

# **FUJITSU Software**

## **ServerView Resource Orchestrator**

### **Cloud Edition V3.2.0**

A decorative horizontal band with a red-to-dark-red gradient, featuring abstract white and light red curved lines and glowing points of light.

## **User's Guide**

### **for Tenant Users**

Windows/Linux

J2X1-7615-07ENZ0(06)  
December 2016

# Preface

---

## Purpose of This Document

This manual provides an outline of FUJITSU Software ServerView Resource Orchestrator Cloud Edition (hereinafter Resource Orchestrator) and the operations and settings required for setup.

## Intended Readers

This document is intended for Tenant user who use the resources of a tenant that they own.

## Structure of This Document

This manual is composed as follows:

### [Chapter 1 Overview](#)

Explains an overview of the ROR console.

### [Chapter 2 Login and Logout](#)

Explains how to log in and out of the ROR console.

### [Chapter 3 Home](#)

Explains the ROR console Home window display.

### [Chapter 4 System Conditions](#)

Explains how to monitor system conditions.

### [Chapter 5 L-Platform](#)

Explains how to manage L-Platforms and display the event logs.

### [Chapter 6 Request](#)

Explains how to operate the application list.

### [Chapter 7 Account](#)

Explains how to perform account operations.

### [Appendix A Emails Sent during L-Platform Operations](#)

Describes the flow and content of emails sent during L-Platform operations.

## Web Site URLs

URLs provided as reference sources within the main text are correct as of December 2016.

## Document Conventions

The notation in this manual conforms to the following conventions.

- When there is different information for the different versions of Resource Orchestrator, it is indicated as follows:

|                   |                                     |
|-------------------|-------------------------------------|
| [All Editions]    | Sections relevant for all editions  |
| [Cloud Edition]   | Sections related to Cloud Edition   |
| [Virtual Edition] | Sections related to Virtual Edition |

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

|                              |   |
|------------------------------|---|
| [Windows Manager]            | Sections related to Windows manager   |
| [Linux Manager]              | Sections related to Linux manager   |
| [Windows]                    | Sections related to Windows   |
| [Linux]                      | Sections related to Linux   |
| [Red Hat Enterprise Linux]   | Sections related to Red Hat Enterprise Linux                                      |
| [Solaris]                    | Sections related to Solaris   |
| [VMware]                     | Sections related to VMware  |
| [Horizon View]               | Sections related to VMware Horizon View   |
| [Hyper-V]                    | Sections related to Hyper-V   |
| [Xen]                        | Sections related to RHEL5-Xen   |
| [KVM]                        | Sections related to RHEL-KVM  |
| [Solaris Zones]              | Sections related to Solaris Zones (Solaris 10) and Solaris Zones (Solaris 11)     |
| [Solaris Zones (Solaris 10)] | Sections related to Solaris Zones with Solaris 10 VM hosts                        |
| [Solaris Zones (Solaris 11)] | Sections related to Solaris Zones with Solaris 11 VM hosts                        |
| [OVM for x86]                | Sections related to Oracle VM Server for x86 2.2 and Oracle VM Server for x86 3.x |
| [OVM for x86 2.2]            | Sections related to Oracle VM Server for x86 2.2                                  |
| [OVM for x86 3.x]            | Sections related to Oracle VM Server for x86 3.2 and Oracle VM Server for x86 3.3 |
| [OVM for SPARC]              | Sections related to Oracle VM Server for SPARC                                    |
| [Citrix Xen]                 | Sections related to Citrix XenServer  |
| [Physical Servers]           | Sections related to physical servers  |

- Unless specified otherwise, the blade servers mentioned in this manual refer to PRIMERGY BX servers.
- Oracle Solaris may also be indicated as Solaris, Solaris Operating System, or Solaris OS.
- Oracle Solaris Zones may also be indicated as Solaris Containers or Solaris Container.
- Oracle VM Server for x86 may also be indicated as Oracle VM.
- In Resource Orchestrator, the following servers are referred to as SPARC Enterprise.
  - SPARC Enterprise M3000/M4000/M5000/M8000/M9000
  - SPARC Enterprise T5120/T5140/T5220/T5240/T5440
- In Resource Orchestrator, the following servers are referred to as SPARC M10.
  - SPARC M10-1/M10-4/M10-4S
- Fujitsu M10 is the product name used for SPARC M10 when they are sold outside Japan.
- References and character strings or values requiring emphasis are indicated using double quotes ( " ).
- GUI items are shown enclosed by brackets ( [ ] ).
- The order of selecting menus is indicated using [ ]-[ ].
- Text to be entered by the user is indicated using bold text.
- Variables are indicated using italic text and underscores.
- The ellipses ("...") in menu names, indicating settings and operation window startup, are not shown.
- The ">" used in Windows is included in usage examples. When using Linux, read ">" as meaning "#".

- When using Resource Orchestrator on Windows 8 and Windows Server 2012, please note the following.  
When OS operations are explained in this manual, the examples assume OSs up to Windows 7 and Windows Server 2008. When using Resource Orchestrator on Windows 8 or Windows Server 2012, take explanations regarding the [Start] menu as indicating the [Apps] screen.  
The [Apps] screen can be displayed by right-clicking on the [Start] screen and then right-clicking [All apps].
- When using Resource Orchestrator on Windows 8.1 and Windows Server 2012 R2, please note the following.  
When OS operations are explained in this manual, the examples assume OSs up to Windows 7 and Windows Server 2008. When using Resource Orchestrator on Windows 8.1 or Windows Server 2012 R2, take explanations regarding the [Start] menu as indicating the [Apps] screen.  
The [Apps] screen can be displayed by swiping the [Start] screen from bottom to top, or clicking the downward facing arrow on the lower-left of the [Start] screen.

## Menus in the ROR console

Operations on the ROR console can be performed using either the menu bar or pop-up menus.

By convention, procedures described in this manual only refer to pop-up menus.

## Regarding Installation Folder Paths

The installation folder path may be given as C:\Fujitsu\ROR in this manual.

Replace it as shown below.

[Virtual Edition]

- When using Windows 64-bit (x64)  
C:\Program Files (x86)\Resource Orchestrator
- When using Windows 32-bit (x86)  
C:\Program Files\Resource Orchestrator

[Cloud Edition]

C:\Program Files (x86)\Resource Orchestrator

## Command Examples

The paths used in command examples may be abbreviated. When using commands, execute them using the paths in the "Name" column in the "Reference Guide (Command) VE" and the "Reference Guide (Command/XML) CE".

## Abbreviations

The following abbreviations are used in this manual:

| Abbreviation | Products   |
|--------------|--|
| Windows      | Microsoft(R) Windows Server(R) 2003 R2, Standard Edition<br>Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition<br>Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition<br>Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition<br>Microsoft(R) Windows Server(R) 2008 Standard<br>Microsoft(R) Windows Server(R) 2008 Enterprise<br>Microsoft(R) Windows Server(R) 2008 R2 Standard<br>Microsoft(R) Windows Server(R) 2008 R2 Enterprise<br>Microsoft(R) Windows Server(R) 2008 R2 Datacenter<br>Microsoft(R) Windows Server(R) 2012 Standard<br>Microsoft(R) Windows Server(R) 2012 Datacenter<br>Microsoft(R) Windows Server(R) 2012 R2 Essentials |

| Abbreviation             | Products   |
|--------------------------|--|
|                          | Microsoft(R) Windows Server(R) 2012 R2 Standard<br>Microsoft(R) Windows Server(R) 2012 R2 Datacenter<br>Windows Vista(R) Business<br>Windows Vista(R) Enterprise<br>Windows Vista(R) Ultimate<br>Windows(R) 7 Professional<br>Windows(R) 7 Ultimate<br>Windows(R) 8 Pro<br>Windows(R) 8 Enterprise<br>Windows(R) 8.1 Pro<br>Windows(R) 8.1 Enterprise  |
| Windows Server 2003      | Microsoft(R) Windows Server(R) 2003 R2, Standard Edition<br>Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition<br>Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition<br>Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition   |
| Windows 2003 x64 Edition | Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition<br>Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition   |
| Windows Server 2008      | Microsoft(R) Windows Server(R) 2008 Standard<br>Microsoft(R) Windows Server(R) 2008 Enterprise<br>Microsoft(R) Windows Server(R) 2008 R2 Standard<br>Microsoft(R) Windows Server(R) 2008 R2 Enterprise<br>Microsoft(R) Windows Server(R) 2008 R2 Datacenter  |
| Windows 2008 x86 Edition | Microsoft(R) Windows Server(R) 2008 Standard (x86)<br>Microsoft(R) Windows Server(R) 2008 Enterprise (x86)   |
| Windows 2008 x64 Edition | Microsoft(R) Windows Server(R) 2008 Standard (x64)<br>Microsoft(R) Windows Server(R) 2008 Enterprise (x64)   |
| Windows Server 2012      | Microsoft(R) Windows Server(R) 2012 Standard<br>Microsoft(R) Windows Server(R) 2012 Datacenter<br>Microsoft(R) Windows Server(R) 2012 R2 Essentials<br>Microsoft(R) Windows Server(R) 2012 R2 Standard<br>Microsoft(R) Windows Server(R) 2012 R2 Datacenter  |
| Windows PE               | Microsoft(R) Windows(R) Preinstallation Environment  |
| Windows Vista            | Windows Vista(R) Business<br>Windows Vista(R) Enterprise<br>Windows Vista(R) Ultimate  |
| Windows 7                | Windows(R) 7 Professional<br>Windows(R) 7 Ultimate   |
| Windows 8                | Windows(R) 8 Pro<br>Windows(R) 8 Enterprise<br>Windows(R) 8.1 Pro<br>Windows(R) 8.1 Enterprise   |
| Windows 10               | Windows(R) 10 Pro<br>Windows(R) 10 Enterprise  |
| Linux                    | Red Hat(R) Enterprise Linux(R) AS (v.4 for x86)<br>Red Hat(R) Enterprise Linux(R) ES (v.4 for x86)<br>Red Hat(R) Enterprise Linux(R) AS (v.4 for EM64T)<br>Red Hat(R) Enterprise Linux(R) ES (v.4 for EM64T)<br>Red Hat(R) Enterprise Linux(R) AS (4.5 for x86)<br>Red Hat(R) Enterprise Linux(R) ES (4.5 for x86)<br>Red Hat(R) Enterprise Linux(R) AS (4.5 for EM64T)<br>Red Hat(R) Enterprise Linux(R) ES (4.5 for EM64T) |

| Abbreviation | Products  |
|--------------|---|
|              | Red Hat(R) Enterprise Linux(R) AS (4.6 for x86)           |
|              | Red Hat(R) Enterprise Linux(R) ES (4.6 for x86)           |
|              | Red Hat(R) Enterprise Linux(R) AS (4.6 for EM64T)         |
|              | Red Hat(R) Enterprise Linux(R) ES (4.6 for EM64T)         |
|              | Red Hat(R) Enterprise Linux(R) AS (4.7 for x86)           |
|              | Red Hat(R) Enterprise Linux(R) ES (4.7 for x86)           |
|              | Red Hat(R) Enterprise Linux(R) AS (4.7 for EM64T)         |
|              | Red Hat(R) Enterprise Linux(R) ES (4.7 for EM64T)         |
|              | Red Hat(R) Enterprise Linux(R) AS (4.8 for x86)           |
|              | Red Hat(R) Enterprise Linux(R) ES (4.8 for x86)           |
|              | Red Hat(R) Enterprise Linux(R) AS (4.8 for EM64T)         |
|              | Red Hat(R) Enterprise Linux(R) ES (4.8 for EM64T)         |
|              | 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)              |
|              | 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) 5.8 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 5.8 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 5.9 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 5.9 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 5.10 (for x86)             |
|              | Red Hat(R) Enterprise Linux(R) 5.10 (for Intel64)         |
|              | Red Hat(R) Enterprise Linux(R) 5.11 (for x86)             |
|              | Red Hat(R) Enterprise Linux(R) 5.11 (for Intel64)         |
|              | Red Hat(R) Enterprise Linux(R) 6 (for x86)                |
|              | Red Hat(R) Enterprise Linux(R) 6 (for Intel64)            |
|              | Red Hat(R) Enterprise Linux(R) 6.1 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 6.2 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 6.3 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 6.4 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 6.5 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 6.6 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 6.6 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 6.7 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 6.7 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 6.8 (for x86)              |
|              | Red Hat(R) Enterprise Linux(R) 6.8 (for Intel64)          |
|              | Red Hat(R) Enterprise Linux(R) 7.0 (for Intel64)          |
|              | SUSE(R) Linux Enterprise Server 10 Service Pack 2 for x86 |

| Abbreviation             | Products  |
|--------------------------|---|
|                          | <p>SUSE(R) Linux Enterprise Server 10 Service Pack 2 for EM64T<br/> SUSE(R) Linux Enterprise Server 10 Service Pack 3 for x86<br/> SUSE(R) Linux Enterprise Server 10 Service Pack 3 for EM64T<br/> SUSE(R) Linux Enterprise Server 11 for x86<br/> SUSE(R) Linux Enterprise Server 11 for EM64T<br/> SUSE(R) Linux Enterprise Server 11 Service Pack 1 for x86<br/> SUSE(R) Linux Enterprise Server 11 Service Pack 1 for EM64T<br/> Oracle Enterprise Linux Release 6.7 for x86 (32bit)<br/> Oracle Enterprise Linux Release 6.7 for 86_64 (64bit)<br/> Oracle Enterprise Linux Release 7.2 for x86 (32bit)<br/> Oracle Enterprise Linux Release 7.2 for x86_64 (64bit)</p>   |
| Red Hat Enterprise Linux | <p>Red Hat(R) Enterprise Linux(R) AS (v.4 for x86)<br/> Red Hat(R) Enterprise Linux(R) ES (v.4 for x86)<br/> Red Hat(R) Enterprise Linux(R) AS (v.4 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) ES (v.4 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) AS (4.5 for x86)<br/> Red Hat(R) Enterprise Linux(R) ES (4.5 for x86)<br/> Red Hat(R) Enterprise Linux(R) AS (4.5 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) ES (4.5 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) AS (4.6 for x86)<br/> Red Hat(R) Enterprise Linux(R) ES (4.6 for x86)<br/> Red Hat(R) Enterprise Linux(R) AS (4.6 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) ES (4.6 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) AS (4.7 for x86)<br/> Red Hat(R) Enterprise Linux(R) ES (4.7 for x86)<br/> Red Hat(R) Enterprise Linux(R) AS (4.7 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) ES (4.7 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) AS (4.8 for x86)<br/> Red Hat(R) Enterprise Linux(R) ES (4.8 for x86)<br/> Red Hat(R) Enterprise Linux(R) AS (4.8 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) ES (4.8 for EM64T)<br/> Red Hat(R) Enterprise Linux(R) 5 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.1 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.1 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.2 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.2 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.3 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.4 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.5 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.5 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.6 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.6 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.7 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.7 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.8 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.8 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.9 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.9 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.10 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.10 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 5.11 (for x86)<br/> Red Hat(R) Enterprise Linux(R) 5.11 (for Intel64)<br/> Red Hat(R) Enterprise Linux(R) 6 (for x86)</p> |

| Abbreviation               | Products   |
|----------------------------|--|
|                            | Red Hat(R) Enterprise Linux(R) 6 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.1 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.2 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.3 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.4 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.5 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.6 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.6 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.7 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.7 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.8 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.8 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 7.0 (for Intel64)   |
| Red Hat Enterprise Linux 5 | Red Hat(R) Enterprise Linux(R) 5 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.1 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.1 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.2 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.2 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.3 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.4 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.5 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.5 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.6 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.6 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.7 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.7 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.8 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.8 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.9 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.9 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.10 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.10 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 5.11 (for x86)<br>Red Hat(R) Enterprise Linux(R) 5.11 (for Intel64) |
| Red Hat Enterprise Linux 6 | Red Hat(R) Enterprise Linux(R) 6 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.1 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.2 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.3 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.4 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.5 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.6 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.6 (for Intel64)   |



| Abbreviation               | Products   |
|----------------------------|--|
|                            | Red Hat(R) Enterprise Linux(R) 6.7 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.7 (for Intel64)<br>Red Hat(R) Enterprise Linux(R) 6.8 (for x86)<br>Red Hat(R) Enterprise Linux(R) 6.8 (for Intel64)   |
| Red Hat Enterprise Linux 7 | Red Hat(R) Enterprise Linux(R) 7.0 (for Intel64)   |
| RHEL5-Xen                  | Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) Linux Virtual Machine Function   |
| RHEL-KVM                   | Red Hat(R) Enterprise Linux(R) 6.1 (for x86) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.2 (for x86) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.3 (for x86) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.4 (for x86) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.5 (for x86) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.6 (for x86) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.6 (for Intel64) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.7 (for x86) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.7 (for Intel64) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.8 (for x86) Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 6.8 (for Intel64) Virtual Machine Function |
| Xen                        | Citrix XenServer(R) 5.5<br>Citrix Essentials(TM) for XenServer 5.5, Enterprise Edition<br>Citrix XenServer(R) 6.0<br>Citrix Essentials(TM) for XenServer 6.0, Enterprise Edition<br>Red Hat(R) Enterprise Linux(R) 5.3 (for x86) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.5 (for x86) Linux Virtual Machine Function  |

| Abbreviation                 | Products  |                                 |
|------------------------------|---|---------------------------------|
|                              | Red Hat(R) Enterprise Linux(R) 5.5 (for Intel64) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.6 (for x86) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.6 (for Intel64) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.7 (for x86) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.7 (for Intel64) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.8 (for x86) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.8 (for Intel64) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.9 (for x86) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.9 (for Intel64) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.10 (for x86) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.10 (for Intel64) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.11 (for x86) Linux Virtual Machine Function<br>Red Hat(R) Enterprise Linux(R) 5.11 (for Intel64) Linux Virtual Machine Function |                                 |
| XenServer 6                  | Citrix XenServer(R) 6.0<br>Citrix Essentials(TM) for XenServer 6.0, Enterprise Edition  |                                 |
| DOS                          | Microsoft(R) MS-DOS(R) operating system, DR DOS(R)  |                                 |
| SUSE Linux Enterprise Server | SUSE(R) Linux Enterprise Server 10 Service Pack 2 for x86<br>SUSE(R) Linux Enterprise Server 10 Service Pack 2 for EM64T<br>SUSE(R) Linux Enterprise Server 10 Service Pack 3 for x86<br>SUSE(R) Linux Enterprise Server 10 Service Pack 3 for EM64T<br>SUSE(R) Linux Enterprise Server 11 for x86<br>SUSE(R) Linux Enterprise Server 11 for EM64T<br>SUSE(R) Linux Enterprise Server 11 Service Pack 1 for x86<br>SUSE(R) Linux Enterprise Server 11 Service Pack 1 for EM64T  |                                 |
| Oracle Enterprise Linux      | Oracle Enterprise Linux Release 6.7 for x86 (32bit)<br>Oracle Enterprise Linux Release 6.7 for 86_64 (64bit)<br>Oracle Enterprise Linux Release 7.2 for x86 (32bit)<br>Oracle Enterprise Linux Release 7.2 for x86_64 (64bit)   |                                 |
| Solaris                      | Oracle Solaris 10 05/09 (Update7)<br>Oracle Solaris 11 11/11<br>Oracle Solaris 11.1<br>Oracle Solaris 11.2  |                                 |
| OVM for x86 2.2              | Oracle(R) VM Server for x86 2.2   |                                 |
| OVM for x86 3.x              | OVM for x86 3.2   | Oracle VM Server for x86 v3.2.x |
|                              | OVM for x86 3.3   | Oracle VM Server for x86 v3.3.x |
| OVM for SPARC                | Oracle(R) VM Server for SPARC   |                                 |
| Oracle VM Manager            | Oracle(R) VM Manager  |                                 |
| Citrix XenServer             | Citrix XenServer(R) 6.0<br>Citrix XenServer(R) 6.0.2  |                                 |

| Abbreviation                 | Products   |
|------------------------------|--|
|                              | Citrix XenServer(R) 6.1.0<br>Citrix XenServer(R) 6.2.0   |
| ESC                          | ETERNUS SF Storage Cruiser   |
| GLS                          | PRIMECLUSTER GLS   |
| Navisphere                   | EMC Navisphere Manager   |
| Solutions Enabler            | EMC Solutions Enabler  |
| MSFC                         | Microsoft Failover Cluster   |
| Solaris                      | Oracle Solaris 10 05/09 (Update7)<br>Oracle Solaris 11 11/11<br>Oracle Solaris 11.1<br>Oracle Solaris 11.2                                   |
| SCVMM                        | System Center Virtual Machine Manager 2008 R2<br>System Center 2012 Virtual Machine Manager<br>System Center 2012 R2 Virtual Machine Manager |
| VMware                       | VMware vSphere(R) 4<br>VMware vSphere(R) 4.1<br>VMware vSphere(R) 5<br>VMware vSphere(R) 5.1<br>VMware vSphere(R) 5.5<br>VMware vSphere(R) 6 |
| VMware ESX                   | VMware(R) ESX(R)   |
| VMware ESX 4                 | VMware(R) ESX(R) 4   |
| VMware ESXi                  | VMware(R) ESXi(TM)   |
| VMware ESXi 5.0              | VMware(R) ESXi(TM) 5.0   |
| VMware ESXi 5.1              | VMware(R) ESXi(TM) 5.1   |
| VMware ESXi 5.5              | VMware(R) ESXi(TM) 5.5   |
| VMware ESXi 6.0              | VMware(R) ESXi(TM) 6.0   |
| VMware Infrastructure Client | VMware(R) Infrastructure Client  |
| VMware Tools                 | VMware(R) Tools  |
| VMware vSphere 4.0           | VMware vSphere(R) 4.0  |
| VMware vSphere 4.1           | VMware vSphere(R) 4.1  |
| VMware vSphere 5             | VMware vSphere(R) 5  |
| VMware vSphere 5.1           | VMware vSphere(R) 5.1  |
| VMware vSphere 5.5           | VMware vSphere(R) 5.5  |
| VMware vSphere 6.0           | VMware vSphere(R) 6.0  |
| VMware vSphere Client        | VMware vSphere(R) Client   |
| VMware vCenter Server        | VMware(R) vCenter(TM) Server   |
| VMware vClient               | VMware(R) vClient(TM)  |
| VMware FT                    | VMware(R) Fault Tolerance  |
| VMware DRS                   | VMware(R) Distributed Resource Scheduler   |
| VMware DPM                   | VMware(R) Distributed Power Management   |
| VMware Storage VMotion       | VMware(R) Storage VMotion  |
| VMware vDS                   | VMware(R) vNetwork Distributed Switch  |

| Abbreviation            | Products   |
|-------------------------|--|
| VMware Horizon View     | VMware Horizon View 5.2.x<br>VMware Horizon View 5.3.x<br>VMware Horizon 6.0 (with View)   |
| VMware Virtual SAN      | VMware(R) Virtual SAN(TM)  |
| VIOM                    | ServerView Virtual-IO Manager  |
| SVOM                    | ServerView Operations Manager  |
| BladeLogic              | BMC BladeLogic Server Automation   |
| Excel                   | Microsoft(R) Office Excel(R) 2003<br>Microsoft(R) Office Excel(R) 2007<br>Microsoft(R) Office Excel(R) 2010<br>Microsoft(R) Office Excel(R) 2013 |
| Excel 2003              | Microsoft(R) Office Excel(R) 2003  |
| Excel 2007              | Microsoft(R) Office Excel(R) 2007  |
| Excel 2010              | Microsoft(R) Office Excel(R) 2010  |
| Excel 2013              | Microsoft(R) Office Excel(R) 2013  |
| Internet Explorer       | Windows(R) Internet Explorer(R) 8<br>Windows(R) Internet Explorer(R) 9<br>Windows(R) Internet Explorer(R) 10<br>Internet Explorer(R) 11          |
| Firefox                 | Firefox(R)   |
| ServerView Agent        | ServerView SNMP Agents for MS Windows (32bit-64bit)<br>ServerView Agents Linux<br>ServerView Agents VMware for VMware ESX Server                 |
| RCVE                    | ServerView Resource Coordinator VE   |
| ROR                     | FUJITSU Software ServerView Resource Orchestrator  |
| ROR VE                  | FUJITSU Software ServerView Resource Orchestrator Virtual Edition  |
| ROR CE                  | FUJITSU Software ServerView Resource Orchestrator Cloud Edition  |
| Resource Coordinator    | Systemwalker Resource Coordinator<br>Systemwalker Resource Coordinator Virtual server Edition  |
| Resource Coordinator VE | ServerView Resource Coordinator VE<br>Systemwalker Resource Coordinator Virtual server Edition   |
| Resource Orchestrator   | FUJITSU Software ServerView Resource Orchestrator  |
| SVFAB                   | ServerView Fabric Manager  |

### Export Administration Regulation Declaration

Exportation/release of this document may require necessary procedures in accordance with the regulations of your resident country and/or US export control laws.

### Trademark Information

- BMC, BMC Software, and the BMC Software logo are the exclusive properties of BMC Software, Inc., are registered with the U.S. Patent and Trademark Office, and may be registered or pending registration in other countries.

- Citrix(R), Citrix XenServer(R), Citrix Essentials(TM), and Citrix StorageLink(TM) are trademarks of Citrix Systems, Inc. and/or one of its subsidiaries, and may be registered in the United States Patent and Trademark Office and in other countries.
- EMC, EMC<sup>2</sup>, CLARiiON, Symmetrix, and Navisphere are trademarks or registered trademarks of EMC Corporation.
- HP is a registered trademark of Hewlett-Packard Company.
- Linux is a trademark or registered trademark of Linus Torvalds in the United States and other countries.
- Microsoft, Windows, MS-DOS, Windows Server, Windows Vista, Excel, Active Directory, and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.
- Firefox is a trademark or registered trademark of the Mozilla Foundation in the United States and other countries.
- NetApp is a registered trademark of Network Appliance, Inc. in the US and other countries. Data ONTAP, Network Appliance, and Snapshot are trademarks of Network Appliance, Inc. in the US and other countries.
- Oracle and Java are registered trademarks of Oracle and/or its affiliates in the United States and other countries.
- Oracle is a registered trademark of Oracle Corporation and/or its affiliates.
- Red Hat, RPM and all Red Hat-based trademarks and logos are trademarks or registered trademarks of Red Hat, Inc. in the United States and other countries.
- SUSE is a registered trademark of SUSE LINUX AG, a Novell business.
- VMware, the VMware "boxes" logo and design, Virtual SMP, and VMotion are registered trademarks or trademarks of VMware, Inc. in the United States and/or other jurisdictions.
- ServerView and Systemwalker are registered trademarks of FUJITSU LIMITED.
- All other brand and product names are trademarks or registered trademarks of their respective owners.

## Notices

- The contents of this manual shall not be reproduced without express written permission from FUJITSU LIMITED.
- The contents of this manual are subject to change without notice.

## Revision History

| Month/Year Issued, Edition    | Manual Code          |
|-------------------------------|----------------------|
| November 2011, First Edition  | J2X1-7615-01ENZ0(00) |
| December 2011, Edition 1.1    | J2X1-7615-01ENZ0(01) |
| January 2012, Edition 1.2     | J2X1-7615-01ENZ0(02) |
| February 2012, Edition 1.3    | J2X1-7615-01ENZ0(03) |
| March 2012, Edition 1.4       | J2X1-7615-01ENZ0(04) |
| April 2012, Edition 1.5       | J2X1-7615-01ENZ0(05) |
| July 2012, Second Edition     | J2X1-7615-02ENZ0(00) |
| October 2012, Third Edition   | J2X1-7615-03ENZ0(00) |
| December 2012, Fourth Edition | J2X1-7615-04ENZ0(00) |
| January 2013, Fifth Edition   | J2X1-7615-05ENZ0(00) |
| March 2013, Edition 5.1       | J2X1-7615-05ENZ0(01) |
| June 2013, Edition 5.2        | J2X1-7615-05ENZ0(02) |
| August 2013, Edition 5.3      | J2X1-7615-05ENZ0(03) |
| December 2013, Sixth Edition  | J2X1-7615-06ENZ0(00) |

| Month/Year Issued, Edition  | Manual Code          |
|-----------------------------|----------------------|
| February 2014, Edition 6.1  | J2X1-7615-06ENZ0(01) |
| April 2014, Edition 6.2     | J2X1-7615-06ENZ0(02) |
| June 2014, Edition 6.3      | J2X1-7615-06ENZ0(03) |
| April 2015, Seventh Edition | J2X1-7615-07ENZ0(00) |
| July 2015, Edition 7.1      | J2X1-7615-07ENZ0(01) |
| December 2015, Edition 7.2  | J2X1-7615-07ENZ0(02) |
| January 2016, Edition 7.3   | J2X1-7615-07ENZ0(03) |
| June 2016, Edition 7.4      | J2X1-7615-07ENZ0(04) |
| September 2016, Edition 7.5 | J2X1-7615-07ENZ0(05) |
| December 2016, Edition 7.6  | J2X1-7615-07ENZ0(06) |

### Copyright Notice

Copyright 2011-2016 FUJITSU LIMITED

# Contents

---

|   |    |
|---|----|
| Chapter 1 Overview.....   | 1  |
| 1.1 Function List.....  | 1  |
| 1.2 Flow of Operations.....   | 2  |
| 1.3 First Steps Before Using the ROR Console.....   | 3  |
| 1.3.1 New User Registration Tasks.....  | 3  |
| 1.3.2 Notification of User Password Setting.....  | 5  |
| Chapter 2 Login and Logout.....   | 6  |
| Chapter 3 Home.....   | 10 |
| Chapter 4 System Conditions.....  | 11 |
| 4.1 System Conditions Display Range.....  | 11 |
| 4.2 L-Platform System Conditions Display.....   | 11 |
| 4.2.1 System Conditions Display.....  | 13 |
| 4.2.2 Configuration Information Display.....  | 20 |
| Chapter 5 L-Platform.....   | 22 |
| 5.1 Overview of L-Platform Management .....   | 22 |
| 5.2 Subscribe to an L-Platform.....   | 22 |
| 5.2.1 Subscribe to a New L-Platform.....  | 23 |
| 5.2.2 L-Platform Subscription after Saving Configuration.....   | 29 |
| 5.3 L-Platform Management.....  | 31 |
| 5.3.1 L-Platform Management Display Page.....   | 32 |
| 5.3.2 L-Platform Detailed Information Display.....  | 35 |
| 5.3.3 Display Details on a Disk.....  | 39 |
| 5.3.4 Start and Stop the Server.....  | 39 |
| 5.3.5 Manage Patch Information.....   | 40 |
| 5.3.6 Take and Restore Snapshot.....  | 41 |
| 5.3.7 Physical Server Backup and Restore.....   | 42 |
| 5.3.8 Setup Firewall.....   | 43 |
| 5.3.9 Referencing the Firewall Log.....   | 46 |
| 5.3.10 Server Load Balancer (SLB) Settings.....   | 48 |
| 5.3.10.1 When an L-Platform that Uses a Server Load Balancer (SLB) Is Deployed Without Using a Ruleset..... | 48 |
| 5.3.10.2 When an L-Platform that Uses a Server Load Balancer (SLB) Is Deployed Using a Ruleset.....         | 50 |
| 5.3.11 Server Load Balancer (SLB) Operations.....   | 55 |
| 5.3.12 Server Load Balancer (SLB) Operation Logs.....   | 58 |
| 5.3.13 Load Balancing Status of SLBs.....   | 59 |
| 5.3.14 Access Status of the Server Load Balancers (SLBs).....   | 59 |
| 5.3.15 Certificate Management of SLBs.....  | 59 |
| 5.3.16 L-Platform Reconfiguration.....  | 59 |
| 5.3.17 Cancel an L-Platform.....  | 65 |
| 5.3.18 Reconfiguration Page.....  | 66 |
| 5.3.18.1 Edit the L-Platform.....   | 68 |
| 5.3.18.2 Connection destination.....  | 68 |
| 5.3.18.3 Firewall.....  | 69 |
| 5.3.18.4 Edit a Segment.....  | 70 |
| 5.3.18.5 Edit a Virtual Server.....   | 71 |
| 5.3.18.6 Editing a Physical Server.....   | 77 |
| 5.3.18.7 Edit a Disk (for a Virtual Server).....  | 83 |
| 5.3.18.8 Edit a Disk (for a Physical Server).....   | 84 |
| 5.3.18.9 Server load balancer.....  | 85 |
| 5.4 Display Event Logs.....   | 87 |
| 5.5 Select Forward Destination of Application Process.....  | 87 |
| 5.6 How to Use the L-Platform.....  | 88 |

|   |           |
|---|-----------|
| 5.7 Server Load Balancer (SLB) Operation Procedure.....         | 89        |
| <b>Chapter 6 Request.....</b>                                   | <b>90</b> |
| 6.1 Checking an Application Status.....                         | 90        |
| 6.2 Cancelling an Application .....                             | 92        |
| <b>Chapter 7 Account.....</b>                                   | <b>96</b> |
| 7.1 Referencing User Information.....                           | 96        |
| 7.2 Changing User Information.....                              | 97        |
| 7.3 Changing Passwords.....                                     | 97        |
| <b>Appendix A Emails Sent during L-Platform Operations.....</b> | <b>99</b> |
| A.1 Emails Sent when Subscribing to an L-Platform.....          | 99        |
| A.2 Emails Sent when Reconfiguring an L-Platform.....           | 102       |
| A.3 Emails Sent when Canceling an L-Platform.....               | 106       |



# Chapter 1 Overview

This chapter explains the ROR console.

## 1.1 Function List

This section explains the functions provided by ROR console.

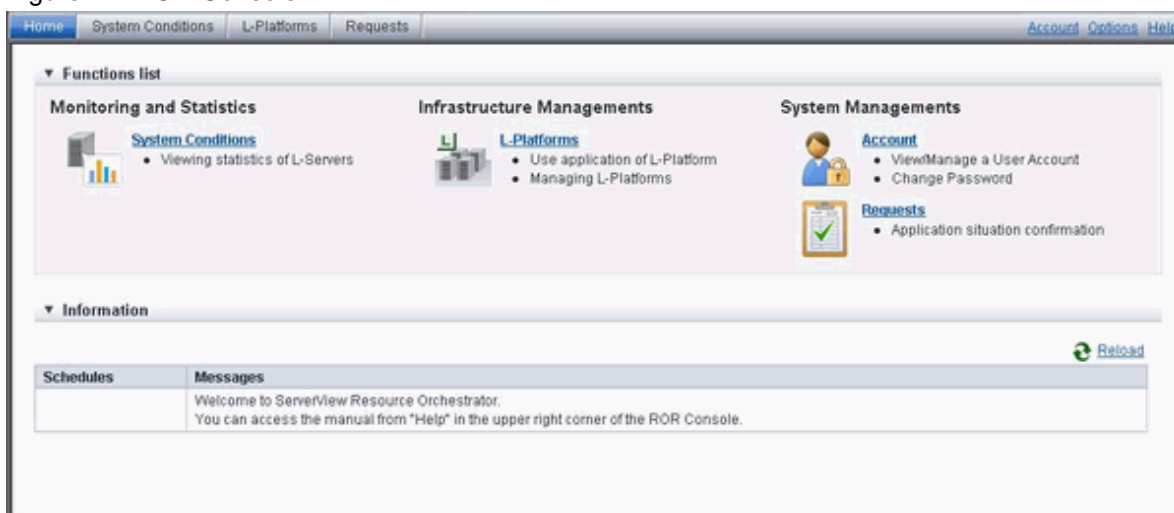
ROR console has two parts: "operation windows for tenant administrators and tenant users" and "operation windows for infrastructure administrators".

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.

The operation window regarding L-Platform and user information and the dashboard window for monitoring resource operation status and usage rate of resource pools are provided for infrastructure administrators. 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  | Tenant user |
|-------------------|---|-------------|
| Home              | The window displayed immediately after login to the ROR console. A function list and notifications are displayed. | Yes         |
| System Conditions | Displays L-Server performance information and configuration information   | Yes         |
| L-Platform        | A window for managing L-Platform  | Yes         |
| Request           | A window for assessing and approving L-Platform usage applications and other applications from tenant users       | Yes         |
| Account           | A window for changing a logged in user's information and password   | Yes         |
| Option            | Sets the [Home] Tab as the window displayed at login.   | Yes         |
| Help              | Displays this product's manual  | Yes         |

Yes: Displayed (However, some functions may not be displayed according to the user's access rights. For details on privileges, check with the infrastructure administrator.)

