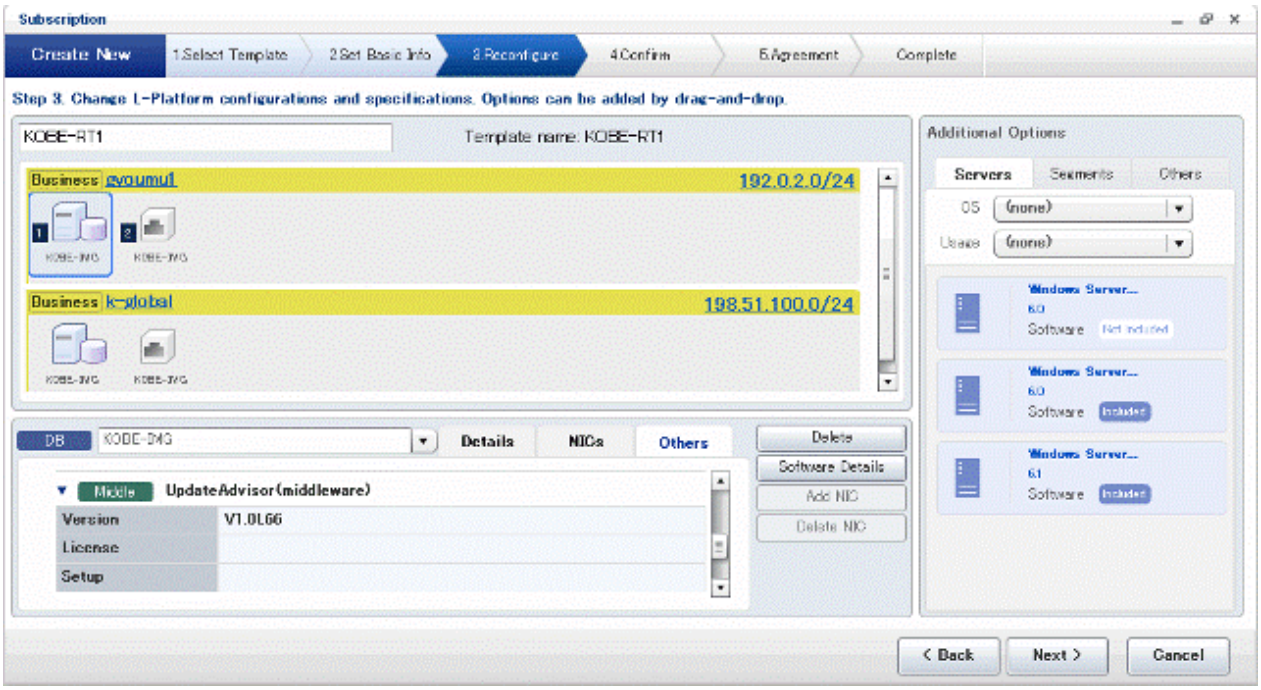
The software parameter setting function is provided as an additional function for ServerView Resource Orchestrator. If cloning images are to be created, procedures specific to this function are required.
The function added to ServerView Resource Orchestrator and the procedure for using it are explained below.

L-Platform management

In order to set software parameters when an L-Platform is deployed, functions are added to the ROR Console as part of L-Platform management.

- **Selecting the values of the parameters to be set**

  When an L-Platform subscription is submitted from the **L-Platform** tab, parameter values can be selected on the **Reconfigure** page. The parameter values and parameter options can be defined in L-Platform templates.

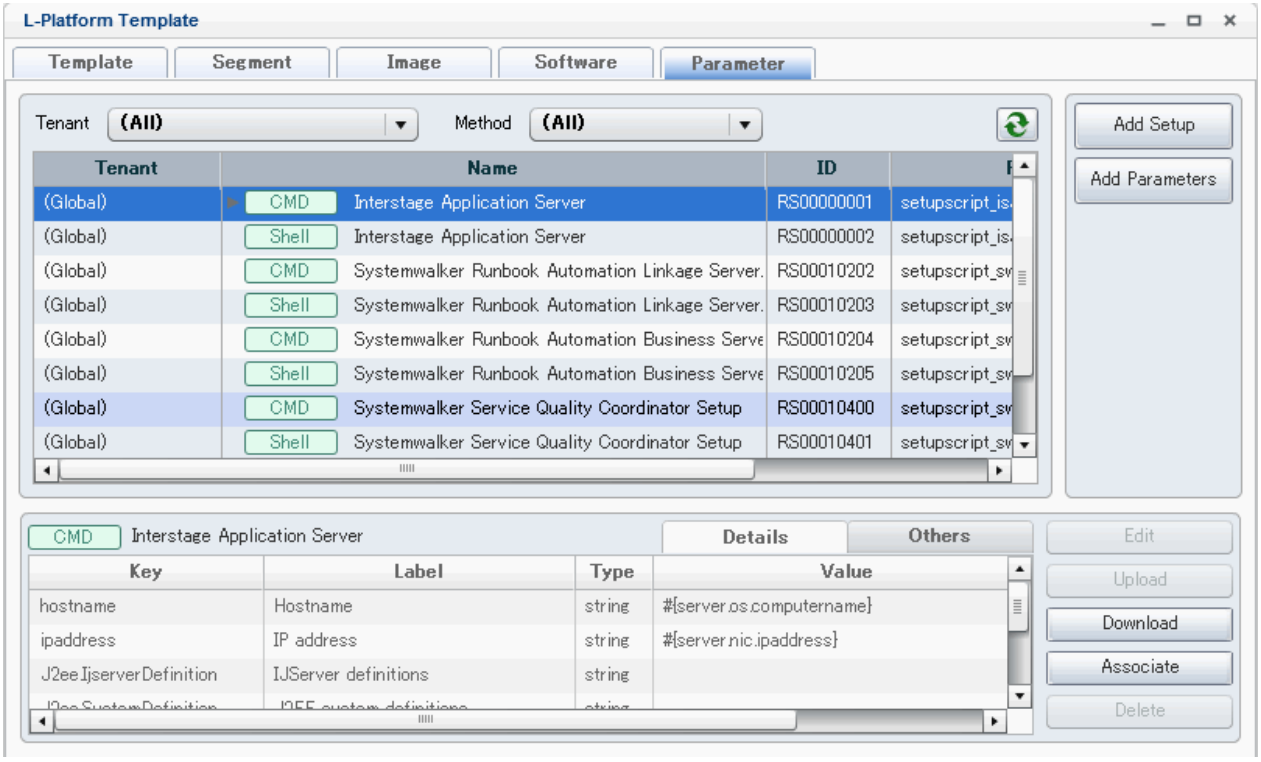


- **Setting parameters during deployment**

  When an L-Platform subscription is submitted from the L-Platform tab, parameters are set for the software on the deployed L-Server. At this time parameters are set in the software via communication from the Admin Server to the deployed L-Server.

L-Platform template management

Software parameters and the values set in parameters are defined as part of L-Platform templates. Therefore, functions are added to the ROR Console and commands as part of L-Platform template management.



The L-Platform templates related to the software parameter setting function are explained below.

- **Software setup information**

  A list of parameters that can be set in the software and the method for setting the parameters can be defined. However, the software setup information only defines parameters. Therefore, a relationship must be set with the corresponding software information. The information that sets the relationship between the software setup information and the software information is registered for some middleware.

- **Parameter information**

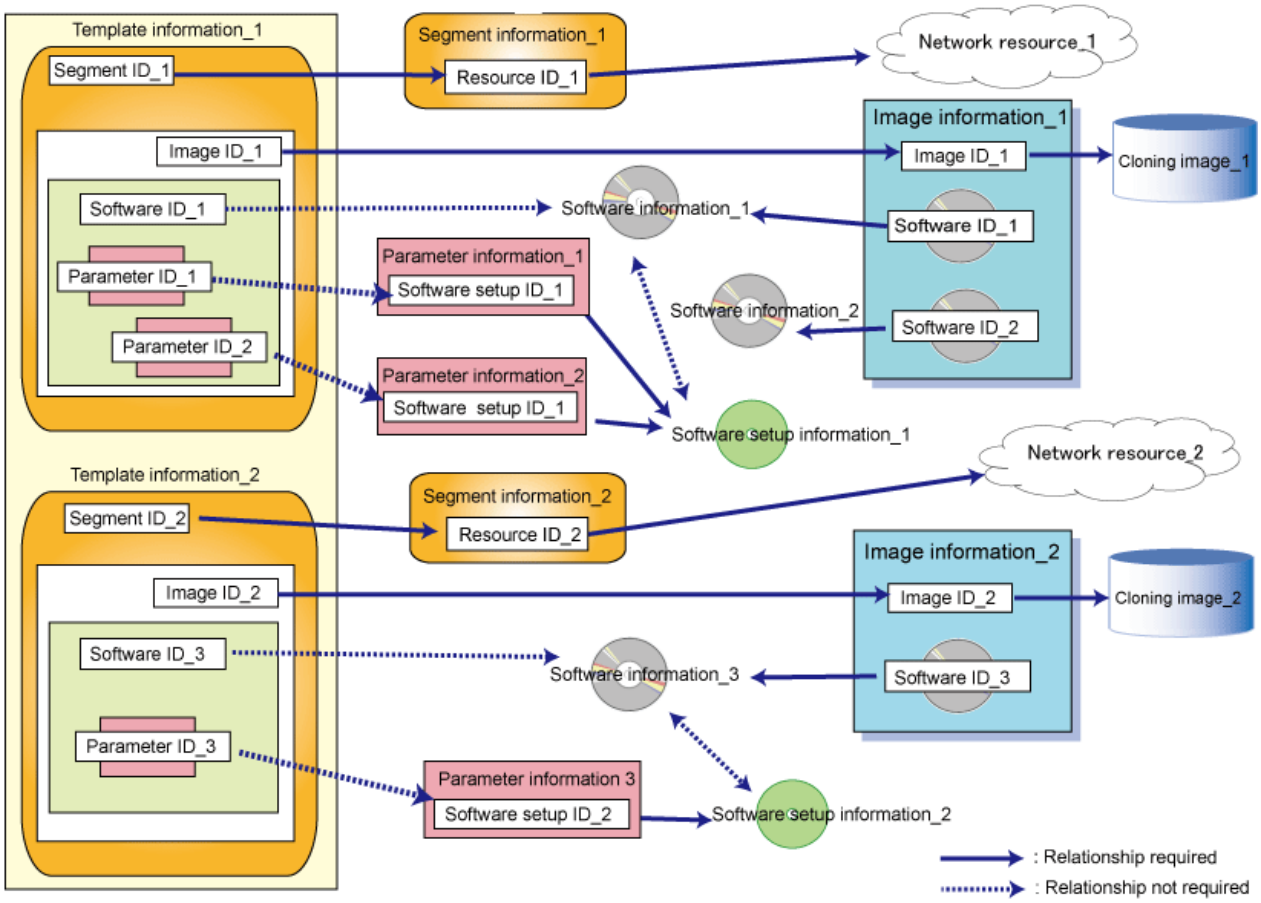
  The values to be set for the parameters defined in the software setup information can be defined. Select from a combo box in the window to specify the parameter values. The parameter information is what defines this one option.

- **Template information**

  The template information defines the networks, L-Servers, disks, and other components of an L-Platform. The value options to be set in the software parameters can also be defined in the template information. The values to be set in the parameters are specified in the parameter information. Select from a combo box in the window to specify the parameter values. These options can be defined.

The figure below shows the relationships between the various types of information that comprise an L-Platform template.

Figure 1.1 Relationship between the files that make up the L-Platform template



Creating of Cloning image

When a cloning image is to be created, the following procedures specific to this function are required:

1. Agent installation at the L-Server

   Communication with the L-Server deployed from the Admin Server is required in order to set parameters in the software. Therefore, the Systemwalker Software Configuration Manager agent must be installed on the L-Server.

2. Middleware for which the software information is registered

   Follow the middleware installation procedures to install the middleware for which the software information is registered. If middleware is installed using these procedures, it will operate correctly after deployment. For middleware that is affected when the operating system IP address or host name is changed, the software parameter setting function sets the new IP address or host name after deployment.

1.3 Software Environment

This section lists the software required to install this product.

1.3.1 Operating Systems

This product runs with the following operating systems.

Admin Server

Same as the operating system running ServerView Resource Orchestrator V3 Cloud Edition.

Managed Server

- VMware
- Hyper-V
- Windows
- Linux

L-Server OS (32-bit Agent)

- Windows Server 2012 (for x64) (*1)
- Windows Server 2012 R2 (for x64) (*1)
- Windows Server 2008 (for x86)
- Windows Server 2008 (for x64) (*1)
- Windows Server 2008 R2 (*1)
- Windows Server 2003 R2 (for x86) (Service Pack 2 or later)
- Windows Server 2003 R2 (for x64) (Service Pack 2 or later) (*1)
- Red Hat Enterprise Linux 5 (for x86)
- Red Hat Enterprise Linux 5 (for Intel64) (*2)
- Red Hat Enterprise Linux 6 (for x86)
- Red Hat Enterprise Linux 6 (for Intel64) (*2)

L-Server OS (64-bit Agent)

- Windows Server 2012 (for x64)
- Windows Server 2012 R2 (for x64)
- Windows Server 2008 (for x64)
- Windows Server 2008 R2
- Windows Server 2003 R2 (for x64) (Service Pack 2 or later)
- Red Hat Enterprise Linux 5 (for Intel64)
- Red Hat Enterprise Linux 6 (for Intel64)

*1: Runs as a 32-bit application on the WOW64 (Windows 32-bit On Windows 64-bit) subsystem.

*2: Runs in 32-bit compatibility mode.

Note

Not supported if the managed server is Hyper-V and the L-Server operating system is Red Hat Enterprise Linux.

1.3.2 Required Software

The required software is listed below:

Admin Server

- ServerView Resource Orchestrator V3 Cloud Edition

L-Server

- Systemwalker Software Configuration Manager V15

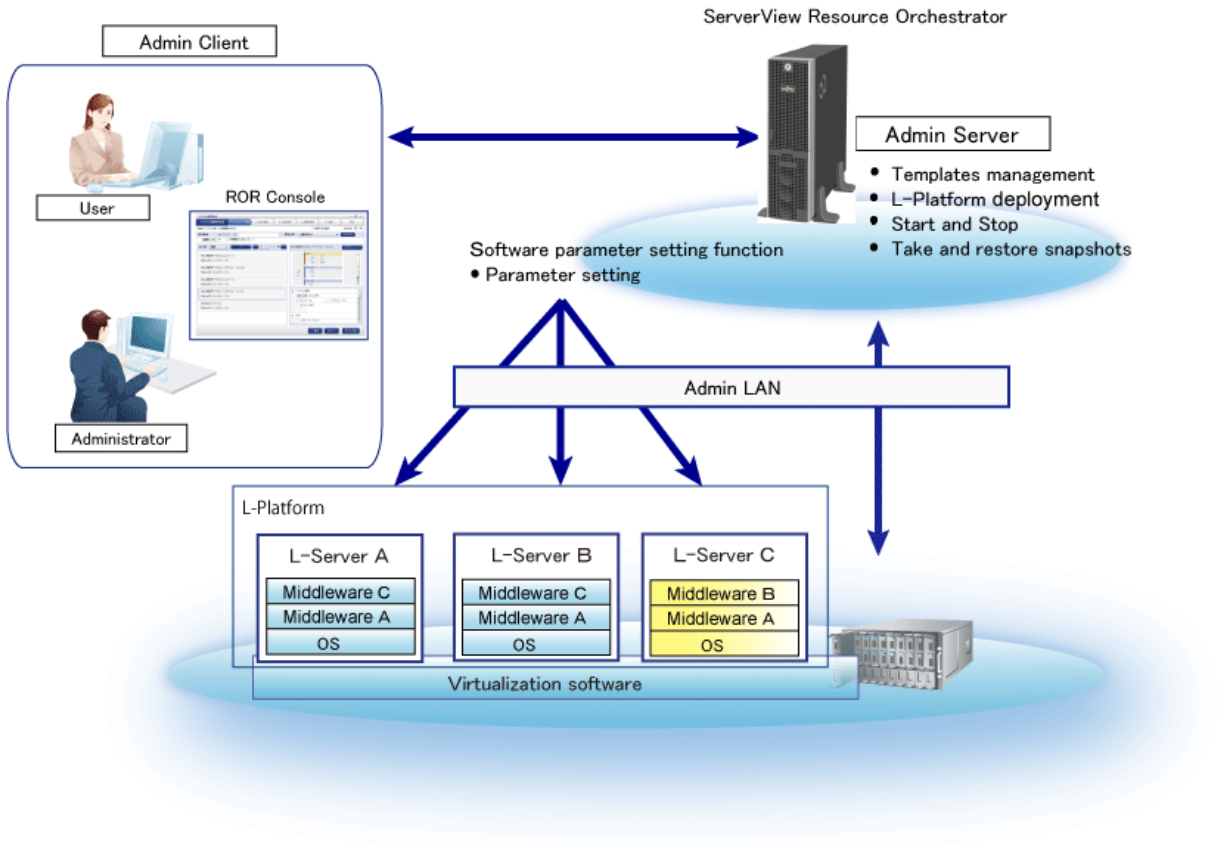
1.4 Hardware Environment

If this function is used, the ServerView Resource Orchestrator V3 Cloud Edition hardware conditions must be met.

1.5 System Configuration

This section explains the system configuration when this function is used.
The system configuration is the same as for ServerView Resource Orchestrator. However, the parts requiring connection between the Admin Server and the L-Server by the Admin LAN are different.

Figure 1.2 System Configuration



Admin Server

Server in which ServerView Resource Orchestrator runs.
The software parameter setting function also runs here. This is the server that manages templates, deploys L-Platforms, takes and restores snapshots, and performs other management operations.

Admin Client

Client used to perform operations on the Admin Server for ServerView Resource Orchestrator.

Managed Server

Managed servers run VMware, Hyper-V, or other server virtualization software, and are managed by the Admin Server.

L-Platform

A resource used for the consolidated operation and management of systems such as multiple-layer systems (Web/AP/DB) comprised of multiple L-Servers, storage, and network devices.
L-Platforms are deployed under server virtualization software on managed servers.

L-Server (business server)

A resource defined using the logical specifications (number of CPUs, amount of memory, disk capacity, number of NICs, etc.) of the servers, and storage and network devices connected to those servers.
The software parameter setting function communicates with the deployed L-Server and sets the software parameters. Communication is via the Admin LAN.

Admin LAN

The LAN used by the Admin Server to manage managed servers and L-Servers.
The Admin LAN is installed separately from the business LAN used for performing business tasks at the managed servers and L-Servers.
The Admin Server and L-Servers must be connected by the Admin LAN if the software parameter setting function is to be used.

Part 2 Introduction

This part explains the operations and settings required when installing the software parameter setting function.

Chapter 2 Setup

This chapter explains the ServerView Resource Orchestrator setup tasks.

2.1 Setup Tasks

ServerView Resource Orchestrator setup is required in order to use the software parameter setting function. The setup tasks are shown below. These tasks must be performed by a superuser.

- Changing manager settings

  The manager settings must be changed in order to enable the software parameter setting function.
  Manager is the ServerView Resource Orchestrator program that runs on the management server. It manages and controls resources registered with ServerView Resource Orchestrator.

- Registering middleware information

  Middleware software information and software setup information is not registered in ServerView Resource Orchestrator. Therefore, commands must be used to register this information.

- Checking the Port Number

  The software parameter setting function communicates between the Admin Server and deployed L-Servers. Therefore, check the Admin Server port number.

2.1.1 Changing Manager Settings

Change the manager settings and enable the software parameter setting function.

Follow the procedure below to change the settings:

1. Open the definition file in a text editor. The definition file is stored in the following location:

   [Windows]

   ```
   <ServerView Resource Orchestrator installation directory>\RCXCFMG\config\vsys_config.xml
   ```

   [Linux]

   ```
   /etc/opt/FJSVcfmg/config/vsys_config.xml
   ```

2. Add the following keys and values:

Key name	Content
use-mwsetup	no : Disables the software parameter setting function yes : Enables the software parameter setting function

   A specification example is shown below:

   ```
   <?xml version="1.0" encoding="UTF-8"?>
   <!DOCTYPE properties SYSTEM "http://java.sun.com/dtd/properties.dtd">
   <properties>
       :
       <entry key="use-mwsetup">yes</entry>
   </properties>
   ```

3. Save the file.

4. Start the manager.

   Refer to "Starting and Stopping the Manager" in the "ServerView Resource Orchestrator Cloud Edition "for information on how to start the manager.

2.1.2 Registering Middleware Information

Register the middleware software information and the software setup information.

Refer to "Chapter 15 Software Information and Software IDs" and "Chapter 16 Registered Software Setup IDs" for registered software information and software setup information. Software IDs are determined at the time of command execution.

Follow the procedure below to register middleware information. Execute two commands that register the middleware information.

1. Execute commands after the manager has been started.
2. Execute the command that registers the first item of the middleware information. The command storage locations are as follows:

   [Windows]

   ```
   <ServerView Resource Orchestrator installation directory>\RCXCFMG\bin\cfmg_registermwsetup.bat
   ```

   [Linux]

   ```
   /opt/FJSVcfmg/bin/cfmg_registermwsetup
   ```

3. Execute the command that registers the second item of the middleware information. The command storage location is shown below.

   [Windows]

   ```
   <Systemwalker Software Configuration Manager installation directory>\templates
   \swcfmg_registermwsetup.bat
   ```

   [Linux]

   ```
   /opt/FJSVcfmgm/templates/swcfmg_registermwsetup
   ```

4. Checking messages

   If the command succeeds, the message below is displayed. The software ID starting with the "start" ID and ending with the "end" ID has been registered.

   ```
   INFO: SPAC00003: The registration processing is completed. [start=SW00000010, end=SW00000057]
   ```

   If an error message is output, check the message explanation. Refer to "Chapter 21 Software Parameter Setting Command Messages" for message details

2.1.3 Checking the Port Number

Check whether the port number that will be used in the admin server is already being used.

Execute the following command to output the port number usage status:

```
netstat -an
```

The following checks and settings will be required.

- The following ports must be opened to receive data from external servers:

All the ports referred to in "Port Number for Receiving Data from External Servers" must be set.

Port Number for Receiving Data from External Servers

Function	Port number/ protocol used	May be modified
File Transfer Infrastructure	9664/tcp	Possible

Chapter 3 Install the Agents

This chapter explains the procedures for installing Systemwalker Software Configuration Manager agents.

Agent is the Systemwalker Software Configuration Manager program that runs on L-Servers. It communicates with L-Servers, which are deployed from the management server, to set parameters of software.

If cloning images are to be created, install the Systemwalker Software Configuration Manager agent on the Infrastructure Administrator's L-Server. The software to be installed is the "Systemwalker Software Configuration Manager V15 Business Server".

The installation procedure is explained below.

The installation tasks should be performed by the superuser.

- Pre-installation
- Pre-installation Notes
- Installation

3.1 Pre-installation

This section explains the tasks required before installation.

3.1.1 Checking the Port Number

Check whether the port number that will be used in the agent of Systemwalker Software Configuration Manager is already being used.

Execute the following command to output the port number usage status:

```
netstat -an
```

The following checks and settings will be required.

- The following ports must be checked to see whether they are being used by another product:

  All ports must be checked.

- The following ports must be opened to receive data from external servers:

All the ports referred to in "Port Number for Receiving Data from External Servers" must be set.

Port Number for Receiving Data from External Servers

Function	Port number/ protocol used	May be modified
File Transfer Infrastructure	9664/tcp	Possible

3.1.2 System Parameter Tuning [Linux]

The system parameters will require tuning.

System Parameter Tuning Values

For information on which system parameters must be tuned, and what the values will be, refer to the system parameter tuning values shown below.

- Semaphore

  When setting values for the semaphore, specify each parameter value in the following format:

```
kernel.sem = para1 para2 para3 para4
```

Parameter	Description	Value	Type
para1	Maximum number of semaphores per semaphore identifier	1	Maximum
para2	Number of semaphores system-wide	2	Addition
para3	Maximum number of operators per semaphore call	1	Maximum
para4	Number of semaphore operators system-wide	2	Addition

- Message queue

Parameter	Description	Value	Type
kernel.msgmnb	Value for the maximum number of messages that can be retained in one message queue	106496	Maximum
kernel.msgmni	Value for the maximum number of message queue IDs	1024	Addition

Settings in Accordance with Parameter Type

Configure the settings shown below according to the parameter "Type".

When Type is Maximum

If the values that have already been set (default values or values from previous settings) are the same as or greater than those in the tables shown below, they will not need to be changed. If they are lower than the values in the tables shown below, change them to these values.

When Type is Addition

Add the values in the tables shown below to those that have already been set (default values or values from previous settings). Before adding these values, check the system limit. If the addition of these values will cause the system limit to be exceeded, set the system limit instead.

Refer to "Linux manuals" for details.

Tuning Tasks Procedure

Perform tuning using the following procedure:

1. Use the following command to check the value for the corresponding parameter set for the current system:

```
# /sbin/sysctl -a
```

Example

```
# /sbin/sysctl -a
...
  (Omitted)
...
kernel.sem = 250 32000 32 128
...
kernel.msgmnb = 65536
kernel.msgmni = 16
```

```
...
  (Omitted)
...
```

2. Refer to "System Parameter Tuning Values" and compare the listed value with the one currently set. Calculate a new value that will be appropriate, considering the Maximum and Addition types for each parameter.

3. Edit /etc/sysctl.conf. Edit this as shown in the example below.

Example

```
kernel.sem = 250 32002 32 130
kernel.msgmnb = 106496
kernel.msgmni = 1040
```

4. Using the following command, check that the edited content for /etc/sysctl/conf was set:

```
# /bin/cat /etc/sysctl.conf
```

5. To enable the settings in 4., perform one of the following procedures:

   - Reboot the system

```
# /sbin/shutdown -r now
```

   - Execute the command /sbin/sysctl -p

```
# /sbin/sysctl -p /etc/sysctl.conf (Note)
```

   Note: If this command was used, there will be no need to reboot the system.

6. Check that the system parameter set is reflected in the output of the following command:

```
# /sbin/sysctl -a
```

Example

```
# /sbin/sysctl -a
...
  (Omitted)
kernel.sem = 250 32002 32 130
...
kernel.msgmnb = 106496
kernel.msgmni = 1040
...
  (Omitted)
...
```

3.2 Pre-installation Notes

This section explains points to note before you install the agent.

Mandatory software for Linux

Install the software shown below, which is provided with the operating system (refer to the operating system manual before installing it).

- redhat-lsb packages

On Red Hat Enterprise Linux 6 (for Intel64) environments, install the 32-bit version of the following software provided with the operating system. Refer to the operating system manual for the installation procedure. [Linux]

- expat package
- glibc package
- libattr package
- libcap package
- libgcc package
- libstdc++ package
- nss-softokn-freebl package
- zlib package

Installation of the required function

- The following function required for running the Systemwalker Software Configuration Manager agent is installed:
  - File transfer infrastructure

When the Systemwalker IT Change Manager V14.1.0 agent is installed [Windows]

Before installing the Systemwalker Software Configuration Manager agent in an environment where the Systemwalker IT Change Manager V14.1.0 agent is installed, uninstall the Systemwalker IT Change Manager V14.1.0 agent. Install the Systemwalker Software Configuration Manager agent, and then the Systemwalker IT Change Manager V14.1.0 agent.

3.3 Installation

Install the agents of Systemwalker Software Configuration Manager L-Server server.

Perform the installation on each of the Windows and Linux machines if necessary.

Refer to "Installation" in the *Systemwalker Software Configuration Manager Installation Guide* for details.

Chapter 4 Uninstallation of Agent

This chapter explains the procedure for uninstalling Systemwalker Software Configuration Manager agents.

The uninstallation procedure is explained below.

The uninstallation tasks should be performed by the superuser.

- Pre-uninstallation Notes
- Uninstallation
- Post-uninstallation

4.1 Pre-uninstallation Notes

Use the following procedure to uninstall Systemwalker Software Configuration Manager in an environment where the Systemwalker Software Configuration Manager agent and the Systemwalker IT Change Manager V14.1.0 agent have been installed on the same business server:

1. Uninstall the Systemwalker IT Change Manager V14.1.0 agent.
2. Uninstall the Systemwalker Software Configuration Manager agent.

To continue using either the Systemwalker Software Configuration Manager agent or the Systemwalker IT Change Manager V14.1.0 agent, install the agent again.

4.2 Uninstallation

Uninstall the agents of Systemwalker Software Configuration Manager from the L-Server server.

Perform the uninstallation from each of the Windows and Linux machines if necessary.

Refer to "Uninstallation" in the *Systemwalker Software Configuration Manager Installation Guide* for details.

4.3 Post-uninstallation

Refer to "Post-uninstallation Notes" in the *Systemwalker Software Configuration Manager Installation Guide* for information on post-uninstallation tasks.

Part 3 Operation

This part explains the operation of the software parameter setting function.

Chapter 5 Operation Procedures

This chapter explains the procedure for creating L-Platform templates and explains L-Platform subscriptions.

The operation procedures for the software parameter setting function must be added to the ServerView Resource Orchestrator operation procedures in order to use this function. The relevant ServerView Resource Orchestrator operation procedures are those shown below.

- Creating L-Platform Templates
- L-Platform Subscriptions

The subsequent explanations provide explanations of software parameter setting function procedures and provide reference destinations in other manuals for information on ServerView Resource Orchestrator procedures.

5.1 Creating L-Platform Templates

This section explains the procedures up to and including the creation of L-Platform templates.

These procedures create new resources, but already created resources can also be used.

