

ServerView Resource Orchestrator Cloud Edition V3.0.0



User's Guide for Infrastructure Administrators

Windows/Linux

J2X1-7613-01ENZ0(05)
April 2012

Preface

Purpose

This document explains how to operate the ROR Console provided by ServerView Resource Orchestrator (hereafter referred to as "this product").

Target Readers

This document is intended for users who display L-Platforms, manage tenant information, or use the dashboard or operation status to monitor resources.

It is assumed that these users have a general knowledge of server virtualization software products and directory services such as Active Directory and LDAP.

Organization

This manual is composed as follows:

[Chapter 1 Overview](#)

Explains an overview of the ROR Console ROR

[Chapter 2 Home](#)

Explains the ROR Console Home window

[Chapter 3 Dashboard](#)

Explains how to use dashboard operations

[Chapter 4 System Condition](#)

Explains how to monitor system condition

[Chapter 5 Template](#)

Explains how to create and manage L-Platform templates

[Chapter 6 L-Platform](#)

Explains how to use the L-Platform

[Chapter 7 Request](#)

Explains how to operate the application list

[Chapter 8 Tenant](#)

Explains how to manage tenants

[Chapter 9 Account](#)

Explains how to perform account operations

[Appendix A Using Commands to Register and Delete L-Platform Templates](#)

Explains the procedures for using commands to register and delete L-Platform templates

[Appendix B Applying \(Subscribe\) for L-Platform Usage by Dual-Role Administrators](#)

Explains L-Platform usage applications by dual-role administrators

[Appendix C Tenant Operation by Dual-Role Administrators](#)

Explains tenant operation by dual-role administrators

[Glossary](#)

Explains terms used in this document. Refer to the glossary as required.

Notational Conventions

The notation in this manual conforms to the following conventions.

- When using Resource Orchestrator and the functions necessary differ due to the necessary basic software (OS), it is indicated as follows:

[Windows]	Sections related to Windows
[Linux]	Sections related to Linux

- Reference destinations are shown enclosed by quotation marks (" ").
- Window, dialog, menu, tab, and button names are indicated using bold text.

Documentation Road Map

The following manuals are provided with Resource Orchestrator. Please refer to them when necessary:

Manual Name	Abbreviated Form	Purpose
ServerView Resource Orchestrator Cloud Edition V3.0.0 Setup Guide	Setup Guide CE	Please read this first. Read this when you want information about the purposes and uses of basic functions, and how to install Resource Orchestrator.
ServerView Resource Orchestrator Cloud Edition V3.0.0 Installation Guide	Installation Guide CE	Read this when you want information about how to install Resource Orchestrator.
ServerView Resource Orchestrator Cloud Edition V3.0.0 Operation Guide	Operation Guide CE	Read this when you want information about how to operate systems that you have configured.
ServerView Resource Orchestrator Cloud Edition V3.0.0 User's Guide for Infrastructure Administrators (Resource Management)	User's Guide for Infrastructure Administrators (Resource Management) CE	Read this when you want information about how to operate the GUI (resource management) used by infrastructure administrators and dual-role administrators.
ServerView Resource Orchestrator Cloud Edition V3.0.0 User's Guide for Infrastructure Administrators	User's Guide for Infrastructure Administrators CE	Read this when you want information about how to operate the GUI (for operations other than resource management) used by infrastructure administrators and dual-role administrators.
ServerView Resource Orchestrator Cloud Edition V3.0.0 User's Guide for Tenant Administrators	User's Guide for Tenant Administrators CE	Read this when you want information about how to operate the GUI used by tenant administrators.
ServerView Resource Orchestrator Cloud Edition V3.0.0 User's Guide for Tenant Users	User's Guide for Tenant Users CE	Read this when you want information about how to operate the GUI used by tenant users.
ServerView Resource Orchestrator Cloud Edition V3.0.0 Reference Guide for Infrastructure Administrators (Resource Management)	Reference Guide (Resource Management) CE	Read this when you want information about commands used by infrastructure administrators and dual-role administrators to manage resources, messages output by the system, and how to perform troubleshooting.
ServerView Resource Orchestrator Cloud Edition V3.0.0 Reference Guide for Infrastructure Administrators	Reference Guide CE	Read this when you want information about commands used by infrastructure administrators and dual-role administrators for purposes other than resource management.
ServerView Resource Orchestrator Cloud Edition V3.0.0 Messages	Messages CE	Read this when you want detailed information about the corrective actions for displayed messages.

In some cases, this document may refer to the Virtual Edition manuals shown below. Please refer to them when necessary:

Manual Name	Abbreviated Form	Purpose
ServerView Resource Orchestrator Virtual Edition V3.0.0 Setup Guide	Setup Guide VE	Read this when you want information about the purposes and uses of basic functions, and how to install Resource Orchestrator.
ServerView Resource Orchestrator Virtual Edition V3.0.0 Installation Guide	Installation Guide VE	Read this when you want information about how to install Resource Orchestrator.
ServerView Resource Orchestrator Virtual Edition V3.0.0 Operation Guide	Operation Guide VE	Read this when you want information about how to operate systems that you have configured.
ServerView Resource Orchestrator Virtual Edition V3.0.0 User's Guide	User's Guide VE	Read this when you want information about how to operate the GUI.
ServerView Resource Orchestrator Virtual Edition V3.0.0 Command Reference	Command Reference	Read this when you want information about how to use commands.
ServerView Resource Orchestrator Virtual Edition V3.0.0 Messages	Messages VE	Read this when you want detailed information about the corrective actions for displayed messages.

Abbreviations

The following abbreviations are used in this manual:

Abbreviation	Products
Windows	Microsoft(R) Windows Server(R) 2008 Standard Microsoft(R) Windows Server(R) 2008 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Datacenter 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(R) 7 Professional Windows(R) 7 Ultimate Windows Vista(R) Business Windows Vista(R) Enterprise Windows Vista(R) Ultimate Microsoft(R) Windows(R) XP Professional operating system
Windows Server 2003	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
Linux	Red Hat(R) Enterprise Linux(R) 5 (for x86) Red Hat(R) Enterprise Linux(R) 5 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.1 (for x86) Red Hat(R) Enterprise Linux(R) 5.1 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.2 (for x86) Red Hat(R) Enterprise Linux(R) 5.2 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.3 (for x86) Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.5 (for x86)

Abbreviation	Products
	Red Hat(R) Enterprise Linux(R) 5.5 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.6 (for x86) Red Hat(R) Enterprise Linux(R) 5.6 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.7 (for x86) Red Hat(R) Enterprise Linux(R) 5.7 (for Intel64) Red Hat(R) Enterprise Linux(R) 6.2 (for x86) Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64)
VMware	VMware vSphere(R) 4 VMware vSphere(R) 4.1 VMware vSphere(R) 5
RHEL5-Xen	Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) Linux Virtual Machine Function
RHEL-KVM	Red Hat(R) Enterprise Linux(R) 6.2 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64) Virtual Machine Function

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January 2012, 1.2 Edition	J2X1-7613-01ENZ0(02)
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April 2012, 1.5 Edition	J2X1-7613-01ENZ0(05)

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An article relating to the use rate for two or more resource pools was modified.	3.1, 3.3		
An article relating to L-Platform and L-Server search was added.	4.2, 4.5		
An article relating to the display name of configuration information was modified.	4.4		
The term "logical node" was changed to "L-Server".	4.4		
An article relating to RHEL-KVM was added.	Chapter 4, Chapter 5		
An article relating to the priority of the task was added.	7.1		
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An article relating to the Details tab in the Alert list window was added.	3.4.1, 3.4.2	1.5 Edition	
A note relating to how to deal with alerts was added.	3.4.3		

Additions and changes	Section	Edition
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An article relating to user ID information was modified.	8.7	
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Chapter 1 Overview

This chapter explains the ROR Console.

1.1 Users

The ROR Console has the following users:

- Infrastructure Administrator
- Tenant Administrator
- Tenant user

Refer to "[Glossary](#)" for details on these roles.

1.2 Function List

This section explains the functions provided by ROR Console.

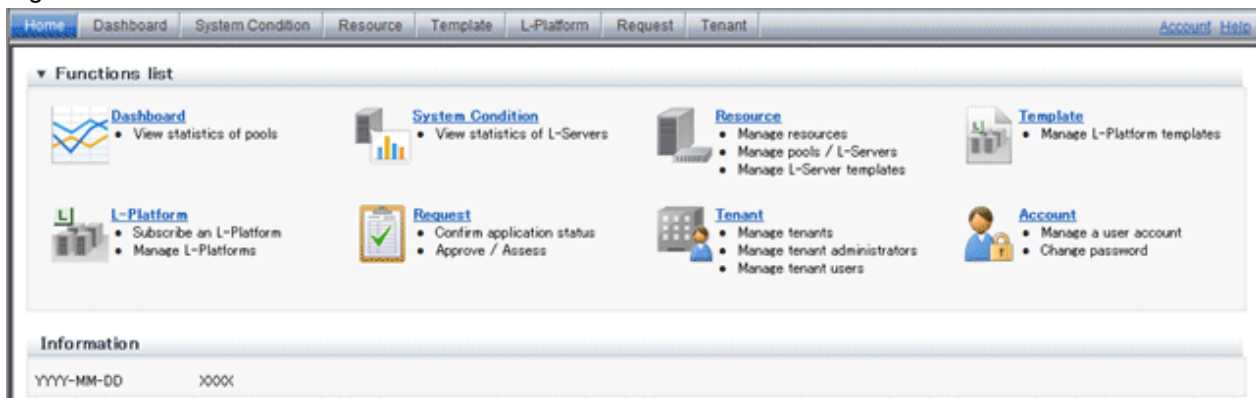
ROR Console has two parts: "operation windows for tenant administrators and tenant users" and "operation windows for infrastructure administrators".

Windows intended for Tenant Administrators and tenant users are provided for L-Platform and user information operations. These windows are configured by Tenant Administrators themselves, and have been provided to reduce the Infrastructure Administrator workload.

Operation windows and dashboard windows intended for Infrastructure Administrators are also provided for L-Platform and user information operations. These windows are provided to enable Infrastructure Administrators to display and operate all L-Platform and tenant information and to access important information quickly.

The ROR Console displays are customized for the user's role, to provide appropriate functions to each user. For example, tabs that the current user cannot operate are not displayed.

Figure 1.1 ROR Console



The table below shows the functions provided by the ROR Console.

These functions correspond to the tabs displayed at the top of the ROR Console.

Function	Overview	Infrastructure Administrator	Tenant Administrator	Tenant user
Home	The window displayed immediately after login to the ROR Console. A function list and notifications are displayed.	Yes	Yes	Yes
Dashboard	Displays the resource pool usage status	Yes	Yes	No

Function	Overview	Infrastructure Administrator	Tenant Administrator	Tenant user
System Condition	Displays L-Server performance information and configuration information	Yes	Yes	Yes
Resource	A window for managing the resource pool and the relationship of resources to L-Server	Yes	No	No
Template	A window for managing L-Platform Templates	Yes	Yes	No
L-Platform	A window for managing L-Platform	Yes	Yes	Yes
Request	A window for assessing and approving L-Platform usage applications and other applications from tenant users	Yes	Yes	Yes
Tenant	A window for managing tenants and users belonging to tenants	Yes	Yes	No
Account	A window for changing a logged in user's information and password	Yes	Yes	Yes
Help	Displays this product's manual	Yes	Yes	Yes

Yes: Displayed (However, some functions may not be displayed according to the user's access rights.)

No: Not displayed

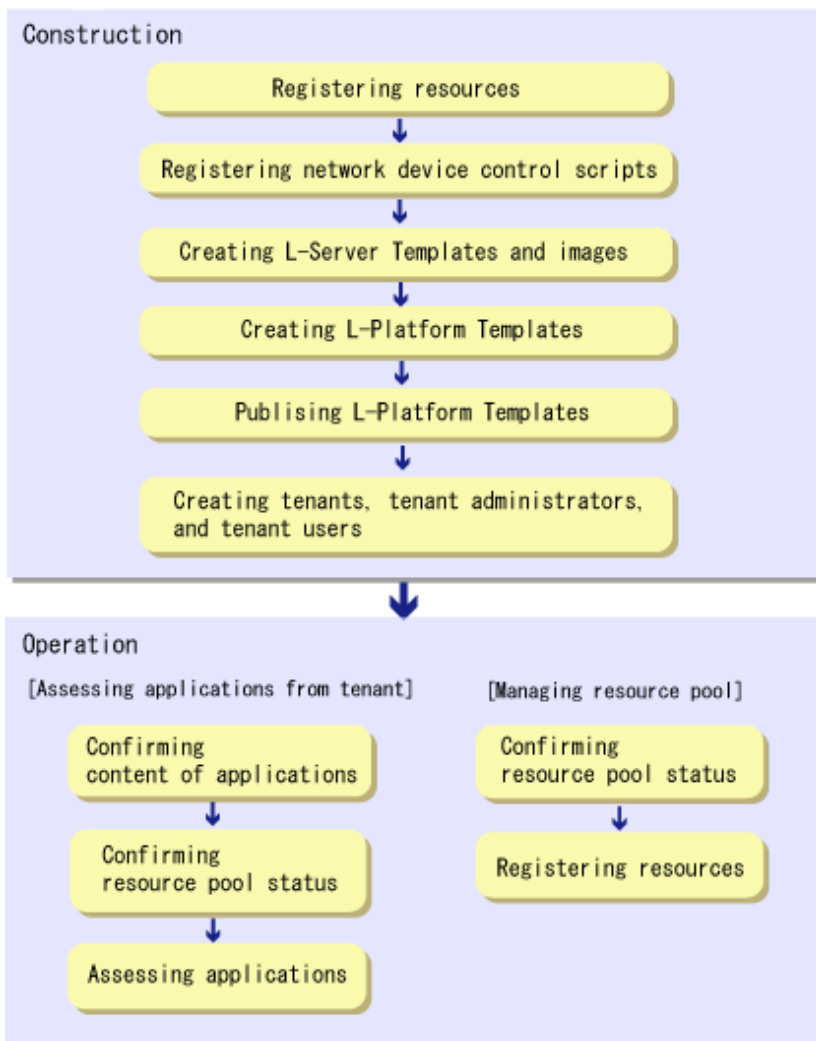
Refer to Chapter 2, "Home", and subsequent chapters for details on these functions.

However, refer to the "User's Guide for Infrastructure Administrators (Resource Management) CE" for information on the "Resource" function.

1.3 Flow of Operations

This section explains the flow of operations using the ROR Console, from construction to operation, maintenance, and monitoring.

Flow from Construction to Operation (Infrastructure Administrator)



Construction

1. Registering resources
Register resources.
Refer to "Registering Resources" in the "User's Guide for Infrastructure Administrators (Resource Management) CE" for details.
2. Registering network device control scripts
Deploy the network device control scripts.
Refer to "Registering Network Devices" in the "Registering Resources" in the "User's Guide for Infrastructure Administrators (Resource Management) CE" for details.
3. Creating L-Server Templates and images
Create L-Server Templates and images.
Refer to "L-Server Template Operations" in the "User's Guide for Infrastructure Administrators (Resource Management) CE" for details.
4. Creating L-Platform Templates
Create L-Platform Templates.
Refer to "[5.3.2 Creating New L-Platform Template](#)" for details.
5. Publishing L-Platform Templates
Publish the created L-Platform Template.
Refer to "[5.3.6 Publishing and Hiding L-Platform Template](#)" for details.

6. Creating tenants, tenant administrators, and tenant users
Register the tenant, Tenant Administrator, and tenant users.
Refer to "[Chapter 8 Tenant](#)" for details.

Operation

[Assessing Applications from Tenant]

1. Confirming content of applications
Check the content of applications, such as L-Platform usage applications, reconfigurations, cancellations, and so on, received from Tenant Administrators and tenant users.
Refer to "[6.2 L-Platform Management](#)" for details.
2. Confirming resource pool status
Check the resource pool usage status in order to confirm whether or not the requested necessary resources can be guaranteed.
Refer to "[Chapter 3 Dashboard](#)" for details.
3. Assessing applications
Assessment the contents of applications from Tenant Administrators and tenant users.
Refer to "[7.2 Assessing an Application](#)" for details.

[Managing Resource Pool]

1. Confirming resource pool status
Check the resource pool usage status to confirm that there are sufficient unused resources in the resource pool.
Refer to "[Chapter 3 Dashboard](#)" for details.
2. Registering resources
If necessary, Register resources to the resource pool to ensure sufficient free capacity.
Refer to "Registering Resources" in the "User's Guide for Infrastructure Administrators (Resource Management) CE" for details.

1.4 Display

This section explains how to display the ROR Console.



.....

The ROR Console runs on any of the following browsers:

- Windows(R) Internet Explorer(R) 8
 - Windows(R) Internet Explorer(R) 9
-

How to Display the ROR Console

Follow the steps below to display the ROR Console:

1. Start the Web browser.
2. Specify the URL of the ROR Console. Check the URL of the ROR Console with your system administrator.
The following shows the format of the URL.

```
https://<host name of admin server>:<port number>/
```

3. The login window is displayed. Enter your user ID and password to log in.

Figure 1.2 Login Window



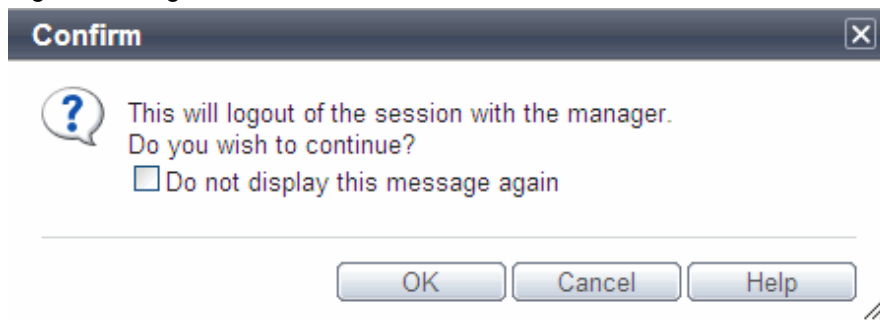
4. The ROR Console is displayed.

Logout

Follow the steps below to logout.

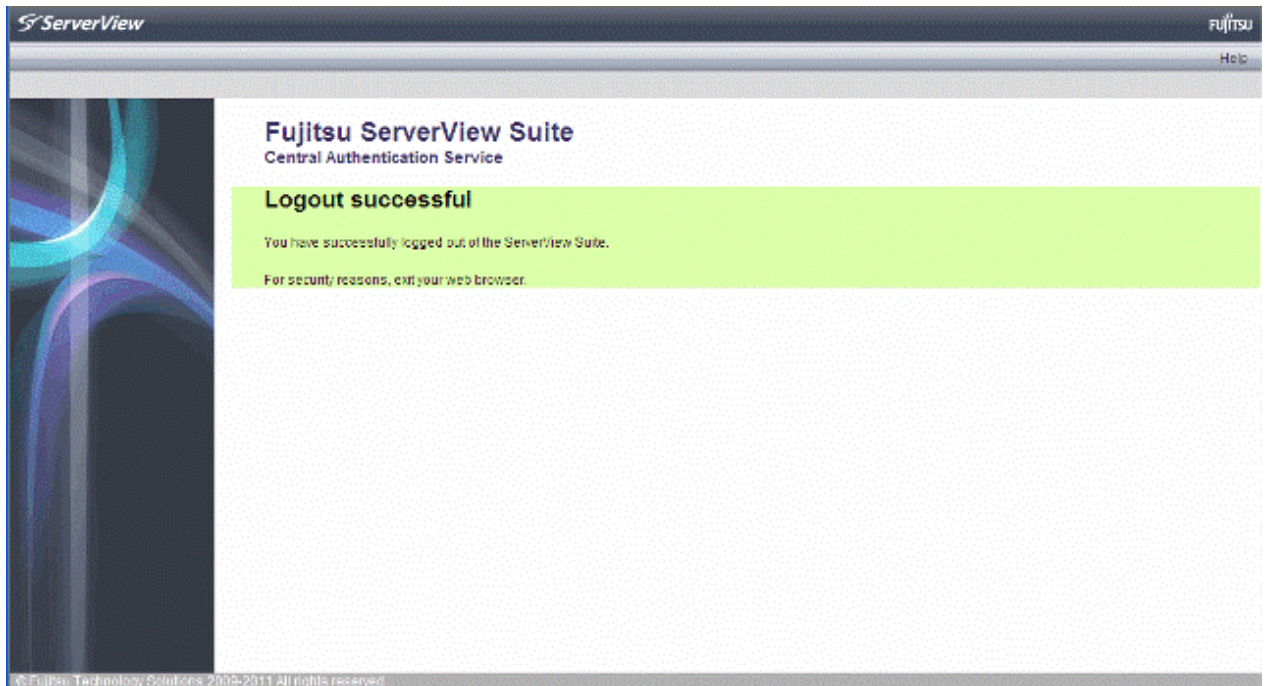
1. Click the **Logout** link at the upper-right of the ROR Console to log out. A window is displayed, confirming log out from ROR Console. Click the **OK** button to log out.

Figure 1.3 Logout Confirm Window



2. The logout window is displayed, close the browser.

Figure 1.4 Logout Window



1.5 Notes on Use of the ROR Console

This section explains the notes on the use of the ROR Console.

1.5.1 Surrogate Pair Characters

Surrogate pair characters cannot be used on the ROR Console.

1.5.2 Web Browser Settings

The following settings must be specified for the Web browser before using the ROR Console:

- Enable cookies.
- Enable JavaScript
- Use SSL 3.0 and TLS 1.0
- Specify either one of the following for the Web browser pop-up blocker:
 - Disable the pop-up blocker
 - Add the URL of the ROR Console to the **Address of web site to allow** setting.
Check with the system administrator for the URL of the ROR Console.

1.5.3 ROR Console Operations

When logging in to the ROR console, a window displaying the message

"Internet Explorer cannot display the webpage" may be displayed.

Description

This problem can occur as a result of the following combinations of OS and web browsers being used.

Windows XP SP3 + Internet Explorer 8

Windows Server 2003 + Internet Explorer 8

Windows Server 2008 + Internet Explorer 8

Corrective Action

Take one of the following corrective actions.

- Connect using a combination of OS and web browser not listed above
- When this problem occurs, reload the page on your web browser
- Specify the IP address, not an FQDN, in the URL used for connection

1.5.4 Operation of the [Resource] Tab of the ROR Console

When Hiding Displayed Resource Information in the [Resource] Tab of the ROR Console, after a Certain Length of time (after Regular Update of Resources), the Display of Resource Information that was Updated may Collapse.

Description

While updating the window of the [Resource] tab of the ROR console, if resource information is hidden or another tab switched to, update will continue to be performed for the hidden area.

At that time, because the browser cannot handle modification of the size of the window being updated or the coordinate information, after a certain length of time (after regular update of resources), the display of resource information that was updated may collapse.

Corrective Action

Perform the following corrective actions:

- When there is update information for resources
Update will be performed automatically during the regular update.
- When there is no update information for resources
Click the page switch button of the resource information.
- When there is no update information for resources, and no page switch button for the resource information
Select a different resource from the tree.

Chapter 2 Home

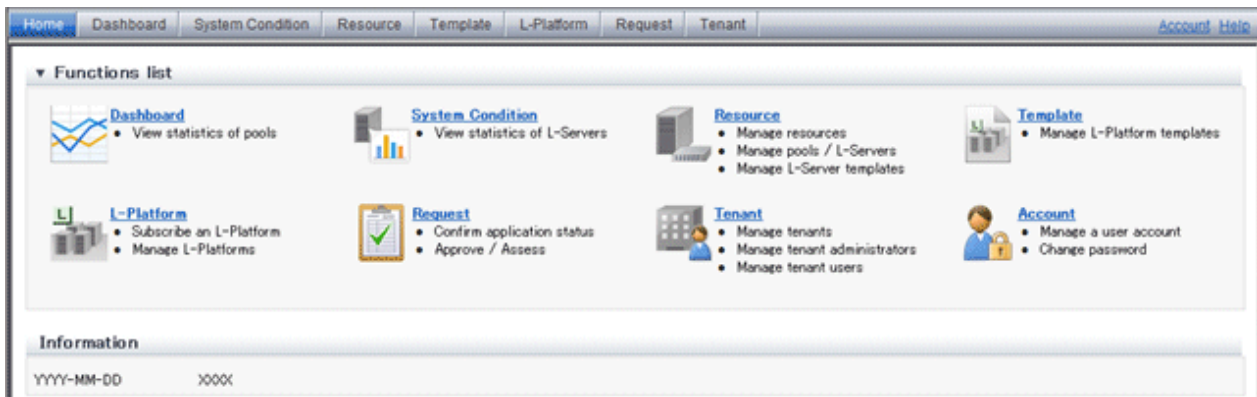
This chapter explains the ROR Console Home window.

2.1 Home Window Display

This section explains the ROR Console Home window display.

When the ROR Console is started, the Home window is displayed. Refer to section "1.4 Display" for information on how to start the ROR Console.

The elements of the Home window are explained below.



- Functions list

The functions list displays the items that can be operated using ROR Console tabs.

Click the ▼ icon or the ► icon to toggle Display/Hide.

- Information

Information from the System Administrator is displayed.

Chapter 3 Dashboard

This chapter explains how to use dashboard operations.

3.1 Dashboard Overview

The Dashboard can be used to monitor resource pool use.

This section provides an overview of the Dashboard.

Dashboard window

The Dashboard displays charts for each of the following resource pools:

- VM pool (CPU)
- VM pool (memory)
- Storage pool
- Network pool
- Server pool (*1)
- Address pool (*1)

*1: Only displayed if physical servers are registered to the server pool.

Resource pool types

There are two types of resource pool:

- Infrastructure administrator: Global pools
- Tenant Administrator: Local pools managed by the Tenant Administrator

Items displayed in charts

The following items are displayed in each of the resource pool charts:

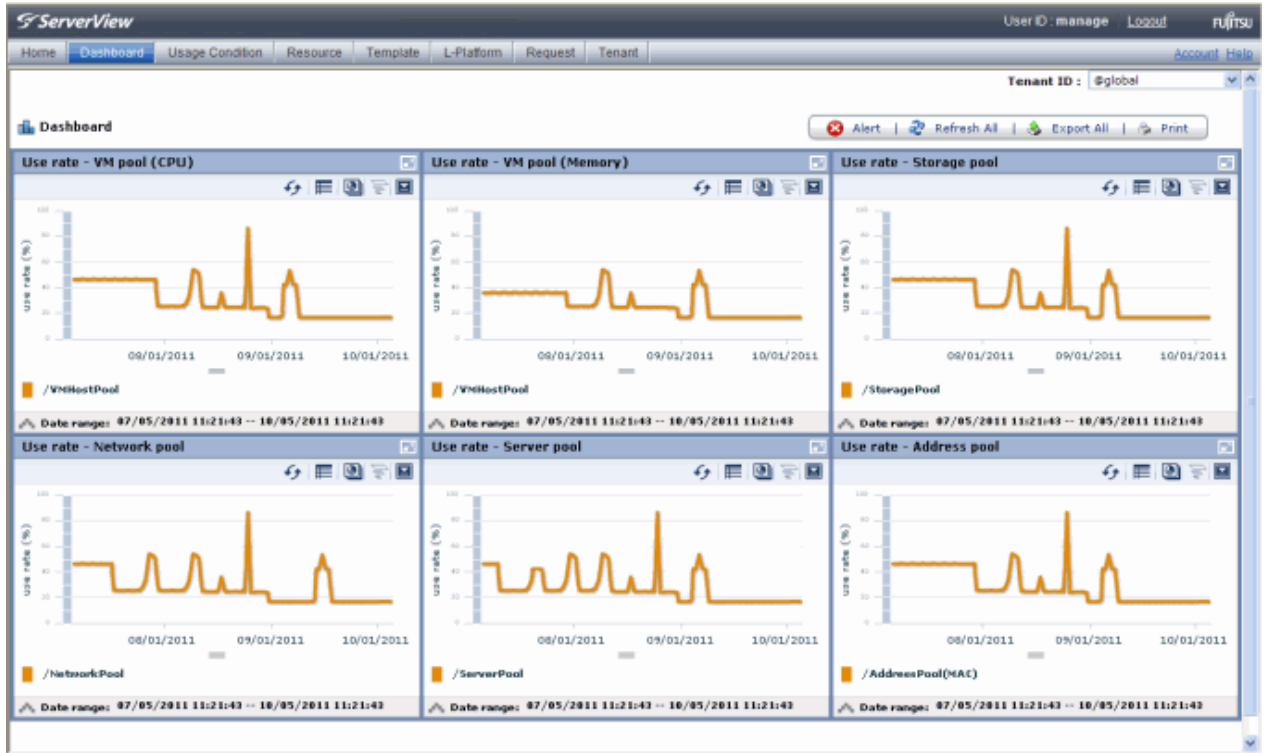
- Vertical axis: Resource pool use rate (%)
- Horizontal axis: Date and time (initial value within three months)
- Polyline graph: If there are multiple resource pools, the five with the highest use rate (the five with the highest total values of the series) are displayed.

3.2 Dashboard Display

Perform the following steps to display the Dashboard:

1. From the ROR Console, select the **Dashboard** tab.

Charts are displayed for use rate of each resource pool.






The following table lists the six types of charts available.

Chart	Explanation
VM pool (CPU)	Displays the VM pool (CPU) use rate of each pool as polyline graphs. Always displayed.
VM pool (memory)	Displays the VM pool (memory) use rate of each pool as polyline graphs. Always displayed.
Storage pool	Displays the storage pool use rate of each pool as polyline graphs. Always displayed.
Network pool	Displays the network pool use rate of each pool as polyline graphs. Always displayed.
Server pool	Displays the server pool use rate of each pool as polyline graphs. This is only displayed if physical servers are registered to the server pool.
Address pool	Displays the address pool use rate of each pool as polyline graphs. This is only displayed if physical servers are registered to the server pool.

The table below shows the icons displayed in charts.

Icon	Explanation
	Displays the relationship chart menu Selects the relationship chart for either "Use state" or "Allocatable L-Servers".
	Switches between the use rate chart and the relationship chart.
	Updates the chart with the most recent information

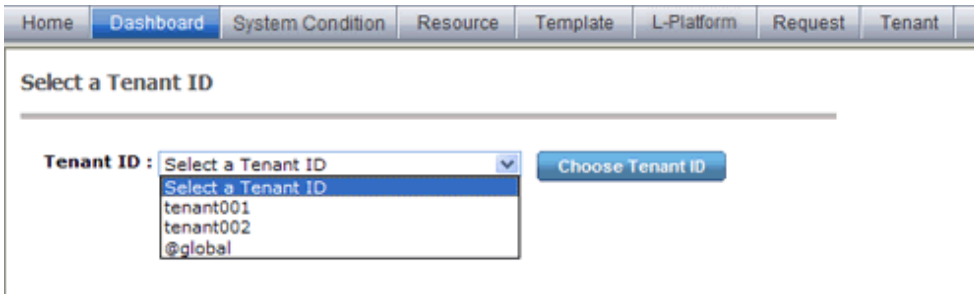
Icon	Explanation
	Toggles between table and polyline graph displays
	Displays a list of functions The following functions may be used: <ul style="list-style-type: none"> - Refresh: Updates the chart to the latest information. - Change table/graph: Switches between the table and the graph. - Drill up: If the relationship chart is displayed, this function will switch to the use rate chart. - Comments: Comments related to charts can be registered. Related comments can also be referred to. - Export CSV: Data from the displayed chart can be output as a CSV file. - Configure: The chart's appearance can be modified temporarily. Modified content will not be saved.
	Enlarges the chart display

Note

Dual-role administrator privileges

When logging in to the ROR Console with dual-role administrator privileges, the "Select Tenant ID" window is displayed before the display of charts for each resource pool.

From the tenant list, select the tenant (tenant name) for which resource pools are to be displayed, and then click the Choose Tenant ID button. To select a global pool, select **@global**, and then click the Choose Tenant ID button.



Resource pools charts for the selected tenant are displayed.


For a dual-role administrator, all resource pool charts are displayed.

2. Display detailed information in other charts.

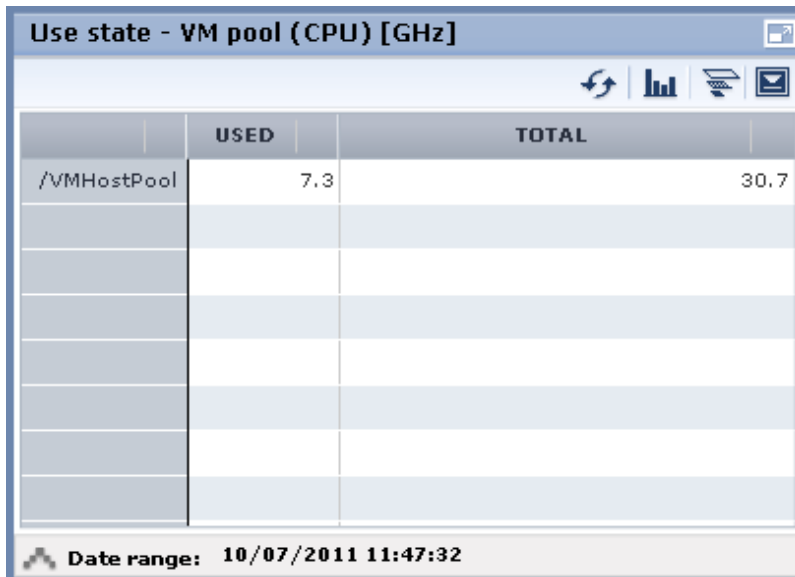
If required, display detailed information in other charts.

Refer to "3.3 Chart Display" for details of the information displayed in other charts.


The table below shows how to display detailed information.

Item	Display method	Contents displayed
Relationship chart	Click the relationship chart icon () and select the chart to display from the drop-down menu.	Displays a relationship chart in which the focus is switched to a display of resource pool absolute values or similar. The chart displayed varies depending on the resource pool. For example, the overall amount and used amount are displayed for the selected resource pool.

A window example is shown below.



Point

When returning to the use rate window from the relationship chart window, click on the  icon to move the displayed slider to the top.

Note

- If the Dashboard window is left open in a Web browser, the connection to the dashboard server may time-out and an error may display in the window. If this occurs, close the Web browser, and then display the Dashboard window again.
- If the Dashboard window is already displayed at one machine and the same user ID is used at a different machine to log in to the ROR Console and display the Dashboard window, Dashboard window operations will no longer be possible from the first machine. If this occurs, close the Web browser displaying the Dashboard window and the ROR Console, and then restart the Dashboard window display operation.
- If the administrator changes the setting of the Dashboard while the ROR console window is displayed, the following messages are displayed.
 - The graph cannot be displayed.
 - The table cannot be displayed.
 - Failed to display Analytics screen.
 - The Analytics Server is not started.
 - The connection to the Analytics Server failed.
 - Session is invalid.
 - Unexpected error has occurred.

If this occurs, refresh the window of the Web browser or close the Web browser and then display the Dashboard window again. When the same message is displayed, try it again a few minute later.

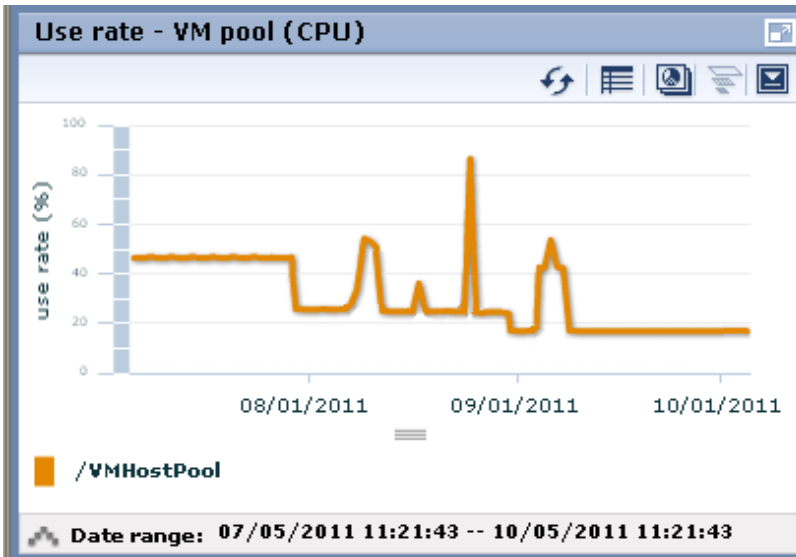
- When a linked service is stopped, just a border may be displayed, or the display may indicate that there is no data Check logs such as the operating system logs, and restart the Manager. Refer to "7.2 Starting and Stopping the Manager" in the *Setup Guide CE* for information on stopping and starting the Manager.

3.3 Chart Display

This section explains the charts for each resource pool.

