FUJITSU Software
ServerView Resource Orchestrator V3.1.2

Troubleshooting

Windows/Linux

Preface

Purpose of This Document

This manual provides information on the corrective action to be taken when trouble occurs during installation or operation of FUJITSU Software ServerView Resource Orchestrator (hereinafter Resource Orchestrator).

Intended Readers

This manual is written for people who will install, operate, and maintain systems using Resource Orchestrator.

Structure of This Document

This manual is composed as follows:

Chapter 1 Flow of Troubleshooting

Explains the flow for troubleshooting.

Chapter 2 Operations for Physical Servers

Explains the corrective actions for trouble involving Virtual Edition.

Chapter 3 L-Server Operations

Explains the corrective actions for trouble that occurs when operating L-Servers.

Chapter 4 Operations for Images or Cloning Images

Explains the corrective actions for trouble that occurs when operating images or cloning images.

Chapter 5 Operations for Snapshots

Explains the corrective actions for trouble that occurs during snapshot operations.

Chapter 6 Operations for VM Management Software or Server Virtualization Software

Explains the corrective actions for trouble that occurs during operation of VM management software or server virtualization software.

Chapter 7 Operations for ROR Console

Explains the corrective actions for trouble that occurs when operating the ROR console.

Chapter 8 Operation of L-Platform Management Functions

Explains strategies for handling problems in the operation of L-Platform management functions.

Chapter 9 L-Platform Operations

Explains strategies for handling problems with L-Platform operations.

Chapter 10 VM hosts Operations

Explains strategies for handling problems with VM hosts operations.

Chapter 11 Dashboard Operations

Explains strategies for handling problems with Dashboard operations.

Web Site URLs

URLs provided as reference sources within the main text are correct as of November 2015.

Please understand that they are subject to change without notice.

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
[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
[OVM for x86 2.2]	Sections related to Oracle VM Server for x86 2.2
[OVM for x86 3.2]	Sections related to Oracle VM Server for x86 3.2
[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 (").

- Window names, dialog names, menu names, and tab names are shown enclosed by brackets ([ ]).

- Button names are shown enclosed by angle brackets (< >) or square 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 "#".

- If using Windows 8 or Windows Server 2012, please note the following:
Operations descriptions in this manual use examples assuming operating systems up to Windows 7 and Windows Server 2008 - if using this product with Windows 8 or Windows Server 2012, read instructions regarding the [Start] menu as if they were instructions for the [Apps] page.
Display the [Apps] page by right-clicking in the [Start] screen, and then clicking on [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.

- When using Windows 64-bit (x64)

    C:\Program Files (x86)\Resource Orchestrator

- When using Windows 32-bit (x86)

    C:\Program Files\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 Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition Microsoft(R) Windows Server(R) 2008 Standard Microsoft(R) Windows Server(R) 2008 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Datacenter Microsoft(R) Windows Server(R) 2012 Standard Microsoft(R) Windows Server(R) 2012 Datacenter Microsoft(R) Windows Server(R) 2012 R2 Standard Microsoft(R) Windows Server(R) 2012 R2 Datacenter

Abbreviation	Products
	Microsoft(R) Windows(R) XP Professional operating system Windows Vista(R) Business Windows Vista(R) Enterprise Windows Vista(R) Ultimate Windows(R) 7 Professional Windows(R) 7 Ultimate Windows(R) 8 Pro Windows(R) 8 Enterprise Windows(R) 8.1 Pro Windows(R) 8.1 Enterprise
Windows Server 2003	Microsoft(R) Windows Server(R) 2003 R2, Standard Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition
Windows 2003 x64 Edition	Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition
Windows Server 2008	Microsoft(R) Windows Server(R) 2008 Standard Microsoft(R) Windows Server(R) 2008 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Datacenter
Windows 2008 x86 Edition	Microsoft(R) Windows Server(R) 2008 Standard (x86) Microsoft(R) Windows Server(R) 2008 Enterprise (x86)
Windows 2008 x64 Edition	Microsoft(R) Windows Server(R) 2008 Standard (x64) Microsoft(R) Windows Server(R) 2008 Enterprise (x64)
Windows Server 2012	Microsoft(R) Windows Server(R) 2012 Standard Microsoft(R) Windows Server(R) 2012 Datacenter Microsoft(R) Windows Server(R) 2012 R2 Standard Microsoft(R) Windows Server(R) 2012 R2 Datacenter
Windows PE	Microsoft(R) Windows(R) Preinstallation Environment
Windows XP	Microsoft(R) Windows(R) XP Professional operating system
Windows Vista	Windows Vista(R) Business Windows Vista(R) Enterprise Windows Vista(R) Ultimate
Windows 7	Windows(R) 7 Professional Windows(R) 7 Ultimate
Windows 8	Windows(R) 8 Pro Windows(R) 8 Enterprise Windows(R) 8.1 Pro Windows(R) 8.1 Enterprise
Linux	Red Hat(R) Enterprise Linux(R) 5 (for x86) Red Hat(R) Enterprise Linux(R) 5 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.1 (for x86) Red Hat(R) Enterprise Linux(R) 5.1 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.2 (for x86) Red Hat(R) Enterprise Linux(R) 5.2 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.3 (for x86) Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.5 (for x86)

Abbreviation	Products
	Red Hat(R) Enterprise Linux(R) 5.5 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.6 (for x86) Red Hat(R) Enterprise Linux(R) 5.6 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.7 (for x86) Red Hat(R) Enterprise Linux(R) 5.7 (for Intel64) Red Hat(R) Enterprise Linux(R) 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) 6.2 (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) SUSE(R) Linux Enterprise Server 11 for x86 SUSE(R) Linux Enterprise Server 11 for EM64T
Red Hat Enterprise Linux	Red Hat(R) Enterprise Linux(R) 5 (for x86) Red Hat(R) Enterprise Linux(R) 5 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.1 (for x86) Red Hat(R) Enterprise Linux(R) 5.1 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.2 (for x86) Red Hat(R) Enterprise Linux(R) 5.2 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.3 (for x86) Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.5 (for x86) 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) 6.2 (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)

Abbreviation	Products
Red Hat Enterprise Linux 5	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 Enterprise Linux 6	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)
RHEL5-Xen	Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) Linux Virtual Machine Function
RHEL-KVM	Red Hat(R) Enterprise Linux(R) 6.2 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.3 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.4 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.5 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64) Virtual Machine Function
DOS	Microsoft(R) MS-DOS(R) operating system, DR DOS(R)
SUSE Linux Enterprise Server	SUSE(R) Linux Enterprise Server 11 for x86 SUSE(R) Linux Enterprise Server 11 for EM64T
OVM for x86 2.2	Oracle(R) VM Server for x86 2.2
OVM for x86 3.2	Oracle VM Server for x86 v3.2.1 Oracle VM Server for x86 v3.2.2 Oracle VM Server for x86 v3.2.3 Oracle VM Server for x86 v3.2.4 Oracle VM Server for x86 v3.2.6 Oracle VM Server for x86 v3.2.7
OVM for SPARC	Oracle(R) VM Server for SPARC