1. Creating L-Server Templates
2. Obtaining the Cloning Image
    a. Creating the Infrastructure Administrator's L-Server
    b. Installing the operating system manually
    c. Installing the Required Software
    d. Installing the Middleware and Software
    e. Obtaining the Cloning Image
3. Creating L-Platform Templates
    a. Creating L-Server Templates
    b. Creating Software information
    c. Creating Image information
    d. Creating Segment information
    e. Creating Software setup information
    f. Creating Parameter information
    g. Creating Template information

5.1.1 Creating L-Server Templates

Create an L-Server template that can define L-Server specifications. This is required when creating an Infrastructure Administrator's L-Server or when creating an L-Platform template. Refer to "Creating L-Server Templates" in the "ServerView Resource Orchestrator Cloud Edition Setup Guide" for details of procedures.

5.1.2 Obtaining the Cloning Image

Obtain the cloning image that will become the system disk (disk where the operating system is installed) of the server to be deployed.

The procedures specific to the software parameter setting function are those in "Installing the Required Software" and "Installing the Middleware and Software". Refer to "Collecting and Registering Cloning Images" in the "ServerView Resource Orchestrator Cloud Edition Setup Guide" for the other procedures.

1. Creating the Infrastructure Administrator's L-Server

    Create the Infrastructure Administrator's L-Server in order to obtain a cloning image.

2. Installing the operating system manually

   Install the operating system on the L-Server. If VMware is to be used, install VMware Tools in the operating system.

3. Installing the Required Software

   Install the agent for this product.

   Refer to "Installing on Business Servers" in the "Installation Guide" for installation and setup details.

   Note

   This is not necessary if it was installed when Systemwalker Runbook Automation was installed.

4. Installing the Middleware and Software

   Install the required middleware and software.

   There are installation procedures shown for enabling the server virtualization software to operate operating systems and middleware correctly. Refer to "Appendix A Individual Processing for Operating Systems and Middleware (Creating L-Server)" for details.

5. Obtaining the Cloning Image

   Stop the L-Server, and obtain the cloning image.

5.1.3 Creating L-Platform Templates

Create an L-Platform template that can define L-Platform specifications.

Procedures specific to the software parameter setting function are part of "Creating Software setup information", "Creating Parameter information" and "Creating Template information". Refer to "Template" in the "ServerView Resource Orchestrator Cloud Edition User's Guide for Infrastructure Administrators" or "ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators" for the other procedures.

1. Creating L-Platform Templates

   If using the GUI to create the L-Platform template, use the ROR Console **Template** tab to perform tasks.

2. Creating software information

   Create the software information that defines software configuration included in the image.

   Software information that is already registered can also be used. Refer to "Chapter 15 Software Information and Software IDs", or refer to "Registered Software IDs" in the "ServerView Resource Orchestrator Cloud Edition Reference Guide (Command/XML)" for details.

3. Creating image information

   Create the image information that defines the image configuration.

4. Creating segment information

   Create the segment information that defines the network resource configuration.

   If the software parameter setting function is to be used, an Admin LAN is required in order to connect the Admin Server and the L-Server.
   Refer to "6.3 Admin LAN Settings" for a detailed explanation.

5. Creating software setup information

   Create software setup information that defines the configuration of the parameters that can be set in software. If you want to set the software parameters when the L-Platform is deployed, create software setup information. Software setup information that is already registered can also be used.

   Refer to "Chapter 16 Registered Software Setup IDs" for information on the registered software setup information.

   Refer to "6.2 Parameter Value Settings" for a detailed explanation.

   Refer to "7.3 Software Setup Information and Parameter Information Operations" for information on GUI operations.

Refer to" Chapter 10 L-Platform Template Management Commands" for information on command operations.

6. Creating parameter information

   Create parameter information that defines the values to be set in software parameters. Create parameter information if you want to customize the values set by the software setup information.

   Refer to "6.2 Parameter Value Settings" for a detailed explanation.

   Refer to "7.3 Software Setup Information and Parameter Information Operations" for information on GUI operations.

   Refer to "Chapter 10 L-Platform Template Management Commands" for information on command operations.

7. Creating Template information

   Create template information that defines the L-Platform template configuration. The options for the values to be set in software parameters can also be defined in this L-Platform template.

   Refer to "6.2 Parameter Value Settings" and "6.3 Admin LAN Settings" for detailed explanations.

   Refer to "7.4 Template Information Operations" for information on GUI operations.

   Refer to "Chapter 10 L-Platform Template Management Commands" for information on command operations.

5.2 L-Platform Subscriptions

This section explains the L-Platform subscription procedure.

1. L-Platform subscriptions
   a. New L-Platform subscriptions
   b. L-Platform reconfiguration
   c. Subscription applications
2. Middleware setup
3. Actions when errors occur

5.2.1 L-Platform Subscriptions

L-Platform subscription is used to deploy the L-Platform defined by the L-Platform template.

The procedures specific to the software parameter setting function are part of "L-Platform reconfiguration". Refer to "L-Platform" in the "ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators" or in the "ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Users" for information on the other procedures.

1. New L-Platform subscriptions

   To use the GUI for a new L-Platform subscription, use the ROR Console **L-Platform** tab to perform tasks.

2. L-Platform reconfiguration

   If L-Platform template reconfiguration is possible, change the L-Platform configuration. During reconfiguration, the values to be set in the software parameters can be selected.

   Refer to "8.2 Software Reconfiguration" for information on the GUI operations.

3. Subscription applications

   When L-Platform template changes are completed, apply for an L-Platform subscription.

   After L-Platform deployment, an error might be output to the event log.

5.2.2 Middleware Setup

After the L-Platform is deployed, the middleware must be set up. Refer to "Appendix B Individual Processing for the Operating System and Middleware (After Deployment)" for details.

5.2.3 Actions When Errors Occur

Check event log errors. Then, check the contents of investigation logs.

Refer to "Chapter 18 Event log" and "9.1 Log Output" for errors specific to the software parameter setting function.

Chapter 6 Function Details

This chapter explains the following details of the software parameter setting function:

- Parameter Definitions
- Parameter Value Settings
- Admin LAN Settings

6.1 Parameter Definitions

Use the following functions to define software parameters:

- Software Setup Information

  Use the software setup information to define the parameters that can be set in the software. These files specify the parameters that can be setup in software, including key names, default values, and the setup method.

- Association of software setup information

  Software setup information files define the parameters that can be set up in software; however, they do not specify the target software. To do this, software setup information and software information files must be associated. When this association is set, normally the parameter default values are set in the software.

- Software Setup Script

  The software setup script actually sets the parameters in the software. These scripts are forwarded to virtual servers and executed on them.

- Package file

  The software setup scripts are in a package file compressed in ZIP format and are associated with the software setup information.

- Variables that can be specified in values

  Variables can be coded as default values.

6.1.1 Software Setup Information

The software setup information codes parameter lists (key names, types, and default values) and the setting methods.

The parameter list should include all parameters that can be setup.. Each parameter is expressed as a key name and a default value. However, the default value can be omitted or written as a variable.

The parameter setup method specifies how to set up the parameter values in the software. Users can select either a patch file software setup script for Windows or a shell script software setup script for Linux.

There are two types of software setup information:

a. Software setup information provided with this product

b. Software setup information created by the user

For a., refer to "Chapter 16 Registered Software Setup IDs".

b. can be created using the GUI or commands. Refer to "7.3 Software Setup Information and Parameter Information Operations" and "10.2 Software Information Manipulation Commands" for information on GUI and command operations.

6.1.2 Association of Software Setup Information

Software setup information files define the parameters that can be set up in software; however, they do not specify the target software. To do this, software setup information and software information files must be associated.

Multiple software information files can be associated with one software setup information file. Because of this, even if multiple editions exist in the software, the software setup information can be consolidated into one. However, as software setup information cannot contain a mixture of Windows and Linux versions, separate software setup information must be created in such situations.

When software setup information and software information files have been associated, the software setup script created for the parameters runs when the server is deployed. However, the script will not run if all default values in the software setup information have been omitted. These software setup scripts will run if values have been set with parameter information.

6.1.3 Software Setup Script

Software setup scripts are used to set up parameters in software. These scripts are forwarded to virtual servers and executed on them.

Software setup scripts consist of multiple files. The batch files that can be used in Windows and shell scripts that can be used in Linux are defined. An explanation of these files is given below.

- Start up scripts

  Start up scripts are always called first.

  These scripts have fixed file names; startup.cmd for batch files and startup.sh for shell scripts. During processing of these scripts, the input environment variables setup script must be called and the output results must be returned. Other processing can be created for each software package.

- Environment variables setup scripts

  Input into start up scripts is handed over via environment variables. The environment variables setup scripts are the set up these environment variables.

  These scrips have fixed file names; setenv.cmd for batch files and setenv.sh for shell scripts.

  This product generates these environment variables setup scripts from the software setup information and parameter information files.

- File attachments
  Any file can be used in start up scripts.

  If a shell script is included in an attached file, set the execution right inside the shell script start up script.

Format of start up scripts (batch file) [Windows]

Create batch file start up scripts (startup.cmd) in the following format:

First, the environment variables setup script (setenv.cmd) is called. Zero is returned if processing was successful, and if processing failed a value other than 0 is returned. Standard output and standard error output are output in the agent log.

```
@echo off
setlocal
@rem Setup environment variables
call .\setenv.cmd
@rem Software setup processing
<Processing of each software package>
@rem Return (normal) result
if ERRORLEVEL 1 goto ERROR_END
endlocal
exit /B 0
@rem Return (abnormal) result
:  ERROR_END
echo ERROR0001 setup failed 1>&2
endlocal
exit /B 1
```

Format of start up script (shell script) [Linux]

Create the start up scripts of the shell script (startup.sh) in the following format:

First, the environment variables setup script (setenv.sh) is called. Zero is returned if processing was successful, and if processing failed a value other than 0 is returned. Standard output and standard error output are output in the agent log.

```
#!/bin/sh
# Setup environment variables
source ./setenv.sh
```

```
# Software setup processing
<Processing of each software package>
# Return result
if [ $? = "0" ]; then
 # Return normal
 exit 0
else
 # Return abnormal
 echo "ERROR0001 setup failed" 1>&2
 exit 1
fi
```

Format of environment variable setup script (batch file) [Windows]

This product creates batch file environment variable setup scripts (setenv.cmd) in the following format:

Environment variable names are set by the parameter key in the software setup information (parameter information). However, while the parameter key is a combination of numerics and ".", the environment variable name is a name in which "." has been converted to "_". Environment variable values are set by the parameter values in parameter information and software setup information.

```
set Parameter key=Parameter value
<Defines only as many environment variables as there are parameters>
```

Format of environment variables setup script (shell script) [Linux]

This product creates shell script environment variables setup scripts (setenv.sh) in the following format:

Environment variable names are set by the parameter key in the software setup information (parameter information). However, while the parameter key is a combination of numerics and ".", the environment variable name is a name where "." has been converted to "_". Environment variable values are set by the parameter values in parameter information and software setup information.

```
set Parameter key=Parameter value
<Defines only as many environment variables as there are parameters>
```

Note

- **Software setup scripts**
  - Execution sequence

    Software setup scripts are run in the order the software information is written in the image information.
- **Start up scripts**
  - Execute authority

    In Windows, startup scripts are executed by the Administrator.

    In Linux, startup scripts are executed by the superuser.
  - Current directory

    The current directory is the path where the start up script file is stored.
  - Execute authority [Linux]

    Execute authority is automatically set for the start up script shell script on execution.
  - Linefeed

    In Windows versions, linefeed is CR+LF.

    In Linux versions, linefeed is LF.
  - Byte order mark (BOM) [Linux]

    Do not include UTF-8 byte order marks (BOMs) in shell scripts.

- **Environment variables setup scripts**

  - Defining environment variables

    If a parameter value is not set, no environment variable will be defined. Therefore, the start up script determines whether to set the parameter value depending on whether or not an environment variable is defined.

    The method of determining whether an environment variable is defined is as follows.

    For batch files: [Windows]

```
if defined <Environment variable> (<Defined process>) else <Undefined processing>
Example:
set PARAM=%hostname%
if defined parameter_Key1 (set PARAM=-v %parameter_Key1% %PARAM%)
```

    For shell scripts: [Linux]

```
${<Environment variable>+${<Environment variable>}}
Example:
PARAM=${hostname}
PARAM="${parameter_Key1+"-v ${parameter_Key1}"} ${PARAM}"
```

  - Empty string of values [Windows]

    Windows environment values cannot set an empty string. Therefore, batch file empty strings set "__EMPTY__" ("__"is two "_" and "_" in a row). Therefore, please note that "__EMPTY__" cannot be used as a parameter value.

- **File attachments**

  - Execute authority [Linux]

    If a shell script is included in an attached file, set the execution right inside the shell script start up script.

6.1.4 Package File

Package files are one or more files that have been compressed into a ZIP file. Package files are used to associate software setup scripts with software setup information and parameter information. Package files are transferred to a L-Server and then decompressed on the L-Server.

Package files registered in software setup information are called script packages. Package files registered in parameter information are called parameter packages. The software setup scripts included in each individual package file are different, as explained below.

- Script packages

  Include start up scripts and file attachments of software setup script in script packages.

- Parameter packages

  Include file attachments of software setup scripts in parameter packages.

Software setup script execution examples

Script packages and parameter packages are transferred to a virtual server and then decompressed on the virtual server. Environment variable setup scripts generated by this product are also transferred to a virtual server. These software setup scripts are stored in a work directory on the virtual server according to the following structure. The directory in which the start up script is stored is regarded as the current directory and the start up script is executed.

```
<Work directory>
+ <Software ID>
  + scriptpkg
    + Start up script (startup.cmd, startup.sh)
    + Environment variable setup script(setenv.cmd,setenv.sh)
    + Script package file attachments
 + parampkg
    + Paramter package file attachments
```

The directories are explained below.

- Software ID directory

  Create an independent directory for each software package. The name of this directory becomes the software ID.

- scriptpkg directory

  The start up script and file attachments that decompressed the script package are stored in the Scriptpkg directory. The environment variable setup script is also stored in this directory.

- parampkg directory

  The file attachment that decompressed the parameter package is stored in the Parampkg directory. Ensure that the file attachment is referenced using a relative path when parameter package file attachments are used from the start up script.

Note

- **Package files**
  - Storage location of start up scripts

    Store start up scripts in a ZIP file route not under a directory.

    If a start up script is stored under a directory that script cannot be executed.
  - File names

    Please specify file names in ASCII characters.
  - Files deleted

    Files transferred to a L-Server are deleted after the script has executed.

6.1.5 Variables that can be Specified in Values

When specifying values (computer name, host name, IP address) that are determined after the L-Server is deployed, create variables in the parameter values.

Create variables in the following format:

```
#{Variable name}
Example:
<value>#{server.os.computername}</value>
```

Variables list

The following table describes the variables that can be used:

Variable name	Description
server.os.computername	Computer name/Host name
server.nic.ipaddress	IP address IP address of the network interface card (NIC) with the lowest NIC serial number.
server.nic[NIC serial number].ipaddress	IP address The NIC serial number is the variable specified in the template information NIC serial number. This is specified as follows, for example: [1]: IP address of the NIC specified in NIC serial number 1 [2]: IP address of the NIC specified in NIC serial number 2
server.nic[NIC_BUSINESS].ipaddress	IP address The IP address of the NIC connected to a business segment.

Variable name	Description
	If more than one exists, the IP address of the NIC with the lowest number. If none exists, the IP address of the NIC connected to a management segment.
server.nic[NIC_MANAGEMENT].ipaddress	IP address The IP address of the NIC connected to a management segment. If more than one exists, the IP address of the NIC with the lowest number. If none exists, the IP address of the NIC connected to a business segment.
server.nic[NIC_CONTROL].ipaddress	IP address The IP address of the control NIC.

Note

- **Variables**
  - Escape sequence

    If you want to specify the character "#" as a parameter value, escape with "\" like "\#". If you want to specify the character "\", write "\\".

6.2 Parameter Value Settings

Use the following functions to set values in software parameters:

- Parameter Information

  Define parameter information in order to set values in software parameters.

- Parameter settings used by template information

  In template information, define the options for the values to be set in software parameters.

- Package File

  Parameter packages can be registered in parameter information. Refer to "6.1.4 Package File" for details.

- Variables that can be specified in values

  Variables can be coded for values. Refer to "6.1.5 Variables that can be Specified in Values" for details.

6.2.1 Parameter Information

Parameter information is where the parameter values to be set in the software are coded.

Parameters that can set values in software were defined in software setup information files.

The contents to be set in the software can be selected from windows.

This can be achieved by writing selectable parameter information in the template information.

In the parameter list of the parameter information, specify the parameters in the software setup information that set values.

6.2.2 Parameter Settings Used by Template Information

Template information defines an L-Platform template configuration. The options for the values to be set for software parameters can also be defined here.

The contents to be set in the software can be selected from windows. These define two or more parameter information and are specified in template information.

6.3 Admin LAN Settings

The software parameter setting function uses communication from the Admin Server to the deployed L-Server to set software parameters. Therefore, the Admin Server and L-Server must be connected by the Admin LAN.

The following settings are required in order to create an L-Platform template:

- Segment information

  In the network resources, prepare an Admin LAN that connects the Admin Server and the L-Server. Then create segment information for the Admin LAN.

- Template information

  Add the Admin LAN segment information to the template information. Then connect the L-Server to the Admin LAN segment. At this time, specify a control NIC so that the NIC that is connected to the Admin LAN segment can be determined.

Part 4 Operations

This part explains how to operate the functions provided by the software parameter setting function.

Chapter 7 Template

This chapter explains how to create and manage L-Platform templates.

7.1 L-Platform Template Components

This section explains the types of information comprising an L-Platform template.

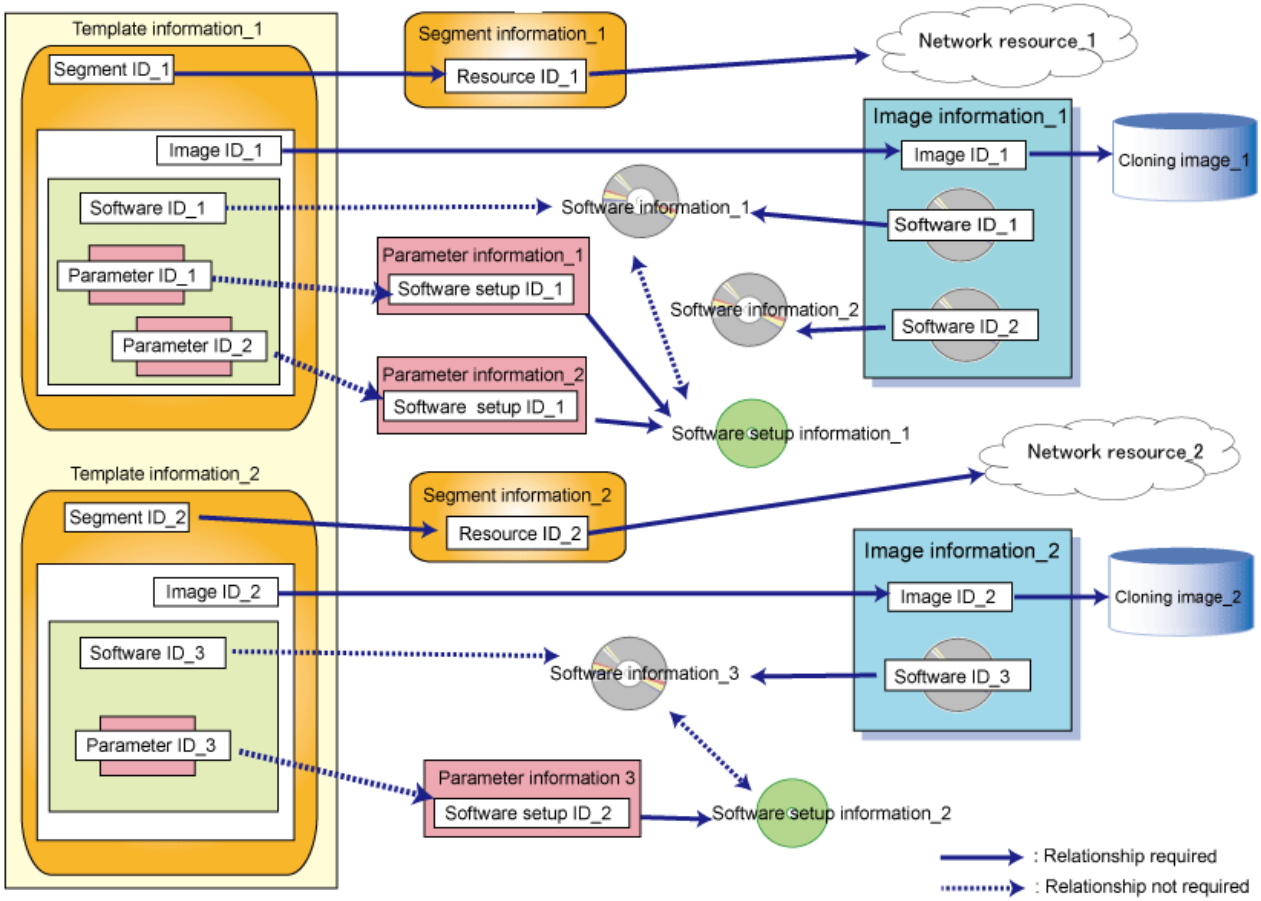
The table below shows the information comprising an L-Platform template.The information specific to the software parameter setting function is the software setup information and the parameter information.

Table 7.1 Information comprising an L-Platform template

Information	Description
Template information	Defines the L-Platform template configuration
Segment information	Defines the network resource configuration
Image information	Defines the cloning image configuration
Software information	Defines the software configuration contained in the cloning image
Software setup information	Defines the parameter configuration that can be set in the software
Parameter information	Defines the values set in the software parameters

The relationship between information comprising the L-Platform template is shown below.

Figure 7.1 Figure the relationship between information comprising the L-Platform template



7.2 L-Platform Template Window

The L-Platform Template window can define the L-Platform template configuration.
This window can be displayed from the ROR Console Template tab by either of the following methods:

- Selecting **Template builder** from the menu
- Clicking the button image of an information type on the **Startup** window

The **L-Platform Template** window is comprised of five tabs. The table below shows the correspondences between the tab names and the information comprising the L-Platform template.

Table 7.2 Correspondences between tab names and the information comprising the L-Platform template

Tab Name	Information
Template	Template information
Segment	Segment information
Image	Image information
Software	Software information
Parameter	Software setup information and Parameter information

The operations specific to the software parameter setting function are "Software setup information and parameter information" and "Parameter settings used by template information". Refer to "Template" in the "ServerView Resource Orchestrator Cloud Edition User's Guide for Infrastructure Administrators" or "ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators" for information on other operations.

7.3 Software Setup Information and Parameter Information Operations

The software setup information lists parameters (key names, type and default values) that will be set in the software and details how to set these.

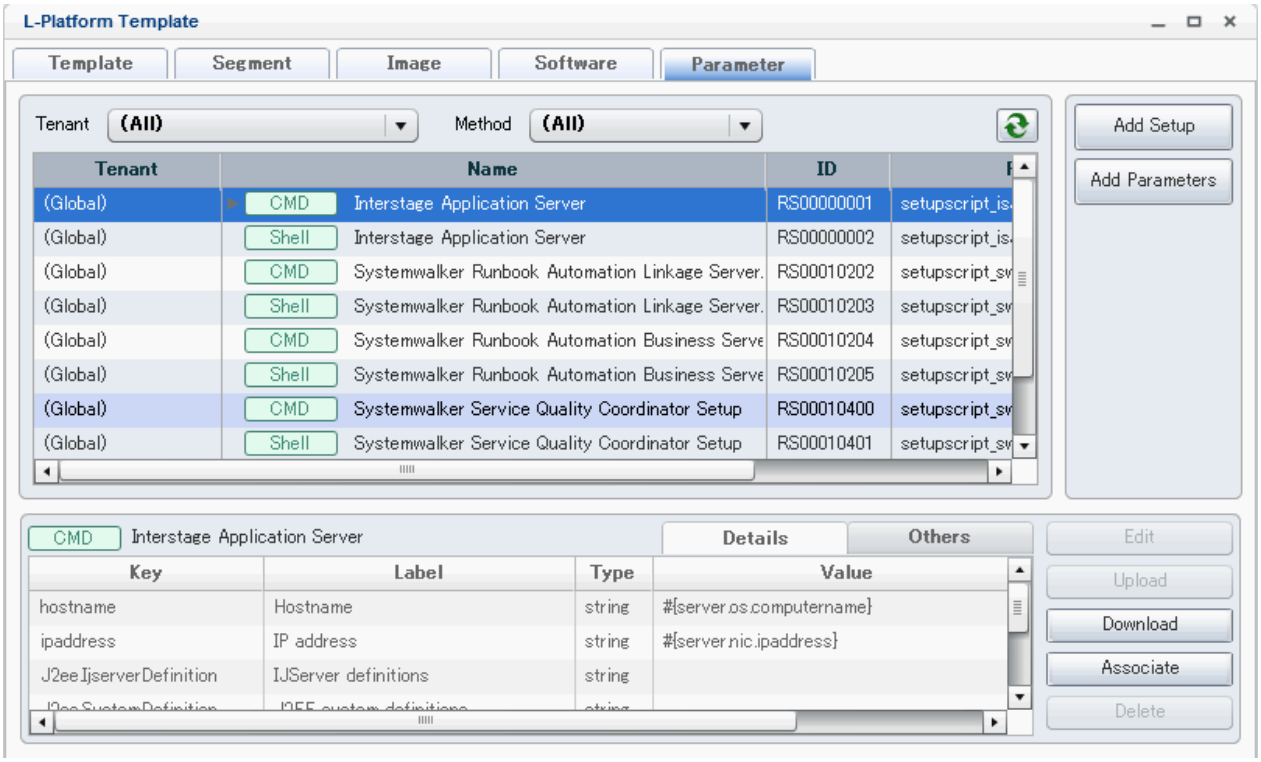
The parameter information allows users to customize the values defined in the software setup information.

The software setup information and parameter information is defined in the **Parameter** tab of the L-Platform Template window.

In the **Parameter** tab, the software setup information or parameter information is displayed in a tree format at the top of the page. When the software setup information or parameter information is selected from the list, details about the selected item will be displayed at the bottom of the page.

Software setup information and parameter information lists can be filtered by tenant and by method (command, shell).
The display order can switch between ascending and descending by clicking the header (name, or ID).

Figure 7.2 Parameter tab



Button	Description
Add Setup	Adds software setup information. Refer to "7.3.1 Adding Software Setup Information" for details.
Add Parameters	Adds parameter information. Refer to "7.3.6 Adding Parameter Information" for details.
Edit	Edits selected software setup information. Refer to "7.3.2 Editing Software Setup Information" for details.
Upload	Uploads package files. Refer to "7.3.4 Uploading Package Files" for details.
Download	Downloads package files. Refer to "7.3.5 Downloading Package Files" for details.
Associate	Associates software setup information and software. Refer to "7.3.9 Software Information Association" for details.
Delete	Deletes selected parameter information. Refer to "7.3.8 Deleting Parameter Information" for details.

7.3.1 Adding Software Setup Information

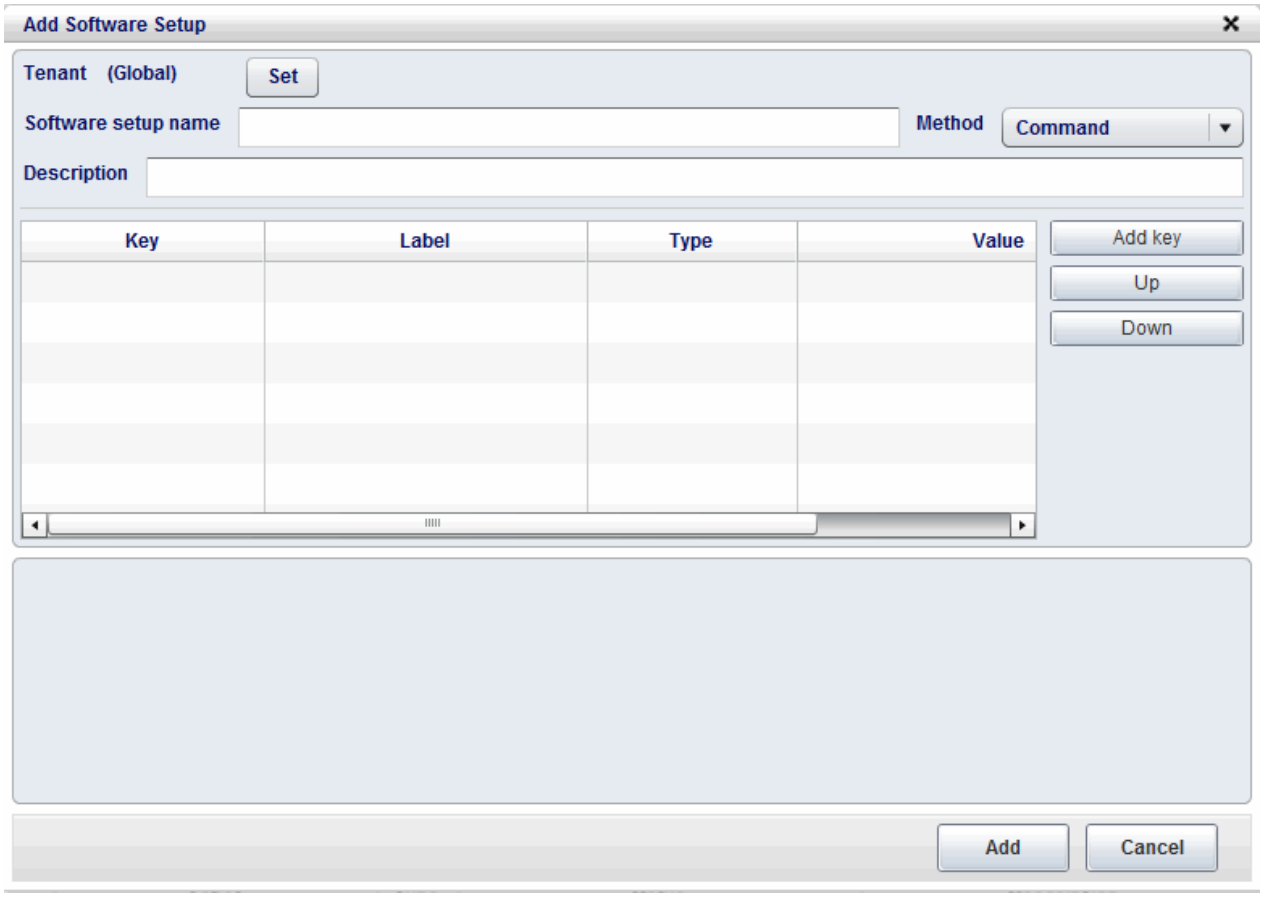
To add the software setup information, define it in the Add Software Setup window.