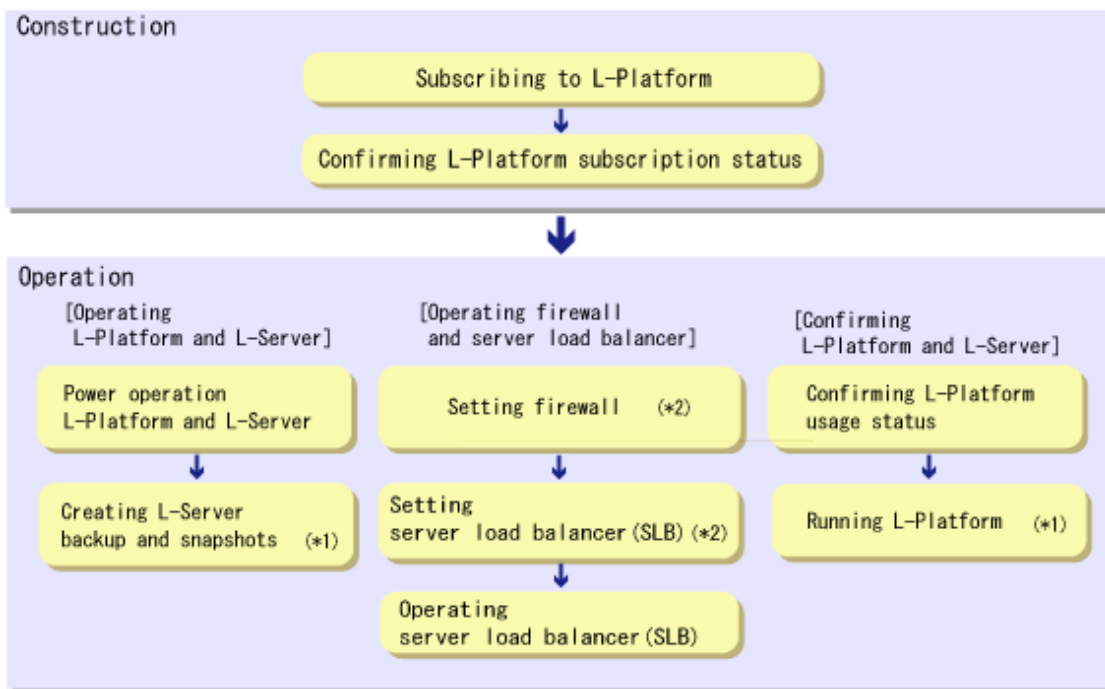
No: Not displayed

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

## 1.2 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 (Tenant User)



\*1: This is not required. Perform if necessary.

\*2: This is required if there is a firewall or server load balancer (SLB).

### Construction

1. Subscribing to L-Platform  
Subscribe to L-Platform usage.  
Refer to "[5.2 Subscribe to an L-Platform](#)" for details.
2. Confirming L-Platform subscription status  
Check the L-Platform subscription status.  
Refer to "[5.3 L-Platform Management](#)" for details.

### Operation

#### [Operating L-Platform and L-Server]

1. Power operation L-Platform and L-Server  
Perform L-Platform and L-Server power and other operations.  
Refer to "[5.3.4 Start and Stop the Server](#)" and "17.1 Power Operations" in the "User's Guide for Infrastructure Administrators (Resource Management) CE" for details.

2. Creating L-Server backup and snapshots  
If required, create an L-Server backup snapshot.  
Refer to "[5.3.6 Take and Restore Snapshot](#)" and "[5.3.7 Physical Server Backup and Restore](#)" for details.

**[Operations on the Firewall/Server Load Balancer (SLB)]**

1. Configuring the firewall  
Configure the firewall if necessary.  
Refer to "[5.3.8 Setup Firewall](#)" for details.
2. Configuring the server load balancer (SLB)  
Configure the server load balancer (SLB) if necessary.  
Refer to "[5.3.10 Server Load Balancer \(SLB\) Settings](#)" and "[5.7 Server Load Balancer \(SLB\) Operation Procedure](#)" for details.
3. Operating the server load balancer (SLB)  
Operate the server load balancer (SLB) if necessary.  
Refer to "[5.3.11 Server Load Balancer \(SLB\) Operations](#)" and "[5.7 Server Load Balancer \(SLB\) Operation Procedure](#)" for details.

**[Confirming L-Platform and L-Server]**

1. Confirming L-Platform usage status  
Check the status of L-Platform disk usage and other usage.  
Refer to "[Chapter 4 System Conditions](#)" for details.
2. Running L-Platform  
If required, add servers and disks for the L-Platform.  
Refer to "[5.3.16 L-Platform Reconfiguration](#)" for details.

## 1.3 First Steps Before Using the ROR Console

---

This section describes the first steps that need to be performed before using the ROR console.

### 1.3.1 New User Registration Tasks

---



**Point**

The following two methods are available for registering a tenant user:

- The tenant users perform user registration themselves using a virtual account that the Tenant Administrator has registered from the [Register User] window
- The Tenant Administrator registers a tenant user from the [Register User] window

The tenant user registration method is set by the system administrator.

This section explains the registration tasks that should be performed by a user who has applied via the Tenant Administrator for new registration. A registration instruction email is sent to such a user.

Follow the registration procedures given in the instruction email.

Note that the registration application becomes invalid if the registration procedure is not performed within 24 hours of receiving the instruction email.

Follow the procedure below to register a new user:

1. Click the URL in the user registration mail.  
The [Register User] page will be displayed.

| Item               | Description  |
|--------------------|--|
| Temporary password | Specify the temporary password given in the tenant user registration mail. |

2. Enter in the [Temporary password] field the temporary password given in the user registration mail. Review and agree with the license agreement, and click the [Advance to registration procedure] button.

The input window for the user information will be displayed.  
 The following window is an example for internal authentication.

| Item               | Description   |
|--------------------|---|
| E-Mail address     | User's E-mail address registered at a temporary account is displayed. It is not possible to change.   |
| User ID            | [When using internal authentication, or when using the directory service provided with ServerView Operations Manager using Single Sign-On authentication]<br>Specify a registration user ID. Specify a character string of 1 to 32 characters consisting of single-byte lower-case alphabets and numerics, hyphens (-), underscores (_), and periods (.), and starting with lower case alphabet or numbers. This specification is mandatory.<br><br>[When using Active Directory for the directory service]<br>Specify a registration user ID. Specify a character string of 1 to 20 characters consisting of single-byte lower-case alphabets and numerics, hyphens (-), underscores (_), and periods (.), and starting with lower case alphabet or numbers. Period cannot be used as the last character. This specification is mandatory. |
| Description        | Specify a description for the user ID of the user, using up to 256 characters.  |
| Password           | Specify the user password. Specify between 8 and 64 characters, using single-byte alphanumerics and symbols.<br>The specification is case sensitive. This field cannot be omitted.  |
| Password (confirm) | Re-enter a user password for confirmation. This field cannot be omitted.  |

|                           |                                   |  |
|---------------------------|-----------------------------------|--|
| Personal information      |                                   |  |
|                           | Name                              | Specify the first name and last name separately for the user. Use up to 15 characters for each name. Be sure to specify this item. |
|                           | Company name or organization name | Specify the company name or organization name, using up to 30 characters.  |
| Emergency contact details |                                   |  |
|                           | E-mail address                    | Specify an email address for receiving emergency contact notifications, using up to 64 characters.                                 |
|                           | E-mail address (confirm)          | Re-enter an email address for receiving emergency contact notifications.   |
|                           | Telephone number                  | Specify an emergency contact phone number.   |

3. Enter the user information and click the [Next] button.  
The confirmation window of the registration information will be displayed.
4. Confirm the registration information, and click the [Register] button.  
The registration completion window will be displayed.
5. Click the [Close] button, processing is ended.

When user registration is completed, the registration content is sent to the registered user, the Tenant Administrator, and the tenant Email address.

### 1.3.2 Notification of User Password Setting

---

If the password is changed by tenant administrator, changed password will be sent to the user by E-mail with the title below. In this case, it is recommended to set a different password immediately.

|   |
|---|
| Title of mail : [Important information]Setting of user password |
|---|

# Chapter 2 Login and Logout

This chapter describes how to open and close the ROR console.

## Preparations

Before opening the ROR console, be sure to read the following instructions and restrictions.

- The ROR console uses the Web browser's standard fonts and is designed to be viewed in a window of 1024 by 768 pixels or larger. When using a monitor with a higher resolution than this, it is recommended to enlarge the screen size. If the Web browser is resized by a significant amount, the display quality may deteriorate.
- Surrogate pair characters cannot be used on the ROR Console.
- In environments where the admin server is Windows, and multiple IP addresses are used, when a login window with a different URL from the address bar's URL in which the IP address or host name (FQDN) is specified, the warning may not disappear. Also, the following may occur.
  - The login window is not displayed
  - A certificate error occurs even though the certificate is registered

Use the following procedure as the corrective action for the above.

- For Windows Server 2008

Set a higher priority for binding of the network adapter used on the admin LAN than for other network adapters.

### Example

When changing the order of priority of network adapter binding in Microsoft(R) Windows Server(R) 2008 R2 Enterprise

1. Click the [Start] button, and then click [Control Panel].
2. When [Network and Internet] is displayed, click this item.  
When [Network and Internet] is not displayed, proceed to the next step without clicking.
3. Click [Network and Sharing Center], and click [Change adapter settings] in the left side of the window.
4. Click [Advanced Settings] in the [Advanced] menu.  
When the [Advanced] menu is not displayed, push the [Alt] key.
5. From the list of [Connections] in the [Adapters and Bindings] tab, click the target network adapter, and the "Up" or "Down" buttons to change the order of priority of connections.
6. Click the [OK] button.

- For Windows Server 2012 or later

Set the interface metric value smaller than any other interfaces used by the admin server.  
The metric values of each interface can be checked by using the "netstat -r" command.

### Example

For Microsoft(R) Windows Server(R) 2012 Standard

1. Press the [Windows Logo] + [R] keys.  
The [Run] dialog is displayed.
2. Enter "ncpa.cpl", and click the [OK] button.
3. Right-click [Network Interface], and click [Properties].
4. Click [Internet Protocol Version 4(TCP/IPv4)], and then click [Properties].

5. Click [Advanced] on the [General] tab.

6. Clear the [Automatic metric] checkbox on the [IP Settings] tab, and enter the metric [Interface metric] field.

- .....
- When opening the ROR console with Internet Explorer, read the following additional instructions and restrictions.
    - When accessing the ROR console, be sure to enable the Compatibility View in Internet Explorer. Select [View]-[Encoding] in Internet Explorer, and check if [Auto-Select] is checked. If [Auto-Select] is not checked, select it.
    - When downloading files using the ROR console, it is necessary to disable [Do not save encrypted pages to disk] in the Advanced Settings of the browser.
    - The ROR console uses JavaScript, Active Script, Cookies, and IFRAMES. These must be enabled in the Web browser settings before using the ROR console. Use 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.
    - When opening the ROR console right after launching a Web browser, a warning window concerning the site's security certificate will be displayed.

The following message is displayed: "There is a problem with this web site's security certificate.". This warns the user that Resource Orchestrator uses a self-signed certificate to encrypt its HTTPS (SSL) communication with the Web browser. Resource Orchestrator generates a unique, self-signed certificate for each admin server during manager installation. Within a firewall-protected intranet, a network where the risk of identity theft is low, or where all correspondents are trusted, there is no risk in using self-signature certificates for communications. Accept the warning to display the Resource Orchestrator login screen. The login screen can be displayed by selecting the following option: "Continue to this web site (not recommended)".
    - The background of the address bar will become red and the words "Certificate Error" will be displayed on the right side of the address bar of the login screen, the ROR console, and BladeViewer.

Furthermore, the Phishing Filter may show a warning on the status bar. These warnings are referring to the same self-signed certificate issue discussed in the previous bullet. It is safe to continue with the current browser settings.
    - To stop displaying the security certificate warning screen and the certificate error icon, create a certificate associated with the IP address or hostname of the admin server and add it to the Web browser. Refer to "Appendix B HTTPS Communications" in the "Design Guide CE" for details.
    - Add the URL of the ROR console to the "Trusted sites" of the browser.
  - When opening the ROR console with Firefox, read the following additional instructions and restrictions.
    - Confirm that the "Allow pages to choose their own fonts, instead of my selections above" is checked in the [Advanced] setting in [Options]-[Content]-[Fonts & Colors]. If it is not checked, check it.
    - The ROR console uses JavaScript, Cookies, and IFRAMES. These must be enabled in the Web browser settings before using the ROR console. Use 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.
    - Create a certificate associated with the IP address or hostname of the admin server and add it to the Web browser. Refer to "Appendix B HTTPS Communications" in the "Design Guide CE" for detail instructions to create and install certificate.

## Opening the ROR Console

This section explains how to access the ROR console.

Start a Web browser from an admin client and specify the URL of the ROR console for connection.  
If the port number was changed, specify the new port number.

When using internal authentication, the login window for Resource Orchestrator will be displayed.  
When Single Sign-On has been configured, the login window for Single Sign-On is displayed.

However, when Single Sign-On authentication has already been performed, the ROR console can be started without displaying the login window.

For details on Single Sign-On, refer to "Chapter 12 Configuring Single Sign-On" in the "Design Guide CE".

```
URL: https://Admin_server_FQDN:23461/
```

On a Windows admin server, the ROR console can also be opened by selecting [start]-[All Programs]-[Fujitsu]-[Resource Orchestrator]-[ROR console].

### Note

- If the login screen is not displayed, check that the following settings are correct.
  - URL entered in address bar of the Web browser.
  - The proxy settings of the Web browser are correct.
  - The firewall settings on the admin server are correct.
- If already logged in from another Web browser window, login may be performed automatically (without displaying the login screen).

## Login

- In the login screen, enter the following items, and click the [Login] button.  
The ROR console is displayed after a successful login.
  - User ID
  - Password
- When logging in for the first time, the [Home] tab is displayed. When logging in for the second time and successive times, the tab that was displayed at the last logout is displayed.  
  
It is also possible for each user to set whether the [Home] tab is to be displayed at login. To change the option, click "Options" in the upper right corner of the ROR Console. This option is not reflected on the backup site during switchover due to Disaster Recovery. Each user has to change the option individually after switchover.
- When login to the ROR console fails using Single Sign-On authentication, configuration of the environment may have failed.  
Stop the manager, and reconfigure Single Sign-On.  
For details on how to reconfigure Single Sign-On, refer to "8.10 Reconfiguring Single Sign-On" in the "Operation Guide CE".

## Logout

To log out, select "Logout" in the global header, and click the [OK] button in the confirmation dialog.

### Note

- If the Web browser is closed without logging out first, user authentication may be skipped the next time Resource Orchestrator is accessed. In that case, users will be automatically logged in using the previously used session.  
It is advised that the users log out properly after using the ROR console or BladeViewer.



- If the ROR console or BladeViewer has been opened simultaneously in several Web browser windows, those login sessions may be terminated.



## **Exit**

To exit the ROR console, simply close the Web browser window.

## Chapter 3 Home

This chapter explains the ROR Console Home window.

When the ROR Console is started, the Home window is displayed. Refer to "[Chapter 2 Login and Logout](#)" 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 triangle icon next to the Function list to toggle Display/Hide.

- Information

Information from the System Administrator and Infrastructure Administrator is displayed.

## Chapter 4 System Conditions

This chapter explains how to monitor system conditions.

The configuration information of L-Platforms and L-Servers and the performance information of L-Servers can be checked in the operational status.



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

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 Conditions Display Range

The system conditions can display the following information for L-Platforms used by a tenant user:

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

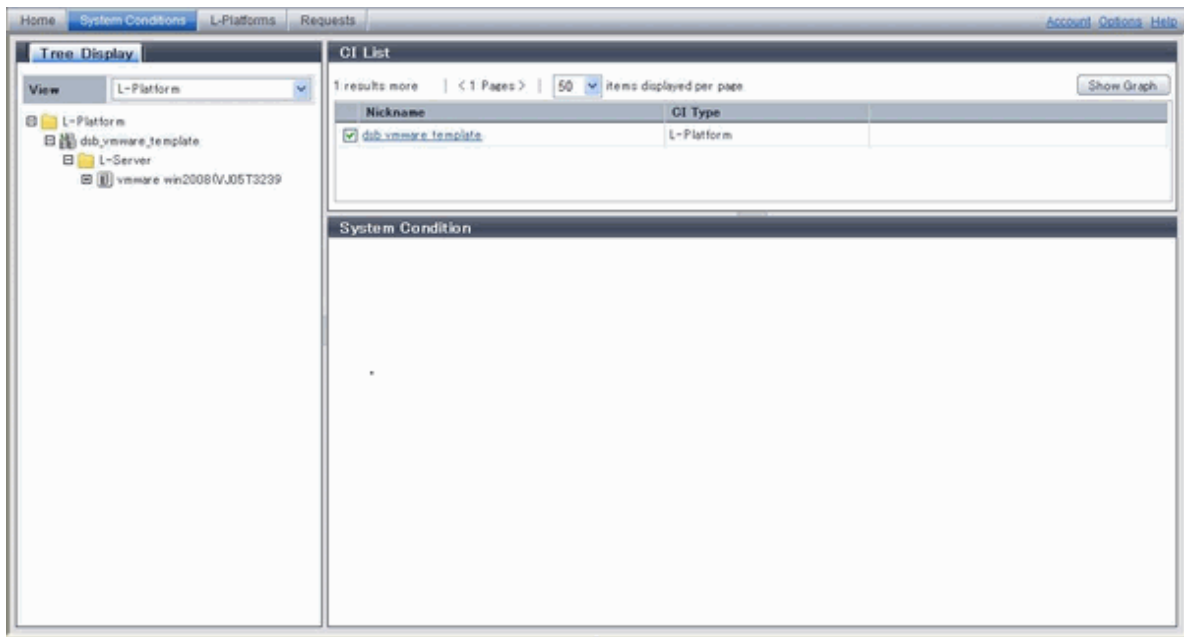
### 4.2 L-Platform System Conditions Display

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

1. From the ROR console, select the [System Conditions] tab.  
The [System Conditions] window is displayed.

- In the [System Conditions] window, select the [Tree Display] tab.

The configuration of L-Platforms used by tenant users is displayed in the tree at the left.



- From the tree at the left, select the L-Platform for which to display the system conditions.

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.

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

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

The table below explains the displayed items.

| Item     | Explanation   |
|----------|---|
| Nickname | <p>Displays the display name of the configuration item.</p> <p>If the CI list Nickname link is clicked, the configuration information of the target tenant, L-Platform or L-Server is displayed in a separate window. Refer to "<a href="#">4.2.2 Configuration Information Display</a>" for the displayed configuration information.</p> <p>The following display names are displayed in accordance with the CI type:</p> <ul style="list-style-type: none"> <li>- For the tenant CI type: The tenant name determined during tenant registration ("tenant name (tenant ID)")</li> <li>- For the L-Platform CI type: The L-Platform subscription name set during L-Platform subscription</li> <li>- For the L-Server CI type: The L-Server name set during L-Platform subscription or L-Platform reconfiguration ("server name (host name)")</li> </ul> |
| CI Type  | <p>This column displays the configuration item type.</p> <p>The CI type displayed depends on the element selected in the tree at the left.</p> <p>The CI types are as follows:</p> <ul style="list-style-type: none"> <li>- Tenant: If a tenant is selected</li> <li>- L-Platform: If an L-Platform is selected</li> </ul>  |

| Item | Explanation                            |
|------|--|
|      | - L-Server: If an L-Server is selected |

### 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 Conditions Display

The system conditions of the L-Platforms selected in the system conditions window CI list is displayed as a graph at [System Conditions] 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 conditions contents can be switched by clicking the [System Conditions] tabs.

The table below shows the contents under the [System Conditions] 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 server virtualization software is Hyper-V, RHEL5-Xen, Solaris Zones, OVM for x86 3.x, and OVM for SPARC.

\*4: The disk R/W count is not displayed if the server virtualization software is Hyper-V, RHEL-KVM, Solaris Zones, and OVM for SPARC.

\*5: The memory usage is not displayed if the server virtualization software is Hyper-V, and OVM for SPARC. However, this is displayed if the setting for the dynamic memory in Hyper-V is enabled.

\*6: The network usage is not displayed if the server virtualization software is Hyper-V, Solaris Zones, and OVM for SPARC. It is also not displayed if the physical L-Server is Linux/Solaris.

### Note

- Information obtained from server virtualization software is displayed in the system conditions. Virtual Memory usage is not included.

- When the server virtualization software of managed servers is VMware, RHEL5-Xen, RHEL-KVM, OVM for x86 3.x, or OVM for SPARC, the graph is not displayed when the manager is stopped because the data cannot be collected. Also, when data cannot be collected temporarily due to restarting of the manager and so on, some of the data is not displayed.
- The system conditions 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.

Note that, if the contents are empty after a fixed interval, the connection destination L-Platform may be stopped. Contact the Tenant Administrator.

| Tab name                         | Display period (*) | Collection time required before displaying      |
|----------------------------------|--------------------|---|
| Total                            | 30 days            | one whole day (from 0:00 to 23:59)              |
| CPU<br>Disk<br>Memory<br>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)              |

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

- System conditions 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.

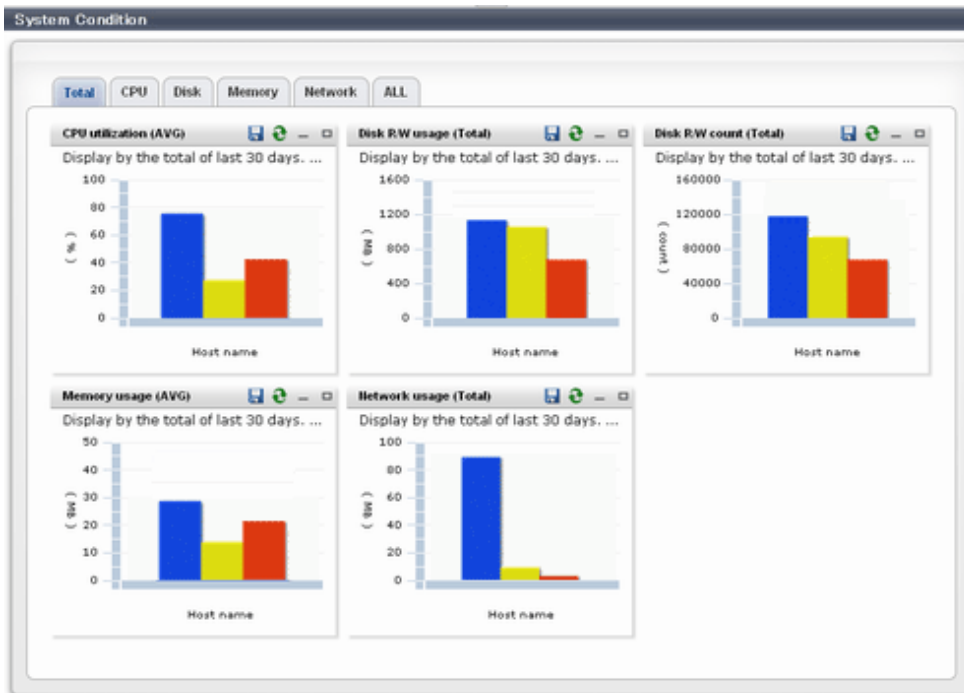
Example:

If a monitored L-Server has one CPU and is displayed in units of one hour, the value in the system conditions 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%.

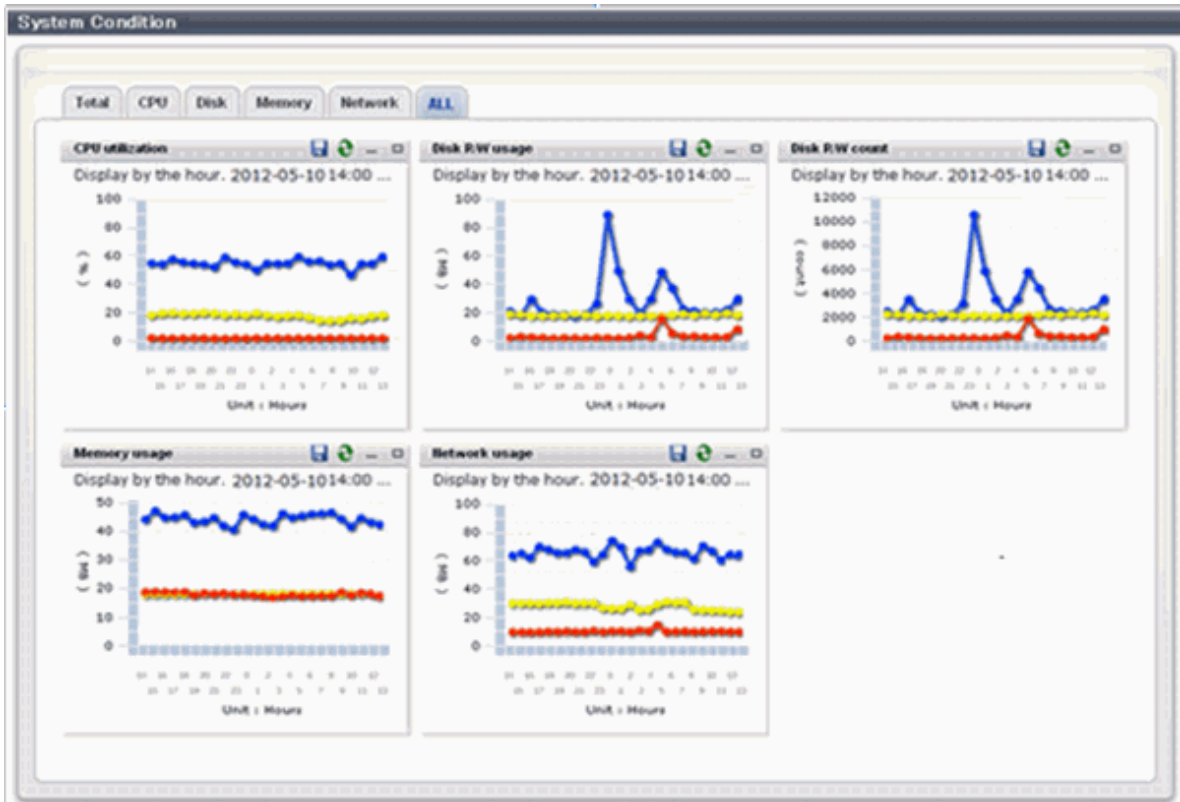


Display examples for the [Total] tab and the [All] tab are shown below.

- [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 (*) |      | yyyy-mm-dd HH:mm:ss   |
|                 | resrcid     | Resource ID               |      | <ul style="list-style-type: none"> <li>- in case of physical servers and Windows: "#" + CPU number or _Total</li> <li>- in case of physical servers and Linux/Solaris: CPU number or _Total</li> <li>- in case of Hyper-V: VM name + ":Hv VP" + virtual Processer number</li> </ul> |
|                 | recid       | Record ID                 |      | Output any of the following   |

| Graph type     | Column name   | Explanation   | Unit     | Description  |
|----------------|---------------|---|----------|--|
|                |               |   |          | <ul style="list-style-type: none"> <li>- WIN_CPUBUSY</li> <li>- UX_CPUBUSY</li> <li>- VMW_GCPU</li> <li>- HV_VCPU</li> <li>- XEN_CPU</li> <li>- KVM_CPU</li> <li>- OVMSPARC_CPU</li> </ul> |
|                | consintl      | Interval time                                       | second   | <ul style="list-style-type: none"> <li>- in case of interval time is 10 minutes: 600</li> <li>- in case of 1 hour: 3600</li> <li>- in case of 24 hour: 86400</li> </ul>                    |
|                | coverage      | Data coverage                                       | (0 to 1) |  |
|                | cpupcent      | CPU utilization                                     | %        | Output for physical servers<br>Processor utilization   |
|                | vmgcused      | CPU utilization                                     | %        | Output only for VMware<br>Physical CPU utilization per virtual machine   |
|                | physres       | Physical CPU information or virtual CPU information |          | Output only for VMware   |
|                | ptrtim        | CPU utilization                                     | %        | Output only for Hyper-V<br>Utilization of virtual processors allocated to a virtual machine and consumed by hypervisor code  |
|                | xenpcused     | CPU utilization                                     | %        | Output for RHEL5-Xen/OVM for x86 3.x<br>CPU utilization (total utilization of virtual CPUs set in the domain)  |
|                | xencpun       | Number of virtual CPUs in the domain                | number   | Output for RHEL5-Xen/OVM for x86 3.x   |
|                | Nickname      | VM name   |          |  |
|                | kvmcpupcent   | CPU utilization                                     | %        | Output only for RHEL-KVM<br>CPU utilization (total utilization of virtual CPUs set in the domain)  |
|                | kvmcpus       | Number of virtual CPUs in the domain                |          | Output only for RHEL-KVM   |
|                | zonecpucappct | CPU utilization                                     | %        | Output for Solaris Zones<br>CPU utilization (utilization of virtual CPUs set in the zone)  |
|                | ovmcpupcent   | CPU utilization                                     | %        | Output for OVM for SPARC<br>CPU utilization (utilization of virtual CPUs set in the domain)  |
| Disk R/W usage | sdattim       | Collection start time (*)                           |          | yyyy-mm-dd HH:mm:ss  |
|                | resrcid       | Resource ID   |          | <ul style="list-style-type: none"> <li>- in case of physical servers and Windows: drive name or _Total</li> <li>- in case of physical servers and Linux/Solaris: device name</li> </ul>    |



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

| Graph type   | Column name | Explanation                   | Unit     | Description  |
|--------------|-------------|-------------------------------|----------|--|
|              | pwritesec   | Disk write count              |          | Output only for Windows<br>Physical disk write operation count   |
|              | ioreads     | Disk read count               |          | Output only for Linux/Solaris<br>read count  |
|              | iowrite     | Disk write count              |          | Output only for Linux/Solaris<br>write count   |
|              | vmdreads    | Disk read count               |          | Output only for VMware<br>Disk read count for virtual machine and<br>storage device units                            |
|              | vmdwrites   | Disk write count              |          | Output only for VMware<br>Disk write count for virtual machine and<br>storage device units                           |
|              | vbdrd       | Disk read count               |          | Output for RHEL5-Xen/OVM for x86 3.x<br>Virtual block device read count  |
|              | vbdwr       | Disk write count              |          | Output for RHEL5-Xen/OVM for x86 3.x<br>Virtual block device write count   |
|              | Nickname    | VM name                       |          | Output for VMware/RHEL5-Xen/OVM for<br>x86 3.x /physical server  |
| Memory usage | sdattim     | Collection start time<br>(* ) |          | yyyy-mm-dd HH:mm:ss  |
|              | resrcid     | Resource ID                   |          | - in case of physical servers and Windows:<br>MEMORY<br>- in case of physical servers and Linux/<br>Solaris: FREEMEM |
|              | recid       | Record ID                     |          | Output any of the following<br>- WIN_MEMORY<br>- UX_MEMFREE<br>- VMW_MEM<br>- HV_DMEN_VM<br>- XEN_MEM<br>- KVM-MEM   |
|              | consintl    | Interval time                 |          | - in case of interval time is 10 minutes: 600<br>- in case of 1 hour: 3600<br>- in case of 24 hour: 86400            |
|              | coverage    | Data coverage                 | (0 to 1) |  |
|              | comtot      | Memory usage                  | bytes    | Output only for Windows<br>Commit size   |
|              | freememp    | Memory usage                  | bytes    | Output only for Linux<br>Memory size utilization for user processes  |
|              | memuse      | Memory usage                  | percent  | Output only for Linux  |
|              | Vmgmtm      | Memory usage                  | Mbytes   | Output only for VMware<br>Estimated working set size of resource pool<br>and virtual machine units                   |

| Graph type          | Column name | Explanation               | Unit     | Description   |
|---------------------|-------------|---------------------------|----------|---|
|                     | ppmemdmvm   | Memory usage              | Mbytes   | Output only for Hyper-V<br>Current memory capacity of virtual machine                                     |
|                     | xenavm      | Memory usage              | Mbytes   | Output for RHEL5-Xen/OVM for x86 3.x<br>Memory capacity allocated to domain                               |
|                     | Nickname    | VM name                   |          |   |
|                     | kvmmemused  | Memory usage              | Mbytes   | Output only for RHEL-KVM<br>Memory capacity allocated to domain   |
|                     | zonememused | Memory usage              | Kbytes   | Output for Solaris Zones<br>Memory capacity allocated to zone   |
| Network utilization | sdatim      | Collection start time (*) |          | yyyy-mm-dd HH:mm:ss   |
|                     | resrcid     | Resource ID               |          | Output only for Windows<br>Network device name  |
|                     | recid       | Record ID                 |          | Output any of the following<br>- WIN_NET_INTERFACE<br>- VMW_NET<br>- XEN_NET<br>- KVM-NET                 |
|                     | consintl    | Interval time             |          | - in case of interval time is 10 minutes: 600<br>- in case of 1 hour: 3600<br>- in case of 24 hour: 86400 |
|                     | coverage    | Data coverage             | (0 to 1) |   |
|                     | ifbytin     | Network usage (received)  | bytes    | Output only for Windows<br>Amount of received data(byte)  |
|                     | ifbytot     | Network usage (sent)      | bytes    | Output only for Windows<br>Amount of sent data(byte)  |
|                     | vmnpmvtr    | Network usage (sent)      | Mbits    | Output only for VMware<br>Amount of data transferred by virtual network device port unit                  |
|                     | vmnpmbrecv  | Network usage (received)  | Mbits    | Output only for VMware<br>Amount of data received by virtual network device port unit                     |
|                     | xenkbtx     | Network usage (sent)      | Kbytes   | Output for RHEL5-Xen/OVM for x86 3.x<br>Amount of data sent by virtual network interface                  |
|                     | xenkbrx     | Network usage (received)  | Kbytes   | Output for RHEL5-Xen/OVM for x86 3.x<br>Amount of data received by virtual network interface              |
|                     | Nickname    | VM name                   |          | Output for VMware/RHEL5-Xen/RHEL-KVM/OVM for x86 3.x/and physical servers with Windows OS                 |
|                     | kvmnetrxby  | Network usage (received)  | bytes    | Output only for RHEL-KVM<br>Amount of data sent by virtual network interface                              |

| Graph type | Column name | Explanation          | Unit  | Description  |
|------------|-------------|----------------------|-------|--|
|            | kvmnettxby  | Network usage (sent) | bytes | Output only for RHEL-KVM<br>Amount of data received by virtual network interface |

\* Note: 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

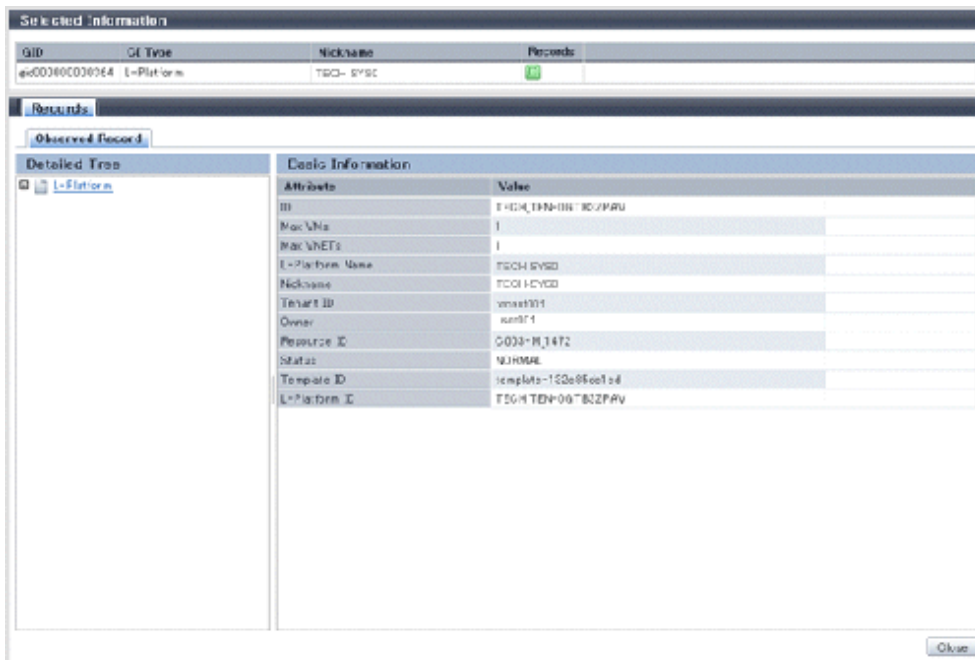
If there is a large difference in the time and date in the VM host where the live migration was performed, the above phenomena will be more likely to occur.

## 4.2.2 Configuration Information Display

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

When the Nickname link in the CI list of the system conditions 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.<br>The CI types are as follows: <ul style="list-style-type: none"> <li>- Tenant: If a tenant is selected</li> <li>- L-Platform: If an L-Platform is selected</li> <li>- L-Server: If an L-Server is selected</li> </ul> |
|                      | Nickname | Displays the display name of the configuration item.<br>The following display names are displayed in accordance with the CI type:   |

| Item           |                   | Explanation   |  |
|----------------|-------------------|---|--|
|                |                   | <ul style="list-style-type: none"> <li>- For the tenant CI type: The tenant name determined during tenant registration ("tenant name (tenant ID)")</li> <li>- For the L-Platform CI type: The L-Platform subscription name set during L-Platform subscription</li> <li>- For the L-Server CI type: The L-Server name set during L-Platform subscription or L-Platform reconfiguration ("server name (host name)")</li> </ul>  |  |
|                | Record            | Displays the type of records held by the configuration item. [0], indicating the actual information, is displayed.  |  |
| 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"> <li>- For the tenant CI type: Tenants</li> <li>- For the L-Platform CI type: Instances</li> <li>- For the L-Server CI type: L-Server node information</li> </ul> <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"> <li>- If the element is a tenant: The value determined during tenant registration</li> <li>- If the element is an instance: The value set during L-Platform subscription</li> <li>- If the element is L-Server node information: The value set during L-Platform subscription or L-Platform reconfiguration</li> </ul> |  |
|                | 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.   |  |

# Chapter 5 L-Platform

This chapter explains how to manage L-Platforms and display the event logs.