Abbreviation	Products
Oracle VM Manager	Oracle(R) VM Manager
Citrix XenServer	Citrix XenServer(R) 6.0 Citrix XenServer(R) 6.0.2 Citrix XenServer(R) 6.1.0
ESC	ETERNUS SF Storage Cruiser
GLS	PRIMECLUSTER GLS
Navisphere	EMC Navisphere Manager
Solutions Enabler	EMC Solutions Enabler
MSFC	Microsoft Failover Cluster
Solaris	Oracle Solaris10 05/09 (Update7) Media Pack Oracle Solaris11 11/11 Media Pack Oracle Solaris11.1 Media Pack
SCVMM	System Center Virtual Machine Manager 2008 R2 System Center 2012 Virtual Machine Manager System Center 2012 R2 Virtual Machine Manager
VMware	VMware vSphere(R) 4 VMware vSphere(R) 4.1 VMware vSphere(R) 5 VMware vSphere(R) 5.1 Vmware vSphere(R) 5.5
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 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 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 vDS	VMware(R) vNetwork Distributed Switch
VMware Storage VMotion	VMware(R) Storage VMotion
VMware Horizon View	VMware Horizon View 5.2.x VMware Horizon View 5.3.x VMware Horizon 6.0 (with View)

Abbreviation	Products
VIOM	ServerView Virtual-IO Manager
BladeLogic	BMC BladeLogic Server Automation
Internet Explorer	Windows(R) Internet Explorer(R) 8 Windows(R) Internet Explorer(R) 9 Windows(R) Internet Explorer(R) 10 Windows(R) Internet Explorer(R) 11
ServerView Agent	ServerView SNMP Agents for MS Windows (32bit-64bit) ServerView Agents Linux 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 Systemwalker Resource Coordinator Virtual server Edition
SVFAB	ServerView Fabric Manager

Export Controls

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.

- Dell is a registered trademark of Dell Computer Corp.

- EMC, EMC^2, CLARiiON, VNX, Symmetrix, and Navisphere are trademarks or registered trademarks of EMC Corporation.

- HP is a registered trademark of Hewlett-Packard Company.

- IBM is a registered trademark or trademark of International Business Machines Corporation in the U.S.

- 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 registered trademark or trademark of Mozilla Foundation in the United States and/or 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.

- Spectrum is a trademark or registered trademark of Computer Associates International, Inc. and/or its subsidiaries.

- 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.

Issue Date and Version

Month/Year Issued, Edition	Manual Code
July 2012, First Edition	J2X1-7672-01ENZ0(00)
October 2012, Second Edition	J2X1-7672-02ENZ0(00)
December 2012, Third Edition	J2X1-7672-03ENZ0(00)
January 2013, Fourth Edition	J2X1-7672-04ENZ0(00)
June 2013, Edition 4.1	J2X1-7672-04ENZ0(01)
August 2013, Edition 4.2	J2X1-7672-04ENZ0(02)
December 2013, Fifth Edition	J2X1-7672-05ENZ0(00)
February 2014, Edition 5.1	J2X1-7672-05ENZ0(01)
April 2014 Edition 5.2	J2X1-7672-05ENZ0(02)
June 2014 Edition 5.3	J2X1-7672-05ENZ0(03)
November 2015 Edition 5.4	J2X1-7672-05ENZ0(04)

Copyright

Copyright 2010-2015 FUJITSU LIMITED

Contents

Chapter 1 Flow of Troubleshooting

This chapter explains the flow of troubleshooting.

In Resource Orchestrator, collection of troubleshooting data is recommended to aid in diagnosing operational problems. Troubleshooting data collected immediately after the occurrence of a failure aids in investigation and tracking down to the cause of the failure.

The following procedure shows how to cope with failures:

1. If a failure is believed to have occurred, collect troubleshooting data.

   For collecting troubleshooting data, refer to the following topics:

   - "1.1 Collecting Troubleshooting Data (During Installation)"

   - "1.2 Collecting Troubleshooting Data (Virtual Edition)"

   - "1.3 Collecting Investigation Data(Cloud Edition)"

2. Take corrective actions for the problems, and monitor the results of those actions.

   After the problems are solved, continue normal operation.

3. Save the troubleshooting data collected in step 1 for future use in problem solving.

4. If the problem still remains, send the troubleshooting data collected in step 1 to Fujitsu technical staff and request investigation.

1.1 Collecting Troubleshooting Data (During Installation)

This section describes the investigation resources required by Fujitsu technical support to investigate problems that may occur while installing this product.

- Refer to the following when problems occur during a new installation or during an upgrade installation from Express/Virtual Edition to Express/Virtual Edition/Cloud Edition.

  - "1.1.1 New Installations and Upgrade Installations [Windows]"

  - "1.1.2 New Installations and Upgrade Installations [Linux]"

- Refer to "1.1.3 Upgrade Installation (Cloud Edition to Cloud Edition) [Windows]" when problems occur during an upgrade installation from Cloud Edition to Cloud Edition.

Refer to "13.2 ctmg_collectinfo (Collection of Investigation Data)" in the "Reference Guide (Command/XML) CE" for information on the ctmg_collectinfo command.

1.1.1 New Installations and Upgrade Installations [Windows]

This section explains what investigation resources you need to collect when a problem occurs during a new installation or upgrade installation (Express/Virtual Edition to Express/Virtual Edition/Cloud Edition) that are required by Fujitsu technical support to investigate the problem, and also describes how these resources are collected.

Information to be Collected	Collection Method	Install		
		DISK1	DISK2	DISK3
Log	Collect one of the following folders: - *system_drive*\ProgramData\Fujitsu\FujitsuF4CR\cir\logs - *system_drive*\FujitsuF4CR\cir\logs	Y	Y	Y
	Collect the following file: - %TEMP%\rcxinstaller.log When the above does not apply, check the following folder. - *system_drive* \Users\Administrator\AppData\Local	Y	N	N