The resource pool charts display resource pool use rates as polyline graphs for each resource pool. If there are multiple resource pools, the use rates of the display periods of each of the resource pools are added together, and the top five are displayed in order, starting with the one with the highest total.

A VM pool (CPU) window example is shown below.



Detailed information can be displayed in other charts in the resource pool charts.

The table below shows the detailed information and usage scenarios. Refer to Step 2 under "3.2 Dashboard Display" for the operation method.

The table below shows the other charts.

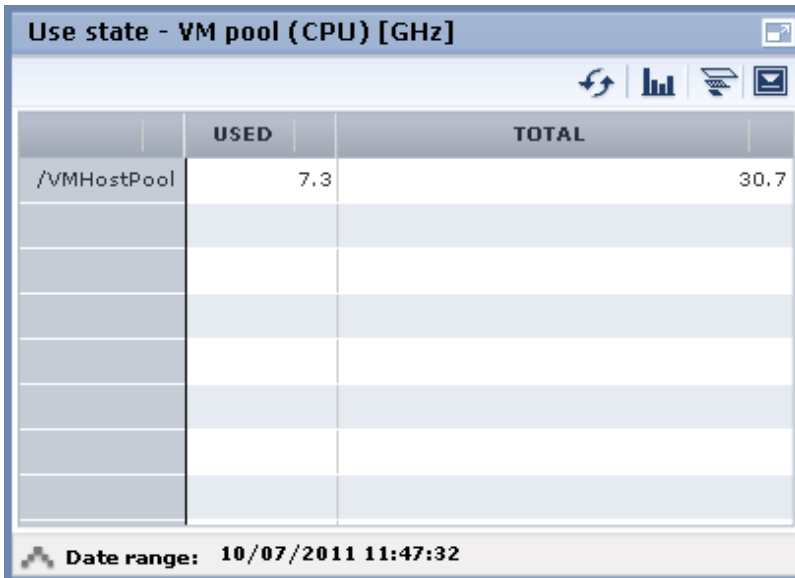
	Display format	Detailed information	Usage scenario
Relationship chart (Usage state)	Table	Displays the total amount and the used amount of the resource pool. The units are as follows: <ul style="list-style-type: none"> - VM pool (CPU): GHz - VM pool (memory): GB - Storage pool: GB - Network pool: Number of networks - Server pool: Number of physical servers - Address pool: Number of addresses 	Use this chart to check the number values (absolute values) for the used amount and number of networks/servers/addresses.
Relationship chart (Allocatable L-Servers) (*1)	Table	Displays the number of L-Servers that can be deployed to the resource pool (*2)	If there is insufficient free space or too few servers, use this chart to check the number of L-Servers that can be deployed.

*1: The relationship chart that displays the number of deployable L-Servers is not displayed for network pools and address pools. L-Servers can be deployed even if the network pool and address pool are exhausted.

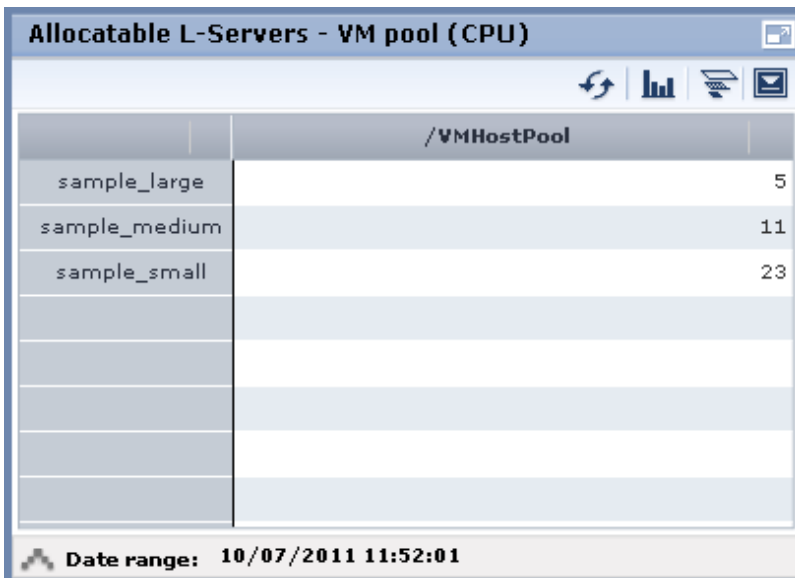
*2: For all storage pools that have thin provisioning function enabled, zero is displayed as the number of L-Servers that can be deployed, regardless of the L-Platform Template type. Specify thin provisioning function enable/disable separately for each storage pool.

VM pool (CPU) relationship chart windows is shown below.

- Example: The number values (absolute values) for the used amount and number is shown below.



- Example: L-Servers that can be deployed is shown below.



3.4 Alert List Display

This section explains the Alert list.

If an alert has occurred in a resource pool, detailed information on the alert that has occurred can be checked by the Alert List. The methods of checking detailed information on alerts are the method of displaying all alerts and the method of displaying alerts for each chart.

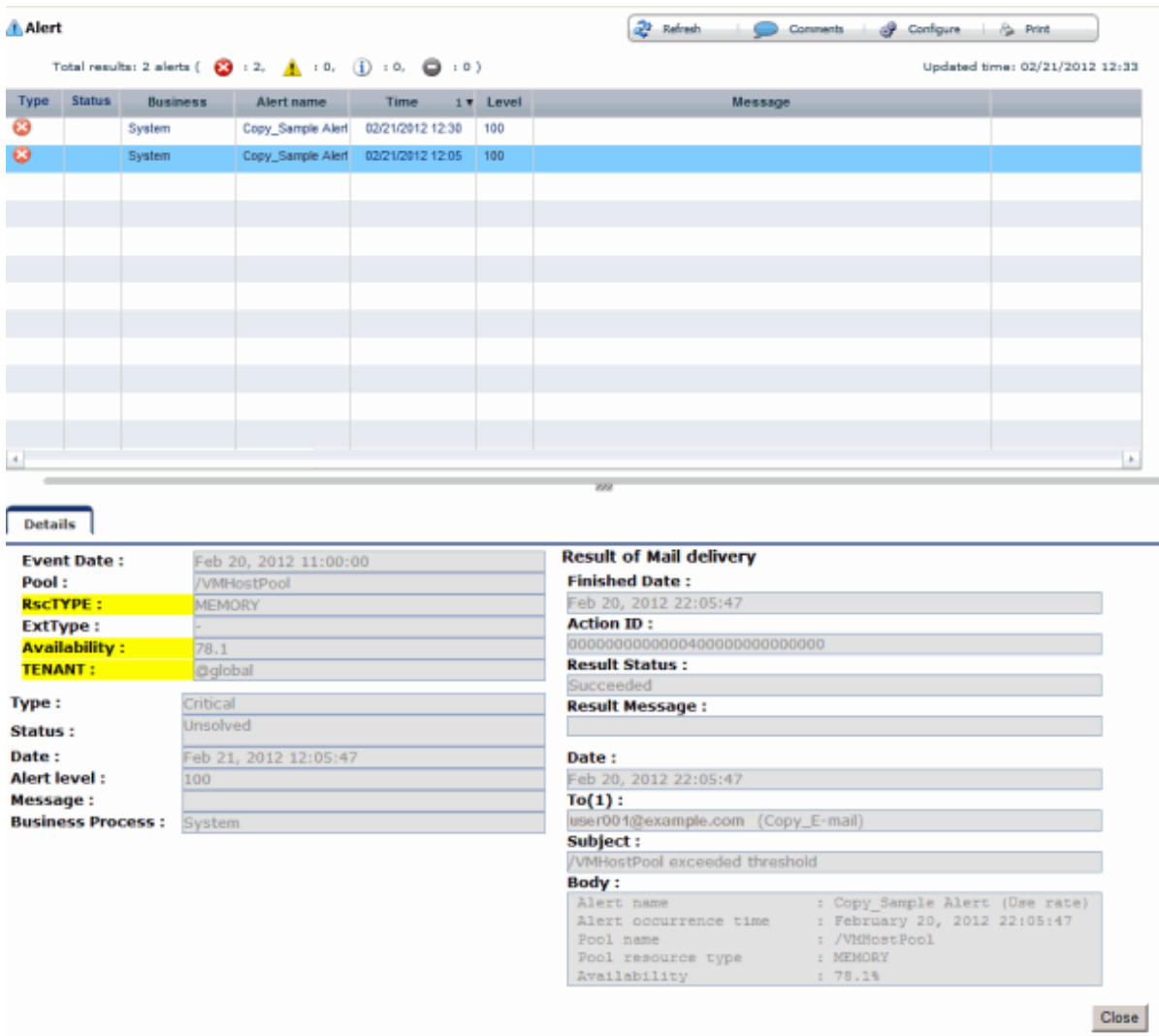
Information

Refer to "To Customize Dashboard" in the Installation Guide CE for information on how to customize alert information.

3.4.1 Alert List (All)

When the **Alert** button is clicked from the Dashboard window, the Alert list (all) window will be displayed.

Figure 3.1 Alert List (All)



The table below explains the buttons at the top right of the Alert list window.

Button	Description
Refresh	Updates the Alert list to the latest status.
Comments	The Comment dialog box will be displayed. Adds a comment on an alert selected from the Alert list. Allows a history of past comments to be viewed. In addition, changes the status of an alert to "Resolve Alert" in accordance with the addition of the comment.
Configure	The Alert Configure dialog box will be displayed. Sets the alert display. Modifies search conditions and customizes the display result. The changes of setting in the Alert list are applied until the window is closed. When the Alert list is closed and opened again, the setting will be reset to the default values.
Print	Outputs an image of the Alert list.

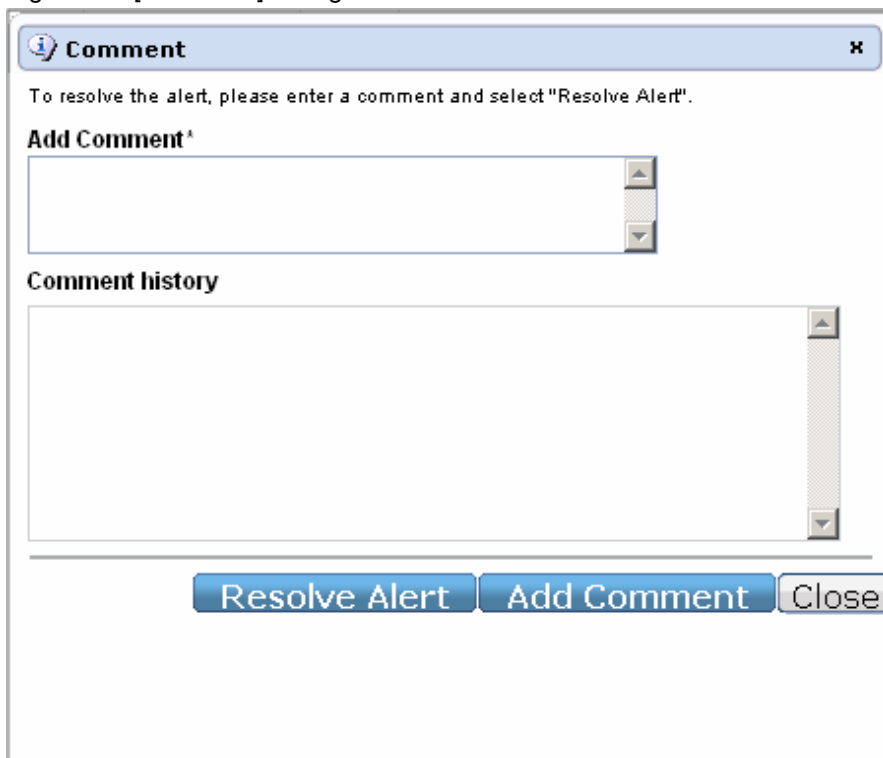
The table below explains the tab at the bottom of the Alert list window.

Tab	Description
Details	Displays detailed information on an alert selected from the Alert list. The background of the attributes specified as the alert conditions will be displayed in yellow. Refer to "Customizing Threshold Values" in the Installation Guide CE for information on setting conditions.

[Comment] dialog box

This section explains the Comment dialog box.

Figure 3.2 [Comment] dialog box



Item	Description
Add Comment	Adds a comment on the selected alert.
Comment history	Allows a history of past comments to be viewed.

Button	Description
Resolve Alert	Changes an alert to resolve alert. A comment is entered in the Add Comment column beforehand.
Add Comment	Adds a comment on an alert that has occurred.

[Alert configuration] dialog box (Search Fields)

Figure 3.3 [Alert configuration] dialog box (Search Fields)

The screenshot shows a dialog box titled "Alert configuration" with a close button (X) in the top right corner. Below the title bar, there is a section for "Condition Settings" with two tabs: "Search Fields" (selected) and "Custom Columns". A "Reset to Default Settings" button is located in the top right of the "Search Fields" tab. A legend indicates that an asterisk (*) denotes a required field. The form contains the following fields:

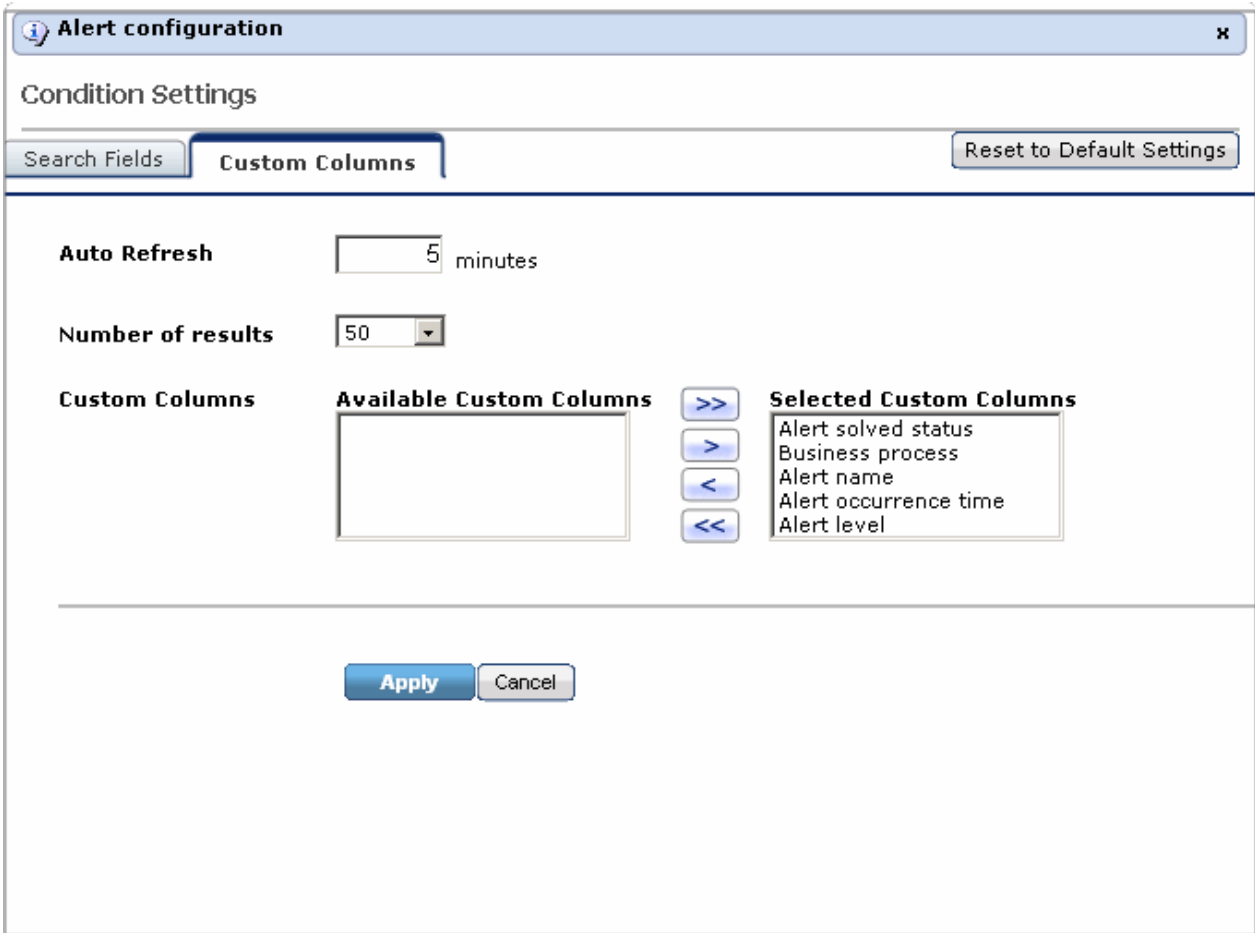
- Time:** A dropdown menu set to "All".
- Alert solved status:** A dropdown menu set to "All".
- Message:** A text input field.
- Alert Type:** A dropdown menu set to "All".
- Target Events*:** A list box containing "System [Business process]".
- Alert Name*:** A list box containing "Sample_Memory_Alert (Use rate)", "Sample Alert (Use rate)", and "Sample_Storage_Alert (Use rate)".
- Alert level:** A range selector with "Between" followed by a dropdown set to "0", the word "and", and another dropdown set to "100".

At the bottom of the dialog box are "Apply" and "Cancel" buttons.

Item	Description
Time	Select the date and time at which the alert to be searched for occurred.
Alert solved status	Select the status.
Message	Enter the message to be searched for.
Alert type	Select "Critical".
Target Events (Mandatory item)	Select the events to be searched, "System [Business process]".
Alert Name (Mandatory item)	Select the alert name.
Alert level	This is fixed at "100".

[Alert configuration] dialog box (Custom Columns)

Figure 3.4 [Alert configuration] dialog box (Custom Columns)



Set the contents of the items in the table below that are displayed in the Alert list window.

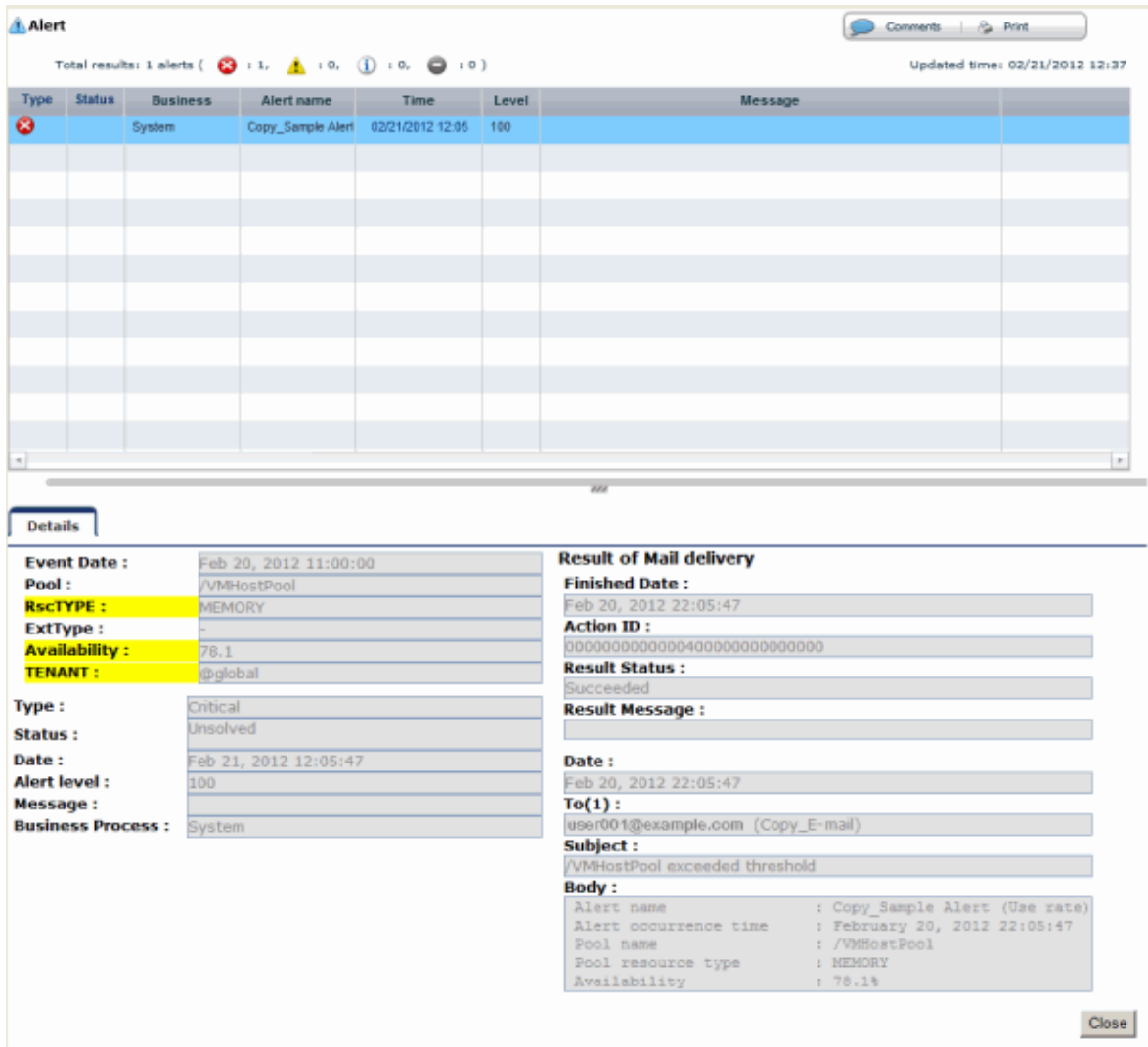
Item	Description
Auto Refresh	Specify the interval at which the window is to be updated. The default is "5".
Number of results	Specify the number of items to be displayed in the Alert list.
Custom Columns	Select the items to be displayed in the Alert list from "Available Custom Columns".

3.4.2 Alert List (for Each Chart)

Use either of the following methods to display an Alert list (for each chart):

- Click the alert icon (⊗) that is displayed in each chart.
- Select Show relational alerts from the **Show function** menu of each chart.

Figure 3.5 Alert List(for Each Chart)




The table below explains the buttons at the top right of the Alert list window.

Button	Description
Comments	The Comment dialog box will be displayed. Adds a comment on an alert selected from the Alert list. Allows a history of past comments to be viewed. In addition, changes the status of an alert to resolve in accordance with the addition of the comment.
Print	Outputs an image of the Alert list.


The table below explains the tab at the bottom of the Alert list window.

Tab	Description
Details	Displays detailed information on an alert selected from the Alert list. The background of the attributes specified as the alert conditions will be displayed in yellow. Refer to "Customizing Threshold Values" in the Installation Guide CE for information on setting conditions.

3.4.3 Alert Resolve

When an alert occurs, an alert icon () will be displayed at the top left of the Dashboard charts. When the alert has been changed to resolve all of the alerts for the chart, the alert icon displayed at the top left of the charts will disappear.

The procedure for changing a displayed alert to resolve the alert is shown below.

1. Click the **Alert** button. Alternatively, use the method explained in "Alert List (for Each Chart)" to display the Alert list window.
2. Select the alert to be changed to resolve and click the **Comments** button.
The Comment dialog box will be displayed.
3. Enter a comment in the "Add Comment" column and then click the **Resolve Alert** button.
The comment entered in the "Comment history" column will be displayed.
4. Click the **Close** button and close the Comment dialog box.
When the alert is changed to "Resolve alert, a check mark () will be added to the "Status" column of the list.

Note

- If the window display does not change even if the alert has been changed to "resolve alert", click the **Refresh** button.
- The Alert list for each chart will only display unresolved alerts, and will not display alerts that have been resolved.

Information

The following procedure can be used to return an alert that was changed to resolve back to having alert status once again:

1. Select the resolving alert and then open the **Comment** dialog box.
2. Enter a comment, click the **Reopen Alert** button, and then close the dialog box.

Chapter 4 System Condition

This chapter explains how to monitor system condition.



The following message may be displayed during monitoring of system condition:

The authority error occurred. Closing the browser.

This error occurs if, for example, the same user ID is used to log in from a different client. In this case, log in again correctly.

4.1 System Condition Display Range

The system condition can display the following information for all tenants and VM hosts:

- CPU utilization
- Disk R/W Usage
- Disk R/W count
- Memory usage
- Network usage



For tenants

- The above information is not displayed for L-Servers incorporated in the system using the L-Server import function of this product.
- Disk R/W usage, disk R/W count, memory usage, and network usage are not displayed if the virtualization software is Hyper-V. However, if the dynamic memory setting is enabled, memory usage is displayed.
- Disk R/W usage is not displayed if the virtualization software is RHEL5-Xen.
- Disk R/W usage is not displayed if the virtualization software is RHEL-KVM.
- Network usage is not displayed if the physical L-Server is Linux.

For VM hosts

- Network usage is not displayed if the VM host virtualization software used is either RHEL5-Xen or RHEL-KVM.

4.2 L-Platform System Condition Display

Perform the following steps to display the L-Platform system condition:

1. From the ROR Console, select the **System Condition** tab.

The **System Condition** window is displayed.

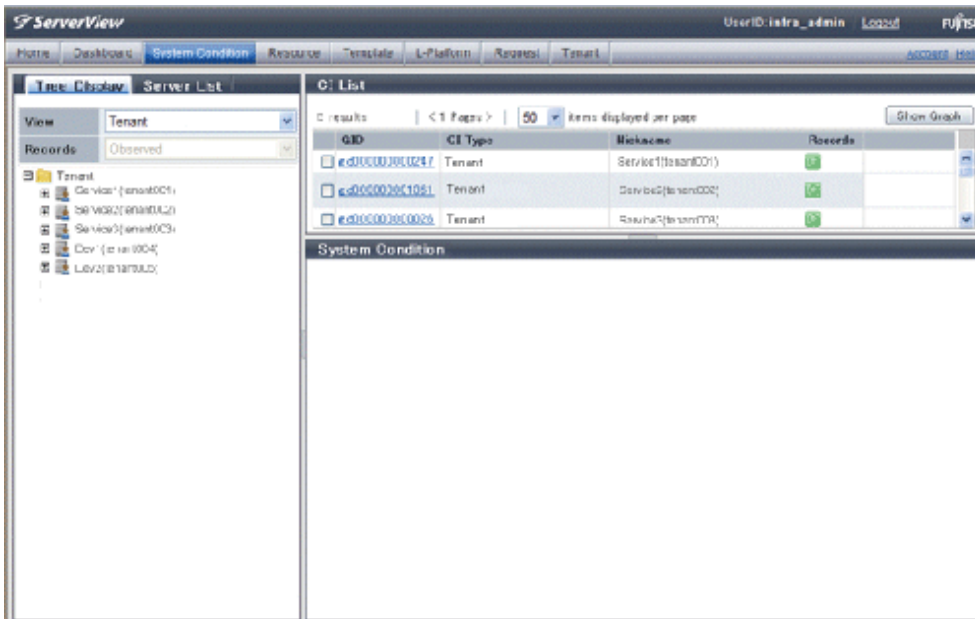
2. In the **System Condition** window, select the **Tree Display** tab.

The configuration of all tenants is displayed in the tree at the left. At **View**, the "Tenant" showing a tree configuration is displayed. Users can toggle between "Tenant" and "Tenant (History)".

- Tenant
Displays the L-Platforms and L-Servers currently in use.

- Tenant (History)
The L-Platforms and L-Servers, including ones used in the past, are displayed.
Those that were cancelled over a year ago are no longer displayed in the history.

At **Record**, "Observed" - indicating the record type - is displayed by default.



Point

The following describes how to find an L-Platform to display when there are a large number of L-Platforms.

1. Select the tenant in the pane on the left. When there are a large number of tenants, use the browser's "find on this page" feature to find the tenant while the tenant list is displayed in the pane on the left.
 2. Expand the tree of the tenant found in step 1, then use the browser's "find on this page" feature to find the L-Platform while the L-Platform list is displayed.
3. From the tree at the left, select the L-Platform for which to display the system condition.

The selected L-Platform is displayed in the CI list on the right.

If the "L-Platform" folder is selected in the tree, all L-Platforms under the folder are displayed in the CI list.

If an L-Server is selected in the tree, information about the selected server is displayed in the CI list.

The L-Platforms and L-Servers under each folder in the tree are displayed in descending order based on their update date and time.

4. Select an L-Platform in the CI list, and then click the **Show Graph** button.

The system condition is displayed in the lower part of the CI list. Refer to "[4.2.1 System Condition Display](#)" for details on the displayed system condition.

The table below explains the displayed items.

Item	Explanation
GID	Displays the identifier set by the system to identify the configuration item. If the CI list GID link is clicked, the configuration information of the target tenant, L-Platform or L-Server is displayed in a separate window. Refer to 4.2.2 Configuration Information Display for the displayed configuration information.
CI Type	The CI types are as follows: - Tenant: If a tenant is selected

Item	Explanation
	<ul style="list-style-type: none"> - L-Platform: If an L-Platform is selected - L-Server: If an L-Server is selected
Nickname	Displays the display name of the configuration item. The following display names are displayed in accordance with the CI type: <ul style="list-style-type: none"> - For the tenant CI type: The tenant name determined during tenant registration ("tenant name (tenant ID)") - For the L-Platform CI type: The L-Platform subscription name set during L-Platform subscription - For the L-Server CI type: The L-Server name set during L-Platform subscription or L-Platform reconfiguration ("server name (host name)")
Record	Displays the type of records held by the configuration item. [0], indicating the actual information, is displayed.



Note

Clicking the CI list column headers to sort the columns is effective only for the range displayed in that page. The sorting specification is reset when the next or previous page is displayed. Sorting spanning multiple pages is not available.

4.2.1 System Condition Display

The system condition of the L-Platforms selected in the system condition window CI list is displayed as a graph at **System Condition** in the lower part of the window. Up to five L-Servers can be displayed at once in the graphs. If more than five L-Servers are selected, the first five are displayed.

The system condition contents can be switched by clicking the **System Condition** tabs.

The table below shows the contents under the **System Condition** tabs.

Tab name	Display content (*1)	Graph type	Display interval	Display interval switching (*2)
Total	Totals for each status	Vertical bar graph	30 minutes, starting from the current time	Not possible
CPU	CPU utilization	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
Disk	Disk R/W Usage (*3)	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
	Disk R/W count (*4)	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
Memory	Memory usage (*5)	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
Network	Network usage (*6)	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
All	Overview of all the above statuses	Horizontal polyline graph	One hour/day/month/year from the current time	Possible

*1: Information is displayed using a different color for each L-Server.

*2: The display interval can be switched to a shorter interval by clicking the data plotting area of a horizontal polyline graph, or switched to a longer interval by clicking outside the data plotting area.

*3: Disk usage and network usage are not displayed if the virtualization software is Hyper-V and RHEL5-Xen.

*4: The disk R/W count is not displayed if the virtualization software is Hyper-V and RHEL-KVM.

*5: The memory usage is not displayed if the virtualization software is Hyper-V. However, it is displayed if the dynamic memory setting is enabled.

*6: The network usage is not displayed if the virtualization software is Hyper-V and the physical L-Server is Linux.

Note

- Information obtained from virtualization software is displayed in the system condition. Virtual Memory usage is not included.
- The system condition data is not reflected in the display until collection at the fixed intervals shown below is completed. Check the display after the fixed intervals shown below.

Tab name	Display period (*)	Collection time required before displaying
Total	30 days	one whole day (from 0:00 to 23:59)
CPU	one hour	ten whole minutes (from 0 minutes to 9 minutes)
Disk	one day	one whole hour (from 0 minutes to 59 minutes)
Memory	one month/one year	one whole day (from 0:00 to 23:59)
Network	one month/one year	one whole day (from 0:00 to 23:59)

*: The display period in each tab except for Total tab can be selected from one hour, one day, one month, or one year.

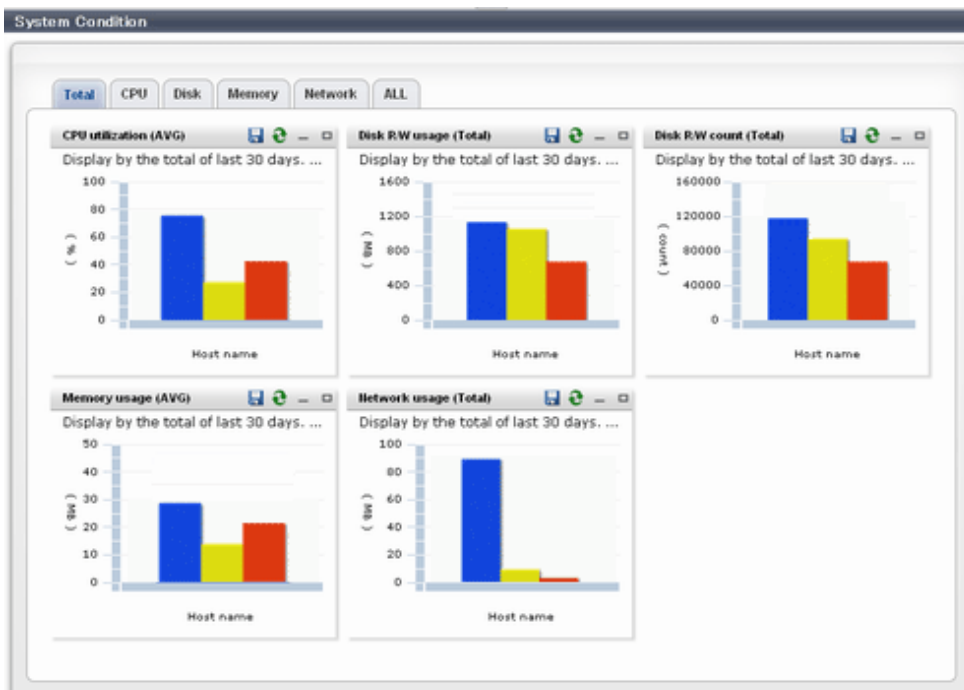
- System condition data is not displayed if the power is off at the monitored L-Server.
- If the CPU utilization status continues at 100% at the monitored L-Server, data collection timing may be delayed and an error of about one second may occur. This may cause CPU utilization (average value for a specified unit of time) to exceed 100%. Take into account the possibility of data errors when using this display.

Example:

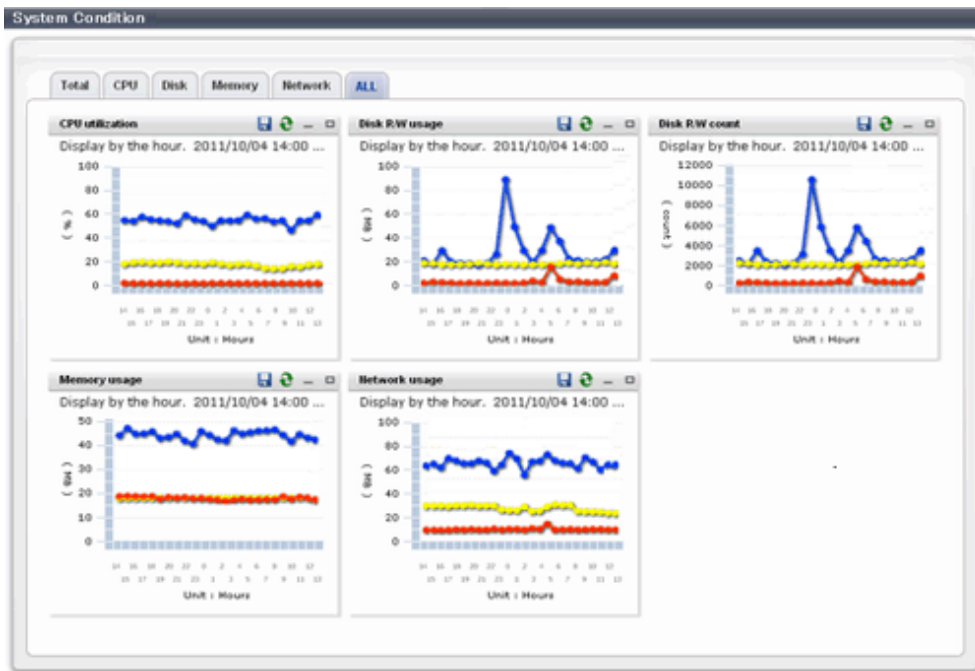
If a monitored L-Server has one CPU and is displayed in units of one hour, the value in the system condition graphs and CSV file data may be displayed as 100.03% (60.02 minutes (near equal 3601 seconds)/60 minutes) even though the upper limit for CPU utilization is 100%.

Display examples for the **Total** tab and the **All** tab are shown below.

- **Total** tab



- All tab



At each tab, the following icons displayed in the title bar can be used:

Icon	Tool tip	Explanation
	Update	Updates the displayed contents
	Download CSV file	Downloads the graph data in CSV format
	Minimize	Minimizes the specified window
	Maximize	Maximizes the specified window
	Restore	Restores the maximized window

The table below shows the CSV file items if data is downloaded from each graph.

Note that the CSV file encoding is Shift-JIS.