## 5.1 Overview of L-Platform Management

Use the [L-Platforms] tab of the ROR console to manage L-Platforms and display the event logs.

The following section explains the contents of the operation menu on the [L-Platforms] tab:

- L-Platform Subscription  
When [Subscription] is selected, the page used to subscribe to a service will be displayed.  
Refer to "5.2 Subscribe to an L-Platform" for information on the L-Platform management method.
- Management  
When [Management] is selected, a list of created L-Platforms is displayed.  
Refer to "5.3 L-Platform Management" for information on the L-Platform management method.
- Event logs  
When [Event Logs] is selected, logs of the information regarding errors that occurred while using the functions on the [L-Platforms] tab are displayed.
- Refer to "5.4 Display Event Logs" for information on the event log display method.
- Startup  
When [Startup] is selected, major functions of the [L-Platforms] tab and their overview will be displayed.

### Point

The [Startup] page is displayed as the home page of the [L-Platforms] tab. 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-Platforms] tab.

### Note

- If it becomes impossible to connect by the admin server stop and etc. when the [L-Platforms] tab 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.

## 5.2 Subscribe to an L-Platform

This section explains how to subscribe to an L-Platform

### Point

- It may take several minutes for an L-Platform subscription request to be accepted according to the number and the configuration of servers that compose the L-Platform.  
After the [Subscribe] button is clicked, operations such as closing the browser, clicking the [Back] button of the browser, or reloading the current page, before the subscription request is accepted, may cause the request to be cancelled. Do not perform any other operations until the request is accepted.

- Refer to Appendix A, Section A.1, "[A.1 Emails Sent when Subscribing to an L-Platform](#)" for information on the flow and content of email messages sent to the subscriber, tenant administrator, and infrastructure administrator when subscribing to an L-Platform.
- .....

## 5.2.1 Subscribe to a New L-Platform

---

On the [Subscription] page of the [L-Platforms] tab, the user can subscribe to an L-Platform on the basis of the specification that has been registered.

Two methods are available to subscribe to a new L-Platform. The method to be used is determined by the method of subscription that the Infrastructure administrator department has specified.

- L-Platform Template reconfiguration not possible  
Changes to registered L-Platform Templates are not permitted.
- L-Platform Template reconfiguration possible  
Changes to registered L-Platform Templates are permitted.

The procedure for each method is shown below.

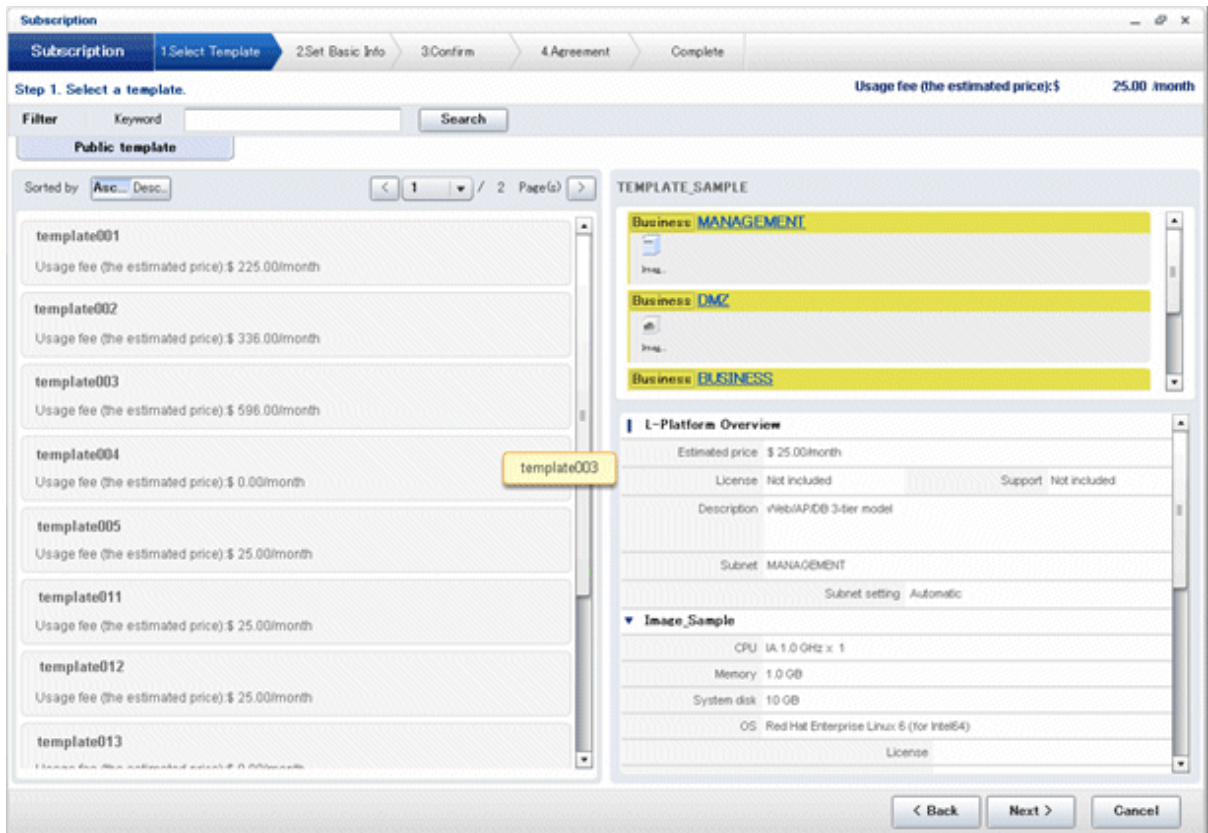
### L-Platform Template Reconfiguration not Possible

Follow the steps below to subscribe to a new L-Platform:

1. Select [Subscription] on the operation menu of the [L-Platforms] tab.  
The [Subscription] page will be displayed.
2. Confirm the procedures on the [Subscription] page, and click the [Subscribe a new L-Platform] button.
3. Confirm the contents of the L-Platform template on the [Select Template] page, and select L-Platform template to be used.  
All the L-Platform templates that are registered in the L-Platform and enabled are displayed on the [Select Template] page.

For each L-Platform template, the corresponding usage fees will also be displayed.

Estimated charges for the L-Platform template will only be displayed when the usage fees display is set to enabled.



L-Platform templates are displayed by the L-Platform template name in ascending order. The sequence in the specification display can be switched by clicking [Sorted by] followed by the [Ascending order] or [Descending order] button.

To search an L-Platform template using the keyword search function, enter [Keyword] and then click the [Search] button. Specify a character string in [Keyword] that is the keyword for the L-Platform template the user wants to use. Case is not distinguished for the strings you specify. When a keyword is specified, a search takes place based on the keywords that the Infrastructure administrator set in the specifications. The keyword search function cannot be used if the Infrastructure administrator did not set keywords. For example, to search a specification where Red Hat Linux 5.1 is installed as the operating system, specify "Linux 5.1".

4. Select the L-Platform template to be used and click the [Next] button.

The [Set Basic Info] page will be displayed.

The [L-Platform Name] is displayed by the L-Platform template name.

To change to an arbitrary name, the new name must be no more than 85 characters long, be unique within the organization and not include the following characters:

<, >, &, ', " and control characters

However, the strings and the number of characters that can be specified may vary depending on the L-Platform settings. It is recommended that the name be specified using no more than 23 of the following characters.

Alphanumeric characters, underscores ("\_") and hyphens ("-")

5. Enter the basic information and click the [Next] button.

The [Confirm] page will be displayed.



## Point

---

### CSV output

When the [Save as CSV] button located at the bottom left of the window is clicked, the [Select the destination to save] window is displayed where the L-Platform Template configuration can be saved as a CSV file.

The default CSV file name format is shown below. This file name can be modified as necessary.

```
SystemConfiguration (+ <L-Platform name >+)_ <date> + .csv
```

### Save configuration

By clicking the [Save Configuration] button, the L-Platform configuration is saved, and the display returns to the [Subscription] page. The saved L-Platform template can be subscribed by clicking the [Create from saved L-Platforms] button on the [Subscription] page.

---

6. Check the displayed contents of the L-Platform configuration, and click the [Next] button.  
When the [Next] button is clicked, the [Agreement] page will be displayed.
7. Check the license agreement displayed. Select the [Agree the license] check box, then, click the [Subscribe] button.

## Point

---

When the application process is enabled, clicking of the [Subscribe] button on the [Agreement] page displays the [Forward screen] window. Refer to "[5.5 Select Forward Destination of Application Process](#)" for details.

---

The [Complete] page will be displayed when the subscription to the L-Platform is accepted.

- When the application process is disabled

The following message will be displayed:

"A request to subscribe the L-Platform has been completed. The deployment may take some time to complete."

- When the application process is enabled

The following message will be displayed:

"The request to subscribe the L-Platform has been completed. The L-Platform will be deployed after approval and/or judgment procedures."

8. Click the [Close] button. The display returns to the [Subscription] page.

## Point

---

- When a subscribed L-Platform is deployed, a subscription completion notification email is sent to the subscriber. This email contains the information necessary to access the L-Platform. If deployment of the subscribed L-Platform fails, a subscription failure notification email is sent to the subscriber and the Infrastructure Administrator. In this case, check with the Infrastructure Administrator, and then subscribe again.
  - When a subscribed L-Platform includes server load balancer (SLB), refer to "[5.3.10 Server Load Balancer \(SLB\) Settings](#)" and setup the server load balancer after deploying the L-Platform and before operating the server load balancers.
- 

### L-Platform Template Reconfiguration Possible

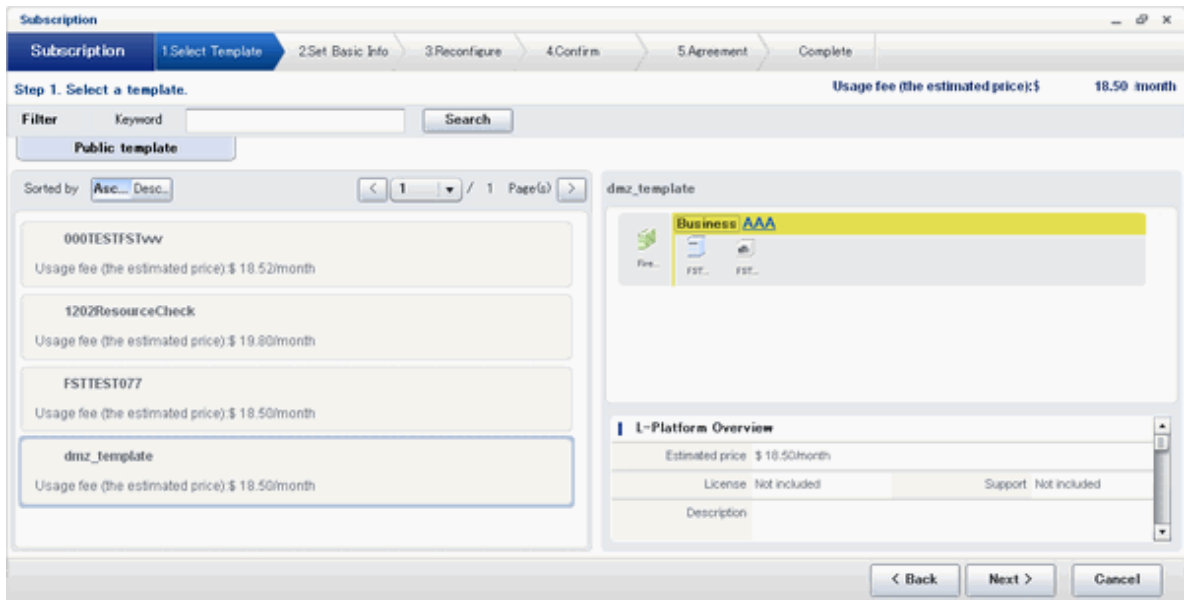
Follow the steps below to subscribe to a new L-Platform:

1. Select [Subscription] on the operation menu of the [L-Platforms] tab.  
The [Subscription] page will be displayed.
2. Confirm the procedures on the [Subscription] page, and click the [Subscribe a new L-Platform] button.

3. Confirm the contents of the L-Platform templates on the [Select Template] page, and select the L-Platform template to be used. All the L-Platform templates that are registered in the L-Platform and enabled are displayed on the [Select Template] page. For each L-Platform template, the corresponding usage fees will also be displayed.



Estimated charges for the L-Platform template will only be displayed when the usage fees display is set to enabled.



L-Platform templates are displayed by the L-Platform template name in ascending order. The sequence in the specification display can be switched by clicking [Sorted by] followed by the [Ascending order] or [Descending order] button.

To search a specification using the keyword search function, enter [Keyword] and then click the [Search] button. Specify a character string in [Keyword] that is the keyword for the L-Platform template the user wants to use. Case is not distinguished for the strings you specify. When a keyword is specified, a search takes place based on the keywords that the infrastructure administrator set in the specifications. The keyword search function cannot be used if the infrastructure administrator did not set keywords.

For example, to search an L-Platform template where Red Hat Linux 5.1 is installed as the operating system, specify "Linux 5.1".

4. Select the L-Platform template to be used and click the [Next] button. The [Set Basic Info] page will be displayed.

- L-Platform Name

The [L-Platform Name] displays the L-Platform template name.

To change to an arbitrary name, the new name must be no more than 85 characters long, be unique within the organization and not include the following characters:

< > & ' " and control characters

However, the strings and the number of characters that can be specified may vary depending on the L-Platform settings. It is recommended that the name be specified using no more than 23 of the following characters:

Alphanumeric characters, underscores ("\_") and hyphens ("-")

- Connection destination

When a connection destination has been specified using the L-Platform template to be used, you can specify whether to connect. Only the connection destinations specified using the L-Platform template are displayed as candidates.

If you do not want to connect to a connection destination specified using the L-Platform template, clear the check box for the L-Platform to be deployed.

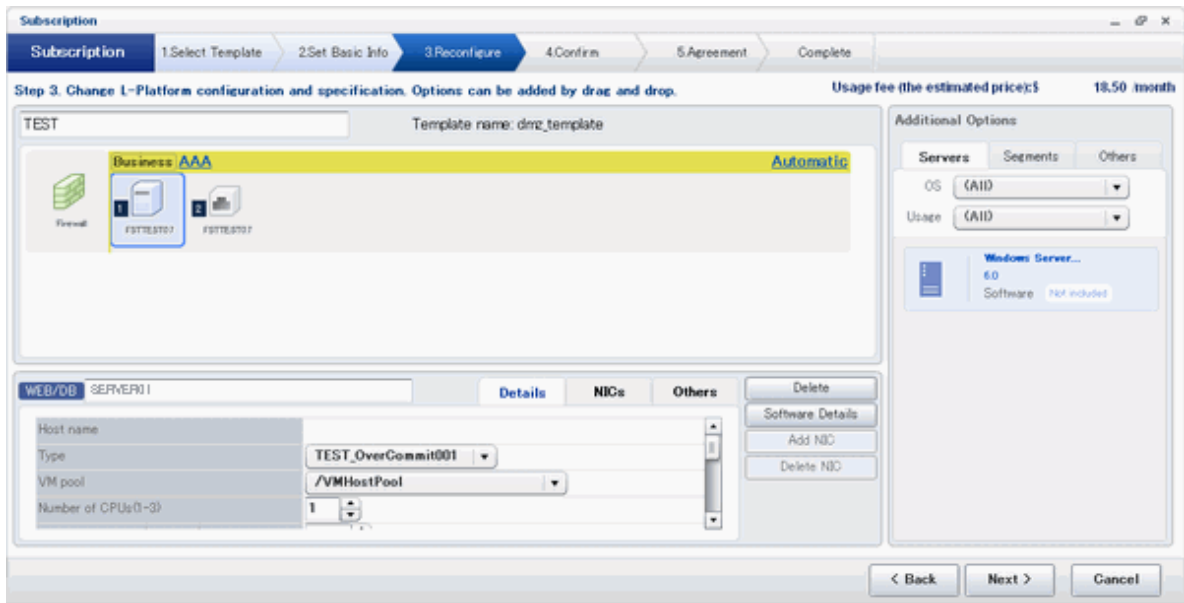
- Public IP address
- Automatic selection
- Manual selection

Specify the number of IP addresses to use.

Click the [Add] button, and then in the [Addition of public IP address] window displayed, add the IP address to be published. For [Added IP address], enter the IP address to be used by the L-Platform and click the [Add] button. To delete a specified IP address, select the IP address from the list and click the [Delete] button.

Consult the tenant administrator regarding the IP addresses that can be used.

5. Enter the basic Information, and click the [Next] button. The [Reconfigure] page will be displayed.



6. This will display the configuration of the L-Platform template selected on the [Reconfigure] page. Change the configuration as required. For the items that can be changed on the [Reconfigure] page, refer to "5.3.18 Reconfiguration Page".
7. When modification of the L-Platform template has completed, click the [Next] button. The [Confirm] page will be displayed.

| Item         | Display format   |
|--------------|--|
| Item changed | The values of changed items are displayed in red. The value before the change is displayed as "changed from <i>the old value</i> ".                  |
| Item added   | "* added" is displayed after added elements. The values of added items are displayed in red. The background of added items is also displayed in red. |
| Item deleted | "* deleted" is displayed after deleted items. The background of deleted items is displayed in grey.  |



### CSV output

When the [Save as CSV] button located at the bottom left of the window is clicked, the [Select the destination to save] window is displayed where the L-Platform Template configuration can be saved as a CSV file.

The default CSV file name format is shown below. This file name can be modified as necessary.

```
SystemConfiguration (+ <L-Platform name> +)_ <date> + .csv
```

### Save configuration

By clicking the [Save Configuration] button, the L-Platform configuration is saved, and the display returns to the [Subscription] page. The saved L-Platform template can be subscribed by clicking the [Create from saved L-Platforms] button on the [Subscription] page.

8. Check the displayed contents of the L-Platform, and click the [Next] button.  
When the [Next] button is clicked, the [Agreement] page will be displayed.
9. Review and agree with the license agreement displayed. Select the [Agree the license] check box, then click the [Subscribe] button.

### Point

When the application process is enabled, clicking of the [Subscribe] button on the [Agreement] page displays the [Forward screen] window. Refer to "5.5 Select Forward Destination of Application Process" for details.

The [Complete] page will be displayed when the subscription to the L-Platform is accepted.

- When the application process is disabled

The following message will be displayed:

"A request to subscribe the L-Platform has been completed. The deployment may take some time to complete."

- When the application process is enabled

The following message will be displayed:

"The request to subscribe the L-Platform has been completed. The L-Platform will be deployed after approval and/or judgement procedures."

10. Click the [Close] button. The display returns to the [Subscription] page.

### Point

- When a subscribed L-Platform is deployed, a subscription completion notification email is sent to the subscriber. This email contains the information necessary to access the L-Platform. If deployment of the subscribed L-Platform fails, a subscription failure notification email is sent to the subscriber and the Infrastructure Administrator.
- When a subscribed L-Platform includes server load balancer (SLB), refer to "5.3.10 Server Load Balancer (SLB) Settings" and setup the server load balancer after deploying the L-Platform and before operating the server load balancers.
- If the server virtualization software is RHEL-KVM or the subscribed L-Platform includes a Windows server other than Windows Server 2008 R2, after deployment the L-Platform will be available only after the infrastructure administrator configures the IP address, default gateway, and host name. Request the tenant administrator to configure the server after deployment.
- If the server virtualization software is OVM for x86, the L-Platform will be available only after the infrastructure administrator configures the IP address, default gateway, and host name following deployment. Request the tenant administrator to configure the server after deployment.
- If the server virtualization software is Citrix XenServer, then depending on the cloning image, the L-Platform will be available only after the infrastructure administrator configures the IP address, default gateway, and host name after deployment. Request the tenant administrator to configure the server after deployment. Check with the tenant administrator whether the cloning image requires configuration (IP address, etc.) after deployment.
- When the server virtualization software is OVM for SPARC, IP addresses are set only **to the NICs that are connected to admin LAN** when you deploy a server whose guest OS is Solaris 11. It is therefore recommended that you connect the NIC to the admin LAN. If a deployed server is not connected to admin LAN, the tenant administrator needs to set IP addresses and default gateway to the server before use. You also need to set IP addresses on guest OS to the NICs that are connected to business LAN, by confirming deployed IP addresses on the [L-Platforms] tab.

- If the server virtualization software is OVM for SPARC, the infrastructure administrator needs to configure deployed servers to enable direct root ssh login after deployment of a tenant user. When server deployment is complete, request the tenant administrator to enable direct root ssh login to the guest OS.
- If the server virtualization software is Solaris Zone and the administrator user name is "root", the infrastructure administrator needs to configure deployed servers to enable direct root ssh login after deployment of a tenant user. When server deployment is complete, request the tenant administrator to enable direct root ssh login to the guest OS.  
When the administrator user name is something other than "root", the above configuration is not necessary.
- For servers with Solaris Zones for the server virtualization software and Solaris 11 as the guest OS, when multiple NICs have been specified during deployment it is necessary to set the IP addresses and default gateway after the deployment is completed. Submit a request to the tenant administrator.
- If the server virtualization software is RHEL-KVM, contact the infrastructure administrator for information on how to subscribe to servers other than Windows or Linux servers.

## 5.2.2 L-Platform Subscription after Saving Configuration

An L-Platform subscription can be submitted on the basis of an L-Platform Template for which the configuration is currently being saved.

Perform the following steps to submit an L-Platform subscription from this type of L-Platform Template:

1. Select [Subscription] on the operation menu of the [L-Platforms] tab.  
This will display the procedures required to subscribe to an L-Platform.
2. After confirming the procedure, select [Subscribe from saved data].  
The [Select Template] page will be displayed.

The time limit for estimating is displayed in each L-Platform templates.

When an L-Platform Template is selected from the L-Platform Template list, detailed information about the usage fees and L-Platform Template at the time when the L-Platform Template was saved is displayed.

When the application process is enabled, the following status will be displayed before the L-Platform template names in the list of L-Platform templates:

- **SAVED:** Specification being saved  
The [Next] button will become available after selecting this item.
- **UNAPPROVAL:** Not approved  
The [Next] button will not become available even after selecting this item.
- **REJECTION:** Subscription rejected  
The [Next] button will not become available even after selecting this item.

### Note

In the application process, the L-Platform templates waiting for approve or to assess become the UNAPPROVAL state.

If you want to delete the L-Platform templates which state is UNAPPROVAL, cancel the corresponding application from application list of L-Platform. After canceling, it is deleted automatically.

When you delete the L-Platform templates which state is UNAPPROVAL on the [L-Platforms] tab, an error occurs because there is no L-Platform template in processing the application process.

The L-Platform template which is rejected or dismissed at application process becomes REJECTION state.

Delete it from the [L-Platforms] tab after the confirmation if necessary.

### Point

Usage fees and quotation expiry dates for the L-Platform template will only be displayed when the usage fees display is set to enabled. Note also that the usage fees will display the price at the time the L-Platform template was saved. In particular, please be aware that

this display will not change even if the price of the L-Platform is modified.

Furthermore, the displayed quotation expiry date is based on the validity period of estimated charges for the L-Platform template, and indicates the 30th day after the L-Platform template was saved.

3. Select the L-Platform template to be used and click the [Next] button  
The [Confirm] page will be displayed.

## Point

### CSV output

When the [Save as CSV] button located at the bottom left of the window is clicked, the [Select the destination to save] window is displayed where the L-Platform template can be saved as a CSV file.

The default CSV file name format is shown below. This file name can be modified as necessary.

```
SystemConfiguration (+ <L-Platform name> +)_ <date> + .csv
```

4. Check the displayed contents of the L-Platform configuration, and click the [Next] button.  
When the [Next] button is clicked, the [Agreement] page will be displayed.
5. Review and agree with the license agreement displayed. Select the [Agree the license] check box, then click the [Subscribe] button.

## Point

- When the application process is enabled, clicking of the [Subscribe] button on the [Agreement] page displays the [Forward screen] window. Refer to "[5.5 Select Forward Destination of Application Process](#)" for details.
- The saved specification will be removed if the [Subscribe] button on the [Agreement] page is clicked. To keep the specification, click the [Cancel] button.

The [Complete] page will be displayed when the subscription to the L-Platform is accepted.

- When the application process is disabled  
The following message will be displayed.  
"A request to subscribe the L-Platform has been completed. The deployment may take some time to complete."
- When the application process is enabled  
The following message will be displayed.  
"The request to subscribe the L-Platform has been completed. The L-Platform will be deployed after approval and/or judgement procedures."

6. Click the [Close] button. The display returns to the [Subscription] page.

## Point

- When a subscribed L-Platform is deployed, a subscription completion notification email is sent to the subscriber. This email contains the information necessary to access the L-Platform. If deployment of the subscribed L-Platform fails, a subscription failure notification email is sent to the subscriber and the Infrastructure Administrator. In this case, check with the Infrastructure Administrator, and then subscribe again.
- When a subscribed L-Platform includes server load balancer (SLB), refer to "[5.3.10 Server Load Balancer \(SLB\) Settings](#)" and setup the server load balancer after deploying the L-Platform and before operating the server load balancers.
- If the server virtualization software is RHEL-KVM or the subscribed L-Platform includes a Windows server other than Windows Server 2008 R2, after deployment the L-Platform will be available only after the infrastructure administrator configures the IP address, default gateway, and host name. Request the tenant administrator to configure the server after deployment.

- If the server virtualization software is OVM for x86, the L-Platform will be available only after the infrastructure administrator configures the IP address, default gateway, and host name following deployment. Request the tenant administrator to configure the server after deployment.
- If the server virtualization software is Citrix XenServer, then depending on the cloning image, the L-Platform will be available only after the infrastructure administrator configures the IP address, default gateway, and host name after deployment. Request the tenant administrator to configure the server after deployment. Check with the tenant administrator whether the cloning image requires configuration (IP address, etc.) after deployment.
- When the server virtualization software is OVM for SPARC, IP addresses are set only **to the NICs that are connected to admin LAN** when you deploy a server whose guest OS is Solaris 11. It is therefore recommended that you connect the NIC to the admin LAN. If a deployed server is not connected to admin LAN, the tenant administrator needs to set IP addresses and default gateway to the server before use. You also need to set IP addresses on guest OS to the NICs that are connected to business LAN, by confirming deployed IP addresses on the [L-Platforms] tab.
- If the server virtualization software is OVM for SPARC, the infrastructure administrator needs to configure deployed servers to enable direct root ssh login after deployment of a tenant user. When server deployment is complete, request the tenant administrator to enable direct root ssh login to the guest OS.
- If the server virtualization software is Solaris Zone and the administrator user name is "root", the infrastructure administrator needs to configure deployed servers to enable direct root ssh login after deployment of a tenant user. When server deployment is complete, request the tenant administrator to enable direct root ssh login to the guest OS.  
When the administrator user name is something other than "root", the above configuration is not necessary.
- For servers with Solaris Zones for the server virtualization software and Solaris 11 as the guest OS, when multiple NICs have been specified during deployment it is necessary to set the IP addresses and default gateway after the deployment is completed. Submit a request to the tenant administrator.
- If the server virtualization software is RHEL-KVM, contact the infrastructure administrator for information on how to subscribe to servers other than Windows or Linux servers.

---

## 5.3 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
- Server start and stop
- L-Platform reconfiguration
- Taking snapshots of and restoring virtual servers
- Physical server backup and restore
- L-Platform cancellation

## Note

### When using a firewall:

You can choose whether to apply a ruleset, depending on the L-Platform template used for deployment. Check with the tenant administrator for details.

## 5.3.1 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-Platforms] tab, 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.<br>It can display all servers or inactive servers. |

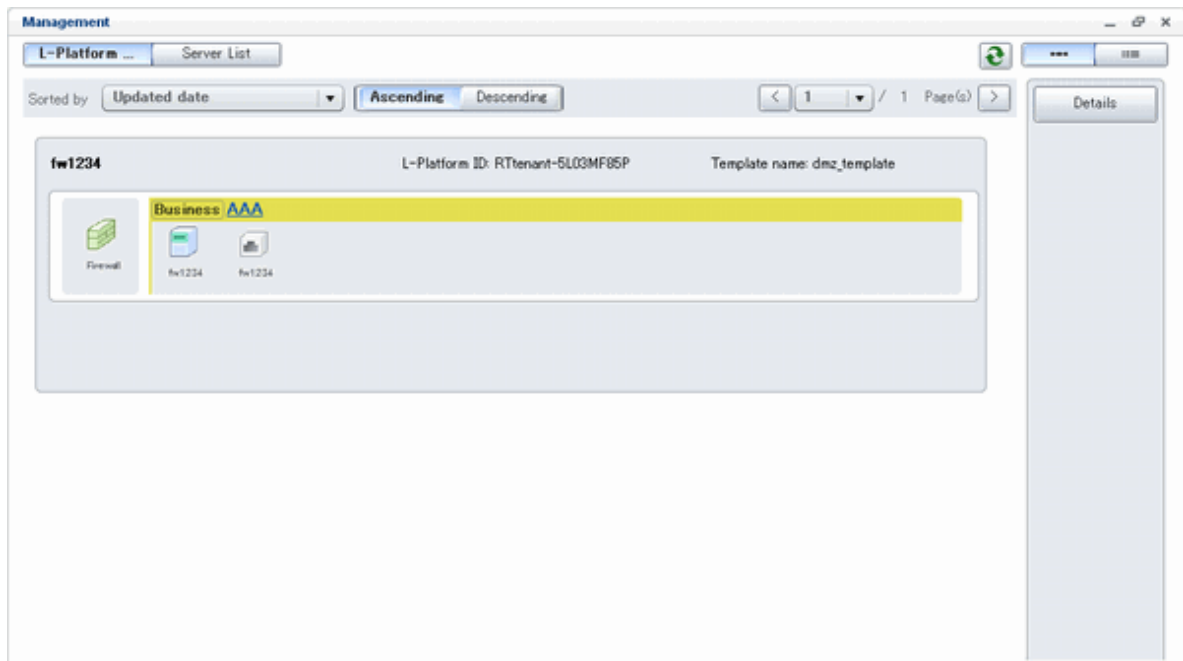
The buttons in the upper-left section of the page can be used to switch between the "L-Platform Management" and "Server List" display formats.

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.









- [Details] button: Display details on an L-Platform or a disk.  
Refer to "[5.3.2 L-Platform Detailed Information Display](#)" for information on displaying L-Platform details. Refer to "[5.3.3 Display Details on a Disk](#)" for information on displaying details on a disk.
- [Snapshot] button: Take and restore snapshots  
This button is displayed for virtual servers.  
But this button is not displayed when the target server satisfies either of the following conditions:
  - Servers whose virtualization software is Solaris Zone, OVM for x86, or OVM for SPARC.
  - Servers whose virtualization software is RHEL-KVM that satisfy either of the following conditions:
    - The image location type of the cloning image is "Raw Disk"
    - The image location type of the cloning image is "Virtual Disk", and one or more existing disks are connected
 Refer to "[5.3.6 Take and Restore Snapshot](#)" for information on taking and restoring snapshots.
- [Backup] button: Backup and restore.  
This button is displayed for physical servers.  
But this button is not displayed if the OS is Solaris.  
Refer to "[5.3.7 Physical Server Backup and Restore](#)" for information on backup and restore.

 **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.


## 5.3.2 L-Platform Detailed Information Display

---


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

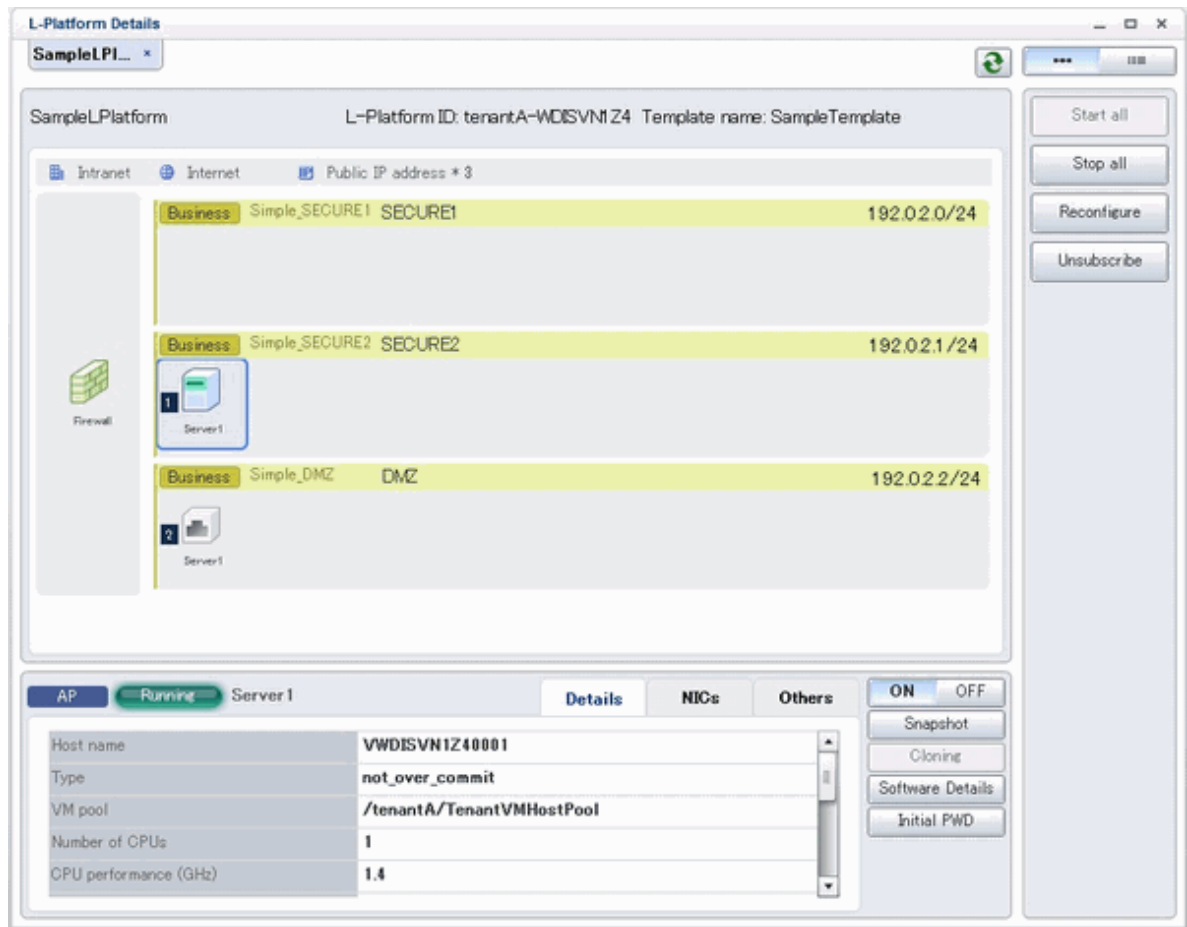
1. Display the [L-Platform Management], [L-Platform Management (list)], or the [Server List] page.  
Refer to "[5.3.1 L-Platform Management Display Page](#)" for information on how to display the page.
2. Click the [Details] button after selecting the L-Platform or the server required.  
The [L-Platform 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.