Information to be Collected	Collection Method	Install		
		DISK1	DISK2	DISK3
	- *Installation_folder*\SVROR\Manager			
hosts files	Collect the following file: - *system_drive*\Windows\System32\drivers\etc\hosts	Y	Y	N
Standard output of the whoami command	Open the command prompt and redirect the standard output of the following command to a file. Collect redirected files. - whoami/groups	N	Y	N
Standard output of the net command	Open the command prompt and redirect the standard output of the following command to a file. Collect redirected files. - net user	N	Y	N
Execution result of the iscollectinfo command	Open the command prompt, execute the following command, and collect the folder specified at [*any_empty_folder*]: - *Installation_folder*\IAPS\bin\iscollectinfo -d [*any_empty_folder*] Errors may mean that this cannot be executed. Collect only if it can be executed. Collect the following information if investigation resources could not be collected with the iscollectinfo command: - The Windows event log (application log/system log/security log) - Standard output of the systeminfo command - Standard output of the set command - Standard output of the "netstat -na" command - Standard output of the "ipconfig /all" command - Standard output of the hostname command - Standard output of the "ping localhost" command - Standard output of ping [standard_output_of_the_hostname_command] command When the [*result_of_the_hostname_command*] is ror_host, execute the following command: - ping ror_host - WMIC /OUTPUT:C:\ProcessList.txt path win32_process get Caption, Processid,Commandline Enter as one line without entering any line feeds. This is output to "C:\ProcessList.txt" in the above example.	N	Y	N
Log	Collect the files that exist from the following: - *system_drive*\swrba_inst.log - *system_drive*\swrba_inst.txt - *system_drive*\swrba_error.log - *system_drive*\swrba_uninst.log - *system_drive*\swinst.err - *system_drive*\F4ANsetup.log - *system_drive*\cmdbInst.log - *system_drive*\Windows\swsilent.log	N	Y	N

Information to be Collected	Collection Method	Install		
		DISK1	DISK2	DISK3
	- *system_drive*\Windows\F4AMsetup*.log (the asterisk (*) represents a number) - *system_drive*\Windows\isasinst.log - *system_drive*\Windows\swrba.log			
Standard output of the dir command	Open the command prompt and redirect the standard output of the following command to a file. Collect redirected files. - dir /S *Installation_folder*\SWRBAM	N	Y	N
Log	Collect files in the TEMP folder whose file names start with "rcx" (%TEMP%\rcx*).	N	N	Y
	Collect the following folder: - *Installation_folder*\RCXCFMG\logs	N	N	Y
	Collect the following folder: - *Installation_folder*\RCXCTMG\log	N	N	Y

Y: Required, N: Not required

The following information is required if there is a problem during setup:

Information to be Collected	Collection Method
Execution result of the ctmg_collectinfo command	Open the command prompt, execute the following command, and collect the folder specified at [*any_folder*]. - *Installation_folder*\RCXCTMG\bin\ctmg_collectinfo -noperf [*any_folder*]

1.1.2 New Installations and Upgrade Installations [Linux]

This section explains what investigation resources you need to collect when a problem occurs during a new installation or upgrade installation (Express/Virtual Edition to Express/Virtual Edition/Cloud Edition) that are required by Fujitsu technical support to investigate the problem, and also describes how these resources are collected.

Information to be Collected	Collection Method	Install		
		DISK1	DISK2	DISK3
Log	Collect the following folder: - /var/opt/FJSVcir/cir/logs	Y	Y	Y
	Collect the following file: - /var/tmp/rcxinstaller.log	Y	N	N
Execution result of the iscollectinfo command	Execute the following command, and collect the directory specified at [*any_empty_directory*]. - /opt/FJSVisas/bin/iscollectinfo -d [*any_empty_directory*] Errors may mean that this cannot be executed. Collect only if it can be executed. Collect the following information if investigation resources could not be collected with the iscollectinfo command: - system_log (/var/log/messages) - Standard output of the "rpm -qa" command - Standard output of the "uname -a" command	N	Y	N

Information to be Collected	Collection Method	Install		
		DISK1	DISK2	DISK3
	- Standard output of the "netstat -na" command - Standard output of the "ifconfig -a" command - Standard output of the hostname command - Standard output of the "ping localhost" command - Standard output of ping [*standard_output_of_the_hostname_command*] command When the [*result_of_the_hostname_command*] is ror_host, execute the following command: - ping ror_host - Standard output of the ps -aef command			
Console output	Send the content output by the console.	N	Y	N

Log	Collect the files that exist from the following:
	
	  - All files in /var/tmp
	
	  - /opt/FJSVibpm/Interstage-BPM-log.txt
	
	  - /opt/FJSVcmdbm/var/log/cmdbInstLog
	
	  - /var/opt/FJSVcmdbm/var/log/cmdbInstLog
	
	  - /etc/hosts
	
	  - /etc/system-release
		N	Y	N

	Collect the following directory: - /var/opt/FJSVcfmg/logs	N	N	Y
	Collect the following directory: - /var/opt/FJSVctmg/log	N	N	Y

Y: Required, N: Not required

The following information is required if there is a problem during setup:

Information to be Collected	Collection Method
Execution result of the ctmg_collectinfo command	Execute the following command, and collect the directory specified at [*any_directory*]. - /opt/FJSVctmg/bin/ctmg_collectinfo.sh -noperf [*any_directory*]

1.1.3 Upgrade Installation (Cloud Edition to Cloud Edition) [Windows]

This section explains what investigation resources you need to collect when a problem occurs during an upgrade installation (Cloud Edition to Cloud Edition) that are required by Fujitsu technical support to investigate the problem, and also describes how these resources are collected.

Information to be Collected	Collection Method	Upgrade Installation		
		DISK1	DISK2	DISK3
hosts files	Collect the following file: - *system_drive*\Windows\System32\drivers\etc\hosts	Y	Y	N

Information to be Collected	Collection Method	Upgrade Installation		
		DISK1	DISK2	DISK3
Standard output of the systeminfo command	Open the command prompt and redirect the standard output of the systeminfo command to a file. Collect redirected files. Example: systeminfo >systeminfo.log	N	Y	N
Standard output of the dir command	Open the command prompt and redirect the standard output of the following command to a file. Collect redirected files. - dir /S *Installation_folder*\SWRBAM	N	Y	N
Work folder	Collect the following folder: - *system_drive*\swrbawork	N	Y	N
Execution result of the swrba_collectinfo command	Open the command prompt, execute the following command, and collect the folder specified at [*any_empty_folder*]. - *Installation_folder*\SWRBAM\bin\swrba_collectinfo [*any_empty_folder*] Errors may mean that this cannot be executed. Collect only if it can be executed.	N	Y	N
Log	Collect one of the following folders: - *system_drive*\ProgramData\Fujitsu\FujitsuF4CR\cir\logs - *system_drive*\FujitsuF4CR\cir\logs	Y	Y	Y
	Collect the following file: - %TEMP%\rcxinstaller.log When the above does not apply, check the following folder. - *system_drive* \Users\Administrator\AppData\Local - *Installation_folder* \SVROR\Manager	Y	N	N
	Collect the files that exist from the following: - *system_drive*\swrba_inst.log - *system_drive*\swrba_inst.txt - *system_drive*\swrba_error.log - *system_drive* \swrba_uninst.log - *system_drive*\swinst.err - *system_drive*\F4ANsetup.log - *system_drive*\cmdbInst.log - *system_drive*\Windows\swsilent.log - *system_drive*\Windows\F4AMsetup*.log (the asterisk (*) represents a number) - *system_drive* \Windows\isasinst.log - *system_drive*\Windows\swrba.log - *system_drive*\swrba_rcvInfo - *system_drive*\swrbaUpgrade_rba_status.txt - *system_drive*\swrbaUpgrade_sso_status.txt	N	Y	N
	Collect files in the TEMP folder whose file names start with "rcx" (%TEMP%\rcx*).	N	N	Y