Graph type	Column name	Explanation	Unit	Description
CPU utilization	sdattim	Collection start time (*1)		yyyy/MM/dd HH:mm:ss
	resrcid	Resource ID		<ul style="list-style-type: none"> - in case of physical servers and Windows: "#" + CPU number or _Total - in case of physical servers and Linux: CPU number or _Total - in case of Hyper-V: VM name + ":Hv VP" + virtual Processor number
	recid	Record ID		Output any of the following <ul style="list-style-type: none"> - WIN_CPUBUSY - UX_CPUBUSY - VMW_GCPU

Graph type	Column name	Explanation	Unit	Description
				- HV_VCPU - XEN_CPU - KVM_CPU
	consintl	Interval time	second	- in case of interval time is 10 minutes: 600 - in case of 1 hour: 3600 - in case of 24 hour: 86400
	coverage	Data coverage	(0 to 1)	
	cpupcent	CPU utilization	%	Output only in case of physical servers and Windows/Linux Processor utilization
	vmgcused	CPU utilization	%	Output only for VMware Physical CPU utilization consumed per resource pool or a virtual machine
	physres	Physical CPU information or virtual CPU information		Output only for VMware
	ptrtim	CPU utilization	%	Output only for Hyper-V Utilization of virtual processors allocated to a virtual machine and consumed by hypervisor code
	xenpcused	CPU utilization	%	Output only for RHEL5-Xen CPU utilization (total utilization of virtual CPUs set in the domain)
	xencpun	Number of virtual CPUs in the domain	number	Output only for RHEL5-Xen
	Nickname	VM name		Output only for VMware/Hyper-V/ RHEL5-Xen
	kvmcpupcent	CPU utilization	%	Output only for RHEL-KVM CPU utilization (total utilization of virtual CPUs set in the domain)
	kvmcpus	Number of virtual CPUs in the domain		Output only for RHEL-KVM
Disk R/W Usage	sdattim	Collection start time (*1)		yyyy/MM/dd HH:mm:ss
	resrcid	Resource ID		- in case of physical servers and Windows: drive name or _Total - in case of physical servers and Linux: device name
	recid	Record ID		Output any of the following - WIN_PHYDISKBUSY - UX_DISKBUSY - VMW_DISK - KVM_DISK

Graph type	Column name	Explanation	Unit	Description
	consintl	Interval time	second	- in case of interval time is 10 minutes: 600 - in case of 1 hour: 3600 - in case of 24 hour: 86400
	coverage	Data coverage	(0 to 1)	
	preadbyt	Disk read usage	bytes	Output only for Windows
	pwritbyt	Disk write usage	bytes	Output only for Windows
	iokreads	Disk read usage	Kbytes	Output only for Linux
	iokwrite	Disk write usage	Kbytes	Output only for Linux
	vmdmbread	Disk read usage	Mbytes	Output only for VMware Disk read usage for virtual machine and storage device units
	vmdmbwrt	Disk write usage	Mbytes	Output only for VMware Disk write usage for virtual machine and storage device units
	Nickname	VM name		Output only for VMware/Hyper-V/ RHEL5-Xen
	kvmdiskblockrby	Disk read usage	bytes	Output only for RHEL-KVM Disk read usage in the domain
	kvmdiskblockwrby	Disk write usage	bytes	Output only for RHEL-KVM Disk write usage in the domain
Disk R/W count	sdattim	Collection start time (*1)		yyyy/MM/dd HH:mm:ss
	resrcid	Resource ID		- in case of physical servers and Windows: drive name or _Total - in case of physical servers and Linux: device name
	recid	Record ID		Output any of the following - WIN_PHYDISKBUSY - UX_DISKBUSY - VMW_DISK
	consintl	Interval time	second	- in case of interval time is 10 minutes: 600 - in case of 1 hour: 3600 - in case of 24 hour: 86400
	coverage	Data coverage	(0 to 1)	
	preadsec	Disk read count		Output only for Windows Physical disk read operation count
	pwritsec	Disk write count		Output only for Windows Physical disk write operation count
	ioreads	Disk read count		Output only for Linux read count
	iowrite	Disk write count		Output only for Linux write count

Graph type	Column name	Explanation	Unit	Description
	vmdreads	Disk read count		Output only for VMware Disk read count for virtual machine and storage device units
	vmdwrites	Disk write count		Output only for VMware Disk write count for virtual machine and storage device units
	vbdrd	Disk read count		Output only for RHEL5-Xen Virtual block device read count
	vbdwr	Disk write count		Output only for RHEL5-Xen Virtual block device write count
	Nickname	VM name		Output only for VMware/Hyper-V/ RHEL5-Xen
Memory usage	sdattim	Collection start time (*1)		yyyy/MM/dd HH:mm:ss
	resrcid	Resource ID		- in case of physical servers and Windows: MEMORY - in case of physical servers and Linux: FREEMEM
	recid	Record ID		Output any of the following - WIN_MEMORY - UX_MEMFREE - VMW_MEM - HV_DMEN_VM - XEN_MEM - KVM-MEM
	consintl	Interval time		- in case of interval time is 10 minutes: 600 - in case of 1 hour: 3600 - in case of 24 hour: 86400
	coverage	Data coverage	(0 to 1)	
	comtot	Memory usage	bytes	Output only for Windows Commit size
	freememp	Memory usage	bytes	Output only for Linux Memory size utilization for user processes
	memuse	Memory usage	percent	Output only for Linux
	Vmgmtm	Memory usage	Mbytes	Output only for VMware Estimated working set size of resource pool and virtual machine units
	ppmemdmvm	Memory usage	Mbytes	Output only for Hyper-V Current memory capacity of virtual machine
	xenavm	Memory usage	Mbytes	Output only for RHEL5-Xen Memory capacity allocated to domain

Graph type	Column name	Explanation	Unit	Description
	Nickname	VM name		Output for VMware/Hyper-V/ RHEL5-Xen
	kvmmemused	Memory usage	Mbytes	Output only for RHEL-KVM Memory capacity allocated to domain
Network utilization	sdattim	Collection start time (*1)		yyyy/MM/dd HH:mm:ss
	resrcid	Resource ID		Output only for Windows Network device name
	recid	Record ID		Output any of the following - WIN_NET_INTERFACE - VMW_NET - XEN_NET - KVM-NET
	consintl	Interval time		- in case of interval time is 10 minutes: 600 - in case of 1 hour: 3600 - in case of 24 hour: 86400
	coverage	Data coverage	(0 to 1)	
	ifbytin	Network usage (received)	bytes	Output only for Windows Amount of received data(byte)
	ifbytot	Network usage (sent)	bytes	Output only for Windows Amount of sent data(byte)
	vmnmpvtr	Network usage (sent)	Mbits	Output only for VMware Amount of data transferred by virtual network device port unit
	vmnmpbrecv	Network usage (received)	Mbits	Output only for VMware Amount of data received by virtual network device port unit
	xenkbtx	Network usage (sent)	Kbytes	Output only for RHEL5-Xen Amount of data sent by virtual network interface
	xenkbrx	Network usage (received)	Kbytes	Output only for RHEL5-Xen Amount of data received by virtual network interface
	Nickname	VM name		Output only for VMware/Hyper-V/ RHEL5-Xen
	kvmnetrxby	Network usage (received)	bytes	Output only for RHEL-KVM Amount of data sent by virtual network interface
kvmnettxby	Network usage (sent)	bytes	Output only for RHEL-KVM Amount of data received by virtual network interface	

*1: When the information from the virtual L-server where the live migration was performed is output to CSV, the following phenomena may occur:

- Information for a certain point of time is output twice

- Information for a certain point of time is not output

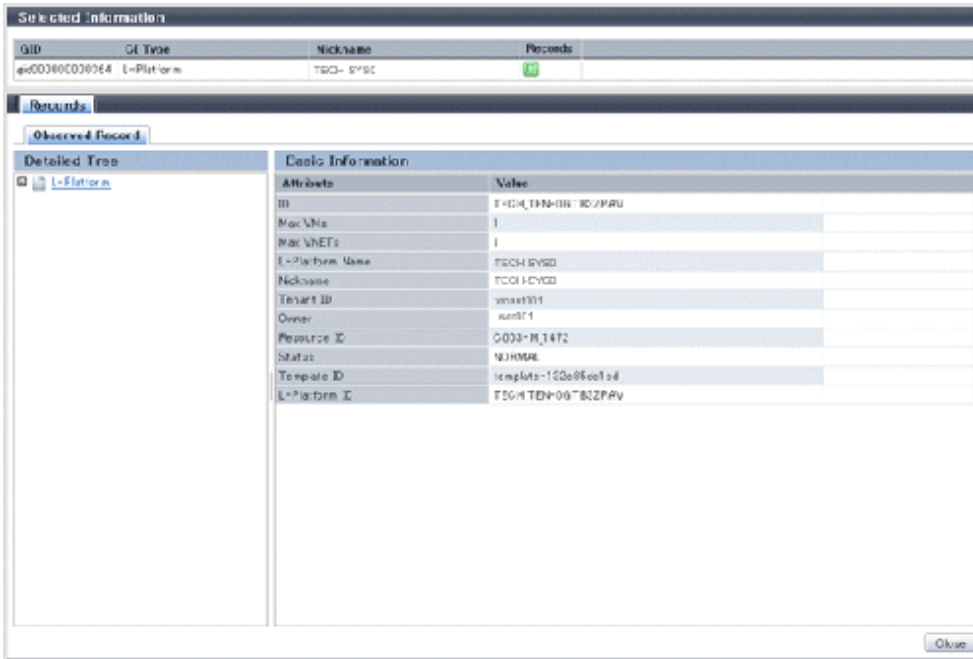
If there is a large difference in the time and date in the VM host where the live migration was performed, the above phenomena will be more likely to occur.

4.2.2 Configuration Information Display

The tenant, L-Platforms and L-Servers displayed in the CI list of the system condition window are managed as configuration items (CIs).

When the GID link in the CI list of the system condition window is clicked, the configuration information of the target tenant, L-Platform or L-Server is displayed in a separate window.

A display example is shown below.



The table below explains the displayed items.

	Item	Explanation
Selected Information	GID	Displays the identifier set by the system to identify the configuration item.
	CI Type	Displays the configuration item type. The CI types are as follows: <ul style="list-style-type: none"> - Tenant: If a tenant is selected - L-Platform: If an L-Platform is selected - L-Server: If an L-Server is selected
	Nickname	Displays the display name of the configuration item. The following display names are displayed in accordance with the CI type: <ul style="list-style-type: none"> - For the tenant CI type: The tenant name determined during tenant registration ("tenant name (tenant ID)") - For the L-Platform CI type: The L-Platform subscription name set during L-Platform subscription - For the L-Server CI type: The L-Server name set during L-Platform subscription or L-Platform reconfiguration ("server name (host name)")
	Record	Displays the type of records held by the configuration item. [0], indicating the actual information, is displayed.

Item		Explanation	
Record	Detailed Tree	<p>This is a tree of the elements comprising the configuration item. The following elements are displayed in accordance with the CI type:</p> <ul style="list-style-type: none"> - For the tenant CI type: Tenants - For the L-Platform CI type: Instances - For the L-Server CI type: L-Server node information <p>When an element is selected, the element attribute values are displayed in the basic information. Values are displayed as attribute values, and differ depending on the element:</p> <ul style="list-style-type: none"> - If the element is a tenant: The value determined during tenant registration - If the element is an instance: The value set during L-Platform subscription - If the element is L-Server node information: The value set during L-Platform subscription or L-Platform reconfiguration 	
	Basic Information	Attribute	Displays the attribute name. When the label in the upper part is clicked, items can be sorted by attribute name.
		Value	Displays the attribute value. When the label in the upper part is clicked, items can be sorted by attribute value.
Close button		When this button is clicked, the window closes.	

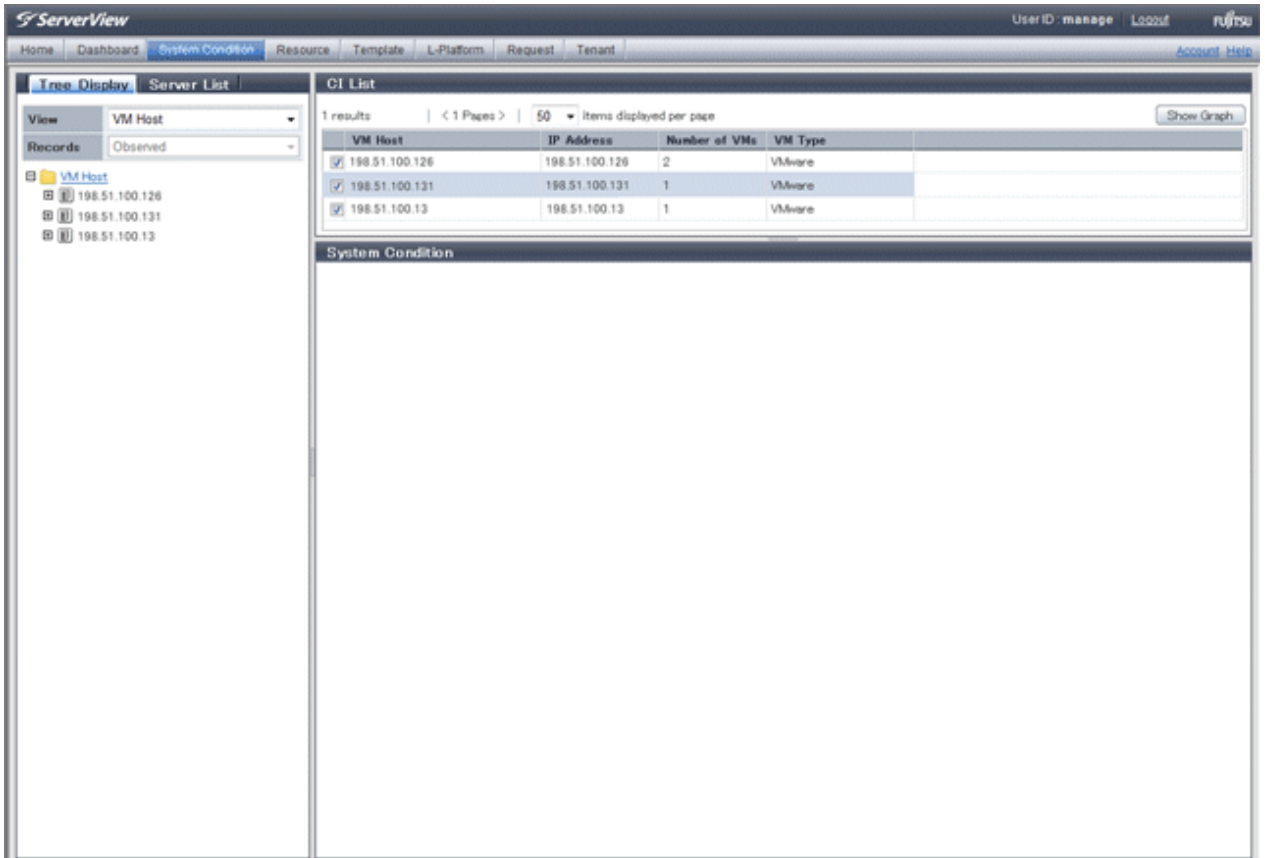
4.3 VM Hosts System Condition Display

Perform the following steps to display the VM hosts system condition:

1. From the ROR Console, select the **System Condition** tab.

The **System Condition** window is displayed.

- In the **System Condition** window, select the **Tree Display** tab.
Select the "VM Host" under **View**.



Point

If there are several VM hosts, search for the desired VM host by displaying the list of VM hosts and then using the web browser's 'Find on this Page' function.

- From the tree at the left, select the VM hosts for which to display the system condition.

The selected VM hosts are displayed in the CI list on the right.

If the "VM hosts" folder is selected in the tree, all VM hosts under the folder are displayed in the CI list.

- Select an VM hosts in the CI list, and then click the **Show Graph** button.

The system condition is displayed in the lower part of the CI list. Refer to "[4.3.1 System Condition Display](#)" for details on the displayed system condition.

The table below explains the displayed items.

Item	Explanation
VM Host	Displays the VM host name displayed at Resource tab - Trees pain in ROR console display. Note that name change is not always reflected immediately in some cases, for example, when you change the VM Host name on the VM Management Software. The change is usually reflected within five minutes.
IP Address	Displays the IP address of the VM Host.
Number of VMs	Displays the number of the running VM guests that was deployed on the VM Host in the L-Platform management page.

Item	Explanation
VM Type	Displays the type of the VM Host. ex) VMware, Hyper-V, RHEL-KVM

Note

Clicking the CI list column headers to sort the columns is effective only for the range displayed in that page. The sorting specification is reset when the next or previous page is displayed. Sorting spanning multiple pages is not available.

4.3.1 System Condition Display

The system condition of the VM hosts selected in the system condition window CI list is displayed as a graph at **System Condition** in the lower part of the window. Up to five VM hosts can be displayed at once in the graphs. If more than five VM hosts are selected, the first five are displayed.

The system condition contents can be switched by clicking the **System Condition** tabs.

The table below shows the contents under the **System Condition** tabs.

Tab name	Display content (*1)	Graph type	Display interval	Display interval switching (*2)
Total	Totals for each status	Vertical bar graph	30 minutes, starting from the current time	Not possible
CPU	CPU utilization	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
Disk	Disk R/W Usage	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
	Disk R/W count	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
Memory	Memory usage	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
Network	Network usage (*3)	Horizontal polyline graph	One hour/day/month/year from the current time	Possible
All	Overview of all the above statuses	Horizontal polyline graph	One hour/day/month/year from the current time	Possible

*1: Information is displayed using a different color for each L-Server.

*2: The display interval can be switched to a shorter interval by clicking the data plotting area of a horizontal polyline graph, or switched to a longer interval by clicking outside the data plotting area.

*3: Will not display if the VM host virtualization software used is either RHEL5-Xen or RHEL-KVM.

Note

- The system condition data is not reflected in the display until collection at the fixed intervals shown below is completed. Check the display after the fixed intervals shown below.

Tab name	Display period (*)	Collection time required before displaying
Total	30 days	one whole day (from 0:00 to 23:59)
CPU Disk Memory Network	one hour	ten whole minutes (from 0 minutes to 9 minutes)
	one day	one whole hour (from 0 minutes to 59 minutes)
	one month/one year	one whole day (from 0:00 to 23:59)

*: The display period in each tab except for Total tab can be selected from one hour, one day, one month, or one year.

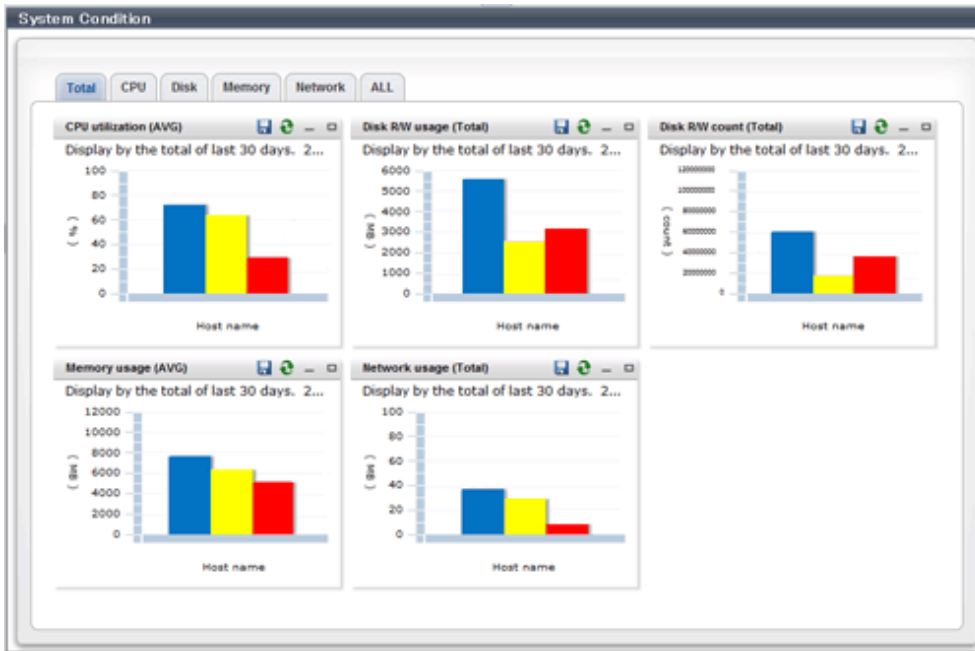
- System condition data is not displayed if the power is off at the monitored L-Server.
- Proper data collection cannot take place if the VM host to be monitored continuously indicates CPU utilization of 100%. Accordingly, a display resembling one of the examples below may appear.

Example:

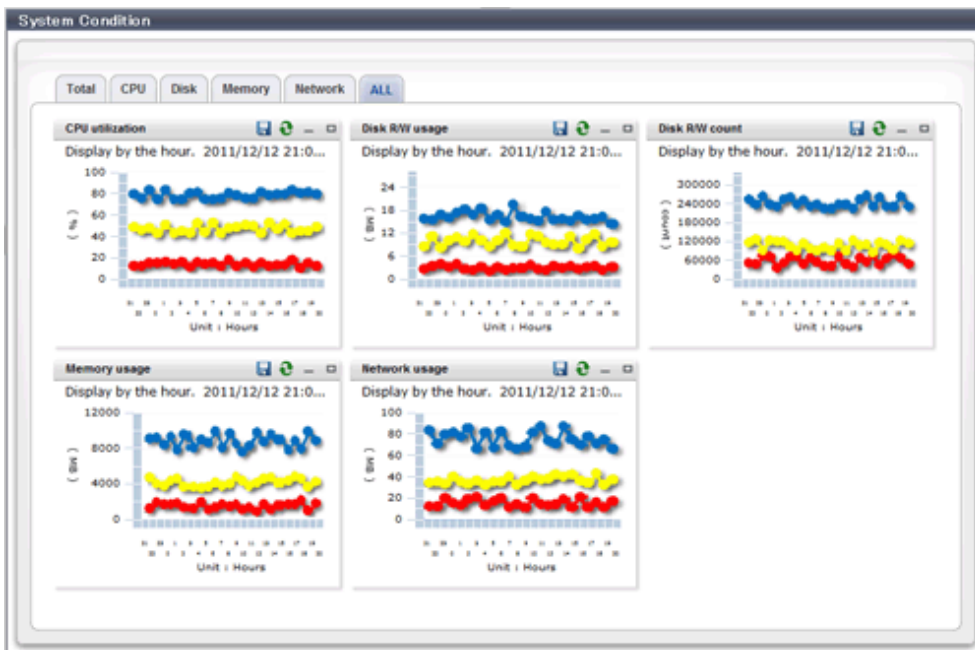
- CPU usage rate displays as exceeding 100%.
- Data cannot be collected, graph does not display.

Display examples for the **Total** tab and the **All** tab are shown below.






- **Total** tab



- **All** tab



At each tab, the following icons displayed in the title bar can be used:

Icon	Tool tip	Explanation
	Update	Updates the displayed contents
	Download CSV file	Downloads the graph data in CSV format
	Minimize	Minimizes the specified window
	Maximize	Maximizes the specified window
	Restore	Restores the maximized window

The table below shows the CSV file items if data is downloaded from each graph.

Note that the CSV file encoding is Shift-JIS.

Graph type	Column name	Explanation	Unit	Description
CPU utilization	date_time	Collection start time		yyyy/MM/dd HH:mm:ss
	Nickname	VM host Nickname		
	value	CPU utilization	%	
Disk R/W usage	date_time	Collection start time		yyyy/MM/dd HH:mm:ss
	Nickname	VM host Nickname		
	value	Disk R/W usage	Mbytes	
Disk R/W count	date_time	Collection start time		yyyy/MM/dd HH:mm:ss
	Nickname	VM host Nickname		
	value	Disk R/W count		
Memory usage	date_time	Collection start time		yyyy/MM/dd HH:mm:ss
	Nickname	VM host Nickname		
	value	Memory usage	Mbytes	
Network utilization	date_time	Collection start time		yyyy/MM/dd HH:mm:ss
	Nickname	VM host Nickname		
	value	Network usage (sent and received)	Mbytes	

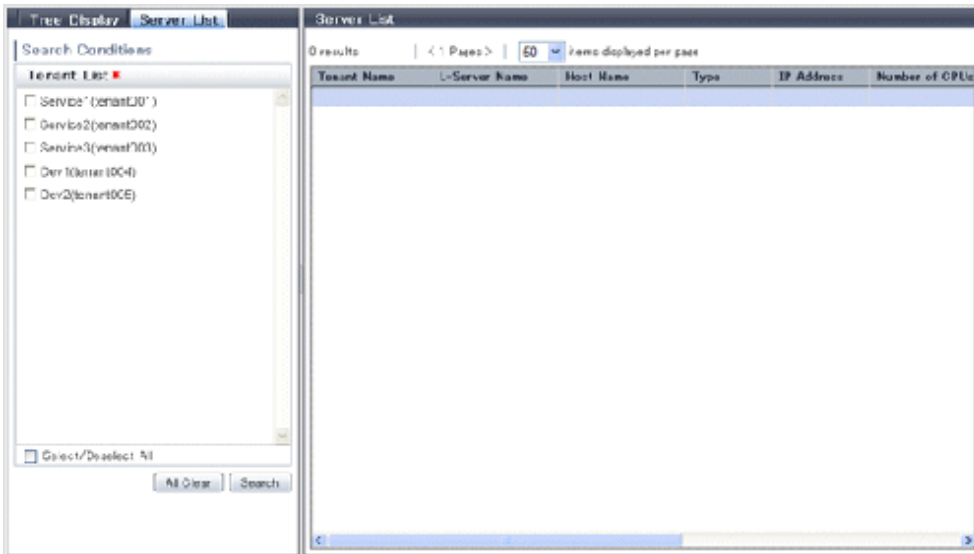
4.4 Server List Display

Perform the following steps to display the server list:

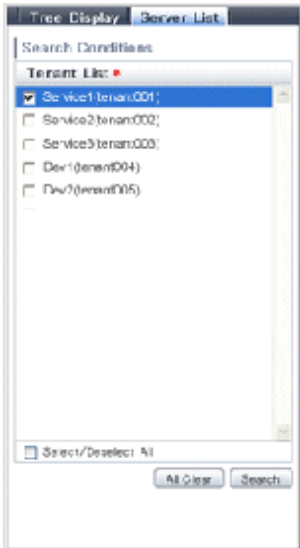
1. From the ROR Console, select the **System Condition** tab.

The **System Condition** window is displayed.

2. In the **System Condition** window, select the **Server List** tab.



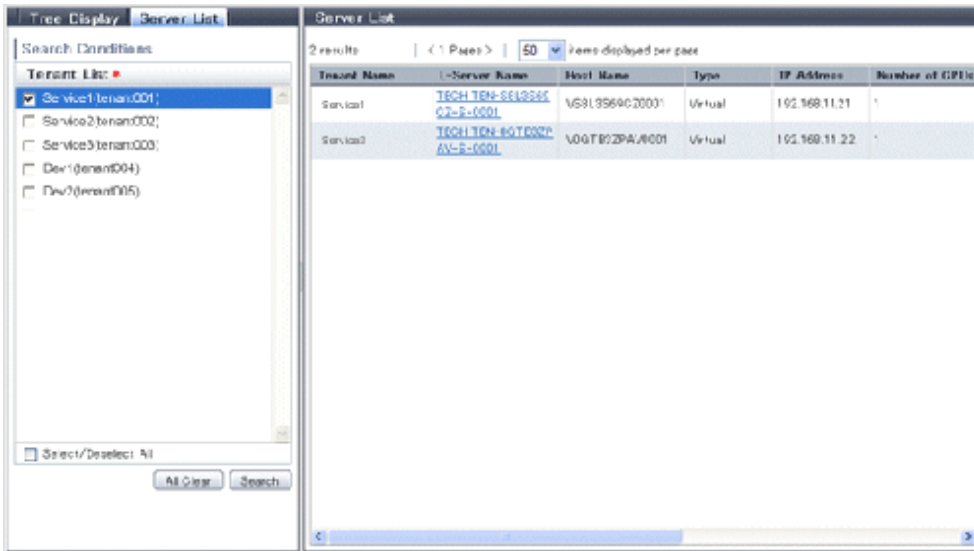
3. Enter the search conditions in the left pane.



Select or enter the following item, and then click the **Search** button.

Item	Explanation
Tenant	<p>In the displayed tenant list, select the checkbox of the tenant to display. Use the browser's "find on this page" feature to find a tenant when there are a large number of tenants.</p> <p>The Select/Deselect All button checkbox can be used to switch between selecting and deselecting all tenant checkboxes.</p>

4. A list of servers that match the search conditions is displayed.



The table below explains the items displayed in the server list.

Item	Explanation
Tenant Name	The tenant name of the tenant related to the L-Server Example: First Business Department
L-Server Name	The server name of the L-Server Example: ID015-WEB-001
Host Name	The host name of the L-Server Example: V4KRXZS6R60001
Type	The L-Server type Example: economy
IP Address	IP address of the L-Server control NIC Example: 192.0.2.10
Number of CPUs	Number of CPUs Example: 2
CPU Clock (GHz)	The CPU clock rate, in GHz units Example: 2.0
Reserved CPU Clock (GHz)	The minimum applied value of the CPU clock rate reserved for the L-Server, in GHz units Example: 1.6 The CPU reserve clock rate is displayed only if the over-commit display function of the viewlist_ja.xml file is enabled. Refer to "System Condition Server List Settings" in the <i>Operation Guide CE</i> for the viewlist_ja.xml file setting method.
Memory (GB)	The memory size allocated to the L-Server, in GB units Example: 4.0
Reserved Memory (GB)	The minimum applied value of the memory size rate reserved for the L-Server, in GB units Example: 2.0 The memory reserve size is displayed only if the over-commit display function of the viewlist_ja.xml file is enabled. Refer to "System Condition Server List Settings" in the <i>Operation Guide CE</i> for the viewlist_ja.xml file setting method.
System Disk (GB)	The disk size used as the system disk, in GB units Example: 30.0

Item	Explanation
Total Added Disk(GB)	The total value of the disk size for added disks. If there are multiple added disks, the total value for those disks is output. The unit is GB. Example: 60.0

 **Note**

Clicking the server list column headers to sort the columns is effective only for the range displayed in that same page. The sorting specification is reset when the next or previous page is displayed. Sorting spanning multiple pages is not available.

 **Point**

The following describes how to find an L-Server to display when there are a large number of servers in the server list.

1. Select the checkbox for the tenant in the pane on the left. If you do not know the tenant name, select the **Select/Deselect All** checkbox so that all tenant checkboxes are checked.
2. Click the **Search** button in the pane on the left.
3. Use the browser's "find on this page" feature to find the L-Server to display while the server list for the tenant found in step 2 is displayed in the pane on the right. You can change the number of items displayed per page with the drop-down list at the top of the pane on the right. For example, change the number of results displayed from 50 to 300.

Chapter 5 Template

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

5.1 L-Platform Template Components

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

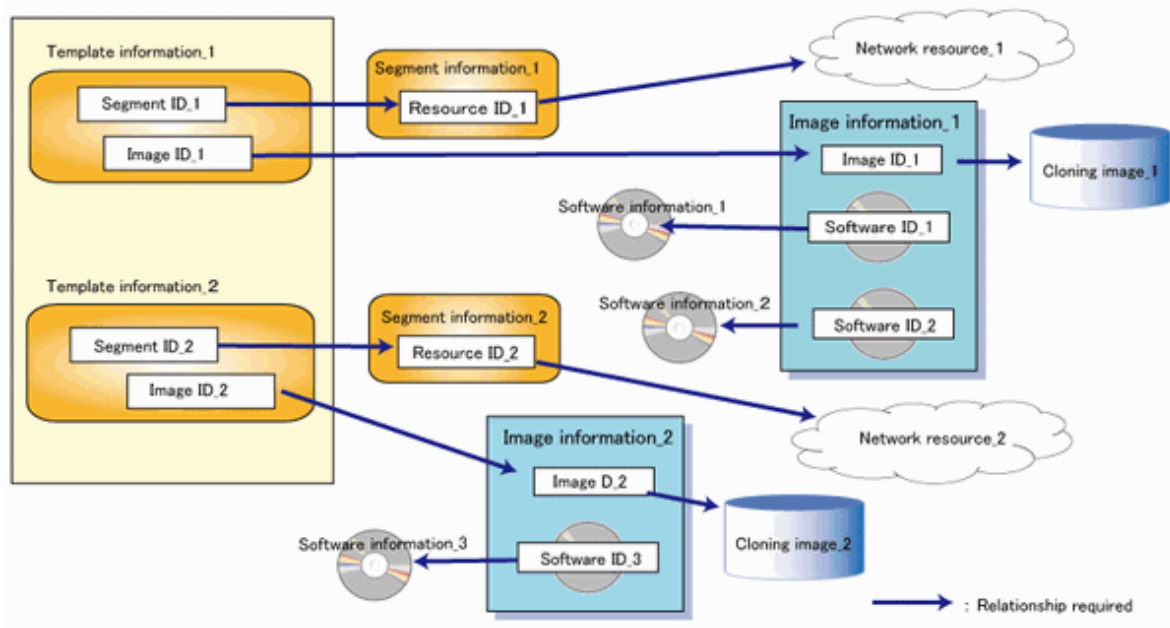
The table below shows the information comprising an L-Platform template.

Table 5.1 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

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

Figure 5.1 Figure The relationship between information comprising the L-Platform template

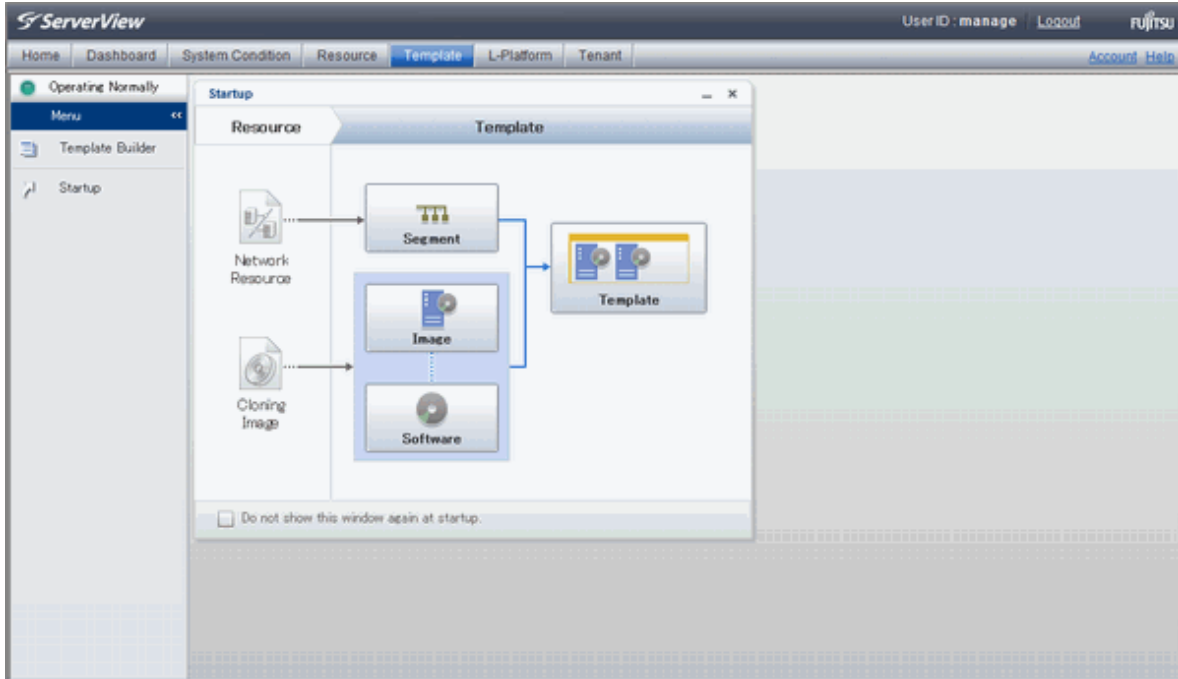


5.2 Explanation of Windows

This section explains the ROR Console **Template** tab window.

The following figure shows the ROR Console **Template** tab window.

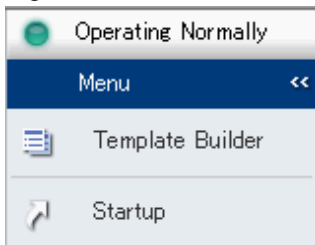
Figure 5.2 ROR Console Template tab



5.2.1 Menu

The following figure shows the menu displayed under the ROR Console **Template** tab.

Figure 5.3 Menu



When **Template Builder** is selected, the L-Platform Template window will be displayed.