The procedure to add software setup information is as follows:

1. In the **Parameter** tab, select the software that will be set.

2. Click the **Add** button, The Add Software window will be displayed.

Figure 7.3 Add Software Setup window



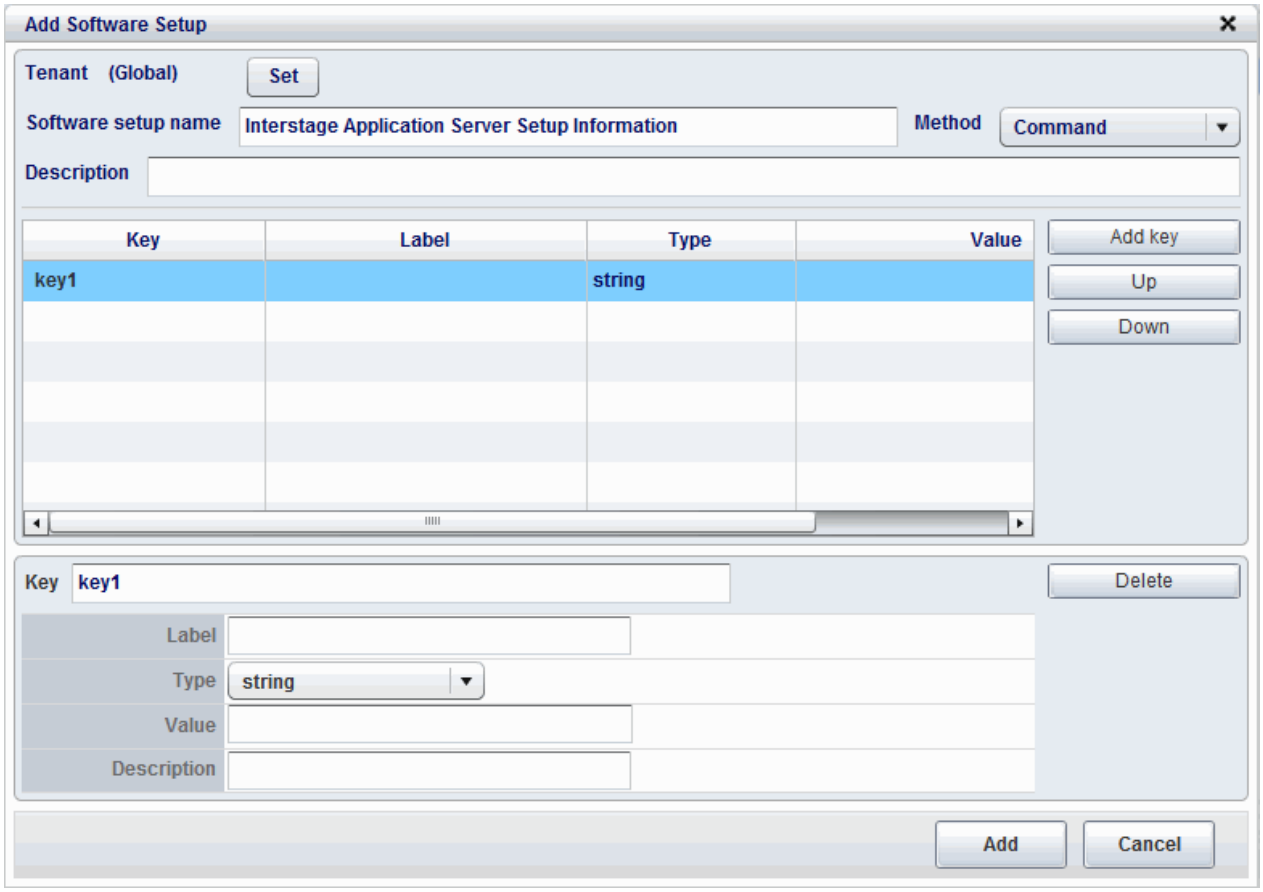
3. Set the following information then click the **Add** button.

Item	Description
Tenant	Click the **Set** button and then, from the **Select Tenant** window, select the tenant to which the software setup information belongs.
Software a setup name	Specify a maximum of 64 characters for the software setup information name.
Method	Select one of the following parameter settings methods: - Command: This calls "startup.cmd" of the startup script. - Shell: This calls "startup.sh" of the startup script.
Description	Enter a maximum of 256 characters for the software setup information description.

4. The information that was entered is displayed, and the input field for the key information will be displayed at the bottom of the page.

   When the values are entered in the input field, they will be reflected in the list at the top of the page automatically.

Figure 7.4 Add Software Setup window (Add Key information)



Item	Description
Key	Specify a maximum of 256 bytes for the parameter key. Characters that can be used are alphanumeric and ".". However, a letter must be used for the initial character. In the default, 'key + "consecutive numbering (from 1)"' is set.
Label	Specify a maximum of 64 characters for the label when the parameters are displayed on the screen.
Type	Select one of the following value types: - boolean: (true, false) - number: (-2,147,483,648 to 2,147,483,647) - string: (An empty string can also be specified) - string (No value was set) In the default, "string" is set.
Value	Specify a maximum of 4096 characters for the parameter value that will be required to run the software at the time of deployment. Parameters not set at deployment will be omitted.
Description	Enter a maximum of 256 characters for the parameter description.

5. Click the **Add** button. A message confirming that the software setup information was added will be displayed, and the software setup information will be added.

Changing keys

When the key is selected from the list, its detailed information will be displayed at the bottom of Add Software Setup.

When detailed information about the key is changed, the content that was changed will be reflected at the top of the Add Software Setup window. However, if a syntax error occurred in the values that were changed, an error message will be displayed and the pre-change values will be restored.

The following items can be changed:

- Key Name
- Label
- Type
- Value that was set
- description

Deleting keys

Select the key to be deleted from the list, then click the **Delete** button. A deletion confirmation message will be displayed.

Click the **Yes** button to delete the key from the list.

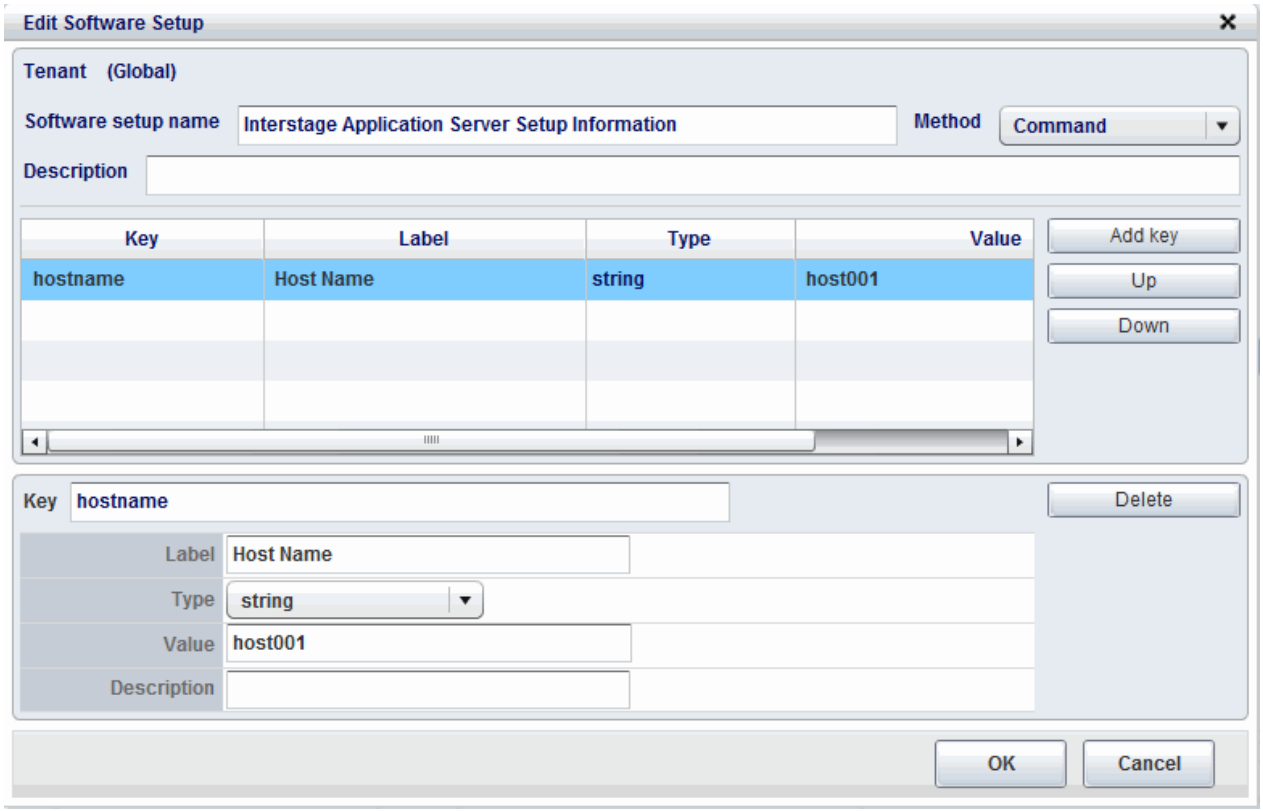
7.3.2 Editing Software Setup Information

The procedure to edit registered software setup information is as follows:

1. In the **Parameter** tab, select the registered software setup information to be edited.

2. Click the **Edit** button. The Edit Software Setup window will be displayed.

Figure 7.5 Edit Software Setup window



3. Edit the information for each item if necessary. The items that were set can be edited in the Add Software Setup window.

   Refer to "7.3.1 Adding Software Setup Information" for information on the content that was specified for each item.

7.3.3 Deleting Software Setup Information

The procedure to delete software setup information is as follows:

1. From the list, select the software setup information to be deleted.
2. Click the **Delete** button to delete the selected software setup information.

   Check whether an existing L-Platform template is using the parameter information associated with the selected software setup information. If there is, an error message will be displayed.

Note

- If there is parameter information associated with the software setup information, delete it.
- If there is software information associated with the selected software setup information, clear the association.

7.3.4 Uploading Package Files

"Package file" refers to one or more compressed files in ZIP format.

Information defined in the software setup information is uploaded as a script package. Information defined in the parameter information is uploaded as a parameter package.

The package file is forwarded to, and then extracted on, the virtual server.

The procedure to upload package files is as follows:

1. In the **Parameter** tab, select the software setup information or parameter information.
2. Click the **Upload** button to start the upload.
3. When the upload is complete, the file name will be displayed for the package displayed in the list in the **Parameter** tab.

The maximum file size that can be uploaded is 2 MB.

7.3.5 Downloading Package Files

The procedure to download package files is as follows:

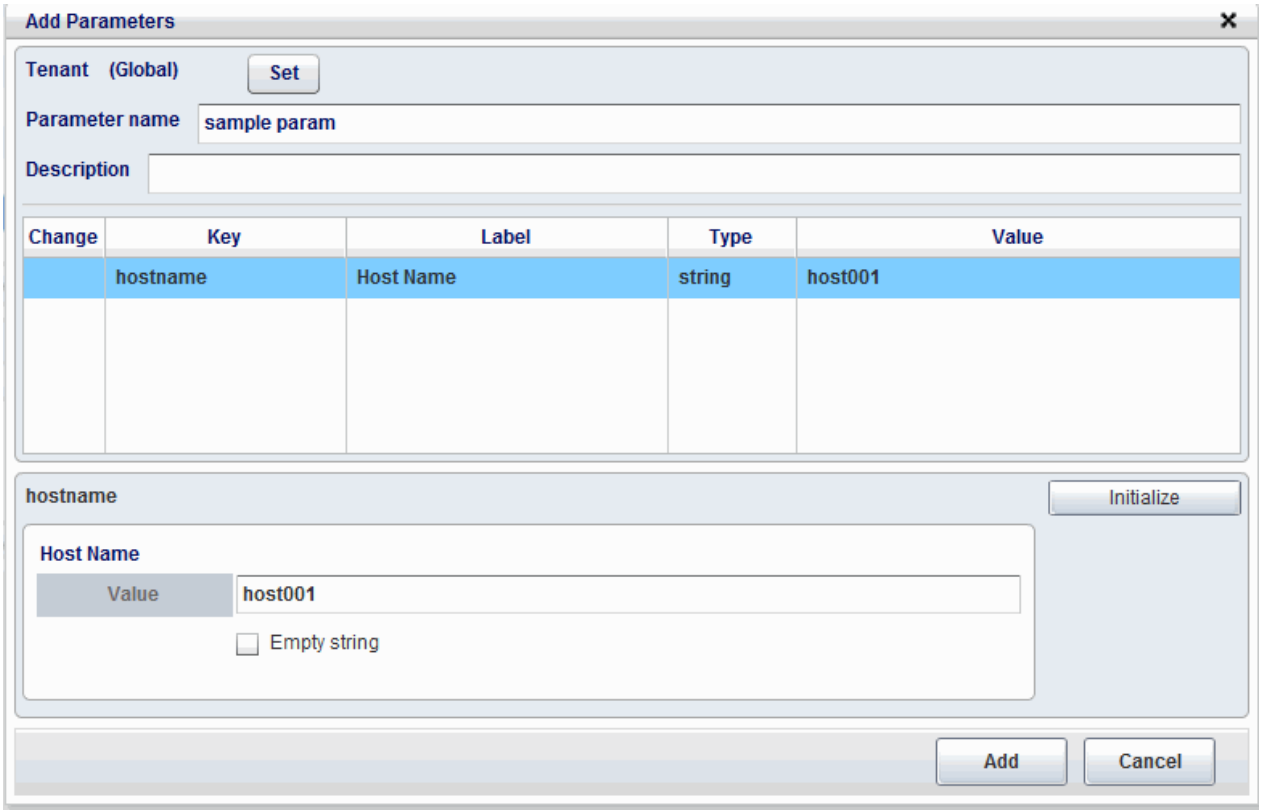
1. In the **Parameter** tab, select the software setup information or parameter information.
2. Click the **Download** button, then specify the download destination for the package file.

7.3.6 Adding Parameter Information

The procedure to add parameter information is as follows:

1. In the **Parameter** tab, select the software setup information or parameter information for the parameter information to be added.
2. Click the **Add** button. The Add parameters window will be displayed.

Figure 7.6 Add Parameters window



Point

- When the type is string and no value has been set, "string(omitted)" will be displayed for the type in the list at the top of the window.
- If the value that was set in the software setup information was changed, Included will be displayed in the Change field.

3. Enter the parameter information.

Item	Description
Tenant	Click the **Set** button and then, from the **Select Tenant** window, select the tenant to which the parameter information belongs.
Parameter name	Specify a maximum of 64 characters for the parameter information name.
Description	Enter a maximum of 256 characters for the parameter information description.
Value	Specify a maximum of 4096 characters for the parameter value of the key that was selected from the list at the top of the window. The default value is the value that was set in the software setup information.

When the settings value is entered, a syntax check will be performed for the value. If the syntax is correct, Included will be displayed in the Change field of the key that was selected.

Point

- If the type is "string", an empty string check box will be displayed below the settings value at the bottom of the page.
- When the key is selected and the **Initialize** button is clicked, Included will disappear from the Change field and the value will be reset to the one that was set in the software setup.

4. Click the **Add** button. A message confirming that the parameter information was added will be displayed, followed by the updated list in the **Parameter** tab.

7.3.7 Editing Parameter Information

The procedure to edit parameter information is as follows:

1. In the **Parameter** tab, select the parameter information to be edited.

Point

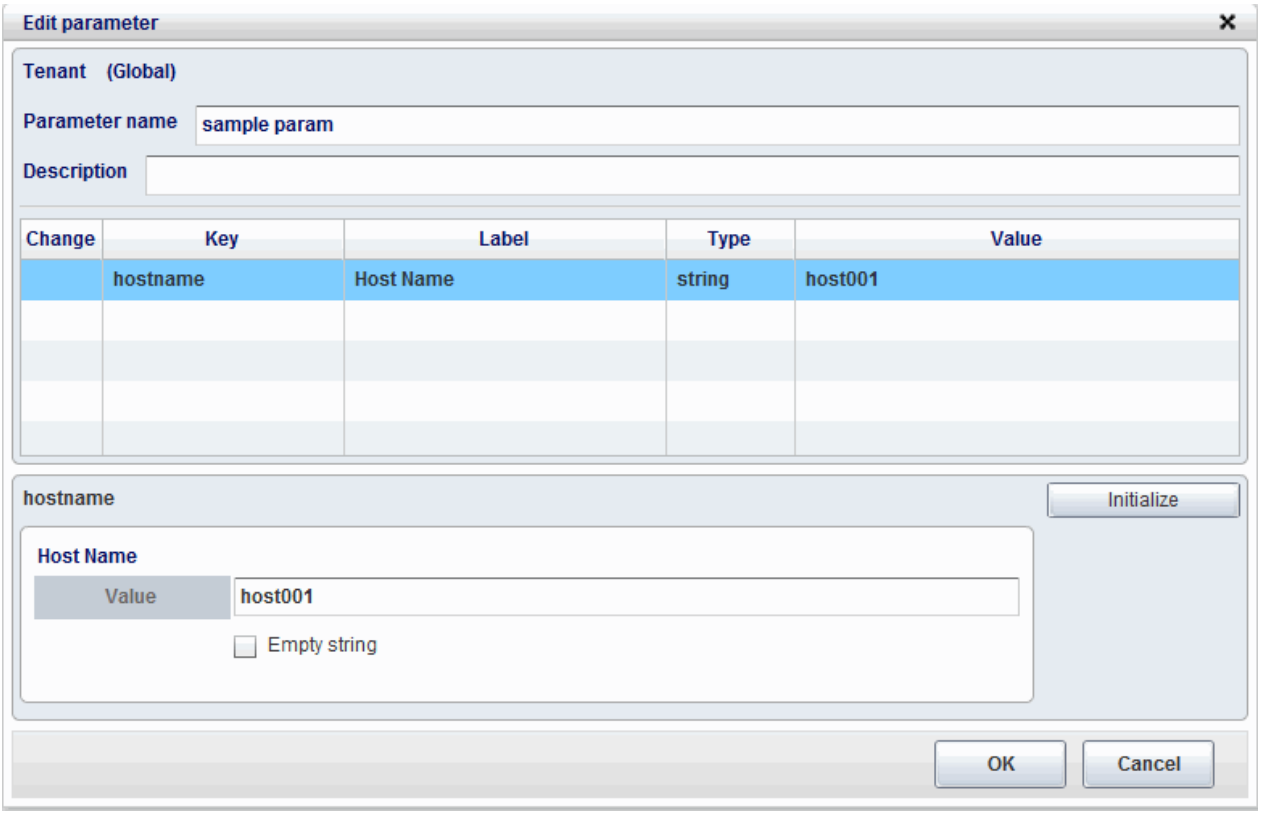
The parameter information will be displayed in tree format below the software setup information.

When the [▶] button before the software setup information is clicked, the parameter information that was added will be displayed.

2. Click the **Edit** button. The Edit parameter window will be displayed.

If the type is "string", an empty string check box will be displayed below the set value at the bottom of the page.

Figure 7.7 Edit parameter window



3. Edit the parameter information if necessary.
4. Click the **Edit** button. A message confirming that the parameter information was edited will be displayed, followed by the updated list in the **Parameter** tab.

Point

- When the parameter information is edited, Included will be displayed in the Change field.
- When the parameter is added, all the items that were specified can be edited.
- The procedure for the Edit parameter window is the same as that of the Add parameter window.

  Refer to "7.3.6 Adding Parameter Information" for details.

7.3.8 Deleting Parameter Information

The procedure to delete parameter information is as follows:

1. In the **Parameter** tab, select the parameter information to be deleted.

   ### Point

   The parameter information will be displayed in tree format below the software setup information.

   When the [▶] button before the software setup information is clicked, the parameter information that was added will be displayed.

2. Click the **Delete** button. A confirmation message will display.
3. Click the **Yes** button to delete the selected parameter information.

   If an existing L-Platform template is using the parameter selected for deletion, an error message will be displayed and the parameter information will not be deleted.

7.3.9 Software Information Association

The parameters that can be set in the software are defined in the software setup information, however the corresponding software has not been specified. For this reason, the software setup information and the software information must be associated.

Multiple software information items can be associated with one software setup information item. For this reason, the software setup information can be aggregated as one item, even if there are multiple editions of the software. However, the Windows and Linux editions cannot coexist. In this case, therefore, separate software setup information must be created.

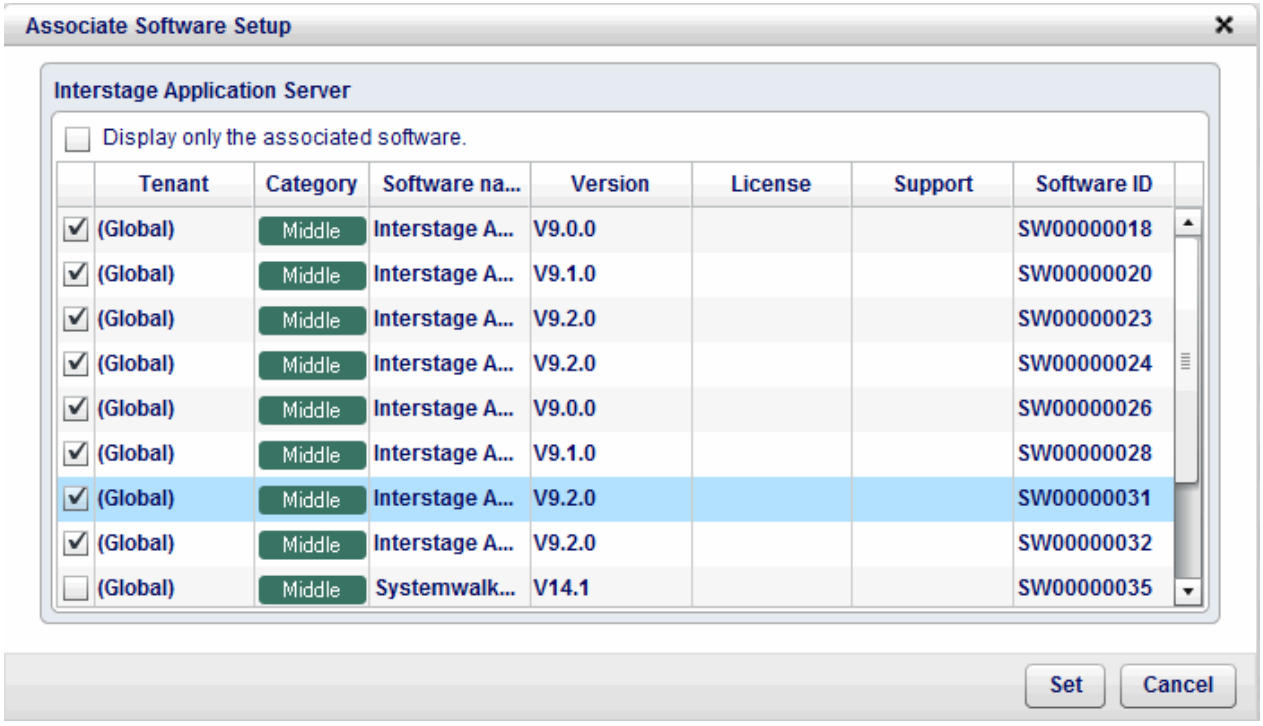
When the software setup information and the software information are associated, the software setup script that is used to set the parameters in the software will run at the time of server deployment. However, it will not run when all the default values in the software setup information have been omitted. The values set in the parameter information run the software setup script.

The procedure to associate software setup information and software is as follows:

1. In the **Parameter** tab, select the software setup information to be associated.
2. Click the **Setting** button. The Associate Software Setup window will be displayed.

   However, the **Setting** button will only be displayed if the software setup information has been selected.

Figure 7.8 Associate Software Setup window



3. Select the check box of the software information to be associated with software setup information.
4. Click the **Confirm** button to associate the software setup information and the software information.

5. If the **Display only the associated software** check box was selected, only the software that has already been associated will be displayed in the list.

   If this check box was not selected, the following software will be displayed:

Software associated with this software setup information

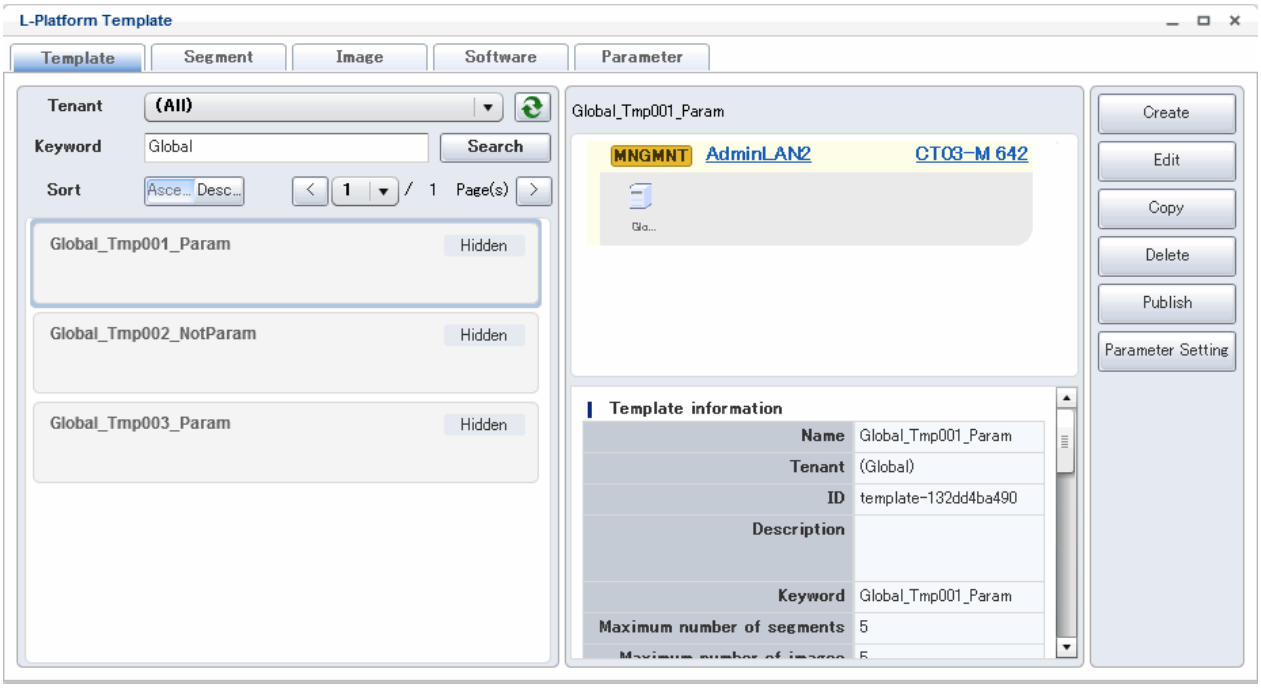
Software not associated with other software setup information that meets the following criteria:

Software Setup	Software	
Method	Category	OS
Command	- Middleware - Application	- None - Windows - Windows64
Shell	- Middleware - Application	- None - Linux - Linux64

7.4 Template Information Operations

The template information defines the L-Platform template configuration.

Figure 7.9 Template tab



Button	Description
Parameter Setting	Sets the parameter that will be used in the template information. Refer to "7.4.1 Parameter Settings that will be Used in the Template Information" for details.

7.4.1 Parameter Settings that will be Used in the Template Information

The procedure to set the parameters that will be used when the L-Platform template is created is as follows:

1. In the **Template** tab in the L-Platform Template window, select the L-Platform template for which the parameters will be set, then click the **Parameter Setting** button.

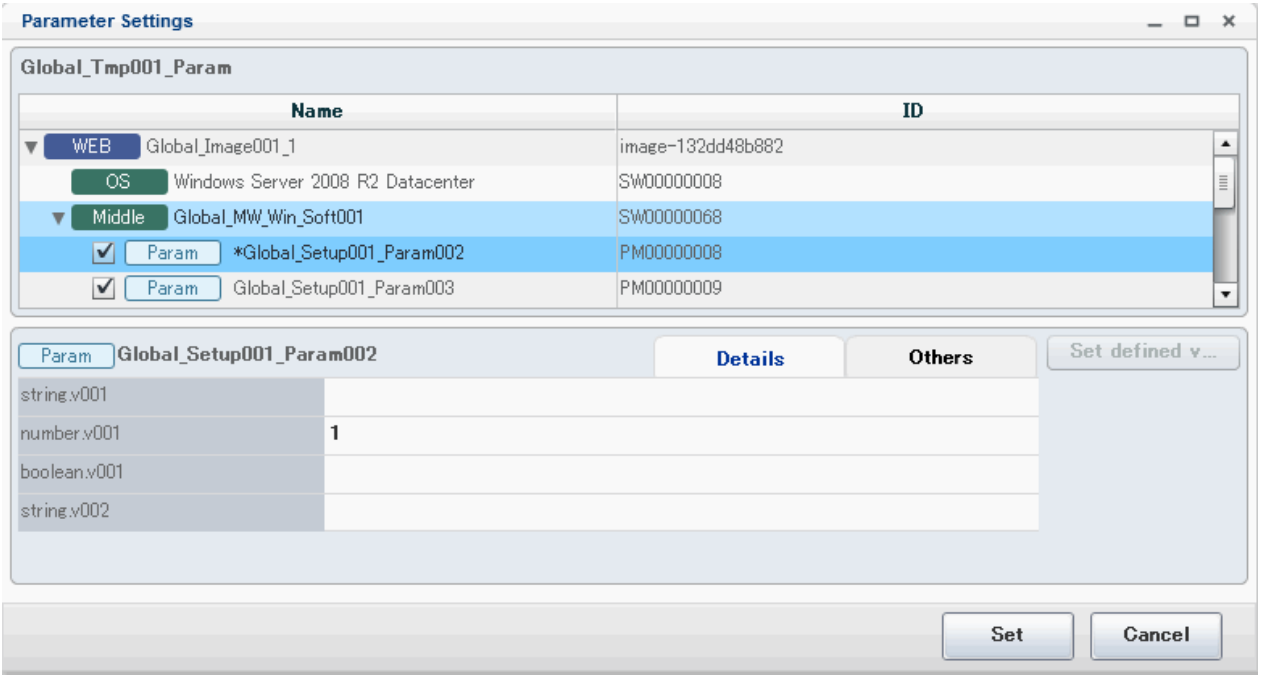
   The Parameter Settings window will be displayed.