Information to be Collected	Collection Method	Upgrade Installation		
		DISK1	DISK2	DISK3
	Collect the txt files (*.txt) and log files (*.log) found directly under the following folders: - *Installation_folder*\RCXCFMG-upgradedata - *Installation_folder*\RCXCTMG-upgradedata Note that the files to be collected are only those files directly under the folder.	N	N	Y
	Collect the following folder: - *Installation_folder*\RCXCFMG-upgradedata\logs - *Installation_folder*\RCXCTMG-upgradedata\log	N	N	Y
	Collect the following file: - *Installation_folder*\SVROR\Manager\var\log\ror_build_setup.log	N	N	Y
Execution result of the ctmg_collectinfo command	Open the command prompt, execute the following command, and collect the folder specified at [*any_folder*]. - *Installation_folder*\RCXCTMG\bin\ctmg_collectinfo -noperf [*any_folder*] Collect the following information if investigation resources could not be collected with the ctmg_collectinfo command: - *Installation_folder*\RCXCFMG\logs - *Installation_folder*\RCXCTMG\log - The Windows event log (application log/system log/security log) - *Installation_folder*\SWRBAM\var\log - *system_drive*\swrbawork\log	N	N	Y

Y: Required, N: Not required

1.2 Collecting Troubleshooting Data (Virtual Edition)

If a problem occurs on a system using Resource Orchestrator, use the following procedures to collect troubleshooting data so that Fujitsu technical staff can investigate the problem.

Two kinds of troubleshooting data can be collected. Collect the data which is relevant to one of the situations described below:

1. Collect initial troubleshooting data

   To identify the cause of a problem, collect the data required to perform an initial diagnostic of the problem and contact Fujitsu technical staff.
   The amount of data collected is small enough to be sent by e-mail.
   Refer to "1.2.1 Collecting Initial Troubleshooting Data" for more information.

2. Collect exhaustive troubleshooting data

   In some cases, the cause of a problem can be identified from the initial troubleshooting data alone, but in other cases, additional information is required.
   In such cases, a large volume of data is required to perform a more exhaustive investigation and identify the cause of a problem.
   As a result, exhaustive troubleshooting data is significantly larger than initial troubleshooting data.

   Collect and send exhaustive troubleshooting data if requested to do so by Fujitsu technical staff.
   Refer to "1.2.2 Collecting Exhaustive Troubleshooting Data" for more information.

Note

....

Once a problem occurs, troubleshooting data should be collected promptly. Otherwise, data necessary for a problem investigation may be overwritten.

....

1.2.1 Collecting Initial Troubleshooting Data

This section explains how to collect the data required to diagnose the causes of problems.

About Collection Methods

The initial troubleshooting data can be collected using the following methods.
Based on each collection method's characteristics, chose the appropriate one according to the environment and system state in which the problem occurred.

- **Collecting data from the admin server**

    This method involves executing a troubleshooting data collection command (rcxadm mgrctl snap -all) on the admin server.
    This method allows collection of data from all managed servers at once via the network. This is easier than executing a command individually on each managed server.
    For how to collect the data, refer to "Collecting Data from the Admin Server (rcxadm mgrctl snap -all)".
    Executing the rcxadm mgrctl snap -all command requires approximately the free space determined by the following formula:
    Number_of_registered_servers * 30 MB + 65 MB

- **Collecting data separately from each server**

    This method involves executing a data collection command (rcxadm mgrctl snap or rcxadm agtctl snap) on each server.
    For how to collect the data, refer to "Collecting Data Separately from each Server (rcxadm mgrctl snap, rcxadm agtctl snap)".
    Around 65 MB of free space is required to execute the rcxadm mgrctl snap command,
    and around 30 MB of free space is required to execute the rcxadm agtctl snap command.

- **Collecting HBA address rename Setup Service Environment Data**

    This method involves collecting data that is required for identifying the cause of a problem that occurs on the HBA address rename setup service.
    For how to collect the data, refer to "Collecting HBA address rename Setup Service Environment Data".
    About 8 MB of free space is required to collect troubleshooting data for the HBA address rename server.

Note

....

[VMware]

- For VMware ESX4, please also collect and send the following data to Fujitsu technical staff.

    - Use the copy command to collect and send the following files.

        /var/log/vmware/hostd.log
        /var/log/vmware/hostd-*.log
        /var/log/vmware/hostd-*.log.gz

    - Collect and send the result (output) of the following command.

        /usr/sbin/esxcfg-firewall -q

- For VMware ESXi, perform the following procedures on the server from which data is to be collected:

    - When VMware ESXi is not registered with VM management software

        1. Connect with VMware ESXi on the target VMware client.

        2. Select [Export]-[Export System Logs] from the [File] menu.
           The [Export System Logs] dialog is displayed.

        3. Specify the system log download destination.

4. Click <OK>.

- When VMware ESXi is registered with VM management software

1. Connect with VM management software on the VMware client.

2. Select [Export]-[Export System Logs] from the [File] menu.
   The [Export System Logs] dialog is displayed.

3. Select the target VMware ESXi.

4. Specify the system log download destination.

5. Click <OK>.

Send the data output to the download destination to Fujitsu technical staff.

[Windows]

- For Windows, also collect the output result of command execution using the following procedure.

  - Collect and send the output result (applied patch list of UpdateAdvisor (middleware)) of the following command to Fujitsu technical staff.

    UpdateAdvisor_installation_destination\uam showup

  - Collect and send the output result (information of firewall configuration) of the following command to Fujitsu technical staff.

    - When using Windows 2008 or a later version

      netsh advfirewall show allprofile
      netsh advfirewall firewall show rule name=all verbose

    - When using Windows 2003

      netsh firewall show state ENABLE
      netsh firewall show config ENABLE

  - Use the copy command to directly collect the LAN Manager modules stored in the following location and send them to Fujitsu technical staff.

    - *Manager_installation_destination*\ScwPro\tftp\agent\dos\boot\NETBIND.COM

    - *Manager_installation_destination*\ScwPro\tftp\agent\dos\boot\PROTMAN.DOS

    - *Manager_installation_destination*\ScwPro\tftp\agent\dos\boot\PROTMAN.EXE

[Linux]

- For Linux, also collect the output result of command execution using the following procedure.