When **Startup** is selected, the **Startup** window is displayed

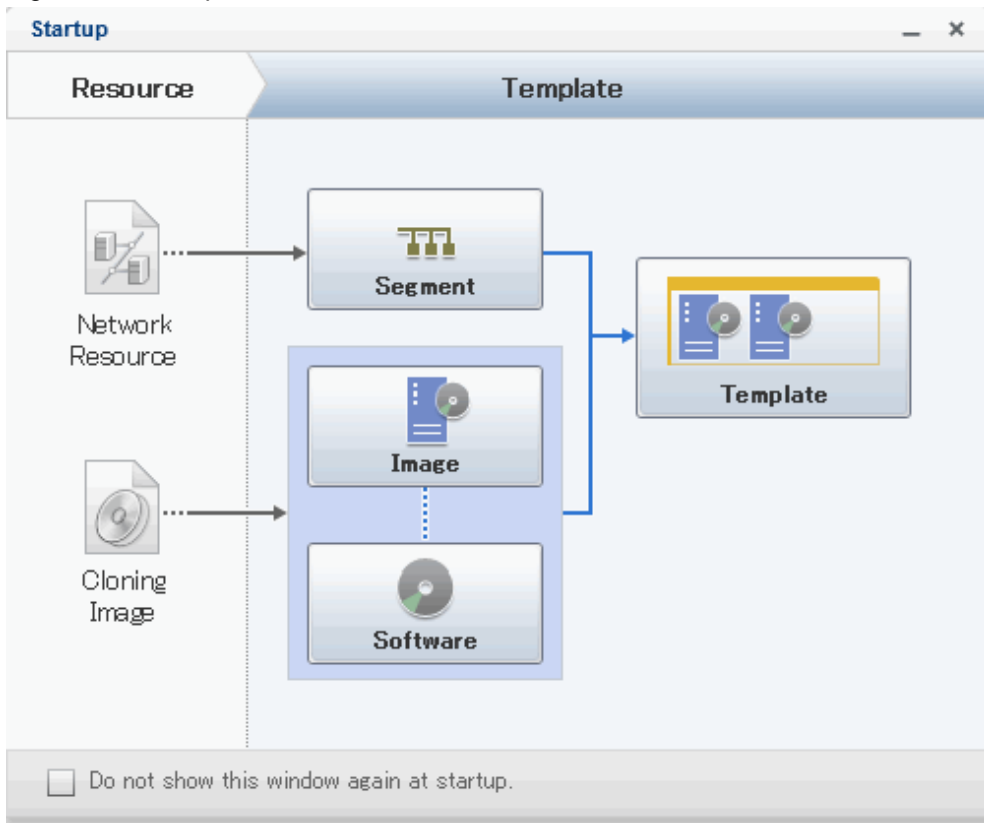
Note

- During L-Platform template operations, if stoppage of the Admin Server or something similar inhibits connection, the lamp on the menu changes to grey and "Not Operating" is displayed. If this occurs, contact the system administrator.

5.2.2 Startup Window

The following figure shows the **Startup** window displayed under the ROR Console **Template** tab window.

Figure 5.4 Startup window



The procedures for creating the various types of information comprising an L-Platform template are shown as button images on the **Startup** window.

When the button image for each type of information is clicked, the corresponding tab of the **L-Platform Template** window is displayed.

5.2.3 L-Platform Template Window

The L-Platform template window is displayed according to one 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 four tabs. The table below shows the correspondences between the tab names and the information comprising the L-Platform template.

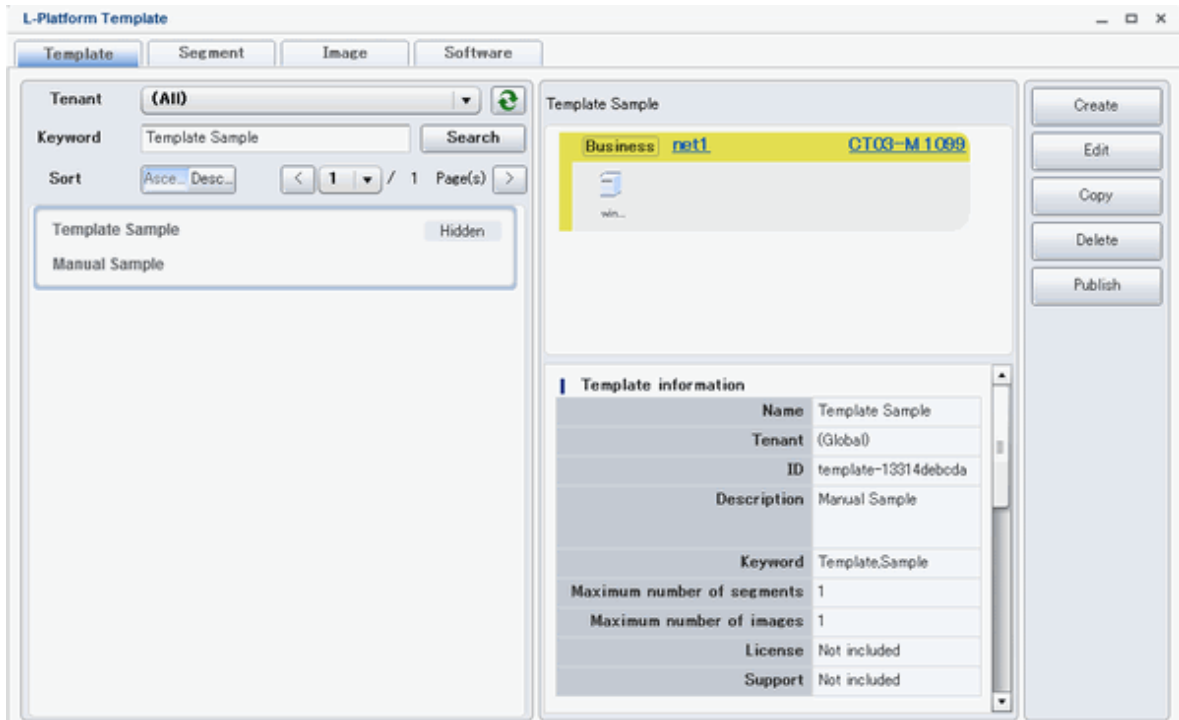
Table 5.2 Correspondences between tab names and the information comprising the L-Platform template

Tab Name	Information
Template	Template information
Segment	Segment information
Image	Image information
Software	Software information


5.2.3.1 Template Tab

The following figure shows the **Template** tab of the **L-Platform Template** window.

Figure 5.5 Template tab of the L-Platform Template window



Window Explanation

- The left side of the page displays a list of L-Platform templates.
- When an L-Platform template is selected in the L-Platform template list, the right side of the page displays an image of the selected L-Platform template configuration (upper part) and template information details (lower part).
- Tenants and keywords can be used as L-Platform template list filters.
- Clicking the reload button () resets sorting, pages, and selected states.

Point

Strings included in the keyword filter are those that were specified in "keyword" in basic information of the template information.

Explanation of Buttons

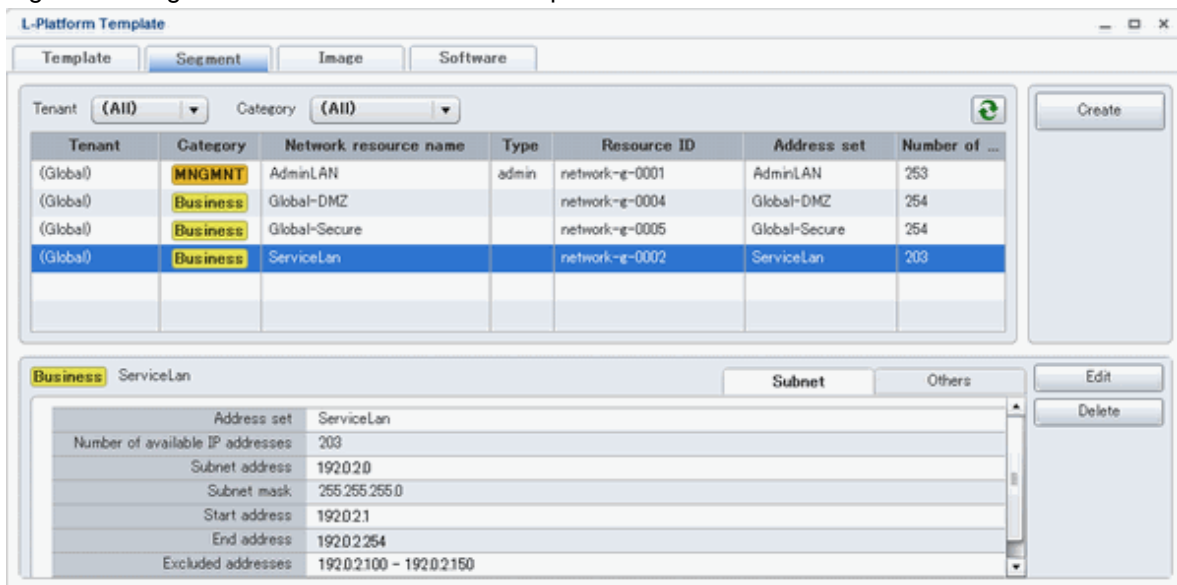
- Create
Creates new template information.
Refer to "5.3.2 Creating New L-Platform Template" for details.
- Edit
Edits the contents of existing registered template information.
Refer to "5.3.4 Editing L-Platform Template" for details.
- Copy
Creates new template information based on existing registered template information.
Refer to "5.3.3 Copying L-Platform Template" for details.

- Delete
Deletes template information.
Refer to "5.3.5 Deleting L-Platform Template" for details.
- Publish
Publishes an L-Platform template.
Refer to "5.3.6 Publishing and Hiding L-Platform Template" for details.
- Hide
Hides an L-Platform template.
Refer to "5.3.6 Publishing and Hiding L-Platform Template" for details.


5.2.3.2 Segment Tab

The following figure shows the **Segment** tab of the **L-Platform Template** window.

Figure 5.6 Segment tab of the L-Platform Template window



Window Explanation

- The upper part of the page displays a list of segment information.
- When segment information is selected in the segment information list, the lower part of the page displays details of the selected segment information.
- The display sequence in the segment information list can be changed to ascending order or descending order. To change the sequence, click the header (Category, Network resource name, etc.).
- Tenants and categories (Business, Management) can be used as segment information list filters.
- Clicking the reload button () resets sorting and selected states.

Explanation of Buttons

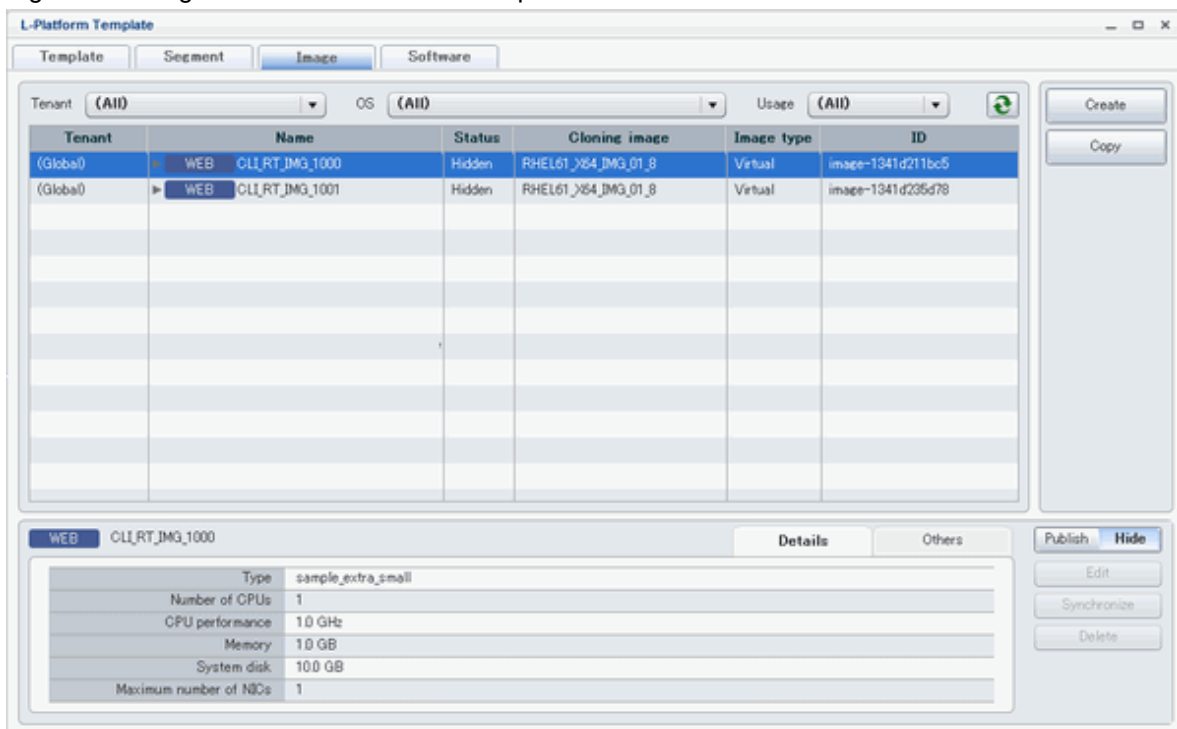
- Create
Creates new segment information.
Refer to "5.3.2 Creating New L-Platform Template" for details.

- Edit
Edits the contents of existing registered segment information.
Refer to "5.3.4 Editing L-Platform Template" for details.
- Delete
Deletes segment information.
Refer to "5.3.5 Deleting L-Platform Template" for details.


5.2.3.3 Image Tab

The following figure shows the **Image** tab of the **L-Platform Template** window.

Figure 5.7 Image tab of the L-Platform Template window



Window Explanation

- The upper part of the page displays a list of image information. Note that the software information and patch information included in the image information is displayed in a tree format.
- When image information is selected in the image information list, the lower part of the page displays details of the selected information. Note that if software information or patch information is selected in the image information list, details of that selected information are displayed.
- The display sequence in the image information list can be changed to ascending order or descending order. To change the sequence, click the header (Name, ID, etc).
- Tenants, the OS, and Usage can be used as image information list filters.
- Clicking the reload button () resets sorting and selected states.

Explanation of Buttons

- Create
Creates new image information.

Refer to "[5.3.2 Creating New L-Platform Template](#)" for details.

- Copy

Creates new image information based on existing registered image information.

Refer to "[5.3.3 Copying L-Platform Template](#)" for details.

- Publish

Publishes image information.

Refer to "[5.3.7 Publishing Image Information](#)" for details.

- Hide

Hides image information.

Refer to "[5.3.7 Publishing Image Information](#)" for details.

- Edit

Edits the contents of existing registered image information.

Refer to "[5.3.4 Editing L-Platform Template](#)" for details.

- Synchronize

Updates the image information if the cloning image has been updated.

This button is enabled only if image information synchronization is necessary.

Refer to "[5.3.8 Synchronizing Image Information](#)" for details.

- Delete

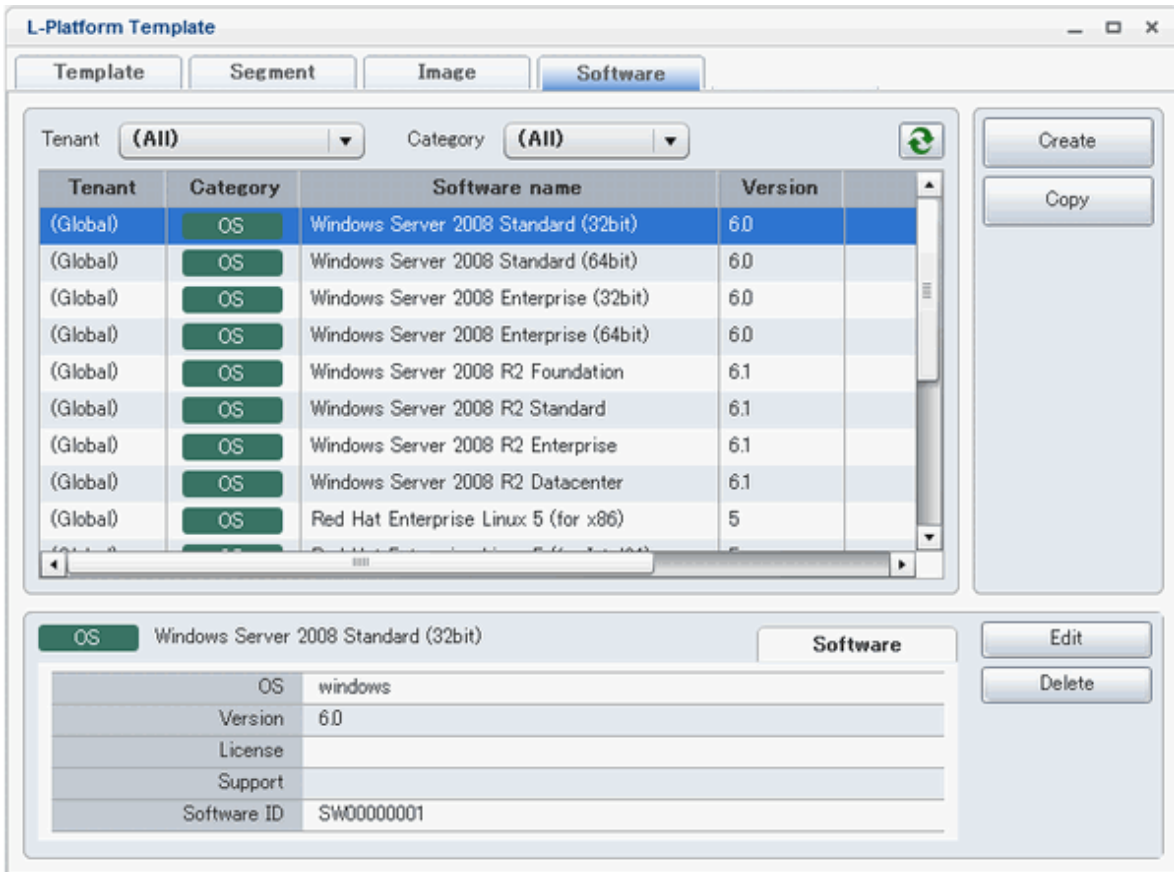
Deletes image information.

Refer to "[5.3.5 Deleting L-Platform Template](#)" for details.


5.2.3.4 Software Tab

The following figure shows the **Software** tab of the **L-Platform Template** window.

Figure 5.8 Software tab of the L-Platform Template window



Window Explanation

- The upper part of the page displays a list of software information.
- When software information is selected in the software information list, the lower part of the page displays details of the selected software information.
- The display sequence in the software information list can be changed to ascending order or descending order. To change the sequence, click the header (category, software name, etc.).
- Tenants can be used as software information list filters.
- Clicking the reload button () resets sorting and selected states.

Explanation of Buttons

- Create
Creates new software information.
Refer to "5.3.2 Creating New L-Platform Template" for details.
- Copy
Creates new software information based on existing registered software information.
Refer to "5.3.3 Copying L-Platform Template" for details.
- Edit
Edits the contents of existing registered software information.
Refer to "5.3.4 Editing L-Platform Template" for details.

- Delete

Deletes the software information.

Refer to "[5.3.5 Deleting L-Platform Template](#)" for details.

5.3 L-Platform Template Operations

This section explains L-Platform template operations.

5.3.1 L-Platform Template Operations and Roles

Infrastructure Administrators and Tenant Administrators can perform L-Platform template operations.

There are two types of L-Platform templates: tenant-specific templates that can be used only by a specific tenant, and global templates that can be used by all tenants.

The Infrastructure Administrator can perform operations for both tenant-specific templates and global templates.

5.3.2 Creating New L-Platform Template

For the various types of information comprising an L-Platform template, the following information can be newly created:

- Template information
- Segment information
- Image information
- Software information

Follow the procedure below to newly create the above information:

1. On the **L-Platform Template** window, select the tab (Template, Segment, Image, or Software) of the information to be newly created.
1. Click the **Create** button.
2. Set information in the new creation window.
Refer to "[5.4 Items to Set for Each Type of L-Platform Template Information](#)" for details on the information to be set.
3. Click the **Create** button.
A message indicating that the template has been created is displayed and the template is created.

Note that information must be created in the following sequence if all types of information comprising an L-Platform template are being newly created:

1. Software information
2. Image information
3. Segment information
4. Template information

However, Item 3 can be created before Item 1.



Information

Commands can also be used to create new L-Platform templates.

Refer to "[Appendix A Using Commands to Register and Delete L-Platform Templates](#)" for details.

5.3.3 Copying L-Platform Template

For the various types of information comprising an L-Platform template, the following information can be copied:

- Template information
- Image information
- Software information

Follow the procedure below to copy the above information:

1. On the **L-Platform Template** window, select the tab (Template, Image, or Software) of the information to be copied.
2. From the list, select the information to be referenced.
3. Click the **Copy** button.
4. The information set in the copy window is the same as the referenced information. If required, change this information.

Refer to "[5.4 Items to Set for Each Type of L-Platform Template Information](#)" for details on the information to be set.

5. Click the **Create** button.

A message indicating that the template has been created is displayed and the template is created.

5.3.4 Editing L-Platform Template

For the various types of information comprising an L-Platform template, the following information can be edited:

- Template information
- Segment information
- Image information
- Software information

Follow the procedure below to edit the above information:

1. On the **L-Platform Template** window, select the tab (Template, Segment, Image, or Software) of the information to be edited.
2. From the list, select the information to be edited.
3. Click the **Edit** button.
4. Change the information on the edit window.

Refer to "[5.4 Items to Set for Each Type of L-Platform Template Information](#)" for details on the information to be set.

5. Click the **OK** button.

A message indicating that the template has been edited is displayed and the template is changed.



- Image information cannot be edited if it is in use by published template information or if it is published.
 - Software information cannot be edited if it is in use by published template information.
 - When image information is edited, it is updated to the latest cloning image resource ID.
-

5.3.5 Deleting L-Platform Template

For the various types of information comprising an L-Platform template, the following information can be deleted:

- Template information
- Segment information
- Image information
- Software information

Follow the procedure below to delete the above information:

1. On the **L-Platform Template** window, select the tab (Template, Segment, Image, or Software) of the information to be deleted.
2. From the list, select the information to be deleted.
3. Click the **Delete** button.
A deletion confirmation message is displayed.
4. Click the **Yes** button.
The selected information is deleted.

Note that information must be deleted in the following sequence if all types of information comprising an L-Platform template are being deleted:

1. Template information
2. Segment information
3. Image information
4. Software information

However, the order of Items 2 and 3 can be reversed.

Point

- Image information cannot be deleted if it is in use by any template information, or if it is published.
 - Software information cannot be deleted if it is in use by any image information.
-

Information

Commands can also be used to delete L-Platform templates.

Refer to "[Appendix A Using Commands to Register and Delete L-Platform Templates](#)" for details.

5.3.6 Publishing and Hiding L-Platform Template

An L-Platform template can be published or hidden.

Publication enables an L-Platform to be created on the basis of the L-Platform template.

If hidden, an L-Platform cannot be created on the basis of the L-Platform template.

Follow the procedure below to publish or hide an L-Platform template:

1. On the **L-Platform Template** window, select the **Template** tab.

2. From the L-Platform template list, select the L-Platform template to be published or hidden.
3. Click the **Publish** button or the **Hide** button.

The selected L-Platform template is published or hidden.

5.3.7 Publishing Image Information

Create an L-Platform on the basis of an L-Platform template.

An L-Platform can be created with the same configuration as the L-Platform template, or the configuration can be changed.

Normally, when changing a configuration, only the image information defined in the L-Platform template is displayed as a usable server list. However, by publishing the image information, the published image information can also be displayed in the server list as usable information regardless of the definitions in the L-Platform template.

This enables image information other than the image information defined in the L-Platform template to be added when creating an L-Platform.

Follow the procedure below to publish or hide image information:

1. On the **L-Platform Template** window, select the **Image** tab.
2. From the image information list, select the image information to be published or hidden.
3. Click the **Publish** button or the **Hide** button.

The selected image information is published or hidden.

5.3.8 Synchronizing Image Information

Cloning image resource IDs are held in the image information.

If an cloning image is updated, the resource IDs are changed. Therefore, the resource IDs held in the image information must be updated. This is known as image information synchronization.

Follow the procedure below to synchronize image information:

1. On the **L-Platform Template** window, select the **Image** tab.
2. From the image information list, select the cloning image to be synchronized.
3. Click the **Synchronize** button.
4. If required, change the information on the **Synchronize Image Information** window.

Refer to "[5.4 Items to Set for Each Type of L-Platform Template Information](#)" for details of the information to be set.

5. Click the **OK** button.

A message indicating that the image information has been edited is displayed and the image information is changed.

5.4 Items to Set for Each Type of L-Platform Template Information

This section explains to items to be set in the various types of information comprising an L-Platform template.

Refer to the settings items explained here when performing the following L-Platform template operations:

- [5.3.2 Creating New L-Platform Template](#)
- [5.3.3 Copying L-Platform Template](#)
- [5.3.4 Editing L-Platform Template](#)
- [5.3.8 Synchronizing Image Information](#)

Note that only those items that can be set are explained here. Items that cannot be changed are not explained.

5.4.1 Software Information

The window used to set software information is shown below.

Note that the windows displayed when new software information is being created are used as examples in this explanation.

Figure 5.9 Window for setting software information

Software information	
Tenant	(Global) <input type="button" value="Set"/>
Category	OS
OS	Windows
Software name	Windows Server 2008 Standard (32bit)
Version	6.0
License	
Support	

Explanation of Items

- Tenant

Click the **Set** button, and then select the tenant to which the software information belongs from the **Select Tenant** window shown below. A tenant can be selected only if information is being created or copied.

Figure 5.10 Select Tenant window

Global
 Tenant

Tenant
tenantA(TENANTA_DISP)
tenantB(TENANTB_DISP)
tenantC(TENANTC_DISP)
tenantD(TENANTD_DISP)

Note that, when copying an L-Platform template, a global template can be changed into a tenant-specific template but, conversely, a tenant-specific template cannot be changed into a global template.

- OS

Select one of the following software operating systems:

- Windows
- Linux
- Windows (64 bit)
- Linux (64 bit)

- Software name

Enter up to 85 characters (excluding <, >, &, ", and ') for the software name

If this is filtered by category and operating system, the list of registered software information will be displayed. The software name can also be selected from the list and edited.

- Version

Enter up to 10 bytes (excluding <, >, &, ", and ') for the software version

- License

Enter up to 85 characters (excluding <, >, &, ", and ') for the software license information

If OS was specified for Category, specify the product key for the Windows operating system. This cannot be specified in Linux operating systems.

- When the virtualization software is VMware

For Windows Server 2003, specify the product key for the Windows operating system.

For an operating system that is not Windows Server 2003, specify " " (an empty string).

- When the virtualization software is Hyper-V

Specify the product key for the Windows operating system.

- Support

Enter up to 85 characters (excluding <, >, &, ", and ') for the software support information.

Operation Procedure

Follow the procedure below for operations at the window for setting software information:

1. Set each of the software information items.
2. Click the **Create** button.

The **Software** tab list window is displayed.



When the **Software** tab list window is displayed, tenant and keyword filtering, sorting, pages, and selected states are all reset.

5.4.2 Image Information

Set image information on the following five pages:

1. Select Image page (this page is only seen when creating new image information)
2. Set Basic Info page

3. Select Software page
4. Add Patch Info page
5. Confirm page

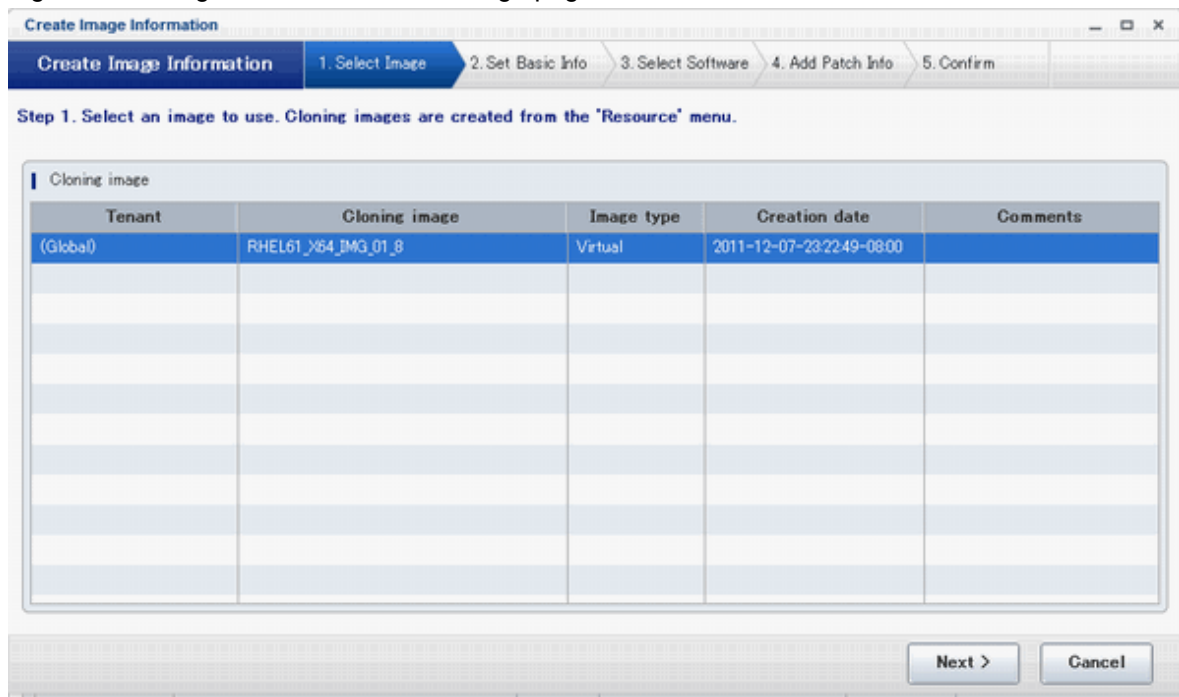
Note that the windows displayed when new image information is being created are used as examples in this explanation.

5.4.2.1 Select Image Page

On the Select Image page, select the cloning image that will be used.

The **Select Image** page is shown below.

Figure 5.11 Image information Select Image page



Operation Procedure

Follow the procedure below for operations at the **Select Image** page:

1. Select an cloning image from the list.
2. Click the **Next** button.

The **Set Basic Info** page is displayed.

5.4.2.2 Set Basic Info Page

On the Set Basic Info page, set the basic information for the image information.

The **Set Basic Info** page is shown below.

Figure 5.12 Image information Set Basic Info page

Explanation of Items

- Tenant

Click the **Set** button, and then select the tenant to which the image information belongs from the **Tenant Select** window. A tenant can be selected only if information is being created or copied.

Note that, when copying an L-Platform template, a global template can be changed into a tenant-specific template but, conversely, a tenant-specific template cannot be changed into a global template.

- Image information name

Enter up to 85 characters (excluding <, >, &, ", and ') for the image information name

- Type

Selects the registered L-Server template.

L-Server templates in which a model name is specified are not displayed. An L-Server template that does not specify a model name must be prepared before image information can be created for a physical L-Server.

- Usage

Selects the usage of the server included in the image from those shown below. Multiple options can be selected.

- WEB: Web Server
- AP: Application Server
- DB: DB Server

- System disk

Specifies the size of the system disk for a server included in the cloning image. Range: 0.1-99999.9 GB.

- Maximum number of CPUs

Specifies the maximum number of CPUs that can be specified when creating a new L-Platform.
Specify a value in the range from 1 to the upper limit value for the registered VM pool.

Can be omitted. If omitted, it is assumed that the upper limit value for the registered VM pool is specified.

- Maximum CPU performance

Specifies the maximum CPU performance in GHz, which can be specified when creating a new L-Platform.
Specify a value in the range from 0.1 to the upper limit value for the registered VM pool.

Can be omitted. If omitted, it is assumed that the upper limit value for the registered VM pool is specified.

- Maximum memory

Specifies the maximum memory size in GB, which can be specified when creating a new L-Platform.
Specify a value in the range from 0.1 to the upper limit value for the registered VM pool.

Can be omitted. If omitted, it is assumed that the upper limit value for the registered VM pool is specified.

- Maximum number of data disks

Specifies the maximum number of extension disks that can be added to the server. Range: 0-99.

- Maximum data disk size

Specifies the maximum size of the extended disk size in GB, which can be specified when creating a new L-Platform.
Specify a value in the range from 0.1 to the upper limit value for the registered storage pool.

Can be omitted. If omitted, it is assumed that the upper limit value for the registered storage pool is specified.

- Maximum number of NICs

Specifies the number of NICs. Range: 1-99.

- Initial password

Enter up to 85 characters (excluding <, >, &, ", and ') for the password for the users below.

[Windows]

Specified password is set to OS.

Can be omitted. if omitted, it is generated automatically.

- When the virtualization software is VMware

Specifies the password for the user name "Administrator".

- When the virtualization software is Hyper-V

Specifies the password for the local administrator account used in the L-Server that will be created.

[Linux]

Specifies the superuser password.

The password must match the password already set in the cloning image.

- Initial password (confirm)

Specifies the same value as Initial password.

- Resource tags

Enter up to 85 characters (excluding <, >, &, ", and ') for the character string that filters the resources to be displayed as deployment destination VM pool/server pool options when creating a new L-Platform

The only resources displayed as options are those for which the character string in the VM pool/server pool comment field contains the character string specified as the resource tags.

Example

Example: If the specification is as follows, only /VMPool1 and /VMPool2 are displayed as options:

/VMPool1 comment: web

/VMPool2 comment: web

/VMPool3 comment: ap

Resource tags: web

Operation Procedure

The operation procedure on the Basic information page is as follows:

1. Set the various basic information items for the image information.
2. Click the **Next** button.

The **Select Software** page is displayed.

Point

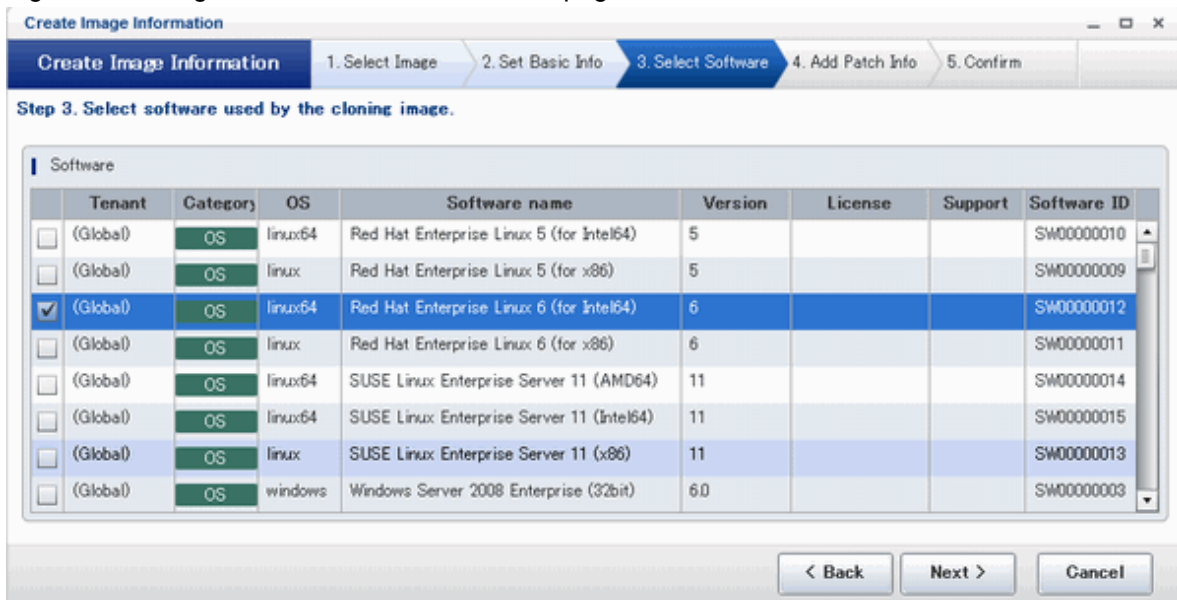
If an input item contains an error, and error message is displayed. If an error message is displayed, refer to the error message and correct the setting.

5.4.2.3 Select Software Page

On the Select Software page, set the software used in the cloning image in the image information.

The **Select Software** page is shown below.

Figure 5.13 Image information Select Software page



Operation Procedure

The operation procedure on the Select Software page is as follows:

1. Select the check box for the software that will be set.

2. Click the **Next** button.

The **Add Patch Info** page is displayed.