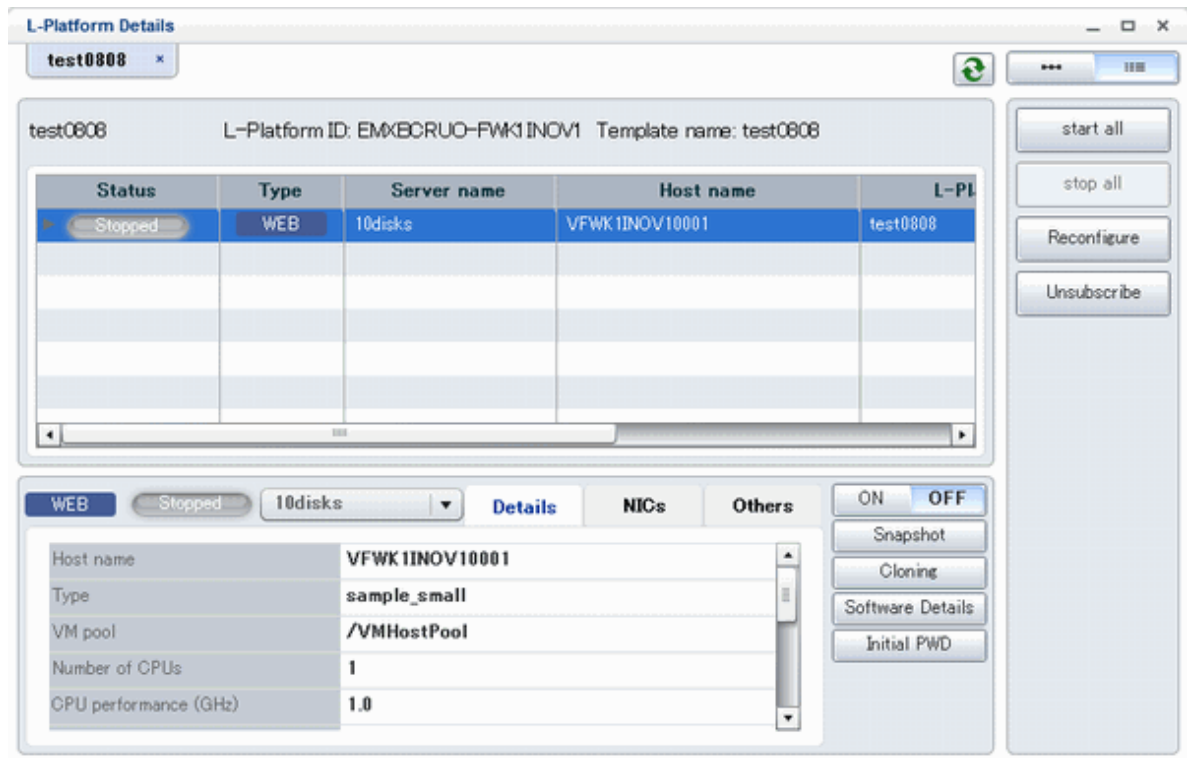
The screenshot displays the 'L-Platform Details' window for 'SampleLPI...'. The main area shows network configurations for 'SampleLPlatform' with L-Platform ID 'tenantA-WDISVN1Z4' and Template name 'SampleTemplate'. It lists three network segments: 'Simple\_SECURE1 SECURE1' (192.0.2.0/24), 'Simple\_SECURE2 SECURE2' (192.0.2.1/24), and 'Simple\_DMZ DMZ' (192.0.2.2/24). A 'Server1' icon is associated with each segment. On the right, there are control buttons: 'Start all', 'Stop all', 'Reconfigure', and 'Unsubscribe'. Below the network details, a 'Server 1' tab is active, showing VM details for 'VWDISVN1Z40001'. The VM is running and has 1 CPU at 1.4 GHz. Other details include Type 'not\_over\_commit' and VM pool '/tenantA/TenantVMHostPool'. On the far right, there are additional controls: 'ON/OFF' toggle, 'Snapshot', 'Cloning', 'Software Details', and 'Initial PWD' buttons.

| Business | Simple_SECURE1 | SECURE1 | 192.0.2.0/24 |
|----------|----------------|---------|--------------|
| Business | Simple_SECURE2 | SECURE2 | 192.0.2.1/24 |
| Business | Simple_DMZ     | DMZ     | 192.0.2.2/24 |

| AP                    | Running                   | Server 1 | Details | NICs | Others |
|-----------------------|---------------------------|----------|---------|------|--------|
| Host name             | VWDISVN1Z40001            |          |         |      |        |
| Type                  | not_over_commit           |          |         |      |        |
| VM pool               | /tenantA/TenantVMHostPool |          |         |      |        |
| Number of CPUs        | 1                         |          |         |      |        |
| CPU performance (GHz) | 1.4                       |          |         |      |        |

- 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:

- [Start all] button: Turns the power on for all servers in the L-Platform as a group.
- [Stop all] button: Turns the power off for all servers in the L-Platform as a group.
- [Reconfigure] button: Changes the L-Platform  
Refer to "[5.3.16 L-Platform Reconfiguration](#)" for information on changing L-Platforms.
- [Unsubscribe] button: Cancels the L-Platform  
Refer to "[5.3.17 Cancel an L-Platform](#)" for information on cancelling L-Platforms.  
Canceling is not possible if the following servers exist on the target L-Platform:
  - Servers whose server virtualization software is OVM for SPARC and to which a shared disk is connected.
  - Servers that use Solaris Zones for virtualization software and are operating Solaris 10 that is not managed by BladeLogic
- [ON] button: Start the server  
Refer to "[5.3.4 Start and Stop the Server](#)" for information on starting the server.
- [OFF] button: Stop the server  
Refer to "[5.3.4 Start and Stop the Server](#)" for information on stopping the virtual server.
- [Snapshot] button: Take and restore snapshots  
This button is displayed for virtual servers.  
But this button is not displayed when the target server satisfies either of the following conditions:
  - Servers whose virtualization software is Solaris Zone, OVM for x86, or OVM for SPARC.
  - Servers whose virtualization software is RHEL-KVM that satisfy either of the following conditions:
    - The image location type of the cloning image is "Raw Disk"

- The image location type of the cloning image is "Virtual Disk", and one or more existing disks are connected

Refer to ["5.3.6 Take and Restore Snapshot"](#) for information on taking and restoring snapshots.

- [Backup] button: Backup and restore  
This button is displayed for physical servers.  
But this button is not displayed if the OS is Solaris.  
Refer to ["5.3.7 Physical Server Backup and Restore"](#) for information on backup and restore.
- [Setting] button: Setup firewall  
This button is displayed for firewalls.  
Refer to ["5.3.8 Setup Firewall"](#) for information on setup firewall.
- [Log viewing] button: References the firewall log  
This button is displayed for firewalls deployed without using a ruleset.  
Refer to ["5.3.9 Referencing the Firewall Log"](#) for information on referencing the firewall log.
- [Operation] button: Operate server load balancer (SLB)  
This is displayed for server load balancers.  
Refer to ["5.3.11 Server Load Balancer \(SLB\) Operations"](#) for information on operating server load balancers.
- [Operation log] button: Server load balancer (SLB) operation log  
This is displayed for server load balancers.  
Refer to ["5.3.12 Server Load Balancer \(SLB\) Operation Logs"](#) for information on server load balancer operation logs.
- [SLB settings] button: Server load balancer (SLB) settings  
This is displayed for server load balancers.  
Refer to ["5.3.10 Server Load Balancer \(SLB\) Settings"](#) for information on server load balancer settings.
- [Software Details] button: Display software information
- [Initial PWD] button: Confirm the initial password  
Depending on the L-Platform settings, the "Initial password is *"Initial password"*". Sometimes it is displayed as ".  
The initial password is set after L-Platform deployment.  
When all the following conditions are satisfied, "The Root role password is *"Root role password"*." is displayed.
  - The server virtualization software is Solaris Zones
  - The OS of the virtual server is Solaris 11
  - The administrator user name is a value other than that of the root account
- [Add Patch Information] button: Register the patch information  
Refer to ["5.3.5 Manage Patch Information"](#) for information on registering patch information.
- [Delete Patch Information] button: Delete the patch information  
Refer to ["5.3.5 Manage Patch Information"](#) for information on deleting the patch information.

---

 **Note**

- If 'Start all' or 'Stop all' button is clicked while another user is reconfiguring the L-Platform, the start or stop operation fails with the error code VSYS10051.  
If this error occurs when no user is reconfiguring the L-Platform, perform the following operation before starting or stopping all servers.
  1. Click the [Reconfigure] button on the [L-Platform Details] page.
  2. After the following message is displayed, click the 'Obtain the lock on a mandatory basis' button, and then cancel the reconfiguration.

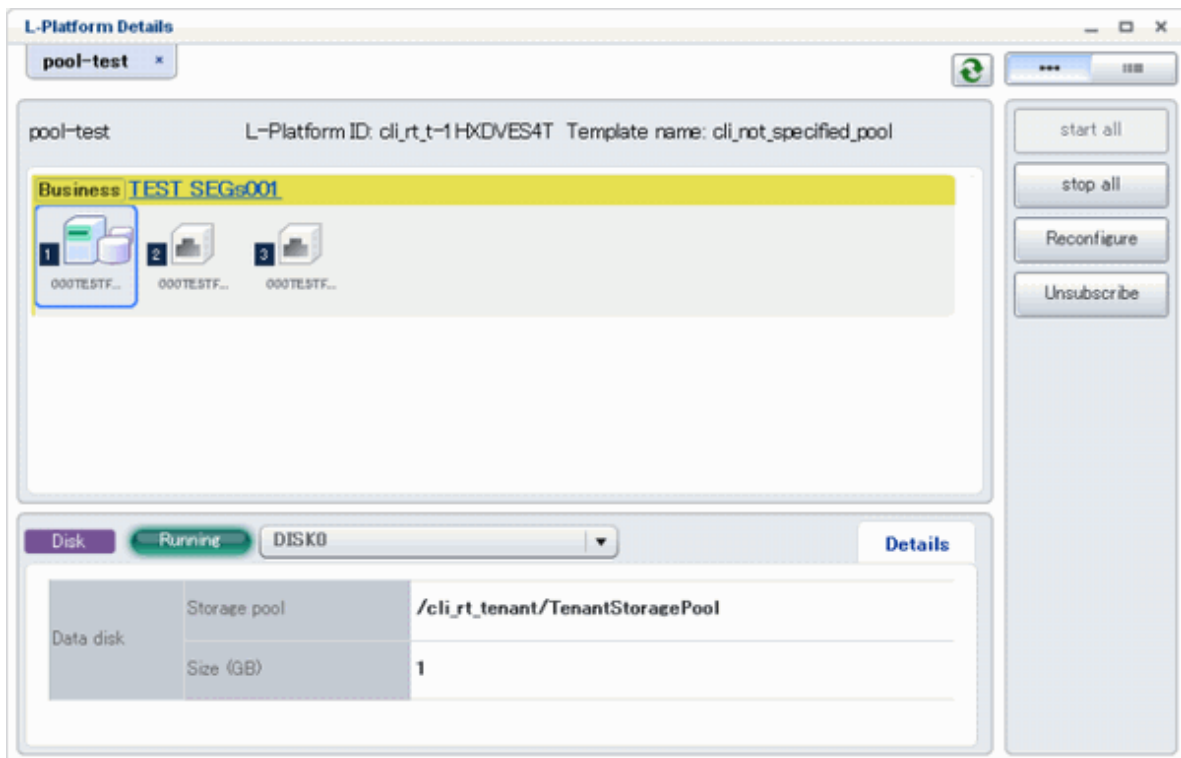
The L-Platform is locked by another user.  
After obtaining the lock on a mandatory basis, the operation can be continued.

- If a virtual server managed by OVM for SPARC is stopped using the [Stop all] or [OFF] button, the OVM for SPARC must support shutdown operations. If shutdown operations are not supported by the OVM for SPARC, the virtual server cannot be stopped. In this case, operate the virtual server directly or click the [Forced stop] button depending on the server status.
- If a server is imported to the L-Platform and no pool name is specified by the administrator, the "-" character is displayed for the VM pool, the server pool name, and the storage pool of the server.
- For physical servers, the number of CPUs, operating frequency, and memory size displayed are those specified by the user during the L-Platform subscription or when adding a server as part of an L-Platform reconfiguration. For physical servers added to the L-Platform, the values in effect during registration are displayed. For this reason, even if the number of CPUs, operating frequency, and memory size are changed, the displayed values will not change.

### 5.3.3 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 "5.3.2 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 the target disk from the menu.  
The details of the disk will be displayed on the [L-Platform Details] page.



#### Information

[Solaris Zones (Solaris 11)]

The server disk is the area mounted on the mount point /rcx/diskXXX of the non-global zone.

XXX is the index number of the disk without zero suppression.

### 5.3.4 Start and Stop the Server

Follow the steps below to start or stop a server:

1. Display the [Server List] page.  
Refer to "5.3.1 L-Platform Management Display Page" for information on how to display the page.

Alternatively, display the [L-Platform Details] page.

Refer to "5.3.2 L-Platform Detailed Information Display" for information on how to display the page.

2. After selecting a required server, click the [ON] button to start it or the [OFF] button to stop it.

## Note

- Even if the server is stopped using the [OFF] button, sometimes the server may not stop, due to a problem with the server. In this case, the [ON] button and [OFF] button act as [Forced stop] buttons. When a [Forced stop] button is clicked, the server will stop forcibly. The [Forced stop] button is designed to shut down the power to the server. Therefore, the recommendations for virtual servers is to use remote desktop connection to connect to the virtual server, and then to shut down the operating system.
- If a virtual server managed by OVM for SPARC is to be stopped and shutdown operations are not supported by the OVM for SPARC, it cannot be stopped. In this case, operate the virtual server directly or click the [Forced stop] button depending on the server status.
- To stop a server for VDI coordination, log in to the guest OS, and perform a shutdown.

## 5.3.5 Manage Patch Information

Patch information can be managed after it is applied to or deleted from a server that has been deployed.

### Register Patch Information

Follow the steps below to register patch information:

1. Display the [L-Platform Details] page.  
Refer to "5.3.2 L-Platform Detailed Information Display" for information on how to display the page.
2. After selecting the required server, select the [Others] tab.  
The following page will be displayed if the patch information has not been registered.

The screenshot shows the 'L-Platform Details' window for a server named 'test0808'. The window title is 'L-Platform Details' and the server name is 'test0808'. The L-Platform ID is 'EMXBCRUO-FWK11NOV1' and the Template name is 'test0808'. A table lists the server details:

| Status  | Type | Server name | Host name      | L-PI     |
|---------|------|-------------|----------------|----------|
| Stopped | WEB  | 10disks     | VFWK11NOV10001 | test0808 |

Below the table, there are tabs for 'WEB', 'Stopped', '10disks', 'Details', 'NICs', and 'Others'. The 'Others' tab is selected. A form titled 'Add Patch Information' is visible, with fields for 'OS' (Red Hat Enterprise Linux 6 (for x86)), 'License', and 'Support'. On the right side of the window, there are buttons for 'start all', 'stop all', 'Reconfigure', and 'Unsubscribe'. At the bottom right, there are buttons for 'ON', 'OFF', 'Snapshot', 'Cloning', 'Software Details', and 'Initial PWD'.



- Click the [Add Patch Information] button.  
The [Add Patch Information] page will be displayed.

| Item           | Description  |
|----------------|--|
| Patch ID       | Specify the patch ID that has been applied.<br>The patch ID must be no more than 32 bytes of alpha-numeric one-byte characters.  |
| Component name | Specify the name of the component where the patch is to be applied.<br>The name must be no more than 85 characters long and not include the following characters:<br><br><, >, &, ', " and control characters                    |
| Description    | Specify the description related to the patch information that has been applied.<br>The description must be no more than 85 characters long and not include the following characters:<br><br><, >, &, ', " and control characters |

- Enter the required fields and click the [OK] button.

### Delete Patch Information

Follow the steps below to delete patch information that has been registered:

- After selecting the required server on the [L-Platform Details] page, select the [Others] tab.
- Click the [Delete patch information] button of the patch information to be deleted.  
A message confirming the deletion will be displayed. Click the [OK] button.

## 5.3.6 Take and Restore Snapshot

Using the [Snapshot] page, snapshots can be taken and restored for the virtual server.

These are supported if the server virtualization software is VMware, Hyper-V, or Citrix XenServer.

If the server virtualization software is Citrix XenServer, the corresponding virtual server must be stopped when taking a snapshot.

To take the restore them, the target virtual server must be inactive.

Snapshot is managed by the generation. Snapshots of older generations will be deleted if snapshots that are older than three generations are to be taken.

Contact the system administrator if it is necessary to take snapshots over 4 or more generations.



#### Note

- The server will enter an error state if an error occurs while taking or restoring snapshots.  
When this occurs, a character string "Error" and [x] button will be displayed on the [Snapshot] column of the relevant row on the [Server List] page. To clear the error state, click the [X] button.
- The backup products that support the virtual server backup operations located on the server virtualization software must be used to back up the virtual server to a disk or tape device that is not the disk device the virtual server is running on.
- NICs cannot be added to or deleted from a server that has snapshots. When adding or deleting NICs, delete all snapshots of the server beforehand.
- Even if a created snapshot is not deleted, contact the System Administrator if it is not displayed in the [Snapshot] window.

### Take Snapshots

Follow the steps below to take snapshots:

- Display the [Server List] page.  
Refer to "[5.3.1 L-Platform Management Display Page](#)" for information on how to display the page.  
Alternatively, display the [L-Platform Details] page.  
Refer to "[5.3.2 L-Platform Detailed Information Display](#)" for information on how to display the page.

2. After selecting a required server, click the [Snapshot] button.  
The [Snapshot] page will be displayed.
3. Click the Start to [Take Snapshot] button.
4. A pop-up window will be displayed. Enter a comment of less than 128 characters.  
When the target server is RHEL-KVM, enter the comment using single-byte alphanumeric characters and symbols (excluding "<", ">", "&", "'", '"', "%", "\").  
This will display the comment entered on the snapshot list.
5. Click the [Take Snapshot] button to start taking the snapshot.

## Restore Snapshots

Follow the steps below to restore the taken snapshots:

1. Select the required snapshot from the snapshot list on the [Snapshot] page.
2. When the [Restore] button is clicked, the restore processing of the snapshot will start.



### Point

- To delete the snapshots taken, select the snapshot to be deleted from the snapshot list, and click the [Delete] button.
- The disk size and estimated charges when taking a snapshot will only be displayed when the estimated fees display is enabled.

## 5.3.7 Physical Server Backup and Restore

---

The [Backup] page can be used to back up and restore a physical server.

The target physical server must be running before performing backup and restore.

Backup is managed by the generation. Backups of older generations will be deleted if snapshots that are older than three generations are to be taken.

Contact the system administrator if it is necessary to take backups over 4 or more generations.



### Note

- If an error occurs during backup or restores processing, an error state occurs for the server.  
At this time, the character string "Error" and an [X] button are displayed in the Backup column of the relevant row of the [Server List] page. The error status can be cancelled by clicking this [X] button.
- If a server is reconfigured after backup, when the server is restored it may revert to the configuration prior to the reconfiguration. It is recommended to make a new backup after reconfiguration.

## Backup

Follow the steps below to backup:

1. Display the [Server List] page.  
Refer to "[5.3.1 L-Platform Management Display Page](#)" for information on how to display the page.  
Alternatively, display the [L-Platform Details] page.  
Refer to "[5.3.2 L-Platform Detailed Information Display](#)" for information on how to display the page.
2. After selecting a required server, click the [Backup] button,  
The [Backup] page will be displayed.
3. Click the [Take Backup] button.
4. A pop-up window will be displayed. Enter a comment of less than 128 characters.  
This will display the comment entered on the backup list.
5. Click the [Take Backup] button to start backup.

## Restore

Perform the following operations to restore a backed up server:

1. In the backup list in the [Backup] page, select the target backup.
2. Click the [Restore] button to start the restore.

## 5.3.8 Setup Firewall

Change the firewall settings.

The operation for setting up a firewall differs depending on whether a ruleset is used when an L-Platform that uses a firewall is deployed.

### When an L-Platform that uses a firewall is deployed without the use of a ruleset

Click the [Setting] button to display the [Firewall setting] window.

The screenshot shows the 'Firewall settings' window. It is divided into three main sections:

- DNAT settings:** A table with two columns: 'Public IP address' and 'Target server'. Below the table are 'Set' and 'Clear' buttons.
- SNAPT settings:** A table with two columns: 'Public IP address' and 'Target server list'. Below the table are 'Add targets' and 'Delete' buttons.
- Firewall rules:** A section with 'FROM' and 'TO' dropdown menus, 'Refine' and 'Release' buttons, and a table with columns: 'FROM', 'TO', 'ID', 'Source', 'Source port', 'Destination', 'Destinatio...', 'Protocol', 'Action', and 'Log'. Below the table is the text 'Rules that can be added:180/Max for this L-Platform:180'. At the bottom right of this section are 'Add', 'Edit', and 'Delete' buttons.

At the bottom of the window are 'Submit' and 'Cancel' buttons.

This window enables you to set "DNAT setting" and "SNAPT setting" and to add, edit, and delete firewall rules. These settings operate the network device when the [Submit] button is clicked at the bottom right of the window.

When the firewall is to connect to the outside, first set the DNAT and SNAPT for public IP addresses. DNAT and SNAPT must be defined before you make Internet settings in the firewall rule settings. There is no need to set DNAT or SNAPT when there is not going to be a connection with the Internet.

The rules for accepting connection are defined in the firewall rule settings. The rule " FROM and TO:not specified, ID:59900, Source, Source port, Destination, Destination port and Protocol:not specified, Action:Drop and Log:On" is the regular definition, so if no rules are defined, the firewall blocks all connections. When there are multiple firewall rules, the rules are applied in ascending order according ID value, so make the settings with this prioritization in mind.

The following describes the settings in detail:

#### - DNAT setting

You can set DNAT at the top left of the [Firewall setting] window.

The list shows IP addresses to be published. These are the IP addresses used by the L-Platform. From the list, select an IP address to

be published and click the [Set] button. In the [DNAT setting] window that is displayed, specify the target. You can clear the setting at this point by selecting [It does not set it] or by selecting the IP address to be published in the [Firewall setting] window and clicking the [Clear] button.

- SNAPT setting

You can set SNAPT at the top right of the [Firewall setting] window.

The drop-down menu to the left of the list stores the IP addresses to be published. These are the IP addresses used with the L-Platform. Click the [Add target] button. In the [Add SNAPT targets] window that is displayed, specify the target server for the IP address to be published that you selected in the drop-down menu. You can delete this setting by selecting the target in the [Firewall setting] window and clicking the [Clear] button.

- Firewall rules

You can set firewall rules at the bottom of the [Firewall setting] window.

Click the [Add] button to start the [Add Firewall rule] wizard, and add firewall rules.

- [Add Firewall rule] window

- [Select direction] page

Specify the direction of the firewall rules. The drop-down menu lists the segment types in the segments on the L-Platform and the connection destinations of the L-Platform. Specify the direction of the firewall rules and click [Next] to display [Rule setting] page.

- [Rule setting] page

Set the details of the rule.

The table below explains the items.

| Item             | Explanation  |
|------------------|--|
| ID               | ID of the rule<br>The rules are applied in ascending order according ID value.<br>Specify a two-digit number. You cannot specify the same number for firewall rules that have the same direction within a single L-Platform.<br>The smallest value of the numbers that can be specified by default will be entered.                                    |
| Source           | Specify the source.<br>Enter a value or select one from the drop-down menu, depending on the direction of the firewall rules.<br>When a textbox is valid, it is possible to specify in ranges (for example, 192.0.2.1-192.0.2.5) or to specify the network mask (for example, 192.0.2.0/24), as well as being able to specify them individually.       |
| Source port      | The source port number for all rules will always be [any].   |
| Destination      | Specify the destination.<br>Enter a value or select one from the drop-down menu., depending on the direction of the firewall rules.<br>When a textbox is valid, it is possible to specify in ranges (for example, 192.0.2.1-192.0.2.5) or to specify the network mask (for example, 192.0.2.0/24), as well as being able to specify them individually. |
| Destination port | Specify the destination port number.<br>Enter a value or select one from the drop-down menu.<br>When directly entering values and multiples are specified, it is possible to specify in ranges (for example, 12000-13000), as well as being able to specify them individually.   |
| Protocol         | Specify a protocol.<br>Select one from the drop-down menu.   |
| Action           | Specify the method for processing connections that satisfy the rule conditions.<br>Select one from the drop-down menu.   |

| Item | Explanation   |
|------|---|
| Log  | Specify whether to collect a log of connections that satisfy the rule conditions. Select one from the drop-down menu. |

After specifying the items, click the [Next] button to display the [Confirmation] page.

- [Confirmation] page

Confirm the rule settings. The [OK] button adds the rule, but the settings are not sent to the network device until the [Submit] button is clicked in the [Firewall setting] window.

- [Firewall rule edit] window

Select a rule from the list of firewall rules at the bottom of the [Firewall setting] window, and then click the [Edit] button. You can then edit the firewall rule. However, you cannot change the direction of the firewall rules during the editing process.

- Firewall rule delete

Select a rule from the list of firewall rules at the bottom of the [Firewall setting] window and click the [Delete] button to delete the firewall rule.



### Note

If the number of Firewall rule is zero, the [Submit] button of the [Firewall setting] window is unavailable.

## When an L-Platform that uses a firewall is deployed with the use of a ruleset

The firewall ruleset parameter values can be changed in the firewall settings.

Perform the following steps to change the firewall settings:

1. Display the [L-Platform Details] page

Refer to "[5.3.2 L-Platform Detailed Information Display](#)" for information on the display method.

2. Select the firewall, and then click the [Setting] button.

3. [Firewall] page is displayed.

- Selected ruleset: Displays the ruleset names.
- Description: Displays the ruleset descriptions.
- Segment/Server: The names of the segments or servers where the parameters are enabled are displayed. "-" is displayed for parameters are unrelated to the segment or server.
- Parameter: Displays the parameter names.
- Description: Displays an explanation of the parameter
- Value: Enter the value to be set for the parameter

- Description of the selected parameter: The description of the parameter in the row being pointed at is displayed.

Firewall

Firewall Firewall

Set parameters for the firewall.

Selected rule set FW\_of\_3Tier\_sys\_inc\_SLB-IPCOM1

Description 3 Tier firewall and SLB system (scope is within 3 tier)

| Segment/Server | Parameter           | Description                 | Value |
|----------------|---------------------|-----------------------------|-------|
| -              |                     |                             |       |
| -              |                     |                             |       |
| DMZ            |                     |                             |       |
| Server1        |                     |                             |       |
|                | SrcNapt-Global-IPv4 | Type the NAT ip address ... |       |
|                | Server1-DMZ-IPv4    | Type the IPv4 address of... |       |

Description of the selected parameter

Update Cancel

4. When the [Update] button is clicked, a confirmation message is displayed.  
Click the [OK] button to save and apply the firewall settings.

### Point

Firewall settings cannot be set by L-Platform subscription or L-Platform reconfiguration.

After an L-Platform is deployed, check the IP addresses of the servers included in the L-Platform and the port numbers used by the installed middleware. Then, set the allowed IP addresses and port numbers in the relevant ruleset parameters in the firewall settings.

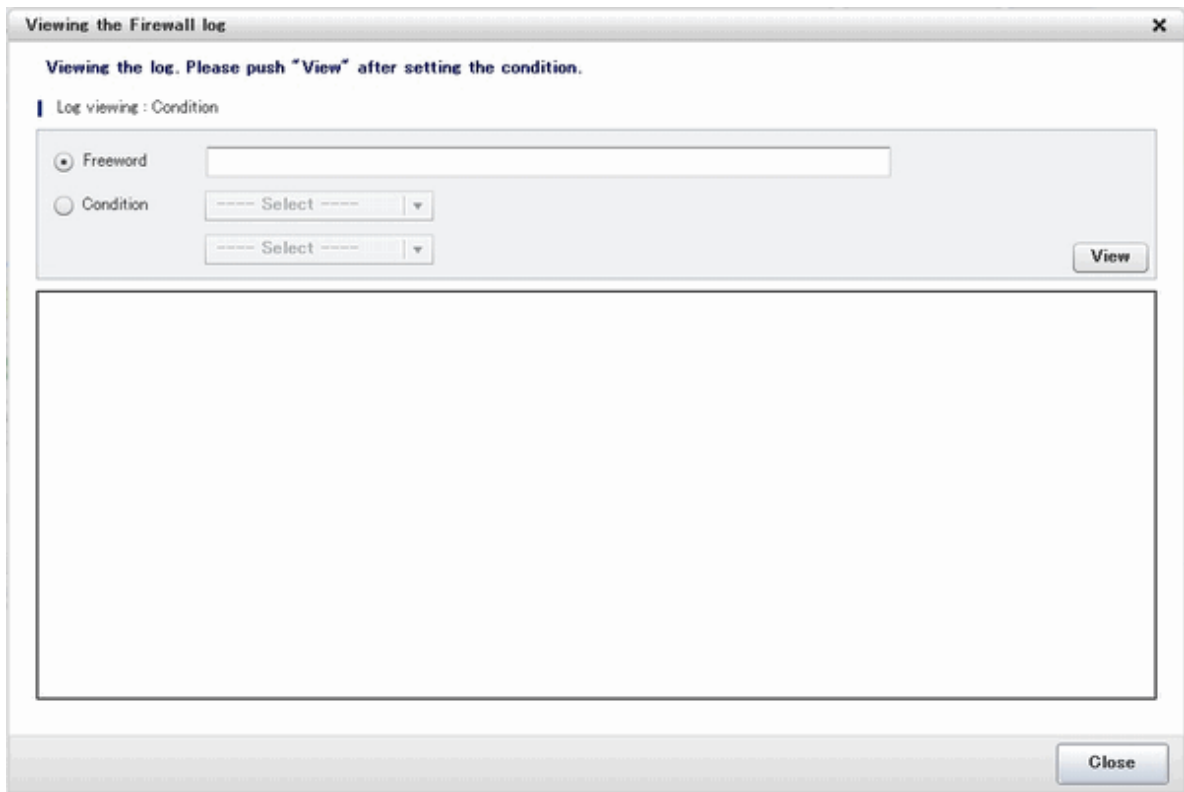
## 5.3.9 Referencing the Firewall Log

You can reference the firewall log by using the [Viewing the Firewall log] page. It can be used only when you have not used a ruleset when deploying an L-Platform that uses a firewall.

Perform the following steps to reference the firewall log:

1. Display the [L-Platform Details] page.  
Refer to "5.3.2 L-Platform Detailed Information Display" for information on how to display this page.
2. Select a firewall and click the [Log viewing] button.

3. The [Viewing the Firewall log] page is displayed.



The [View] button displays up to 1,000 firewall logs, starting with the most recent one.

You can filter the logs to be displayed by specifying log reference conditions.

The specifiable log reference conditions are [Freeword] and [Condition]. Specify either value and then click [View].

The following explains the procedures for specifying [Freeword] and [Condition].

- [Freeword]: Only logs corresponding to the string that you directly entered will be referenced.  
Select the [Freeword] option button, and then enter a string in the textbox.  
Specify up to 40 characters. Allowed characters are: A-Z, a-z, 0-9, symbols (=, ., : - / ( ) [ ]) and space (ASCII code: 0x20).
- [Condition]: The items specified for the firewall rules are used as display conditions to filter the contents of the logs to be displayed.

Select the [Condition] option button, and then select the condition you want to specify from the drop-down menu. When you select a condition specification from the drop-down menu, a textbox or another drop-down menu is displayed next to it - you must specify an option by that as well.

You can select up to two condition specifications.

The table below describes the items you can specify in the condition specification.

| Condition specification item | Description   |
|------------------------------|---|
| ID                           | Enter the five-digit number representing the ID of the firewall rule to be used as the log filtering condition.                                 |
| Source Address               | Enter the IPv4 address representing the source IP address of the firewall rule to be used as the log filtering condition.                       |
| Source Port                  | Enter a number containing 1 to 5 digits and representing the source port number of the firewall rule to be used as the log filtering condition. |
| Destination Address          | Enter the IPv4 address representing the destination IP address of the firewall rule to be used as the log filtering condition.                  |

| Condition specification item | Description   |
|------------------------------|---|
| Destination Port             | Enter a number containing 1 to 5 digits and representing the destination port number of the firewall rule to be used as the log filtering condition.  |
| Protocol                     | Select the protocol of the firewall rule to be used as the log filtering condition. Select from [TCP], [UDP], [TCP-UDP], and [ICMP].  |
| Action                       | Specify the firewall rule action to be used as the log filtering condition. Select from [Accept] and [Drop].  |
| Direction                    | Specify [FROM] and [TO] indicating the direction of the firewall rule to be used as the log filtering condition. Select from [Internet], [Intranet, DMZ], [SECURE1], and [SECURE2] as the [FROM] and [TO] points. |

## 5.3.10 Server Load Balancer (SLB) Settings

This section describes the settings for the server load balancer (SLB).

The operation differs depending on whether a ruleset is used when an L-Platform that uses an SLB is deployed.

### 5.3.10.1 When an L-Platform that Uses a Server Load Balancer (SLB) Is Deployed Without Using a Ruleset

When an L-Platform that uses a server load balancer (SLB) that does not use a ruleset has been deployed, use the [SLB Rule Management] window to change the settings of the server load balancer.

#### [SLB Rule Management] Window

Click the [Rules] button to display the [SLB Rule Management] window.

This window can be used to view, add, edit, and delete rule settings for SLBs.

These settings are reflected on the network device when the [Execute] button is clicked at the bottom right of the window.

#### - Adding SLB Rules

Click the [Add] button at the bottom right of the [SLB Rule Management] window to display the [SLB Rule Add] window where you can add SLB rules.

On this window, configure details of the SLB rule.

The table below explains the items.

| Classification | Item      | Explanation   |
|----------------|-----------|---|
| Common         | Rule ID   | ID of the rule.<br>Specify a two-digit number. Specifying the same number for multiple SLB rules within a single SLB is not allowed.<br>The smallest value of the numbers that can be specified by default will be entered. |
|                | Protocol  | Select one of the following protocols.<br><br>- HTTP<br>- HTTPS<br>- HTTP+HTTPS<br>- TCP<br>- UDP   |
|                | Port      | Specify the port number.<br>Input format differs depending on the protocol used.  |
|                | LB Method | Select one of the following load balancing methods.<br><br>- Round Robin  |



| Classification  | Item                             | Explanation  |
|-----------------|----------------------------------|--|
|                 |                                  | - Smallest connection unit   |
|                 | Uniqueness Assurance             | Select one of the following uniqueness assurance methods.<br><ul style="list-style-type: none"> <li>- Connection unit</li> <li>- IP address unit</li> </ul> Note that when the [Protocol] is "HTTP+HTTPS", the value cannot be changed from "IP address unit".   |
|                 | Service Monitoring Method        | Select one of the following service monitoring methods.<br><ul style="list-style-type: none"> <li>- ping</li> <li>- TCP</li> </ul> Note that when the [Protocol] is "UDP", the value cannot be changed from "ping".  |
| Details         | Max connections                  | <ul style="list-style-type: none"> <li>- When the protocol is "HTTP", "TCP", or "UDP"<br/>Specify the maximum number of connections within the range from 1 - 58000. The default value is 58000.</li> <li>- When the protocol is "HTTPS" or "HTTP+HTTPS"<br/>Specify the maximum number of connections within the range from 1 - 10000. The default value is 10000.</li> </ul> |
|                 | Retain Uniqueness Assurance Info | Specify retain uniqueness assurance info within the range of 1 - 604800 seconds. The default value is 90 seconds.<br>This value cannot be specified when [Uniqueness Assurance] is configured for each connection.   |
|                 | Service Monitoring Interval      | Specify the interval of service monitoring within the range of 10 - 99999 seconds. The default value is 60 seconds.  |
|                 | Service Monitoring Timeout       | Specify the timeout of service monitoring within the range of 1 - 99 seconds. The default value is 10 seconds.   |
|                 | Service Monitoring Retry         | Specify the number of retries for service monitoring within the range of 0 - 10. The default value is 3.   |
|                 | Server Restoration Action        | Select one of the following server restoration actions.<br><ul style="list-style-type: none"> <li>- Automatic backup</li> <li>- Manual backup</li> </ul>   |
|                 | Certificate                      | Registration No.   |
| Expiration Date |                                  | The expiration date of the certificate.<br>The expiration date of the certificate specified on the [Certificate Selection] window which opens when the [Select] button is clicked is displayed.  |
| Error Page      | Undergoing Maintenance           | Use this item to configure the error page displayed when the error occurred due to maintenance mode.<br>From the drop-down menu, select "Default" or "Customize".<br><br>For the settings for customizing pages, refer to "I.3.3 Error Page Response Files" in the "Design Guide CE".  |
|                 | Server Stopped                   | Use this item to configure the error page displayed when the error occurred because the server has been stopped.<br>From the drop-down menu, select "Default" or "Customize".  |

| Classification       | Item                                 | Explanation   |
|----------------------|--------------------------------------|---|
|                      |                                      | For the settings for customizing pages, refer to "I.3.3 Error Page Response Files" in the "Design Guide CE".  |
|                      | Access Limited                       | Use this item to configure the error page displayed when the error occurred due to access limitations.<br>From the drop-down menu, select "Default" or "Customize".<br><br>For the settings for customizing pages, refer to "I.3.3 Error Page Response Files" in the "Design Guide CE". |
| Distribution Targets | Server Name<br>NIC NO.<br>IP Address | The information of distribution target servers.<br>This field displays the information of the server specified on the window which opens when the [Add] button is clicked.  |
|                      | Port                                 | This field displays the information of the port specified on the window which opens when the [Add] button is clicked.   |

- [Add Distribution Targets] Window

The following items can be configured:

Clicking the [OK] button reflects the settings to the [Distribution Targets] section of the [SLB Rule Add] window.

| Item                 | Description  |
|----------------------|--|
| Distribution Targets | Select distribution targets from the servers on the same segment as the SLB. |
| Port                 | Specify the port number within the range of 1 - 65535.                       |

- Deletion of Distribution Target Servers

Select a target server from the list of Distribution Targets and then click the [Delete] button at the right bottom of the window to delete that server.

- Editing SLB Rules

Select an SLB rule from the SLB rule list and then click the [Edit] button at the right bottom of the [SLB Rule Management] window to display the [SLB Rule Edit] window where you can edit the SLB rule.

- **Deletion of SLB Rules**

Select an SLB rule from the SLB rule list and then click the [Delete] button at the right bottom of the [SLB Rule Management] window to delete the SLB rule.