  - Collect and send the output result (table information of packet filter rules) of the following command.

    iptables --list --verbose

Collecting Data from the Admin Server (rcxadm mgrctl snap -all)

Troubleshooting data from every managed server can be collected all at once by executing the command for collecting troubleshooting data, rcxadm mgrctl snap -all, on an admin server.

The following method is used to collect data with the data collection command, rcxadm mgrctl snap -all.

Collection Method

Perform the following procedure on the admin server to collect investigation data:

1. Log on to the admin server with OS administrative privileges.

   OS administrative privileges are required to collect troubleshooting data.

2. Execute the rcxadm mgrctl snap -all command.

   [Windows Manager]

   > >"*Installation_folder*\SVROR\Manager\bin\rcxadm" mgrctl snap [-dir *directory*] -all <RETURN>

   [Linux Manager]

   > # /opt/FJSVrcvmr/bin/rcxadm mgrctl snap [-dir *directory*] -all <RETURN>

3. Send the collected troubleshooting data to Fujitsu technical staff.

📌 Note

- The manager must be running on the admin server in order to collect data from the admin server. If the manager cannot be run, collect data from each server.

- When collecting data via the admin server, data cannot be collected from a managed server in the following cases.

  - Communication cannot be established with the server

  - The managed server is stopped

  In either case, however, data will continue to be collected from other managed servers.
  Use the command execution logs to check the execution results.

  For details, refer to "5.11 rcxadm mgrctl" in the "Reference Guide (Command) VE".
  For managed servers where data collection has failed, collect data by either executing the rcxadm mgrctl snap -all command on the admin server again, or by executing the rcxadm agtctl snap command on the managed server where data collection failed.

[VMware]

- When a managed server is VMware ESXi, data cannot be collected from that managed server.
  Use the procedure described in "About Collection Methods" for collecting data.

Collecting Data Separately from each Server (rcxadm mgrctl snap, rcxadm agtctl snap)

In addition to the rcxadm mgrctl snap -all command, which can collect troubleshooting data from all the managed servers at once, the commands rcxadm mgrctl snap and rcxadm agtctl snap are also provided. These collect data from only the server on which they are executed.

Use the following procedure to collect data with the rcxadm mgrctl snap command or the rcxadm agtctl snap command.

Collection Method

Perform the following procedure on the server from which data is to be collected:

1. Log on to the server with OS administrator privileges.

   OS administrative privileges are required to collect troubleshooting data.

2. Execute the rcxadm mgrctl snap command or the rcxadm agtctl snap command.

   Note that the command differs depending on the server from which data is collected.

   - For Admin Servers:

     [Windows Manager]

     > >"*Installation_folder*\SVROR\Manager\bin\rcxadm" mgrctl snap [-dir *directory*] <RETURN>

[Linux Manager]

```
# /opt/FJSVrcvmr/bin/rcxadm mgrctl snap [-dir directory] <RETURN>
```

- For Managed Servers:

[Windows] [Hyper-V]

```
>"Installation_folder\Agent\bin\rcxadm" agtctl snap [-dir directory] <RETURN>
```

[Linux] [VMware] [KVM]

```
# /opt/FJSVrcxat/bin/rcxadm agtctl snap [-dir directory] <RETURN>
```

[Solaris] [Solaris Zones]

```
# /opt/FJSVrcvat/bin/rcxadm agtctl snap [-dir directory] <RETURN>
```

3. Send the collected troubleshooting data to Fujitsu technical staff.

For details, refer to "5.2 rcxadm agtctl" or "5.11 rcxadm mgrctl" in the "Reference Guide (Command) VE".

📝 Note

••

[VMware]
When the managed server is VMware ESXi, collect data using the procedure described in "About Collection Methods".

••

Collecting HBA address rename Setup Service Environment Data

The following method is used to collect the troubleshooting data necessary to investigate problems that occur on an HBA address rename setup service.

Collection Method

Perform the following procedure on the HBA address rename server to collect troubleshooting data.

1. Collect files from the HBA address rename server.

   [Windows]
   From the HBA address rename server, collect the log file *installation_folder*\WWN Recovery\rcxinstaller.log, and all files and folders under the following folder: *installation_folder*\WWN Recovery\var.

   [Linux]
   Collect the log file /var/tmp/rcxhbainstaller.log, and all files and folders under the following folder: /var/opt/FJSVrcvhb.

2. Obtain OS system logs.

   [Windows]
   Collect event logs (application and system logs).

   [Linux]
   Collect all /var/log/messages and /var/log/messages.*X* files. (The messages.*X* part represents the file name such as messages.1 or messages.2)

3. Take a screenshot of the window displayed when the problem occurred.

   Perform the following operation on the HBA address rename server from which the data is to be collected in order to take a screenshot of the window:
   Press the [Print Screen] key to copy image data onto the Clipboard, and then paste the image data into an image editing tool and save it as a bitmap file.

4. Obtain system version information.

[Windows]
From Windows explorer, right-click the "My Computer" icon, and select [Properties] from the popup menu.
In the [System Properties] dialog click the [General] tab and use the procedure explained in step 3 to obtain information such as the OS type, version and level, and service pack number.

[Linux]
Execute and collect the results of the following commands.

cat /etc/redhat-release <RETURN>
cat /proc/version <RETURN>
cat /proc/meminfo <RETURN>
cat /proc/cpuinfo <RETURN>
rpm -qa <RETURN>

5. Send the collected troubleshooting data to Fujitsu technical staff.

1.2.2 Collecting Exhaustive Troubleshooting Data

This section explains how to collect exhaustive troubleshooting data.

When the cause of a problem cannot be determined from the initial troubleshooting data, exhaustive troubleshooting data becomes necessary.

About Collection Methods

The troubleshooting data used to identify the causes of problems is collected by executing troubleshooting data collection commands (rcxadm mgrctl snap -full or rcxadm agtctl snap -full) on each server.
About 80 MB of free space is required to use this function.

Collection Method

Perform the following procedures on the server from which data is to be collected:

1. Log on to the server with OS administrator privileges.

   OS administrative privileges are required for collecting investigation data.

2. Execute the rcxadm mgrctl snap -full command or the rcxadm agtctl snap -full command.

   Note that the command differs depending on the server from which data is collected.

   - For Admin Servers:

   [Windows Manager]

   > >**"***Installation_folder***\SVROR\Manager\bin\rcxadm" mgrctl snap [-dir** *directory***] -full** <RETURN>

   [Linux Manager]

   > # **/opt/FJSVrcvmr/bin/rcxadm mgrctl snap [-dir** *directory***] -full** <RETURN>

   - For Managed Servers:

   [Windows] [Hyper-V]

   > >**"***Installation_folder***\Agent\bin\rcxadm" agtctl snap [-dir** *directory***] -full** <RETURN>

   [Linux] [VMware] [KVM]

```
# /opt/FJSVrcxat/bin/rcxadm agtctl snap [-dir directory] -full <RETURN>
```

[Solaris] [Solaris Zones]

```
# /opt/FJSVrcvat/bin/rcxadm agtctl snap [-dir directory] -full <RETURN>
```

3. Send the collected troubleshooting data to Fujitsu technical staff.

For details, refer to "5.2 rcxadm agtctl" or "5.11 rcxadm mgrctl" in the "Reference Guide (Command) VE".