2. Select the check box for the parameters that will be used with the L-Platform template, then click the **Set** button.

   In the parameter settings, multiple selections can be used. Values may also be omitted.

3. The parameters will now be set.

Figure 7.10 Parameter Settings window



If no parameter has been selected for the software and the parameter that was selected at the start was set as the prescribed value, "*" will be displayed before the parameters in the list.

If a parameter was selected, the **Set defined value** button will be displayed.

When the **Set defined value** button is selected, the prescribed value that was set will be cleared from the settings and the selected parameter will be set as the prescribed value instead.

Chapter 8 L-Platform

This chapter explains how to operate the **L-Platform Management** window operations that are related to the software parameter setting function.

8.1 L-Platform Management Window

L-Platform subscription and L-Platform management operations can be performed from the **L-Platform Management** window. This window is displayed when the **L-Platform** tab is selected from the ROR Console. Refer to "L-Platform" in the "ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators" or "ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Users" for information on the **L-Platform Management** window.

The **L-Platform Management** window operation that is specific to the software parameter setting function is software reconfiguration. This window is on the **Others** tab on the subscription **reconfigure** page.

Operations from subscription up to displaying the **Others** tab are explained below. The operations for applying for a subscription are also explained.

1. L-Platform subscription

   When **Subscription** is selected from the operations menu, the **Subscription** page is displayed. When the **Create a new L-Platform** button is clicked, the **Select Templates** page is displayed.

2. Selecting an L-Platform template and entering the L-Platform name

   Select the L-Platform template to be used, and then click the **Next** button. Enter the L-Platform name on the **Set Basic Info** page. When the **Next** button is clicked, the **Reconfigure** page is displayed.

3. Selecting a server and displaying the **Others** tab

   From **L-Platform configuration**, select the server where the software is to be reconfigured. At **Details of L-Platform element**, display the **Others** tab.

4. Software reconfiguration

   At the **Others** tab, reconfigure the software.

   Refer to "8.2 Software Reconfiguration" for details.

5. Subscription application

   When the **Next** button is clicked on the **Reconfigure** page, the **Confirm** page is displayed. When the **Next** button is clicked, **Agreement** page is displayed. When the **Create** button is clicked, the L-Platform subscription application is submitted.

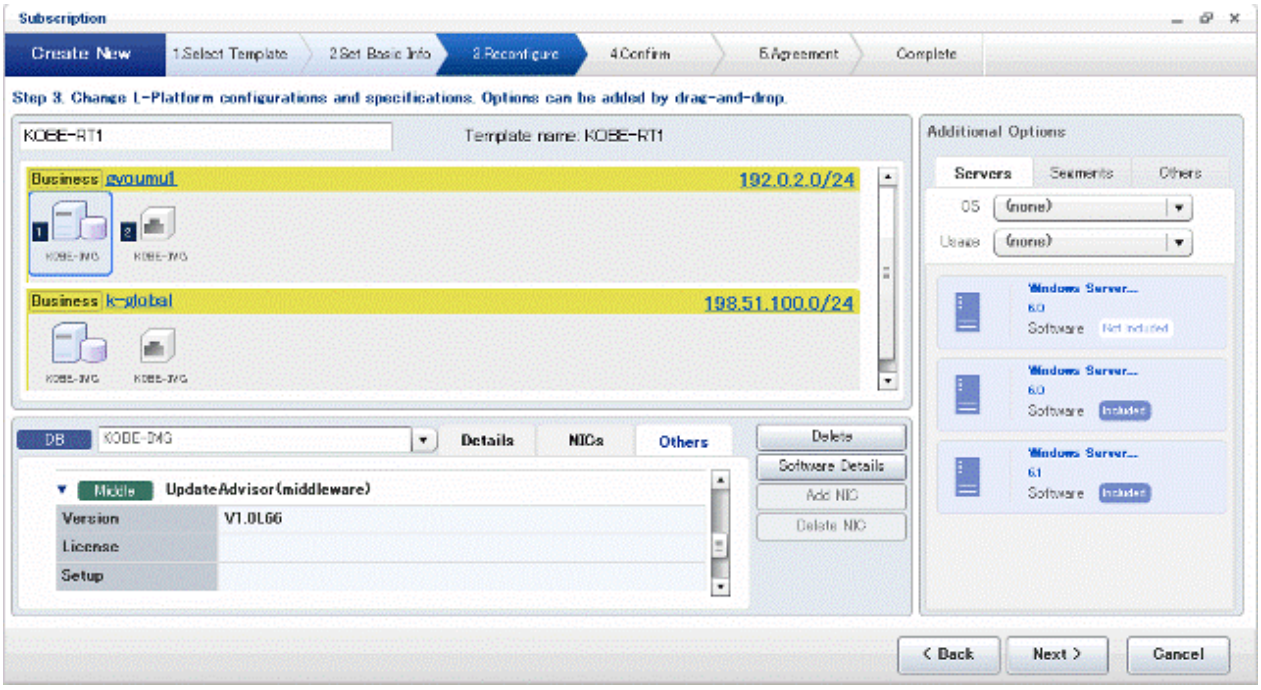
Note

If the L-Platform template cannot be reconfigured, the **Others** tab is not displayed.

8.2 Software Reconfiguration

The operating system, middleware, and other software installed on a server can be checked from the **Others** tab. In addition, the parameters set in the software can be selected at **Setup**.

Figure 8.1 Reconfige Page :Edit a Virtual Server (Others)



Item	Description
Setup	This item is used to select details for software setup. Displayed if software parameter information was set when the L-Platform template was created.

Part 5 Reference

This part explains the commands and files provided by the software parameter setting function.

Chapter 9 Maintenance

This chapter explains the maintenance-related logs output when the software parameter setting function is used.

9.1 Log Output

This section explains the logs output by the software parameter setting function.

The logs output by the software parameter setting function can be split into the following two broad categories:

- Admin Server Logs
- L-Server (business server) Logs

9.1.1 Admin Server Logs

The table below shows the Admin Server logs:

Log name	Description	File size	Number of generations
vsys_trace_log	Outputs trace logs for the functions that manage L-Platform templates and L-Platforms.	10MB	10 generations (*1)
vsys_batch_log	Outputs trace logs for the batch processing parts of the functions that manage L-Platform templates and L-Platforms.		
Event logs	Outputs error information and similar that is generated during use of the **L-Platform Management** window. Refer to "Chapter 18 Event log" for information on event logs.	-	-

*1: If the number of held generations exceeds 10 generations, they are deleted in sequence starting from the oldest.

Output destination

The table below shows the log output destinations:

[Windows]

Output destination folder	Output destination file
<ServerView Resource Orchestrator *installation directory*>\RCXCFMG\logs	Same as log name

[Linux]

Output destination folder	Output destination file
/var/opt/FJSVcfmg/logs	Same as log name

Output Format

Output Format
<Date/time> <Error type> <Message ID> <Message>

Item	Description
Date/time	yyyy-mm-dd hh:mm:ss,sss
Error type	One of the following character strings is displayed:

Item	Description	
	INFO	Information message
	WARN	Warning message
	ERROR	Error message
Message ID (*)	Prefix ("VSYS") and message number	
Message (*)	Message text.	

(*)Refer to "Chapter 20 Log Messages" for information on message IDs and message texts.

Procedure for Changing Output Destination

Refer to "Investigation Logs" in the "ServerView Resource Orchestrator Cloud Edition Operation Guide" for information on the procedure for changing the output destinations.

9.1.2 L-Server (business server) Logs

The table below shows the L-Server (business server) logs:

Log name	Description	File size	Number of generations
cfmg_agent_filetrancefer_log	Outputs logs from agents waiting to receive files. This log can be used to determine whether processing by an agent can be started or not.	No limit	-
cfmg_agent_setupmw_log	Outputs as logs the file transfer processes for software setup information script packages, environment variable settings files, and parameter information parameter packages, as well as the standard output of startup scripts.		
cfmg_agent_checkstatus_log	Outputs logs for the processes that determine whether the execution of startup scripts have been completed or not.		

Output Destination

The table below shows the log output destinations:

[Windows]

Output destination folder	Output destination file
%SystemDrive%\ProgramData\Fujitsu\FJSVswrbac\cfmg\log Windows Server 2003: %SystemDrive%\Documents and Settings\All Users\Application Data\Fujitsu\FJSVswrbac\cfmg\log	Same as log name

Note

Since the "%SystemDrive%\ProgramData" and "Application Data" directory are "hidden folder", it will not usually be displayed.

For this reason, use one of the following methods to identify this directory:

- Specify "%SystemDrive%\ProgramData" and "%SystemDrive%\Documents and Settings\All Users\Application Data" directly as the folder name.

- In Explorer, click **Tools**- **Folder Options**, click the **View** tab, then in Files and Folders, select Show hidden files, folders, and drives and click **OK**.

[Linux]

Output destination folder	Output destination file
/var/opt/FJSVswrbac/cfmg/log	Same as log name

Output Format

The output format for all logs is the same, as shown below:

output format
< Date/time > < Error type > < Message ID > < Message >

Item	Description	
Date/time	yyyy-mm-dd hh:mm:ss,sss	
Error type	One of the following character strings is displayed:	
	INFO	Information message
	WARN	Warning message
	ERROR	Error message
Message ID (*)	Prefix ("VSYS") and message number	
Message (*)	Message text.	

(*)Refer to "Chapter 20 Log Messages" for information on message IDs and message texts.

Procedure for Changing Output Destination

The output destination of managed server logs cannot be changed.

Chapter 10 L-Platform Template Management Commands

This chapter explains L-Platform Template Management commands.
The storage directory of L-Platform Template Management commands is as follows:

- Storage directory of the following commands:

```
cfmg_listsoftsetup(Displaying Software Setup Information)
cfmg_addsoftsetup(Registering Software Setup Information)
cfmg_updatesoftsetup(Modifying Software Setup Information)
cfmg_deletesoftsetup(Deleting Software Setup Information)
cfmg_listsoftsetuplink(Displaying Software Setup Information Associations)
cfmg_attachsoftsetup(Setting up Software Setup Information Association)
cfmg_detachsoftsetup(Canceling Software Setup Information Associations)
cfmg_listparam(Displaying Parameter Information)
cfmg_addparam(Registering Parameter Information)
cfmg_updateparam(Modifying Parameter Information)
cfmg_deleteparam(Deleting Parameter Information)
cfmg_uploadpackage(Uploading a Package File)
cfmg_downloadpackage(Downloading a Package File)
```

[Windows]

```
<ServerView Resource Orchestrator installation directory>\RCXCFMG\bin\
```

[Linux]

```
/opt/FJSVcfmg/bin/
```

10.1 Overview of L-Platform Template Management Commands

This section explains L-Platform Template Management commands.

Only global templates can be registered using the L-Platform Template Management commands.
Infra administrators can use the L-Platform Template Management commands.

Note

The values of the settings in the input files cannot contain control characters such as linefeed or tab characters.

<tag name>~</tag name> must be written in one line.

In addition, these strings cannot contain the following characters:

- "<", ">", "&", "'", """

Moreover, the above characters cannot be contained in the following entity reference strings:

- "<", ">", "&", """, "'"

10.1.1 L-Platform Template Management Command Return Values and Error Messages

Check the return values for the results of L-Platform Template Management Commands.

If the return value is 0, the command terminated normally.

If the return values is not 0, the command ended abnormally and an error message is displayed.

Refer to "Chapter 19 L-Platform Template Management Command Messages" for information on the return values and error messages.

Return value checking method examples are shown below.

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_deletesoftsetup -f -id SS00000001
C:\Users\Administrator> echo %errorlevel%
0
C:\Users\Administrator>
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_deletesoftsetup -f -id SS00000001
# echo $?
0
#
```

Note

If the Admin Server is Linux, ensure that the environment variable LANG is "en_US.UTF-8" when executing L-Platform Template Management Commands.

10.1.2 Description Format for L-Platform Template Management Commands

This section explains the description format for L-Platform Template Management Commands.

Synopsis

This section explains the syntax for entering commands.

```
Command name Option Option 1 | Option 2 [Option] [...]
```

This section explains each item of the command.

Item	Description
Command name	This is the name of the command.
Option	This is either an option name, or an option name plus a parameter.
Option 1 | Option 2	This indicates selection of either option 1 or option 2.
[Option]	Options in square brackets can be omitted.
[...]	This indicates that multiple options can be entered. However, these additional options can be omitted.

Functional Description

This section explains the functions of the command.

Options

This section explains options for the command.

Output Format

This section explains the output format for when the command terminates normally.

Notes

This section explains important points to note when using the command.

Example

This section gives examples of how the command is used.

10.2 Software Information Manipulation Commands

This section explains the software information manipulation commands.

You can use already registered software information.

Refer to "Chapter 16 Registered Software Setup IDs" for details.

10.2.1 cfmg_listsoftsetup(Displaying Software Setup Information)

Synopsis

```
cfmg_listsoftsetup [-v] [-utf8]
```

Functional Description

This command outputs an XML list of registered software setup information.

Options

Options	Description
-v	This option outputs the list in detailed format. If this option is omitted, the list is output in the simple format.
-utf8	This option outputs the list in UTF-8 format. This option is only enabled for Windows versions. If this option is omitted, the list is output in ISO-8859-1 format. For Linux versions, the list is output in UTF-8 irrespective of this option.

Output Format

This command outputs all of the registered software setup information in the following format:

Detailed format	Simple format	Output format
Yes	Yes	<?xml version="1.0" encoding="UTF-8"?>
Yes	Yes	<softwareSetups>
Yes	Yes	<softwareSetup>
Yes	Yes	<id>[Software setup ID]</id>
Yes	Yes	<ownerOrg>[Owner (tenant)]</ownerOrg>
Yes	Yes	<ownerUser>[Owner (user)]</ownerUser>
Yes	Yes	<name>[Software setup name]</name>
Yes	Yes	<version>[Version]</version>
Yes	Yes	<description>[Description]</description>
Yes	Yes	<reserved>[Is this a reserved ID?]<reserved>
Yes	No	<method>[Parameter setup method]</method>
Yes	No	<package>[Script package file name]</package>
Yes	No	<parameters>
Yes	No	<parameter>
Yes	No	<key>[Parameter key]</key>
Yes	No	<type>[Parameter value type]</type>
Yes	No	<value>[Default value of mandatory setup parameter]</value>
Yes	No	<label>[Parameter label]</label>
Yes	No	<description>[Parameter description]</description>
Yes	No	</parameter>

Detailed format	Simple format	Output format
Yes	No	...
Yes	No	</parameters>
Yes	Yes	</softwareSetup>
Yes	Yes	...
Yes	Yes	</softwareSetups>

Yes: Indicates that the information is output.

No: Indicates that the information is not output.

Notes

If registered software setup information does not exist, information will be output in the following format:

```
<?xml version="1.0" encoding="UTF-8"?>
<softwareSetups />
```

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_listsoftsetup -v
<?xml version="1.0" encoding="Windows-31J"?>
<softwareSetups>
    <softwareSetup>
        <id>RS00000001</id>
        <ownerOrg>cfmgadm</ownerOrg>
        <ownerUser>cfmgadm</ownerUser>
        <name>Interstage Application Server</name>
        <description>IJServer(J2EE) definition setting</description>
        <reserved>1</reserved>
        <method>cmd</method>
        <package>setupscript_isaps_cmd.zip</package>
        <parameters>
            <parameter>
                <key>hostname</key>
                <type>string</type>
                <value>#{server.os.computername}</value>
                <label>host name</label>
                <description>This parameter sets hostname.</description>
            </parameter>
            <parameter>
                <key>ipaddress</key>
                <type>string</type>
                <value>#{server.nic.ipaddress}</value>
                <label>IP address</label>
                <description>This parameter sets IP address.</description>
            </parameter>
        </parameters>
    </softwareSetup>
</softwareSetups>
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_listsoftsetup -v
<?xml version="1.0" encoding="UTF-8"?>
<softwareSetups>
    <softwareSetup>
        <id>RS00000001</id>
        <ownerOrg>cfmgadm</ownerOrg>
```

```
        <ownerUser>cfmgadm</ownerUser>
        <name>Interstage Application Server</name>
        <description>IJServer(J2EE) definition setting</description>
        <reserved>1</reserved>
        <method>cmd</method>
        <package>setupscript_isaps_cmd.zip</package>
        <parameters>
            <parameter>
                <key>hostname</key>
                <type>string</type>
                <value>#{server.os.computername}</value>
                <label>host name</label>
                <description>This parameter sets hostname.</description>
            </parameter>
            <parameter>
                <key>ipaddress</key>
                <type>string</type>
                <value>#{server.nic.ipaddress}</value>
                <label>IP address</label>
                <description>This parameter sets IP address.</description>
            </parameter>
        </parameters>
    </softwareSetup>
</softwareSetups>
```

10.2.2 cfmg_addsoftsetup(Registering Software Setup Information)

Synopsis

cfmg_addsoftsetup -xml *Software setup information file path*

Functional Description

This command registers software setup information.

Refer to "11.1 Software Setup Information" for information on software setup information files.

Options

Options	Description
-xml	This option specifies the absolute or relative path to the software setup information file, using a string of printable ASCII characters. If the path includes spaces, enclose the path in double quotes.

Output Format

This command outputs the registered software setup ID in the following format:

```
<?xml version="1.0" encoding="UTF-8"?>
<result>
    <id>[Software setup ID]</id>
</result>
```

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_addsoftsetup -xml C:\tmp\template_test
\softsetup\softwaresetup.xml
<?xml version="1.0" encoding="Windows-31J"?>
```

```
<result>
    <id>SS00000001</id>
</result>
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_addsoftsetup -xml /tmp/template_test/softsetup/softwaresetup.xml
<?xml version="1.0" encoding="UTF-8"?>
<result>
    <id>SS00000001</id>
</result>
```

10.2.3 cfmg_updatesoftsetup(Modifying Software Setup Information)

Synopsis

cfmg_updatesoftsetup -xml *Software setup information file path*

Functional Description

This command modifies registered software setup information.

Refer to "11.1 Software Setup Information" for information on software setup information files.

Options

Options	Description
-xml	This option specifies the absolute or relative path to the software setup information file, using a string of printable ASCII characters. If the path includes spaces, enclose the path in double quotes.

Notes

Software setup information reserved by this product cannot be modified.

Refer to "Chapter 16 Registered Software Setup IDs" for information on software setup information reserved by this product.

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_updatesoftsetup -xml C:\tmp\template_test
\softsetup\upsoftsetup.xml
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_updatesoftsetup -xml /tmp/template_test/softsetup/upsoftsetup.xml
```

10.2.4 cfmg_deletesoftsetup(Deleting Software Setup Information)

Synopsis

cfmg_deletesoftsetup [-f] -id *Software setup ID*

Functional Description

This command deletes software setup information.

Options

Options	Description
-f	This option executes the deletion without confirmation. If this option is omitted, a confirmation prompt will be output before the deletion takes place.
-id	This option specifies the software setup ID to be deleted.

Output Format

None.

Notes

Software setup information reserved by this product cannot be deleted.

Refer to "Chapter 16 Registered Software Setup IDs" for information on software setup information reserved by this product.

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_deletesoftsetup -id SS00000001
Do you want to delete the software setting information? (Y/N) y
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_deletesoftsetup -id SS00000001
Do you want to delete the software setting information? (Y/N) y
```

10.3 Software Setup Information Association Manipulation Commands

This section explains the software setup information association manipulation commands.

Some software setup information has already been associated with software information.

Refer to "Chapter 15 Software Information and Software IDs" and "Chapter 16 Registered Software Setup IDs" for details.

10.3.1 cfmg_listsoftsetuplink(Displaying Software Setup Information Associations)

Synopsis

```
cfmg_listsoftsetuplink [-utf8]
```

Functional Description

This command outputs an XML list of associated software setup information and software information.

Options

Options	Description
-utf8	This option outputs the list in UTF-8 format. This option is only enabled for Windows versions. If this option is omitted, the list is output in ISO-8859-1 format. For Linux versions, the list is output in UTF-8 irrespective of this option.

Output Format

This command outputs all of the associated software setup information in the following format:

```
<?xml version="1.0" encoding="UTF-8"?>
<softwareSetups>
    <softwareSetup>
        <id>[Software setup ID]</id>
        <ownerOrg>[Owner (tenant)]</ownerOrg>
        <ownerUser>[Owner (user]</ownerUser>
        <name>[Software setup name]</name>
        <softwares>
            <software>
                <id>[Software ID]</id>
                <ownerOrg>[Owner (tenant)]</ownerOrg>
                <ownerUser>[Owner (user]</ownerUser>
                <name>[Software name]</name>
                <version>[Version]</version>
            </software>
            ...
        </softwares>
    </softwareSetup>
    ...
</softwareSetups>
```

Notes

If associated software setup information does not exist, information will be output in the following format:

```
<?xml version="1.0" encoding="UTF-8"?>
<softwareSetups />
```

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_listsoftsetuplink
<?xml version="1.0" encoding="Windows-31J"?>
<softwareSetups>
    <softwareSetup>
        <id>SS00000001</id>
        <ownerOrg>cfmgadm</ownerOrg>
        <ownerUser>cfmgadm</ownerUser>
        <name>SOFTWARE_SETUP_SAMPLE</name>
        <softwares>
            <software>
                <id>SW00000112</id>
                <ownerOrg>cfmgadm</ownerOrg>
                <ownerUser>cfmgadm</ownerUser>
                <name>Red Hat Enterprise Linux 5 (for Intel64)</name>
                <version>5.5</version>
            </software>
        </softwares>
    </softwareSetup>
</softwareSetups>
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_listsoftsetuplink
<?xml version="1.0" encoding="UTF-8"?>
<softwareSetups>
    <softwareSetup>
        <id>SS00000001</id>
        <ownerOrg>cfmgadm</ownerOrg>
        <ownerUser>cfmgadm</ownerUser>
```

```
        <name>SOFTWARE_SETUP_SAMPLE</name>
        <softwares>
            <software>
                <id>SW00000112</id>
                <ownerOrg>cfmgadm</ownerOrg>
                <ownerUser>cfmgadm</ownerUser>
                <name>Red Hat Enterprise Linux 5 (for Intel64)</name>
                <version>5.5</version>
            </software>
        </softwares>
    </softwareSetup>
</softwareSetups>
```

10.3.2 cfmg_attachsoftsetup(Setting up Software Setup Information Association)

Synopsis

cfmg_attachsoftsetup -id *Software setup* ID -sid *Software ID*

Functional Description

This command sets up associations between software setup information and software information.

Options

Options	Description
-id	This option specifies the software setup ID that sets up the association.
-sid	This option specifies the software ID that sets up the association.

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_attachsoftsetup -id SS00000001 -sid
SW00000112
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_attachsoftsetup -id SS00000001 -sid SW00000112
```

10.3.3 cfmg_detachsoftsetup(Canceling Software Setup Information Associations)

Synopsis

cfmg_detachsoftsetup -id *Software setup ID* -sid *Software ID*

Functional Description

This command cancels associations between software setup information and software information.

Options

Options	Description
-id	This option specifies the software setup ID that cancels the association.
-sid	This option specifies the software ID that cancels the association.

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_detachsoftsetup -id SS00000001 -sid
SW00000112
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_detachsoftsetup -id SS00000001 -sid SW00000112
```

10.4 Parameter Information Manipulation Commands

This section explains the commands provided for manipulating parameter information.

10.4.1 cfmg_listparam(Displaying Parameter Information)

Synopsis

cfmg_listparam [-v] [-utf8] -id *Software setup ID*

Functional Description

This command outputs a list of registered parameter information in XML format.

Options

Options	Description
-v	This option outputs the list in detailed format. If this option is omitted, the list is output in the simple format.
-utf8	This option outputs the list in UTF-8 format. This option is only enabled for Windows versions. If this option is omitted, the list is output in ISO-8859-1 format. For Linux versions, the list is output in UTF-8 irrespective of this option.
-id	This option specifies the software setup ID to be output.

Output Format

This command outputs all of the parameter information registered in the software setup information in the following format:

Detailed format	Simple format	Output format
Yes	Yes	<?xml version="1.0" encoding="UTF-8"?>
Yes	Yes	<parameterInfoList>
Yes	Yes	<parameterInfo>
Yes	Yes	<id>[Parameter ID]</id>
Yes	Yes	<ownerOrg>[Owner (tenant)]</ownerOrg>
Yes	Yes	<ownerUser>[Owner (user)]</ownerUser>
Yes	Yes	<softwareSetupId>[Software setup ID]</softwareSetupId>
Yes	No	<lcid>[Locale ID]</lcid>
Yes	Yes	<name>[Parameter name]</name>
Yes	Yes	<description>[Description]</description>
Yes	No	<package>[Parameter package file name]</package>
Yes	Yes	<parameters>
Yes	Yes	<parameter>
Yes	Yes	<key>[Parameter key]</key>
Yes	Yes	<value>[Parameter value]</value>

Detailed format	Simple format	Output format
Yes	Yes	</parameter>
No	No	...
Yes	Yes	</parameters>
Yes	Yes	</parameterInfo>
No	No	...
Yes	Yes	</parameterInfoList>

Yes: Indicates that the information is output.

No: Indicates that the information is not output.

Notes

If parameter information registered in software setup information does not exist, information will be output in the following format:

```
<?xml version="1.0" encoding="UTF-8"?>
<propertySets />
```

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_listparam -id SS00000001
<?xml version="1.0" encoding="Windows-31J"?>
<parameterInfoList>
    <parameterInfo>
        <id>PM00000001</id>
        <ownerOrg>cfmgadm</ownerOrg>
        <ownerUser>cfmgadm</ownerUser>
        <softwareSetupId>SS00000001</softwareSetupId>
        <name>PARAMETERINFO_SAMPLE</name>
        <description>Sample settings</description>
    </parameterInfo>
</parameterInfoList>
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_listparam -id SS00000001
<?xml version="1.0" encoding="UTF-8"?>
<parameterInfoList>
    <parameterInfo>
        <id>PM00000001</id>
        <ownerOrg>cfmgadm</ownerOrg>
        <ownerUser>cfmgadm</ownerUser>
        <softwareSetupId>SS00000001</softwareSetupId>
        <name>PARAMETERINFO_SAMPLE</name>
        <description>Sample settings</description>
    </parameterInfo>
</parameterInfoList>
```

10.4.2 cfmg_addparam(Registering Parameter Information)

Synopsis

cfmg_addparam -xml *Parameter information file path*

Functional Description

This command registers parameter information.

Refer to "11.2 Parameter Information" for information on parameter information files.

Options

Options	Description
-xml	This option specifies the absolute or relative path to the parameter information file, using a string of printable ASCII characters. If the path includes spaces, enclose the path in double quotes.

Output Format

This command outputs the registered parameter IDs in the following format:

```
# /opt/FJSVcfmg/bin/cfmg_addparam -xml /tmp/template_test/parameter/parameter.xml
<?xml version="1.0" encoding="UTF-8"?>
<result>
    <id>PM00000001</id>
</result>
```

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_addparam -xml C:\tmp\template_test
\parameter\parameter.xml
<?xml version="1.0" encoding="Windows-31J"?>
<result>
    <id>PM00000001</id>
</result>
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_addparam -xml /tmp/template_test/parameter/parameter.xml
<?xml version="1.0" encoding="UTF-8"?>
<result>
    <id>PM00000001</id>
</result>
```

10.4.3 cfmg_updateparam(Modifying Parameter Information)

Synopsis

cfmg_updateparam -xml *Parameter information file path*

Functional Description

This command modifies parameter information.

Refer to "11.2 Parameter Information" for information on parameter information files.

Options

Options	Description
-xml	This option specifies the absolute or relative path to the parameter information file, using a string of printable ASCII characters. If the path includes spaces, enclose the path in double quotes.

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_updateparam -xml C:\tmp\template_test
\parameter\parameter.xml
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_updateparam -xml /tmp/template_test/parameter/parameter.xml
```

10.4.4 cfmg_deleteparam(Deleting Parameter Information)

Synopsis

cfmg_deleteparam [-f] -id *Parameter ID*

Functional Description

This command deletes parameter information.

Options

Options	Description
-f	This option executes the deletion without confirmation. If this option is omitted, a confirmation prompt will be output before the deletion takes place.
-id	This option specifies the parameter ID to be deleted.

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_deleteparam -id PM00000001
Do you want to delete the parameter information? (Y/N) y
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_deleteparam -id PM00000001
Do you want to delete the parameter information? (Y/N) y
```

10.5 Package File Manipulation Commands

This section explains the package file manipulation commands.

10.5.1 cfmg_uploadpackage(Uploading a Package File)

Synopsis

cfmg_uploadpackage -id *Software setup ID* | Parameter ID -pkg *Package file path*

Functional Description

This command uploads package files; script packages for software setup information and parameter packages for parameter information.

Package files 2 Kbytes or less can be uploaded.

Refer to "6.1.4 Package File" for information on package files.