### 5.3.10.2 When an L-Platform that Uses a Server Load Balancer (SLB) Is Deployed Using a Ruleset

When an L-Platform that uses a server load balancer (SLB) that uses a ruleset has been deployed, the parameter values of the ruleset of the server load balancer can be changed.

Server load balancer settings are changed as follows:

1. Display the [L-Platform Details] page.

Refer to "[5.3.2 L-Platform Detailed Information Display](#)" for information on the display method.

2. After selecting a server load balancer (SLB), click [SLB settings].

3. [SLB settings] page is displayed.

- Selected ruleset: Displays the ruleset names.
- Description: Displays the ruleset descriptions.
- [SLB] tab: Parameters that are unrelated to the server are displayed. The following items are displayed:
  - Parameter: Displays the parameter labels.
  - Description: Displays the parameter descriptions.

- Value: Enter the value to be set for the parameter.
- Description of the selected parameter: The description of the parameter in the row being pointed at is displayed.

**SLB settings** ✕

**Set parameters for the selected rule set.**

|                   |   |  |
|-------------------|---|--|
| Selected rule set | SLB_without_SSL-ACC-IPCOM1                                    |  |
| Description       | Server Load Balancer without SSL accelerator for hosting syst |  |

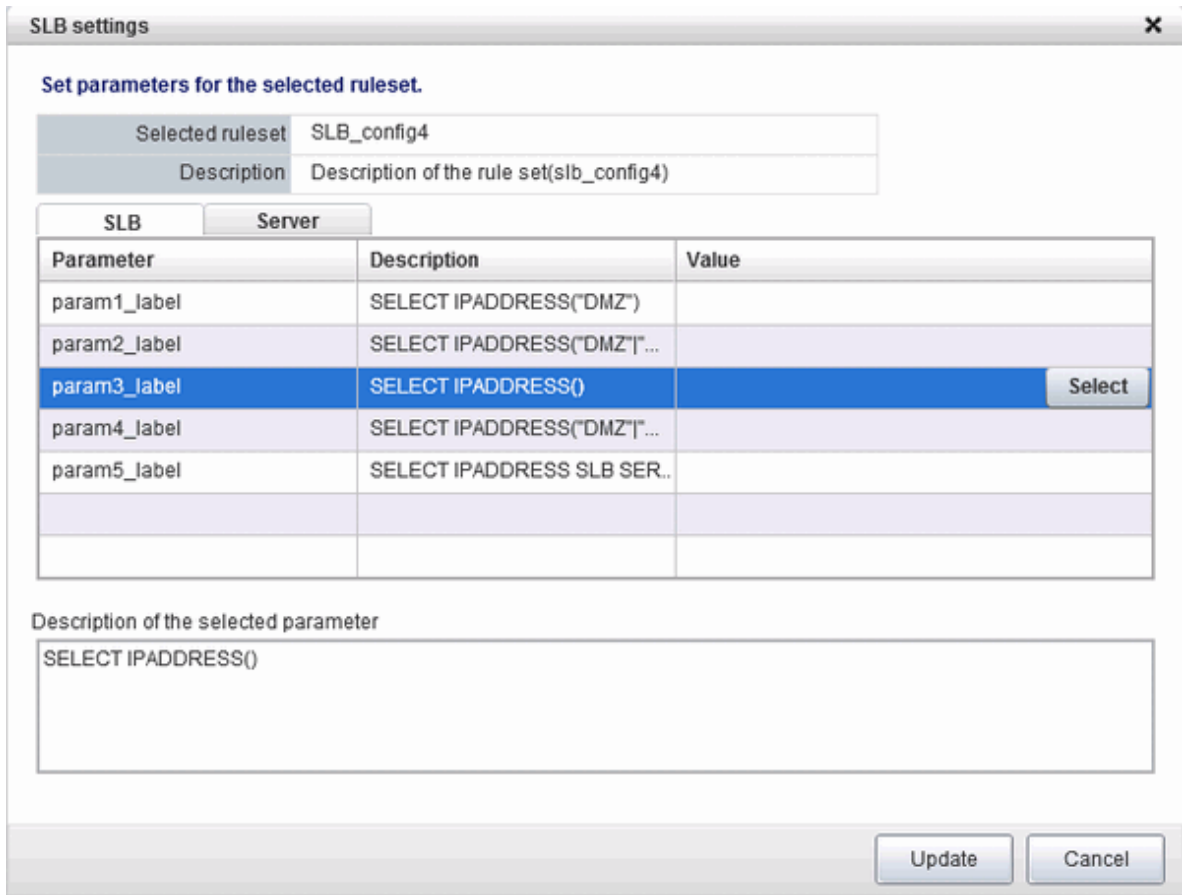
| SLB                |                             | Server      |
|--------------------|-----------------------------|-------------|
| Parameter          | Description                 | Value       |
| Address            | Type the IPv4 address of... |             |
| Service_Port       | Select the port of the v... | 80          |
| ConnectionLimit    | Type the maximum number ... |             |
| DistributionMethod | Specify the distribution... | round-robin |
| L4_persistence     | Specify the L4 persisten... | node        |

Description of the selected parameter

Update
Cancel

If the parameter row type is the IP address, the [Select] button will be displayed when the corresponding row is selected - click [Select] to display the [Parameter Setting] window.

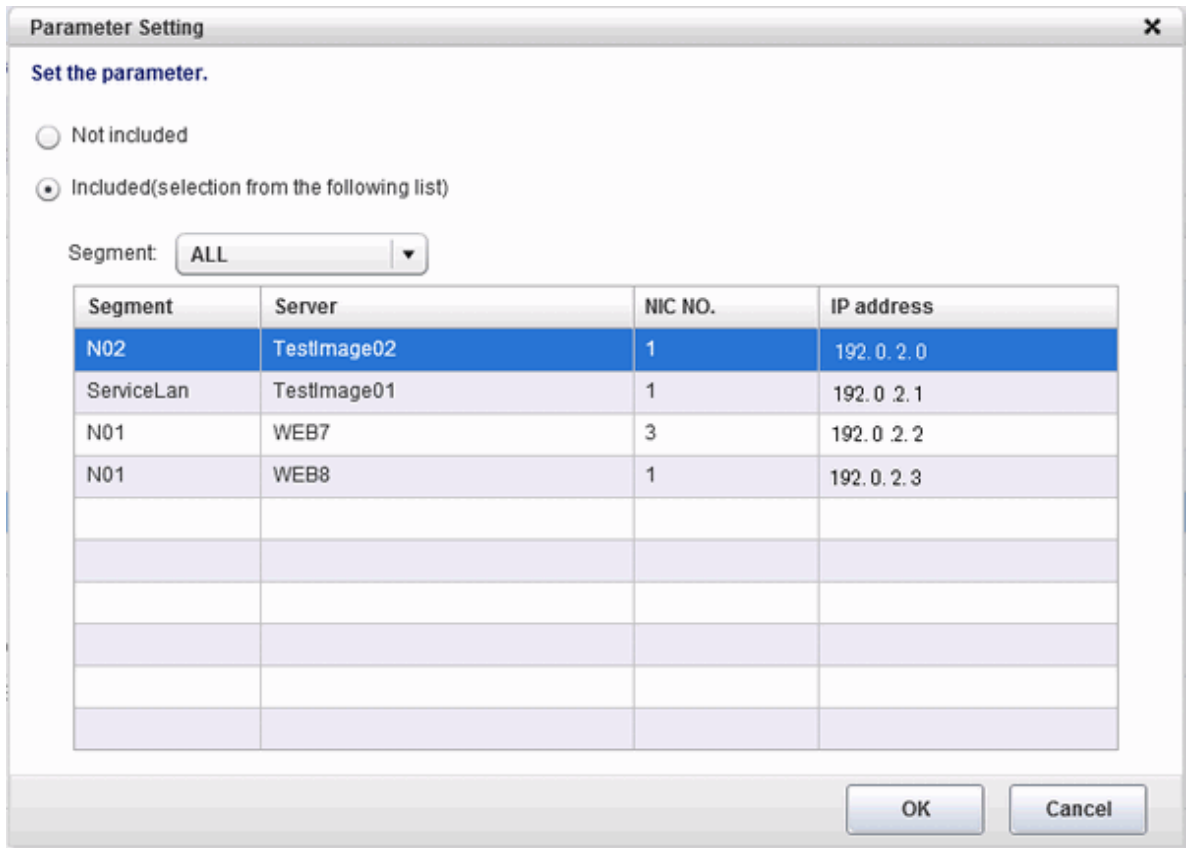


### [Parameter Setting] window

This section explains the [Parameter Setting] window.

When a parameter with a configured IP address is selected, or when Included is selected

[Included] is specified in the initial state, as shown below, and the list displays the servers (NICs) that will not be load-balanced.



Select a row and click [OK] to select a server for distribution.

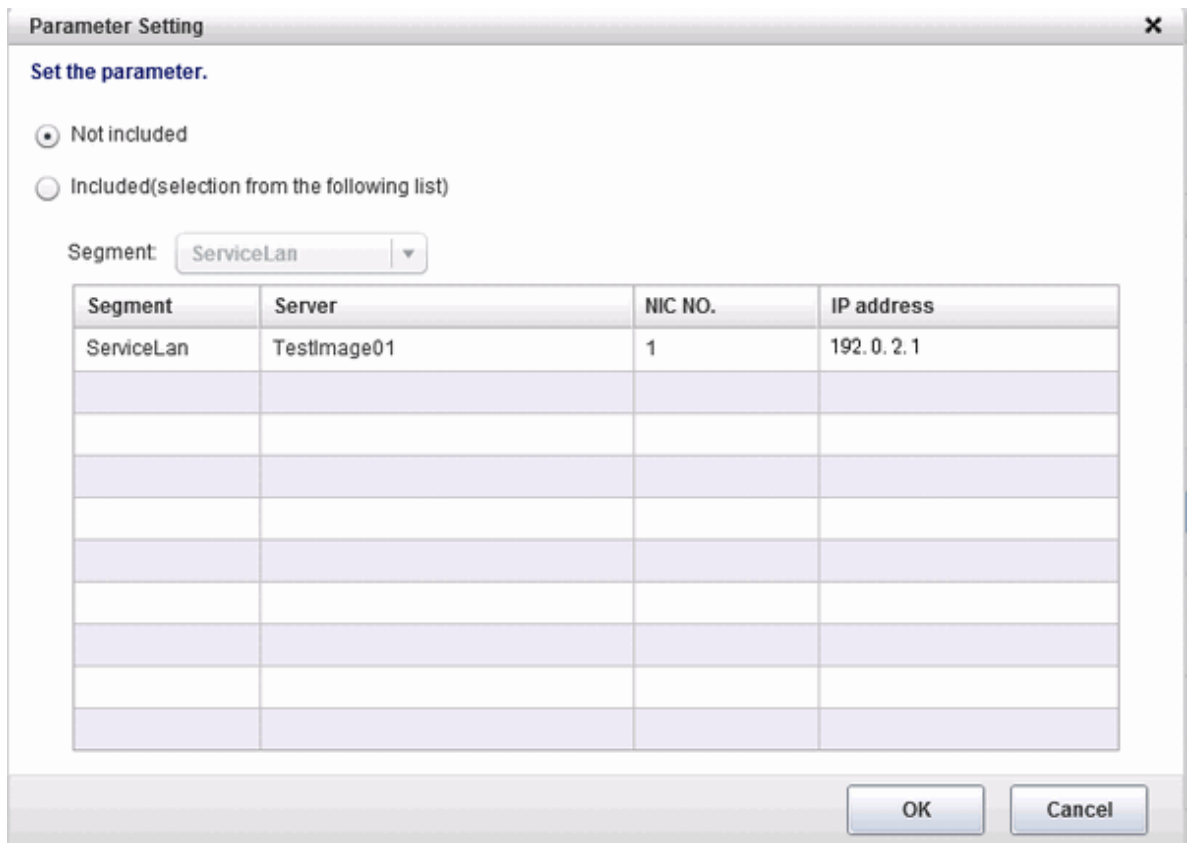
Select a segment to display only the server connected to it - if [All] is selected, all servers on the L-Platform will be displayed.

Select [Not included] to disable the segment and the list, as shown in "[When a parameter with no configured IP address is selected, or when \[Not included\] is selected](#)" (display only).

When changing from [Not included] to [Included], the default value of the segment selection is the segment connected to the SLB.

When a parameter with no configured IP address is selected, or when [Not included] is selected

[Not included] is specified in the initial state, as shown below, and the list displays the servers (NICs) that will not be load-balanced. Note that this window only displays the default value - it does not enable a selection to be made.



The default value of the segment selection is the segment connected to the SLB. Note that this window only displays the default value - it does not enable a selection to be made.

Refer to "[When a parameter with a configured IP address is selected, or when Included is selected](#)" to change the selection from [Not included] to [Included] .

- [Server] tab: Parameters that are related to the server are displayed. The following items are displayed:
  - Server: The names of the servers where the parameters are enabled are displayed. "-" is displayed for parameters unrelated to the server.
  - Parameter: Displays the parameter labels.
  - Description: Displays the parameter descriptions.
  - Setting value: Enter the value to be set for the parameter.

- Parameter descriptions: The description of the parameter in the row being pointed at is displayed.

SLB settings

Set parameters for the selected rule set.

|                   |   |
|-------------------|---|
| Selected rule set | SLB_without_SSL-ACC-IPCOM1                                    |
| Description       | Server Load Balancer without SSL accelerator for hosting syst |

| SLB       | Server | Parameter         | Description                 | Value |
|-----------|--------|-------------------|-----------------------------|-------|
| ▼ Server1 |        | Server1_Address   | Type the IPv4 address of... |       |
|           |        | Server1_Service_P | Type the port of Server1... |       |
| ▼ Server2 |        | Server2_Address   | Type the IPv4 address of... |       |
|           |        | Server2_Service_P | Type the port of Server2... |       |
| ▼ Server3 |        | Server3_Address   | Type the IPv4 address of... |       |

Description of the selected parameter

[Empty text area]

[Update] [Cancel]

4. When [Update] button is clicked, a confirmation message is displayed.  
Click [Yes] to start the server load balancer settings.

### Point

- Server load balancer settings cannot be changed in L-Platform subscriptions or when modifying the L-Platform configuration.
- Specify the server load balancer settings after deploying the L-Platform and before operating the server load balancer.
- Specify the IP address advised by the tenant administrator for the virtual IP address used when setting the server load balancer. Also check with the tenant administrator if you do not know any of the other values to be specified.

### Note

The parameters and operations available depend on the device and rulesets.

## 5.3.11 Server Load Balancer (SLB) Operations

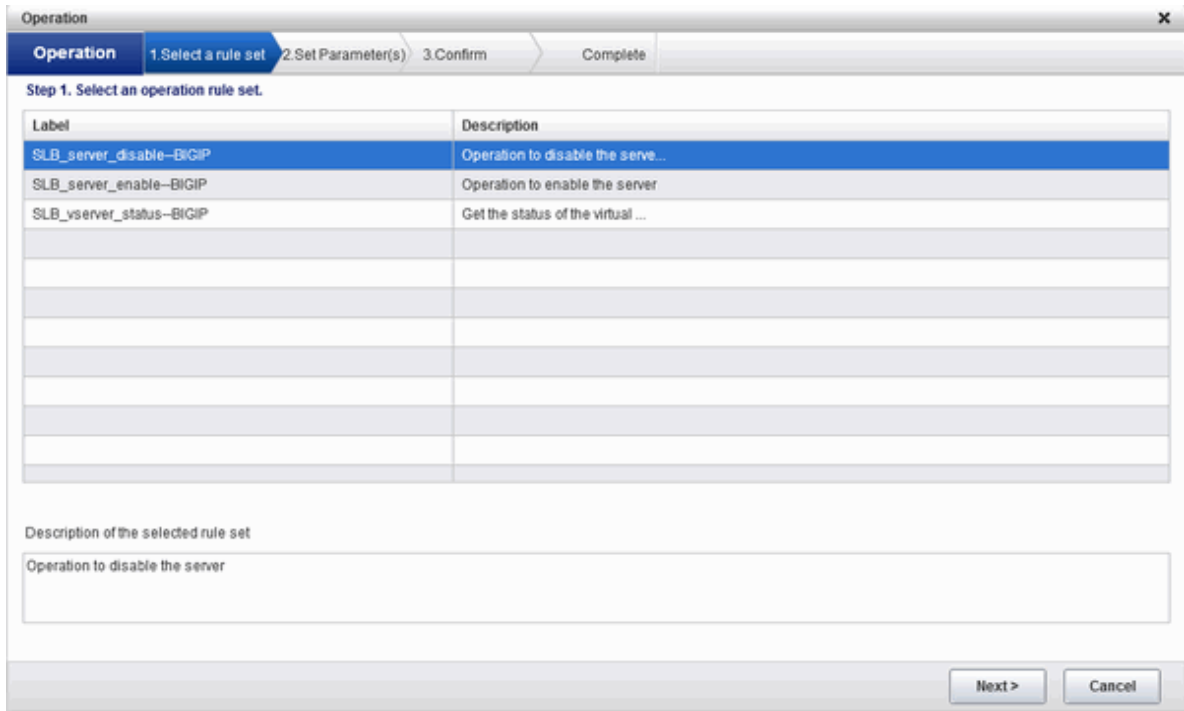
This section describes server load balancer operations.

Operations on server load balancers, such as including a server in an L-Platform as a target of load balancing, or removing it as a target, are performed by specifying rulesets and parameters prepared for operations.

This function can only be used when you have used a ruleset when deploying an L-Platform that uses an SLB.

Operate the server load balancer as follows:

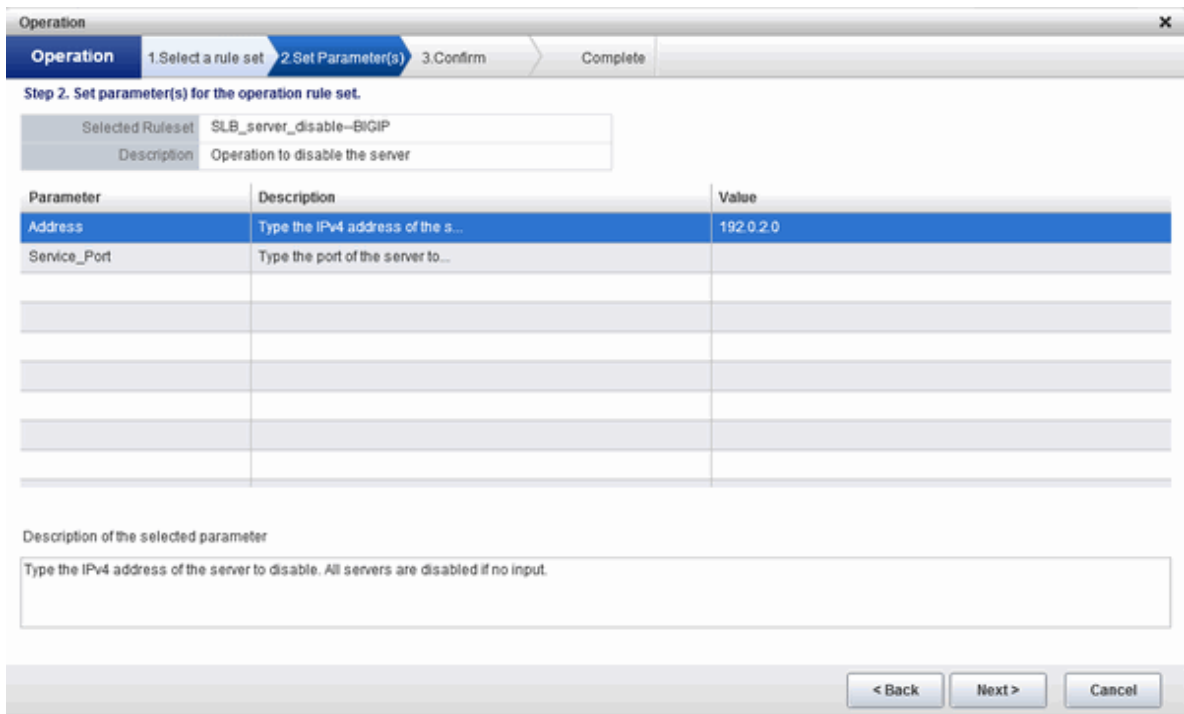
1. Display the [L-Platform Details] page.  
Refer to "5.3.2 L-Platform Detailed Information Display" for information on the display method.
2. After selecting a server load balancer (SLB), click [Operation]  
[Select a ruleset] page in [Operation] window is displayed.
3. Select the ruleset used in the operation in the [Select a ruleset] page.  
The rulesets for operating the target server load balancer are displayed in the [Select a ruleset] page. In the ruleset description section in the lower part of the window, the description of the ruleset in the row being pointed at is displayed.



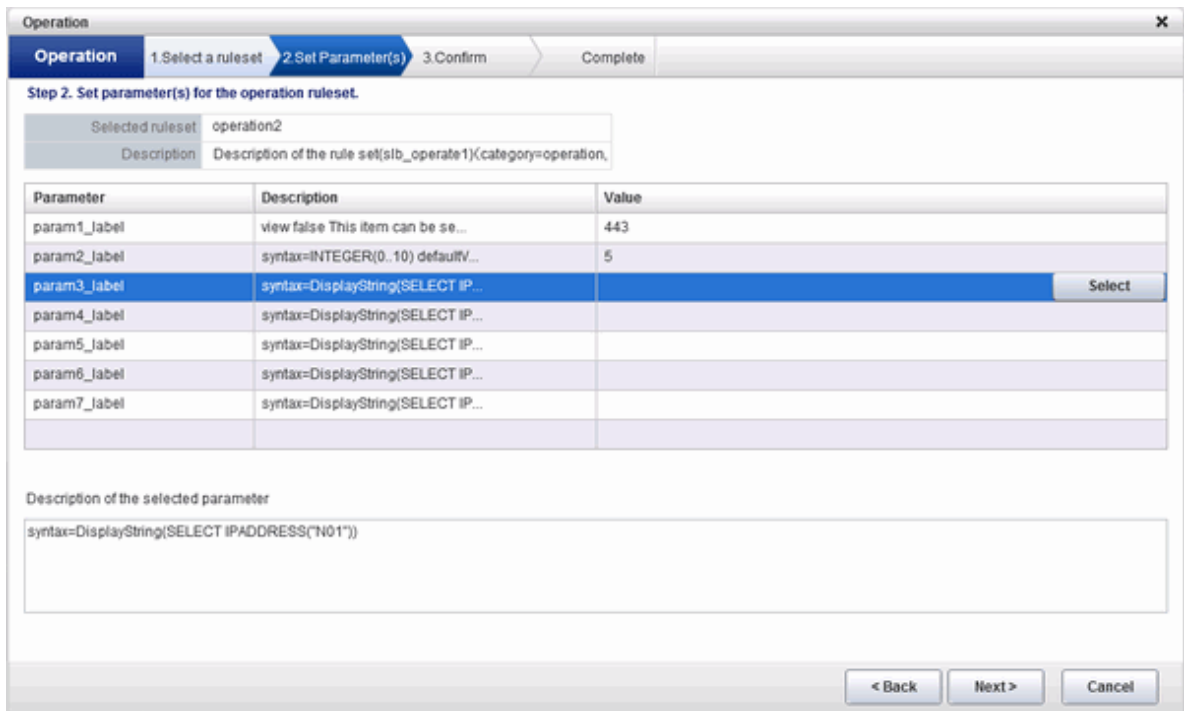
4. Select the ruleset to be used and click the [Next] button.  
The [Set Parameter(s)] page is displayed.  
Specify the parameters for operation corresponding to the ruleset in the [Set Parameter(s)] page. No information for parameters is displayed if there are no parameters.
  - Selected ruleset: The name of the ruleset selected in the [Select a ruleset] page is displayed.
  - Description: Displays a description of the selected ruleset.
  - Parameters
    - Parameter: The labels of the parameters for operation are displayed.
    - Description: Displays the parameter descriptions.
    - Value: Enter the value to be set for the parameter.



- Description of the selected parameter: The description of the parameter in the row being pointed at is displayed.



If the parameter row type is the IP address, [Select] will be displayed when the corresponding row is selected. Click [Select] to display the [Parameter Setting] window.



Refer to "[Parameter Setting] window" for information on information on this window.

5. Once the parameter settings are complete, click the [Next] button. The [Confirm] page will be displayed. The values of the changed items are displayed in red. The value before the change is displayed as "changed from *the old value*".

In the parameter description section in the lower part of the window, the description of the parameter in the row being pointed at is displayed.

Operation

1. Select a rule set 2. Set Parameter(s) 3. Confirm Complete

Step 3. Confirm operation.

Selected Ruleset: SLB\_server\_disable-BIGIP  
Description: Operation to disable the server

| Parameter    | Description                       | Value                               |
|--------------|-----------------------------------|-------------------------------------|
| Address      | Type the IPv4 address of the s... | 192.0.2.0 <sup>↑</sup> changed from |
| Service_Port | Type the port of the server to... |                                     |
|              |                                   |                                     |
|              |                                   |                                     |
|              |                                   |                                     |
|              |                                   |                                     |
|              |                                   |                                     |

Description of the selected parameter

Type the IPv4 address of the server to disable. All servers are disabled if no input.

< Back Execute Cancel

6. Confirm the values of the parameters displayed and click [Execute] button.  
The [Complete] page is displayed.
7. To confirm the results of the operation, click [Open Operation log], or if you want to check the log later, click [Close] button.

### Point

Also check with the tenant administrator if you do not understand the rulesets used when operating server load balancers, or do not know the values to be specified in the ruleset parameters.

### Note

- Refer to "5.3.10 Server Load Balancer (SLB) Settings" and setup the server load balance after the L-Platform is deployed. Operation will fail if you try to operate the L-Platform without setting the server load balancer.
- [Operation] cannot be performed on a server load balancer when a server load balancer operation is executing.
- Confirm the results of server load balancer operations in the 5.3.12 Server Load Balancer (SLB) Operation Logs. If you do not check the operation logs after executing server load balancer operations, the results of previous operations will no longer be available when you next execute an operation.
- The parameters and operations available depend on the device and rulesets.

## 5.3.12 Server Load Balancer (SLB) Operation Logs

This section describes server load balancer operation logs.

The results of server load balancer operations can be checked by displaying the server load balancer operation logs.

This function can only be used when you have used a ruleset when deploying an L-Platform that uses an SLB.

Display the operation logs for the server load balancer as follows:

1. Display the [L-Platform Details] page.  
Refer to "5.3.2 L-Platform Detailed Information Display" for information on the display method.
2. After selecting a server load balancer (SLB), click [Operation log] button.  
The [Operation log] page is displayed.  
This will be empty if there are no operation logs.  
The message "Obtaining the operation log" is displayed when an operation is not yet complete.  
The [Reload] button is enabled when a new operation is performed after displaying the operation log. Click [Reload] button to display the latest operation log.
3. When you have finished checking the results of the operation, click [Close] to close the [Operation log] page.

### Point

Check with the tenant administrator if you do not understand the content of the operation logs.

## 5.3.13 Load Balancing Status of SLBs

---

Click the [Distribution Status] button to display the [Distribution Status] window.

Use this window to view the load balancing status of the SLBs.

This function can only be used when you have not used a ruleset when deploying an L-Platform that uses a server load balancer.

## 5.3.14 Access Status of the Server Load Balancers (SLBs)

---

Click the [Access Status] button to display the [Access Status] window.

This window can be used to obtain and clear the access statuses (error statuses) of server load balancers.

This function can only be used when you have not used a ruleset when deploying an L-Platform that uses a server load balancer.

### Note

The access statuses (error statuses) displayed on the [Access Status] window are only those of rules with the protocols "HTTP", "HTTPS" and "HTTP+HTTPS".

## 5.3.15 Certificate Management of SLBs

---

Click the [Certificates] button to display the [Certificates] window.

Use this window to view a list of certificates already registered with SLBs.

This function can only be used when you have not used a ruleset when deploying an L-Platform that uses a server load balancer.

## 5.3.16 L-Platform Reconfiguration

---

The system configuration that configures the L-Platform in use can be modified on the [Reconfigure] page.

### Note

- [Reconfigure] page allows the configuration of the L-Platform to be modified. However, this may only be used when modifications to the configuration of the L-Platform template have been allowed by the infrastructure administrator.
- When reconfiguring an already deployed server, the items that can be reconfigured differ depending on the type and power status of the target server.

[Virtual server]

- The server is not running

Items other than the following can be changed:

- Storage pool
- VM pool
- Storage pool of the system disk
- Storage pool of the deployed data disk

- The server is running

The following items can be changed:

- Change the L-Platform name
- Change the server name
- Change the disk name
- Add a server
- Add a disk
- Change the boot priority
- Change the segment name
- IP address

Along with these, there are items that can be modified depending on the type of server virtualization software. Details are shown below. However, refer to "[NIC Add and Delete](#)" for information on adding and deleting NICs.

| Item name  | Change type | Server virtualization software |         |          |               |                  |             |               |
|--|-------------|--------------------------------|---------|----------|---------------|------------------|-------------|---------------|
|  |             | VMware                         | Hyper-V | RHEL-KVM | Solaris Zones | Citrix XenServer | OVM for X86 | OVM for SPARC |
| Number of CPUs   | Add         | Y                              | N       | N        | Y             | N                | N           | Y             |
|  | Reduce      | N                              | N       | N        | Y             | N                | N           | Y             |
| CPU Performance  | Add         | Y                              | Y       | Y        | Y             | N                | Y           | -             |
|  | Reduce      | Y                              | Y       | Y        | Y             | N                | Y           | -             |
| CPU Reserved   | Add         | Y                              | Y       | -        | -             | -                | -           | -             |
|  | Reduce      | Y                              | Y       | -        | -             | -                | -           | -             |
| [VMware]<br>CPU Shares<br>[Hyper-V]<br>[Citrix Xen]<br>CPU Weight      | Add         | Y                              | Y       | -        | -             | N                | -           | -             |
|  | Reduce      | Y                              | Y       | -        | -             | N                | -           | -             |
| Memory Size  | Add         | Y                              | N       | O        | Y             | N                | N           | Y             |
|  | Reduce      | N                              | N       | O        | Y             | N                | N           | Y             |
| [VMware]<br>[Citrix Xen]<br>Memory Reserved<br>[Hyper-V]<br>Memory RAM | Add         | Y                              | N       | -        | -             | N                | -           | -             |
|  | Reduce      | Y                              | N       | -        | -             | N                | -           | -             |
| [VMware]<br>Memory Shares  | Add         | Y                              | Y       | -        | -             | -                | -           | -             |
|  | Reduce      | Y                              | Y       | -        | -             | -                | -           | -             |

| Item name                  | Change type | Server virtualization software |         |          |               |                  |             |               |
|----------------------------|-------------|--------------------------------|---------|----------|---------------|------------------|-------------|---------------|
|                            |             | VMware                         | Hyper-V | RHEL-KVM | Solaris Zones | Citrix XenServer | OVM for X86 | OVM for SPARC |
| [Hyper-V]<br>Memory Weight |             |                                |         |          |               |                  |             |               |
| Server Type                | Modify      | Y                              | Y       | Y        | Y             | Y                | Y           | Y             |
| Data disk size             | Extend      | Y                              | N       | -        | -             | -                | -           | -             |
| Host Name                  | Modify      | Y                              | O       | O        | O             | O                | O           | O             |

Y: Can be changed when the server is running

O: Depending on the system configuration, cannot be changed during server startup.

N: Cannot be changed when the server is running

- : No item or cannot be specified

[Physical server]

Regardless of the power status, only the following items can be changed.

- Change the L-Platform name
- Change the server name
- Change the disk name
- Add a server
- Add a disk
- Change the server type
- Change the boot priority
- Change the segment name
- Change the host name
- Regardless of whether or not an L-Platform reconfiguration completion notification email is received, check with the Infrastructure Administrator if an L-Platform is not changed. In this case, the change processing may have failed at the virtual server.
- Note the following points for Solaris Zones management servers:
  - It may not be possible to get server CPU performance, the number of CPUs, and memory size. "-" is displayed if this is the case.
  - When the OS of the virtual server is Solaris 10, attaching and detaching of disks is not possible.
  - When the virtual server OS is Solaris 11, disks already deployed cannot be deleted.
  - The following operations are not possible:
    - Changes to NIC configuration
    - Disk size changes
  - If the resource pool where the server is operating is not being managed by this product, it is not possible to change the number of CPUs, CPU performance, memory size, server name, or boot priority when changing configuration after deployment.
  - If the resource pool where the server is operating is not being managed by this product, redundancy and automatic server release will not be changed even if the server type is changed.
  - The number of CPUs and CPU performance may be different to the values allocated when the subscription was made. In this case, the number of CPUs and the CPU performance are adjusted so that the number of CPUs times the CPU performance becomes the same value.
  - With Solaris 10 not managed by BladeLogic, reconfiguration of servers is not possible.

- If Server Type is changed, the following items are changed at the same time.

[Virtual server]

- Number of CPUs
- CPU Performance
- CPU Reserved
- CPU Shares/ CPU Weight
- Memory Size
- Memory Reserved/Memory RAM
- Memory Shares/ Memory Weight
- Heartbeat
- Redundancy
- Automatic server release

When changing only Redundancy, Heartbeat, or Automatic server release, set the CPU and memory items back to their previous values after changing Server Type.

[Physical server]

- Heartbeat
- Redundancy
- Automatic server release

- Server load balancers (SLB) cannot be added or deleted by changing the L-Platform configuration.
- If the number of NICs is increased, IP addresses will not be automatically set on the guest OS. After increasing the number of NICs, log into the guest OS and manually set the IP address displayed in the [L-Platforms] tab.  
After setting the IP address, check that the added NIC can communicate properly with other devices.  
If two or more NICs are being added, it is recommended to add one by one.  
If two or more NICs have been added at the same time, correctly set the IP address of each added NIC by setting the IP address and checking the communication for one NIC at a time.
- If a NIC being deleted has been configured on the guest OS, the deletion on the L-Platform tab does not delete the configuration from the guest OS.  
Delete the configuration of the NIC from the guest OS beforehand.
- When the NIC used to connect to the guest OS is deleted, it will no longer be possible to connect to the guest OS. When deleting the NIC used to connect to the guest OS, first add a NIC to take over the connection to the guest OS and confirm the connection, then delete the NIC.
- NICs cannot be added to or deleted from a server that has snapshots. When adding or deleting NICs, delete all snapshots of the server beforehand.
- The CPU performance, the CPU reserved, the CPU shares/CPU weight, number of CPUs, the memory size, memory reserved/memory RAM, and the memory shares/memory weight cannot be changed for servers with the VM pool name set to "-".
- If the server's VM pool name set is deleted, changed or moved, then CPU performance, number of CPUs and memory size cannot be changed.
- The capacity cannot be expanded for disks whose storage pool is deleted, renamed, or moved.
- Depending on the guest OS type, disks with expanded capacities may not be recognized or used by the OS. Refer to server virtualization software manuals and technical information to ensure that the expanded disk can be used.  
A separate operation is required to make the expanded disk recognizable on the guest OS. Refer to manuals and technical information for each OS for information on the required operations.
- When an IP address is changed, it is not automatically configured as the IP address on the guest OS. After changing an IP address, log in to the guest OS and manually configure the changed IP address.

- When a host name is changed, it is not automatically configured as the host name on the guest OS. After changing a host name, log in to the guest OS and manually configure the changed host name.
  - The IP addresses of NICs that are the distribution targets of server load balancers (SLB) cannot be changed.
  - When addition of a server and changing of a server name or host name are performed at the same time, or multiple server names or host names are changed at the same time, system settings may cause names to overlap making change impossible. This applies in cases like the following.
    - When a name used for a server or host before the change is specified for the server name of a server being added
    - When the server names or host names of multiple servers have been switched
- If names overlap, perform the configuration changes in several steps.
- When using the host name for the L-Server name, the host names of servers using server virtualization software other than VMware and the host names of virtual servers cannot be changed when they are running.
  - For servers using server virtualization software other than VMware or Hyper-V, disk capacities cannot be extended.

Follow the steps below to modify the system configuration that configures the L-Platform in use:

1. Display the [L-Platform Details] page.  
Refer to "[5.3.2 L-Platform Detailed Information Display](#)" for information on how to display the page.
2. Click the [Reconfigure] button and display the [Reconfigure] page.
3. Modify the system configuration as required on the [Reconfigure] page.

Usage fees corresponding to the system reconfiguration will be displayed in the top-right of the window.

### Point

Estimated charges for the L-Platform will only be displayed when the usage fees display is set to enabled. The displayed usage fees will be calculated according to current prices, and not according to prices at the time of deployment.

### Note

The pool cannot be changed for system disks and extended disks that have already been deployed. If a cloning image associated with the image information includes a data disk, changes to the number of disks cannot be made until deployment is complete.