Point

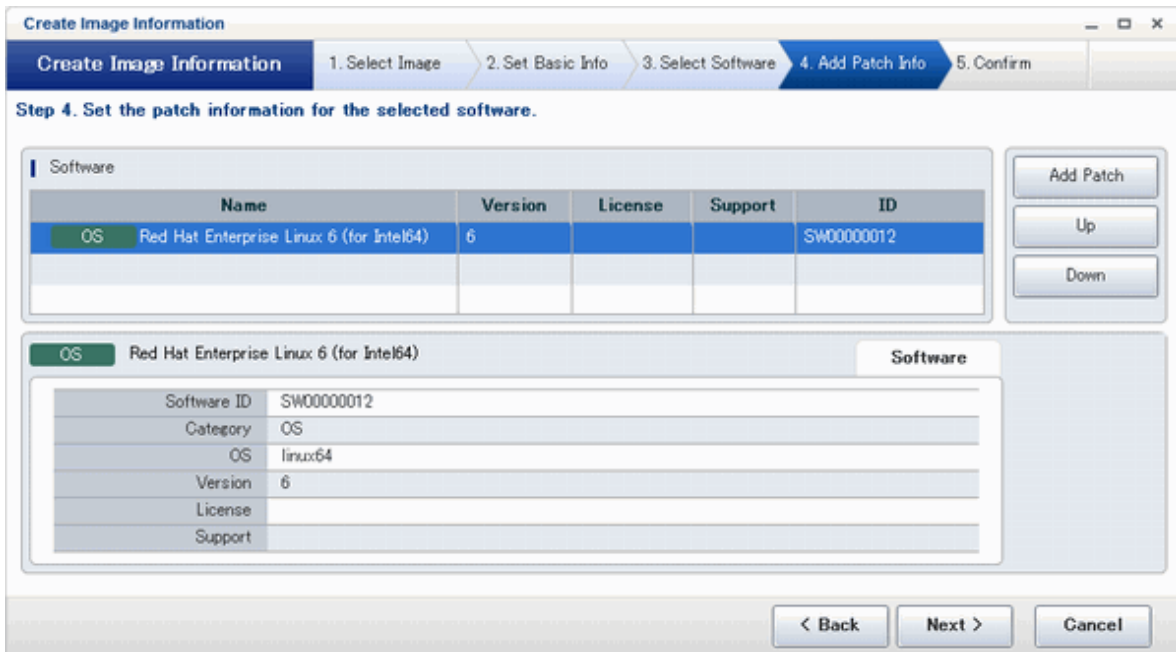
If no selection is made or if multiple selections are made, an error message is displayed. Ensure that one selection is made.

5.4.2.4 Add Patch Info Page

Add, change, or delete software patch information at the **Add Patch Info** page.

The **Add Patch Info** page is shown below.

Figure 5.14 Image information Add Patch Info page



The screenshot shows a window titled "Create Image Information" with a progress bar indicating the current step is "4. Add Patch Info". The main content area is titled "Step 4. Set the patch information for the selected software." and contains a table of software information and a details panel for the selected item.

Name	Version	License	Support	ID
OS Red Hat Enterprise Linux 6 (for Intel64)	6			SW00000012

Buttons: Add Patch, Up, Down

Details Panel:

Software ID	SW00000012
Category	OS
OS	linux64
Version	6
License	
Support	

Navigation: < Back, Next >, Cancel

Window Explanation

The upper part of the page displays a list of software information or patch information.

When software information or patch information is selected in the list, the lower part of the page displays details of the selected information.

Explanation of Buttons

- Add Patch

Adds patch information.

When the software or patch information is selected from the list at the top of the page, the **Add Patch** button will be displayed.

Refer to "[Add Patch Information](#)" for details.

- Up, Down

When the patch information is selected from the list at the top of the page and the **Up** or **Down** button is clicked, the patch information that was selected moves up or down.

- Delete

Deletes patch information.

When the patch information is selected from the list at the top of the page, the **Delete** button will be displayed.

Refer to "[Delete Patch Information](#)" for details.

Add Patch Information

The procedure to add patch information is as follows:

1. From the list at the top of the page, select the software or patch information for which the patch is to be added.
2. Click the **Add Patch** Button.
The patch information will be added below the selected software information or patch information.
3. The component name for the patch information and the input field for the description will be displayed at the bottom of the page.
Enter the required items.
4. Click the **Next** button.
The **Confirm** page is displayed.

5. Figure 5.15 Add Patch Info page (Add Patch information)

Explanation of Items

- Patch ID

Enter up to 32 bytes (an ASCII character string excluding <, >, &, ", and ') for the patch ID

The same patch ID cannot be set multiple times for one type of software.

The default is 'PATCH + "consecutive numbering (from 1)''.

- Component Name

Enter up to 85 characters (excluding <, >, &, ", and ') for the name of the component to which the patch is applied

- Description

Enter up to 85 characters (excluding <, >, &, ", and ') for the patch explanation.

Change Patch Information

To change the patch information that was set:

1. From the list in the upper part of the page, select the patch information to be changed.
2. Detailed information about the selected patch information will be displayed at the bottom of the page. Change the information as necessary.
3. Click the **Next** button.

The **Confirm** page is displayed.



.....
If the selected patch information was changed, the syntax check for the changed values will be performed automatically. If the syntax is correct, the patch information will be changed. If a syntax error occurred, an error message will be displayed and the pre-change values will be restored.
.....

Delete Patch Information

The procedure to delete patch information is as follows:

1. From the list in the upper part of the page, select the patch information to be deleted.
2. Click the **Delete** button.
3. Click the **Yes** button.

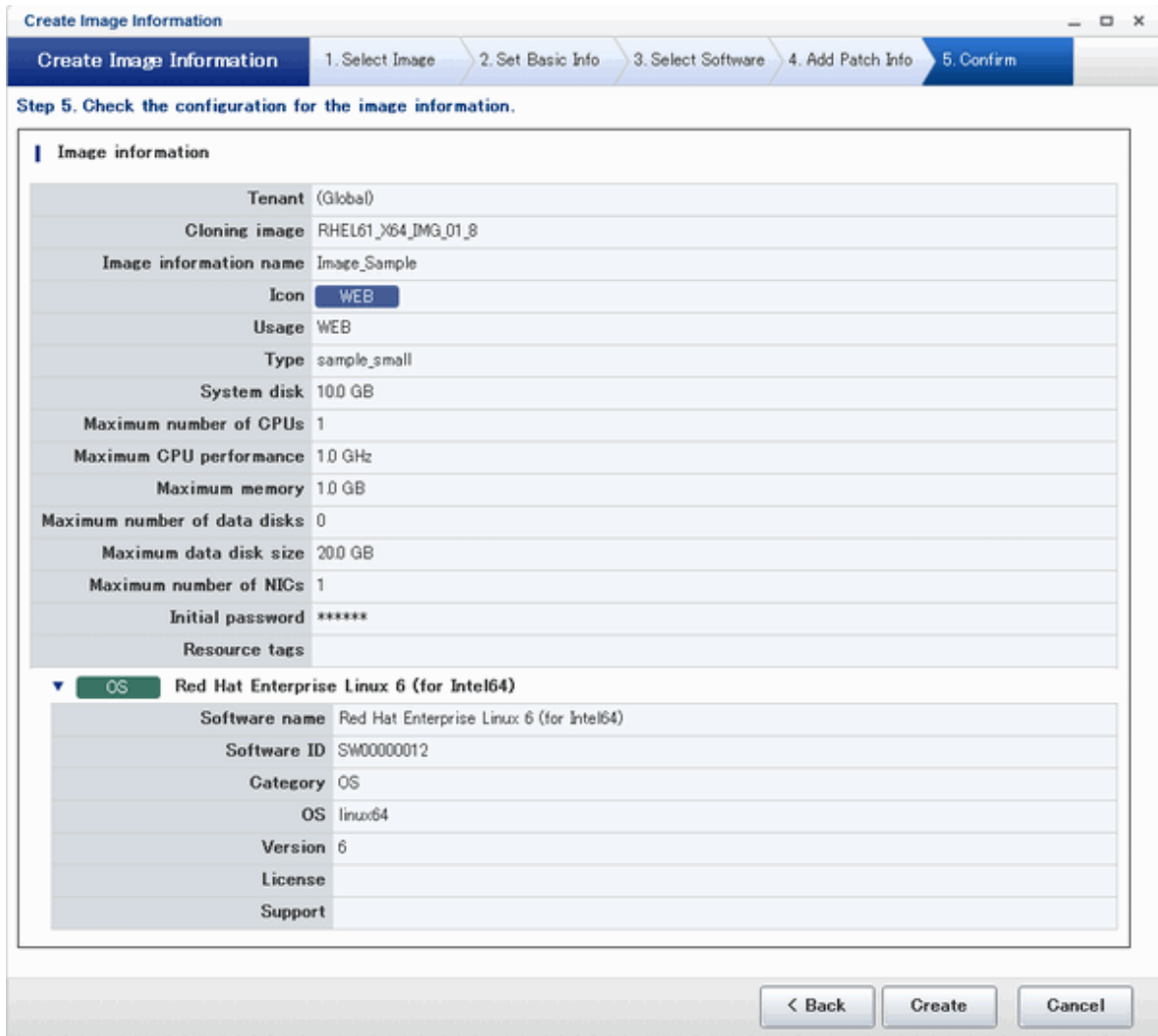
The patch information is deleted.

5.4.2.5 Confirm Page

Check the set image information at the **Confirm** page, and create, copy, or edit the image information.

The **Confirm** page is shown below.

Figure 5.16 Image information Confirm page



Operation Procedure

The operation procedure on the Confirm page is as follows:

1. Check whether the displayed content is valid.
If it is invalid, go back using the **Back** button, and configure correct settings.
2. Click the **Create** button.
A message indicating that the image information has been created is displayed, and the image information is registered.
Then, the **Image** tab list window is displayed.

Note

When the **Image** tab list window is displayed, tenant, operating system, and usage filtering, and also sorting and selected states, are all reset.

5.4.3 Segment Information

The window used to set segment information is shown below.

Note that the window displayed when a new segment is being created is used as an example in this explanation.

Figure 5.17 Create New Segment window

Segment information	
Network resource name	dummy *1
Tenant	(Global)
Type	
Address set	dummy
Number of available IP addresses	252
Subnet address	192.0.2.0
Subnet mask	255.255.255.0
Category	Business
Segment type	

*1 : Network resources are created from the 'Resource' menu.

Buttons: Create, Cancel

Explanation of Items

- Network resource name
Select a network resource name. This is only selectable when a new L-Platform template is being created.
- Category
Select one of the following categories:
 - Business Segment
 - Manager Segment
- Segment type
Enter any character string (an ASCII character string not including <, >, &, ", or ') of up to 32 bytes to identify the segment.
To set a network resource for segment information that is specified in a rule set of a firewall, specify the same character string as SegmentType specified in the parameter file of the rule set.

Operation Procedure

The procedure to create segment information is as follows:

1. Set each of the segment information items.
2. Click the **Create** button.
The **Segment** tab list window is displayed.

Note

When the **Segment** tab list window is displayed, tenant and category filtering, sorting, and selected states are all reset.

5.4.4 Template Information

Set template information on the following three pages:

1. Set Basic Info page
2. Configure page
3. Confirm page

Note that the windows displayed when new template information is being created are used as examples in this explanation.

5.4.4.1 Set Basic Info Page

On the Set Basic Info page, set the basic information for the template information.

The **Set Basic Info** page is shown below.

Figure 5.18 Template information Set Basic Info page

The screenshot shows a 'Create New Template' dialog box with a progress bar at the top indicating three steps: '1. Set Basic Info', '2. Configure', and '3. Confirm'. The current step is 'Step 1. Set the basic information.' The main area contains a 'Basic information' section with the following fields:

Tenant	(Global)	<input type="button" value="Set"/>
Template name	<input type="text" value="Sample_Manual"/>	
Description	<input type="text" value="Sample"/>	
Keyword	<input type="text" value="Sample_Manual"/>	
Firewall	(None)	<input type="button" value="Set"/>
Maximum number of segments	<input type="text" value="1"/>	
Maximum number of L-Servers	<input type="text" value="1"/>	
License	<input type="button" value="Not included"/>	
Support	<input type="button" value="Not included"/>	

At the bottom right, there are 'Next >' and 'Cancel' buttons.

Explanation of Items

- Tenant

Click the **Set** button, and then select the tenant to which the template information belongs from the **Tenant Select** window. A tenant can be selected only if information is being created or copied.

Note that, when copying an L-Platform template, a global template can be changed into a template-specific template but, conversely, a template-specific template cannot be changed into a global template.

- Template name

Enter up to 85 characters (excluding <, >, &, ", and ') for the L-Platform template name

The L-Platform template name specified here is used for the default system name for the L-Platform.

For the system name, the characters that can be used and the length of the name vary depending on the method for setting resource names that has been specified by the system administrator.

It is recommended that L-Platform template names be specified within the following range, which is effective for any method for setting resource names.

- Names consisting of no more than 23 alphanumeric characters, underscores ("_") and hyphens ("-")

When the L-Platform template name is entered, it will be set as a keyword automatically. However, if the L-Platform template name is changed once the cursor has been moved to the keyword field, these changes will not be reflected in the keyword.

- Description

Enter up to 85 characters (excluding <, >, &, ", and ') to describe the L-Platform implemented by the L-Platform template, the contents of the L-Platform template, and so on.

- Keyword

Enter up to 85 characters (excluding <, >, &, ", and ') for the L-Platform template search keyword

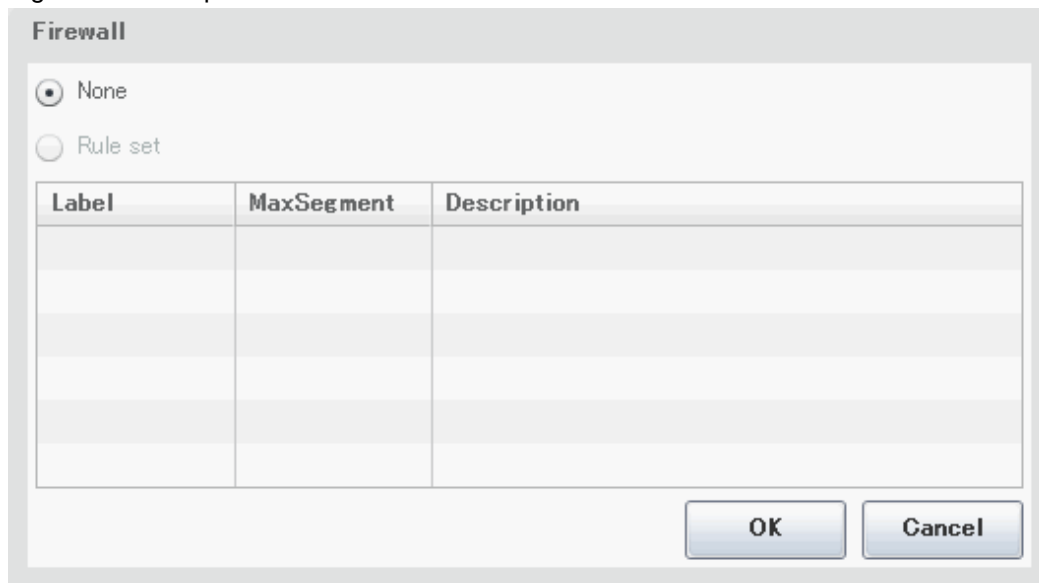
If multiple keywords are set, separate each keyword using a space.

- Firewall

When setting a firewall, click the **Set** button and select a rule set from the **Firewall** window shown below. This is only selectable when a new L-Platform template is being created.

When deleting a set firewall, click the **Set** button and select "None" in the **Firewall** window shown below.

Figure 5.19 Template information Firewall window



- Maximum number of segments

Specify the maximum number of segments that can be used by the L-Platform. Specify a number between 1 and 99.

If a firewall rule set is selected, the values specified in the rule set are used as the maximum value and the initial value.

- Maximum number of L-Servers

Specify the maximum number of servers that can be used by the L-Platform. Specify a number between 1 and 30.

- License
Select whether a license has been assigned.
- Support
Select whether support has been assigned.

Operation Procedure

The operation procedure on the Set Basic Info page is as follows:

1. Set the various basic information items for the template information.
2. Click the **Next** button.

The **Configure** page is displayed.



Point

If an input item contains an error, and error message is displayed. If an error message is displayed, refer to the error message and correct the setting.

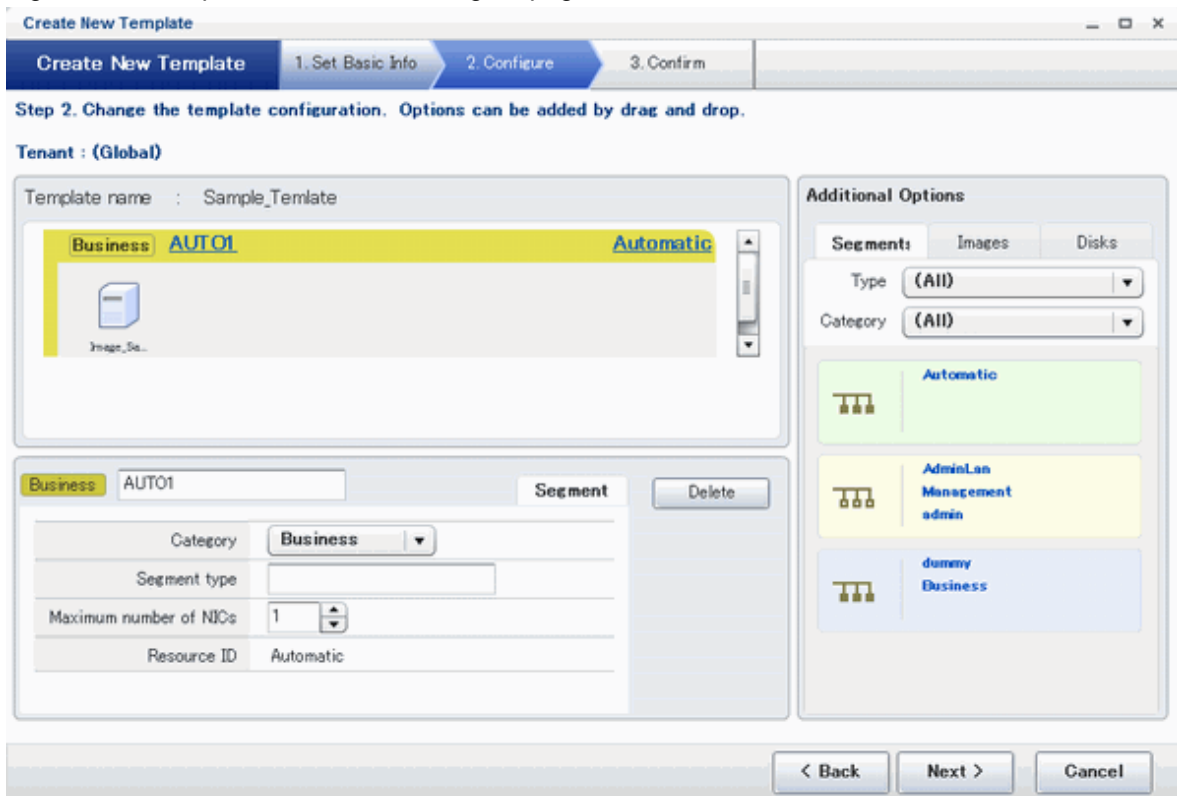
5.4.4.2 Configure Page

On the Configure page, set the segment, image, and disk configurations.

The segments, images, and disks that can be added are displayed in a list in Additional Options.

The **Configure** page is shown below.

Figure 5.20 Template information Configure page



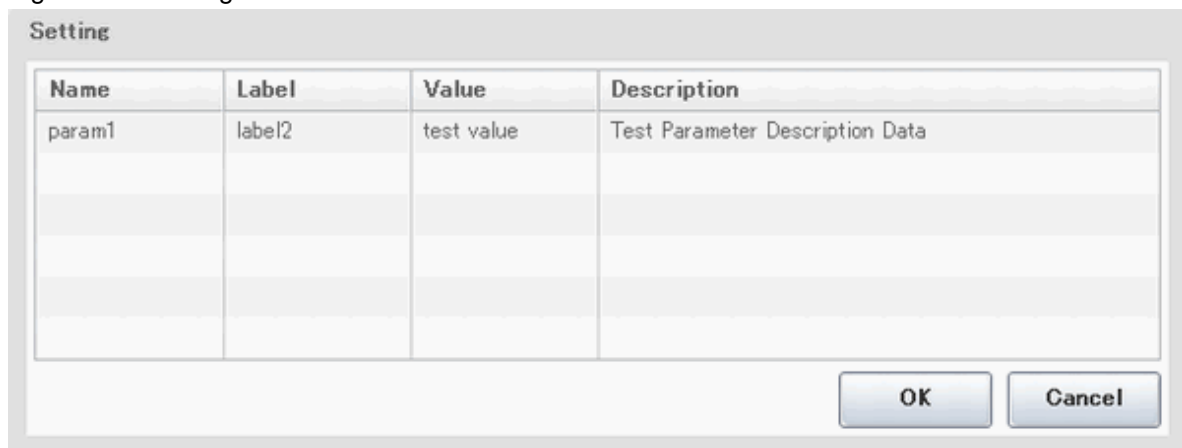
Window Explanation

- The upper part of the page displays the L-Platform template configuration. This part is called the configuration display area.
- The lower part of the page displays details of the resource (firewall, segment, image, or disk) selected in the configuration display area.
- The right side of the page displays a list of the resources (segments, images, and disks) that can be added to the L-Platform template. This part is called the additional options.

Explanation of Items (Firewall)

- Firewall name
Enter up to 32 bytes (excluding <, >, &, ", and ') for the firewall name
- Settings value
When the **Set** button is clicked, the **Setting** window shown below is displayed.

Figure 5.21 Setting window



The **Setting** window displays a list of the various types of information defined in the rule set.
Only the settings values can be changed.

Explanation of Items (Segments)

- Segment name
Enter up to 20 bytes (ASCII character string excluding <, >, &, ", and ') for the segment name
- Category
Select one of the following categories:
 - Business
 - ManagementHowever, the category can be selected only for automatic selection segments.
- Segment type
Enter any character string (an ASCII character string not including <, >, &, ", or ') of up to 32 bytes to identify the segment.
However, a segment identifier can be specified only for automatic selection segments.

- Maximum number of NICs

Enter the maximum number of servers that can connect to the segment. Specify a number between 1 and 30.

However, for segments defined in the firewall, the upper limit is the value specified in the firewall rule set.

If multiple NICs of the same server were connected to the same segment, each NIC will be mounted as one server.

- Resource ID

Select a network resource. It is selectable only when creating or copying the L-Platform template.

The network resources displayed in the list are the automatically selected networks and those matching the character string specified by the segment identification information.

If desired network resources are not listed, create or edit the segment information for each of these network resources and specify the segment identification information same as in the rule set.

Information

.....

An automatic selection segment refers to segment information that has not been related to a network resource.

Network resources are automatically selected for automatic selection segments, and network resources are selected automatically when an L-Platform is created.

.....

Explanation of Items (Images)

- Server name

Enter up to 85 characters (excluding <, >, &, ", and ') for the server name

- VM pool

Select the VM pool resource that is the server deployment destination.

This can also be changed at the time of deployment.

- Storage pool

Select the storage pool resource that is the server deployment destination.

This can also be changed at the time of deployment.

- Image type

Selects the registered L-Server template that will be selected by default.

Note

- If an existing disk is added, the L-Server template cannot be changed from an RHEL-KVM L-Server template if the VM-type is an RHEL-KVM L-Server template.
 - If a new disk is added, the L-Server template cannot be changed to an RHEL-KVM L-Server template if the VM-type is not an RHEL-KVM L-Server template.
-

- Boot priority

Sets the priority order when performing batch power supply operations in either the L-Platform or the tenant. Range:1-256.

The smaller the value, the higher the priority order.

Explanation of Items (Disks)

- Storage pool

Select the storage pool resource that is the extension disk deployment destination.

- Data disk size

Specify the size of the disk in GB.

Operation Procedure

Follow the procedure below to perform **Configure** page operations:

1. In the additional options, select the tab (Segment, Image, or Disk) of the resource to be added
2. Drag and drop to the resource configuration area the resource to be added to add it to the template information.

The table below shows the correspondences between resources to be added and information that can be dragged and dropped.

Table 5.3 Correspondences between resources to be added and information that can be dragged and dropped

Resource to be added	Drag and drop information
Segment	Template
Image	Segment
Disk	Image

Note

- If the resource being added is an image, the only segments that can be dropped in an image created from a physical L-Server are control segments.
- If the resource being added is a disk, the only existing disks that can be dropped are the following:
 - An image created from a physical L-Server
 - An image whose L-Server template VM type is RHEL-KVM
- If the resource being added is a disk, it is not possible to drag-and-drop a new disk to an image whose L-Server template VM type is RHEL-KVM.

3. Select the added resource, and then edit the resource.
4. Click the **Next** button.

The **Confirm** page is displayed.

Information

If an image was dragged from Additional Options and then dropped in a segment, then all the NICs will be set in that segment.

While the image is selected, the NIC ID for that image will be displayed.

Point

If an input item contains an error, and error message is displayed. If an error message is displayed, refer to the error message and correct the setting.

5.4.4.3 Confirm Page

On the **Confirm** page, check the configuration of the set template information, and create, copy, or edit the L-Platform template.

The **Confirm** page is shown below.

Figure 5.22 Template information Confirm page

Template information	
Name	Sample_Template
Tenant	(Global)
Description	Sample
Keyword	Sample_Template
Maximum number of segments	1
Maximum number of images	1
License	Not included
Support	Not included

Business AUTO1	
Segment type	
Type	
Maximum number of NICs	1
Resource ID	Automatic

Operation Procedure

The operation procedure on the Confirm page is as follows:

1. Check whether the displayed content is valid.

If it is invalid, go back using the **Back** button, and configure correct settings.

2. Click the **Create** button.

A message indicating that the template information has been created is displayed, and the L-Platform template is registered.

Then, the **Template** tab list window is displayed.

Note

When the **Template** tab list window is displayed, tenant and keyword filtering, sorting, pages, and selected states are all reset.

Chapter 6 L-Platform

This chapter explains how to use the L-Platform.

6.1 Display L-Platform

This section explains how to display the L-Platform and describes the top page.

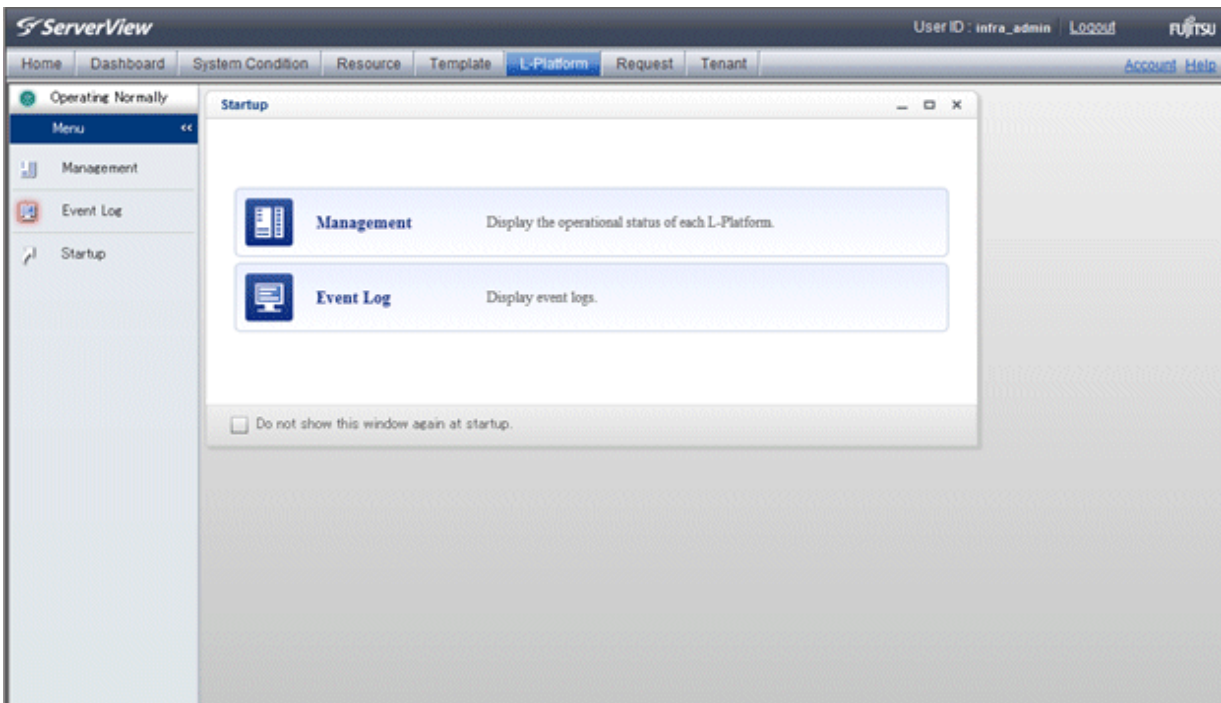
How to display the L-Platform

To display the L-Platform:

- On the ROR Console after login, select the **L-Platform** tab.

L-Platform Top Page

An example of the L-Platform home page is shown below.



The following section explains the contents of the L-Platform operation menu:

- L-Platform Management
When Management is selected, a list of created L-Platforms is displayed.
Refer to "6.2 L-Platform Management" for the L-Platform management method.
- Event logs
When Event Log is selected, logs of information about errors that have occurred while using the L-Platform functions will be displayed.
Refer to "6.3 Display Event Logs" for the event log display method.
- Startup
When Startup is selected, major functions of L-Platform and their overview will be displayed.

Point

The **Startup** page is displayed as the home page of L-Platform. To prevent the **Startup** page from being displayed as the home page, select the **Do not show this window again at startup** check box.

- **Close** link

When **Close** link is clicked, the confirmation window for closing the window will be displayed. Click **Yes** on the confirmation window to close the L-Platform window.

 **Note**

- If it becomes impossible to connect by the management server stop and etc. when L-Platform is being operated, the lamp in the menu becomes gray and the message "Not Operating" is displayed. In this case, contact the system administrator. According to the displayed window and the performed operation, an error message like the following may be displayed.

- Failed to get system configuration.
- Failed to get the access right.

- Usually, the Infrastructure Administrator cannot subscribe to L-Platform, but dual-role administrators can subscribe.

Refer to "[Appendix B Applying \(Subscribe\) for L-Platform Usage by Dual-Role Administrators](#)" for details.

6.2 L-Platform Management

This section explains how to use the **Management** page to manage L-Platforms that are in use.

The L-Platforms targeted by L-Platform management vary in accordance with the user, as follows:

- Infrastructure Administrator
All L-Platforms.
- Tenant Administrator
All L-Platforms being used by owned tenants.
- Tenant users
Only L-Platforms in use by the user.

The **Management** page can be used to display a list of the L-Platforms currently being used.

The following L-Platform operations can also be performed:

- L-Platform detailed information display
- Disk detailed information display

6.2.1 L-Platform Management Display Page

This section explains how to display the L-Platform management page and explains the display format.

L-Platform Management Page Display Method


From the operation menu on the **L-Platform** page, select **Management**.

L-Platform Management Page Display Format

The L-Platform management page has the following three types of display format.


Display format	Description
L-Platform Management	Displays the L-Platform configuration images in a list
L-Platform Management (list)	Displays the L-Platform list
Server List	The list displays virtual servers. It can display all servers or inactive servers.

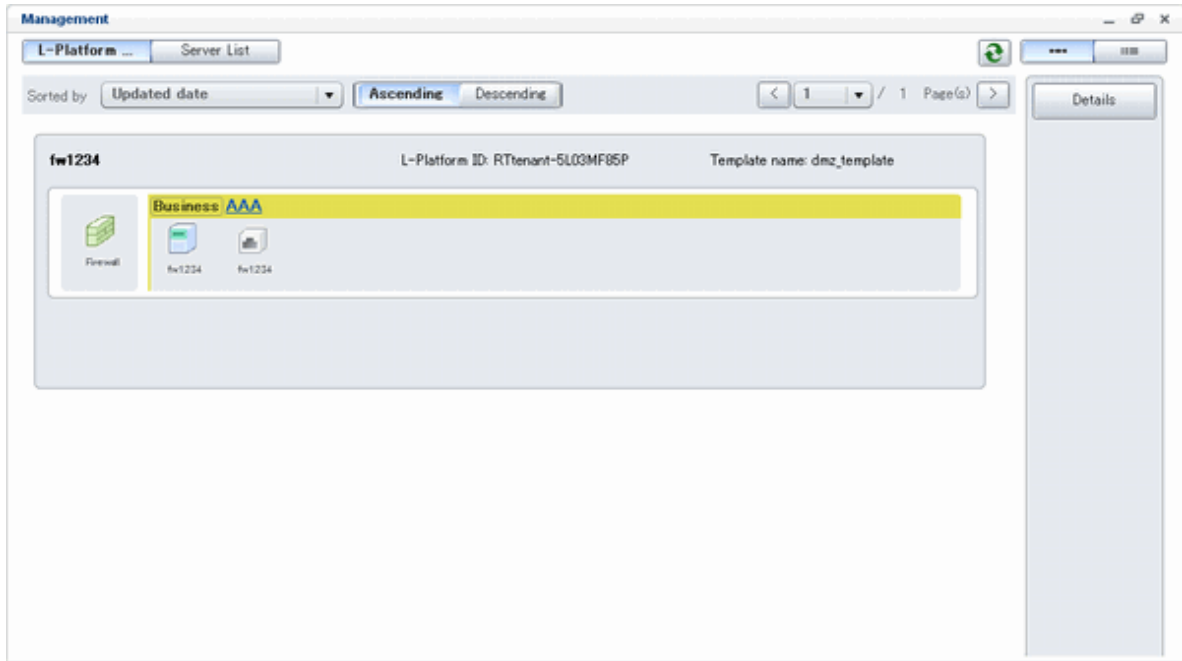
The buttons in the upper-left section of the page can be used to switch between the "L-Platform Management" and "Server List" display formats.

The display can be switched between the "configuration" format and the "list" format using the button located on the top right hand side of the page ().

Examples of each display format are shown below:

- L-Platform Management

Click the **Management** button on the top left hand side of the page and then click the button () on the top right hand side of the page to display an L-Platform list in a configuration image.



The following information can be checked on the **Management** page:

The following information can be checked using the **Management** page:

- L-Platform name: The L-Platform name set during L-Platform subscription
- L-Platform ID: The ID that identifies the L-Platform
- L-Platform Template name: The name of the L-Platform Template
- L-Platform configuration: The L-Platform configuration image


The sequence of the L-Platforms displayed can be switched by clicking **Sorted by** followed by the **Ascending order** or **Descending order** button for the following items:

- Update date
- L-Platform name
- L-Platform ID

Point

Using the **Details** button, details of the L-Platform can be displayed on the **Management** page. Refer to "[6.2.2 L-Platform Detailed Information Display](#)" for information on displaying the L-Platform details.

- L-Platform Management (list)

Click the **Management** button on the top left hand side of the page and then click the button  on the top right hand side of the page to display a list of information on the L-Platforms.

L-Platform name	L-Platform ID	Tenant	Template name
fw1234	RTenant-5L03MF85P	RTenant1130	dmz_template

The following information can be checked on the **L-Platform Management (list)** page.

- L-Platform name: The L-Platform name set during L-Platform subscription
- L-Platform ID: An ID to identify the L-Platform
- Organization information: Identification number for the organization
- L-Platform template name: Name of the L-Platform template

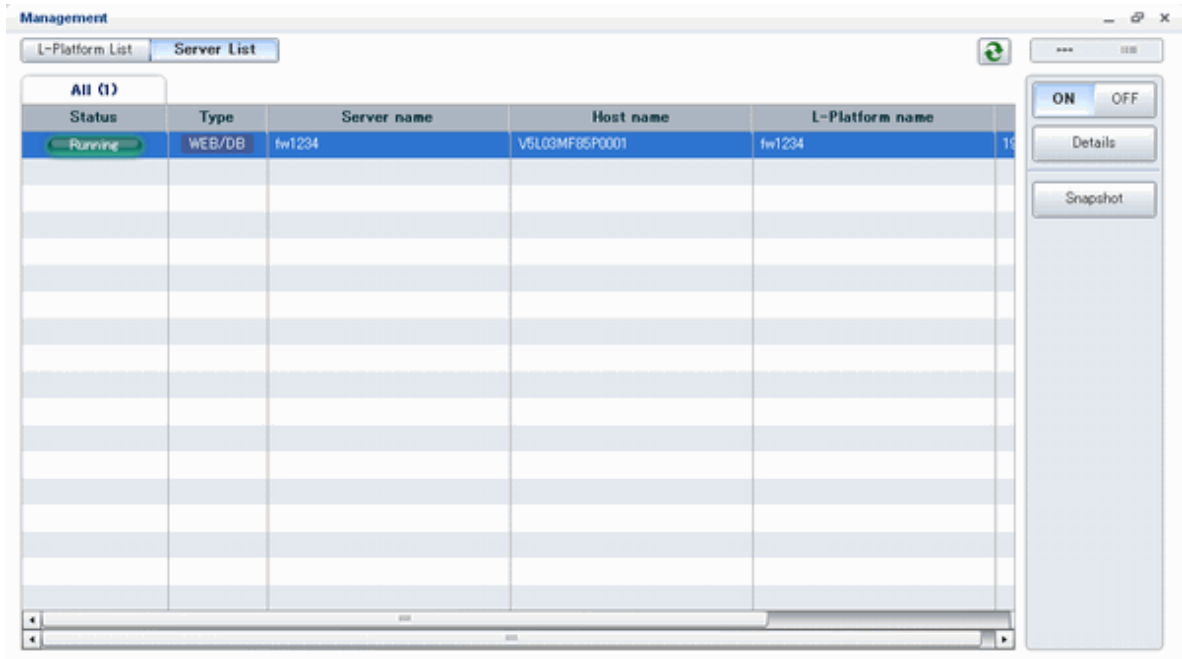
The sequence of the L-Platforms displayed can be switched between ascending order and descending order by clicking the column headers (L-Platform name, L-Platform ID, etc).