Options

Options	Description
-id	This option specifies the software setup ID or parameter ID that uploads the package file. This option specifies the software setup ID for a script package and the parameter ID for a parameter package.
-pkg	This option specifies the absolute or relative path to the package file, using a string of printable ASCII characters. If the path includes spaces, enclose the path in double quotes.

Notes

Script packages of software setup information reserved by this product cannot be uploaded.

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_uploadpackage -id SS00000001 -pkg C:\tmp
\template_test\pkg/script.zip
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_uploadpackage -id SS00000001 -pkg /tmp/template_test/pkg/script.zip
```

10.5.2 cfmg_downloadpackage(Downloading a Package File)

Synopsis

cfmg_downloadpackage [-f] -id *Software setup ID* | Parameter ID -dir *Download destination path*

Functional Description

This command downloads package files; a script package for software setup information and a parameter package for parameter information.

Options

Options	Description
-f	This option overwrites without confirmation if there is a package file in the download destination path. If this option is omitted, a confirmation prompt will be output before the overwrite takes place.
-id	This option specifies the software setup ID or parameter ID that downloads the package file. This option specifies the software setup ID for a script package and the parameter ID for a parameter package.
-dir	This option specifies the absolute or relative path to the download destination, using a string of printable ASCII characters. If the path includes spaces, enclose the path in double quotes.

Example

[Windows]

```
C:\Users\Administrator> C:\Fujitsu\ROR\RCXCFMG\bin\cfmg_downloadpackage -id SS00000001 -dir C:\tmp
\template_test\pkg\tmp
```

[Linux]

```
# /opt/FJSVcfmg/bin/cfmg_downloadpackage -id SS00000001 -dir /tmp/template_test/pkg/tmp
```

Chapter 11 XML File

This chapter describes XML files.

11.1 Software Setup Information

This section explains the XML documents that code the software setup information.

11.1.1 Overview

This is an XML document in which the parameter configuration information that can be set in the software has been coded.

Refer to "6.1 Parameter Definitions" for information on software setup information.

There are the following three types of software setup information:

a. Information provided by this product

b. Information created by users

a. Refer to "Chapter 16 Registered Software Setup IDs"

b. Must be created by Infrastructure Administrators while referencing the templates stored in the following directory:

[Windows]

```
Storage directory: <ServerView Resource Orchestrator installation directory>\RCXCFMG\templates
\softwaresetups\
```

[Linux]

```
Storage directory: /opt/FJSVcfmg/templates/softwaresetups/
```

11.1.2 Software Setup Information Details

Software setup information files use the following XML format:

```
<?xml version="1.0" encoding="UTF-8"?>
<softwareSetup version="2.0">
    <id>[Software setup information ID]</id>
    <ownerOrg>[Owner (tenant)]</ownerOrg>
    <ownerUser>[Owner (user)]</ownerUser>
    <lcid>[Locale ID]</lcid>
    <name>[Software setup information name]</name>
    <description>[Description]</description>
    <method>[Parameter setup method]</method>
    <parameters>
        <parameter>
            <key>[Parameter key]</key>
            <type>[Parameter value type]</type>
            <value>[Default value of mandatory setup parameter]</value>
            <label>[Parameter label]</label>
            <description>[Parameter description]</description>
        </parameter>
        ...
    </parameters>
</softwareSetup>
```

The following table shows descriptions of each of these items (tags), as well as their settings:

Modify software setup information files if necessary, by referring to the information in this table.

Tag names in square brackets [ ] can be omitted.

Tag name	Format	Allowable range	Description	Mandatory	Settings
id	string ASCII	0 to 32 Bytes	The software setup ID.	Optional	Specify an empty string when adding a new software setup ID. Specify the ID to be updated when updating a software setup ID.
ownerOrg	string ASCII	Fixed value	The tenant name to which the software setup information belongs.	Yes	The value is fixed as "cfmgadm"
ownerUser	string ASCII	Fixed value	The user ID of the user registering the software setup information.	Yes	The value is fixed as "cfmgadm"
lcid	string ASCII	Fixed value	The software setup information locale.	Yes	The value is fixed as "en"
name	string UTF-8	Up to 64 characters	The software setup name.	Optional	
description	string UTF-8	Up to 256 characters	The software setup description.	Optional	
method	string ASCII	Select an option	The parameter setup method.	Yes	Select one of the following options: - "cmd": Calls the startup script startup.cmd. - "sh": Calls the startup script startup.sh.
parameters	-	-	Multiple parameters that can be set up in the software.	No	
parameter	-	1 or more	The parameter key and value that can be set up in the software.	No	
key	string ASCII	1 to 256 Bytes	The parameter key.	Yes	The characters that can be used are numerics and "." However, the first character must be alphabetic.
type	string ASCII	Select an option	The value type.	Yes	Select one of the following options: - "boolean": Boolean value true, false - "number": Number -2,147,483,648 to 2,147,483,647 - "string": Character string It is also possible to specify an empty string.
[value]	string UTF-8	Up to 4,096 characters	The parameter value required in order for the software to run at deployment.	Optional	Omit values for parameters that are not set up at deployment. Specifiable values are subject to type restrictions. You cannot specify a character

Tag name	Format	Allowable range	Description	Mandatory	Settings
					string "__EMPTY__" ("__"is "_" and "_" in a row).
[label]	string UTF-8	Up to 64 characters	The label used when the parameter is displayed in the window.	Optional	
[description]	string UTF-8	Up to 256 characters	The parameter description.	Optional	

The meanings of the symbols in the Mandatory column are as follows:

Yes: If a tag was specified, you must specify the value.

Optional: Value can be omitted.

No: A value setting is not required. Tag only specification.

11.2 Parameter Information

This section explains the XML documents that code the parameter information.

11.2.1 Overview

This is an XML document in which the values to be set in the software parameters has been coded. The parameters for which values can be set in the software are the parameters defined in the software setup information.

Refer to "6.2 Parameter Value Settings" for information on parameter information.

The parameter information must be created by the Infrastructure Administrator while referencing the templates stored in the following directory:

[Windows]

```
Storage directory: <ServerView Resource Orchestrator installation directory>\RCXCFMG\templates
\parameters\
```

[Linux]

```
Storage directory: /opt/FJSVcfmg/templates/parameters/
```

11.2.2 Parameter Information Details

Parameter information files use the following XML format:

```
<?xml version="1.0" encoding="UTF-8"?>
<parameterInfo version="2.0">
    <id>[Parameter information ID]</id>
    <ownerOrg>[Owner (tenant)]</ownerOrg>
    <ownerUser>[Owner (user)]</ownerUser>
    <softwareSetupId>[Software setup information ID]</softwareSetupId>
    <lcid>[Locale ID]</lcid>
    <name>[Parameter information name]</name>
    <description>[Description]</description>
    <parameters>
        <parameter>
            <key>[Parameter key]</key>
            <value>[Parameter value]</value>
        </parameter>
        ...
```

```
    </parameters>
</parameterInfo>
```

The following table shows descriptions of each of these items (tags), as well as their settings:

Modify parameter information if necessary, by referring to the information in this table.

Tag names in square brackets [can be omitted.

Tag name	Format	Setting range	Description	Mandatory	Settings
id	string ASCII	0 to 32 Bytes	The parameter ID.	Optional	Specify an empty string when adding a new parameter ID. Specify the ID to be updated when updating a parameter ID.
ownerOrg	String ASCII	Fixed value	The tenant name to which the parameter information belongs.	Yes	The value is fixed as "cfmgadm"
ownerUser	String ASCII	Fixed value	The user ID of the user registering the parameter information.	Yes	The value is fixed as "cfmgadm"
softwareSetupId	string ASCII	1 to 32 Bytes	The target software setup ID.	Yes	Specify a registered software setup ID. Software setup information in "Chapter 12 Middleware Parameter Setting Information" can be used for the specification as well.
lcid	string ASCII	Fixed value	The locale.	Yes	The value is fixed as "en"
name	string UTF-8	Up to 64 characters	The parameter information.	Optional	
description	string UTF-8	Up to 256 characters	The parameter information description.	Optional	
parameters	-	-	The multiple parameters set in the software.	No	
parameter	-	0 or more	The parameter set in software with a key and value.	No	
key	string UTF-8	Up to 64 characters	The parameter key.	Yes	Specify the parameter key if you are using software setup information from "Chapter 12 Middleware Parameter Setting Information". Valid characters are numerics and "." However, the first character must be alphabetic. It is only possible to specify keys included in software setup information.

Tag name	Format	Setting range	Description	Mandatory	Settings
value	String UTF-8	Up to 4,096 characters	The parameter value.	Optional	Values are dependent on software setup information constraints.

The meanings of the symbols in the Mandatory column are as follows:

Yes: If a tag was specified, you must specify the value.

Optional: Value can be omitted.

No: A value setting is not required. Tag only specification.

11.3 Template Information

This section explains supplementary items related to the XML documents that code template information.

11.3.1 Overview

This is an XML document in which L-Platform template configuration information has been coded. If the software parameter setting function is used, the options for values to be set in software parameters can also be coded in this document.

Refer to "6.2 Parameter Value Settings" for information on options.

Refer to "Template Information" in the "ServerView Resource Orchestrator Cloud Edition Reference Guide (Command/XML)" for information on template information.

11.3.2 Template Information Detailes

The format of the template information (XML file) is shown below. The part that can be coded when the software parameter setting function is used is the softwareOptions tag part (shown in bold):

```
<?xml version="1.0" encoding="UTF-8" ?>
<template version="2.0">
    <id>[Template ID]</id>
    <lcid>[Locale ID]</lcid>
    <name>[Template name]</name>
    <baseTemplateId>[Base template ID]</baseTemplateId>
    <ownerOrg>[Owner (tenant)]</ownerOrg>
    <ownerUser>[Owner (user)]</ownerUser>
    <publicCategory>[Public category]</publicCategory>
    <designSheetPath>[Path to the design sheet]</designSheetPath>
    <releaseDate>[Release date]</releaseDate>
    <numOfMaxVnet>[Maximum number of VNETs]</numOfMaxVnet>
    <numOfMaxVm>[Maximum number of VMs]</numOfMaxVm>
    <productId>[Model number]</productId>
    <description>[Description]</description>
    <keyword>[Search keyword]</keyword>
    <estimate>[Rough cost estimate]</estimate>
    <license>[License]</license>
    <support>[Support]</support>
    <vnets>
        <vnet>
            <id>[Network ID]</id>
            <name>[Name]</name>
            <numOfMaxVm>[Maximum number of VMs]</numOfMaxVm>
            <resourceId>[Network resource ID]</resourceId>
            <category>[Network type]</category>
            <segmentType>[Segment type information]</segmentType>
        </vnet>
        ...
```

```
</vnets>
<lnetdevs>
    <lnetdev>
        <name>[LNetDev name]</name>
        <type>[LNetDev type]</type>
        <lnetdevIfs>
            <lnetdevIf>
                <name>[Interface name]</name>
                <networkId>[Network ID]</networkId>
            </lnetdevIf>
            ...
        <lnetdevIfs>
        <ruleset>
            <name>[Ruleset name]</name>
            <description>[Ruleset description]</description>
            <parameters>
                <parameter>
                    <name>[Parameter name]</name>
                    <label>[Tenant Display Name]</label>
                    <view>[Display flag]</view>
                    <value>[Parameter value]</value>
                    <description>[Parameter description]</description>
                </parameter>
                ...
            </parameters>
        </ruleset>
    </lnetdev>
</lnetdevs>
<servers>
    <server>
        <no>[Server serial number]</no>
        <imageId>[Cloning image ID]</imageId>
        <name>[Server name]</name>
        <serverType>[Server type]</serverType>
        <pool>[Deployment destination pool resource name]</pool>
        <sparePool>[Spare pool resource name]</sparePool>
        <storagePool>[Storage pool resource name]</storagePool>
        <priority>[Priority]</priority>
        <nicgroups>
            <management>[Control NIC]</management>
            <nicgroup>
                <index>[NIC group index]</index>
                <networkId>[Connection destination network ID]</networkId>
            </nicgroup>
            ...
        </nicgroups>
        <vnics>
            <management>[Control NIC]</management>
            <vnic>
                <no>[NIC serial number]</no>
                <networkId>[Connection destination network ID]</networkId>
                <group>[NIC group index]</group>
            </vnic>
            ...
        </vnics>
        <vdisks>
            <vdisk>
                <no>[Disk serial number]</no>
                <diskSize>[Disk capacity]</diskSize>
                <resourceId>[Resource ID]</resourceId>
                <resouceName>[Disk recource name]</resourceName>
                <storagePool>[Storage pool resource name]</storagePool>
            </vdisk>
```

```
            ...
        </vdisks>
        <softwareOptions>
            <softwareOption>
                <softwareId>[Software information ID]</softwareId>
                <choices>
                    <parameterInfoId>[Parameter information ID]</parameterInfoId>
                    ...
                </choices>
            </softwareOption>
        </softwareOptions>
    </server>
    ...
  </servers>
</template>
```

Descriptions and settings are shown below about the items (tags) that can be coded when the software parameter setting function is used.

Tag names in square brackets [ ] can be omitted.

Tag name	Format	Setting range	Description	Mandatory	Settings
[softwareOptions]	-	-	Specify this item if displaying the software parameter setup options.	No	
softwareOption	-	1 or more	The softwareOption for each software package included in the virtual server.	No	
softwareId	string ASCII	1 to 32 Bytes	The software ID that sets up the parameter.	Yes	Specify the software ID included in the virtual server. It is necessary for the software information to be associated with software setup information.
choices	-	-	The parameter information that are the options.	No	The first element becomes the default.
parameterInfoId	string ASCII	1 or more 1 to 32 Bytes	The parameter information ID.	Yes	Specify the registered parameter information ID. The software setup information for the parameter information must be the same as the software setup information associated with the software.

The meanings of the symbols in the Mandatory column are as follows:

Yes: If a tag was specified, you must specify the value.

Optional: Value can be omitted.

No: A value setting is not required. Tag only specification.

Chapter 12 Middleware Parameter Setting Information

This chapter shows detailed descriptions of set middleware parameters.

The middleware products described here are listed below.

- Interstage Application Server/Web Server
- Symantec Endpoint Protection
- Systemwalker Runbook Automation (Linkage Server/Relay Server/Business Server)
- Systemwalker Service Quality Coordinator
- UpdateAdvisor (Middleware)
- Windows Update Agent

12.1 Interstage Application Server/Web Server

12.1.1 Parameter Information

Refer to "isj2eeadmin" in the "Interstage Application Server Reference Manual (Command Edition)" for description format for following definition file.

- IJServer definitions
- J2EE system definitions
- J2EE resource definitions
- Web server connector definitions

No.	Category (Components such as)	Parameter (Settings item)	Software setup information File				Description
			<key> key	<type> type	<value> Default value of mandatory setup parameter	<label> label	
1	IJServer(J2EE) definition setting	Hostname	hostname	string	#{server.os.computername}	Hostname	This parameter sets hostname.
2		IP address	ipaddress	string	#{server.nic.ipaddress}	IP address	This parameter sets IP address.
3		IJServer definitions	J2ee.IjserverDefinition	string	Empty string	IJServer definitions	This key manipulates IJServer definitions.
4		J2EE system definitions	J2ee.SystemDefinition	string	Empty string	J2EE system definitions	This key manipulates J2EE system definitions.
5		J2EE resource definitions	J2ee.ResourceDefinition	string	Empty string	J2EE resource definitions	This key manipulates J2EE resource definitions.
6		Web server connector definitions	J2ee.ServiceDefinition	string	Empty string	Web server connector definitions	This key manipulates Web server connector definitions.

Parameters of the package zip file, please create the following directory structure.

Refer to "6.1.4 Package File" for information of package file.

- When L-Server is Windows

```
parampkg.zip(Any file name)
+  IJServer definitions
+  J2EE system definitions
+  J2EE resource definitions
+  Web server connector definitions
+  F3FMihs (*1)
    +  Web Server 1
       +  httpd.conf
    +  Web Server 2
       +  httpd.conf
    :
```

- When L-Server is Linux

```
parampkg.zip(Any file name)
+  IJServer definitions
+  J2EE system definitions
+  J2EE resource definitions
+  Web server connector definitions
+  FJSVihs (*1)
    +  Web Server 1
       +  httpd.conf
    +  Web Server 2
       +  httpd.conf
    :
```

*1) When you use Interstage HTTP Servers whose parameters are changed at deployment time, include definition files in the parameter package file and they will be updated automatically during deployment.

(There is no definition in the parameter file.)

Refer to "4. When Interstage HTTP Server is Used" in "Interstage Application Server/Web Server" in the "Operation Guide" in details.

12.1.2 Messages

None.

12.2 Symantec Endpoint Protection

12.2.1 Parameter Information

None.

12.2.2 Massages

None.

12.3 Systemwalker Runbook Automation (Linked Servers/Relay Servers/ Business Servers)

12.3.1 Parameter Information

[Systemwalker Runbook Automation (Linked Servers/Relay Servers)]

No.	Category (Components such as)	Parameter (Settings item)	Software setup information File			
			<key> key	<type> type	<value> Default value of mandatory setup parameter	<label> label
1	Setting Linked Servers and Relay Servers	Linked servers/ relay servers host name	agent.hostname	string	#{server.os.computername}	Linked servers/relay servers host name
2		Linked servers/ relay servers IP address	agent.ipaddress	string	#{server.nic.ipaddress}	Linked servers/relay servers IP address
3		Linked servers/ relay servers port number	agent.portnumber	number	none	Linked servers/relay servers port number
4	Setting Management Servers	Management servers host name	agent.managerhostname	string	Empty string	Management servers host name
5		Management servers port number (Web server)	agent.managerportnumber	number	none	Management servers port number (Web server)

[Systemwalker Runbook Automation (Business Servers)]

No.	Category (Components such as)	Parameter (Settings item)	Software setup information File			
			<key> key	<type> type	<value> Default value of mandatory setup parameter	<label> label
1	Setting Business Servers	Business servers host name	agent.hostname	string	#{server.os.computername}	Business servers host name
2		Business servers IP address	agent.ipaddress	string	#{server.nic.ipaddress}	Business servers IP address

12.3.2 Messages

None.

12.4 Systemwalker Service Quality Coordinator

12.4.1 Parameter Information

No.	Category (Components such as)	Parameter (Settings item)	Software setup information File			
			<key> key	<type> type	<value> Default value of mandatory setup parameter	<label> label
1	Systemwalker Service Quality Coordinator settings	host name	sqc.hostname	string	#{server.os.computername}	hostname
2		IP address	sqc.ipaddress	string	#{server.nic.ipaddress}	IPaddress

12.4.2 Messages

None.

12.5 UpdateAdvisor (Middleware)

12.5.1 Parameter Information

None.

12.5.2 Messages

None.

12.6 Windows Update Agent

12.6.1 Parameter Information

No.	Category (Components such as)	Parameter (Settings item)	Software setup information File				Description
			<key> key	<type> type	<value> Default value of mandatory setup parameter	<label> label	
1	Setting business servers	Host name of WSUS server	wua.wsus.hostname	string	none	WSUS server host name	This parameter sets host name (FQDN) or IP address of Microsoft Windows Server Update Services (WSUS) server.
2		Port number of WSUS server	wua.wsus.port	number	none	WSUS server port number	This parameter sets port number of WSUS server when 'wua.wsus.hostname' is specified.

12.6.2 Messages

Refer to the "Message Guide" for detailed information about messages.

Chapter 13 Troubleshooting Flow

This chapter explains the flow of actions required when problems occur.
It is recommended to collect data for investigation in order to determine the cause of problems that occur for the software parameter setting function. The collection of investigation data immediately after a problem occurs enables the problem to be investigated and the cause to be determined if the troubleshooting methods in this chapter do not resolve the problem.

Take the following steps after a problem has occurred:

1. If a problem is thought to have occurred, start by collecting data for investigation.
2. Perform the actions and checking for each phenomenon that occurs.
3. If the problem has been resolved, continue operation with no change.

   Keep the data that was collected in step 1 so that it can be used when the next problem occurs.
4. If the problem was unable to be resolved, send the data that was collected in step 1 to Fujitsu technical support and request an investigation.

13.1 Collecting Investigation Data

If a problem has occurred, start by checking the contents of error messages output by this product and perform actions.
The actions are described in "Part 6 Messages".

If the problem cannot be resolved, collect the data shown below from the Admin Server or L-Server (business server) where the problem occurred.

Admin server

Collect the following files:

[Windows]

```
<ServerView Resource Orchestrator installation directory>\RCXCFMG\bin\cfmgcommand.properties
<ServerView Resource Orchestrator installation directory>\RCXCFMG\config\*
<ServerView Resource Orchestrator installation directory>\RCXCFMG\logs\*
<ServerView Resource Orchestrator installation directory>\SWRBAM\FJSVlnkbs\lnk02\log
```

[Linux]

```
/etc/opt/FJSVcfmg/bin/*
/etc/opt/FJSVcfmg/config/*
/opt/FJSVlnkbs/lnk02/LOG/*
/var/opt/FJSVcfmg/logs/*
```

L-Server (business server)

Collect the following files:

[Windows]

```
%SystemDrive%\ProgramData\Fujitsu\FJSVswrbac\cfmg\log\*
<Installation destination of agent>\FJSVlnkbs\lnk02\log\*
```

For Windows Server 2003, the output destination is as follows:

```
%SystemDrive%\Documents and Settings\All Users\Application Data\Fujitsu\FJSVswrbac\cfmg\log\*
<Installation destination of agent>\FJSVlnkbs\lnk02\log\*
```

[Linux]

```
/opt/FJSVlnkbs/lnk02/LOG/*
/var/opt/FJSVswrbac/cfmg/log/*
```

Point

The log output destinations described here are the defaults. Since log output destinations can be changed, check the actual output destinations. Refer to "9.1 Log Output" for information on log output.

Chapter 14 Troubleshooting in Relation to Deployment

This chapter explains troubleshooting in relation to deployment.

14.1 Deployment Is Successful but Connection cannot be Performed Using IP Address of L-Server

Target version and level

- Windows version: ServerView Resource Orchestrator V3
- Linux version: ServerView Resource Orchestrator V3

14.1.1 Action1

Checkpoint

Has a scenario occurred in which deployment was successful, but connection cannot be performed using the IP address of the L-Server (Windows) displayed on the L-Platform Management window? Also, virtualization software such as VMware has a function that allows connection to an L-Server using a console instead of an IP address. Use this function to login to Windows. At this point in time, does either of the following scenarios occur?

- Password resetting is requested, and

  Login is impossible because password resetting fails.

- Password resetting is requested, and

  Login is successful but the correct IP address has not been set.

Cause

These scenarios occur when image creation is implemented repeatedly after a Windows L-Server is deployed.
This product uses Sysprep for Windows images. The number of times it can be used is limited, so image creation cannot be implemented repeatedly.

Action

Reinstall Windows to perform image re-creation.

14.2 After L-Platform Deployment, Error "VSYS30002" is Output to the L-Platform Management Window Event Log

Error message

```
Warning :VSYS30002:Failed to set up middleware. [System ID:div3-6MPBCQH6L][Server Name:Server]
[Detail:VSYS(VSYS40476)]
```

Target version and level

- Windows version: ServerView Resource Orchestrator V3

- Linux version: ServerView Resource Orchestrator V3

14.2.1 Action1

Checkpoint

Is error "VSYS40476" output to the vsys_trace_log log on the Admin Server?
Also, is error "VSYS40738" output to this log's Detail Message?

 Example

```
[2011-01-20 13:58:17,730] ERROR Error :
java.lang.Exception: VSYS40476:run job error. detail=[IpAddress:10.124.70.214,CategoryCode:
0,ErrorCode:0,DetailCode:
0,DetailMessage:VSYS40738:it_failed_in_the_execution_of_the_command.Command=[C:\Windows\TEMP\cfmg
\SW00000142\scriptpkg\startup.cmd]_ReturnCode=[1]] server_id=[div3-6MPBCQH6L-S-0001]
software_id=[SW00000142] jobname=[cfmg_setupmw]
 at com.fujitsu.sop.vsys.vsys.mw.MwSetup.run(MwSetup.java:1176)
```

Is error "VSYS40738" output to the L-Server cfmg-agent_setupmw_log log?

 Example

```
VSYS40738:it_failed_in_the_execution_of_the_command.Command=[C:\Windows\TEMP\cfmg
\SW00000142\scriptpkg\startup.cmd]_ReturnCode=[1]
```

Cause

An error occurred for the script that sets software parameters.
The cause of the error is one of the following:

a. A software-specific error

b. The software is not installed.

Action

a. If it is a software-specific error

Error "VSYS40738" is output to the L-Server cfmg-agent_setupmw_log log. A detailed message is output before this log, so check the content of that message. An example is shown below:

 Example

```
[INFO  ] -----------------------------------------------------------
[INFO  ] ERROR0001 setup failed
[INFO  ] -----------------------------------------------------------
[ERROR ]VSYS40738:it_failed_in_the_execution_of_the_command.Command=[C:\Windows\TEMP\cfmg
\SW00000142\scriptpkg\startup.cmd]_ReturnCode=[1]
```

If the software setup information provided by the software parameter setting function is being used, the output message and action are described in "Chapter 12 Middleware Parameter Setting Information", so refer to that information.

b. If the software is not installed

Check whether or not the relevant software is installed. Installation procedures are described for some software. Refer to "Appendix A Individual Processing for Operating Systems and Middleware (Creating L-Server)" for details.

14.2.2 Action2

Checkpoint

Is error "VSYS40478" output to the Admin Server vsys_trace_log log?

Example

```
 [2011-01-19 13:20:13,481] ERROR Error :
java.lang.Exception: VSYS40478:start waiting job error. detail=[IpAddress:10.128.159.46,CategoryCode:
50,ErrorCode:80,DetailCode:10] server_id=[div01-JZ2M561UR-S-0001] jobname=[cfmg_startwait]
 at com.fujitsu.sop.vsys.vsys.mw.MwSetup.run(MwSetup.java:937)
```

Cause

Software parameter settings failed because the Admin Server and the deployed L-Server cannot communicate. Since there are a number of possible reasons why communication is not possible, possible causes are shown below:

a. The agent of this product is not installed on the L-Server.

b. If the L-Server is Linux, the system parameters of the operating system have not been tuned.

c. The port (default 9664) used for the file transfer infrastructure on the Admin Server or the L-Server is not set to enable reception.

d. The Admin Server and L-Server are not connected by a network.

e. If multiple NICs are installed on the L-Server, the control NIC is set incorrectly.

f. If the Admin Server or L-Server is connected to multiple routers, the routing settings are not set.

g. Connection using the L-Server (Windows) IP address displayed in the L-Platform Management window is not possible.

Action

a. If the agent of this product is not installed on the L-Server

Install the agent of this product on the L-Server. Refer to "Installing on Business Server" in the "Installation Guide" for details.

b. If the L-Server is Linux, and the system parameters of the operating system have not been tuned

Tune the system parameters of the operating system on the L-Server. Refer to "Tuning System Parameters [Linux] " in the "Installation Guide" for details

c. If the port (default 9664) used for the file transfer infrastructure on the Admin Server or the L-Server is not set to enable reception

Set the port (default 9664) used for the file transfer infrastructure on the Admin Server or the L-Server to enable reception. This requires setting the operating system firewall. Refer to "Check the Port Numbers and Firewall Settings" in the "Installation Guide" for details.

d. If the Admin Server and L-Server are not connected by a network

Connect the Admin Server and L-Server by a network. For example, perform the following checks and actions:

- Use the ping command to check if the Admin Server can connect to the L-Server (depending on the firewall, the ping command might not be usable).

- Check if the network segment to which the L-Server is connected can connect to the Admin Server. If it cannot connect, select a network segment that can connect.

e. If multiple NICs are installed on the L-Server, and the control NIC is set incorrectly

   If multiple NICs are installed on the L-Server, an NIC that can communicate with the Admin Server must be specified as the control NIC. Refer to "Template Information"-"File Information Details" in the "ServerView Resource Orchestrator Cloud Edition Reference Guide (Command/XML)" for information on the specification method.

f. If the Admin Server or L-Server is connected to multiple routers, and the routing settings are not set

   If the Admin Server or L-Server is connected to multiple routers, set the routing settings. Refer to "A.1 Operating Systems" for details.

g. Connection using the L-Server (Windows) IP address displayed in the L-Platform Management window is not possible

   Check the following troubleshooting scenario:

   "14.1 Deployment Is Successful but Connection cannot be Performed Using IP Address of L-Server"

Chapter 15 Software Information and Software IDs

This chapter describes the software information and the software IDs registered while setting up.

Software Information

The software information is shown below. The software IDs are determined while setting up.

Refer to "Chapter 16 Registered Software Setup IDs" in the "Installation Guide" for details.

Software Name	OS	Version	associated with Software Setup IDs
Interstage Application Server Standard-J Edition	Windows	V9.0.0	RS00000001
Interstage Application Server Standard-J Edition	Linux	V9.0.0	RS00000002
Interstage Application Server Standard-J Edition	Windows	V9.1.0	RS00000001
Interstage Application Server Standard-J Edition	Linux	V9.1.0	RS00000002
Interstage Application Server Standard-J Edition	Windows	V9.2.0	RS00000001
Interstage Application Server Standard-J Edition	Windows64	V9.2.0	RS00000001
Interstage Application Server Standard-J Edition	Linux	V9.2.0	RS00000002
Interstage Application Server Standard-J Edition	Linux64	V9.2.0	RS00000002
Interstage Application Server Enterprise Edition	Windows	V9.0.0	RS00000001
Interstage Application Server Enterprise Edition	Linux	V9.0.0	RS00000002
Interstage Application Server Enterprise Edition	Windows	V9.1.0	RS00000001
Interstage Application Server Enterprise Edition	Linux	V9.1.0	RS00000002
Interstage Application Server Enterprise Edition	Windows	V9.2.0	RS00000001
Interstage Application Server Enterprise Edition	Windows64	V9.2.0	RS00000001
Interstage Application Server Enterprise Edition	Linux	V9.2.0	RS00000002
Interstage Application Server Enterprise Edition	Linux64	V9.2.0	RS00000002
Systemwalker Runbook Automation V14g (Business Servers)	Windows	V14.1	RS00010204
Systemwalker Runbook Automation V14g (Business Servers)	Windows64	V14.1	RS00010204
Systemwalker Runbook Automation V14g (Business Servers)	Linux	V14.1	RS00010205
Systemwalker Runbook Automation V14g (Business Servers)	Linux64	V14.1	RS00010205
Systemwalker Runbook Automation V14g (Linked Servers/ Relay Servers)	Windows	V14.1	RS00010202
Systemwalker Runbook Automation V14g (Linked Servers/ Relay Servers)	Windows64	V14.1	RS00010202
Systemwalker Runbook Automation V14g (Linked Servers/ Relay Servers)	Linux	V14.1	RS00010203
Systemwalker Runbook Automation V14g (Linked Servers/ Relay Servers)	Linux64	V14.1	RS00010203
Systemwalker Service Quality Coordinator Standard Edition	Windows	V13.4	RS00010400

Software Name	OS	Version	associated with Software Setup IDs
Systemwalker Service Quality Coordinator Standard Edition	Windows64	V13.4	RS00010400
Systemwalker Service Quality Coordinator Standard Edition	Linux	V13.4	RS00010401
Systemwalker Service Quality Coordinator Standard Edition	Linux64	V13.4	RS00010401
Systemwalker Service Quality Coordinator Enterprise Edition	Windows	V13.4	RS00010400
Systemwalker Service Quality Coordinator Enterprise Edition	Windows64	V13.4	RS00010400
Systemwalker Service Quality Coordinator Enterprise Edition	Linux	V13.4	RS00010401
Systemwalker Service Quality Coordinator Enterprise Edition	Linux64	V13.4	RS00010401
Systemwalker Service Quality Coordinator Standard Edition	Windows	V13.5	RS00010400
Systemwalker Service Quality Coordinator Standard Edition	Windows64	V13.5	RS00010400
Systemwalker Service Quality Coordinator Standard Edition	Linux	V13.5	RS00010401
Systemwalker Service Quality Coordinator Standard Edition	Linux64	V13.5	RS00010401
Systemwalker Service Quality Coordinator Enterprise Edition	Windows	V13.5	RS00010400
Systemwalker Service Quality Coordinator Enterprise Edition	Windows64	V13.5	RS00010400
Systemwalker Service Quality Coordinator Enterprise Edition	Linux	V13.5	RS00010401
Systemwalker Service Quality Coordinator Enterprise Edition	Linux64	V13.5	RS00010401
Symantec Endpoint Protection	Windows	11.0	-
Symantec Endpoint Protection	Windows64	11.0	-
Systemwalker Software Configuration Manager (Agent)	Windows	V14.1	-
Systemwalker Software Configuration Manager (Agent)	Windows64	V14.1	-
Systemwalker Software Configuration Manager (Agent)	Linux	V14.1	-
Systemwalker Software Configuration Manager (Agent)	Linux64	V14.1	-
UpdateAdvisor(Middleware)	Windows	V1.0L66	-
UpdateAdvisor(Middleware)	Linux	V1.0L66	-
Systemwalker Software Configuration Manager (business server)	Windows	V15.0	-
Systemwalker Software Configuration Manager (business server)	Windows64	V15.0	-
Systemwalker Software Configuration Manager (business server)	Linux	V15.0	-
Systemwalker Software Configuration Manager (business server)	Linux64	V15.0	-
Systemwalker Software Configuration Manager (business server)	Windows	V15.1	-

Software Name	OS	Version	associated with Software Setup IDs
Systemwalker Software Configuration Manager (business server)	Windows64	V15.1	-
Systemwalker Software Configuration Manager (business server)	Linux	V15.1	-
Systemwalker Software Configuration Manager (business server)	Linux64	V15.1	-
Windows Update Agent	Windows	V15.0	RS00080200
Windows Update Agent	Windows64	V15.0	RS00080200

location

Location listed below.

[Windows]