4. When the L-Platform is modified, click the [Next] button.  
The [Confirm] page will be displayed.

The difference between the old L-Platform and the new L-Platform is displayed as follows:

| Item         | Display format   |
|--------------|--|
| Item changed | The values of the changed items are displayed in red. The old value is displayed as "Changed from <i>the old value</i> ".  |
| Item added   | "*Added" is displayed after items that have been added.<br>The values of the added items are displayed in red. The background of the added item is displayed in red. |
| Item deleted | "*Deleted" is displayed after items that have been deleted.<br>The background of the deleted item is displayed in gray.  |

### Point

[CSV output]


When the [Save as CSV] button located at the bottom left of the window is clicked, the [Select the destination to save] window is displayed where the L-Platform template can be saved as a CSV file.

The default CSV file name format is shown below. This file name can be modified as necessary.

```
SystemConfiguration (+ <L-Platform name> +)_ <date> + .csv
```

#### [Save specification]

Click the [Save Configuration] button to save the L-Platform configuration, and the display returns to the [Management] page.

When the L-Platform template is saved, an icon (  ) will be displayed after the L-Platform template name.

5. Check the displayed contents of the L-Platform configuration, and click the [Next] button.  
The [Agreement] page will be displayed.
6. Check the license agreement displayed. Select the [Agree the license] check box, and then, click the [Reconfigure] button.

#### Point

When the application process is enabled, clicking of the [Reconfigure] button on the [Agreement] page displays the [Forward screen] window. Refer to "5.5 Select Forward Destination of Application Process" for details.

The [Complete] page will be displayed when an application for modification of an L-Platform is accepted.

- When the application process is disabled

The following message will be displayed:

"The request to reconfigure the L-Platform has been completed. The reconfiguration takes some time to complete."

- When the application process is enabled

The following message will be displayed:

"The request to reconfigure the L-Platform has been completed. The L-Platform will be reconfigured after approval and/or judgement procedures."

#### Point

- When an L-Platform is changed, an L-Platform reconfiguration completion notification email is sent to the subscriber.  
If an L-Platform change fails, an L-Platform reconfiguration failure notification email is sent to the subscriber and the Infrastructure Administrator. In this case, check with the Infrastructure Administrator about the action required.  
Refer to "A.2 Emails Sent when Reconfiguring an L-Platform" for information on the flow and content of email messages sent to the subscriber, tenant administrator, and infrastructure administrator when reconfiguring an L-Platform.
- If the server virtualization software is RHEL-KVM or the subscribed L-Platform includes a Windows server other than Windows Server 2008 R2, after deployment the L-Platform will be available only after the infrastructure administrator configures the IP address, default gateway, and host name. Request the tenant administrator to configure the server after deployment.
- If the server virtualization software is OVM for x86, the L-Platform will be available only after the infrastructure administrator configures the IP address, default gateway, and host name following deployment. Request the tenant administrator to configure the server after deployment.
- If the server virtualization software is Citrix XenServer, then depending on the cloning image, the L-Platform will be available only after the infrastructure administrator configures the IP address, default gateway, and host name after deployment. Request the tenant administrator to configure the server after deployment. Check with the tenant administrator whether the cloning image requires configuration (IP address, etc.) after deployment.
- When the server virtualization software is OVM for SPARC, IP addresses are set only **to the NICs that are connected to admin LAN** when you deploy a server whose guest OS is Solaris 11. It is therefore recommended that you connect the NIC to the admin LAN.  
If a deployed server is not connected to admin LAN, the tenant administrator needs to set IP addresses and default gateways to the server before use. You also need to set IP addresses on guest OS to the NICs that are connected to business LAN, by confirming deployed IP addresses on the [L-Platforms] tab.



- When using Solaris Zones as server virtualization software, an IP address is only configured for the first NIC when deploying a server which uses Solaris 11 for the guest OS. Therefore, when using multiple NICs, use the [L-Platforms] tab to check the IP addresses allocated to the second and later NICs after completing deployment of the relevant server, and directly configure the settings on the guest OS.
- If the server virtualization software is OVM for SPARC or Solaris zone, after your deployment the tenant administrator needs to configure deployed servers to enable direct root ssh login.  
When specifying an administrator user name other than "root" when deploying a server using Solaris Zones as server virtualization software, it is not necessary to make a request to the infrastructure administrator as connections using ssh are possible in the initial state.
- Note the following points if the server virtualization software is OVM for SPARC:
  - If an increase or decrease of the number of NICs is required after deployment, contact the tenant administrator.
  - With servers not managed by BladeLogic, it is not possible to change the number of CPUs, the size of the memory, and boot priority when you reconfigure after deployment. It is also not possible to delete servers and disks.
- If the server virtualization software is RHEL-KVM, contact the infrastructure administrator for information on how to subscribe to servers other than Windows or Linux servers.

### 5.3.17 Cancel an L-Platform

---

Follow the steps below to cancel an L-Platform:

1. Display the [L-Platform Details] page.  
Refer to "5.3.2 L-Platform Detailed Information Display" for information on how to display the page.
2. Stop all the servers of the system that configures the L-Platform to be canceled.  
Refer to "5.3.4 Start and Stop the Server" for information on how to stop a server.
3. Click the [Unsubscribe] button.  
The [Confirm] page will be displayed.
4. Confirm that the correct L-Platform is being canceled, and click the [Next] button.  
The [Agreement] page will be displayed.
5. Select the [Agree the license] check box to cancel the subscription, and click the [Unsubscribe] button.

#### Point

When the application process is enabled, clicking of the [Unsubscribe] button on the [Unsubscribe] page displays the [Forward screen] window. Refer to "5.5 Select Forward Destination of Application Process" for details.

The [Complete] page will be displayed when the L-Platform is canceled.

- When the application process is disabled  
The following message will be displayed.  
"The L-Platform has been unsubscribed."
- When the application process is enabled  
The following message will be displayed.  
"The L-Platform to unsubscribe the L-Platform has been completed. The L-Platform will undeploy after approval and/or judgment procedures."

#### Note

When the following events occur, cancellation application may become impossible.

Notify the Infrastructure Administrator of the content displayed on the window.

- The pop-up blocker has been enabled and the 'Forward screen' window is not displayed.

- An error message is displayed on the 'Forward screen' window.

## Point

When an L-Platform is cancelled, a cancellation completion notification email is sent to the subscriber.

If an L-Platform cancellation fails, a cancellation failure notification email is sent to the subscriber and the Infrastructure Administrator. In this case, check with the Infrastructure Administrator about the action required.

Refer to "A.3 Emails Sent when Canceling an L-Platform" for information on the flow and content of email messages sent to the subscriber, tenant administrator, and infrastructure administrator when canceling an L-Platform.

## 5.3.18 Reconfiguration Page

The following configuration can be defined on the [Reconfigure] page.

- Connection destination: Represents a connection destination external to the L-Platform, and the IP addresses to be published.
- Segment: Represents a network segment located on the L-Platform
- Virtual server: Represents a server on the L-Platform
- Physical server: Represents a physical server.
- Disk: Represents an extended disk that is not a system disk but can be added to the virtual server or physical server.















An example of the [Reconfigure] page display is shown below.

The screenshot displays the 'Reconfigure' interface for an L-Platform. The main configuration area is titled 'L-Platform configuration' and includes a 'Connection destination' table with three entries: 'Simple\_SECURE2', 'Simple\_SECURE1', and 'Simple\_DMZ'. Each entry is associated with a 'Segment' and a 'NIC'. A 'Server' icon is also visible. Below this, a 'Details of L-Platform element' section shows the configuration for 'SampleServer', including host name, type, VM pool, and CPU performance. On the right, an 'Additional options' panel lists various software components and their inclusion status. The interface includes navigation buttons like 'Next >' and 'Cancel'.

The configuration of the [Reconfigure] page is shown below:



| Pane name                     | Description   |
|-------------------------------|---|
| L-Platform configuration      | Displays the [L-Platform configuration].<br>The displayed elements are connection destinations, firewalls, segments, server load balancers, virtual servers, physical servers, and disks.<br>Selected elements are displayed in the [Details of L-Platform element] pane.   |
| Additional Options            | Displays a list of elements (virtual server, physical server, segment, and disk) that can be added to the [L-Platform configuration].<br>The listed elements can be added to the [L-Platform configuration] by dragging and dropping them to the [L-Platform configuration] pane.<br>To add a disk to the virtual server or physical server, drag and drop it there from the list displayed in the [Others] tab.  |
| Details of L-Platform element | Displays details about the elements selected in the [L-Platform configuration] pane and allows their content to be edited.<br>By clicking the [Delete] button, the elements such as a virtual server or physical server or a disk can be deleted from [L-Platform configuration].<br>Software information can be checked in a new window by clicking the [Software Details] button.<br>Click the [Add NIC] button to add NICs. The [Add NIC] button is enabled only if NICs can be added.<br>Click the [Delete NIC] button to delete selected NICs. |



Icons displayed in the [L-Platform configuration] area are as follows.

| Icon  | Explanation                              | Icon  | Explanation                             |
|---|--|---|---|
|  | Connect to an intranet                   |  | Connect to the Internet                 |
|  | Number of IP addresses to be published   |  | Virtual server without data disks       |
|  | Virtual server with a single data disk   |  | Virtual server with multiple data disks |
|  | Physical server without data disks       |  | Physical server with a single data disk |
|  | Physical server with multiple data disks |  | NIC of a Virtual server                 |
|  | NIC of a Physical server                 |  | Grouped NICs                            |
|  | Firewall                                 |  | Server Load Balancer(SLB)               |

Icons displayed in the [L-Platform configuration] area to indicate server statuses are shown below.



These are example icons for a virtual server without disks. There are corresponding icons also for a physical server and for a server with no data disk, a single data disk, and multiple data disks.

| Icon  | Explanation | Icon  | Explanation |
|---|-------------|---|-------------|
|  | Stopped     |  | Running     |









| Icon  | Explanation  | Icon  | Explanation             |
|---|--|---|-------------------------|
|  | Starting, stopping, being deployed, or in a failover |  | Failed to start or stop |

The icons to indicate NICs or servers that are targets for server load balancer (SLB) distribution when the SLB displayed on the [L-Platform configuration] pane is selected are as shown below.

The following examples show a virtual server NIC and a virtual server with a single data disk. There are similar icons for various other NICs and servers.

| Icon  | Explanation                             | Icon  | Explanation   |
|---|---|---|---|
|  | Virtual server NIC for SLB distribution |  | Virtual server, with a single data disk, for SLB distribution |

Icons displayed in [Additional Options] area are as follows.

| Icon  | Explanation                                  | Icon  | Explanation                                   |
|---|--|---|---|
|    | Virtual image information without data disks |    | Physical image information without data disks |
|    | Virtual image information with data disks    |    | Management segment                            |
|   | Business segment                             |   | Management segment with admin LAN allocated   |
|  | Disconnected disk                            |  | Connected disk                                |

### Information

Hover the mouse pointer over the icons displayed in [Additional Options] to check details about the image information, such as the name, OS, segment name, disk name, label, and comments.

#### 5.3.18.1 Edit the L-Platform

The L-Platform can be edited on the [Reconfigure] page.

The L-Platform name entered on the [Basic info] page can be modified.

The types of disks that can be added are new disks and existing disks.

New disks can be added to virtual servers and physical servers. Existing disks are displayed if an Infrastructure Administrator has registered them to a storage pool that can reference already created disk resources, and can be added to physical servers.

### Note

If the server includes disks not managed by Resource Orchestrator, disks cannot be added or deleted.

#### 5.3.18.2 Connection destination

This item is displayed when using a firewall without using a ruleset.

The connection destination cannot be selected on the [Reconfigure] page when applying for an L-Platform subscription.

When you select a connection destination, you can set up connection with a destination external to the L-Platform.

- Intranet

This option is displayed only when you specify an intranet as the connection destination in the L-Platform template used for deployment. Select this option to connect to an intranet.

- Internet

This option is displayed only when you specify the Internet as the connection destination in the L-Platform template used for deployment. Select this option to connect to the Internet.

- Public IP address

This option is displayed when [Internet] is displayed.

- Automatic selection

Specify the number of IP addresses to use.

- Manual selection

If you have specified [Internet] as the connection destination, you can specify the IP address to be published.

Click the [Add] button. In the [Addition of public IP address] window that is displayed, add the IP address to be published.

For Added IP address, enter the IP address to be used by the L-Platform and click the [Add] button.

To delete a specified IP address, select the IP address from the list and click the [Delete] button.

Consult the tenant administrator regarding the IP addresses that can be used.

### 5.3.18.3 Firewall

When you select a firewall, you can check its settings.

You cannot delete a firewall from an L-Platform.

The [Details of L-Platform element] that is displayed when you select a firewall differs depending on whether you set up the firewall to use the ruleset.

- Firewall that does not use the ruleset

You can select a firewall only when reconfiguring after deployment of the L-Platform.

- [Public IP address] tab

This tab displays the IP address to be published that was assigned to the L-Platform. If DNAT or SNAPT is set as the IP address to be published, a check mark indicating that DNAT or SNAPT is being set into the corresponding IP address line is displayed.

- [DNAT] tab

The DNAT setting is displayed. The server name and IP address of the server are displayed for an IP address to be published.

- [SNAPT] tab

The SNAPT setting is displayed. The server name and IP address of the server are displayed for an IP address to be published.

- Firewall that uses the ruleset

- [Firewall] tab

| Part    | Description  |
|---------|--|
| ruleset | Displays the name of the 'ruleset' set for the firewall. The ruleset name cannot be changed. |

Click [Setting] button to check the parameter values in the ruleset. The values set as the default are the values specified in the L-Platform template.



#### Note

The firewall for a server added by a new L-Platform subscription or L-Platform reconfiguration is set after the L-Platform is deployed. Refer to "5.3.8 Setup Firewall" for details.

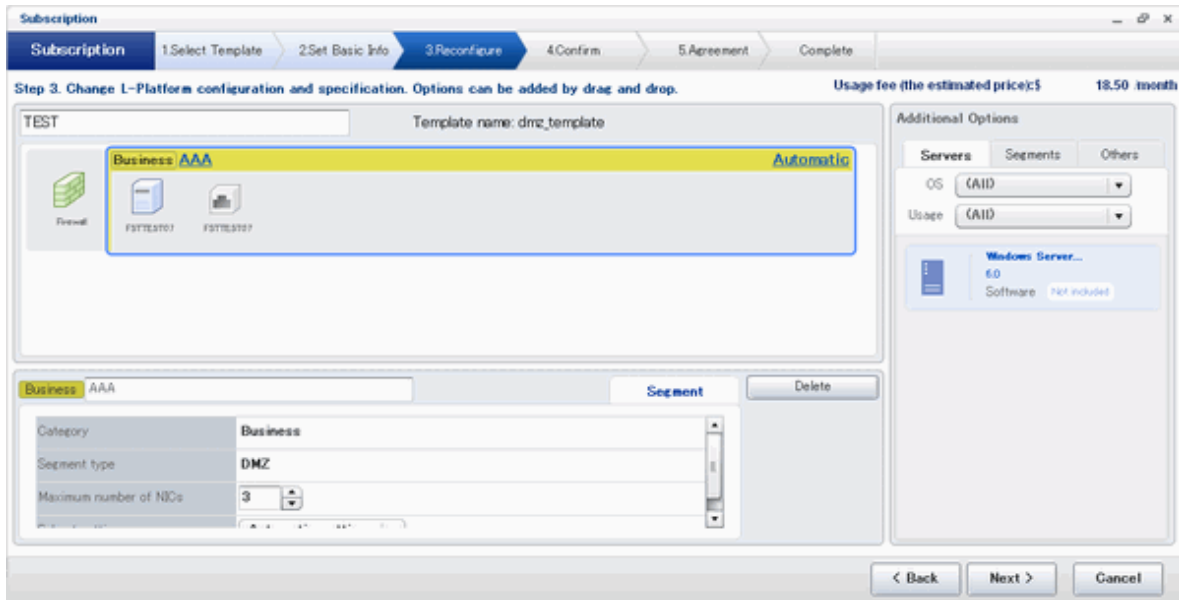
### 5.3.18.4 Edit a Segment

A segment can be edited by selecting the segment to be edited.

It is possible to select whether a subnet allocated to the segment can be set automatically or manually in the segment editing. Note, however, that subnets cannot be modified in the L-Platform configuration after the system has been deployed.

If the network to be connected to is specified in the L-Platform template, the specified network remains selected.

The following window displays an example of the [Reconfigure] page when a segment name is clicked. The following window shows the [Reconfigure] page used to subscribe to an L-Platform.



#### Details of configuration element [Segment] tab

| Part                   | Description   |
|------------------------|---|
| Category               | Specify the category when an automatically selected segment is added. The default is "Business segment". <ul style="list-style-type: none"> <li>- Business segment: A segment where business servers are deployed</li> <li>- Management segment: A segment where servers that monitor business or similar are deployed</li> </ul> |
| Segment type           | Specify the segment identification information used if segments are selected automatically when additions are made by segment extension.  |
| Maximum number of NICs | Specify the maximum number of servers that can be deployed in a segment.  |
| Subnet setting         | Specify whether to configure subnet manually or automatically. <ul style="list-style-type: none"> <li>- Automatic: Configure automatically from available network resources.</li> <li>- Manual: Select the target network resource from the available values.</li> </ul>  |
| Subnet addresses       | If the subnet setting is set to Manual, select an item from the list of subnet addresses or network resources. The setting item (whether to select from subnet addresses or network resources) depends on system settings.  |

#### [Others] tab of [Additional Options]

| Part    | Description       |
|---------|-------------------|
| Segment | Extend a segment. |

## Note

### Segment extension and reduction

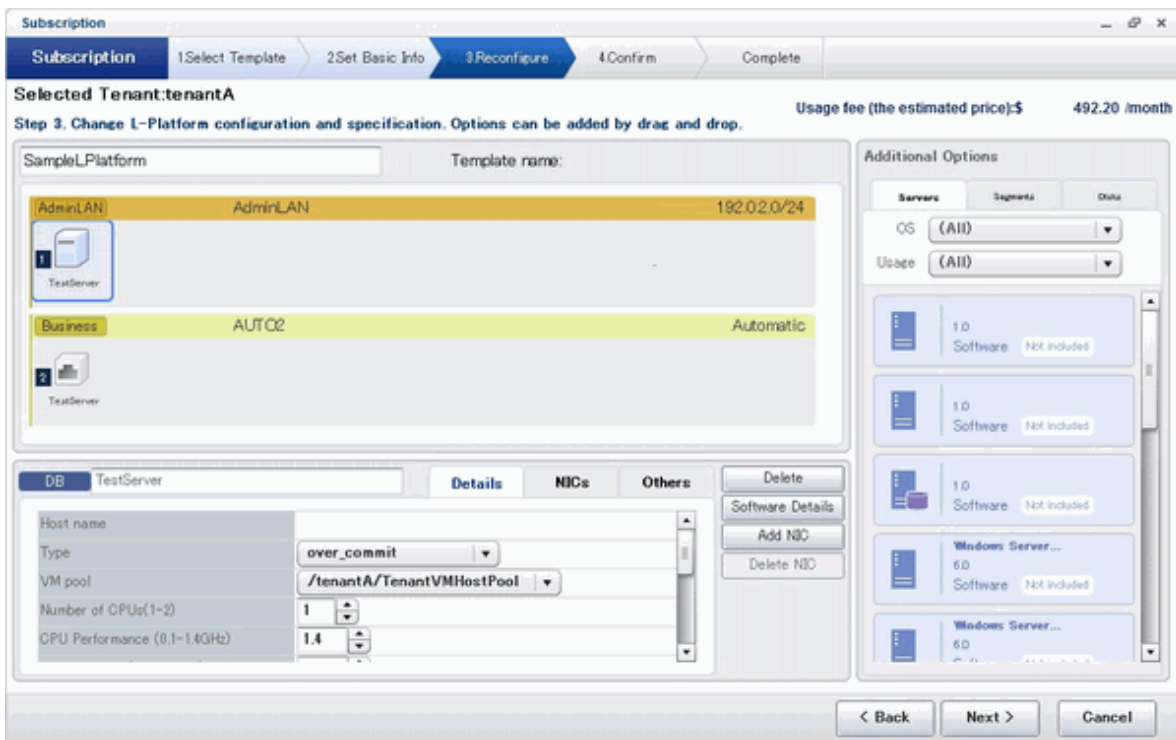
- You cannot extend or reduce segments if you use a firewall without using a ruleset.
- A network can be extended to the maximum number of segments for an L-Platform Template.
- Since at least one segment is required, it is not possible to delete all segments. When using an L-Platform template with no segments defined, attach at least one segment.
- When a segment is deleted, the connected servers and NICs are also deleted. To delete a segment and NICs but not the servers, delete the NICs first and then delete the segment.
- A segment where there is a server load balancer cannot be deleted.
- The number of segments under firewall control cannot be changed.
- Reduction is not possible while a server is operating.
- In estimated charges, the unit price for NICs deployed in segments where [Subnet Settings] is "Auto-configure" is treated as being 0 Japanese Yen.

### 5.3.18.5 Edit a Virtual Server

Selecting a virtual server enables editing of that virtual server.

#### [Details] tab

An example of the [Details] tab display is shown below.



| Part      | Description  |
|-----------|--|
| Host name | Sets the virtual server name specified in the L-Platform template.<br>For a virtual server added using [Additional Options], "usage + (the number of servers + 1)" is automatically set. |

| Part  | Description  |                |   |             |  |          |   |   |   |
|---|--|----------------|---|-------------|--|----------|---|---|---|
|   | <p>To rename, the name must be no more than 85 characters long and not include the following characters:</p> <p style="text-align: center;">&lt;, &gt;, &amp;, ', " and control characters</p> <p>However, the strings and the number of characters that can be specified may vary depending on the system settings. When the OS of the managed server is Windows, specification using up to 15 of the characters below is recommended. For other OSs, specification using up to 63 characters is recommended. The value specified for this item cannot consist of only numbers. Hyphens cannot be used for the first character.</p> <p style="text-align: center;">Alphanumeric characters, underscores ("_") and hyphens ("-")</p> <p>A pre-existing name cannot be specified.</p>   |                |   |             |  |          |   |   |   |
| Type  | <p>From the drop-down menu, select the type (specifications) of the registered server. "---- Select ----" is displayed if the type specified before reconfiguration does not exist. The CPU, memory size, and System Disk will be set according to the type of the server selected.</p> <p>The settings for the following L-Server features are also made:</p> <ul style="list-style-type: none"> <li>- Heartbeat</li> <li>- Redundancy</li> <li>- Automatic server release</li> </ul>   |                |   |             |  |          |   |   |   |
| VM pool   | <p>From the drop-down menu, select the resource name of the VM pool that is the server deployment destination.</p> <p>"---- Select ----" is displayed if the type specified before reconfiguration does not exist. Contact the infrastructure administrator in the event that an error message is displayed indicating that no existing pool can be selected as the server deployment destination.</p>   |                |   |             |  |          |   |   |   |
| CPU   | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td data-bbox="331 1137 525 1310">Number of CPUs</td> <td data-bbox="525 1137 1439 1310"> <p>Set the number of CPUs of the virtual server.</p> <p>Specify the lesser of the two values: Enter either the maximum value entered for image information or enter the maximum value of the VM pool, number of cores of VM hosts with the most numbers of cores.</p> <p>A value outside the range cannot be set.</p> </td> </tr> <tr> <td data-bbox="331 1310 525 1518">Performance</td> <td data-bbox="525 1310 1439 1518"> <p>Specify CPU performance of the virtual server in GHz.</p> <p>Specify the lesser of the two values: Enter either the maximum value entered for image information or enter the maximum value of the VM pool, value of operational frequency of VM hosts with the most value of operational frequency.</p> <p>A value outside the range cannot be set.</p> <p>This cannot be specified if the server virtualization software is OVM for SPARC.</p> </td> </tr> <tr> <td data-bbox="331 1518 525 1848">Reserved</td> <td data-bbox="525 1518 1439 1848"> <p>Specify the reserved CPU performance for the virtual server, in GHz.</p> <p>The minimum value for the reserved clock speed that is guaranteed to be allocated to the virtual server can be specified. It is not possible to specify a value that is greater than the operating clock speed.</p> <p>Any value outside the allowable range cannot be specified.</p> <p>When using Resource Orchestrator and server virtualization software, if the recognized physical CPU performance values are different, specify a value less than the smaller of the two.</p> <p>This is not displayed and cannot be specified if the server virtualization software is RHEL-KVM.</p> </td> </tr> <tr> <td data-bbox="331 1848 525 2009">[VMware] Shares<br/>[Hyper-V]<br/>[Citrix Xen] Weight</td> <td data-bbox="525 1848 1439 2009"> <p>Specify the relative allotment ratio for determining the allotment of memory size when multiple virtual machines are competing for memory resources.</p> <p>[VMware]<br/>Specify an integer up to 1,000,000.</p> </td> </tr> </table> | Number of CPUs | <p>Set the number of CPUs of the virtual server.</p> <p>Specify the lesser of the two values: Enter either the maximum value entered for image information or enter the maximum value of the VM pool, number of cores of VM hosts with the most numbers of cores.</p> <p>A value outside the range cannot be set.</p> | Performance | <p>Specify CPU performance of the virtual server in GHz.</p> <p>Specify the lesser of the two values: Enter either the maximum value entered for image information or enter the maximum value of the VM pool, value of operational frequency of VM hosts with the most value of operational frequency.</p> <p>A value outside the range cannot be set.</p> <p>This cannot be specified if the server virtualization software is OVM for SPARC.</p> | Reserved | <p>Specify the reserved CPU performance for the virtual server, in GHz.</p> <p>The minimum value for the reserved clock speed that is guaranteed to be allocated to the virtual server can be specified. It is not possible to specify a value that is greater than the operating clock speed.</p> <p>Any value outside the allowable range cannot be specified.</p> <p>When using Resource Orchestrator and server virtualization software, if the recognized physical CPU performance values are different, specify a value less than the smaller of the two.</p> <p>This is not displayed and cannot be specified if the server virtualization software is RHEL-KVM.</p> | [VMware] Shares<br>[Hyper-V]<br>[Citrix Xen] Weight | <p>Specify the relative allotment ratio for determining the allotment of memory size when multiple virtual machines are competing for memory resources.</p> <p>[VMware]<br/>Specify an integer up to 1,000,000.</p> |
| Number of CPUs                                      | <p>Set the number of CPUs of the virtual server.</p> <p>Specify the lesser of the two values: Enter either the maximum value entered for image information or enter the maximum value of the VM pool, number of cores of VM hosts with the most numbers of cores.</p> <p>A value outside the range cannot be set.</p>  |                |   |             |  |          |   |   |   |
| Performance   | <p>Specify CPU performance of the virtual server in GHz.</p> <p>Specify the lesser of the two values: Enter either the maximum value entered for image information or enter the maximum value of the VM pool, value of operational frequency of VM hosts with the most value of operational frequency.</p> <p>A value outside the range cannot be set.</p> <p>This cannot be specified if the server virtualization software is OVM for SPARC.</p>   |                |   |             |  |          |   |   |   |
| Reserved  | <p>Specify the reserved CPU performance for the virtual server, in GHz.</p> <p>The minimum value for the reserved clock speed that is guaranteed to be allocated to the virtual server can be specified. It is not possible to specify a value that is greater than the operating clock speed.</p> <p>Any value outside the allowable range cannot be specified.</p> <p>When using Resource Orchestrator and server virtualization software, if the recognized physical CPU performance values are different, specify a value less than the smaller of the two.</p> <p>This is not displayed and cannot be specified if the server virtualization software is RHEL-KVM.</p>  |                |   |             |  |          |   |   |   |
| [VMware] Shares<br>[Hyper-V]<br>[Citrix Xen] Weight | <p>Specify the relative allotment ratio for determining the allotment of memory size when multiple virtual machines are competing for memory resources.</p> <p>[VMware]<br/>Specify an integer up to 1,000,000.</p>  |                |   |             |  |          |   |   |   |



| Part        |  | Description  |
|-------------|--|--|
|             |  | <p>[Hyper-V]<br/>If the reconfiguration simplification function is disabled and the easy selection method is set, set values are as follows:</p> <ul style="list-style-type: none"> <li>- Low (500)</li> <li>- Standard (1,000)</li> <li>- High (2,000)</li> </ul> <p>[Citrix Xen]<br/>Specify an integer up to 65,535.</p> <p>This is not displayed and cannot be specified if the server virtualization software is RHEL-KVM.</p>  |
| Memory      | Size   | <p>Specify the memory size of the virtual server in GB.</p> <p>Specify the lesser of the two values: Enter either the maximum value entered for image information or enter the maximum value of the VM pool, free memory size of VM hosts with the most free memory size.</p> <p>[OVM for x86 3.x]<br/>The minimum value is 0.3.</p> <p>[KVM]<br/>The maximum value is 256.</p> <p>A value outside the range cannot be set.</p>  |
|             | [VMware]<br>[Citrix Xen]<br>Reserved<br>[Hyper-V]<br>RAM | <p>Specify the reserved memory size for the virtual server, in GB.</p> <p>The minimum value for the reserved memory size that is guaranteed to be allocated to the virtual server can be specified. It is not possible to specify a value that is greater than the memory size.</p> <p>[Citrix Xen]<br/>The minimum value is 0.2.</p> <p>Any value outside the allowable range cannot be specified.</p> <p>This is not displayed and cannot be specified if the server virtualization software is RHEL-KVM.</p>  |
|             | [VMware]<br>Shares<br>[Hyper-V]<br>Weight                | <p>Specify the relative allotment ratio for determining the allotment of memory size when multiple virtual machines are competing for memory resources.</p> <p>[VMware]<br/>Specify an integer up to 1,000,000.</p> <p>[Hyper-V]<br/>If the reconfiguration simplification function is disabled and the easy selection method is set, set values are as follows:</p> <ul style="list-style-type: none"> <li>- Low (500)</li> <li>- Standard (1,000)</li> <li>- High (2,000)</li> </ul> <p>This is not displayed and cannot be specified if the server virtualization software is RHEL-KVM.</p> |
| System Disk | Storage pool   | <p>From the drop-down menu, select the storage pool to be used.</p> <p>"---- Select ----" is displayed if the type specified before reconfiguration does not exist.</p> <p>If the server virtualization software is OVM for x86, only [Automatic] can be selected.</p> <p>If the server virtualization software is OVM for SPARC, or if the server virtualization software is RHEL-KVM and the image location type of the cloning image specified for the image</p>  |

| Part                        | Description   |
|-----------------------------|---|
|                             | <p>information is "Raw Disk", then the value set in the [Disk resource specification] window will be displayed. To change the settings, click the [Change] button to open the [Disk resource specification] window.</p>   |
| Size                        | <p>Specify the disk capacity of the virtual server in GB.</p> <ul style="list-style-type: none"> <li>- When reconfiguring during subscription<br/>The minimum allowed value is the system disk size of the image information.<br/>The maximum allowed value is the lesser of the maximum system disk capacity of the image information or the maximum disk capacity of the storage pool.<br/>If the server virtualization software is OVM for SPARC, or if the server virtualization software is RHEL-KVM and the image location type of the cloning image specified for the image information is "Raw Disk", then the value set in the [Disk resource specification] window will be displayed. To change the settings, click the [Change] button to open the [Disk resource specification] window.</li> <li>- When reconfiguring after deployment<br/>The minimum allowed value is the current disk capacity.<br/>The maximum allowed value is the lesser of the maximum system disk capacity of the image information or the maximum disk capacity of the storage pool.<br/>The value can be changed only if the server virtualization software is VMware or Hyper-V.</li> </ul>  |
| Disk resource specification | <p>Specify this item if the server virtualization software is OVM for SPARC, or if the server virtualization software is RHEL-KVM and the image location type of the cloning image specified for the image information is "Raw Disk".<br/>The disk resource can be automatically selected according to the size of the system disk, or the disk resource can be directly selected. To make the settings, click the [Change] button to open the [Disk resource specification] window.</p> <ul style="list-style-type: none"> <li>- When you specify a disk resource according to the size of the system disk:<br/>A disk resource with a size larger than the size of the system disk is selected automatically. Select the <b>[Specify by the size of the disk] option button</b>, then specify a storage pool and a disk size. A disk resource is selected from amongst those on the selected storage pool.<br/>If the storage pool value is Automatic, then a disk resource is selected from amongst the available storage pools.</li> <li>- If specifying a disk resource directly:<br/>Directly specify the disk resource to be used.<br/>After selecting the <b>[Specify by the resource name] option button</b>, select the disk resource from the list.</li> </ul> |
| Boot priority               | <p>Sets the priority order when performing batched power supply operations in either the L-Platform or the tenant. The smaller the value, the higher the priority orders.</p> <p>Set to 0 when power supply operations are not carried out in a single batch. Note however that this value cannot be set to 0 at the time of new deployment.</p>  |



The icons displayed in front of the virtual server names correspond to the usage of the virtual servers described in the specification.

- WEB: Web server
- AP: Application server
- DB: Database server

When a virtual server has multiple usages, an icon showing each usage separated by "/" will be displayed.

Example: WEB/AP, AP/WEB/DB etc.

## Note

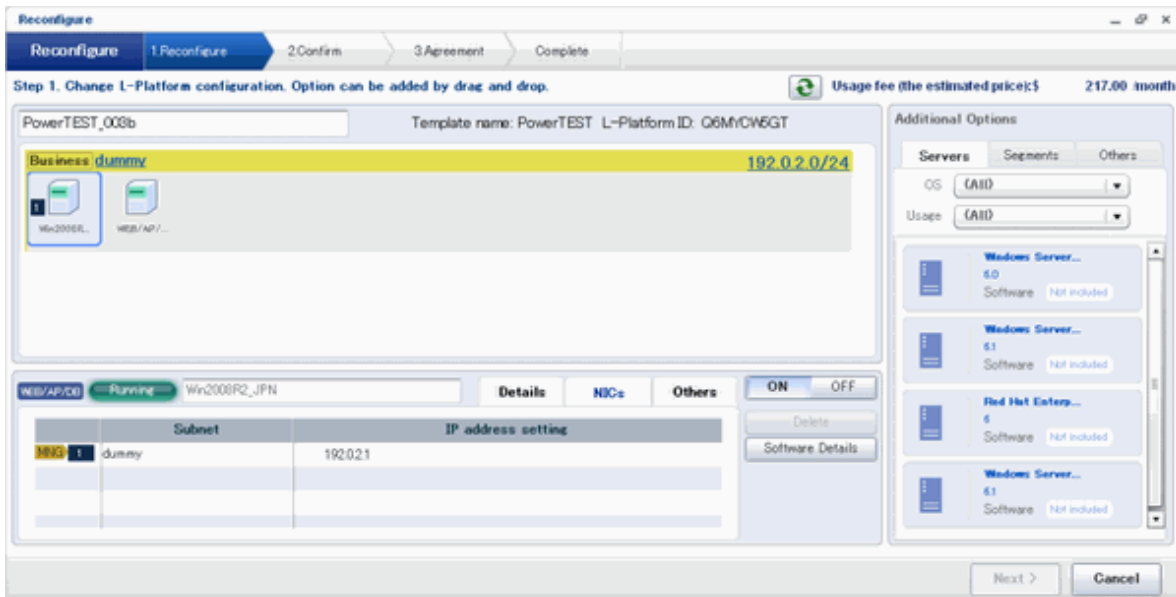
- The server type cannot be changed with some types of server virtualization software.
- When the 0 or no valid value is specified for CPU frequency, CPU reserve clock rate, memory size, or memory reserve size, it is treated as if the value 0.1 were specified. This modification is included in the changed items.
- Depending on the guest OS type, system disks which capacity is expanded may not be recognized or used by the OS. Refer to server virtualization software manuals and technical information to ensure that the expanded disk can be used.  
A separate operation is required to make the expanded disk recognizable on the guest OS. Refer to manuals and technical information for each OS for information on the required operations.
- If [Automatic] is selected for the system disk storage pool, estimated charges will be calculated based on a system disk unit price of 0 Japanese Yen.  
Note that estimated charges may differ to the actual charges because usage charges are calculated according to the unit price of the storage pool that creates the system disk after subscription or reconfiguration is complete.
- System disk capacity cannot be expanded in the following cases:
  - When snapshots exist on the server
  - When disks not managed by ROR, such as RDM (Raw Device Mapping), are connected to the server

## [NICs] tab

Use the [NICs] tab to set the IP address allocated to an NIC.

Note that the IP address can be set only if "manual setting" is specified for the subnet during segment editing. However, since the subnet cannot be changed by reconfiguration after a system is deployed, IP address changes are also not possible.

A display example of the [NICs] tab is shown below. Note that the window shown below is the L-Platform subscription [Reconfigure] page.