Point

Using the **Details** button, details on the L-Platform can be displayed on the **L-Platform Management (list)** page. Refer to "[6.2.2 L-Platform Detailed Information Display](#)" for information on displaying the L-Platform details.

- Server List

Click the **Server List** button on the top left hand side of the page to display a list of information on servers included in an L-Platform. The following shows an example of all servers being displayed. To display inactive servers, click the **Stopped** tab.



The following information can be checked on the **Server List** page.

- Status: Server status (Running, Stopped)
- Type: Server type
- Server name: Server name
- Host name: The server host name. However, this is not displayed for a physical server
- L-Platform name: The L-Platform name set during L-Platform subscription
- IP address: IP address of the server
- Backup/Snapshot: Status of taking and restoring the backup and snapshots
- Generation: Number of snapshots or backup stored
- Number of snapshots: Number of snapshots or number of executed backups

The sequence of the servers displayed can be switched between ascending order and descending order by clicking the column headers (status, type, etc).

Point

The following buttons can be used to operate on the **Server List** page.

- **Details** button: Display details on an L-Platform or a disk.
Refer to "[6.2.2 L-Platform Detailed Information Display](#)" for information on displaying L-Platform details. Refer to "[6.2.3 Display Details on a Disk](#)" for information on displaying details on a disk.

Note

The **Running** icon for a server indicates that the power has been turned on.

Even if the **Running** icon is displayed, login to the L-Platform may fail if logged in immediately after deployment or starting the virtual server. In this case, allow a few minutes before trying to log in again.

Information


For a dual-role administrator, **Tenant operation** button is displayed.

Refer to "[Appendix C Tenant Operation by Dual-Role Administrators](#)" for details.


6.2.2 L-Platform Detailed Information Display

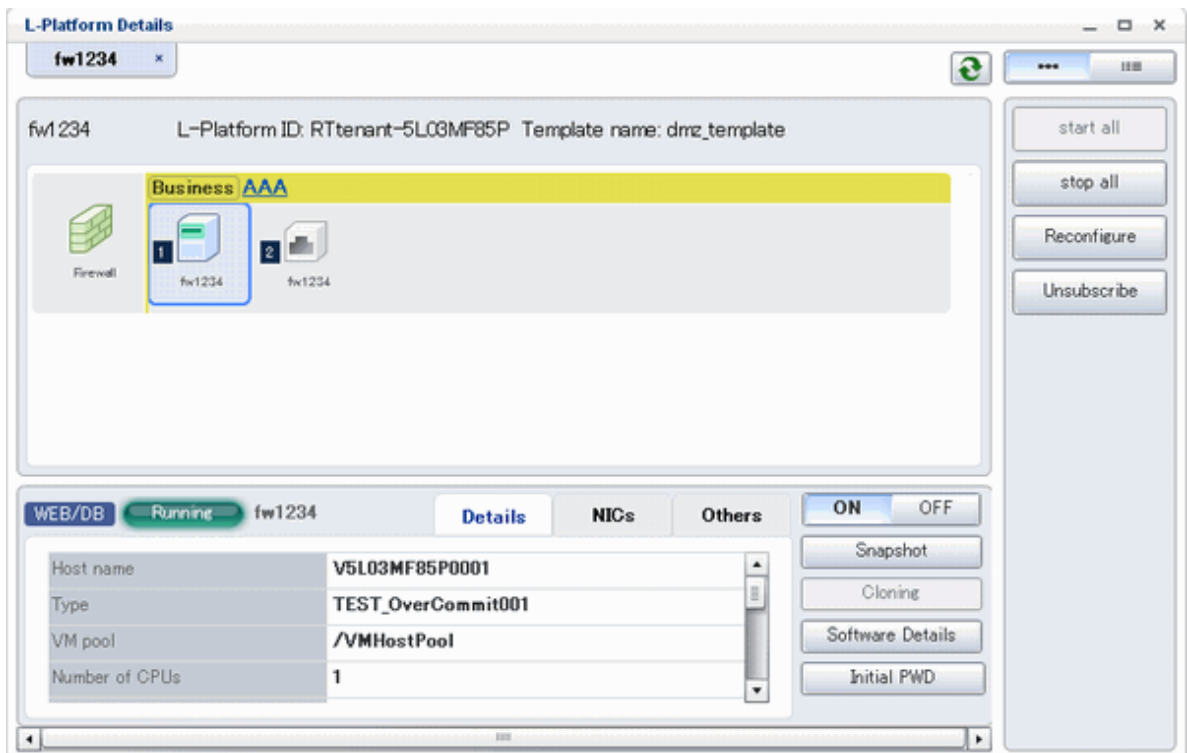
Follow the steps below to display the details of L-Platform:

1. Display the **L-Platform Management**, **L-Platform Management (list)**, or **Server List** page.
Refer to "[6.2.1 L-Platform Management Display Page](#)" for information on how to display the page.
2. Click the **Details** button after selecting the L-Platform or the server required.
The **L-Platform Details** page will be displayed.

There are two types of display format for the **L-Platform Details** page below. The display format can be switched using the button () located on the top right hand side of the page.

- L-Platform configuration image

By clicking the button () located on the top right hand side of the page, the L-Platform configuration is displayed as an image.




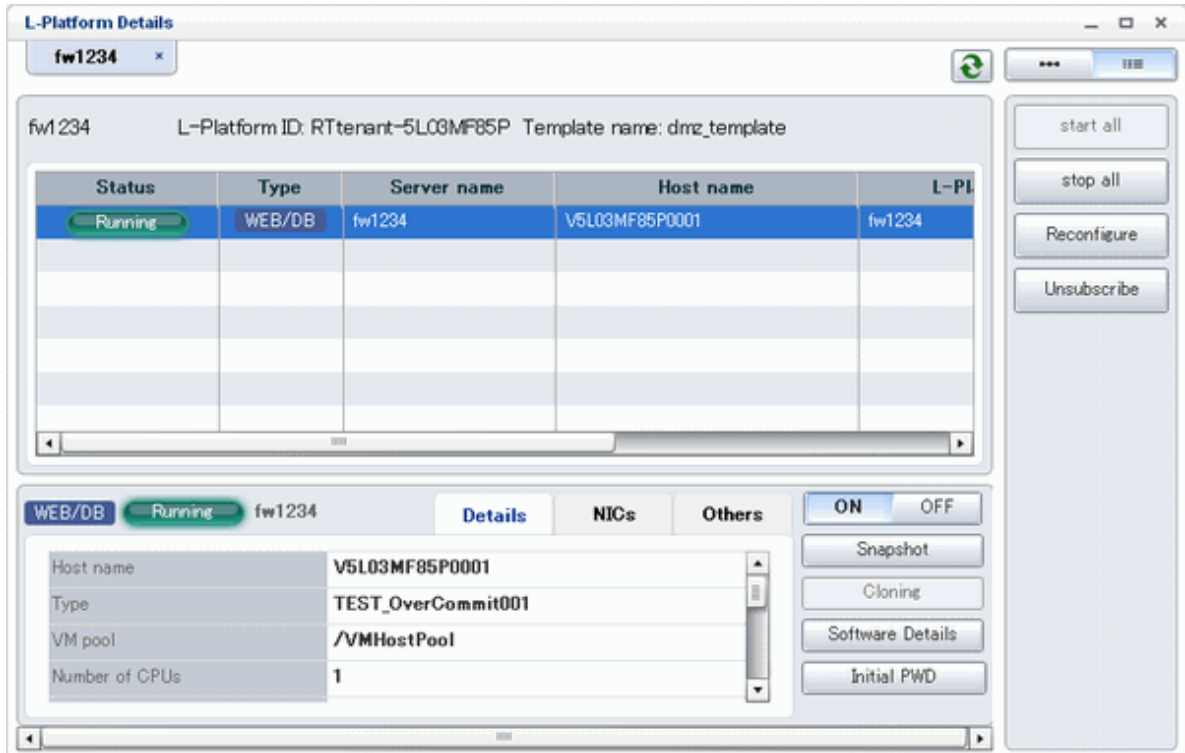
The screenshot shows the 'L-Platform Details' window for server 'fw1234'. At the top, it displays 'fw1234' and 'L-Platform ID: RTtenant-5L03MF85P Template name: drzg_template'. Below this, there is a configuration image for the 'Business AAA' template, showing a Firewall icon and two L-Platform instances labeled 'fw1234'. The server status is 'Running'. The page includes a table with details:

Property	Value
Host name	V5L03MF85P0001
Type	TEST_OverCommit001
VM pool	/VMHostPool
Number of CPUs	1

On the right side, there are buttons for 'start all', 'stop all', 'Reconfigure', 'Unsubscribe', 'Snapshot', 'Cloning', 'Software Details', and 'Initial PWD'. At the bottom, there are 'ON' and 'OFF' buttons.

- Server List

By clicking the button () located on the top right hand side of the page, a list of all virtual servers included in the L-Platform is displayed. The server List also displays the extended disks included in the virtual servers.



 Point

The following buttons can be used on the **L-Platform Details** page:

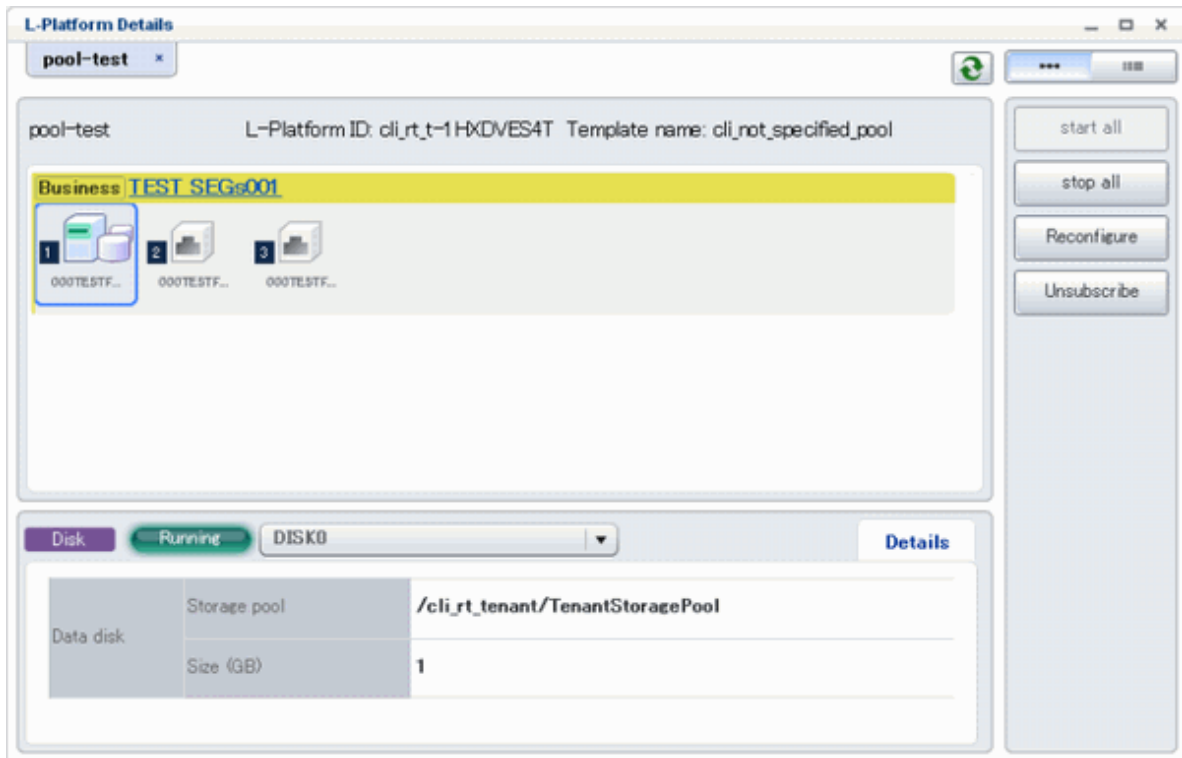
- **Software Details** button: Display software information
- **Initial PWD** button: Confirm the initial password
Depending on the L-Platform settings, the "Initial password" is " ". Sometimes it is displayed as ".
The initial password is set after L-Platform deployment.

6.2.3 Display Details on a Disk

Follow the steps below to display the details of a disk located on the virtual server:

1. Display the **L-Platform Details** page.
Refer to "[6.2.2 L-Platform Detailed Information Display](#)" for information on how to display the page.

2. After selecting the virtual server to which the disk is added, select **Disk** from the list box. The details of the disk will be displayed on the **L-Platform Details** page.



6.3 Display Event Logs

Event logs of the errors that occurred while using the L-Platform functions can be displayed on the **Event Log** page.

Follow the steps below to display event logs:

1. Select **Event Log** from the operation menu of the **L-Platform** page.
A list of event logs will be displayed.



Up to 100 logs are displayed on the **Event log** page for duration of up to 14 days starting from the most recent log.

Refer to "Message Stating with VSYS" in "Messages CE" for information on the messages displayed in the event log.

Chapter 7 Request

This chapter explains how to operate the application list.

Note

- The application list is enabled only if an application process is set.
- If an Infrastructure Administrator who is not registered as an assessor selects the **Request** tab from the ROR Console, an authentication error message is displayed. Refer to "Registering an Application Process Assessor" in the *Operation Guide CE* for information on registering assessors.
- If Internet Explorer enhanced security (IE ESC) is enabled, the **X** button on popup windows does not operate correctly. Refer to the following website for information on how to disable Internet Explorer enhanced security:
<http://www.microsoft.com>

7.1 Checking an Application Status

The application status and past application results can be checked for the following applications:

- Subscribe L-Platform
- L-Platform reconfiguration
- Cancel L-Platform

Perform the following steps to check the status of an application process:

1. Select **Request** from the ROR console

The screenshot displays the ServerView interface with the 'Request' tab selected. The 'My Tasks' section shows a table with one task:

Activity Name	Id	Process Instance Name	Created	Status	Due Date	Priority
Assess	7273	L-PlatformSubscription_6995	Dec, 19 2011	Active		8

Below the table, the details for the task 'Assess [L-PlatformSubscription_65...]' are shown. The 'Details' tab is active, displaying the following information:

- Status: Active
- From: swrbaadmin
- To: manage01
- Date: December, 19 2011 15:08:02
- Process Instance: L-PlatformSubscription_6995
- Due Date: (empty)
- Description: Approval/examination application
- Priority: 8

At the bottom, there is a 'Make Choice' section with buttons for '0:Accept' and '1:Dismiss', and a 'SetPriority' button.

2. Select either **My Tasks** or **My Completed Tasks** from the **Task Filters** drop-down list on the My Task window.

- To check the status of applications in progress

Select **My Tasks** from the **Task Filters** drop-down list on the My Task window. A list of tasks with the status **Active** will be displayed.

- To check past application results

Select **My Completed Tasks** from the **Task Filters** drop-down list on the My Task window. A list of tasks with the status **Completed** will be displayed.

The priority level of a task can be specified on the **Summary** tab under **My Tasks** using numerals from 0 to 2147483647. The default value is 8.

The higher the number of a task, the higher its priority level. Setting the priority level of tasks also enables them to be sorted in order of priority in task lists.

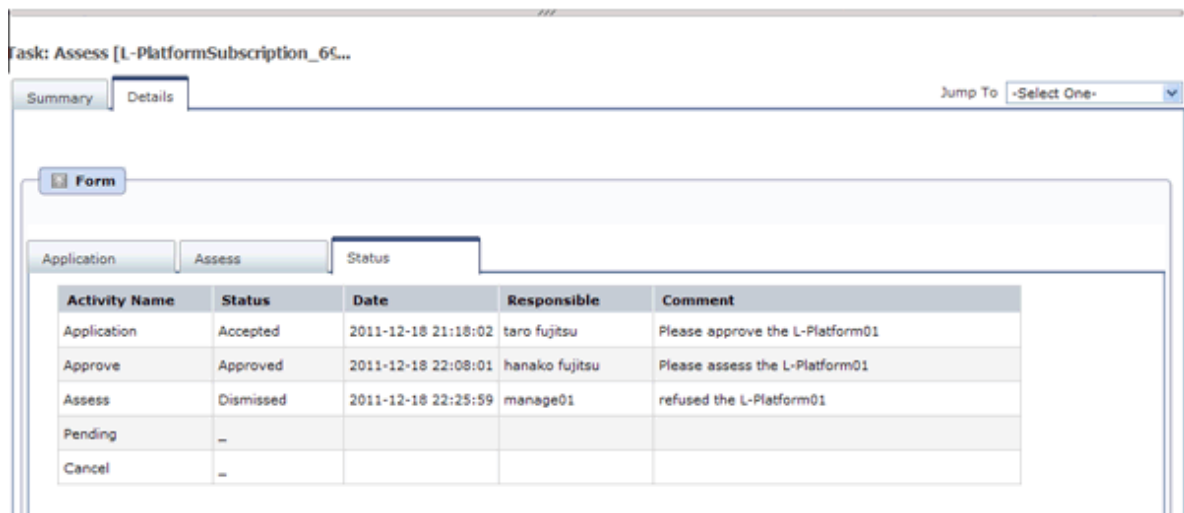
3. Select the process instance task to be checked and click on the **Details** tab.

Select the tasks with **Assess** as the activity name.

4. Select the **Status** tab on the **Form** panel.

A list of either application statuses or past application results will be displayed in chronological order.

Application results are displayed as shown in the image below. It indicates that approval was given to an application which was then dismissed upon assessment.



Item	Description	
Activity Name	The task activities will be displayed. Application, Approve, Assess, Pending or Cancel will be displayed. Approve will only be displayed when the application process is set to 'ApproverOnly', while Assess will only be displayed when the application process is set to 'JudgeOnly'.	
Status	Application	Accepted
	Approve	One of the following responses will be displayed: <ul style="list-style-type: none"> - Approval waiting - Approved - Approved (Error) - Rejected - _ (*1)

Item	Description	
	Assess	One of the following responses will be displayed: - Approval waiting - Accepted - Accepted (Error) - Dismissed - _ (*1) - Blank (*2)
	Pending	One of the following responses will be displayed: - Pending - Cancel - _ (*1) - Blank (*2)
	Cancel	One of the following responses will be displayed: - Cancel - _ (*1) - Blank (*2)
Date	The date and time of execution will be output in the following format: YYYY-MM-DD HH:MM:SS	
Responsible	Displays the executor.	
Comment	Displays any comments that were input at the time of Application, Approve, Assess or Pending.	

*1: Displayed when the process was not executed.

*2: Displayed when the process has not been executed.

The following illustrates an example of the application status confirmation window:

- When the application process is set to 'Default'

Indicates that the application has been accepted and the task is complete.

Activity Name	Status	Date	Responsible	Comment
Application	Accepted	2011-12-19 02:41:59	taro fujitsu	Please approve the L-Platform05
Approve	Approved	2011-12-19 02:44:17	hanako fujitsu	Approved the L-Platform05. Please assess this.
Assess	Accepted	2011-12-19 02:45:47	manage01	Assessed the L-Platform05.
Pending	-			
Cancel	-			

- When the application process is set to 'ApproverOnly'

Indicates that the application is awaiting approval.

Activity Name	Status	Date	Responsible	Comment
Application	Accepted	2011-12-19 02:13:46	taro fujitsu	Please approve the L-Platform04
Approve	Approval waiting			
Pending				
Cancel				

- When the application process is set to 'JudgeOnly'

Indicates that an error has occurred with the application during acceptance of the assessment and the task has been reserved.

Activity Name	Status	Date	Responsible	Comment
Application	Accepted	2011-12-19 02:29:31	taro fujitsu	Please assess the L-Platform05
Assess	Accepted (Error)	2011-12-19 02:34:28	manage01	
Pending	Pending			
Cancel				

7.2 Assessing an Application

If the requirement to be assessed is set for an application process, the Infrastructure Administrator assesses applications from Tenant Administrators and tenant users.

Perform the following steps to assess an application process:

1. Click the URL given in the assessment request email. Alternatively, login to the ROR console and select the **Request** tab.

The screenshot shows the ServerView ROR console interface. At the top, there are navigation tabs: Home, Dashboard, System Condition, Resource, Template, L-Platform, Request, and Tenant. The 'Request' tab is selected. The user ID is 'manage01'. Below the navigation, there is a 'My Tasks' section with a 'Task Filters' dropdown set to 'My Tasks' and a 'Refresh' button. A table shows 1 task found:

Activity Name	Id	Process Instance Name	Created	Status	Due Date	Priority
Assess	7273	L-PlatformSubscription_6995	Dec, 19 2011	Active		8

Below the table, the task details for 'Assess [L-PlatformSubscription_65...]' are shown. The 'Summary' tab is active, and the 'Details' sub-tab is selected. The details include:

- Status: Active
- From: swrbadmin
- To: manage01
- Date: December, 19 2011 15:08:02
- Process Instance: L-PlatformSubscription_6995
- Due Date: (empty)
- Description: Approval/examination application
- Priority: 8

At the bottom, there is a 'Make Choice' section with buttons for '0:Accept' and '1:Dismiss'.

2. In the Task Filters drop-down list on the My Tasks window, select. **My Tasks**

A list of tasks that are not yet assessed is displayed.

In the **Priority** field in **My Tasks** under the **Summary** tab, give the tasks a priority using a number between 0 and 2147483647. The default value is 8.

The higher the number of a task, the higher its priority level. Setting the priority level of tasks also enables them to be sorted in order of priority in task lists.



Note

The task activity "Reservation" is displayed in the following two cases. If there are tasks with the activity name "Reservation", refer to "[If an L-Platform Management function error occurs](#)" and take action on the reserved process instances.

- If the requirement to be assessed is set for an application process and an error occurred for an L-Platform management function during assessment reception processing
- If the requirement to be assessed is not set for an application process and an error occurred for an L-Platform management function during the granting approval process

3. Select the process instance task, and then click the **Details** tab.

4. Select the **Application** tab on the **Form** panel.

Check the content of the application.

For L-Platform usage applications (when the L-Platform template has been reconfigured) and for L-Platform reconfiguration applications, information from prior to any modifications can also be displayed under **Details**.

Furthermore, estimated price for corresponding L-Platform templates can be displayed as accounting information by selecting **Details** on the **Application** tab on the **Form** panel.

Task: Assess [L-PlatformSubscription_65...

Summary Details Jump To: --Select One--

Form

Application Assess Status

Application type: L-PlatformSubscription
L-Platform name: L-Platform01

Details: **Tenant name: tenant01**

L-Platform Overview

Estimated price	\$ 106.70/month	* changed from \$ 108.50/month
License	Not included	
Support	Not included	
Description	TEMPLATE_2008	
Template name	TEMPLATE_2008	

▼ Forward Firewall

Rule set	bonding
Description	Ruleset Description Data

Business AAA

Segment type	DMZ
Maximum number of NICs	1

Subscriber name: taro fujitsu
Reason for application: Please approve the L-Platform01
Forward destination: hanako fujitsu

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Attachments

Add Attachment

There are no attachments in this task.

[Back to top](#)

Comments

Comment

Add Comment

[Back to top](#)

Make Choice

0:Accept 1:Dismiss

[Back to top](#)

- Select the **Assess** tab.
If required, enter a comment in **Assessment comment**.

- Click either the **0: Accept** button or the **1: Dismiss** button on the MakeChoice panel.

Click the **0: Accept** button to start the requested processing.

If an error then occurs during acceptance processing, an error notification email is sent to the Infrastructure Administrator.

If the **1: Dismiss** button is clicked, a dismissal email is sent to the subscriber.



Accounting checks

Estimated price for the L-Platform template will only be displayed when the accounting display settings are enabled by a system administrator.

Note that the estimated price will indicate the prices below, and be aware that this display will not change even if the L-Platform template prices are modified.

- Prices at the time of a new L-Platform usage application
- For L-Platform usage applications from a 'save configuration', prices are as per the time of the L-Platform save configuration
- Prices at the time of L-Platform reconfiguration



- If the **0: Accept** button or the **1: Dismiss** button on the Make Choice panel is clicked without the **Details** tab being selected or without the **Status** tab on the **Details** tab being selected the following message is displayed:

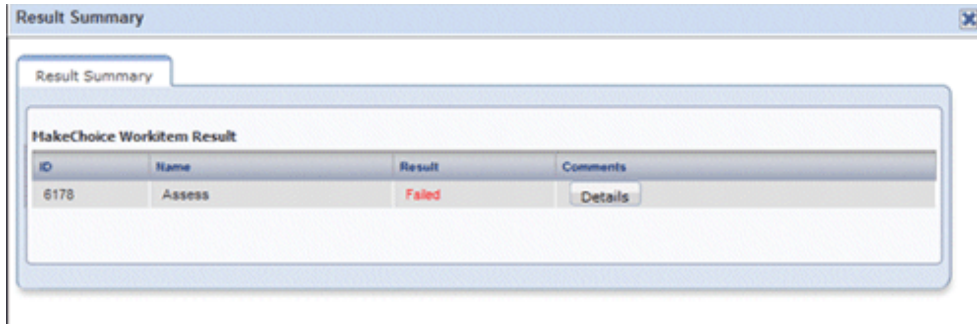
All the forms are not accessed in Details Tab. Do you want to continue?

To continue processing without checking the form, click the **OK** button. To check the form, click the **Cancel** button, and then select the **Details** tab or select the **Status** tab on the **Details** tab.

- The task activity name changes to "Reservation" if an L-Platform management function error occurs during application assessment. Refer to "[If an L-Platform Management function error occurs](#)" and take action on the reserved process instances.

- If the error below is issued when assessing an application, refer to the name of the process instance that issued the error and the error details, and investigate and fix the error.

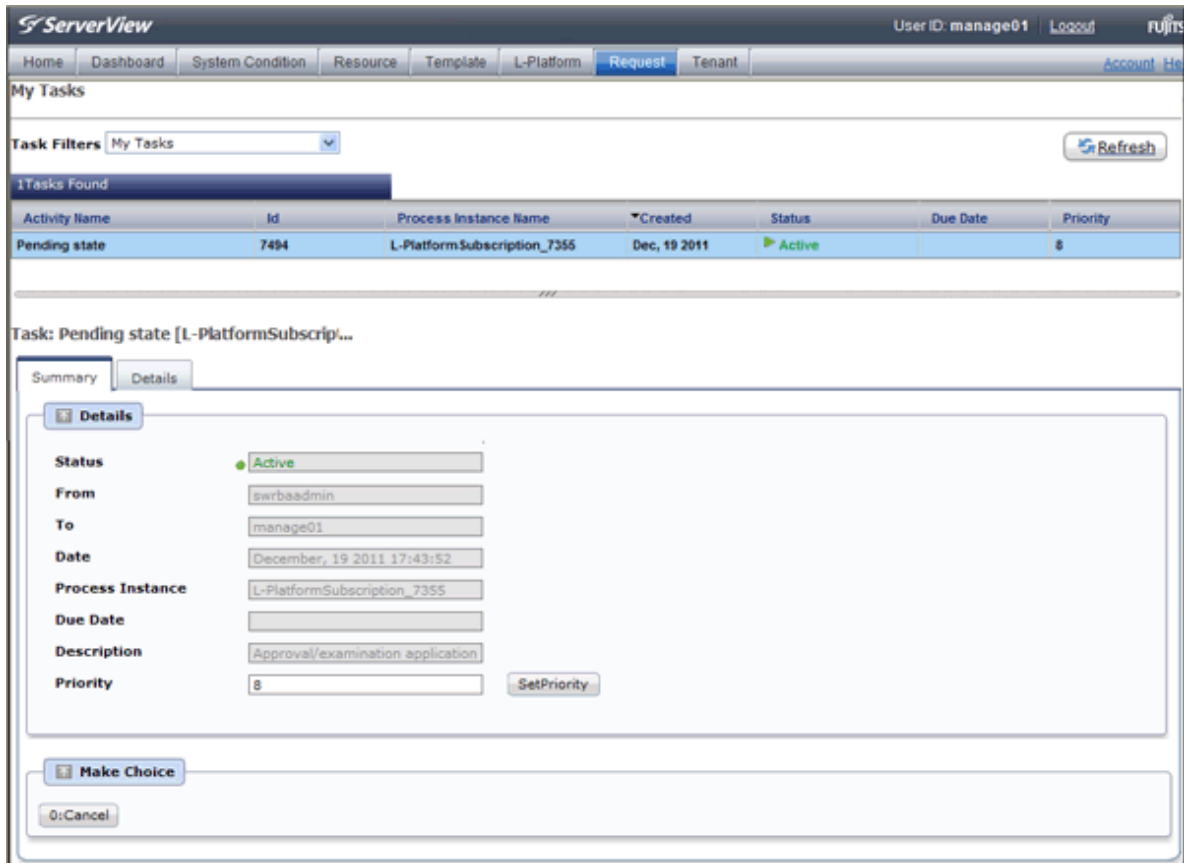
When the **Details** button is clicked on the window shown below, error details are displayed.



If an L-Platform Management function error occurs

1. Take action on the reserved process instances.

Click the URL given in the error notification email. Alternatively, login to the ROR console and select the **Request** tab.



2. Select the process instance task, and then click the **Details** tab.
3. Select the **Application** tab on the **Form** panel.
Check the content of the application.
For L-Platform usage applications (when the L-Platform template has been reconfigured) and for L-Platform reconfiguration applications, information from prior to any modifications can also be displayed under **Details**.

Furthermore, estimated price for corresponding L-Platform templates can be displayed as accounting information by selecting **Details** on the **Application** tab on the **Form** panel.

Task: Pending state [L-PlatformSubscripl...

Summary Details Jump To:

Form

Application Pending Status

Application type: L-PlatformSubscription
L-Platform name: L-Platform02

Details: **Tenant name: tenant01**

L-Platform Overview

Estimated price	\$ 105.50/month	* changed from \$ 108.50/month
License	Not included	
Support	Not included	
Description	TEMPLATE_2008	
Template name	TEMPLATE_2008	

▼ **Firewall** Firewall

Rule set	bonding	
Description	Ruleset Description Data	

Business AAA

Segment type	DMZ	
Maximum number of NICs	1	

Subscriber name: taro fujitsu
Reason for application: Please approve the L-Platform02
Forward destination: hanako fujitsu

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Attachments

Add Attachment

There are no attachments in this task.

[Back to top](#)

Comments

Comment

[Back to top](#)

Make Choice

[Back to top](#)

- Select the **Pending** tab.
Refer to the content displayed at **Error Content** and resolve the error as appropriate.
Enter a comment in **Cancellation comment**.

- Click the **0: Cancel** button on the MakeChoice panel. An application cancellation email is sent to the subscriber

Note

If the **0: Cancel** button on the Make Choice panel is clicked without the **Details** tab being selected or without the **Status** tab on the **Details** tab being selected, the following message is displayed:

All the forms are not accessed in Details Tab. Do you want to continue?

To continue processing without checking the form, click the **OK** button. To check the form, click the **Cancel** button, and then select the **Details** tab or select the **Status** tab on the **Details** tab.

Chapter 8 Tenant

This chapter explains how to manage tenants.

8.1 Overview of Tenant Management

Tenants, users, and L-Platform information can be managed using the tenant management windows of the ROR Console.

This section provides an overview of tenant management.

Tenant management windows

The table below shows a list of tenant management windows.

Classification	Window	Explanation
Tenant management	Tenant List	Displays all the tenants managed by this product
	Create Tenant	Creates a new tenant
	Modify Tenant	Modifies the selected tenant information
	Delete Tenant	Deletes the selected tenant (multiple selections possible)
User management	User List	Displays a list of users of the selected tenant
	Register User	Adds a tenant user
	Modify User	Modifies the selected user information
	Delete User	Deletes the selected user (multiple selections possible)
	Move User	Moves the selected user (multiple selections possible) to a different tenant
	Change User Password	Changes the password for the selected user
L-Platform management	L-Platform List	Displays a list of L-Platforms of the selected tenant
	Change Owner	Changes the ownership of the selected L-Platform (multiple selections possible) to a different user
	Move L-Platform	Moves the selected L-Platform (multiple selections possible) to a different tenant

Note

- When performing user management operations, ensure that there are one or more Tenant Administrators in a tenant after modification.
- When performing L-Platform management operations, stop access from the tenant side by isolating the network, or similar, so that inconsistencies do not arise in L-Platform use and cancellation.
- Tenant management does not use e-mail for notifications. When user registration or other operations have been performed, notify the relevant user and the Tenant Administrator of the necessary information.
- Depending on the user list display settings, the Tenant Administrators may be displayed in the user list, and tenant users may not be displayed. The System Administrator sets the user list display settings.
- Depending on the directory services operation settings, it may not be possible to change the user password. The System Administrator sets the directory services operation settings.

Tenant management window display method

Use the following method to display the tenant management windows:

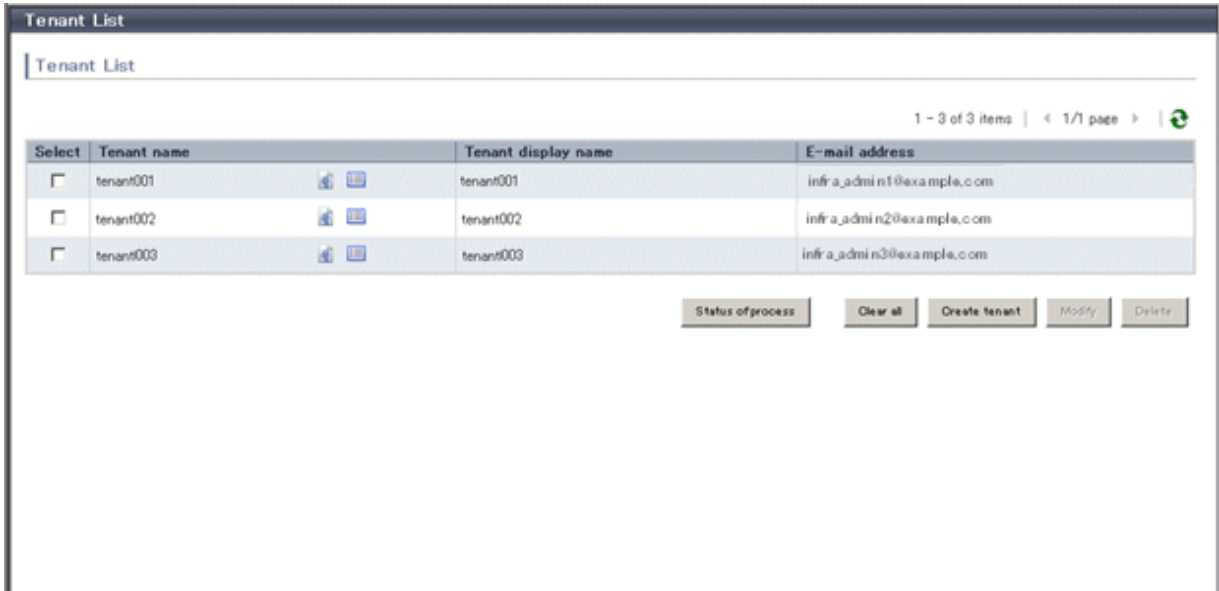
- On the ROR Console, select the **Tenant** tab.



8.2 Displaying a Tenant List

A list of the tenants managed by this product can be displayed from the **Tenant List** window.



Perform the following steps to display the tenant list:


1. Select the **Tenant** tab on the ROR Console.
The **Tenant List** window is displayed.



Item	Explanation
Tenant List	<p>The following tenant information is displayed in a list:</p> <ul style="list-style-type: none"> - Tenant name - Tenant display name - E-mail address <p>When the following icons are clicked, the window corresponding to the tenant is displayed:</p> <ul style="list-style-type: none"> - : The User List window displays the list of users belonging to the tenant - : The L-Platform List window displays the tenant's L-Platforms
Status of process button	Displays the Status of process window to check the status of tenant creation, modification, and deletion processes performed during the current login.
Clear all button	Removes the selected state from all items in the list.
Create tenant button	Displays the Create Tenant window to create a new tenant.
Modify button	Displays the Modify Tenant window to modify the information of the selected tenant. This operation is possible only when one tenant is selected.
Delete button	Displays the Delete Tenant window to delete the selected tenant. This operation is possible only when one or more tenants are selected. A maximum of 100 tenants can be selected at one time.