```
<ServerView Resource Orchestrator installation directory>\RCXCFMG\templates\softwares\
```

[Linux]

```
/opt/FJSVcfmg/templates/softwares/
```

Chapter 16 Registered Software Setup IDs

This chapter describes the software setup IDs registered while setting up.

Registered Software Setup IDs of this product listed below.

Registered Software Setup IDs	Software Name	OS	Remarks
RS00000001	Interstage Application Server	Windows	-
RS00000002	Interstage Application Server	Linux	-
RS00010202	Systemwalker Runbook Automation (Linked Servers/Relay Servers)	Windows	-
RS00010203	Systemwalker Runbook Automation (Linked Servers/Relay Servers)	Linux	-
RS00010204	Systemwalker Runbook Automation (Business Servers)	Windows	-
RS00010205	Systemwalker Runbook Automation (Business Servers)	Linux	-
RS00010400	Systemwalker Service Quality Coordinator	Windows	Manager and Agent Common
RS00010401	Systemwalker Service Quality Coordinator	Linux	Manager and Agent Common
RS00080200	Windows Update Agent	Windows	-

Part 6 Messages

This part explains the messages output by the software parameter setting function.

Chapter 17 Messages Overview

The following messages are output by the software parameter setting function:

- Event Logs messages
- L-Platform Template Management Command messages
- Log messages (Admin server logs and L-Server logs)
- Software parameter setting Command messages

The message output format and description are explained for each message.

Chapter 18 Event log

This chapter explains the messages output to the Event logs.

The Event log window displays information such as errors that have occurred while the Manager View is being used. The window displays up to 100 logs, beginning with the most recent, and the logs are listed for up to 14 days.

Not all of the information output to logs is displayed in the event log.

The full error information is output to log files. Refer to "9.1 Log Output" for details.

18.1 Messages

18.1.1 Output Format

The output format for the messages output to the event log is as follows. Note that in this message output format, the message ID and message are separated by a colon (:).

Date/time	Title	Message ID	Message

The following content is output for each item:

Item	Description
Date/time	yyyy/mm/dd hh:mm:ss
Title	"Warning" is output.
Message ID	The message ID is output.
Message	This is the content of the message.

18.1.2 Message List

Message ID	Item	Description
VSYS30002	Message	Failed to setup middleware. [System ID:{0}] [Server Name:{1}] [Detail:{2}({3})]
	Description	The initial setup processing for the middleware could not be performed when the new system was created. The middleware may not run correctly. {0}: System ID {1}: Server name {2} and {3}: Details
	Action method	Contact the system administrator.
VSYS30009	Message	Timeout to setup middleware. [System ID:{0}] [Server Name:{1}]
	Description	Middleware setup processing has timed out. {0}: System ID {1}: Server name
	Action method	Contact the system administrator.

Chapter 19 L-Platform Template Management Command Messages

This chapter explains the messages output by the L-Platform template management commands.

19.1 Output Format of the L-PlatformTemplate Management Command Messages

The output format of the L-Platform Template Management Command messages is as follows:

Message ID		Message
Prefix	Message number	

Item	Description
Message ID	A prefix followed by a message number.
Prefix	Literal "TPLC".
Message number	Unique identifier.
Message	Message text.

19.2 Messages TPLC00001 to TPLC10103

Message ID (Return value (*1))	Item	Description
TPLC00701 (5)	Message	Failed to obtain the list of the software setting information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in in "Chapter 20 Log Messages".
TPLC00702 (5)	Message	Failed to obtain the list of the associated software setting information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00703 (5)	Message	Failed to register the software setting information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00704 (5)	Message	Failed to change the software setting information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00705 (5)	Message	Failed to delete the software setting information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00706 (6)	Message	The specified software setting information doesn't exist.
	Description	The Software setup information corresponding to the specified ID does not exist.

Message ID (Return value (*1))	Item	Description
	Action	The Software setup information does not need to be deleted because it has already been deleted.
TPLC00707 (5)	Message	The specified software setting information doesn't exist.
	Description	The Software setup information corresponding to the specified ID does not exist.
	Action	Confirm that the specified software setup ID is correct, and that the Software setup information exists.
TPLC00708 (5)	Message	The specified software setting information and the software information don't exist.
	Description	The Software setup information or software information corresponding to the specified ID does not exist.
	Action	Check that the specified software setup ID is correct, and that the Software setup information exists. Check that the specified software ID is correct, and that the software information exists.
TPLC00709 (5)	Message	Failed to associate the software setting information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00710 (6)	Message	The software setting information is associated.
	Description	The software information has been associated with other Software setup information.
	Action	The software information cannot be set because it has already been associated with other Software setup information.
TPLC00711 (5)	Message	Failed to remove the association of the software setting information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00712 (5)	Message	Failed to obtain the list of the parameter information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00713 (5)	Message	Failed to register the parameter information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00714 (5)	Message	Failed to change the parameter information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00715 (5)	Message	Failed to delete the parameter information. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00716 (5)	Message	The specified parameter information doesn't exist.
	Description	The parameter information corresponding to the specified ID does not exist.
	Action	Confirm that the specified parameter ID is correct, and that the parameter information exists.
TPLC00717 (6)	Message	The specified parameter information doesn't exist.
	Description	The parameter information corresponding to the specified ID does not exist.

Message ID (Return value (*1))	Item	Description
	Action	The parameter information does not need to be deleted because it has already been deleted.
TPLC00718 (5)	Message	Failed to upload the package file. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in "Chapter 20 Log Messages".
TPLC00719 (5)	Message	Failed to download the package file. (<*Error code* (*2)>)
	Description	Processing within the server failed.
	Action	Refer to the message with the same message ID as the error code in in "Chapter 20 Log Messages".
TPLC00720 (5)	Message	The software setting information can't be deleted as it is in use.
	Description	The Software setup information cannot be deleted because it is being used by the system.
	Action	Delete the Software setup information when it is not in use by the system.
TPLC00721 (5)	Message	The software setting information can't be removed as it is in use.
	Description	The Software setup information cannot be removed because it is being used by the system.
	Action	Remove the Software setup information when it is not in use by the system.
TPLC00722 (5)	Message	The specified software setting information or the parameter information don't exist.
	Description	The Software setup information or parameter information corresponding to the specified ID does not exist.
	Action	Confirm that the specified software setup ID is correct, and that the Software setup information exists. Check that the specified parameter ID is correct, and that the parameter information exists.
TPLC00723 (5)	Message	It can't be downloaded because the directory with the file name exists. (<*Directory name*>)
	Description	A directory with the same name as the package files exists in the download destination.
	Action	Confirm that there is a directory with the same name as the package files in the download destination.
TPLC00724 (5)	Message	It can't be uploaded because the file size exceeds the limitation. (<*File name*>)
	Description	The package files have exceeded the limit for the file size that can be uploaded.
	Action	Check file size of the package files.
TPLC00725 (5)	Message	The software setting information which the product registered can't be deleted.
	Description	The Software setup information cannot be deleted because it is reserved by the product.
	Action	The Software setup information will not be deleted because it is reserved by the product.
TPLC00726 (5)	Message	The parameter information can't be deleted as it is in use.
	Description	The parameter information cannot be deleted because it is being used by the system.
	Action	Delete the parameter information when it is not in use by the system.

*1: The return value is also notified at the same time as the message description.

*2: The error code is displayed as "VSYSnnnnn". "nnnnn" is a digit string. Refer to "Chapter 20 Log Messages" for information on the meaning of "VSYSnnnnn".

Chapter 20 Log Messages

This chapter explains the Log Messages.
The following logs are output by this product.
The "With or without messages?" column is used to show whether these logs include messages.

Type	Log name	Description	With or without messages?
Admin Server log	vsys_trace_log	Outputs trace logs for the functions that manage the L-Platform templates and L-Platforms.	With
	vsys_batch_log	Outputs trace logs for the batch processing parts of the functions that manage the L-Platform templates and L-Platforms.	With
	Event Logs	Outputs error information and similar that is generated during use of the **L-Platform management** window.	With
L-Server log (business server)	cfmg_agent_filetracefer_log	Outputs logs from agents waiting to receive files. This log can be used to determine whether processing by an agent can be started or not.	With
	cfmg_agent_setupmw_log	Outputs as logs the file transfer processes for Software setup information script packages, environment variable settings files, and parameter information parameter packages, as well as the standard output of startup scripts.	With
	cfmg_agent_checkstatus_log	Outputs logs for the processes that determine whether the execution of startup scripts have been completed or not.	With

This chapter describes the messages output to logs.
Refer to "9.1 Log Output" for details on output logs.

20.1 Output Format of Log

The output format of the Log Messages is as follows:

Date/ time	Error type	Message ID		Message
		Prefix	Message number	

Item	Description	
Date/time	yyyy-mm-dd hh:mm:ss,sss	
Error type	One of the following character strings is displayed:	
	INFO	Information message
	WARM	Warning message
	ERROR	Error message
Message ID	A prefix followed by a message number.	
Prefix	Literal "VSYS".	
Message number	Unique identifier.	
Message	Message text.	

20.2 Admin Server Log

20.2.1 Messages VSYS40000 to VSYS40051

Message ID (Error type)	Item	Description
VSYS40000 (ERROR)	Message	SoftwareSetup tag does not exist.
	Description	The <softwareSetup> tag does not exist.
	Action	Enter a <softwareSetup> tag in the software setup information file, then try again.
VSYS40001 (ERROR)	Message	Xml validation error.
	Description	An error has occurred with the XML validation for the software setup information.
	Action	There is a problem with the format of the software setup information file. Correct the problem, then try again.
VSYS40002 (ERROR)	Message	Parameter-Key is already used. Parameter-Key=[{0}]
	Description	The parameter key already exists. {0} is the parameter key.
	Action	Review the software setup information to make sure that there are no duplicate parameter keys, then try again.
VSYS40003 (ERROR)	Message	Parameter-Key is format error. Parameter-Key=[{0}]
	Description	The parameter key does not comply with the format rules. {0} is the parameter key.
	Action	Recheck that the parameter key complies with the format rules, then try again. The format rules for the parameter keys are that they can only combine alphanumeric characters and periods ("."). However, only alphabetic characters can be specified for the first character.
VSYS40004 (ERROR)	Message	Parameter-Value is not Parameter-Type. Parameter-Key=[{0}] Parameter-Type=[{1}] Parameter-Value=[{2}]
	Description	The value of the parameter is not a valid type. {0} is the parameter key. {1} is the type. {2} is the value.
	Action	Check if the parameter type and value in the software setup information are valid, then try again. "boolean" type: "true" or "false" "number" type: Numbers (-2,147, 483, 648 to 2,147, 483, 647) "string" type: A string or empty string
VSYS40005 (ERROR)	Message	Reserved-ID is format error. Reserved=[{0}] force=[{1}] SoftwareSetup-ID=[{2}]
	Description	There is a problem with the option specification that was used to register or update a reserved software setup ID. {0} is "true" or "false". {1} is "true" or "false". {2} is the software setup ID.
	Action	Reserved software setup IDs cannot be registered.
VSYS40006 (ERROR)	Message	Reserved-ID exist.Reserved-ID=[{0}]
	Description	A reserved software setup ID has been specified with an update operation.

Message ID (Error type)	Item	Description
		{0} is the software setup ID.
	Action	Reserved software setup IDs cannot be updated.
VSYS40007 (ERROR)	Message	SoftwareSetup does not exist. SoftwareSetup-ID=[{0}]
	Description	There is no software setup information in the softwaresetup table. {0} is the software setup ID.
	Action	The software setup ID that was specified by the softwareSetup/id tag in the software setup information does not exist in the table. To register a new software setup ID, specify an empty string in the softwareSetup/id tag. To update an existing software setup ID, confirm that there are no problems with the specification for the software setup ID in the softwareSetup/id tag.
VSYS40008 (ERROR)	Message	Reserved-ID is not exist.Reserved-ID=[{0}]
	Description	An unreserved software setup ID has been specified with an operation to update a reserved software setup ID. {0} is the software setup ID.
	Action	The registered software setup ID is not a reserved software setup ID. To update an unreserved software setup ID, execute the command again, specifying a software setup ID that has been registered in the softwareSetup/id tag without a <reserved> tag in the request body or a softwareSetup/reserved tag.
VSYS40009 (ERROR)	Message	Parameter#parameterinfo does not exist. Parameter-ID=[{0}]
	Description	The parameter ID does not exist in the parameter#parameterinfo table. {0} is the parameter ID.
	Action	A conflict has occurred with the registered data. Delete the parameter ID from the parameterInfo table, then try again.
VSYS40010 (ERROR)	Message	Parameter-Value is not Parameter-Type. Parameter-ID=[{0}] Parameter-Key=[{1}] Parameter-Type=[{2}] Parameter-Value=[{3}]
	Description	A parameter value included in the registered parameter information is invalid. {0} is the parameter ID. {1} is the parameter key. {2} is the type. {3} is the value.
	Action	Check if the parameter type in the software setup information and the parameter value that has already been registered are valid, then try again. "boolean" type: "true" or "false" "number" type: Numbers (-2,147, 483, 648 to 2,147, 483, 647) "string" type: A string or empty string
VSYS40011 (ERROR)	Message	Only 'true' or 'false' can be set to verbose. value=[{0}]
	Description	There is a problem with the "verbose" specification. {0} is the verbose value.
	Action	Review the verbose value, then try again.
VSYS40021 (ERROR)	Message	SoftwareSetup does not exist. SoftwareSetup-ID=[{0}]
	Description	There is no software setup information in the softwaresetup table. {0} is the software setup ID.
	Action	Check the specified software setup ID.
VSYS40030 (ERROR)	Message	SoftwareSetup does not exist. SoftwareSetup-ID=[{0}]

Message ID (Error type)	Item	Description
	Description	There is no software setup information in the softwaresetup table. {0} is the software setup ID.
	Action	Check the specified software setup ID.
VSYS40031 (ERROR)	Message	Reserved-ID exist.Reserved-ID=[{0}]
	Description	A reserved software setup ID has been specified with a deletion operation. {0} is the software setup ID.
	Action	Reserved software setup IDs cannot be deleted.
VSYS40032 (ERROR)	Message	SoftwareSetup is used in ParameterInfo. SoftwareSetup-ID=[{0}]
	Description	The Software setup information is used in parameter information. {0} is the software setup ID.
	Action	Delete all parameter information that uses the Software setup information that you want to delete. Then try again.
VSYS40040 (ERROR)	Message	SoftwareSetup does not exist. SoftwareSetup-ID=[{0}]
	Description	The software setup ID does not exist. {0} is the software setup ID.
	Action	Register the software setup ID, then try again.
VSYS40041 (ERROR)	Message	Software does not exist. Software-ID=[{0}]
	Description	The software does not exist. {0} is the software setup ID.
	Action	Register the software ID, then try again.
VSYS40042 (ERROR)	Message	Software is already used. Software-ID=[{0}]
	Description	The software has already been associated with a software setup ID. {0} is the software setup ID.
	Action	The specified software ID is already being used. Use a different software ID.
VSYS40050 (ERROR)	Message	Software and SoftwareSetup does not exist. Software=[{0}] SoftwareSetup-ID=[{1}]
	Description	There is no association between the software setup ID and the software ID. {0} is the software ID. {1} is the software setup ID.
	Action	Check if the software ID and the software setup ID are correct.
VSYS40051 (ERROR)	Message	Software and SoftwareSetup are used with softwareoption#template or softwareoption#deploy_master. Software=[{0}] SoftwareSetup-ID=[{1}]
	Description	The software and software setup information are used by a template or a deployment master. {0} is the software ID. {1} is the software setup ID.
	Action	The software ID or software setup ID is used by a system template or the information for saving a configuration. Delete the information, and then try again.

20.2.2 Messages VSYS40100 to VSYS40131

Message ID (Error type)	Item	Description
VSYS40100 (ERROR)	Message	Xml validation error.
	Description	An XML validation error was detected in the parameter information.
	Action	There is an error with the parameter information format. Correct the error, and then try again.
VSYS40101 (ERROR)	Message	Parameter-Key is already used. Parameter-Key=[{0}]
	Description	The parameter key already exists. {0} is the parameter key.
	Action	Review the parameter information to make sure that there are no duplicate parameter IDs, then try again.
VSYS40102 (ERROR)	Message	SoftwareSetup-ID does not exist. SoftwareSetup-ID=[{0}]
	Description	There is no software setup information in the softwaresetup table. {0} is the software setup ID.
	Action	Check whether there is a problem with the specified software ID, then try again.
VSYS40103 (ERROR)	Message	Parameter-Key does not exist. Parameter-Key=[{0}]
	Description	The parameter key does not exist in the parameter#softwaresetup table. {0} is the parameter key.
	Action	Check whether there is a problem with the specified parameter ID, then try again.
VSYS40104 (ERROR)	Message	Parameter-Type validation error.
	Description	The value of the parameter is not a valid type.
	Action	Check if the specified value is a valid parameter value defined in the software setup information, and then try again.
VSYS40105 (ERROR)	Message	Parameter-ID not exist. Parameter-ID=[{0}]
	Description	The parameter ID does not exist in the parameter#parameterinfo table. {0} is the parameter ID.
	Action	Check whether there is a problem with the specified parameter ID, then try again.
VSYS40110 (ERROR)	Message	Parameter-ID not exist. Parameter-ID=[{0}]
	Description	The parameter ID does not exist in the parameter#parameterinfo table. {0} is the parameter ID.
	Action	Check whether there is a problem with the specified parameter ID, then try again.
VSYS40120 (ERROR)	Message	Parameter-ID not exist. Parameter-ID=[{0}]
	Description	The parameter ID does not exist in the parameter#parameterinfo table. {0} is the parameter ID.
	Action	Check whether there is a problem with the specified parameter ID, then try again.
VSYS40130 (ERROR)	Message	Parameter-ID not exist. Parameter-ID=[{0}]
	Description	The parameter ID does not exist in the parameter#parameterinfo table. {0} is the parameter ID.
	Action	Check whether there is a problem with the specified parameter ID, then try again.
VSYS40131 (ERROR)	Message	Parameter-ID not exist. Parameter-ID=[{0}]
	Description	The parameter ID does not exist in the parameter#parameterinfo table. {0} is the parameter ID.

Message ID (Error type)	Item	Description
	Action	Check whether there is a problem with the specified parameter ID, then try again.

20.2.3 Messages VSYS40200 to VSYS40210

Message ID (Error type)	Item	Description
VSYS40200 (ERROR)	Message	SQL error occurred. method=[{0}]
	Description	An SQL error has occurred. {0} is the SQL statement that contains an error.
	Action	Check whether the RDB system is running normally. If the error persists, contact Fujitsu technical support.
VSYS40201 (ERROR)	Message	SoftwareSetup-ID already exists. SoftwareSetup-ID=[{0}]
	Description	The software setup ID is already being used. {0} is the software setup ID.
	Action	Package files cannot be uploaded for reserved IDs.
VSYS40202 (ERROR)	Message	SoftwareSetup-ID or ParameterInfo-ID does not exist. ID=[{0}]
	Description	Either the software setup ID or the parameter ID does not exist. {0} is the software setup ID.
	Action	Check whether the ID is correct, and then try again.
VSYS40203 (ERROR)	Message	The size of zipfile is invalid. filename=[{0}]
	Description	The size of the ZIP file exceeds the allowed size. {0} is the file name.
	Action	Review the size of the ZIP file.
VSYS40204 (ERROR)	Message	Zipfile is invalid. filename=[{0}]
	Description	The ZIP file is incorrect. {0} is the file name.
	Action	Check the following points to see if the ZIP file is correct. - Is the file extension of the ZIP file "zip"? - Can the ZIP file be decompressed? - Do the names of the files included in the ZIP file contain non-ASCII characters?
VSYS40210 (ERROR)	Message	Package does not exist. ID=[{0}]
	Description	The package does not exist. {0} is the package ID.
	Action	Check whether the ID is correct, then try again.

20.2.4 Messages VSYS40300 to VSYS40322

Message ID (Error type)	Item	Description
VSYS40300 (ERROR)	Message	Template does not exist. Template-ID=[{0}]
	Description	The template ID does not exist. {0} is the template ID.
	Action	Check if the template ID is correct, and then try again.

Message ID (Error type)	Item	Description
VSYS40301 (ERROR)	Message	Template-ID is already used. Template-ID=[{0}]
	Description	The template ID is already being used. {0} is the template ID.
	Action	The template ID is being used by the information for saving a configuration. Delete the information, and then try again.
VSYS40302 (ERROR)	Message	Server-No does not exist in the Template. Template-ID=[{0}], Server-No=[{1}]
	Description	The server serial number does not exist. {0} is the template ID. {1} is the server serial number.
	Action	Check whether the server number specified in the software option is correct, and then try again.
VSYS40303 (ERROR)	Message	Software-ID does not exist in the Image. Image-ID=[{0}], Software-ID=[{1}]
	Description	There is no association between the ID of the template where the software ID is specified and the image ID registered with the server serial number. {0} is the image ID. {1} is the software ID.
	Action	Check whether the software ID specified in the software option is included in the image information for the server. Then try again.
VSYS40304 (ERROR)	Message	ParameterInfo does not exist. ParameterInfo-ID=[{0}]
	Description	The parameter information does not exist. {0} is the parameter ID.
	Action	Check if the parameter information ID is correct. If the error persists, contact Fujitsu technical support.
VSYS40305 (ERROR)	Message	SoftwareSetup-ID is not related to Software-ID. Software-ID[{0}], SoftwareSetup-ID=[{1}]
	Description	The software setup information for the parameter information does not match the software setup information associated with the software. {0} is the software ID. {1} is the software setup ID.
	Action	Check whether the software ID and the parameter ID are correct, and then try again.
VSYS40306 (ERROR)	Message	SQL error occurred. method=[{0}]
	Description	An SQL error has occurred. {0} is the SQL statement that contains an error.
	Action	Check whether the RDB system is running normally. If the error persists, contact Fujitsu technical support.
VSYS40320 (ERROR)	Message	Parameter information does not exist. no=[{0}] softwareId=[{1}] parameterInfoId=[{2}]
	Description	The parameter ID for the software option specified in the template does not exist in the parameterInfo table. {0} is the server serial number. {1} is the software ID. {2} is the parameter ID.
	Action	Check the parameter ID for the software option in the template information, and then try again.
VSYS40321 (ERROR)	Message	SoftwareID does not exist in image. no=[{0}] imageId=[{1}] softwareId=[{2}]

Message ID (Error type)	Item	Description
	Description	The software for the software option specified in the template is not included in the software for the image. {0} is the server serial number. {1} is the image ID. {2} is the software ID.
	Action	Check the software ID for the software option in the template information, and then try again.
VSYS40322 (ERROR)	Message	Parameter information and software setup infomation not link . no=[{0}] softwareId=[{1}] parameterInfoId=[{2}]
	Description	The parameter information for the software option specified in the template has not been specified in the software setup information for the software. {0} is the server serial number. {1} is the software ID. {2} is the parameter ID.
	Action	Check the software ID and parameter ID for the software option in the template information, then try again.

20.2.5 Messages VSYS40400 to VSYS40483

Message ID (Error type)	Item	Description
VSYS40410 (ERROR)	Message	software_link does not exist. Image-ID=[{0}] Software-ID=[{1}]
	Description	The software for the software option specified in the "deployment master XML" deployment master is not included in the software for the image. {0} is the image ID. {1} is the software ID.
	Action	Check whether the software ID has been specified in the image information. Then recreate the system template.
VSYS40411 (ERROR)	Message	parameterinfo does not exist. ParameterInfo-ID=[{0}]
	Description	The parameter information does not exist. {0} is the parameter ID.
	Action	Check whether the parameter ID specified in the template information exists. Then recreate the system template.
VSYS40412 (ERROR)	Message	softwaresetup_link does not exist. Software-ID=[{0}] SoftwareSetup-ID=[{1}]
	Description	The software setup information for the parameter information does not match the software setup information associated with the software. {0} is the software ID. {1} is the software setup ID.
	Action	Check the software ID and parameter ID specified in the template information. Then recreate the system template.
VSYS40450 (ERROR)	Message	Software:{0} is not registered in [software]
	Description	The software for the software option specified in the "deployment master XML" deployment master does not exist. {0} is the software ID.
	Action	Check the software ID specified in the template information. Then recreate the system template.

Message ID (Error type)	Item	Description
VSYS40451 (ERROR)	Message	Parameter:{0} is not registered in [parameterInfo]
	Description	The parameter information for the software option specified in the "deployment master XML" deployment master does not exist. {0} is the parameter ID.
	Action	Check the parameter ID specified in the template information. Then recreate the system template.
VSYS40452 (ERROR)	Message	SoftwareSetup:{0} is not registered in [softwaresetup]
	Description	The software setup information for the parameter information for the software option specified in the "deployment master XML" deployment master does not exist. {0} is the software setup ID.
	Action	Check the software setup ID for the parameter information specified in the template information. Then recreate the system template.
VSYS40460 (ERROR)	Message	create work directory error. diretory=[{0}]
	Description	Creation of the work directory has failed. {0} is the directory.
	Action	Check whether the specified directory exists. If the specified directory exists, check whether the user has permission to access it.
VSYS40461 (ERROR)	Message	no OS exists. server-id=[{0}]
	Description	The operating system cannot be found. {0} is the server ID.
	Action	Check whether the operating system category has been specified in the <osCategory> tag in the software information for the operating system. Then recreate the system template.
VSYS40462 (ERROR)	Message	no NIC exists. server-id=[{0}]
	Description	The NIC cannot be found. {0} is the server ID.
	Action	Check whether NICs have been specified for the servers in the template information. Then recreate the system template.
VSYS40463 (ERROR)	Message	control NIC not exists. server-id=[{0}]
	Description	The control NIC does not exist in the database. {0} is the server ID.
	Action	Check whether control NICs have been specified for the servers in the template information. Then recreate the system template.
VSYS40464 (ERROR)	Message	control NIC Ip Address null error. server-id=[{0}]
	Description	The IP address of the control NIC does not exist in the database. {0} is the server ID.
	Action	Check whether there are any problems in the network resources of the segment information one is using. Refer to the "ServerView Resource Orchestrator Cloud Edition User's Guide for Infrastructure Administrators (Resource Management)" for detailed information about network resources. If the error persists, contact Fujitsu technical support.
VSYS40465 (ERROR)	Message	script package number over 1 error. server_id=[{0}] software_id=[{1}]

Message ID (Error type)	Item	Description
	Description	There are two or more script packages. {0} is the server ID. {1} is the software ID.
	Action	Delete the script package for the software setup ID associated with the software ID so that there is only one script package. If the error persists, contact Fujitsu technical support.
VSYS40466 (INFO)	Message	software not setup. server_id=[{0}] software_id=[{1}]
	Description	Software setup information has not been specified. Middleware parameter settings cannot be set up. {0} is the server ID. {1} is the software ID.
	Action	To set up middleware parameters, register the required information.
VSYS40467 (ERROR)	Message	no script package. server_id=[{0}] software_id=[{1}]
	Description	The script package does not exist. Middleware parameters cannot be set up. {0} is the server ID. {1} is the software ID.
	Action	Register the script package.
VSYS40468 (INFO)	Message	no parameter. server_id=[{0}] software_id=[{1}]
	Description	The parameter information has not been registered. {0} is the server ID. {1} is the software ID.
	Action	To set up parameters, register the required information.
VSYS40469 (ERROR)	Message	start file receive job error. detail=[{0}] server_id=[{1}] software_id=[{2}] jobname=[{3}]
	Description	The process for sending and receiving files has failed to start. {0} is the detailed information. {1} is the server ID. {2} is the software ID. {3} is the job name.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs. Check whether the Admin Server can communicate with the virtual server. The IP address of the virtual server is displayed in the "detail" section, so check whether it is possible to connect to that IP address from the Admin Server.
VSYS40470 (INFO)	Message	starting file receive job. server_id=[{0}] software_id=[{1}] jobname=[{2}]
	Description	The process for sending and receiving files has started. {0} is the server ID. {1} is the software ID. {2} is the job name.
	Action	No action is required.
VSYS40471 (INFO)	Message	start file receive job success. server_id=[{0}] software_id=[{1}] jobname=[{2}]
	Description	The process for sending and receiving files has terminated normally. {0} is the server ID. {1} is the software ID. {2} is the job name.

Message ID (Error type)	Item	Description
	Action	No action is required.
VSYS40472 (ERROR)	Message	run get dir job error. detail=[{0}] server_id=[{1}] software_id=[{2}] jobname=[{3}]
	Description	Obtaining the environment for the agent has failed. {0} is the detailed information. {1} is the server ID. {2} is the software ID. {3} is the job name.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs.