🔸 Note
....

[Hyper-V]
The following files should also be collected manually.
Collect them using Explorer and then send them to Fujitsu technical staff.

OS system log

All files under the following folder: *windows_folder*\system32\wbem\logs

[VMware]
For VMware ESX 4 or VMware ESXi, collect data referring to "About Collection Methods" in "1.2.1 Collecting Initial Troubleshooting Data".

[Windows]
When it is necessary to collect event logs other than the logs collected as initial troubleshooting data, collect and send the output result of the following command to Fujitsu technical staff.

The time and date collection of logs was started is shown in yyyymmdd, and the time and date collection of logs was completed is shown in YYYYMMDD.

```
wmic ntevent where "(logfile='system' and timegenerated>='yyyymmdd' and timegenerated<='YYYYMMDD')"
list /FORMAT:LIST
wmic ntevent where "(logfile='security' and timegenerated>='yyyymmdd' and timegenerated<='YYYYMMDD')"
list /FORMAT:LIST
wmic ntevent where "(logfile='application' and timegenerated>='yyyymmdd' and
timegenerated<='YYYYMMDD')" list /FORMAT:LIST
```

....

1.3 Collecting Investigation Data(Cloud Edition)

This section explains how to collect investigation data that is necessary to find the cause of the problem.

The following describes collecting investigation data with the collection commands (ctmg_collectinfo or rcxadm agtctl snap) and collecting investigation data for storage management software and VM management products.

Refer to "13.2 ctmg_collectinfo (Collection of Investigation Data)" in the "Reference Guide (Command/XML) CE" for information on the command.
Refer to "5.3 rcxadm agtctl" in the "Reference Guide (Command/XML) CE" for information on the command.

Collection procedure

Collect data on the server with the following procedure.

1. Log in the server as a user with administrative privileges of the OS.

   Administrative privileges are required to collect investigation data.

2. Execute either the command ctmg_collectinfo, or the rcxadm agtctl snap -full and pmdiag commands.

   Note that which command to execute depends on the function of the server.

- For the admin server

  [Windows Manager]

  > "*Installation_folder***RCXCTMG\bin\ctmg_collectinfo**" *dir* <RETURN>

  [Linux Manager]

  # **/opt/FJSVctmg/bin/ctmg_collectinfo.sh** *dir* <RETURN>

- For the managed server

  [Windows][Hyper-V]

  > "*Installation_folder***Agent\bin\rcxadm**" **agtctl snap [-dir** *dir*] **-full** <RETURN>

  > "*Installation_folder***RCXCTMGA\bin\pmdiag** <RETURN> **(*1)**

  [Linux]

  # **/opt/FJSVrcxat/bin/rcxadm agtctl snap** [**-dir** *dir*] **-full** <RETURN>

  # **/opt/FJSVssqc/bin/pmdiag** <RETURN> **(*2)**

  [VMware][KVM][OVM for x86 3.2]

  # **/opt/FJSVrcxat/bin/rcxadm agtctl snap** [**-dir** *dir*] **-full** <RETURN>

  [Solaris]

  # **/opt/FJSVrcvat/bin/rcxadm agtctl snap** [**-dir** *dir*] **-full** <RETURN>

📄 Note

For VMware ESXi, because the agent of this product cannot be installed, you cannot execute investigation data collection commands.

*1: When the dialog window is displayed, specify a folder to save data, then click ▶. After the message "Processing Completed Successfully ..." is displayed, collect following files in the folder.

  - PMDiag?.cab

"?": denotes the index number of each of created files. No number is placed if only one file is created.

*2: Execution results will be stored in /tmp. Collect following files.

  - pmdiag_*.tar.gz

  - pmdiag_*.log

"*": denotes <host name>_<timestamp>. Timestamp format may differ according to system environment.

3. Collect investigation data for the storage management product and the VM management product.

   For information about the collection procedures, see the manuals of these products.

   [VMware]
   When the VM management product is VMware vCenter Server, perform the operation as follows. Because the file size of investigation data is large, make sure that there is enough storage space before the operation.

   a. Start VMware vSphere(TM) Client, and then connect to VMware vCenter Server as a user with system operation administrative privileges.

   b. From the menu, select [Administration]-[Export System Logs].

   c. Specify VMware vCenter Server as the object to export.

d. Specify the location to store and click <OK> button.

[Citrix Xen]

In the creating a L-Server or the collecting a cloning image, there is a possibility that the problem occurs by the sysprep of Windows processing or processing the mini setup when the error of following vmerrno =820 occurs.

- 67390 creating VM guest failed. detail=(timeout occurred while executing the customizing process.,vmerrno=820, ip=*IP_address*, host=*VM_host_IP_address*)

- 67397 FJSVrcx:ERROR:67397:failed to create image. detail=(timeout occurred while executing the customizing process.,vmerrno=820,ip=ip=*IP_address*, host= *VM_host_IP_address*)

Collect sysprep logs, Windows mini setup logs and customize tool logs on the VM guest according to the followin procedure.

a. Start XenCenter and connect it to the VM host to manage.

b. Force shutdown the VM guest that the error occurs to when it is running state.

c. Detach the disk at the position 0 of the VM guest in the storage tab.

d. Attach the disk that is detached from the VM guest according to the above-mentioned procedure to a Windows VM guest that is possible to start normaly.

   At this time, it does not care that the VM guest is running state or stopped state.

e. Start the VM guest that the disk attached to and logon as administrator account.

f. There is a possibility that the attached disk cannot be refered by the Explorer etc. when it is attached to the VM guest in the running state.

   Rescan disks with the disk managed tool when the disk is not refered.

g. Collect the all files in the following folders from the attached disk.

   (The following are examples when the system drive of the attached disk is recognized as G drive.)

   - G:\Windows\Panther

   - G:\Windows\System32\sysprep

   - G:\Program Files (x86)\Fujitsu\Resource Orchestrator\WinGuestCustomizeTool (in case of 64bit system)

   - G:\Program Files\Fujitsu\Resource Orchestrator\WinGuestCustomizeTool (in case of 32bit system)

h. Shutdown the VM guest.

i. Detach the disk that is attached to the VM guest.

j. Attach the disk to the VM guest that the error occurs to in storage tab.

4. Send the collected investigation data to Fujitsu technical support.

Chapter 2 Operations for Physical Servers

This chapter explains the operations to use when troubleshooting physical servers.

2.1 OS Startup Issues (with I/O Virtualization)

This section explains how to troubleshoot startup issues on managed servers.