Point

The list displays 10 tenants at one time. Click the  icon to display the next 10 tenants, or click the  icon to display the previous 10 tenants.

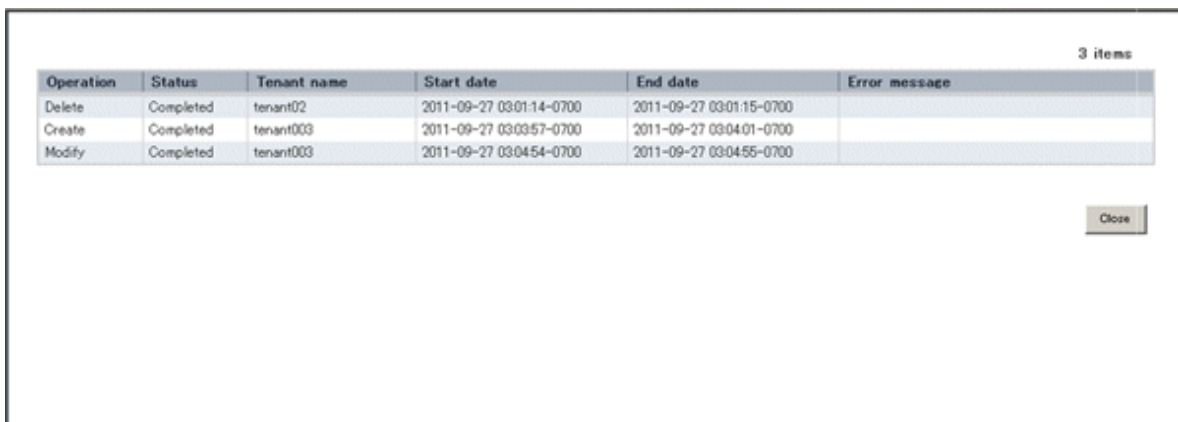
2. To display the most recent information, click the  icon.

Point

Checking process status

When the **Status of process** button is clicked, the **Status of process** window is displayed as a separate window and the status of tenant creation, modification, and deletion processes performed during the current login can be checked.

The image below shows a display example of the **Status of process** window.



The screenshot shows a window titled "Status of process" with a table containing 3 items. The table has the following data:

Operation	Status	Tenant name	Start date	End date	Error message
Delete	Completed	tenant02	2011-09-27 03:01:14-0700	2011-09-27 03:01:15-0700	
Create	Completed	tenant003	2011-09-27 03:03:57-0700	2011-09-27 03:04:01-0700	
Modify	Completed	tenant003	2011-09-27 03:04:54-0700	2011-09-27 03:04:55-0700	

A "Close" button is located at the bottom right of the window.

Item	Explanation
Operation	Displays the performed operation. One of the following operations is displayed: <ul style="list-style-type: none">- Create- Modify- Delete
Status	Displays the process status. The displayed status is one of the following: <ul style="list-style-type: none">- Completed- Running- Failed
Tenant name	Displays the name of the tenant targeted by the process
Start date	Displays the time and date when the process was requested
End date	Displays the time and date when the process was completed
Error message	If the process failed, displays the cause of the failure

8.3 Creating a Tenant

The **Create Tenant** window can be used to create a new tenant.

Perform the following steps to create a tenant:

1. Click the **Create tenant** button on the **Tenant List** window.
The **Create Tenant** window is displayed.
2. In the **Create Tenant** window, specify the information for the tenant being created.

Input new tenant information, and click [Confirm] button.

* Required field

Tenant name	TENANT001	Enter the name of new tenant in 1 - 32 characters. Input only alphanumeric characters, underscore ("_"), and hyphen ("-"). The first character must be an alphanumeric character. If omitted, the tenant name will be generated automatically.
Tenant display name *	TENANT001	Enter the display name for the new tenant in 1 - 30 characters. The 'tenant name' that you entered above is restricted. You can specify tenant display name with ASCII characters, so as to complement the tenant name.
E-mail address *	tenant001@example.com	Enter the E-mail address for the new tenant.

Select Global Pools

Select global pools assigned to the tenant.

Select	Pool name	Pool type	Priority
<input checked="" type="checkbox"/>	/AddressPool	Address Pool	5
<input checked="" type="checkbox"/>	/ImagePool	Image Pool	5
<input checked="" type="checkbox"/>	/NetworkPool	Network Pool	5
<input checked="" type="checkbox"/>	/ServerPool	Server Pool	5
<input checked="" type="checkbox"/>	/StoragePool	Storage Pool	5
<input checked="" type="checkbox"/>	/TestVmPool	VM Pool	5
<input checked="" type="checkbox"/>	/VMHostPool	VM Pool	5

Clear all Select all Back Confirm

Item	Explanation
Tenant name	Specify the name of the tenant being created. Specify a character string of up to 32 characters consisting of single-byte alphanumerics, hyphens (-), and underscores (_), and starting with a single-byte alphanumeric. Specify a tenant name that is unique within the system. Do not specify "cfmgadm". If a tenant name is not entered, it is generated automatically during registration.
Tenant display name	Specify the display name of the tenant being created. Specify a character string of up to 30 characters. The display name is the name displayed on the use status window and other windows. This specification is mandatory.
E-mail address	Use up to 64 characters to specify the e-mail address or mailing list of the administrator of the tenant being created. This specification is mandatory.
Select Global Pools	Select a global pool that can be used from the tenant being created. Multiple global pools can be selected, and there is no upper limit to the number that can be selected. Note that in the initial window, all global pools are selected. Click the Clear all button to remove the selected state from all global pools. Click the Select all button to select all global pools.
Pool name	Displays the resource pool name.
Pool type	Displays the resource pool type. The resource pool types are as follows: - VM pool

Item	Explanation
	<ul style="list-style-type: none"> - Server pool - Storage pool - Network pool - Address pool - Image pool
Priority	<p>Displays the resource pool priority when resources are selected automatically during L-Server creation.</p> <p>An integer from 1 to 10 is displayed, with smaller values indicating a higher priority.</p>

Point

The following operations by the Tenant Administrator are notified to the specified e-mail address.

- User registration
- User modification
- User deletion
- User password change

The operations for tenant users can be monitored by specifying the e-mail address of Infrastructure Administrator or tenant representative.

The changed password is notified in user password change, so specify the reliable e-mail address.

3. Click the **Confirm** button.
The confirmation window is displayed.
4. Check the tenant information, and then click the **Create** button.
The completion window is displayed.
5. Click the **Back to Tenant List** button to return to the **Tenant List** window.

8.4 Modifying a Tenant

The **Modify Tenant** window can be used to modify tenant information.

Perform the following steps to modify tenant information:

1. In the **Tenant List** window, select the tenant to modify, and then click the **Modify** button.
The **Modify Tenant** window is displayed.

- In the **Modify Tenant** window, edit the value of the item being changed.

Modify Tenant

Modify Tenant

Input tenant information, and click [Confirm] button. * Required field

Tenant name	tenant1130	The name of this tenant. You can not change this item.
Tenant display name *	TENANT002	Enter the display name for the new tenant in 1 - 30 characters. The 'tenant name' above is restricted. You can specify tenant display name with ASCII characters, so as to complement the tenant name.
E-mail address *	tenant002@example.com	Enter the E-mail address for tenant to modify.

Select Global Pools

Select global pools assigned to the tenant.

Select	Pool name	Pool type	Priority
<input checked="" type="checkbox"/>	/AddressPool	Address Pool	5
<input checked="" type="checkbox"/>	/ImagePool	Image Pool	5
<input checked="" type="checkbox"/>	/NetworkPool	Network Pool	5
<input checked="" type="checkbox"/>	/ServerPool	Server Pool	5
<input checked="" type="checkbox"/>	/StoragePool	Storage Pool	5
<input checked="" type="checkbox"/>	/TestVmPool	VM Pool	5
<input checked="" type="checkbox"/>	/VMHostPool	VM Pool	5

Item	Explanation
Tenant name	Displays the tenant name. The tenant name cannot be changed.
Tenant display name	Specify the tenant display name. Specify a character string of up to 30 characters. This specification is mandatory.
E-mail address	Use up to 64 characters to specify the e-mail address or mailing list of the Tenant Administrator. This specification is mandatory.
Select Global Pools	Selects or deselects the global pools that can be used from the tenant. Multiple global pools can be selected, and there is no upper limit to the number that can be selected. Click the Select all button to select all global pools. Click the Clear all button to remove the selected state from all global pools.

- Click the **Confirm** button.
The confirmation window is displayed.
- Check the contents being changed, and then click the **Modify** button.
The completion window is displayed.
- Click the **Back to Tenant List** button to return to the **Tenant List** window.

8.5 Deleting a Tenant

The **Delete Tenant** window can be used to delete tenants. Up to 100 tenants can be deleted at once.

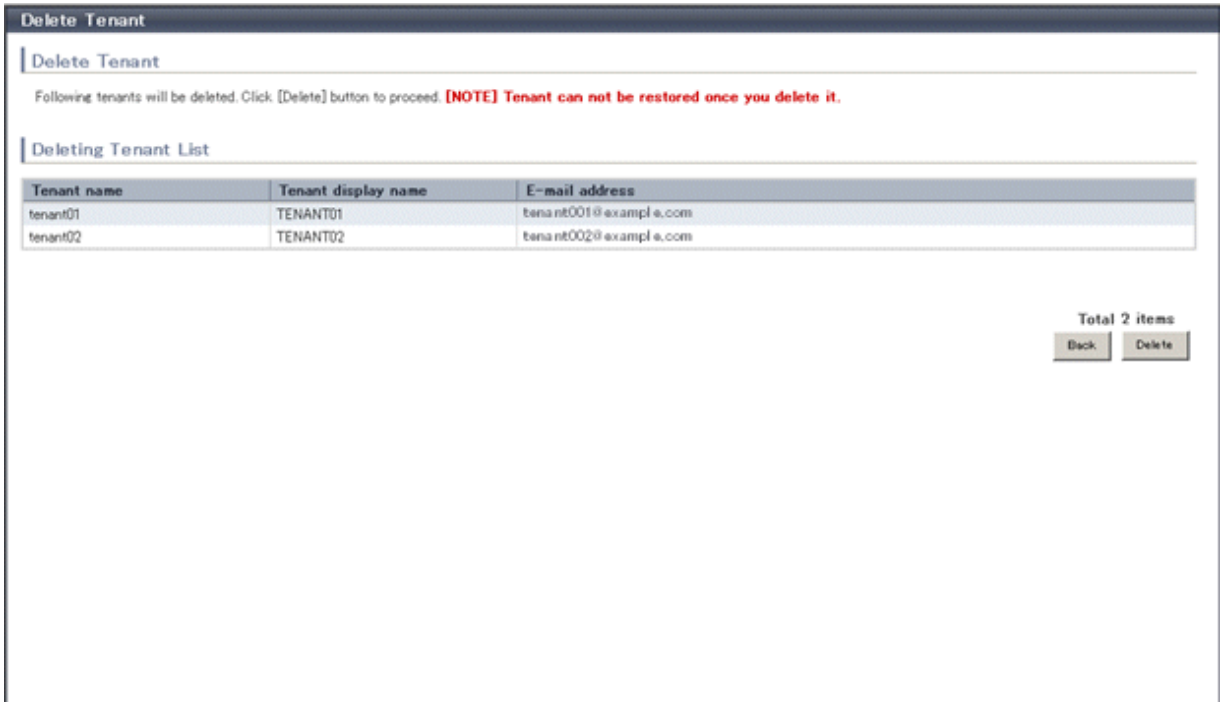
Note

A tenant cannot be deleted if it has users or L-Platforms.

Check in the [User List window](#) and the [L-Platform List window](#) and either move or delete any users or L-Platforms in the tenant targeted for deletion before performing this operation.

Perform the following steps to delete a tenant:

1. In the **Tenant List** window, select the tenant or tenants to delete, and then click the **Delete** button. The **Delete Tenant** window is displayed.



The screenshot shows a web application window titled "Delete Tenant". The window has a header bar with the title "Delete Tenant". Below the header, there is a sub-header "Delete Tenant" and a message: "Following tenants will be deleted. Click [Delete] button to proceed. **[NOTE] Tenant can not be restored once you delete it.**". Below the message, there is a sub-header "Deleting Tenant List" and a table with three columns: "Tenant name", "Tenant display name", and "E-mail address". The table contains two rows of data. At the bottom right of the window, there is a summary "Total 2 items" and two buttons: "Back" and "Delete".

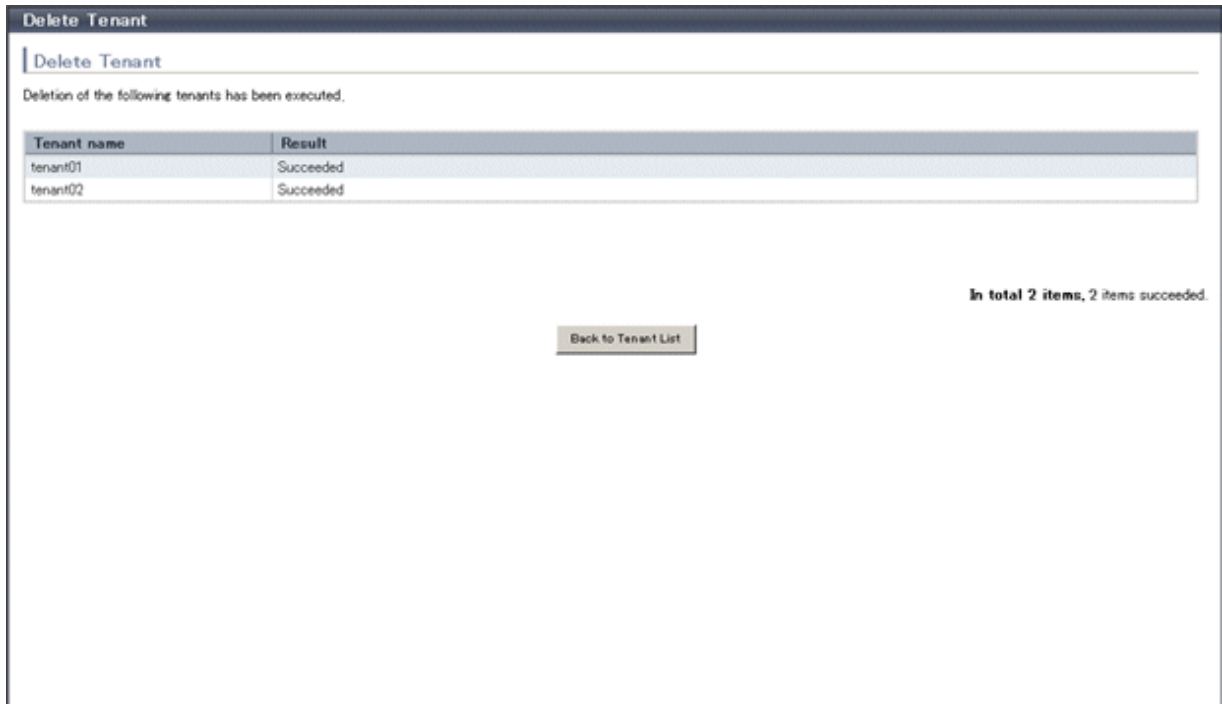
Tenant name	Tenant display name	E-mail address
tenant01	TENANT01	tenant001@example.com
tenant02	TENANT02	tenant002@example.com

Total 2 items

Back Delete

2. Check the tenants targeted for deletion, and then click the **Delete** button. The confirmation window is displayed.

- To proceed with deletion, click the **OK** button.
The deletion results are displayed in the completion window.



Note


If deletion fails for a tenant, check the cause and perform the operation again.

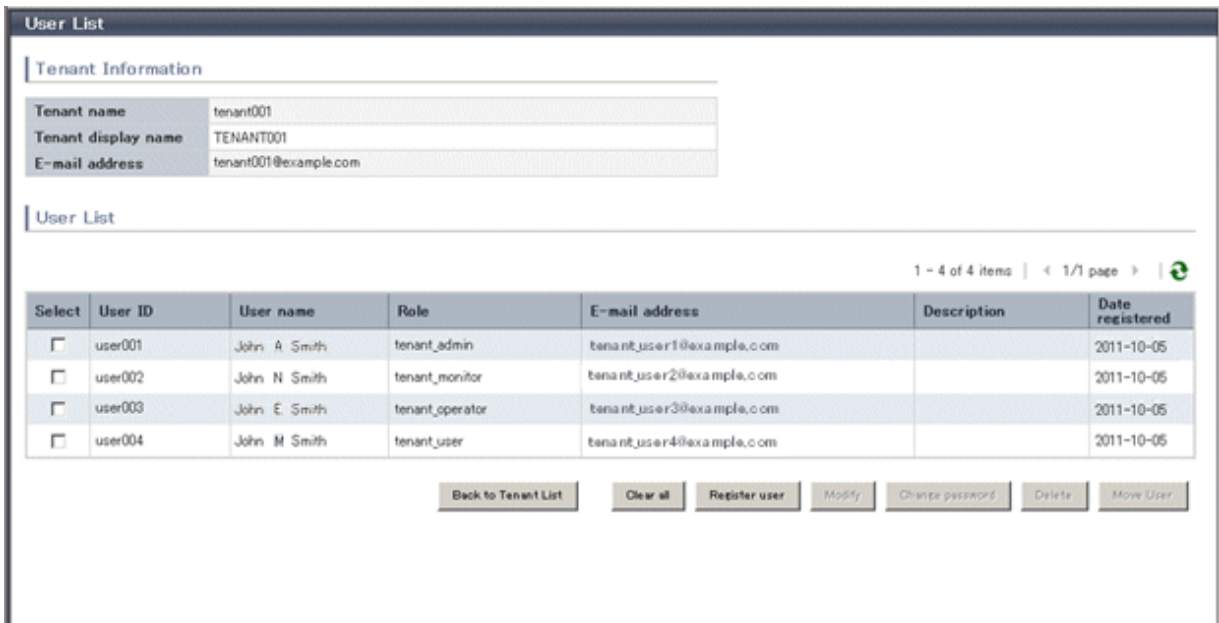
- Click the **Back to Tenant List** button to return to the **Tenant List** window.

8.6 Displaying a User List

A list of users belonging to a selected tenant can be displayed in the **User List** window.

Perform the following steps to display a list of users:

- In the **Tenant List** window, click the  icon of the tenant for which to display the user list. The **User List** window is displayed.




User List

Tenant Information

Tenant name	tenant001
Tenant display name	TENANT001
E-mail address	tenant001@example.com

User List



1 - 4 of 4 items | < 1/1 page > | 


Select	User ID	User name	Role	E-mail address	Description	Date registered
<input type="checkbox"/>	user001	John A Smith	tenant_admin	tenant_user1@example.com		2011-10-05
<input type="checkbox"/>	user002	John N Smith	tenant_monitor	tenant_user2@example.com		2011-10-05
<input type="checkbox"/>	user003	John E Smith	tenant_operator	tenant_user3@example.com		2011-10-05
<input type="checkbox"/>	user004	John M Smith	tenant_user	tenant_user4@example.com		2011-10-05

Item	Explanation
Tenant Information	The following information is displayed for the tenant to which the user belongs: <ul style="list-style-type: none"> - Tenant name - Tenant display name - E-mail address
User List	The following information is displayed in a list for the users belonging to the tenants in the tenant information: <ul style="list-style-type: none"> - User ID - User name - Role <ul style="list-style-type: none"> - Tenant Administrator (tenant_admin) - Tenant operator (tenant_operator) - Tenant monitor (tenant_monitor) - Tenant user (tenant_user) - E-mail address - Description - Date registered
Clear all button	Removes the selected state from all items in the list.
Register user button	Displays the Register User window that is used to register a new user.
Modify button	Displays the Modify User window that is used to modify the information of the selected user. This operation is possible when only one user is selected.
Change password button	Displays the Change User Password window that is used to change the password for a selected user.

Item	Explanation
	This operation is possible when only one user is selected. Depending on the system settings, this button may not be displayed.
Delete button	Displays the Delete User window that is used to delete selected users. This operation is possible only when one or more users are selected. Up to 100 users can be selected at one time.
Move User button	Displays the Move User window that is used to move selected users to a different tenant. This operation is possible only when one or more users are selected. Up to 100 users can be selected at one time.

 **Point**

The list displays 10 users at one time. Click the  icon to display the next 10 users, or click the  icon to display the previous 10 users.

- To display the most recent information, click the  icon.

8.7 Registering a User

The **Register User** window can be used to register a new user.

Perform the following steps to register a new user:

- In the **User List** window, click the **Register user** button.
The **Register User** window is displayed.

- In the **Register User** window, specify the information for the user being registered. The window below is the sample of using OpenDS for the directory service.

Register User

Tenant Information

Tenant name	tenant001
Tenant display name	TENANT001
E-mail address	tenant001@example.com

Register User

Input new user information and click [Confirm] button.

* Required field

User ID *	<input type="text" value="user001"/>	Enter the user ID in 4 - 31 characters with lower-case alphabet, numeric characters, underscore ('_'), hyphen ('-'), and period ('.'). The first character must be a lower-case alphabet or a numeric character.
Description	<input type="text"/>	You can set string within 256 characters that describes User ID. This string is displayed on User list in tenant tab with User ID.
Role *	<input type="text" value="tenant_user"/>	User's role.
Password *	<input type="password"/>	Enter a password in 8 - 64 alphanumeric characters and symbols. The password is case-sensitive.
Password (confirm) *	<input type="password"/>	Enter the password again for confirmation.

Personal Information

E-mail address *	<input type="text" value="user001@example.com"/>	Enter the E-mail address for the user.
E-mail address (confirm) *	<input type="text" value="user001@example.com"/>	Enter the E-mail address again for confirmation.
Name *	First name: <input type="text" value="John"/> Middle name: <input type="text" value="M"/> Last name: <input type="text" value="Smith"/>	Enter the name of the user. Middle name can be omitted.
Company name or organization name	<input type="text"/>	

Emergency Contact Information

E-mail address	<input type="text"/>	Enter the E-mail address for receiving emergency information such as maintenance information.
E-mail address (confirm)	<input type="text"/>	Enter the E-mail address again for confirmation.
Telephone number	<input type="text"/>	Ex. 1234-5678

Item	Explanation
Tenant Information	The following information is displayed for the tenant that is registering the user: <ul style="list-style-type: none"> - Tenant name - Tenant display name - E-mail address
User ID	[When using OpenDS for the directory service] Specify the user ID. Specify a character string of 4 to 31 characters consisting of single-byte lower-case alphabets and numerics, hyphens(-), underscores (_), and periods (.), and starting with a single-byte alphanumeric. Specify a user ID that is unique within the system. This specification is mandatory.

Item	Explanation
	[When using Active Directory for the directory service] Specify the user ID. Specify a character string of 4 to 20 characters consisting of single-byte lower-case alphabets and numerics, hyphens (-), underscores (_), and periods (.), and starting with a single-byte alphanumeric. Period cannot be used as the last character. Specify a user ID that is unique within the system. This specification is mandatory.
Description	Specify an explanation of the user's user ID.
Role	Select one of the following as the user's role: <ul style="list-style-type: none"> - Tenant Administrator (tenant_admin) - Tenant operator (tenant_operator) - Tenant monitor (tenant_monitor) - Tenant user (tenant_user)
Password	Specify the user password. Specify between 8 and 64 characters, using single-byte alphanumerics and symbols. Depending on the system settings, this button may not be displayed.
Password (confirm)	Re-enter the user password for confirmation purposes. Depending on the system settings, this button may not be displayed.
Personal Information	
E-mail address	Use up to 64 characters to specify the user's e-mail address. This specification is mandatory.
E-mail address (confirm)	Re-enter the user's e-mail address for confirmation purposes. This entry is mandatory.
Name	Specify the user's first name, middle name and last name using up to 15 characters for each. The specification of first name and last name is mandatory.
Company name or Organization name	Specify the company name or organization name using up to 30 characters.
Emergency Contact Information	
E-mail address	Use up to 64 characters to specify the e-mail address for receiving emergency notifications.
E-mail address (confirm)	Re-enter the emergency contact e-mail address for confirmation purposes.
Telephone number	Specify the emergency contact phone number.

3. Click the **Confirm** button.
The confirmation window is displayed.
4. Check the user information, and then click the **Register** button.
The completion window is displayed.
5. Click the **Back to User List** button to return to the **User List** window.

Note

- When user registration is completed, notify the user of the necessary information by e-mail or similar.

- If Resource Orchestrator is set to not to use a directory service, execute the following.

The configuration of whether Resource Orchestrator use a directory service or not is defined by the directory service operation definition file (ldap_attr.rcxprop).

Refer to "Settings for Tenant Management and Account Management" in the "Operation Guide CE" for details on the directory service operation definition file.

- Confirm whether the user is registered to the directory service or not. If not registered, register the user to the directory service.
- Refer to "Adding an infrastructure administrator/dual-role administrator to IflowUsers Group" in "Setup Guide CE" and add registered user to the IflowUsers group as a member.

8.8 Modifying a User

The **Modify User** window can be used to modify user information.

Perform the following steps to modify user information:

1. On the **User List** window, select the targeted user, and then click the **Modify** button.
The **Modify User** window is displayed.
2. In the **Modify User** window, edit the value of the item being changed.

The screenshot shows the 'Modify User' window with the following sections and fields:

- Modify User** (Title)
- Input user information to change, and click [Confirm] button.
- User ID**: user001 (Required field). Description: User ID which is going to be changed.
- Description**: (Empty text box). Description: You can set string within 256 characters that explains User ID. This string is displayed on User list with User ID.
- Role**: tenant_admin (Dropdown menu). Description: Select user's role.
- Personal Information** (Section Header)
- E-mail address**: tenant_admin01@example.com (Required field). Description: Enter the E-mail address which information will be sent to.
- Name**: (Required field)
 - First name: John
 - Middle name: M
 - Last name: Smith
 Description: Enter the name of the user. Middle name can be omitted.
- Company name or organization name**: (Empty text box)
- Emergency Contact Information** (Section Header)
- E-mail address**: (Empty text box). Description: Enter the E-mail address which maintenance information and etc. will be sent to in an emergency.
- Telephone number**: (Empty text box). Description: Ex. 1234-5678
- Buttons: Back, Confirm

Item	Explanation
User ID	Displays the user ID of the user targeted for modification. The user ID cannot be changed.
Description	Specify an explanation of the user's user ID.
Role	Select one of the following as the user's role: <ul style="list-style-type: none"> - Tenant Administrator (tenant_admin) - Tenant Operator (tenant_operator) - Tenant Monitor (tenant_monitor)

Item	Explanation
	- Tenant user (tenant_user)
Personal Information	
E-mail address	Use up to 64 characters to specify the user's e-mail address. This specification is mandatory.
Name	Specify the user's first name, middle name and last name using up to 15 characters for each. The specification of first name and last name is mandatory.
Company name or organization name	Specify the company name or organization name using up to 30 characters.
Emergency Contact Information	
E-mail address	Use up to 64 characters to specify the e-mail address for receiving emergency notifications.
Telephone number	Specify the emergency contact phone number.

3. Click the **Confirm** button.
The confirmation window is displayed.
4. Check the contents being changed, and then click the **Modify** button.
The completion window is displayed.
5. Click the **Back to User List** button to return to the **User List** window.

Note

When user modification is completed, notify the user of the necessary information by e-mail or similar.

8.9 Deleting a User

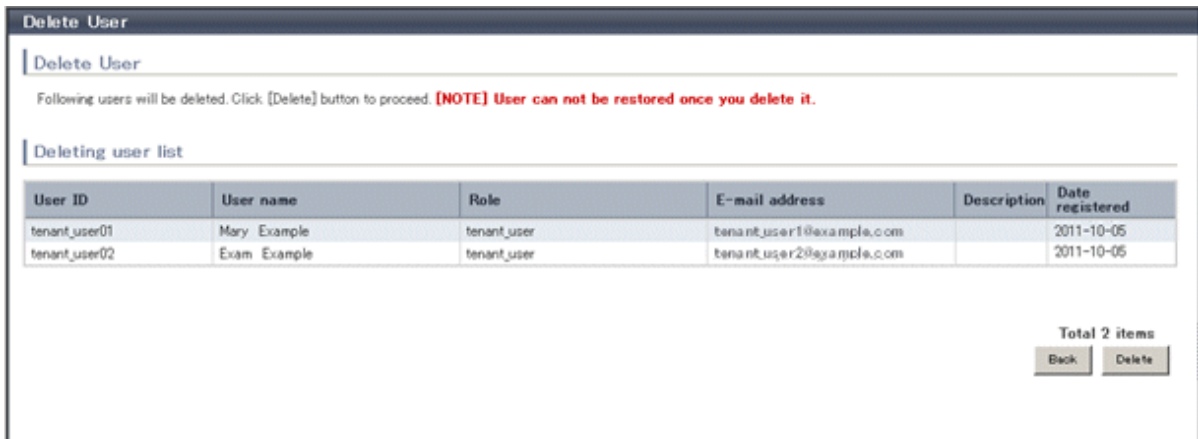
The **Delete User** window can be used to delete users. Up to 100 users can be deleted at one time.

Note

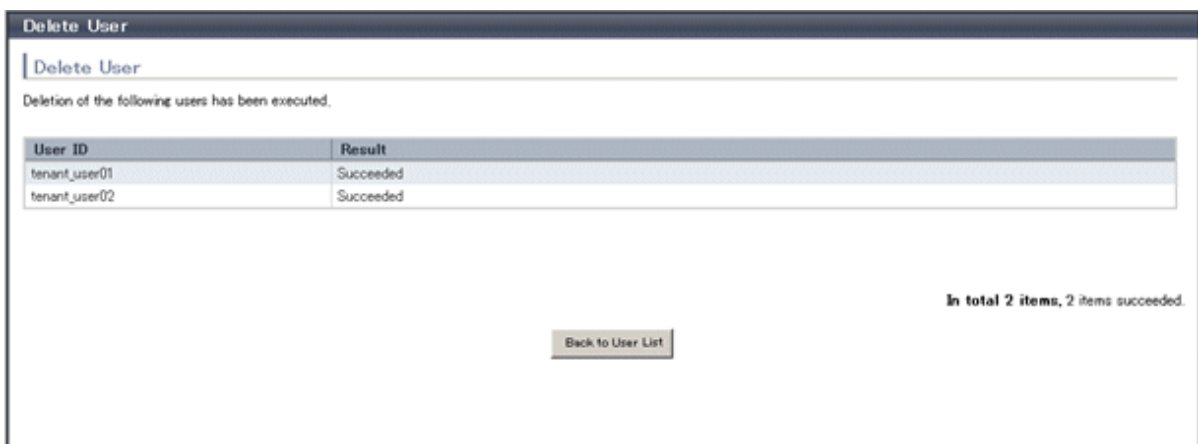
If the users who have some L-Platforms are deleted, implement [Changing an Owner](#) for the L-Platforms.

Perform the following steps to delete a user:

1. In the **User List** window, select one or more users to be deleted, and then click the **Delete** button. The **Delete User** window is displayed.



2. Check the users targeted for deletion, and then click the **Delete** button. The confirmation window is displayed.
3. To proceed with deletion, click the **OK** button. The deletion results are displayed in the completion window.



Note

If deletion failed for some users, check the cause and then repeat the operation.

4. Click the **Back to User List** button to return to the **User List** window.

Note

When user deletion is completed, notify the deleted user by e-mail or similar.

8.10 Moving a User

The **Move User** window can be used to move users to a different tenant. Up to 100 users can be moved at one time.

Perform the following steps to move a user:

1. In the **User List** window, select one or more target users, and then click the **Move User** button. The **Move User** window is displayed.

- In the **Move User** window, select the movement destination tenant.

Move User

Move User

Select destination tenant, and click [Confirm] button.

Select Destination Tenant

Current tenant: tenant01 TENANT01

Destination Tenant: tenant02 TENANT02

Moved User

User ID	User name	Role	E-mail address
tenant_user01	Mary Example	tenant_user	tenant_user1@example.com
tenant_user02	Exam Example	tenant_user	tenant_user2@example.com

Total 2 items

Back Confirm

Item	Explanation
Current tenant	Displays the name of the tenant to which the users currently belong
Destination Tenant	Select the name of the user movement destination tenant.
Moved User	Displays a list of the users targeted for movement

- Click the **Confirm** button.
The confirmation window is displayed.
- Check the movement contents, and then click the **Move** button.
The movement results are displayed in the completion window.

Move User

Move User

Move for the following users to tenant "tenant02" has been executed.

User ID	Result
tenant_user01	Succeeded
tenant_user02	Succeeded

In total 2 items, 2 items succeeded.

Back to User List

5. Click the **Back to User List** button to return to the **User List** window.

Note

If there are L-Platforms owned by the users targeted for movement, after the users are moved, implement [Changing an Owner](#) or [Moving an L-Platform](#).

8.11 Changing a User Password

The **Change User Password** window can be used to change user passwords.

Perform the following steps to change a user password:

1. In the **User List** window, select the target user, and then click the **Change password** button.
The **Change User Password** window is displayed.

Item	Explanation
User ID	Displays the user ID of the target user. The user ID cannot be changed.
Password	Specify the password. Specify between 8 and 64 characters, using single-byte alphanumerics and symbols. The password is case-sensitive. This specification is mandatory.
Password (confirm)	Re-enter the new password for confirmation purposes. This entry is mandatory.

2. Enter the password to be changed, and then click the **Change** button.
The user password is changed and the completion window is displayed.
3. Click the **Back to User List** button to return to the **User List** window.


Note

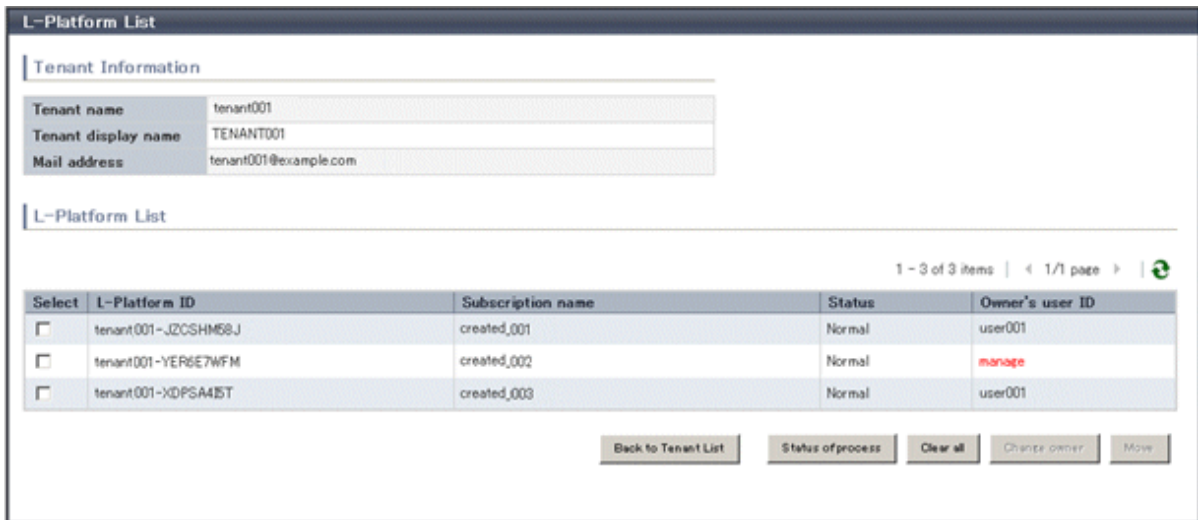
When the user password has been changed, notify the user of the new password by e-mail or similar.

8.12 Displaying an L-Platform List

The **L-Platform List** window can be used to display a list of the L-Platforms in a selected tenant.



Perform the following steps to display a list of L-Platforms:


- In the **Tenant List** window, select the  icon of the tenant for which to display the L-Platform list. The **L-Platform List** window is displayed.