VSYS40473 (ERROR)	Message	transfer script package zip file job error. detail=[{0}] server_id=[{1}] software_id=[{2}]
	Description	An error occurred while the ZIP file for the script package was being transferred. {0} is the detailed information. {1} is the server ID. {2} is the software ID.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs. Check whether the Admin Server can communicate with the virtual server.
VSYS40474 (ERROR)	Message	transfer setenv file job error. detail=[{0}] server_id=[{1}] software_id=[{2}]
	Description	An error occurred while the setenv file was being transferred. {0} is the detailed information. {1} is the server ID. {2} is the software ID.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs.
VSYS40475 (ERROR)	Message	transfer parameter package zip file job error. detail=[{0}] server_id=[{1}] software_id=[{2}]
	Description	An error occurred while the ZIP file for the parameter package was being transferred. {0} is the detailed information. {1} is the server ID. {2} is the software ID.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs. Check whether the Admin Server can communicate with the virtual server.
VSYS40476 (ERROR)	Message	run job error. detail=[{0}] server_id=[{1}] software_id=[{2}] jobname=[{3}]
	Description	A job has failed to run on the agent. {0} is the detailed information. {1} is the server ID. {2} is the software ID. {3} is the job name.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs. Check whether the Admin Server can communicate with the virtual server. The IP address of the virtual server is displayed in the "detail" section, so check whether it is possible to connect to that IP address from the Admin Server. To communicate with virtual servers, port 9964 for the file transfer infrastructure must be open. Review the firewall settings between the Admin Server and the virtual server. Check whether the content of the script package can be executed on the operating system

Message ID (Error type)	Item	Description
		of the virtual server. Store startup scripts in the root of the ZIP file rather than in a directory. Check the linefeed code used in the startup script. For the Windows version, the linefeed code is CR+LF. For the Linux version, the linefeed code is LF. Do not include the UTF-8 byte order mark (BOM) in shell scripts.
VSYS40477 (INFO)	Message	no valid software setup. server_id=[{0}]
	Description	Valid software setup information does not exist. {0} is the server ID.
	Action	To set up middleware parameters, register the required information.
VSYS40478 (ERROR)	Message	start waiting job error. detail=[{0}] server_id=[{1}] jobname=[{2}]
	Description	Communications for the agent have failed. {0} is the detailed information. {1} is the server ID. {2} is the job name.
	Action	Check whether the agent has been installed correctly. If the agent is the Linux version, check whether the system parameters have been tuned. Refer to "Tuning System Parameters [Linux]" in the "Installation Guide" for details on how to tune system parameters. If the agent has been installed correctly, check the agent logs. Check whether the Admin Server can communicate with the virtual server. The IP address of the virtual server is displayed in the "detail" section, so check whether it is possible to connect to that IP address from the Admin Server. To communicate with virtual servers, port 9964 for the file transfer infrastructure must be open. Review the firewall settings between the Admin Server and the virtual server.
VSYS40479 (INFO)	Message	software setup not link. server_id=[{0}] software_id=[{1}]
	Description	Software setup information has not been associated. Middleware parameters cannot be set up. {0} is the server ID. {1} is the software ID.
	Action	To set up middleware parameters, register the associated information.
VSYS40480 (ERROR)	Message	no default parameter, had custom parameter. server_id=[{0}] software_id=[{1}]
	Description	The parameter information has not been registered. {0} is the server ID. {1} is the software ID.
	Action	Contact Fujitsu technical support.
VSYS40481 (ERROR)	Message	parameter value format error. server_id=[{0}] software_id=[{1}] parameter_id=[{2}]
	Description	The entry format for the parameter values is incorrect. {0} is the server ID. {1} is the software ID. {2} is the parameter ID.
	Action	Register the parameter values using the correct format. If "\" is used as a value, enter "\\". If "#" is used as a value, enter "\#".
VSYS40482 (ERROR)	Message	Failed to run the get file encoding job. detail=[{0}] server_id=[{1}] jobname=[{2}]
	Description	Failed to start the get file encoding job. {0} is the detailed information.

Message ID (Error type)	Item	Description
		{1} is the server ID. {2} is the jobname
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs.
VSYS40483 (ERROR)	Message	Failed to convert the encoding of the file. encoding=[{0}] io=[{1}] file=[{2}]
	Description	Failed to convert the encoding of the file. {0} is the encoding. {1} is the read or write. {2} is the file name.
	Action	Contact Fujitsu technical support.

20.3 L-Server (business server) log

20.3.1 Messages VSYS40700 to VSYS40786

Message ID (Error type)	Item	Description
VSYS40700 (INFO)	Message	the_setupmw_agent_is_begun.
	Description	The agent is about to start.
	Action	No action is required.
VSYS40701 (INFO)	Message	the_setupmw_agent_is_success.
	Description	The agent has terminated normally.
	Action	No action is required.
VSYS40702 (INFO)	Message	the_setupmw_agent_is_failure.
	Description	The agent has terminated abnormally.
	Action	This message indicates that the agent has terminated abnormally. Refer to the messages that were output before this message.
VSYS40703 (ERROR)	Message	a_file_not_found_error_occurred.[{0}]
	Description	The progress monitoring file does not exist. {0} is the path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40704 (ERROR)	Message	it_failed_in_the_execution_of_the_response_job_command.
	Description	Execution of the job result notification command has failed.
	Action	Check whether the Admin Server can communicate with the virtual server. To communicate with the Admin Server, port 9664 for the file transfer infrastructure must be open. Review the firewall settings between the Admin Server and the virtual server.
VSYS40705 (ERROR)	Message	a_directory_not_found_error_occurred.[{0}]
	Description	The directory does not exist. {0} is the path to the directory.

Message ID (Error type)	Item	Description
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40706 (ERROR)	Message	decompression_error_occured.[{0}]
	Description	Decompressing the file has failed. {0} is the path to the file.
	Action	Check the content of the script package and the parameter package that have been uploaded.
VSYS40707 (ERROR)	Message	the_thread_was_interrupted.
	Description	An interrupt occurred while the thread was being executed.
	Action	No action is required.
VSYS40708 (ERROR)	Message	it_failed_in_the_execution_of_the_command.[{0}]
	Description	Executing the command has failed. {0} is the full path to the command.
	Action	An error has occurred with the startup script. Check the content of the script. Check whether the content of the script package can be executed on the operating system. Store startup scripts in the root of the ZIP file rather than in a directory. Check the linefeed code used in the startup script. For the Windows version, the linefeed code is CR+LF. For the Linux version, the linefeed code is LF. Do not include the UTF-8 byte order mark (BOM) in shell scripts.
VSYS40709 (ERROR)	Message	the_error_not_anticipated_occurred.
	Description	An unexpected error has occurred.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40710 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The number of parameters specified is invalid. {0} is the delimiting parameter.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40711 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The address of the remote server is invalid. {0} is the server address.
	Action	Check whether the Admin Server can communicate with the virtual server. To communicate with the Admin Server, port 9664 for the file transfer infrastructure must be open. Review the firewall settings between the Admin Server and the virtual server.
VSYS40712 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The job identification number is invalid. {0} is the job identification number.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40713 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]

Message ID (Error type)	Item	Description
	Description	The number of software programs is invalid. {0} is the total number of software programs.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40714 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The number of software programs is invalid. {0} is the number of software programs that have finished processing.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40715 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The software ID is invalid. {0} is the software ID.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40716 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The work directory is invalid. {0} is the path to the directory.
	Action	Check whether the specified work directory exists. If the specified work directory exists, check whether the user has permission to access it.
VSYS40717 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The name of the startup script is invalid. {0} is the path to the startup script.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40718 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The home directory for Linkexpress does not exist. {0} is the path to the directory.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs.
VSYS40719 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The name of the execution confirmation file is invalid. {0} is the file name.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40720 (ERROR)	Message	a_io_error_occurred.[{0}]
	Description	An error occurred while the progress monitoring file was being read. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40721 (ERROR)	Message	a_io_error_occurred.[{0}]
	Description	An error occurred while the progress monitoring file was being closed. {0} is the full path to the file.

Message ID (Error type)	Item	Description
	Action	Check the disk capacity and the permission to access folders on the agent.
VSYS40722 (ERROR)	Message	a_file_not_found_error_occurred.[{0}]
	Description	The progress monitoring file does not exist. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40723 (ERROR)	Message	an_io_error_occurred.[{0}]
	Description	An error occurred while the progress monitoring file was being written. {0} is the full path to the file.
	Action	Check the disk capacity and the permission to access folders on the agent.
VSYS40724 (ERROR)	Message	an_io_error_occurred.[{0}]
	Description	An error occurred while the progress monitoring file was being closed. {0} is the full path to the file.
	Action	Check the disk capacity and the permission to access folders on the agent.
VSYS40725 (ERROR)	Message	a_format_error_occurred.[{0}]
	Description	A format error occurred with the progress monitoring file. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40726 (ERROR)	Message	a_status_error_occurred.[{0}]
	Description	A format error occurred with the status information in the progress monitoring file. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40727 (ERROR)	Message	a_num_of_end_prosess_error_occurred.[{0}]
	Description	A format error occurred with the number of completed software programs in the progress monitoring file. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40728 (ERROR)	Message	a_num_of_software_error_occurred.[{0}]
	Description	A format error occurred with the number of software programs in the progress monitoring file. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40729 (ERROR)	Message	a_message_error_occurred.[{0}]
	Description	A format error occurred with the messages in the progress monitoring file. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40730 (ERROR)	Message	a_timer_error_occurred.[{0}]

Message ID (Error type)	Item	Description
	Description	A format error occurred with the processing start time (in milliseconds) in the progress monitoring file. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40731 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The name of the progress monitoring file is invalid. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40732 (ERROR)	Message	a_file_not_found_error_occurred.[{0}]
	Description	The execution confirmation file does not exist. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40733 (ERROR)	Message	decompression_error_occurred.[{0}]
	Description	Decompressing the file has failed. {0} is the full path to the file.
	Action	Check the content of the script package and the parameter package that have been uploaded.
VSYS40734 (ERROR)	Message	the_chmod_command_was_interrupted.
	Description	An interrupt occurred while the chmod command was being executed.
	Action	Check the agent environment, and check that the chmod command exists and can be executed.
VSYS40735 (ERROR)	Message	it_failed_in_the_execution_of_the_chmod_command.
	Description	Executing the chmod command has failed.
	Action	Check if the chmod command is correct.
VSYS40736 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The number of write retries for the progress monitoring file is invalid. {0} is the parameter value.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40737 (ERROR)	Message	a_setupmw_agent_parameter_error_occurred.[{0}]
	Description	The write retry waiting time for the progress monitoring file is invalid. {0} is the parameter value.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40738 (ERROR)	Message	it_failed_in_the_execution_of_the_command.Command=[{0}]_ReturnCode=[{1}]
	Description	A value other than normal completion was returned as the return value for a script. {0} is the command that was executed. {1} is the return value of the command.

Message ID (Error type)	Item	Description
	Action	An error has occurred with the startup script. Check the content of the script.
VSYS40739 (ERROR)	Message	it_failed_in_the_log_output_of_the_command.
	Description	Logs failed to be output to the standard output or standard error output when the command was executed.
	Action	Contact Fujitsu technical support.
VSYS40740 (INFO)	Message	the_checkstatus_agent_is_begun.
	Description	The job status monitoring agent is about to start.
	Action	No action is required.
VSYS40741 (INFO)	Message	the_checkstatus_agent_is_success.
	Description	The job status monitoring agent has terminated normally.
	Action	No action is required.
VSYS40742 (INFO)	Message	the_checkstatus_agent_is_failure.
	Description	The job status monitoring agent has terminated abnormally.
	Action	Refer to the messages that were output before this message.
VSYS40743 (ERROR)	Message	a_checkstatus_agent_parameter_error_occurred.[{0}]
	Description	The number of parameters specified is invalid. {0} is the delimiting parameter.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40744 (ERROR)	Message	a_checkstatus_agent_parameter_error_occurred.[{0}]
	Description	The address of the remote server is invalid. {0} is the parameter value.
	Action	Check whether the Admin Server can communicate with the virtual server. To communicate with the Admin Server, port 9664 for the file transfer infrastructure must be open. Review the firewall settings between the Admin Server and the virtual server.
VSYS40745 (ERROR)	Message	a_checkstatus_agent_parameter_error_occurred.[{0}]
	Description	The job identification number is invalid. {0} is the parameter value.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40746 (ERROR)	Message	a_checkstatus_agent_parameter_error_occurred.[{0}]
	Description	The timeout time (in seconds) is invalid. {0} is the parameter value.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40747 (ERROR)	Message	a_checkstatus_agent_parameter_error_occurred.[{0}]
	Description	The name of the execution confirmation file is invalid. {0} is the file name.

Message ID (Error type)	Item	Description
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40748 (ERROR)	Message	a_checkstatus_agent_parameter_error_occurred.[{0}]
	Description	The work directory does not exist. {0} is the full path to the directory.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs.
VSYS40749 (ERROR)	Message	a_checkstatus_agent_parameter_error_occurred.[{0}]
	Description	The home directory for Linkexpress does not exist. {0} is the full path to the directory.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs.
VSYS40750 (ERROR)	Message	a_checkstatus_agent_time_out.
	Description	The job status monitoring agent has timed out.
	Action	Check if the deployment system is running. Check if the deployment terminated normally. The middleware setup may not have been completed, so check the status of the middleware.
VSYS40751 (ERROR)	Message	it_failed_in_the_execution_of_the_response_job_command.
	Description	Executing the job result notification command has failed.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs.
VSYS40752 (ERROR)	Message	a_file_not_found_error_occurred.[{0}]
	Description	The execution confirmation file does not exist. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40753 (ERROR)	Message	a_checkstatus_agent_parameter_error_occurred.[{0}]
	Description	The name of the progress monitoring file is invalid. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40754 (ERROR)	Message	a_format_error_occurred.[{0}]
	Description	A format error occurred with the progress monitoring file. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40755 (ERROR)	Message	a_checkstatus_agent_parameter_error_occurred.[{0}]
	Description	The name of the progress monitoring file is invalid. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.

Message ID (Error type)	Item	Description
VSYS40760 (INFO)	Message	the_filetrancefer_agent_is_begun.
	Description	The file reception agent has started.
	Action	No action is required.
VSYS40761 (INFO)	Message	the_filetrancefer_agent_is_success.
	Description	The file reception agent has terminated normally.
	Action	No action is required.
VSYS40762 (INFO)	Message	the_filetrancefer_agent_is_failure.
	Description	The file reception agent has terminated abnormally.
	Action	Refer to the messages that were output before this message.
VSYS40763 (ERROR)	Message	a_filetrancefer_agent_parameter_error_occurred.[{0}]
	Description	A parameter error has occurred with the file reception agent. {0} is the delimiting parameter.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40764 (INFO)	Message	a_filetrancefer_agent_getinf_error_occurred.
	Description	An error has occurred with the file reception agent GETINF.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40765 (INFO)	Message	a_filetrancefer_agent_time_out.
	Description	The file reception agent has timed out.
	Action	Check if the deployment system is running. Check if the deployment terminated normally. The middleware setup may not have been completed, so check the status of the middleware.
VSYS40766 (INFO)	Message	a_filetrancefer_agent_stop_linkexpress.
	Description	The file reception agent Linkexpress has stopped.
	Action	Check the operational status of the agent service.
VSYS40767 (ERROR)	Message	a_filetrancefer_agent_filetran_error_occurred.
	Description	An error has occurred with the file reception agent FILETRAN.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40768 (ERROR)	Message	the_error_not_anticipated_occurred.
	Description	An unexpected error has occurred.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40769 (ERROR)	Message	a_filetrancefer_agent_parameter_error_occurred.[{0}]
	Description	A parameter error has occurred with the file reception agent. {0} is the delimiting parameter.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.

Message ID (Error type)	Item	Description
VSYS40770 (ERROR)	Message	a_filetrancefer_agent_parameter_error_occurred.[{0}]
	Description	A parameter error has occurred with the file reception agent. {0} is the delimiting parameter.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40771 (ERROR)	Message	it_failed_in_the_execution_of_the_chmod_command._[{0}]
	Description	An attempt to assign privileges (chmod) has failed. {0} is the command that was executed.
	Action	Check the environment of the operating system.
VSYS40772 (ERROR)	Message	start_script_is_not_found._[{0}]
	Description	The startup script does not exist. {0} is the path to the startup script.
	Action	Check the content of the script package that has been uploaded.
VSYS40773 (ERROR)	Message	setenv_script_is_not_found._[{0}]
	Description	The environment variable settings script does not exist. {0} is the path to the environment variable settings script.
	Action	Contact Fujitsu technical support.
VSYS40774 (ERROR)	Message	the_createwatchfile_agent_is_failure.
	Description	The agent for creating progress monitoring files has started.
	Action	No action is required.
VSYS40775 (ERROR)	Message	the_createwatchfile_agent_is_success.
	Description	The agent for creating progress monitoring files has terminated normally.
	Action	No action is required.
VSYS40776 (ERROR)	Message	the_createwatchfile_agent_is_failure.
	Description	The agent for creating progress monitoring files has terminated abnormally.
	Action	Refer to the messages that were output before this message.
VSYS40777 (ERROR)	Message	a_createwatchfile_agent_parameter_error_occurred._[{0}]
	Description	There is an error with the parameters for creating the progress monitoring file. {0} is the list of parameters.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40778 (ERROR)	Message	a_createwatchfile_agent_parameter_error_occurred._[{0}]
	Description	The path to the progress monitoring file is invalid. {0} is the full path to the file.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40779 (ERROR)	Message	an_io_error_occured._{0}
	Description	An error occurred while the progress monitoring file was being written. {0} is the full path to the file.

Message ID (Error type)	Item	Description
	Action	Check the disk capacity and the permission to access folders on the agent.
VSYS40780 (INFO)	Message	the_getfileencoding_agent_is_begun.
	Description	The get file encoding agent has started.
	Action	No action is required.
VSYS40781 (INFO)	Message	the_getfileencoding_agent_is_success.
	Description	The get file encoding agent has ended successfully.
	Action	No action is required.
VSYS40782 (INFO)	Message	the_getfileencoding_agent_is_failure.
	Description	The get file encoding agent has terminated abnormally.
	Action	Refer to the messages that were output before this message.
VSYS40783 (ERROR)	Message	a_getfileencoding_agent_parameter_error_occurred._[{0}]
	Description	The number of arguments that were specified is invalid. {0} is the delimiting parameter.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40784 (ERROR)	Message	a_getfileencoding_agent_parameter_error_occurred._[{0}]
	Description	The server address of the other party is invalid. {0} is the parameter value.
	Action	Check whether the Admin Server can communicate with the virtual server. To communicate with the Admin Server, port 9664 for the file transfer infrastructure must be open. Review the firewall settings between the Admin Server and the virtual server.
VSYS40785 (ERROR)	Message	a_getfileencoding_agent_parameter_error_occurred._[{0}]
	Description	The job identification number is invalid. The value that was specified for the parameter is displayed in {0}. {0} is the parameter.
	Action	A conflict has occurred with the internal processing. Contact Fujitsu technical support.
VSYS40786 (ERROR)	Message	a_getfileencoding_agent_parameter_error_occurred._[{0}]
	Description	The home directory for Linkexpress does not exist. The directory full path is displayed in {0} {0} is the directory.
	Action	Check whether the agent has been installed correctly. If the agent has been installed correctly, check the agent logs.

Chapter 21 Software Parameter Setting Command Messages

This chapter explains the messages output by the Software Parameter Setting Commands.

21.1 Output Format of the Software Parameter Setting Command Messages

The output format of the Software Parameter Setting Command messages is as follows:

Error type	Message ID		Message
	Prefix	Message number	

Item	Description	
Error type	One of the following character strings is displayed:	
	INFO	An information level message
	ERROR	An error level message
Message ID	A prefix followed by a message number.	
Prefix	Literal "SPAC".	
Message number	Unique identifier.	
Message	Message text.	

21.2 Messages SPAC00001 to SPAC00010

Message ID (Error type, Return value (*1))	Item	Description
SPAC00001 (INFO)	Message	Processing that registers software setup information is executed. Please wait.....
	Description	Software setup information is being registered. Please wait.
	Action	No action is required.
SPAC00002 (INFO)	Message	Processing that registers software information is executed. Please wait.....
	Description	Software information is being registered. Please wait.
	Action	No action is required.
SPAC00003 (INFO, 0)	Message	The registration processing is completed. [start={0}, end={1}]
	Description	Registration of middleware information has completed. The software ID that was registered first is displayed in {0}. The software ID that was registered last is displayed in {1}. When no software information is registered, "start" and "end" will not be displayed.
	Action	No action is required.
SPAC00004 (ERROR, 1)	Message	Failed to find the installation directory.
	Description	An attempt to find the installation directory failed.
	Action	Check whether ServerView Resource Orchestrator has been installed.
SPAC00005 (ERROR, 1)	Message	Failed to register the software setup information. [file={0}]

Message ID (Error type, Return value (*1))	Item	Description
	Description	An attempt to register the software setup information failed. The file name of the software setup information is displayed in {0}.
	Action	Check whether ServerView Resource Orchestrator is operating. A Template Management Command message is displayed before this message. Resolve the problem and then execute the command again. Refer to "Chapter 19 L-Platform Template Management Command Messages" for information on Template Management Command messages.
SPAC00006 (ERROR, 1)	Message	Failed to register the script package. [id={0}, file={1}]
	Description	An attempt to register the script package failed. The software setup ID is displayed in {0}. The file name of the script package is displayed in {1}.
	Action	A Template Management Command message is displayed before this message. Resolve the problem and then execute the command again. Refer to "Chapter 19 L-Platform Template Management Command Messages" for information on Template Management Command messages.
SPAC00007 (ERROR, 1)	Message	Failed to register the software information. [file={0}]
	Description	An attempt to register the software information failed. The file name of the software information is displayed in {0}.
	Action	A Template Management Command message is displayed before this message. Resolve the problem and then execute the command again. Refer to "Chapter 19 L-Platform Template Management Command Messages" for information on Template Management Command messages.
SPAC00008 (ERROR, 1)	Message	Failed to relate software information to the software setup information. [sid={0}, id={1}]
	Description	An attempt to relate the software information to the software setup information failed. The software ID is displayed in {0}. The software setup ID is displayed in {1}.
	Action	A Template Management Command message is displayed before this message. Resolve the problem and then execute the command again. Refer to "Chapter 19 L-Platform Template Management Command Messages" for information on Template Management Command messages.
SPAC00009 (ERROR, 1)	Message	Failed to copy of the software information. [file={0}]
	Description	An attempt to copy the software information file failed. The copy destination directory is displayed in {0}.
	Action	Check the copy destination directory for the cause of the copy failure. Resolve the problem and execute again.
SPAC00010 (WARNING)	Message	The software information file already exists. [file={0}]
	Description	The software information file already exists in the copy destination directory. Registration of the software information and copy of the software information file will not be executed. The copy destination directory is displayed in {0}.
	Action	Registration of the software information and copy of the software information file have already been executed. No action is required.

*1: The return value is also notified at the same time as the message description.
If a message does not contain a return value, the message was output partway through processing.

Appendix A Individual Processing for Operating Systems and Middleware (Creating L-Server)

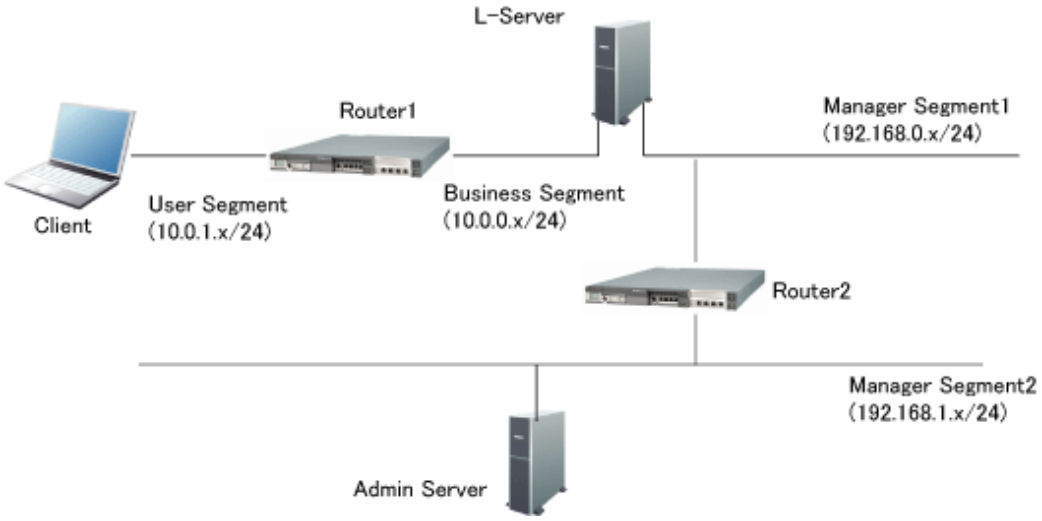
To create an L-Server for collecting cloning images, an operating system and middleware need to be installed. Procedures of this installation and subsequent operations are described here.

A.1 Operating Systems

Care needs to be taken with how the network resources for ServerView Resource Orchestrator are setup when L-Server are to be deployed to networks that have a number of routers, as shown in the diagram below.

It is also necessary to pre-configure a static route in the operating system of the cloning master.

Figure A.1 A network with a number of routers



When L-Server are to be deployed to networks that have a number of routers, as shown in the diagram above, it is necessary to configure the L-Server with the following different pieces of routing information in order to allow communication between clients and an Admin Server through a router.

- Routing information to the segment where the client exists (user segment)
- Routing information to the segment where the Admin Server exists (Manager Segment2)

The software parameter setting function communicates with the L-Servers to configure software parameters during deployment of L-Servers. To achieve this, if there is a router separating L-Servers and the management server to different network segments, the operating system on the cloning image has to be configured beforehand with routing information to enable communication between the L-Servers and the management server.

Configuring ServerView Resource Orchestrator network resources

When configuring the network resources for ServerView Resource Orchestrator, set the default gateway in only one of the multiple network resources set for the L-Server.

In a situation shown by the example in "Figure A.1 A network with a number of routers", set the default gateway only for the network resources of the Business Segment, as shown below.

The default gateway is not set for the network resources of Manager Segment1.

- Settings for the network resources of the Business Segment (when the IP address for router 1 is 10.0.0.1)

Network resource name	Gyoumu

Comment	Business Segment
VLAN ID	1
Subnet address	10.0.0.0
Subnet mask	255.255.255.0
Default gateway	10.0.0.1
IP address to be excluded	10.0.0.1 - 10.0.0.1

- Settings for the network resources of the Manager Segment1 (when the IP address for router 2 is 192.168.0.1)

Network resource name	Kanri1
Comment	Manager Segment1
VLAN ID	2
Subnet address	192.168.0.0
Subnet mask	255.255.255.0
Default gateway	(None)
IP address to be excluded	192.168.0.1 - 192.168.0.1

Setting the static route for the cloning master

To enable the L-Server to communicate with the management server, configure beforehand the static route of the operating system on the cloning image.

If the operating system of the L-Server is Windows

On the L-Server that will collect the cloning master, execute the route command to set the static route.

In a situation as shown by the example in "Figure A.1 A network with a number of routers", set a static route to the Admin Server's network.(If the IP address of router 2 is 192.168.0.1)

```
route -p add 192.168.1.0 mask 255.255.255.0 192.168.0.1 metric 1
```

If the operating system of the L-Server is Linux

On the cloning master that will collect the L-Server, make the settings in the /etc/sysconfig/static-routes file.

In a situation as shown by the example in "Figure A.1 A network with a number of routers", set a static route to the Admin Server's network.(If the IP address of router 2 is 192.168.0.1)

```
any net 192.168.1.0 netmask 255.255.255.0 gw 192.168.0.1
```

When there are multiple networks with different configurations where L-Servers are to be deployed, it is necessary to create separate cloning images for each network with corresponding static route settings.

Configuring template information

The cloning master where the static settings were made can only be deployed to the networks where these settings were made.
For this reason, the default network resources for the cloning master are specified in the template information.
In a situation shown by the example in "Figure A.1 A network with a number of routers", register the template information as follows.