- When using HBA address rename

  When using HBA address rename, the WWN that was set for the server's HBA is set from the manager when the server is powered on again.
  When errors occur within the admin server, the HBA address rename setup service sets the WWN for the server's HBA.

  Use the following procedure to confirm and correct the problem.

  1. If the server was replaced immediately beforehand, confirm that hardware information was successfully reconfigured following server replacement.
     For details, refer to "6.2.2 Reconfiguration of Hardware Properties" or "6.3.1 Reconfiguration of Hardware Properties" in the "Operation Guide VE".

  2. Check the storage environment.

     Check that the WWN set for the server's HBA have access to the appropriate storage device and logical volume. Set a proper access path if none was configured yet.
     For details, refer to "8.2 Configuring the Storage Environment" in the "Design Guide VE".

  3. Check the manager's startup status.

     For details on how to check the startup status of the manager, refer to "2.1 Starting and Stopping Managers" in the "Operation Guide VE".

  4. Perform either one of the following based on the manager's startup status.

     - If the manager is not running

       Start the manager.
       If the manager cannot start because of a server fault, for example, recover the server after completing step 5.

     - If the manager is already running

       Occasionally the timing of the manager startup can prevent it from controlling a managed server. If this is the case, restart the managed server.
       Even if the manager is running, if communication problems happen on the admin LAN (due to issues with network interfaces, cabling, or LAN switches), the managed server will not start. After performing step 5, the LAN configuration must be repaired.

  5. Check the running state of the HBA address rename setup service.

     Check the running state of this service in the HBA address rename server.
     Start the server where this service has been set up if it is not running yet, then start the managed server.
     The WWN for the managed server's HBA will then be set using the most recent state synchronized with the admin server.

  6. Check the managed server console.

     Check the managed server console to confirm that it has successfully started up.
     If an error message is output, take action according to the corresponding message ID in "Messages".

  7. For managed servers other than PRIMERGY BX servers, check that the MAC address entered at registration is correct. If it is incorrect, reconfigure the server's hardware properties.
     The registered MAC address can be confirmed in the [Resource Details] tab for the corresponding physical server.
     Refer to "A.6 [Resource Details] Tab" in the "User's Guide VE" for details.

  8. Check the following network environment.

     - Whether communication between the admin server and the managed server is possible

- Whether there are any DHCP or PXE servers running on the subnet used by managed servers

- When the admin server and the managed server belong to different subnets, whether the DHCP relay agent of the router is correctly configured

- When using VIOM

  1. Check settings for the WWN of server HBA, the MAC addresses of NIC, booting, and networking which are managed by VIOM.

     Check if the admin LAN server profile is correct or not by opening the VIOM client.

  2. Check the storage environment.

     Check if the settings for WWN of the server's HBA, the MAC addresses of NIC, and booting can access correct storage units and volume. If the setting was not completed, set the proper access path.
     For details, refer to "8.2 Configuring the Storage Environment" in the "Design Guide VE".

2.2 "unknown" Server Status

This section explains how to troubleshoot a registered managed server whose status is "unknown" even though the managed server is still running.

When errors or warning messages are displayed in the event log, take the appropriate action referring to the "Messages". Check the following points and resolve the cause of any problems:

- Communication between the admin server and the server management unit is not possible

  Check if it is possible to connect to either the Web or the telnet interface of the server management unit (management blade or remote management controller).

- Communication between the admin server and the managed server is not possible

  Check that the admin LAN IP address is correctly set on the managed server.
  Check LAN switch blade configurations to confirm that the same VLAN ID or the same port group (for switch blades operating in IBP mode) is set for the ports used by the managed server and the admin server on the admin LAN.

  When using PRIMERGY BX600 servers and changing the VLAN ID used for the admin LAN, proceed as follows to preserve communication from the admin server to the LAN switch blade. First, change the VLAN ID set for the admin LAN port (on the LAN switch blade) connected to the admin server, as well as the VLAN ID set for the switch blade's own network interface. Then, change the VLAN ID for the admin LAN port connected to the managed server.
  For the overview and the setup of the VLAN for the managed server, refer to "7.1 Network Configuration" in the "Design Guide VE" and "9.1.8 Changing the VLAN Settings of LAN Switch Blades" in the "User's Guide VE".

- Communication is not allowed for the ports used by Resource Orchestrator

  Allow communication for the ports described in "Appendix A Port List" in the "Design Guide VE".

- The Resource Orchestrator agent is not running

  Make sure that the agent is running on the managed server.

- ServerView Agents is not running

  For PRIMERGY servers, check whether ServerView Agents is running properly on the managed server.

  [Windows] [Hyper-V]
  From the Windows Control Panel, open "Administrative Tools" and then open the [Services] window. Check that the status of the Server Control Service and SNMP Service is shown as "Started".

  [Linux] [VMware] [Xen] [KVM]
  Execute the following commands to check if the ServerView Agents service is running.

  ```
  # /etc/init.d/srvmagt status <RETURN>
  # /etc/init.d/eecd status <RETURN>
  # /etc/init.d/snmpd status <RETURN>
  ```

The above commands are not available if ServerView Agents is not installed. If they are not available, install ServerView Agent on the managed server.

If ServerView Agents is not running, refer to the ServerView Agent manual for how to start the ServerView Agents.

- SNMP community settings are incorrect

Make sure that the SNMP community settings on the management blade, management board, and managed server match those set in Resource Orchestrator during chassis and server registration.

- Hardware properties were not reconfigured after replacing the server

Identify the MAC address of the replacement server, and check if it is the same address as that set for the admin LAN (MAC address) in the [Resource Details] tab of the ROR console.

If the MAC address is different, reconfigure the hardware properties from the ROR console.

- No information could be obtained from the server virtualization software running on the managed server

In environments where no VM management software was registered, or for VM hosts that are not managed by VM management software, the status of a VM guest is displayed as "unknown" if its information could not be obtained from the server virtualization software used to run that VM guest. Check whether the server virtualization software is operating correctly.
If it is operating correctly, its account information (user account name and password) may have changed. As a result, the settings no longer correspond to those registered in Resource Orchestrator. In that case, change the virtualization software's account settings registered in Resource Orchestrator.
Refer to "9.1.7 Changing VM Host Login Account Information" in the "User's Guide VE" for details.

- No information could be obtained from VM management software

In environments where VM management software was registered, the status of a VM guest (on a VM host managed by this VM management software) is displayed as "unknown" if its information could not be obtained from the VM management software. Check whether the VM management software is operating correctly.
If it is operating correctly, its account information (user account name and password) may have changed. As a result, the settings no longer correspond to those registered in Resource Orchestrator. In that case, change the VM management software's account settings registered in Resource Orchestrator.
For details, refer to "9.5 Changing VM Management Software Settings" in the "User's Guide VE".