Item	Explanation
Tenant Information	The following information is displayed for a tenant where there are L-Platforms: <ul style="list-style-type: none"> - Tenant name - Tenant display name - Mail address
L-Platform List	The following information is displayed in list form for the L-Platforms at the tenant for which information is displayed: <ul style="list-style-type: none"> - L-Platform ID - Subscription name - Status The following character strings are used to display the L-Platform status: <ul style="list-style-type: none"> - Normal - Reconfiguring - Deploying - Setup - Owner's user ID
Status of process button	Displays the Status of process window to check the status of L-Platform movement processes.
Clear all button	Removes the selected state from all items in the list.
Change owner button	Displays the Change Owner window that is used to change the owner of selected L-Platforms. This operation is possible only when one or more L-Platforms are selected. Up to 100 L-Platforms can be selected at one time.
Move button	Displays the Move L-Platform window that is used to move selected L-Platforms to a different tenant. This operation is possible only when one or more L-Platforms are selected. Up to 100 L-Platforms can be selected at one time.

Point

- The list displays 10 L-Platforms at one time. Click the  icon to display the next 10 L-Platforms, or click the  icon to display the previous 10 L-Platforms.
- L-Platforms owned by a different tenant are displayed in red in the L-Platform list.

- To display the most recent information, click the  icon.

Point

Checking movement process status

When the **Status of process** button is clicked, the **Status of process** window is displayed as a separate window and the status of L-Platform movement processes performed can be checked.

The image below shows a display example of the **Status of process** window.

							3 items
Operation	Status	L-Platform ID	Departure tenant name	Destination tenant name	Start date	End date	Error message
Move	Completed	JZCSHM58 J _1	tenant02	tenant003	2011-09-27 03:01:14-0700	2011-09-27 03:01:15-0700	
Move	Completed	JZCSHM58 J _2	tenant003	tenant02	2011-09-27 03:03:57-0700	2011-09-27 03:04:01-0700	
Move	Completed	JZCSHM58 J _3	tenant003	tenant02	2011-09-27 03:04:54-0700	2011-09-27 03:04:55-0700	

Item	Explanation
Operation	Displays the fixed value "Move" to indicate the operation performed
Status	Displays the process status. The displayed status is one of the following: <ul style="list-style-type: none"> · Completed · Running · Failed
L-Platform ID	Displays the ID of the L-Platform to be moved
Departure tenant name	Displays the name of the tenant from which the L-Platform is being moved
Destination tenant name	Displays the name of the tenant to which the L-Platform is being moved
Start date	Displays the time and date when the process was requested
End date	Displays the time and date when the process was completed
Error message	If the process failed, displays the cause of the failure

During movement of an L-Platform, "Reconfiguring" is displayed as the status of the L-Platform in the **L-Platform List** window of the tenant from which the L-Platform is being moved.

8.13 Changing an Owner

The **Change Owner** window can be used to change the owner of an L-Platform. The owner can be changed for up to 100 L-Platforms at one time.

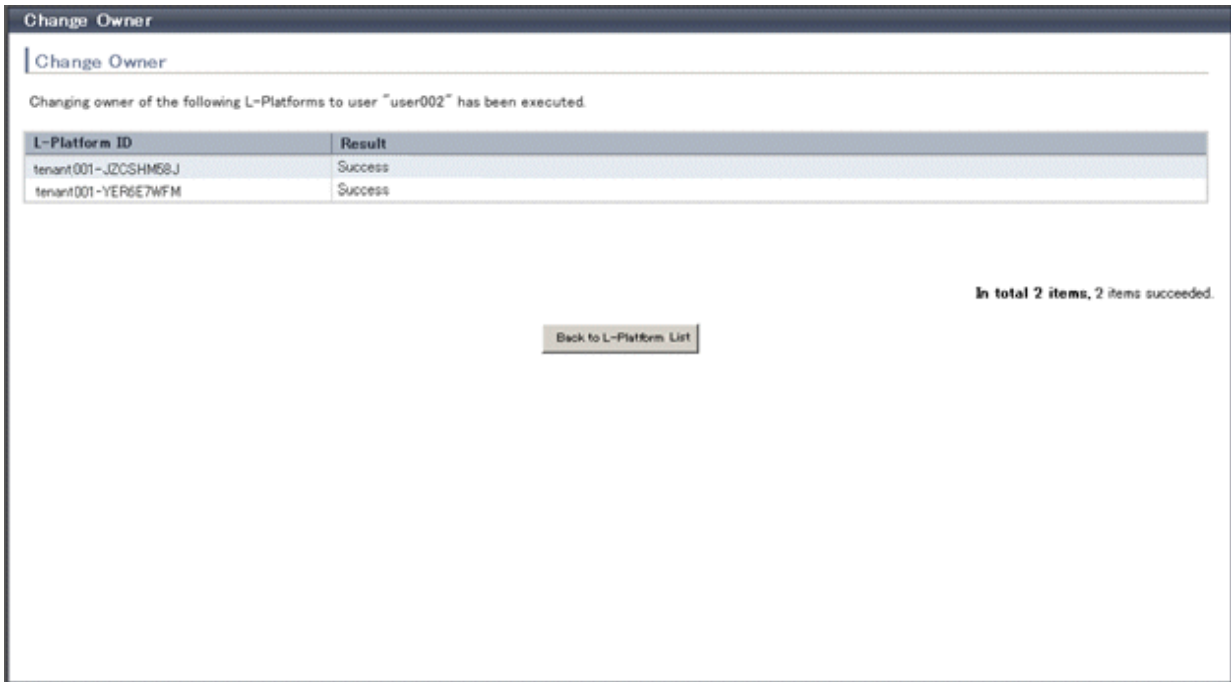
Perform the following steps to change an L-Platform owner:

1. In the **L-Platform List** window, select one or more target L-Platforms, and then click the **Change owner** button. The **Change Owner** window is displayed.
2. In the **Change Owner** window, select the new owner.

Item	Explanation
New owner	Select the new owner from amongst the tenant users.
Changing L-Platform List	The L-Platforms for which the owner is being changed are displayed in a list.

3. Click the **Confirm** button. The confirmation window is displayed.

4. Check the contents being changed, and then click the **Change** button.
The modification results are displayed in the completion window.



5. Click the **Back to L-Platform List** button to return to the **L-Platform List** window.

Note

- Owner change fails for L-Platforms in the following states:
 - While start or stop is in progress for servers in the L-Platform
 - During states other than normal operation, such as during L-Platform reconfiguration
 - During backup or restore of servers in the L-Platform
 - While an L-Server in the L-Platform is being copied
 - If processing is not yet completed for an application process
 - If there are subscriptions for which the configuration has been saved

If the error message below is displayed, use the L-Platform ID to check the relevant L-Platform. Use the L-Platform management windows or similar to check if the relevant processing has finished, and then perform owner change again.

```
FAILURE : ILLEGAL_STATE ([Details message])
```

- The following error message is displayed if owner change is attempted for an L-Platform that is currently undergoing reconfiguration by a tenant user or the Tenant Administrator:

```
FAILURE : SYSTEM_LOCKED (System[%1] is locked by another user[%2:].)
```

%1: L-Platform ID
%2: Locked user ID

If this message is displayed, notify the user indicated by the user ID displayed in the message to complete or cancel the current reconfiguration operation using the L-Platform management window.

If the relevant user does not have an L-Platform management window displayed, the reconfiguration processing may have been interrupted.

Ask the relevant tenant user or Tenant Administrator to perform the following steps:

1. From the operations menu of the **L-Platform Management** window, select **Management**.
2. From the displayed L-Platform list, select the relevant L-Platform, and then click the **Details** button.
3. On the displayed System Details page, click the **Reconfigure** button.
4. The message below is displayed. When **Obtain the lock on a mandatory basis** is selected, reconfiguration is cancelled.

The L-Platform is locked by another user.
After obtaining the lock on a mandatory basis, the operation can be continued.

After the above actions are taken, perform owner change again.

- When performing L-Platform owner change, stop access from the tenant side by isolating the network, or similar, so that inconsistencies do not arise in L-Platform use and cancellation.

8.14 Moving an L-Platform

The **Move L-Platform** window can be used to move L-Platforms to a different tenant. Up to 100 L-Platforms can be moved at one time.

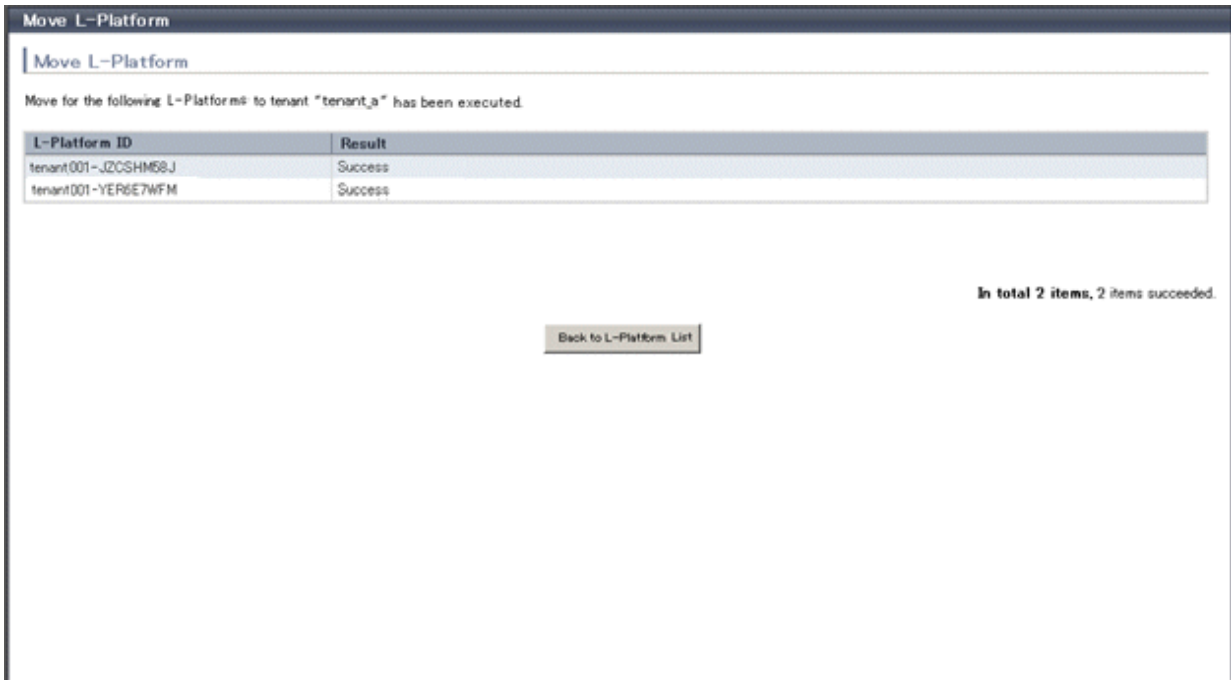
Perform the following steps to move an L-Platform:

1. On the **L-Platform List** window, select one or more target L-Platforms, and then click the **Move** button.
The **Move L-Platform** window is displayed.
2. In the **Move L-Platform** window, select the movement destination tenant.

Item	Explanation
Current tenant	Displays the tenant where the L-Platform is currently
Destination tenant	Select the tenant that is the movement destination of the L-Platform.
Moving L-Platform List	The L-Platforms being moved are displayed in a list.

3. Click the **Confirm** button.
The confirmation window is displayed.

4. Check the contents being moved, and then click the **Move** button.
The movement results are displayed in the completion screen.



5. Click the **Back to L-Platform List** button to return to the **L-Platform List** window.

Note

- Perform one of the following operations if the owner of the moved L-Platform is at a different tenant:
 - Use the [Move User window](#) to move the relevant user to the movement destination tenant.
 - Use the [Change Owner window](#) to change the L-Platform owner to a user in the movement destination tenant.
- The following L-Platforms cannot be moved:
 - L-Platforms that are using tenant pool resources
 - L-Platforms that include a firewall

The following error message is displayed if the above L-Platform movement is attempted.

```
FAILURE: RESOURCE_IS_IRREMOVABLE (Cant move the system. [System-ID: System ID][Reason: Reason])
```

- L-Platform movement fails for L-Platforms in the following states:
 - While servers in the L-Platform are not stopped
 - While start or stop is in progress for servers in the L-Platform
 - During states other than normal operation, such as during L-Platform reconfiguration
 - During backup or restore of servers in the L-Platform
 - While an L-Server in the L-Platform is being copied
 - If processing is not yet completed for an application process
 - If there are subscriptions for which the configuration has been saved

If the error message below is displayed, use the L-Platform ID to check the relevant L-Platform. Use the L-Platform management windows or similar to check if the relevant processing has finished, and then perform L-Platform movement again.

```
FAILURE : ILLEGAL_STATE ([Details message])
```

- The following error message is displayed if L-Platform movement is attempted for an L-Platform that is currently undergoing reconfiguration by a tenant user or the Tenant Administrator:

```
FAILURE : SYSTEM_LOCKED (System[%1] is locked by another user[%2:].)
```

%1: L-Platform ID
%2: Locked user ID

If this message is displayed, notify the user indicated by the user ID displayed in the message to complete or cancel the current reconfiguration operation using the L-Platform management window.

If the relevant user does not have an L-Platform management window displayed, the reconfiguration processing may have been interrupted.

Ask the relevant tenant user or Tenant Administrator to perform the following steps:

1. From the operations menu of the **L-Platform Management** window, select **Management**.
2. From the displayed L-Platform list, select the relevant L-Platform, and then click the **Details** button.
3. On the displayed System Details page, click the **Reconfigure** button.
4. The message below is displayed. When **Obtain the lock on a mandatory basis** is selected, reconfiguration is cancelled.

```
The L-Platform is locked by another user.  
After obtaining the lock on a mandatory basis, the operation can be continued.
```

After the above actions are taken, perform L-Platform movement again.

- When performing L-Platform movement, stop access from the tenant side by isolating the network, or similar, so that inconsistencies do not arise in L-Platform use and cancellation.



Chapter 9 Account

This chapter explains account operations.

9.1 Referencing User Information

The **Account** window can be used to display the user information of logged in users. Perform the following operations to view user information.

1. Select the **Account** link on the ROR Console.
The **Account** window is displayed in a new window.



The screenshot shows a web interface for user account management. At the top, there are instructions: "To modify your account, click [Modify account] button. To change your password, click [Change password] button." Below this, there are two rows of information: "User ID" with the value "infra_admin" and "Role" with the value "infra_admin". A section titled "Personal Information" follows, containing an "E-mail address" field with the value "infra_admin@example.com". At the bottom right, there are three buttons: "Close", "Modify account", and "Change password".

Item	Explanation
User ID	Displays the user ID of the user
Role	Displays the user's role
Personal Information	
E-mail address	Displays the user's email address
Modify account button	When clicked, displays the Modify account window used to change user information
Change password button	When clicked, displays the Change password window used to change a password

Note

With some directory services operation settings, the **Modify account** and **Change password** buttons may not be displayed. Directory services operation settings are set by the System Administrator.

2. Click the **Close** button to close the **Account** window.

9.2 Changing User Information

The **Modify account** window can be used to change the user information of a logged in user. Perform the following operations to change the user information:

1. Click the **Modify account** button on the **Account** window.
The **Modify account** window is displayed.

2. On the **Modify account** window, edit the values of the items to be changed.

Input changed user information, and click [Confirm] button.

User ID	infra_admin	ID of this user. You can not change this item.
Role	infra_admin	Role of this user.

Personal Information

E-mail address	<input type="text" value="infra_admin@example.com"/>	Enter an E-mail address which information will be sent to.
----------------	--	--

Item	Explanation
User ID	Displays the user ID of the user. This cannot be changed.
Role	Displays the user's role. This cannot be changed.
Personal Information	
E-mail address	Specify the user's email address in up to 64 characters.

3. Click the **Confirm** button.
4. The window for confirming changed content is displayed. Check the values, and then click the **Modify** button. To change the values again, click the **Back** button to return to the **Modify account** window.
5. Once the **Modify** button is clicked, the user information is updated and the modification completion window is displayed.
6. Click the **Back to Account** button to return to the **Account** window.

9.3 Changing Passwords

The **Change password** window can be used to change the password of a logged in user. Perform the following operations to change a password:

1. Click the **Change password** button on the **Account** window. The **Change password** window is displayed.

Input current password and new password, then click [Change] button.

Current password *	<input type="password" value="●●●●●●●●"/>	Enter current password. * Required field
New password *	<input type="password" value="●●●●●●●●"/>	Enter a password in 8 - 64 alphanumeric characters and symbols. The password is case-sensitive.
New password (confirm) *	<input type="password" value="●●●●●●●●"/>	Enter the password again for confirmation.

Item	Explanation
Current password	Enter the current password. This specification is mandatory.
New password	Enter the new password. Specify between 8 and 64 characters using single-byte alphanumeric characters and symbols. The password is case-sensitive. This specification is mandatory.

Item	Explanation
New password (confirm)	Re-enter the new password for confirmation purposes. This input is mandatory.

2. Enter the current password and the new password, and then click the **Change** button. The password is changed and the modification completion window is displayed.
3. Click the **Back to Account** button to return to the **Account** window.

Appendix A Using Commands to Register and Delete L-Platform Templates

This chapter explains the procedures for registering and deleting L-Platform templates using commands.

The only L-Platform templates that can be registered and deleted using commands are the global templates.

A.1 Registering L-Platform Templates

This section explains the procedure for registering L-Platform templates using commands.

Refer to "L-Platform Template Management Commands" in the "Reference Guide CE" for information on the different sets of information and the commands.

A.1.1 Procedure for Registering L-Platform Templates

The Infrastructure Administrator registers the information as needed to make it possible to use the L-Platform templates.

The following shows the types of information that need to be registered:

1. [Software Information](#)
2. [Image Information](#)
3. [Segment Information](#)
4. [Template Information](#)



Do the following to check whether the commands have correctly registered and set the information.

- Check the return value.

A return value of 0 indicates normal termination.

A return value of anything other than 0 indicates an error and an error message will be output. Or,

- Use the following commands to display the corresponding information.

Command for registering or setting	Display Command
Software information registration (cfmg_addsoft)	Software information list display (cfmg_listsoft)
Image information registration (cfmg_addimageinfo)	Display a list of image information (cfmg_listimageinfo)
Segment registration (cfmg_addnetinfo)	Segment list display (cfmg_listnetinfo)
Template information registration (cfmg_addtemplate)	Display a list of template information (cfmg_listtemplate)

Software Information

Use the following procedure to register information for software included in the image used by the L-Platform template.

1. Create a software information file (XML file) that lists the configuration information for the software included in the image.

It is also possible to use software information that has already been registered. Refer to "Registered Software IDs" in the "Reference Guide CE" for details.

Refer to "Software Information" in the "Reference Guide CE" for information on software information.

2. Register software information using the software information registration (cfmg_addsoft) command.

Register one piece of software information for each type of software (i.e., create different pieces of software information for each type of software being used).

Image Information

Use the following procedure to register information for images included in the image used by the L-Platform template.

1. Use the image list display command (cfmg_listvmimage) to check images that are already registered.
2. Create an image information file (XML file).

Model files have been prepared for your reference.

Refer to "Image Information" in the "Reference Guide CE" for information on the storage location for model files and image information.

3. Register image information with the Image information registration (cfmg_addimageinfo) command.

Segment Information

When restrictions are to be placed on the network resource to be used with this product, use the following procedure to register segment information.

1. Use the network resource list display command (cfmg_listvnet) to check network resources that are already registered.

Make a note of the resource ID in the <networks> -> <network> -> <id> tag.

2. Create a segment information file (XML file).

Use the resource ID noted in step 1 for the <id> tag.

Refer to "Segment Information" in the "Reference Guide CE" for information on segment information.

3. Register segment information with the Segment registration (cfmg_addnetinfo) command.

Note

- If segment information has not been registered, all registered network resources are targeted for deployment. If "Automatic" is specified for deployment destination network resources, the deployment destination is selected from all network resources.
- If segment information is registered, register segment information for all network resources used by the L-Platform template.
If "Automatic" is specified for deployment destination network resources, the deployment destination is selected from the network resources for which "Business" is specified.

Template Information

Use the following procedure to register template information.

1. Use the following commands to check the information used in the template information.
 - Segment information: Segment list display (cfmg_listnetinfo) command
 - Image information : Image information list display (cfmg_listimageinfo) command

2. Create a template information file (XML file).

Model files have been prepared for your reference.

Refer to "Template information" in the "Reference Guide CE" for information on the storage location for model files and template information.

3. Use the Template information registration (cfmg_addtemplate) command to register template information.

4. The default publication setting for L-Platform templates is "Hidden".

If you want to publish an L-Platform template, the L-Platform template publication setting command (cfmg_showtemplate) must be used to change the publication setting.

Refer to "cfmg_showtemplate (Changing L-Platform Access Setting)" in the "Reference Guide CE" for information on this command.

Note

- There is no effect on deployed L-Platform even if the publication settings of the L-Platform template being used by a deployed L-Platform are changed to "Hidden".
- If it is ever necessary for deployment to be canceled, it is possible to change the setting for the L-Platform template for that deployment to "Hidden".

A.2 Deleting L-Platform Templates

This section explains the procedure for deleting L-Platform templates using commands.

Refer to "L-Platform Template Management Commands" in the "Reference Guide CE" for information on the different sets of information and the commands.

A.2.1 Procedure for Deleting L-Platform Templates

The Infrastructure Administrator can delete information as required.

1. [Template Information](#)
2. [Segment Information](#)
3. [Image Information](#)
4. [Software Information](#)

Note

- If the following information is associated with multiple template information files, delete all the associated template information files before deleting the other information files.
 - Image information files
 - Segment information
- Before deleting a software information file, delete all of the associated image information files.
- Do not delete template information that are being used in a deployed L-Platform.

Point

Do the following to check whether the commands have correctly deleted the information.

- Check the return value.

A return value of 0 indicates normal termination.

A return value of anything other than 0 indicates an error and an error message will be output. Or,
- Use the following commands to display the corresponding information.

Delete command	Display Command
Template information deletion (cfmg_deletetemplate)	Display a list of template information (cfmg_listtemplate)
Segment deletion (cfmg_deletenetinfo)	Segment list display (cfmg_listnetinfo)
Image information deletion (cfmg_deleteimageinfo)	Display a list of image information (cfmg_listimageinfo)
Software information deletion (cfmg_deletesoft)	Software information list display (cfmg_listsoft)

Template Information

Use the following procedure to delete template information.

1. Check the L-Platform template name displayed at **L-Platform Management > L-Platform Management** in the **L-Platform** tab screen of the ROR Console, and check that the template information to be deleted is not being used by a deployed L-Platform.
Use the Template information list display (cfmg_listtemplate) command, and take a note of the name of the L-Platform template ID that corresponds to the L-Platform template name in step 1.
2. If the publication settings are "Published", the template information cannot be deleted.
Use the L-Platform template publication settings (cfmg_showtemplate) command to change the publication settings to "Hidden".
Refer to "cfmg_showtemplate (Changing L-Platform Access Setting)" in the "Reference Guide CE" for information on this command.
3. Use the Template information deletion (cfmg_deletetemplate) command to delete the template information specified with the L-Platform template ID noted in step 1.

Segment Information

Use the following procedure to delete segment information.

1. Use the Template information list display (cfmg_listtemplate -v) command to output a list of template information, and use this to see if the segment configuration information to be deleted is associated with template information in the <template> -> <vnets> -> <vnet> -> <id> tag.
2. Use the Segment deletion (cfmg_deletenetinfo) command to delete the segment information.

Image Information

Use the following procedure to delete image information.

1. Use the Template information list display (cfmg_listtemplate -v) command to output a list of template information, and use this to see if the image information to be deleted is associated with template information in the <template> -> <servers> -> <server> -> <imageId> tag.
2. Use the Delete image information command (cfmg_deleteimageinfo) to delete the image information.

Software Information

Use the following procedure to delete software information.

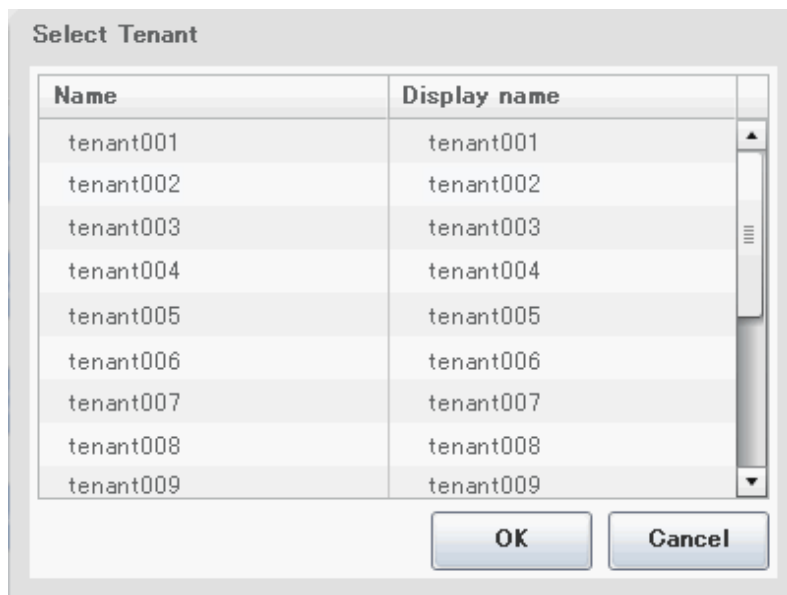
1. Use the Image information list display (cfmg_listimageinfo -v) command to output a list of image information, and use this to see if the software information to be deleted is associated with image information in the <image> -> <softwares> -> <software> -> <id> tag.
2. Use the Software information deletion (cfmg_deletesoft) command to delete the software information.

Appendix B Applying (Subscribe) for L-Platform Usage by Dual-Role Administrators

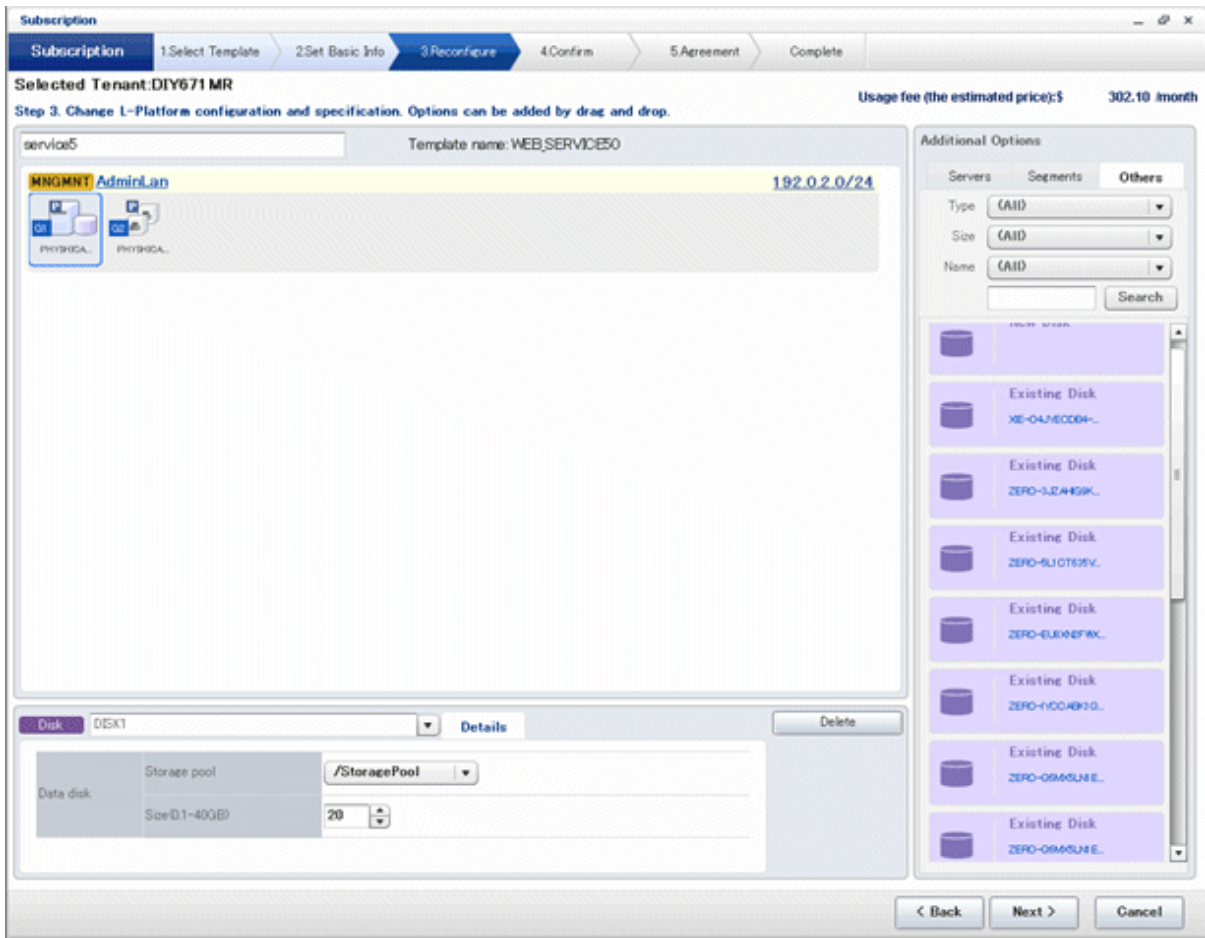
This chapter explains L-Platform usage applications by dual-role administrators.

L-Platform usage applications, which normally cannot be made by the Infrastructure Administrator, can be made if the administrator has dual roles.

At that time, a deployment destination tenant must be selected. When the L-Platform template that is to be used is selected, the next window is displayed. Select the deployment destination tenant, and then click the **OK** button.



The selected tenant name is displayed in the Step. upper part on subsequent **Subscription** windows.



Refer to "Subscribe to an L-Platform" in the "User's Guide for Tenant Administrators" for details on subscribe L-Platform.

Appendix C Tenant Operation by Dual-Role Administrators

This chapter explains tenant operation by dual-role administrators.

Follow the steps below to do tenant operation.

1. Display the Server List page.

Refer to "6.2.1 L-Platform Management Display Page" for information on how to display the page.

2. Click the **Tenant operation** button

Tenant operation page will be displayed.

To specify all tenants, select [All]. Or to select tenant, select [specify tenant] and click a row in the table. For multi selection, click a row with ctrl key.

Name	Display name
tenant001	tenant001
tenant002	tenant002
tenant003	tenant003
tenant004	tenant004
tenant005	tenant005
tenant006	tenant006
tenant007	tenant007
tenant008	tenant008

3. Click **Start servers** button to start all servers in the tenant. Click **Stop servers** button to stop all servers in the tenant.

Note

Start or Stop servers failed in following conditions.

- There are deploying or reconfiguring L-Platforms in the tenant.
- There are servers in following conditions.
 - starting
 - stopping
 - taking backup
 - taking snapshot
 - restoring
 - cloning

Glossary

admin client

A terminal (PC) connected to an admin server, which is used to operate the GUI.

admin LAN

A LAN used to manage resources from admin servers.
It connects managed servers, storage, and network devices.

admin server

A server used to operate the manager software of Resource Orchestrator.

agent

The section (program) of Resource Orchestrator that operates on managed servers.

cloning

Creation of a copy of a system disk.

cloning image

A backup of a system disk, which does not contain server-specific information (system node name, IP address, etc.), made during cloning.
When deploying a cloning image to the system disk of another server, Resource Orchestrator automatically changes server-specific information to that of the target server.

Cloud Edition

The edition which can be used to provide private cloud environments.

directory service

A service for updating and viewing the names (and associated attributes) of physical/logical resource names scattered across networks, based on organizational structures and geographical groups using a systematic (tree-shaped structure) management methodology.

Domain

A system that is divided into individual systems using partitioning. Also used to indicate a partition.

Dual-Role Administrators

The administrators with both infrastructure administrator's and tenant administrator's role.

dynamic memory

A function that optimizes physical memory allocation for virtual machines, depending on their execution status on Hyper-V.

global pool

A resource pool that contains resources that can be used by multiple tenants.
It is located in a different location from the tenants.
By configuring a global pool with the attributes of a tenant, it becomes possible for tenant administrators to use the pool.

GUI (Graphical User Interface)

A user interface that displays pictures and icons (pictographic characters), enabling intuitive and easily understandable operation.

Hyper-V

Virtualization software from Microsoft Corporation.

Provides a virtualized infrastructure on PC servers, enabling flexible management of operations.

image file

A system image or a cloning image. Also a collective term for them both.

infrastructure administrator

A user who manages the resources comprising a data center.

infra_admin is the role that corresponds to the users who manage resources.

Infrastructure administrators manage all of the resources comprising a resource pool (the global pool and local pools), provide tenant administrators with resources, and review applications by tenant users to use resources.

LDAP (Lightweight Directory Access Protocol)

A protocol used for accessing Internet standard directories operated using TCP/IP.

LDAP provides functions such as direct searching and viewing of directory services using a web browser.

license

The rights to use specific functions.

Users can use specific functions by purchasing a license for the function and registering it on the manager.

local pool

A resource pool that contains resources that can only be used by a specific tenant.

They are located in tenants.

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-Platform template

A template that contains the specifications for servers, storage, network devices, and images that are configured for an L-Platform.

L-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.

An abbreviation of Logical Server.

L-Server template

A template that defines the number of CPUs, memory capacity, disk capacity, and other specifications for resources to deploy to an L-Server.

LUN (Logical Unit Number)

A logical unit defined in the channel adapter of a storage unit.

MAC address (Media Access Control address)

A unique identifier that is assigned to Ethernet cards (hardware).

Also referred to as a physical address.

Transmission of data is performed based on this identifier. Described using a combination of the unique identifying numbers managed by/assigned to each maker by the IEEE, and the numbers that each maker assigns to their hardware.

managed server

A collective term referring to a server that is managed as a component of a system.

manager

The section (program) of Resource Orchestrator that operates on admin servers. It manages and controls resources registered with Resource Orchestrator.

migration

The migration of a VM guest to a different VM host. The following two types of migration are available:

- Cold migration
Migration of an inactive (powered-off) VM guest.
 - Live migration
Migration of an active (powered-on) VM guest.
-

network device

The unit used for registration of network devices. L2 switches and firewalls fit into this category.

NIC (Network Interface Card)

An interface used to connect a server to a network.

OS

The OS used by an operating server (a physical OS or VM guest).

overcommit

A function to virtually allocate more resources than the actual amount of resources (CPUs and memory) of a server. This function is used to enable allocation of more disk resources than are mounted in the target server.

physical network adapter

An adapter, such as a LAN, to connect physical servers or VM hosts to a network.

physical OS

An OS that operates directly on a physical server without the use of server virtualization software.

physical server

The same as a "server". Used when it is necessary to distinguish actual servers from virtual servers.

primary server

The physical server that is switched from when performing server switchover.

private cloud

A private form of cloud computing that provides ICT services exclusively within a corporation or organization.

public LAN

A LAN used for operations by managed servers. Public LANs are established separately from admin LANs.

resource

General term referring to the logical definition of the hardware (such as servers, storage, and network devices) and software that comprise a system.

resource pool

A unit for management of groups of similar resources, such as servers, storage, and network devices.

role

A collection of operations that can be performed.

ROR console

The GUI that enables operation of all functions of Resource Orchestrator.

rule set

A collection of script lists for performing configuration of network devices, configured as combinations of rules based on the network device, the purpose, and the application.

server

A computer (operated with one operating system).

server name

The name allocated to a server.

server virtualization software

Basic software which is operated on a server to enable use of virtual machines. Used to indicate the basic software that operates on a PC server.

Single Sign-On

A system among external software which can be used without login operations, after authentication is executed once.

surrogate pair

A method for expressing one character as 32 bits.

In the UTF-16 character code, 0xD800 - 0xDBFF are referred to as "high surrogates", and 0xDC00 - 0xDFFF are referred to as "low surrogates". Surrogate pairs use "high surrogate" + "low surrogate".

system disk

The disk on which the programs (such as the OS) and files necessary for the basic functions of servers (including booting) are installed.

system image

A copy of the contents of a system disk made as a backup.

Different from a cloning image as changes are not made to the server-specific information contained on system disks.

tenant

A unit for the division and segregation of management and operation of resources based on organizations or operations.

tenant administrator

A user who manages the resources allocated to a tenant.

tenant_admin is the role for performing management of resources allocated to a tenant.

Tenant administrators manage the available space on resources in the local pools of tenants, and approve or reject applications by tenant users to use resources.

tenant folder

A resource folder that is created for each tenant, and is used to manage the resources allocated to a tenant.

L-Servers and local pools are located in tenant folders. Also, it is possible to configure a global pool that tenant administrators can use.

tenant user

A user who uses the resources of a tenant, or creates and manages L-Platforms, or a role with the same purpose.

URL (Uniform Resource Locator)

The notational method used for indicating the location of information on the Internet.

virtual server

A virtual server that is operated on a VM host using a virtual machine.

VM (Virtual Machine)

A virtual computer that operates on a VM host.

VMware

Virtualization software from VMware Inc.

Provides a virtualized infrastructure on PC servers, enabling flexible management of operations.

Web browser

A software application that is used to view Web pages.

Xen

A type of server virtualization software.