```
<?xml version="1.0" encoding="UTF-8" ?>
<template version="1.1">
    <name>TEMPLATE_SAMPLE1</name>
```

```
    <baseTemplateId />
    <ownerOrg>cfmgadm</ownerOrg>
    <ownerUser>cfmgadm</ownerUser>
    <publicCategory>PUBLIC</publicCategory>
    <designSheetPath />
    <releaseDate>2010/12/30</releaseDate>
    <numOfMaxVnet>2</numOfMaxVnet>
    <numOfMaxVm>10</numOfMaxVm>
    <productId />
    <description>Web/AP/DB 1 server model</description>
    <keyword>Web/AP/DB 1 server model</keyword>
    <estimate>0</estimate>
    <license>0</license>
    <support>0</support>
    <vnets>
        <vnet>
            <id>VNET1</id>
            <name>Gyoumu</name>
            <numOfMaxVm>10</numOfMaxVm>
            <resouceId>M01_1446</resourceId>  * Network resources of the Business Segment
        </vnet>
        <vnet>
            <id>VNET2</id>
            <name>Kanri1</name>
            <numOfMaxVm>10</numOfMaxVm>
            <resouceId>M01_943</resourceId>  * Network resources of Manager Segment 1
        </vnet>
    </vnets>
    <servers>
        <server>
            <no>0</no>
            <imageId />
           <imageName>IMG001</imageName>  * Cloning master where the static route settings were made
            <name> server1</name>
            <serverType>sample_small</serverType>
            <vnics>
                <management>1</management>
                <vnic>
                    <no>1</no>
                    <networkId>VNET2</networkId>
                </vnic>
                <vnic>
                    <no>2</no>
                    <networkId>VNET1</networkId>
                </vnic>
            </vnics>
        </server>
    </servers>
</template>
```

Note

If there are a number of network configurations where the L-Server is to be deployed, it is necessary to register template information for each of the networks where deployment is to occur.

A.2 Interstage Application Server/Web Server

The following operations must be performed when Interstage Application Server/Web Server is installed.

A.2.1 Installation

- Selecting a server type

  Select "Installing the Application Server Functions" for the server type during installation.

Note

[When L-Server is Linux]

Refer to "Notes on Installing Other Fujitsu Products" in the "Interstage Application Server Installation Guide(Linux)", and then take action.

A.2.2 Operations after Installation

The following operations must be performed before "taking a cloning master" for the "L-Server" that has been created.

Note

Applying the Interstage Application Server patches

<<When L-Server is Linux>>

To change the Interstage Application Server host information, the PG78174 Interstage Application Server patches shown below must be applied.

These should be applied until "L-Server creation completion processing" is executed.

- When Linux(x64) Interstage Application Server Enterprise Edition/Standard-J Edition V9.2.0 is used, apply T004049LP-02 and later.
- When Linux(32bit) Interstage Application Server Enterprise Edition/Standard-J Edition V9.2.0 is used, apply T004556LP-02 and later.
- When Linux(32bit) Interstage Application Server Enterprise Edition/Standard-J Edition V9.1.0 is used, apply T002485LP-02 and later.
- When Linux(32bit) Interstage Application Server Enterprise Edition/Standard-J Edition V9.0.0 is used, apply T001441LP-02 and later.

1. Copying commands

To the created "L-Server", copy the commands that are used during deployment of the L-Platform to change host information of Interstage Application Server.

[When the Admin Server is Windows]

<<When L-Server is Windows>>

- Copy source

  <Systemwalker Software Configuration Manager installation destination>\SWCFMGM\mwinfo\parameters\ISAPS\tools\windows

  or

  <ServerView Resource Orchestrator installation destination>\RCXCFMG\softtools\windows\aps9

- Copy destination (in L-Server)

  <Interstage Application Server installation destination>\bin

- Commands to be copied

  isgethostinfo.bat

  issethostinfo.bat

isihsconfigget.bat

isihsconfigset.bat

isswcmexportimg.bat

isswcmimportimg.bat

isswcmPrepService.vbs

<<When L-Server is Linux>

- Copy source

  <Systemwalker Software Configuration Manager installation destination>\SWCFMGM\mwinfo\parameters\ISAPS\tools\linux

  or

  <ServerView Resource Orchestrator installation destination>\RCXCFMG\softtools\linux\aps9

- Copy destination (in L-Server)

  /opt/FJSVisas/bin

- Commands to be copied

  Extract iscommands.tar.gz in the working directory of the copy destination server.

  The following commands will be extracted, so copy these commands to the above copy destination directory.

  isgethostinfo

  issethostinfo

  isihsconfigget

  isihsconfigset

  isswcmexportimg

  isswcmimportimg

  isswcmsvcoff

  isswcmsvcresrv

  isswcmsvcstart

[When the Admin Server is Linux]

<<When L-Server is Windows>>

- Copy source

  /opt/FJSVcfmgm/mwinfo/parameters/ISAPS/tools/windows

  or

  /opt/FJSVcfmg/softtools/windows/aps9

- Copy destination (in L-Server)

  <Interstage Application Server installation destination>\bin

- Commands to be copied

  isgethostinfo.bat

  issethostinfo.bat

  isihsconfigget.bat

  isihsconfigset.bat

  isswcmexportimg.bat

  isswcmimportimg.bat

  isswcmPrepService.vbs

[When L-Server is Linux]

- Copy source

  /opt/FJSVcfmgm/mwinfo/parameters/ISAPS/tools/linux

  or

  /opt/FJSVcfmg/softtools/linux/aps9

- opy destination (in L-Server)

  /opt/FJSVisas/bin

- Commands to be copied

  iscommands.tar.gz

  Copy this file to the copy destination (L-Server) server working directory, then extract the file.

  The following commands will be extracted, so copy these commands to the above copy destination (L-Server) directory.

  isgethostinfo

  issethostinfo

  isihsconfigget

  isihsconfigset

  isswcmexportimg

  isswcmimportimg

  isswcmsvcoff

  isswcmsvcresrv

  isswcmsvcstart

  Refer to "A.2.3 Messages Output by Commands" in this manual for information on the messages output by the copied commands.

  Refer to the "Interstage Application Server manuals" for information on the messages output by commands not shown above.

Executing the issethostinfo command and the isihsconfigset command

The issethostinfo command and the isihsconfigset command are executed automatically on the L-Server that have been deployed by this product.
For this reason, there is no need for users to execute these commands.

2. If a user application is deployed

To deploy a L-Server that includes a user application, deploy the user application to Interstage Application Server.

Refer to "Deploying and Setting J2EE Applications" in the "Interstage Application Server J2EE User's Guide" for information on deploying J2EE applications to Interstage Application Server. Similarly, refer to "Deploying Java EE Applications" in the "Interstage Application Server Java EE Operator's Guide" for information on deploying Java EE applications.

3. When Java EE is used

Java EE is provided by Interstage Application Server V9.2.0 and later.

- Stopping the message broker and the Java database
  - If the message broker is running, stop it using the shutdown bkr subcommand of the imqcmd command.
  - If the Java database is running, stop it using the stop -database subcommand of the asadmin command.

  Refer to "Java EE Operation Commands" in the "Interstage Application Server Java EE Operator's Guide" for information on these commands.

- Heartbeat settings

  - To create the L-Platform template for an environment in which an IJServer cluster has been created, first disable the heartbeat settings for the IJServer cluster. (These settings are enabled by default.)

  - If the L-Platform template is created and deployed while the heartbeat settings are still enabled, IIOP communication requests may be dispatched to an unintended server.

  - To use heartbeats, enable the setting after the template has been deployed and then change the heartbeat address if necessary.

  Refer to "Group Management Service" in the "Interstage Application Server Java EE Operator's Guide" for information on heartbeat settings.

- Message broker settings

  - To use the JMS Service, change the host name of the message broker to "localhost" before creating the L-Platform template. (By default the host name of the message broker is set to that of the server where the message broker is installed.)

  - The host name of the message broker is specified by the following definition items.

```
default-config.jms-service.jms-host.default_JMS_host.host
server-config.jms-service.jms-host.default_JMS_host.host
${clusterName}.jms-service.jms-host.default_JMS_host.host
```

  - If the L-Platform template is created and deployed without changing the message broker settings, JMS messages may be sent to the message broker on an unintended server.

  Refer to "JMS Service Definition Items" in the "Interstage Application Server Java EE Operator's Guide" for information on the message broker.

4. When Interstage HTTP Server is Used

- To deploy Status immediately after the installation, change the ServerName directive in the environment definition file (httpd.conf) to "localhost" before creating the L-Platform template. Specify an appropriate value for this directive after the L-Platform template is deployed, taking into account the deployment destination server and the system configuration and operation. (By default, the value of the ServerName directive is the host name of the server where the Interstage HTTP Server has been installed.)

  If an appropriate value is not set, redirect operation may not be processed correctly, and requests may be directed to an unintended server.

- The Web server parameters are set using the environment definition file (httpd.conf). To set the parameters at the time of deployment, in the parameter package store the environment definition file that matches the deployment destination server and system configuration/operation. The deployment destination server environment definition file will be overwritten or copied by the files stored in the parameter package.

  Use one of the following methods to create the parameter package before registering the L-Platform template:

  - Using the isihsconfigget command, create the parameter package from the environment definition file on L-Server (Creation method 1)

  - Without using the isihsconfigget command, create the parameter package from the environment definition file on any server (Creation method 2)

  Refer to "6.1.3 Software Setup Script" and "6.1.4 Package File" for information on the parameter package.

<<Creation method 1>>

To create the parameter package from the environment definition file on L-Server using the isihsconfigget command, refer to the following explanation:

1. Execute the following command with administrative privileges.

   <<When L-Server is Windows>>

```
<Interstage Application Server installation destination>\bin\isihsconfigget -d <Storage
directory>
```

<<When L-Server is Linux>>

```
/opt/FJSVisas/bin/isihsconfigget -d <Storage directory>
```

All the Web server environment definition files that have been created or built on L-Server are stored in the directory specified in the -d option in the following directory format:

<<When L-Server is Windows>>

```
F3FMihs\<Web server name>\httpd.conf
```

<<When L-Server is Linux>>

```
FJSVihs/<Web server name>/httpd.conf
```

2. To change the Web server parameter, edit the environment definition file so that it matches the deployment destination system configuration/operation. If the Web server parameter is not to be changed, delete the directory and environment definition files for the Web server name.
3. After the Web server environment definition files have been edited, register the parameter package that was created in the L-Platform template.

<<Creation method 2>>

To create the parameter package from the environment definition file on any server without using the isihsconfigget command, refer to the explanation below:

The Web server environment definition files are stored in the following directory of the L-Server on which Interstage has been installed.

<<When L-Server is Windows>>

```
<Interstage Application Server installation destination>\F3FMihs\servers\<Web server name>\conf
```

<<When L-Server is Linux>>

```
/var/opt/FJSVihs/servers/<Web server name>/conf
```

1. Store the Web server environment definition files for which the parameters are to be changed at deployment in the following directory format:

   <<When L-Server is Windows>>

   The Web server name is not case-sensitive.

   ```
   F3FMihs\<Web server name>\httpd.conf
   ```

   <<When L-Server is Linux>>

   The Web server name is case-sensitive.

   ```
   FJSVihs/<Web server name>/httpd.conf
   ```

2. Edit the environment definition files so that they match the deployment destination system configuration/operation.
3. After the Web server environment definition files have been edited, register the parameter package that was created in the L-Platform template.

Information

When L-Server is Windows

Figure A.2 Creating the parameter package when the Web server is "FJapache"

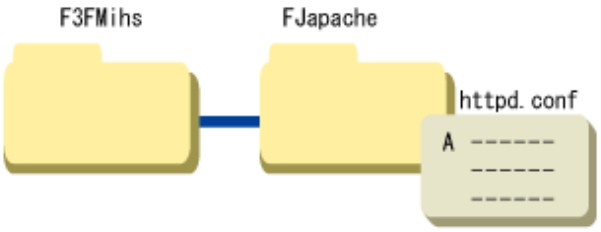
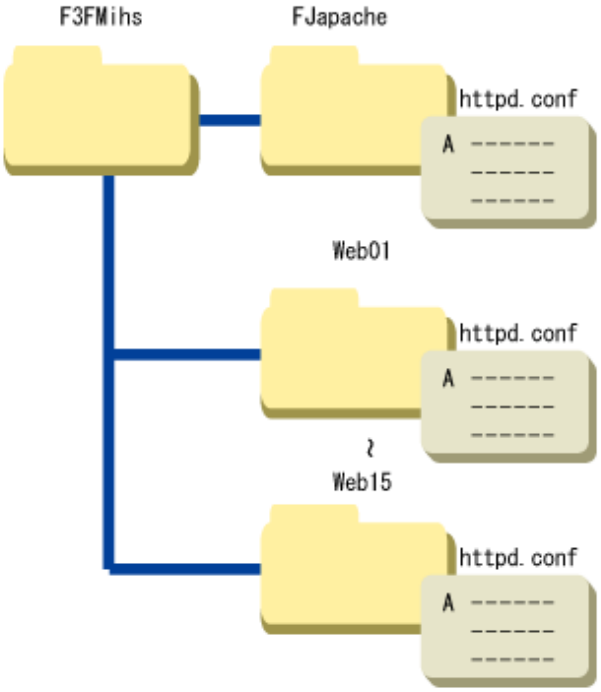


Figure A.3 Creating a parameter package for "Web15" using Web server "FJapache" and "Web01"



When L-Server is Linux

Figure A.4 Creating the parameter package when the Web server is "FJapache"

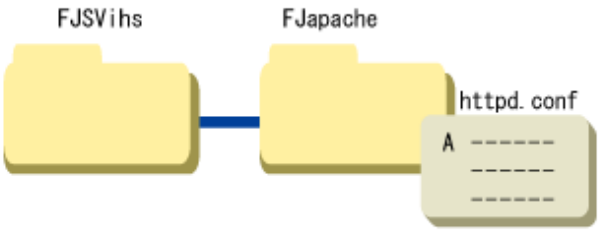
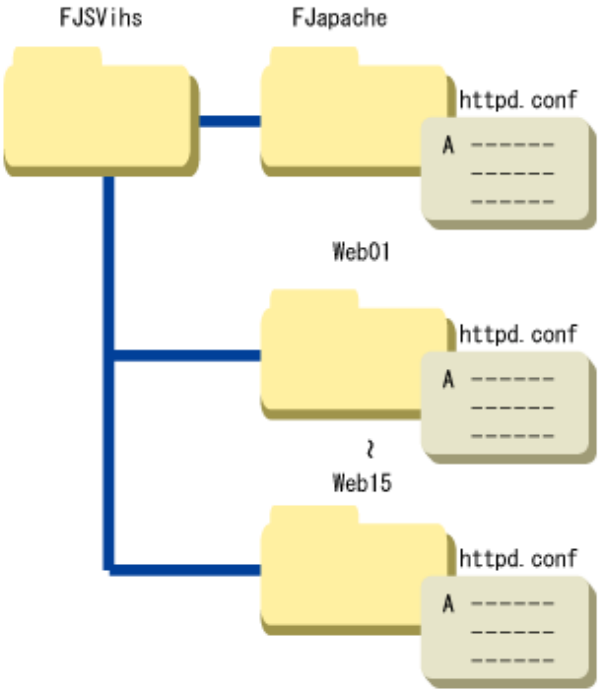


Figure A.5 Creating a parameter package for "Web15" using Web server "FJapache" and "Web01"



5. Processing before creating the L-Server image

Note

If not setting the hostname and ipaddress parameters

Do not execute the following command if not setting the hostname and ipaddress parameters (refer to the parameter information list).

<<When L-Server is Windows>>

Execute the following command with administrative privileges.

1. Stop Interstage

```
<Interstage Application Server installation destination >\bin\isstop -f
```

2. Pre-processing for changing host information

```
<Interstage Application Server installation destination >\bin\isgethostinfo
```

<<When L-Server is Linux>>

Execute the following command as the superuser.

1. Stop Interstage

```
/opt/FJSVtd/bin/isstop -f
```

2. Pre-processing for changing host information

```
/opt/FJSVisas/bin/isgethostinfo
```

Note

If a site certificate has been registered in the Interstage certificate environment:

- Depending on the operating guidelines of the certificate authority, using a site certificate on another server may not be accepted, so check the operating guidelines of the certificate authentication that issued the site certificate.
- Refer to the operating guidelines of the certificate authority to check whether it is possible for different servers to use the same site certificate. If not, obtain a separate site certificate for each individual site.

Information

Behavior of the isgethostinfo command

<<When L-Server is Windows>>

The isgethostinfo.bat command changes the startup type of the services in the following table to "manual" if their startup type is automatic, and stops them if they are running.

The following table shows the default values of the startup type and status of each service immediately after Interstage Application Server is installed. If necessary, use this table to manually restore the status of these services after the command has been executed.

Once the L-Server is deployed, the startup type of these services will return to the values they were before this command was executed. For services with a startup type of "Automatic", the status will be "Started". For services with a startup type of "Manual", the status will be "Stopped".

After this command is executed more than once on the deployed L-Server, the startup type of these services will return to the values they were when this command was initially executed.

Name	Immediately after installation	
	Status	Startup
CORBA/SOAP ClientGW	Stop	Manual
EventFactory	Start	Manual
EventService	Start	Manual
FJapache	Start	Automatic
Fujitsu Enabler	Start	Automatic
FUJITSU ND Load Measure Agent	Start	Automatic
INTERSTAGE	Start	Automatic
INTERSTAGE API	Stop	Manual
Interstage Java EE DAS	Start	Automatic
Interstage Java EE Node Agent	Start	Automatic
Interstage JServlet (OperationManagement)	Start	Automatic
Interstage Operation Tool	Start	Automatic
Interstage Operation Tool(FJapache)	Start	Automatic
Interstage Server Monitor Service	Start	Automatic
Interstage Server Monitor Service(Cache Manager)	Start	Manual
InterfaceRep_Cache Service	Start	Manual
InterfaceRep_Cache_e Service	Start	Manual
Message Queue 4.1 Broker	Start	Automatic

Name	Immediately after installation	
	Status	Startup
Naming Service	Start	Manual
NS LoadBalancingOption	Start	Automatic
ObjectTransaction Service	Stop	Manual
OD_start	Start	Manual
TransactionDirector	Start	Manual

<<When L-Server is Linux>>

The isgethostinfo command changes the services in the following table to disabled if their automatic startup setting was enabled for when the server starts up. It also stops them if they are running.

The following table shows the default values of the automatic startup setting and status of each service immediately after Interstage Application Server is installed. If necessary, use this table to manually restore the status of these services after the command has been executed.

Once the L-Server is deployed, the status of these services will be return to the values they were before this command was executed. Services for which the automatic startup setting was enabled will start.

After this command is executed more than once on the deployed L-Server, the automatic startup setting of these services will return to the value they were when this command was initially executed.

To change the automatic startup setting of the service, use the "chkconfig" Linux system command.

An execution example is shown below.

```
chkconfig Enabler on
```

Name	Immediately after installation	
	Status	Startup
Enabler	Start	On
FJSVsvag	Start	On
FJSVijdas	Start	On
FJSVijna	Start	On
FJSVirep	Start	On
FJSVsvmon	Start	On
FJapache	Start	On
isgui	Start	On
isjmxstart	Start	On
startis	Start	On
startod	Start	On

A.2.3 Messages Output by Commands

This section lists the messages that are output by the commands that are copied and executed when Interstage Application Server is installed on "L-Server".

Refer to the "Interstage Application Server Messages" for information on the messages output by the other commands.

IS: ERROR: is31801: Creation of the directory failed(path=%s)

[Variable Information]

%s: Directory path

[Meaning]

Creation of the directory failed.

[System Action]

Processing stops.

[User Action]

Take the following actions with respect to the path indicated in "Variable information".

- If there is a file with the specified path, delete the file and then try again.
- Check whether write permissions have been granted to the parent directory, and then try again.

IS: ERROR: is31802: Required command argument is missing

[Meaning]

There are missing arguments.

[System Action]

Processing stops.

[User Action]

Check the arguments that were specified when the command was executed, and then try again.

IS: ERROR: is31803: Command argument was invalid (%s)

[Variable Information]

%s: Specified argument

[Meaning]

The argument is invalid.

[System Action]

Processing stops.

[User Action]

An incorrect argument was specified when the command was executed. Check the arguments, and then try again.

If messages have been output before or after this message, take the appropriate actions for those messages as well.

IS: ERROR: is31804: There was not authority

[Meaning]

You do not have execution privileges.

[System Action]

Processing stops.

[User Action]

You do not have the necessary privileges for the last operation performed. Execute the command as an administrator.

If it is output while using the software parameter setting function, deal with the messages output before or after this message.

IS: INFO: is31805: %s has been started

[Variable Information]

%s: Command name

[Meaning]

Command processing for %s has started.

IS: INFO: is31806: %s has been finished normally

[Variable Information]

%s: Command name

[Meaning]

Command processing for %s has terminated normally.

IS: ERROR: is31807: An Error has occurred while processing %s

[Variable Information]

%s: Command name

[Meaning]

An error occurred during command processing for %s.

[System Action]

The system stops the command processing for %s.

[User Action]

Resolve the cause of the problem for the message that was output before this error message, and then try again.

If the problem still persists, collect investigation data using the iscollectinfo command, and contact Fujitsu technical support.

IS: INFO: is31808: [%s] is started

[Variable Information]

%s: Service name

[Meaning]

Processing for %s has started.

Service name	Service resource name
ISCOM	Interstage setup assets
OD	CORBA Service assets
ISJEE	Common Java EE assets

IS: INFO: is31809: [%s] was successful

[Variable Information]

%s: Service name

[Meaning]

Processing for %s has terminated normally.

IS: ERROR: is31810: [%s] was failed

[Variable Information]

%s: Service name

[Meaning]

The processing for %s has failed.

[System Action]

The system stops processing for the linkage script.

[User Action]

Take the appropriate action for any error messages or system log messages that may have been output prior to this error message, by referring to "Maintenance (Resource Backup)" in the "Operator's Guide".

IS: ERROR: is31811: A system error occurred(%s)

[Variable Information]

%s: Details

[Meaning]

A system error has occurred.

[System Action]

Processing stops.

[User Action]

Refer to the detailed information in the table below for the appropriate action.

If error messages have been output prior to this error message, refer to those error messages also.

If the detailed information does not match any of the cases in this table, collect all of the files in the directory as well as investigation information collected using the iscollectinfo command, and then contact Fujitsu technical support.

- When L-Server is Windows

```
%IS_HOME%\var\clone\log
```

("%IS_HOME%" is Interstage installation directory)

- When L-Server is Linux

```
/opt/FJSVisas/var/clone/log
```

Details	Action
Environment variable IS_HOME is not set	The command may have been executed in an environment where Interstage Application Server has not been installed. Check the environment.
Command name: cannot execute on this environment Command name: isgethostinfo or issethostinfo	The command may have been executed in an environment where the Admin Server function has been installed. Check the server type of the environment. The command cannot be used with the following server types. - Admin Server function - Web Package function
Directory does not exist(path={0})	The isgethostinfo command may not have been executed when the L-Platform template was created.

Details	Action
path: The path to the directory where the data required for deploying the template is stored	Check the procedure used to create the system template.

IS: ERROR: is31812: Other process is also executing %s

[Variable Information]

%s: Command name

[Meaning]

This command is being executed by another process.

[System Action]

Processing stops.

[User Action]

Wait until the process completes, and then execute the processing again if necessary.

If this message is output repeatedly even after waiting for a while, it is possible that the control file for preventing the command from being executed concurrently remains on the system.

If the following control file exists, delete it before executing the processing again.

Note that this file cannot be deleted if another process is executing the command.

- When L-Server is Windows

```
%IS_HOME%\var\[command name].lck
```

("%IS_HOME%" is Interstage installation directory)

- When L-Server is Linux

```
/opt/FJSVisas/var/[command name].lck
```

A.3 Systemwalker Runbook Automation

When installing Systemwalker Runbook Automation, the following operations are necessary.

Refer to the "Systemwalker Runbook Automation Installation Guide" for information on the Systemwalker Runbook Automation installation and environment setup.

Note

- "L-Server" cannot be created using Systemwalker Runbook Automation V14.0.0. Use Systemwalker Runbook Automation V14.1.0 or later.
- "L-Server" can be created for the following server types:
  Systemwalker Runbook Automation Linked Servers/Relay Servers
  Systemwalker Runbook Automation Business Servers

A.3.1 Installation

Refer to "Installation" in the "Systemwalker Runbook Automation Installation Guide", then install this product.

Note

If a Systemwalker Configuration Manager Agent has been installed in L-Server, uninstall the Agent before installing Systemwalker Runbook Automation. The Systemwalker Configuration Manager Agent does not need to be installed in order to install Systemwalker Runbook Automation.

A.3.2 Operations after Installation

The following operations must be performed before "taking a cloning master" for the "L-Server" that has been created.

Linked Servers/Relay Servers Operations

[Windows]

1. Stop the Systemwalker Runbook Automation Agent.

   Open a command prompt with administrator privileges, and execute the following command.

   ```
   %F4AN_INSTALL_PATH%\F4ANswnc\bin\swncctrl stop
   ```

2. Remove CMDB.

   Open a command prompt with administrator privileges, and execute the following command.

   ```
   %SWCMDB_INSTALL_PATH%\FJSVcmdba\bin\cmdbunsetupenv.bat -k ALL
   ```

[Linux]

1. Stop the Systemwalker Runbook Automation Agent.

   Log in with system administrator privileges, and execute the following command.

   ```
   /opt/FJSVswnc/bin/swncctrl stop
   ```

2. Remove CMDB.

   Log in with system administrator privileges, and execute the following command.

   ```
   /opt/FJSVcmdba/bin/cmdbunsetupenv.sh -k ALL
   ```

Information

To continue running the Linked Servers/Relay Servers after L-Server has been created, refer to the "Systemwalker Runbook Automation Installation Guide" and then set up the Linked Servers/Relay Servers.

Business Servers operations

None.

A.4 Systemwalker Service Quality Coordinator

When Systemwalker Service Quality Coordinator is installed, the operations shown below will be required.

Refer to the "Systemwalker Service Quality Coordinator Installation Guide" for information on the Systemwalker Service Quality Coordinator installation and environment setup.

A.4.1 Installation

Agent

Specify the connection destination Systemwalker Service Quality Coordinator Manager IP address or host name.

A.4.2 Operations after Installation

To take the cloning master for the L-Server that has been created, use the Systemwalker Service Quality Coordinator post-installation Status.

Note

Do not execute the Policy Setup Command or start the resident processes to do this.

A.5 UpdateAdvisor

None.

A.6 Windows Update Agent

None.

Appendix B Individual Processing for the Operating System and Middleware (After Deployment)

The operations and the settings that need to be performed before using middleware on deployed L-Servers are described here.

B.1 Interstage Application Server/Web Server

Point

Settings changed on deployment

If J2EE (either the Servlet Service or the EJB Service), Java EE, or the CORBA Service is to be used, the "issethostinfo.bat" command, which is executed on deployed L-Platform, changes the following information to the host information for the deployed L-Server:

- The Corba Host Name in the Interstage operating environment definition file
- The host name that is embedded when object references are generated
- The host name that is specified for Java EE(for the Interstage Java EE DAS Service and the Interstage Java EE Node Agent Service)

B.1.1 When Java EE is Used

Information

Java EE is a function provided by Interstage Application Server V9.2.0 and later.

Heartbeat settings

Heartbeat settings are disabled during deployment of an environment in which an IJServer cluster has been created.

To use heartbeats, enable the settings and specify a heartbeat address.

Refer to "Group Management Service" in the "Interstage Application Server Java EE Operator's Guide" for details on heartbeat settings.

B.1.2 When Interstage HTTP Server is Used

Set appropriate values to directives in the environment definition file (httpd.conf) of each Web Server according to the configuration and operation of the deployed servers and the system.

B.2 Systemwalker Runbook Automation

This section explains the operations after deployment in Systemwalker Runbook Automation.

Linked Servers/Relay Servers operations

Refer to the "Systemwalker Runbook Automation Installation Guide" and then set up the Linked Servers/Relay Servers.

Business Servers operations

None.

B.3 Systemwalker Service Quality Coordinator

The Systemwalker Service Quality Coordinator starts the resident processes in the deployment L-Server It is started in the following ways:

[Windows]

Start the following service:

- Systemwalker SQC DCM

[Linux]

Use the following script:

```
/etc/rc2.d/S99ssqcdcm start
```

Refer to the "Systemwalker Service Quality Coordinator Reference Guide" for details.

B.3.1 Changing the Agent Connection Destination Manager IP Address/Host Name

To change the Manager IP address/host name that is recognized by the Agent after deployment, refer to " Changing the IP Address/ Host Name of the Manager that Is Recognized by Agents and Proxy Managers" that Is Recognized by Agents and Proxy Managers" in the "Systemwalker Service Quality Coordinator Installation Guide" and then change the setting.

B.4 UpdateAdvisor

None.

B.5 Windows Update Agent

After deployment, restart the operating system to enable the settings of Windows Update Agent.