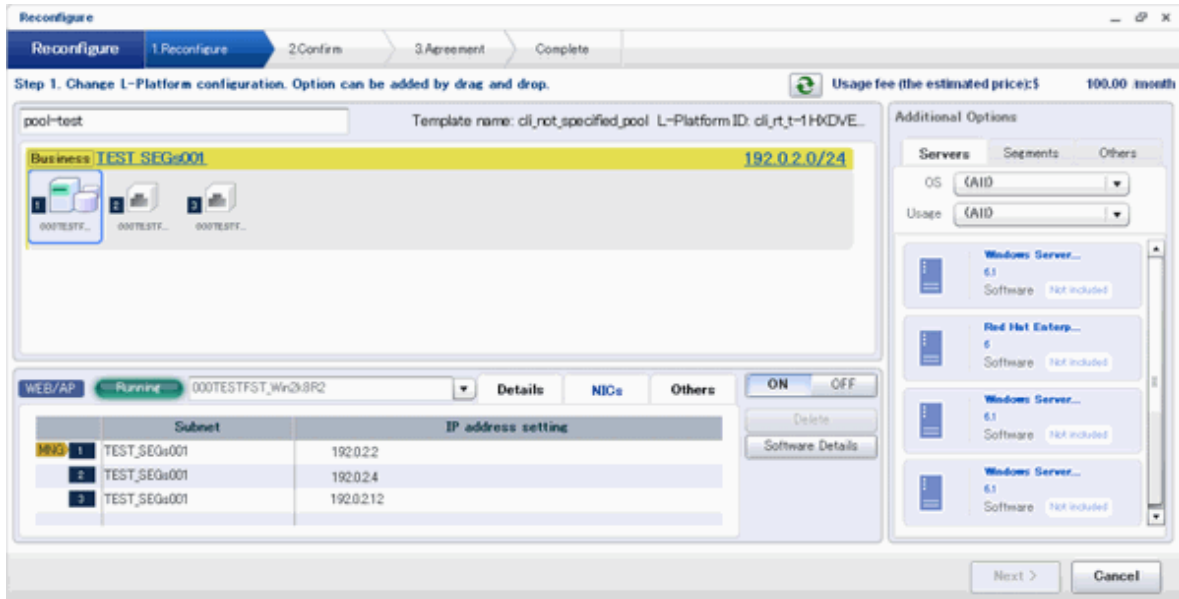


There are two ways of specifying an IP address as follows:

- Automatic  
Sets an IP address automatically from a subnet.
- Manual  
Enters an IP address directly.  
When there is a conflict between the specified IP address and network resources, an error message will be displayed.

An [MNG] icon is displayed for the control NIC.

The following window displays an example of an L-Platform where multiple NICs exist. The following window shows the [Reconfigure] page used to subscribe to an L-Platform.



Each NIC is represented by one server. When a server is selected, the same server in each segment is selected.

When a server is selected an icon is displayed showing a number at its lower left hand corner. The number represents an NIC number. Dark-colored servers are the NICs for administration, and light-colored servers are NICs for business.

When a server is dragged from the [Additional Options] and dropped on a segment, as many servers as the number of NICs specified for the segment in the image information are displayed.

### [Others] tab

The [Others] tab can be used to check the operating system installed at a virtual server, the middleware and other software, and information on the patches applied to the software.

When a virtual server has image information for VDI coordination, it is possible to check the VDI user name, the name of the VDI pool the virtual server will belong to after deployment, and the connection information of the VDI admin server.

If the server virtualization software of the virtual server is Solaris Zones and the OS of the virtual server is Solaris 11, the administrator user name can be checked.

### Point

When an infrastructure administrator permits setting of VDI user names, the VDI user can be specified when applying to use an L-Platform. Specify the VDI user name in the following format.

*NetBIOS domain name\user name*

### Note

The following message may be displayed when VDI definitions are incorrect. When the following message is displayed even when the specified VDI user is correct, consult with the infrastructure administrator.

One or more specified VDI user name is not valid. Please check VDI user names.

Or

The NetBIOS Domain of one or more VDI users is not valid. Please check the NetBIOS Domain.

## NIC Add and Delete

This section explains NIC add and delete.

Click the [Add NIC] button to add a business NIC to the same segment as the control NIC.

Click the [Delete NIC] button deletes an NIC.



- Whether it is possible to add NICs to or delete NICs from the servers that have been deployed differs depending on the type of the server virtualization software and power status of the server. Details are shown below:

| Operation | Server status | VMware | Hyper-V | RHEL-KVM | Solaris Zones | Citrix XenServer | OVN for X86 | OVN for SPARC |
|-----------|---------------|--------|---------|----------|---------------|------------------|-------------|---------------|
| Add       | Stop          | Y      | Y       | Y        | N             | N                | N           | N             |
|           | Operation     | Y      | N       | N        | N             | N                | N           | N             |
| Delete    | Stop          | Y      | Y       | Y        | N             | N                | N           | N             |
|           | Operation     | Y      | N       | N        | N             | N                | N           | N             |

Y: Can add or delete

N: Cannot add or delete

- A maximum of eight NICs can be added with Solaris Zones management servers.
- NICs cannot be added if they would exceed the maximum number of connections for the segment.
- Since at least one NIC is required, it is not possible to delete all NICs.
- If the server virtualization software is OVM for SPARC, request the tenant administrator to add a NIC to or delete a NIC from a deployed server.

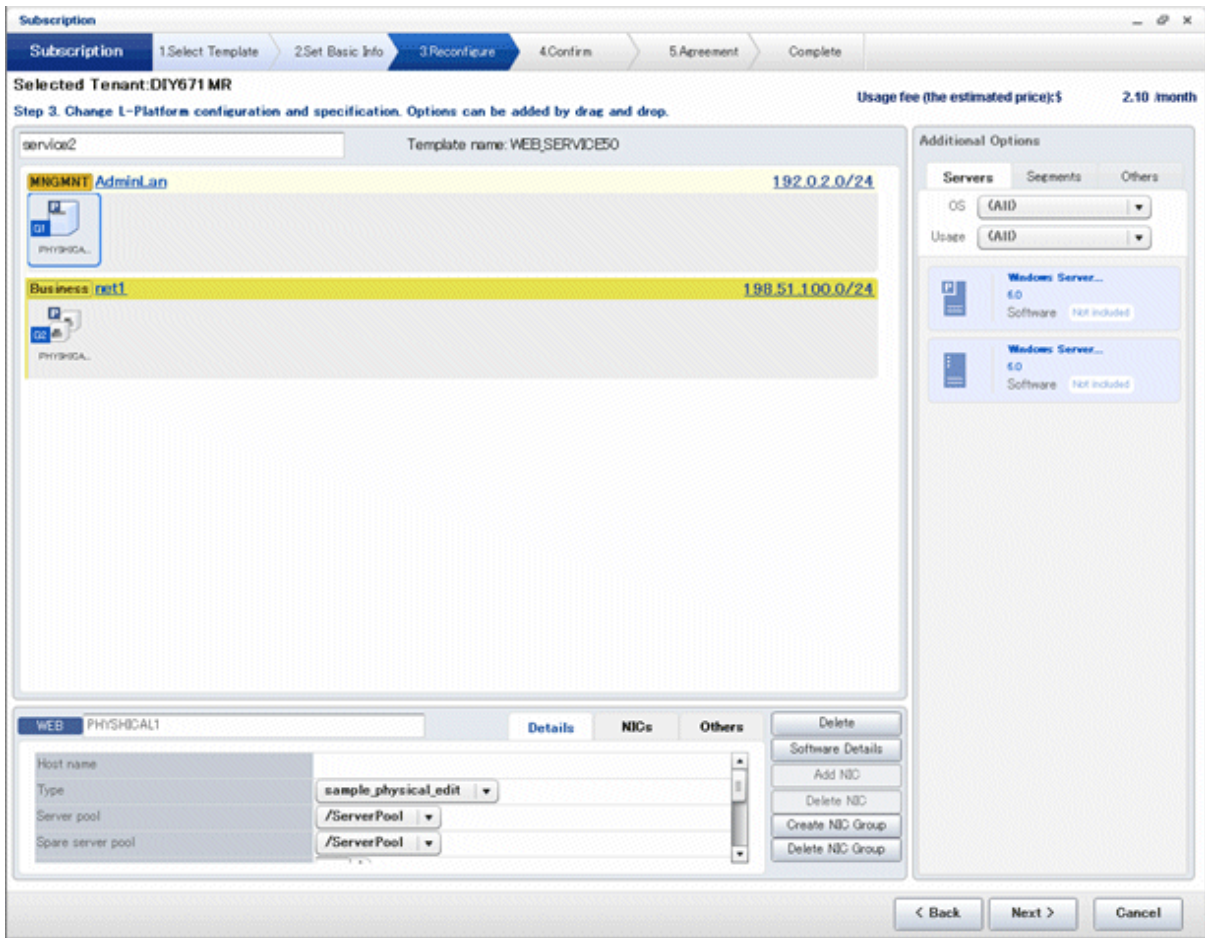
## 5.3.18.6 Editing a Physical Server

Selecting a physical server enables editing of that physical server.

For a deployed physical server, only the server name, the server type, and the boot priority can be changed.

### [Details] tab

A display example of the [Details] tab is shown below.



| Part      | Description  |
|-----------|--|
| Host name | <p>Sets the name of a physical server that is in the L-Platform Template.</p> <p>For a virtual server added using [Additional Options], "usage + (the number of servers + 1)" is automatically set.</p> <p>To rename, the name must be no more than 85 characters long and not include the following characters:</p> <p style="text-align: center;">&lt;, &gt;, &amp;, ', " and control characters</p> <p>However, the strings and the number of characters that can be specified may vary depending on the system settings. When the OS of the managed server is Windows, specification using up to 15 of the characters below is recommended. For other OSs, specification using up to 63 characters is recommended. The value specified for this item cannot consist of only numbers. Hyphens cannot be used for the first character.</p> <p style="text-align: center;">Alphanumeric characters, underscores ("_") and hyphens ("-")</p> <p>A pre-existing name cannot be specified.</p> |
| Type      | <p>From the drop-down menu, select the type (specifications) of the registered server.</p> <p>"---- Select ----" is displayed if the type specified before reconfiguration does not exist.</p> <p>The CPU, memory size, and System Disk are set according to the selected server type.</p> <p>The settings for the following L-Server features are also made:</p> <ul style="list-style-type: none"> <li>- Heartbeat</li> <li>- Redundancy</li> <li>- Automatic server release</li> </ul>  |

| Part                |                | Description  |
|---------------------|----------------|--|
| Server pool         |                | From the drop-down menu, select the resource name of the server pool that is the server deployment destination.<br>"---- Select ----" is displayed if the type specified before reconfiguration does not exist.<br>Contact the infrastructure administrator in the event that an error message is displayed indicating that no existing pool can be selected as the server deployment destination.                         |
| Reserve server pool |                | From the drop-down menu, select the resource name of the reserve server pool.<br>"---- Select ----" is displayed if the type specified before reconfiguration does not exist.<br>Contact the infrastructure administrator in the event that an error message is displayed indicating that no existing pool can be selected as the server deployment destination.   |
| CPU                 | Number of CPUs | Set the number of CPUs in the physical server.<br>Range: 1-99.<br>If the maximum number of CPUs is configured in the image information, the upper limit is set to that value.<br>Any value outside the allowable range cannot be specified.  |
|                     | performance    | Specify the CPU performance of the physical server in GHz units.<br>Range: 0.1-99999.9.<br>If the maximum CPU performance is configured in the image information, the upper limit is set to that value.<br>Any value outside the allowable range cannot be specified.  |
| Memory              | Size           | Specify the memory size of the physical server in GB units.<br>Range: 0.1-99999.9.<br>If the maximum memory size is configured in the image information, the upper limit is set to that value.<br>Any value outside the allowable range cannot be specified.   |
| System Disk         | Storage pool   | From the drop-down menu, select the storage pool to be used.<br>"---- Select ----" is displayed if the type specified before reconfiguration does not exist.   |
|                     | Size           | Specify the disk capacity of the physical server in GB.<br><br><b>When reconfiguring during subscription</b><br>The minimum allowed value is the system disk size of image information.<br>The maximum allowed value is the lesser of the maximum system disk capacity of image information or the maximum disk capacity of storage pool.<br><br><b>When reconfiguring after deployment</b><br>The size cannot be changed. |
| Boot priority       |                | Sets the priority order when performing batched power supply operations in either the L-Platform or the tenant. Range:1-256.The smaller the value, the higher the priority order.<br><br>Set to 0 when power supply operations are not carried out in a single batch. Note however that this value cannot be set to 0 at the time of new deployment.   |

### Note

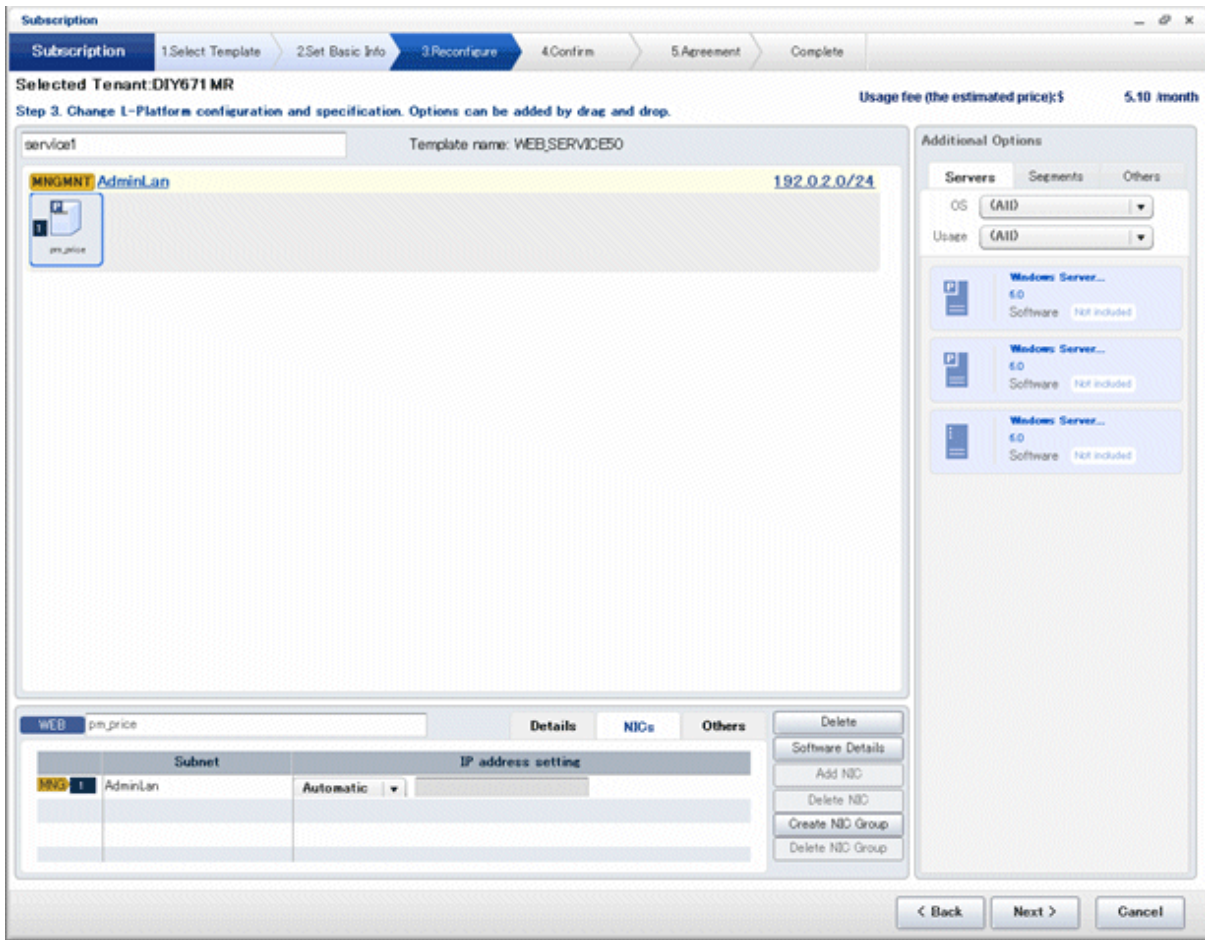
The server pool physical server with details closest to the specified CPU and memory information is allocated.  
If you are deploying a physical server, the estimated and actual charges are calculated based on the values entered for CPU performance and memory size in this step.

### [NICs] tab

Use the [NICs] tab to set the IP address allocated to an NIC.

Note that the IP address can be set only if "manual setting" is specified for the subnet during segment editing. However, since the subnet cannot be changed by reconfiguration after a system is deployed, IP address changes are also not possible.

A display example of the [NICs] tab is shown below. Note that the window shown below is the L-Platform subscription [Reconfigure] page.



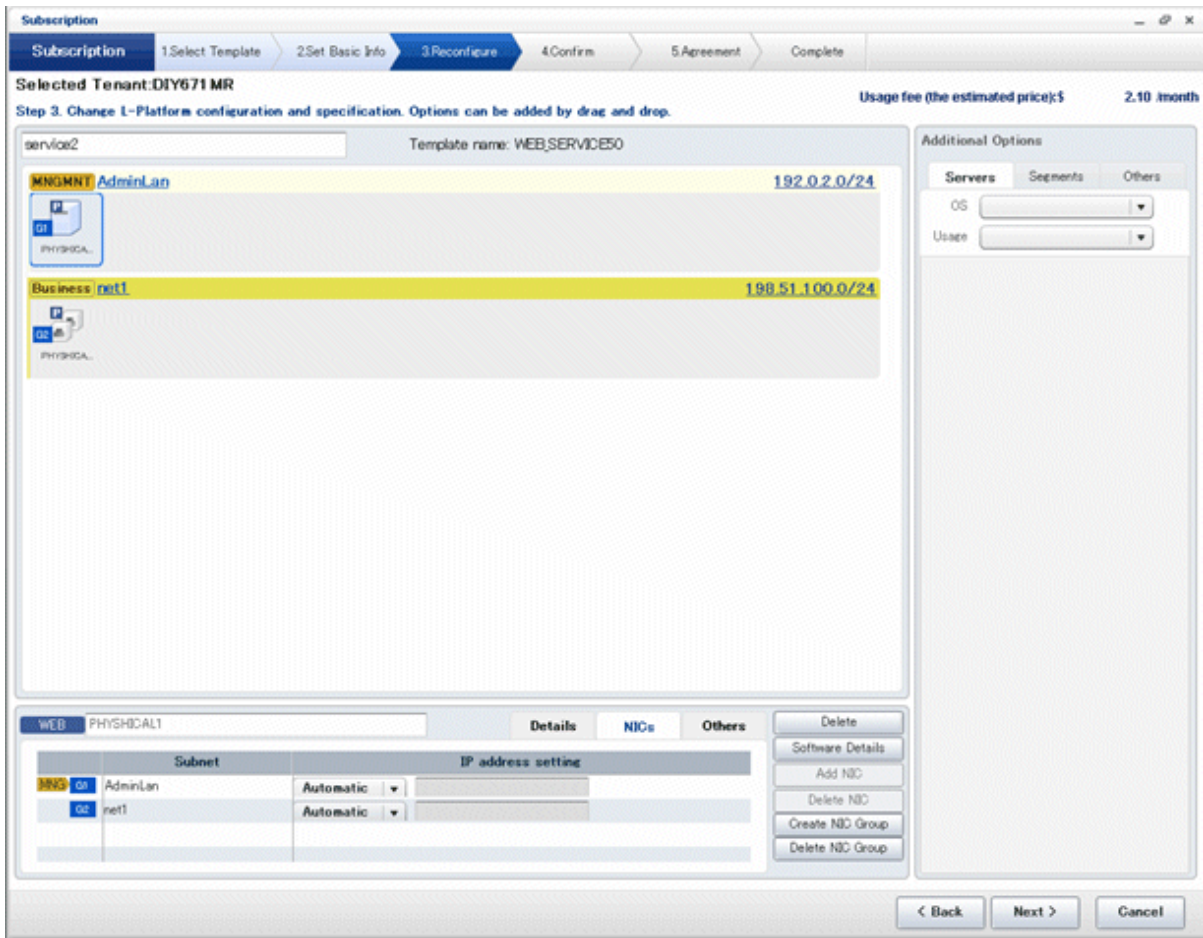
The following two methods are available for specifying an IP address:

- Automatic  
The IP address is set automatically from the subnet.
- Manual  
Enter the IP address directly.  
An error message is displayed if the specified IP address is inconsistent with the network resources.

The [MNG] icon is displayed for the control NIC.

The window below is an example of the display when there are multiple NICs. Note that the window shown below is the L-Platform subscription [Reconfigure] page.





NIC1 is represented by one physical server. When a server is selected, the selected state occurs for all the same servers. A numeric icon is displayed to the bottom left of selected servers. It indicates the NIC number.

Dark-colored servers indicate management NICs, and light-colored servers indicate business NICs.

If a segment is dragged and dropped from [Additional Options], the number of servers displayed matches the number of NICs specified in the image information of the segment.

## Point

The NIC setting will be an untagged VLAN.

## [Others] tab

The [Others] tab can be used to check the operating system installed at a physical server, the middleware and other software, and information on the patches applied to the software.

## NIC Add and Delete

This section explains NIC add and delete.

Addition and deletion of NICs for physical servers is possible only when applying for L-Platform subscriptions and when adding (new) servers during L-Platform reconfiguration.

Click the [Add NIC] button to add a business NIC to the same segment as the control NIC.

Click the [Delete NIC] button deletes an NIC.

## Note

- NICs cannot be added if they would exceed the maximum number of connections for the segment.
- Since at least one NIC is required, it is not possible to delete all NICs.
- When add or delete NICs for a physical server, configure the number of NICs after settings are made to match the number of NICs of the physical server being used.

## NIC Grouping

This function is available with physical servers only.

This section explains NIC grouping.

The screenshot displays the 'Subscription' configuration window for a physical server. The interface is divided into several sections:

- Subscription Progress:** A sequence of steps: 1. Select Template, 2. Set Basic Info, 3. Reconfigure (active), 4. Confirm, 5. Agreement, Complete.
- Selected Tenant:** DIY671 MR
- Usage fee:** (the estimated price):\$ 2.10 /month
- Step 3:** Change L-Platform configuration and specification. Options can be added by drag and drop.
- Service Configuration:** Shows 'service20' and 'Template name: WEB\_SERVICE50'. A table lists NICs: 'MNGMNT AdminLan' with IP '192.0.2.0/24' and three 'PHYSICAL' NICs.
- Additional Options:** Includes 'Servers', 'Segments', and 'Others' sections. 'OS' and 'Usage' are set to 'CAID'. Two 'Windows Server' options are listed with '6.0' version and 'Software' type, both marked 'Not included'.
- Table:** A table with columns 'Subnet' and 'IP address setting'. It lists three 'AdminLan' entries, each with 'Automatic' IP setting.
- Buttons:** 'Delete', 'Software Details', 'Add NIC', 'Delete NIC', 'Create NIC Group', and 'Delete NIC Group'.
- Navigation:** '< Back', 'Next >', and 'Cancel' buttons.


- Making a group  
Select multiple checkboxes, and then click the [Create NIC Group] button. However, Multidata input NIC cannot be grouped. Groups can include control NIC.
- Cancelling a grouping  
Select multiple checkboxes, and then click the [Delete NIC Group] button.

## Note

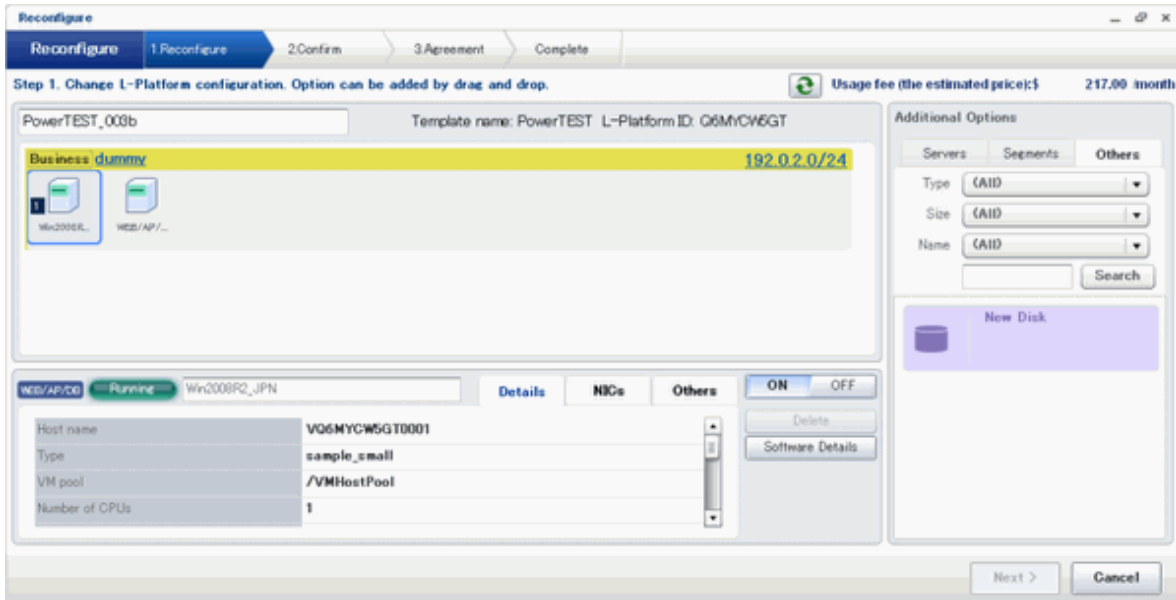
- This is possible only during L-Platform subscription. NIC groups cannot be made or cancelled after deployment.
- Two NICs can be grouped. Three or more NICs cannot be grouped.

- In estimated charges, grouped NICs are handled as if each NIC in the group exists.

### 5.3.18.7 Edit a Disk (for a Virtual Server)

A virtual server to which a disk has been added can be selected. By clicking the button (  ) located to the right of the virtual server name, a selection list of virtual servers and disks is displayed. Select a disk on the list.

The following example displays the [Reconfigure] page when a disk is selected. The following window shows the [Reconfigure] page used to subscribe to an L-Platform.




| Part         | Description   |
|--------------|---|
| Disk name    | <p>Sets the name of a disk name in the L-Platform template.</p> <p>For a disk added using [Additional Options], "DISK + (the number of disks + 1)" is automatically set. To rename a disk, the new name must be no more than 85 characters long and not include the following characters:</p> <p style="text-align: center;">&lt;, &gt;, &amp;, ', " and control characters</p> <p>A pre-existing name cannot be specified.</p>   |
| Storage pool | From the drop-down menu, select the deployment destination resource pool.   |
| Size         | <p>Specify the disk capacity of the virtual server in GB.</p> <ul style="list-style-type: none"> <li>- When reconfiguring during subscription<br/>Either the maximum disk size of a storage pool or the maximum data disk size of image information, whichever is the smaller, can be specified.</li> <li>- When reconfiguring (a previously undeployed disk) after deployment<br/>Either the maximum disk size of the storage pool or the maximum data disk size of the image information, whichever is the smaller, can be specified.</li> <li>- When reconfiguring (a deployed disk) after deployment<br/>The minimum allowed value is the current data disk capacity.<br/>The maximum allowed value is the lesser of the maximum disk capacity of storage pool or the maximum data disk capacity of image information.<br/>The value can be changed only if the server virtualization software is VMware or Hyper-V.</li> </ul> |

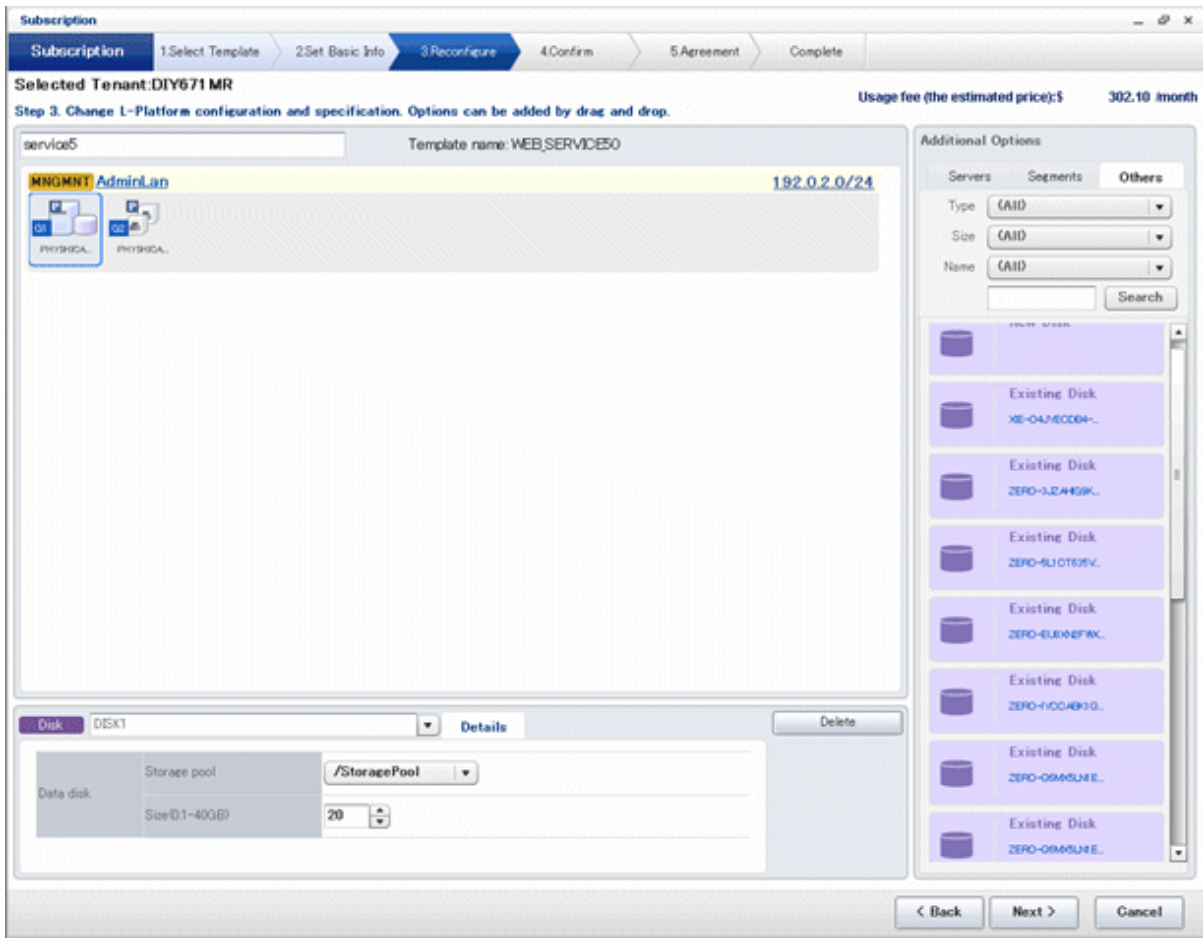
## Note

- If the server virtualization software is Hyper-V, the maximum number of disks after addition is four, including the system disk.
- Existing disks cannot be added or deleted if the server virtualization software is Citrix XenServer or OVM for x86.
- If the server virtualization software is OVM for SPARC, only existing disks can be added or deleted, but it is not possible to add to a server existing disks already attached to another server.
- When the server virtualization software is Solaris Zones and the OS of the virtual server is Solaris 10, attaching and detaching of disks is not possible.
- When the server virtualization software is Solaris Zones and the OS of the virtual server is Solaris 11, detachment of already deployed disks is not possible.
- Disks cannot be added to or deleted from images that include data disks.
- Disk capacity cannot be expanded for data disks included in images.
- If [Automatic] is selected for the storage pool, estimated charges will be calculated based on a disk unit price of 0 Japanese Yen. Note that estimated charges may differ to the actual charges because usage charges are calculated according to the unit price of the storage pool that creates the disk after subscription or reconfiguration is complete.
- Data disk capacity cannot be expanded in the following cases:
  - When snapshots exist on the server
  - When disks not managed by ROR, such as RDM (Raw Device Mapping), are connected to the server

### 5.3.18.8 Edit a Disk (for a Physical Server)

A physical server to which a disk has been added can be selected. By clicking the button () located to the right of the physical server name, a selection list of physical server and disks is displayed. Select a disk on the list.

The following example displays the [Reconfigure] page when a disk is selected. The following window shows the [Reconfigure] page used to subscribe to a service.



| Part         | Description  |
|--------------|--|
| Disk name    | <p>Sets the name of a disk name in the L-Platform template.</p> <p>For a disk added using [Additional Options], "DISK + (the number of disks + 1)" is automatically set.</p> <p>To rename a disk, the new name must be no more than 85 characters long and not include the following characters:</p> <p style="text-align: center;">&lt;, &gt;, &amp;, ', " and control characters</p> <p>A pre-existing name cannot be specified.</p> |
| Storage pool | <p>From the drop-down menu, select the deployment destination resource pool. If an existing disk is selected, modification is not possible.</p>  |
| Size         | <p>Specify the disk capacity of the virtual server in GB.</p> <p>Specify the lesser of the two values: Enter either the maximum value entered for image information or enter the maximum value of the storage pool, free space size of storages with the most free space size.</p> <p>A value outside the range cannot be set.</p>   |

### [Server] tab

"Physical server" and "Virtual server" can be selected from [Type], enabling only servers of the selected type to be displayed.

### 5.3.18.9 Server load balancer

Selecting a server load balancer enables confirmation of the settings of the server load balancer.

- For SLBs not using rulesets

The IP addresses and distribution targets set for server load balancers can be checked.

- [IP Address] tab

The virtual and public IP addresses set for an SLB are displayed.

- [Distribution] tab

The target servers, their statuses, and the distribution status are displayed for each SLB rule configured on an SLB.

It is possible to enable and disable load balancing by selecting the checkbox of the target server, and then clicking the [Detach] button or the [Attach] button.

## Point

When disabling load balancing, it is possible to specify the amount of time until it is disabled.

- For server load balancers not using rulesets

The rulesets and parameters set in the server load balancer can be checked.

- [SLB] tab

| Part               | Description   |
|--------------------|---|
| Deployment ruleset | The names of the ruleset set in the server load balancer are displayed. The ruleset names cannot be modified. |
| Description        | Descriptions of the ruleset for deploying server load balancer are displayed.                                 |

Click the [Parameter details] button to confirm the values of the parameters set in rulesets.

If a server load balancer is defined in an L-Platform template, the default rulesets and parameter values are those specified in the L-Platform template.

- [Parameter details] page

A list of parameters defined in the ruleset is displayed in the [Parameter details] page.

Click the [Parameter details] button to display the [Parameter details] page.

| Part             | Description   |
|------------------|---|
| Selected ruleset | The names of the ruleset for deploying server load balancer are displayed.    |
| Description      | Descriptions of the ruleset for deploying server load balancer are displayed. |

- [SLB] tab

Parameters that are unrelated to the server are displayed:

| Part                                  | Description  |
|---------------------------------------|--|
| Parameter                             | Displays the parameter labels.   |
| Description                           | Displays the parameter descriptions.                                       |
| Value                                 | The value to be set for the parameter is displayed.                        |
| Description of the selected parameter | The description of the parameter in the row being pointed at is displayed. |

- [Server] tab

Parameters that are related to the server are displayed:

| Part      | Description   |
|-----------|---|
| Server    | The names of the servers where the parameters are enabled are displayed. "-" is displayed for parameters unrelated to the server. |
| Parameter | Displays the parameter labels.  |

|                                       |  |
|---------------------------------------|--|
| Description                           | Displays the parameter descriptions.                                       |
| Value                                 | The value to be set for the parameter is displayed.                        |
| Description of the selected parameter | The description of the parameter in the row being pointed at is displayed. |

## 5.4 Display Event Logs

---

Event logs of the errors that occurred while using the functions of the [L-Platforms] tab 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-Platforms] tab.  
A list of event logs will be displayed.

The [Event log] page displays up to 100 events and each event is displayed until the same date of the next month from the date it occurred. If the same date does not exist in the next month, the event is displayed until the last date of the next month.

Refer to "Chapter 19 Messages Starting with VSYS" in "Messages" for information on the messages displayed in the event log.

### Point

Right-click on the [Event Log] page to display the [Copy the event log] menu. Select this menu to save a converted string to the clipboard in CSV file format, according to the following conditions:

- Enclose each "date and time", "log type", and "log message" of the event log in double quotation marks.
- Separate each "date and time", "log type", and "log message" using commas.
- Double quotation marks in messages must be prefixed by a double quotation mark.

### Example

Before changing: 2013/03/04 14:12 Warning : VSYSxxxx:"Error message" is converted.

After changing: "2013/03/04 14:12","Warning","VSYSxxxx:""Error message"" is converted."

## 5.5 Select Forward Destination of Application Process

---

When the application process is enabled, the forward destination of the application process must be selected to use the following functions:

- L-Platform subscription
- L-Platform reconfiguration
- Cancel L-Platform

### Point

The application process is set by the infrastructure administrator.

### Note

If the pop-up blocker is enabled and the URL of the ROR console is not registered with the 'Address of web site to allow' list, the 'Forward screen' window will not be displayed.

Follow the steps below to select the forward destination of the application process:

1. The [Forward screen] window is displayed when an L-Platform usage application is made, an L-Platform configuration is modified, or an L-Platform is released.

| Item                   | Description   |
|------------------------|---|
| Forward destination    | Select an approver who is the forward destination of the application process.<br>If the process has been set to require no approval, the forward destination will not be displayed. |
| Reason for application | Specify the reason for application using 100 or less characters.  |

2. Specify the item and click [Forward] button.  
A message notifying the forward result will be displayed.  
When forwarding is successful, the subscriber will receive an application acceptance email.
3. Confirm the message, click the [Close] button, and close the [Forward screen] window.

### Note

If an error message is displayed on the [Forward screen], notify the infrastructure administrator of the contents displayed on the window. After closing the [Forward screen], close the [L-Platforms] tab also.  
If an error message is displayed on the forward screen when a service is subscribed to or modified, that subscription will be saved.

### Point

#### Approving the application process

When an application process is forwarded, an email requesting an approval will be sent to the approver at the forward destination. An approval for the application must be obtained from the approver.  
Refer to "[Chapter 6 Request](#)" for information on how to approve an application process.  
If the process has not been approved, an email requesting an assessment will be sent to the infrastructure administrator.

#### Action when the mail is not sent

When the email is not sent to the subscriber or the approver, confirm whether the email address registered in the ROR console is correct. If it is correct, contact the system administrator to report the user ID and the process instance name for subscription.  
When the assessment request email is not sent to the infrastructure administrator, contact the system administrator to report the user ID and the process instance name.

#### Check the application process status

The subscriber and the approver can check the status of application process.  
Refer to "[Chapter 6 Request](#)" for information on how to check the status of application process.

## 5.6 How to Use the L-Platform

This section explains how to use the L-Platform after it is deployed.

Based on the information below, a deployed L-Platform can be accessed using the remote desktop function.

| Item       | Value   |
|------------|---|
| IP address | <ol style="list-style-type: none"> <li>1. The IP address can be confirmed using the following procedures.</li> <li>2. Select [Server List] on the [Management] page of the [L-Platforms] tab.</li> <li>3. Check IP address of the target server from the list displayed.</li> </ol> |
| User ID    | [Windows]<br>Administrator  |



| Item     | Value  |
|----------|--|
|          | [Linux]<br>root<br><br>[Solaris]<br>root<br><br>- When using Solaris Zones as the server virtualization software and the OS of the target server is Solaris 11, log in using the administrator user name.  |
| Password | The initial password can be confirmed using the following procedures:<br><br>1. Select [Service List] on the [Management] page of the [L-Platforms] tab.<br><br>2. Select the target L-Platform and click the [Details] button.<br><br>3. Select the target virtual server from the list displayed and click the [Initial PWD] button.<br><br>When using Solaris Zones as the server virtualization software, and the OS of the target server is Solaris 11 and the management user name is something other than that of the root account, both the initial password and the Root role password are displayed. |

### Note

- The initial password is already set up after the L-Platform is deployed. Be sure to change the password when the L-Platform starts to operate.
- If the server virtualization software is Solaris Zone and the administrator user name is "root", the infrastructure administrator needs to configure deployed servers to enable direct root ssh login after deployment of a tenant user. When server deployment is complete, request the tenant administrator to enable direct root ssh login to the guest OS.  
When the administrator user name is something other than "root", the above configuration is not necessary.

## 5.7 Server Load Balancer (SLB) Operation Procedure

This section describes the procedure for using an L-Platform template that includes a server load balancer (SLB).

1. Check the following two points before subscribing to an L-Platform template that includes a server load balancer. Check with the tenant administrator if there are points that need to be clarified.
  - Preparations to set the server load balancer are complete  
SLB settings are required to use the server load balancer. Check the following:
    - a. You understand the meaning of the parameters set when configuring the server load balancer
    - b. You know the values such as the IP address that need to be set in (a)
  - Proper preparations have been made for server load balancer operations  
Server load balancer operations are performed by configuring rulesets and the parameters in the rulesets. Check the following:
    - a. You understand the rulesets for the operation of the server load balancer
    - b. You understand the meaning of the parameters set in (a)
    - c. You know the values that need to be set in (b)
2. "[Subscribe to an L-Platform](#)" including a server load balancer.
3. Refer to "[Server Load Balancer \(SLB\) Settings](#)" and setup the server load balancer after the L-Platform is deployed
4. Refer to "[L-Platform Reconfiguration](#)" and perform the procedures described to change the configuration of an L-Platform.
5. If necessary, use the information obtained in 1 to perform "[Server Load Balancer \(SLB\) Operations](#)". After executing the operation, check the "[Server Load Balancer \(SLB\) Operation Logs](#)"
6. Refer to "[Cancel an L-Platform](#)" and perform the procedures described to cancel an L-Platform when it becomes unnecessary.

# Chapter 6 Request

This chapter explains how to operate the application list.

## Note

- Application processes are determined by the Infrastructure Administrator and set by the System Administrator. The application list can be used only if an application process is set.
- 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>

## 6.1 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 [Requests] from the ROR console.
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 the following activity names:

- When checking the status of applications in progress
    - Cancel
  - When checking past application results
    - Apply or cancel
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.

The screenshot shows a web interface for a task titled "Task: Application [L-PlatformSubscriptio...". It has tabs for "Summary" and "Details", and a "Jump To" dropdown menu. Below the tabs is a "Form" section with sub-tabs for "Application" and "Status". The "Status" tab is active, displaying a table with the following data:

| Activity Name | Status    | Date                | Responsible    | Comment                         |
|---------------|-----------|---------------------|----------------|---------------------------------|
| Application   | Accepted  | 2011-12-18 21:18:02 | taro fujitsu   | Please approve the L-Platform01 |
| Approve       | Approved  | 2011-12-18 22:08:01 | hanako fujitsu | Please assess the L-Platform01  |
| Assess        | Dismissed | 2011-12-18 22:25:59 | manage01       | refused the L-Platform01        |
| Pending       | --        |                     |                |                                 |
| Cancel        | --        |                     |                |                                 |

| Item          | Description  |  |
|---------------|--|--|
| Activity Name | The task activities will be displayed.<br>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:<br><ul style="list-style-type: none"> <li>- Approval waiting</li> <li>- Approved</li> <li>- Approved (Error)</li> <li>- Rejected</li> <li>- _ (*1)</li> </ul>                        |
|               | Assess   | One of the following responses will be displayed:<br><ul style="list-style-type: none"> <li>- Approval waiting</li> <li>- Accepted</li> <li>- Accepted (Error)</li> <li>- Dismissed</li> <li>- _ (*1)</li> <li>- Blank (*2)</li> </ul> |
|               | Pending  | One of the following responses will be displayed:<br><ul style="list-style-type: none"> <li>- Pending</li> <li>- Cancel</li> <li>- _ (*1)</li> <li>- Blank (*2)</li> </ul>   |
|               | Cancel   | One of the following responses will be displayed:<br><ul style="list-style-type: none"> <li>- Cancel</li> </ul>  |

| Item        | Description   |
|-------------|---|
|             | - _ (*1)<br>- Blank (*2)  |
| Date        | The date and time of execution will be output in the following format:<br>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 'ApproverOnly' and 'JudgeOnly'

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        |                  |                     |              |                                |

## 6.2 Cancelling an Application

---

Subscribers can cancel an application that they have issued.

A subscriber is a user who issued any of the following applications:

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



.....  
Refer to "[Appendix A Emails Sent during L-Platform Operations](#)" for information on the email sent when an application is canceled.  
.....

Perform the following steps to cancel an application process:

1. From the ROR console, select [Requests] tab.
2. In the [Task Filters] drop-down list on the My Tasks window, select "My Tasks".  
A list of tasks with the status Active 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.
3. Select the task with the activity name "Cancel" on the process instance that you want to cancel, and then click the [Details] tab.

- Select the [Application] tab on the [Form] panel.  
Check the content of the application.

Task: Cancel [L-PlatformSubscription\_73...]

Summary Details Jump To: -Select One-

**Form**

Application 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**

|             |                          |  |
|-------------|--------------------------|--|
| Rule set    | bonding                  |  |
| Description | Ruleset Description Data |  |

▼ **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

Back to top

**Attachments**

Add Attachment

There are no attachments in this task.

Back to top

**Comments**

Comment

Add Comment

Back to top

**Make Choice**

0:Cancel

Back to top

- Click the [0: Cancel] button on the [Make Choice] panel.  
The selected application process is cancelled.

### 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, take one of the following actions:

- Click the [Cancel] button, and then select the [Details] tab.
- Select the [Status] tab on the [Details] tab.

- When canceling applications and [Failed] is displayed as the result in the [Result Summary] window, contact the tenant administrator with the process instance name that failed and the error details and have them investigate the error and take action as necessary.

Details about the errors are displayed by clicking [Details] in the comments in the [Result Summary] window.

---

# Chapter 7 Account

This chapter explains account operations.

## 7.1 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.

To modify your account, click [Modify account] button.  
To change your password, click [Change password] button.

|             |               |
|-------------|---------------|
| User ID     | tenant_user01 |
| Description |               |
| Role        | tenant_user   |

**Personal Information**

|                                   |                           |
|-----------------------------------|---------------------------|
| E-mail address                    | tenant_user01@example.com |
| Name                              | John N Smith              |
| Company name or organization name |                           |

**Emergency Contact Information**

|                  |  |
|------------------|--|
| E-mail address   |  |
| Telephone number |  |

| Item                              | Explanation  |
|-----------------------------------|--|
| User ID                           | Displays the user ID of the user   |
| Description                       | Displays an explanation of the user  |
| Role                              | Displays the user's role   |
| Personal Information              |  |
| E-mail address                    | Displays the user's email address  |
| Name                              | Displays the user's name   |
| Company name or organization name | Displays the company name or organization name   |
| Emergency Contact Information     |  |
| E-mail address                    | Displays the email address that receives emergency notifications                                 |
| Telephone number                  | Displays the phone number for emergency contact  |
| [Modify account] button           | When clicked, displays the <a href="#">Modify account window</a> used to change user information |
| [Change password] button          | When clicked, displays the <a href="#">Change password window</a> used to change a password      |





## Note

When using Single Sign-On, 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.

## 7.2 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.

| Item                              | Explanation   |
|-----------------------------------|---|
| User ID                           | Displays the user ID of the user. This cannot be changed.   |
| Description                       | Enter an explanation of the user in up to 256 characters.   |
| 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.<br>This specification is mandatory.  |
| Name                              | Specify the user's name (first name, middle name and last name) using a maximum of 15 characters for each name.<br>This specification is mandatory, but the middle name can be omitted. |
| Company name or organization name | Specify the company name or organization name in up to 30 characters.   |
| Emergency Contact Information     |   |
| E-mail address                    | Specify the email address that receives emergency notifications, using up to 64 characters.   |
| Telephone number                  | Specify the phone number to be used for emergency contact.  |

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.

## 7.3 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.

| Item             | Explanation  |
|------------------|--|
| Current password | Enter the current password. This specification is mandatory. |

| <b>Item</b>            | <b>Explanation</b>  |
|------------------------|---|
| New password           | Enter the new password. Specify between 8 and 64 characters using single-byte alphanumerics and symbols. The password is case-sensitive. This specification is mandatory. |
| 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 Emails Sent during L-Platform Operations

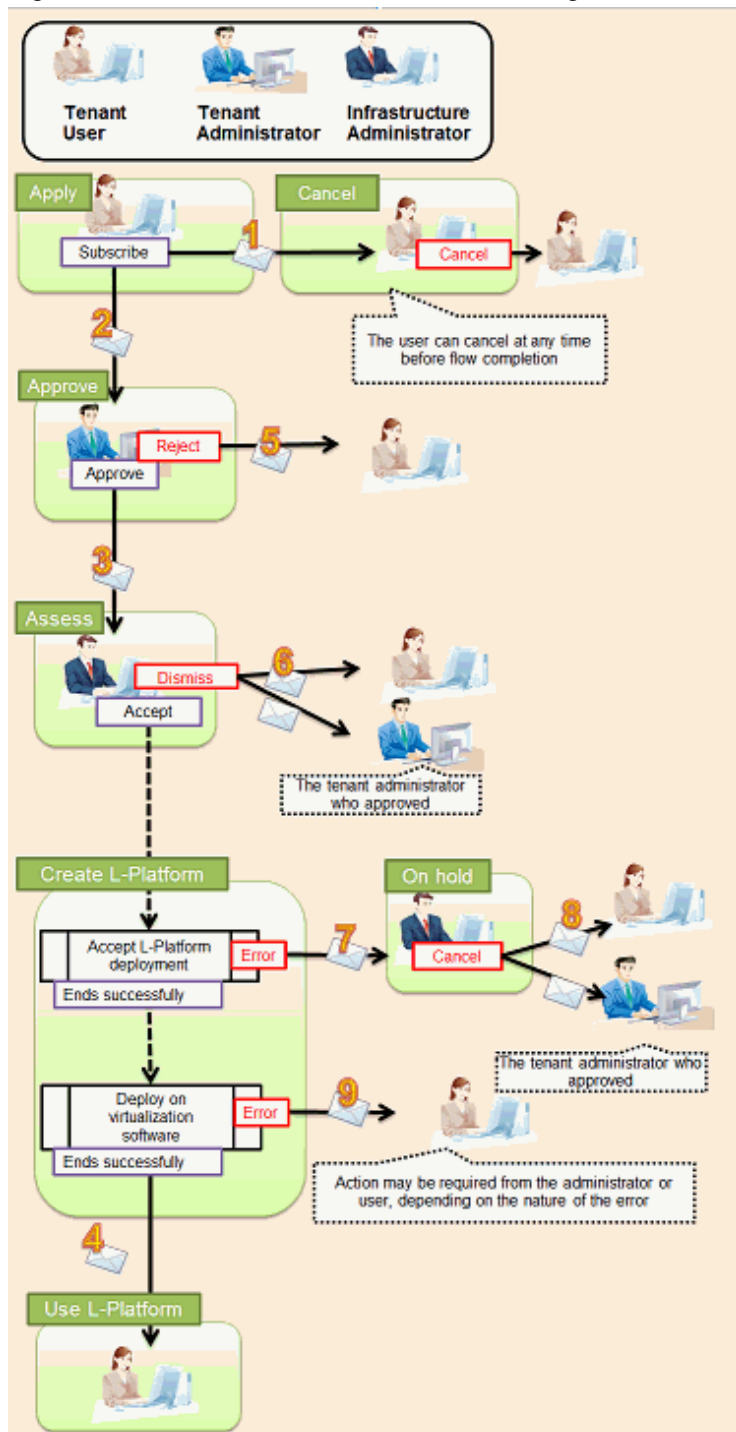
This appendix describes the flow and content of emails sent during L-Platform operations.

## A.1 Emails Sent when Subscribing to an L-Platform

This section explains the flow and content of emails sent when subscribing to an L-Platform.

The following diagram shows the flow of emails sent when a subscription is made to use an L-Platform - the example shows the use of VMware as the virtualization software.

Figure A.1 Flow of emails sent when subscribing to an L-Platform



Below is the description of the content of emails sent and the action to take - the numbers refer to the email numbers in the diagram above.

1. Notification of application acceptance

This email is sent to the subscriber when the application to subscribe to the L-Platform is made.

| Item          | Description  |
|---------------|--|
| Recipient     | Subscriber   |
| Timing        | Sent when application to subscribe is made   |
| Purpose       | Notifies acceptance of subscription application  |
| Email content | Process instance name, subscriber name, application type (L-Platform subscription), L-Platform name, reason for application, forward destination.<br><br>Note that the forward destination is sent when configured to approve subscription applications. |
| Action        | None<br>After this notification is received, the subscription can be canceled.   |

2. Notification of approval request

This email is sent to the approver (tenant administrator) when the application to subscribe to the L-Platform is made.

| Item          | Description  |
|---------------|--|
| Recipient     | Approver (tenant administrator)  |
| Timing        | Sent when application is made<br>Sent when configured to approve subscriptions at the time the application is made   |
| Purpose       | Request for approval of subscription   |
| Email content | Process instance name, subscriber name, application type (L-Platform subscription), L-Platform name, reason for application, forward destination, approval URL |
| Action        | Select [Request] using the approval URL in the email or the ROR console, and approve or reject the subscription.   |

3. Notification of assessment request

This email is sent to the assessor (infrastructure administrator) when the application to subscribe to the L-Platform is made.

| Item          | Description   |
|---------------|---|
| Recipient     | Assessor (infrastructure administrator)   |
| Timing        | Sent when application is made or when approval is given<br>Sent when configured to assess applications at the time they are submitted   |
| Purpose       | Request for assessment of subscription  |
| Email content | Process instance name, subscriber name, application type (L-Platform subscription), L-Platform name, reason for application, approver name, approval comment, assessment URL<br><br>Note that the approver name and approval comments are sent when configured to approve applications at the time they are submitted |
| Action        | Select [Request] using the approval URL in the email or the ROR console, and accept or dismiss the subscription.  |

4. Notification of completed creation

This email is sent to the subscriber when creation of the L-Platform is complete.

| Item      | Description                               |
|-----------|---|
| Recipient | Subscriber                                |
| Timing    | Sent when L-Platform creation is complete |

| Item          | Description   |
|---------------|---|
| Purpose       | Notifies that creation of L-Platform is complete                          |
| Email content | L-Platform name, L-Platform ID, server name, IP address, default password |
| Action        | None  |

5. Notification of application rejection

This email is sent to the subscriber when a request for approval is rejected.

| Item          | Description   |
|---------------|---|
| Recipient     | Subscriber  |
| Timing        | Sent when the request for approval of the subscription is rejected  |
| Purpose       | Notifies of rejection of subscription   |
| Email content | Process instance name, subscriber name, application type (L-Platform subscription), L-Platform name, reason for application, forward destination, approver name, approval comment |
| Action        | None  |

6. Notification of application dismissal

This email is sent to the subscriber when an assessment is dismissed.

| Item          | Description   |
|---------------|---|
| Recipient     | Subscriber and approver (tenant administrator)  |
| Timing        | Sent when the subscription assessment is dismissed  |
| Purpose       | Notifies dismissal of subscription assessment   |
| Email content | Process instance name, subscriber name, application type (L-Platform subscription), L-Platform name, reason for application, forward destination, approver name, approval comment, assessor name, assessor comment<br><br>Note that the approver name and approval comments are sent when configured to approve applications at the time they are submitted |
| Action        | None  |

7. Notification of application reservation

This email is sent to the infrastructure administrator when an error occurs during accepting L-Platform deployment.

| Item          | Description  |
|---------------|--|
| Recipient     | Infrastructure administrator   |
| Timing        | Sent when an error occurs during accepting L-Platform deployment   |
| Purpose       | Error notification   |
| Email content | Process instance name, subscriber name, application type (L-Platform subscription), L-Platform name, reason for application, reservation URL |
| Action        | Select [Request] using the reservation URL in the email or the ROR console. Check the details of the error and cancel.                       |

8. Notification of application cancellation

This email is sent to the subscriber and approver (tenant administrator) if the subscription is canceled at Step 7.

| Item      | Description   |
|-----------|---|
| Recipient | Subscriber and approver (tenant administrator)            |
| Timing    | Sent when canceled due to the subscription being reserved |

| Item          | Description   |
|---------------|---|
| Purpose       | Notifies cancellation of the subscription   |
| Email content | Process instance name, subscriber name, application type (L-Platform subscription), L-Platform name, reason for application, cancellation comment |
| Action        | Subscribe again if required.  |

#### 9. Error notification

This email is sent to the subscriber if an error occurs with deployment on virtualization software.

| Item          | Description  |
|---------------|--|
| Recipient     | Subscriber   |
| Timing        | Sent when an error occurs with deployment on virtualization software |
| Purpose       | Notifies of errors   |
| Email content | L-Platform name, L-Platform ID                                       |
| Action        | Request the infrastructure administrator to investigate.             |

The following example illustrates an actual email that is sent.

This is the content of the actual notification that is sent when an application is accepted. Other emails are also sent in the same format.



#### Example

```

Subject: [Important announcement] Notification of application acceptance

Dear Mr. Fujitsu,

The following application was accepted:

-----
[Content of application ]

Process instance name: L-Platform subscription (Task 1)
Subscriber name: Taro Fujitsu
Application type: L-Platform subscription
L-Platform name: L-Platform-20130701-01
Reason for application: For new system development
Forward destination: All administrators

Please refer to the above-mentioned process instance name from the application list of ROR console.
-----

This E-mail is for information only.
Even if you send reply to this E-mail, you will not receive any reply.

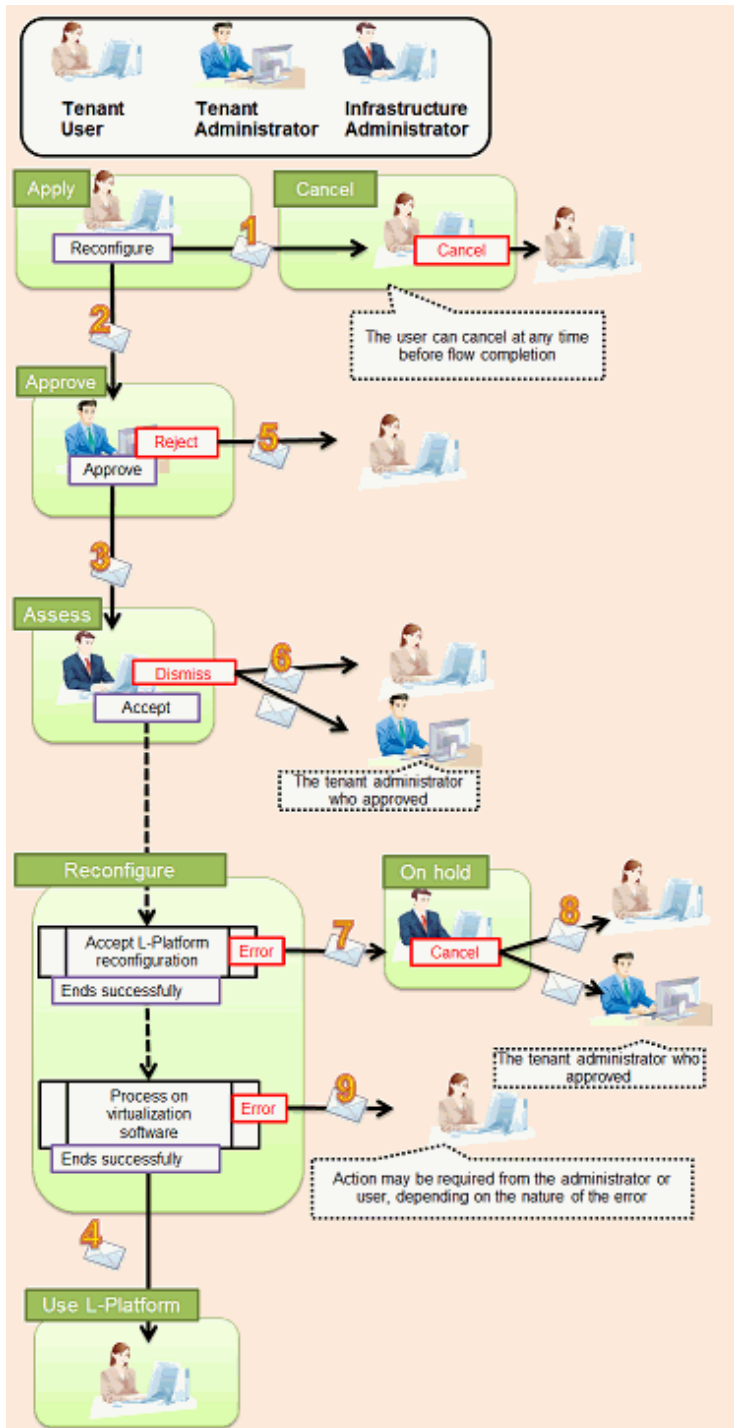
```

## A.2 Emails Sent when Reconfiguring an L-Platform

This section explains the flow and content of email messages sent when reconfiguring an L-Platform.

The following diagram shows the flow of emails sent when reconfiguring an L-Platform - the example shows the use of VMware as the virtualization software.

Figure A.2 Flow of emails sent when reconfiguring an L-Platform



Below is the description of the content of emails sent and the action to take - the numbers refer to the email numbers in the reconfiguration flow diagram.

1. Notification of application acceptance

This email is sent to the subscriber when applying to reconfigure an L-Platform.

| Item      | Description  |
|-----------|--|
| Recipient | Subscriber   |
| Timing    | Sent when application to reconfigure is made           |
| Purpose   | Notification of reconfiguration application acceptance |

| Item          | Description   |
|---------------|---|
| Email content | Process instance name, subscriber name, application type (L-Platform reconfiguration), L-Platform name, reason for application, forward destination<br><br>Note that the forward destination is sent when configured to approve reconfiguration applications. |
| Action        | None<br>After this notification is received, the reconfiguration can be canceled  |

2. Notification of approval request

This email is sent to the approver (tenant administrator) when the application to reconfigure the L-Platform is made.

| Item          | Description   |
|---------------|---|
| Recipient     | Approver (tenant administrator)   |
| Timing        | Sent when reconfiguration application is made<br>Sent when configured to approve reconfiguration applications   |
| Purpose       | Request for approval of reconfiguration   |
| Email content | Process instance name, subscriber name, application type (L-Platform reconfiguration), L-Platform name, reason for application, forward destination, approval URL |
| Action        | Select [Request] using the approval URL in the email or the ROR console, and approve or reject the reconfiguration.   |

3. Notification of assessment request

This email is sent to the assessor (infrastructure administrator) when the application to reconfigure the L-Platform is made.

| Item          | Description   |
|---------------|---|
| Recipient     | Assessor (infrastructure administrator)   |
| Timing        | Sent when reconfiguration application is made<br>Sent when configured to assess reconfiguration at the time the application is made   |
| Purpose       | Request for assessment of reconfiguration   |
| Email content | Process instance name, subscriber name, application type (L-Platform reconfiguration), L-Platform name, reason for application, approver name, approval comment, assessment URL<br><br>Note that the approver name and approval comments are sent when configured to approve reconfiguration applications |
| Action        | Select [Request] using the assessment URL in the email or the ROR console, and accept or dismiss the reconfiguration.   |

4. Notification of completed reconfiguration

This email is sent to the subscriber when reconfiguration of the L-Platform is complete.

| Item          | Description   |
|---------------|---|
| Recipient     | Subscriber  |
| Timing        | Sent when reconfiguration of the L-Platform is complete     |
| Purpose       | Notifies that reconfiguration of the L-Platform is complete |
| Email content | L-Platform name, L-Platform ID                              |
| Action        | None  |

5. Notification of application rejection

This email is sent to the subscriber when a request for approval is rejected.



| Item          | Description  |
|---------------|--|
| Recipient     | Subscriber   |
| Timing        | Sent when the request for approval of the reconfiguration is rejected  |
| Purpose       | Notification of reconfiguration application rejection  |
| Email content | Process instance name, subscriber name, application type (L-Platform reconfiguration), L-Platform name, reason for application, forward destination, approver name, approval comment |
| Action        | None   |

#### 6. Notification of application dismissal

This email is sent to the subscriber when an assessment is dismissed.

| Item          | Description   |
|---------------|---|
| Recipient     | Subscriber and approver (tenant administrator)  |
| Timing        | Sent when the reconfiguration assessment is dismissed   |
| Purpose       | Notifies dismissal of reconfiguration application   |
| Email content | Process instance name, subscriber name, application type (L-Platform reconfiguration), L-Platform name, reason for application, forward destination, approver name, approval comment, assessor name, assessor comment<br><br>Note that the approver name and approval comments are sent when configured to approve reconfiguration applications |
| Action        | None  |

#### 7. Notification of application reservation

This email is sent to the infrastructure administrator when an error occurs during accepting L-Platform update.

| Item          | Description  |
|---------------|--|
| Recipient     | Infrastructure administrator   |
| Timing        | Sent when an error occurs during accepting L-Platform update   |
| Purpose       | Error notification   |
| Email content | Process instance name, subscriber name, application type (L-Platform reconfiguration), L-Platform name, reason for application, reservation URL. |
| Action        | Select [Request] using the reservation URL in the email or the ROR console. Check the details of the error and cancel the application.           |

#### 8. Notification of application cancellation

This email is sent to the subscriber and approver (tenant administrator) if the reconfiguration application is canceled at Step 7.

| Item          | Description  |
|---------------|--|
| Recipient     | Subscriber and approver (tenant administrator)   |
| Timing        | Sent when canceled due to the reconfiguration being reserved   |
| Purpose       | Notifies cancellation of the reconfiguration   |
| Email content | Process instance name, subscriber name, application type (L-Platform reconfiguration), L-Platform name, reason for application, cancellation comment |
| Action        | Reconfigure again if required.   |

#### 9. Error notification

This email is sent to the subscriber if an error occurs with processing on virtualization software.

| Item          | Description  |
|---------------|--|
| Recipient     | Subscriber   |
| Timing        | Sent when an error occurs with processing on virtualization software |
| Purpose       | Notifies of errors   |
| Email content | L-Platform name, L-Platform ID                                       |
| Action        | Request the infrastructure administrator to investigate.             |

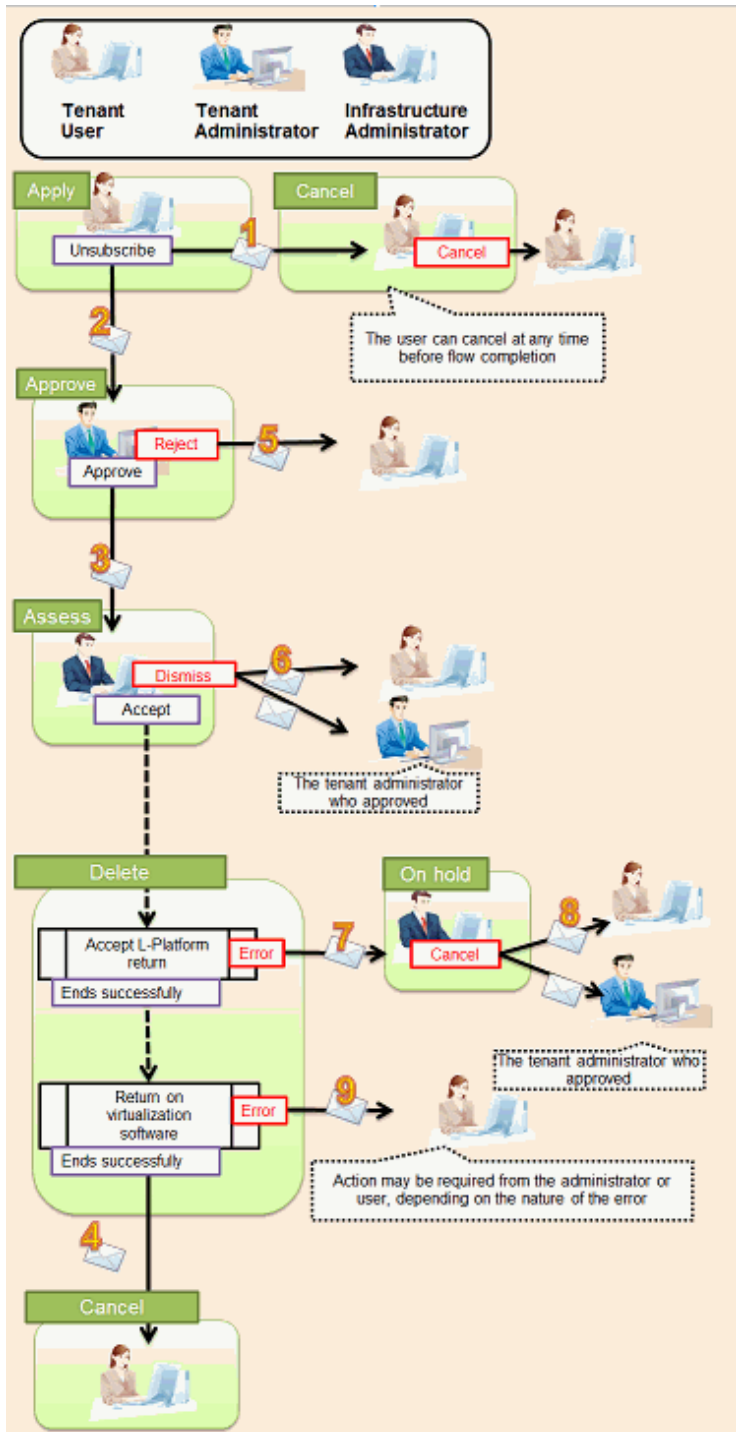
### **A.3 Emails Sent when Canceling an L-Platform**

---

This section describes the flow and content of email messages sent when canceling an L-Platform.

The following diagram shows the flow of emails sent when canceling an L-Platform - the example shows the use of VMware as the virtualization software.

Figure A.3 Flow of emails sent when canceling an L-Platform



Below is the description of the content of emails sent and the action to take - the numbers refer to the email numbers in the diagram above.

1. Notification of application acceptance

This email is sent to the subscriber when applying to cancel an L-Platform.

| Item      | Description   |
|-----------|---|
| Recipient | Subscriber  |
| Timing    | Sent when canceling                                 |
| Purpose   | Notification of cancellation application acceptance |

| Item          | Description   |
|---------------|---|
| Email content | Process instance name, subscriber name, application type (L-Platform cancellation), L-Platform name, reason for application, forward destination<br>Note that the forward destination is sent when configured to approve cancellation applications. |
| Action        | None<br>After this notification is received, the cancellation can be canceled   |

2. Notification of approval request

This email is sent to the approver (tenant administrator) when the application to cancel the L-Platform is made.

| Item          | Description  |
|---------------|--|
| Recipient     | Approver (tenant administrator)  |
| Timing        | Sent when cancellation application is made<br>Sent when configured to approve cancellation at the time the cancellation application is made                    |
| Purpose       | Request for approval of cancellation   |
| Email content | Process instance name, subscriber name, application type (L-Platform cancellation), L-Platform name, reason for application, forward destination, approval URL |
| Action        | Select Request using the approval URL in the email or the ROR console, and approve or reject the cancellation.   |

3. Notification of assessment request

This email is sent to the assessor (infrastructure administrator) when the application to cancel the L-Platform is made.

| Item          | Description  |
|---------------|--|
| Recipient     | Assessor (infrastructure administrator)  |
| Timing        | Sent when cancellation application is made<br>Sent when configured to assess cancellation at the time the application is made  |
| Purpose       | Request for approval of cancellation   |
| Email content | Process instance name, subscriber name, application type (L-Platform cancellation), L-Platform name, reason for application, forward destination, approval URL<br>Note that the approver name and approval comments are sent when configured to approve cancellation applications. |
| Action        | Select [Request] using the approval URL in the email or the ROR console, and approve or reject the cancellation.   |

4. Notification of completed cancellation

This email is sent to the subscriber when cancellation of the L-Platform is complete.

| Item          | Description  |
|---------------|--|
| Recipient     | Subscriber   |
| Timing        | Sent when L-Platform cancellation is complete        |
| Purpose       | Notifies that cancellation of L-Platform is complete |
| Email content | L-Platform name, L-Platform ID                       |
| Action        | None   |

5. Notification of application rejection

This email is sent to the subscriber when a request for approval is rejected.

| Item          | Description   |
|---------------|---|
| Recipient     | Subscriber  |
| Timing        | Sent when the request for approval of the cancellation is rejected  |
| Purpose       | Notifies of rejection of cancellation   |
| Email content | Process instance name, subscriber name, application type (L-Platform cancellation), L-Platform name, reason for application, forward destination, approver name, approval comment |
| Action        | None  |

#### 6. Notification of application dismissal

This email is sent to the subscriber when an assessment is dismissed.

| Item          | Description  |
|---------------|--|
| Recipient     | Subscriber and approver (tenant administrator)   |
| Timing        | Sent when the cancellation assessment is dismissed   |
| Purpose       | Notifies dismissal of cancellation assessment  |
| Email content | Process instance name, subscriber name, application type (L-Platform cancellation), L-Platform name, reason for application, forward destination, approver name, approval comment, assessor name, assessor comment<br><br>Note that the approver name and approval comments are sent when configured to approve cancellation applications. |
| Action        | None   |

#### 7. Notification of application reservation

This email is sent to the infrastructure administrator when an error occurs during accepting L-Platform return.

| Item          | Description   |
|---------------|---|
| Recipient     | Infrastructure administrator  |
| Timing        | Sent when an error occurs during accepting L-Platform return  |
| Purpose       | Error notification  |
| Email content | Process instance name, subscriber name, application type (L-Platform cancel), L-Platform name, reason for application, reservation URL. |
| Action        | Select [Request] using the reservation URL in the email or the ROR console. Check the details of the error and cancel the application.  |

#### 8. Notification of application cancellation

This email is sent to the subscriber and approver (tenant administrator) if the cancellation application is canceled at Step 7.

| Item          | Description   |
|---------------|---|
| Recipient     | Subscriber and approver (tenant administrator)  |
| Timing        | Sent when canceled due to the cancellation application being reserved   |
| Purpose       | Notifies cancellation of the cancellation application   |
| Email content | Process instance name, subscriber name, application type (L-Platform cancel), L-Platform name, reason for application, cancellation comment |
| Action        | Apply the cancellation again if required.   |

#### 9. Error notification

This email is sent to the subscriber if an error occurs while returning an L-Platform on virtualization software.

| Item          | Description  |
|---------------|--|
| Recipient     | Subscriber   |
| Timing        | Sent when an error occurs while returning an L-Platform on virtualization software |
| Purpose       | Notifies of errors   |
| Email content | L-Platform name, L-Platform ID   |
| Action        | Request the infrastructure administrator to investigate.                           |