- The remote management controller's IP address, user name, or password was changed after server registration

Change the IP address, user name and password settings registered for this remote management controller in Resource Orchestrator.
Refer to "9.1.5 Changing Server Management Unit Configuration Settings" in the "User's Guide VE" for details.

- The remote server management IP address, user name, or password was changed after server registration

Change the IP address for remote server management, user name, and password settings registered in Resource Orchestrator.
Refer to "9.1 Changing Chassis and Managed Server Settings" in the "User's Guide VE" for details.

- High load on the admin server, server management unit, or managed server

Resource statuses may be temporarily shown as "unknown".

- Power control of partitions has been performed on PRIMEQUEST

Resource statuses may be temporarily shown as "unknown".

- The chassis has been powered off on PRIMEQUEST

The statuses of the target chassis and servers are all shown as "unknown".

- The routing settings of the router are not correctly configured

When using an admin server to manage managed servers belonging to other subnets, configure the router settings.
For details, refer to "7.6 Configuring the Network Environment" in the "Design Guide VE".

- When even though the chassis is powered on, and the network connection has no errors, the unknown status continues

[Linux]
Collect and send the result (output) of the following command.

In ${COMMUNITY}, enter the management blade community name, and in ${MMB_IP}, enter the management blade IP address.

```
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.3.5.1
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.3.1.5
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.1.1.1.5
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.3.1.7
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.3.2.3
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.3.1.6
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.1.1
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.2.1.1.11
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.2.1.1.10
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.1.5
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.10.1.1.11
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.2.1.1.6
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.2.1.1.7
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.2.1.1.22
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.2.1.1.2
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.2.1.1.1
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.1.1.1.7
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.3.1.1.3
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.3.1.1.4
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.3.1.1.6
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.4.2.1.4
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.7.1.1.2
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.7.1.1.4
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.7.1.1.3
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.7.1.1.5
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.4.7.1.1.6
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.13.1.1.5
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.13.1.1.6
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.13.1.1.12
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.13.2.1.1
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.13.2.1.2
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.5.1.1.2
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.5.1.1.5
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.5.1.1.6
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.5.1.1.7
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.5.1.1.10
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.5.1.1.11
snmpwalk -v 1 -c ${COMMUNITY} ${MMB_IP} .1.3.6.1.4.1.7244.1.1.1.5.1.1.9
```

2.3 Public LAN Communication Issues

This section explains how to troubleshoot communication issues for managed servers on the public LAN.

Use the following procedure to confirm and resolve any problems.

- The VLAN is not correctly set up

  LAN switch blade internal ports must be set to the same VLAN ID(s) as external public LAN ports.

- Port groups are not correctly set up

  For LAN switch blades operating in IBP mode, internal ports and external ports should belong to the same port group.

- The public LAN IP address is not correctly set up

  Check that the public LAN IP address is correctly set on the managed server.

    - The subnet mask must be correct

    - There should be no IP address conflicts

- Routing information is not correctly set up

  Verify that the routing settings for the server allow for communication to an address on a different subnet.

2.4 Multipath Configuration Issues

This section explains how to troubleshoot startup issues on managed servers set with a multi-path configuration.

When using HBA address rename, the managed server will start in a single path configuration if the selected number of HBA ports was set to "1" in the "HBA Address Rename Settings" dialog. For a multi-path configuration, the number of HBA ports for HBA address rename should be set correctly.

For details on how to reconfigure this setting, refer to "7.4.2 HBA address rename Settings" in the "User's Guide VE".

2.5 Server Switchover and Failback Issues

This section explains the troubleshooting steps to be performed when the server switchover or server failback process fails.

If server switchover or server failback is performed without all the conditions specified in "9.3 Server Switchover Conditions" in the "Setup Guide VE" being satisfied, one of the following error messages may be output:

Switchover:

```
FJSVrcx:ERROR:61143:switchover:failed
FJSVrcx:ERROR:69122:timeout occurred while executing power control modules
```

Failback:

```
FJSVrcx:ERROR:61143:failback:failed
FJSVrcx:ERROR:69122:timeout occurred while executing power control modules
```

Use the following procedure to confirm and correct the problem.

1. Recheck the spare server conditions with reference to "9.3 Server Switchover Conditions" in the "Setup Guide VE".
   If any conditions are not satisfied, change the configuration to ensure that all conditions are met.

2. The corrective action differs depending on the switchover method used for switchover of the server to the spare server.

   - When using the HBA address rename method

     If the following error message is output to the managed server console, the WWN may have failed to be set for the server HBA. Take the action specified for "Message number 61308" in "Messages". Note that in this case there is no need to set the WWN again.

     ```
     FJSVrcx:ERROR:61308:WWN setting failed. code=%1,%2
     ```

     An internal error code is displayed in %1.
     One of the following messages is displayed in %2.

       a. HBA adapter not found

       b. command error

       c. TFTP error

   - When using the storage affinity switchover method

     The destination server differs depending on the progress of the server switchover operations.
     From Recent Operations of the ROR console, check [Progress Details]-[Progress List] for the server switchover to identify which operation has failed.

       - When the error occurred during an operation prior to [Checking server boot]

         Restore the primary server environment and then perform server switchover again.
         Perform the following procedure to restore the access path settings.

a. Use the storageadm zone info command to confirm the zoning and host affinity configurations.

b. Use the storageadm zone add/delete command to confirm the zoning of primary servers and host affinity configurations.

For details on how to use the storageadm zone command, refer to the "ETERNUS SF Storage Cruiser Operation Guide".

- When the error occurred during [Checking server boot] or subsequent operations

   The operations before starting the OS on the spare server have been completed, and the error has occurred during subsequent operations. Restore the spare server environment.

3. Perform the switchover or failback operation again.

[OVM for SPARC]
If the server switchover of OVM for SPARC environment fails, please recovery it manually.
Recovery target will change along with the progress of server switchover.
Confirm [Progress Details]-[Progress List] of server switchover from the progress of ROR console, when server switchover fails, take it as a particular.

When error occurs before [OVM XML Configuration Information's Backup] has been carried out.

Please recover the environment at primary server, and switch server again.

1. Run storageadm zone info command to confirm zoning and host affinity setting.

2. Run storageadm zone add/delete command to recover primary server's zoning and host affinity setting.

   For the usage of storageadm zone command, refer to "ETERNUS SF Storage Cruiser Operation Guide".

3. Set the configuration information which is used in control domain from XSCF.

   ```
   XSCF> setdomainconfig -p 0 <RETURN>
   ```

   After running the command above, please select domain configuration.

4. Switchover the Server Again

When error occurs after [OVM XML Configuration Information's Backup] has been carried out.

The process before OS startup at spare server is over, error occurs while post processing.
Please carry out the post processing manually which was skipped, and continue to operate.

1. Please start with carrying out the process manually which was skipped.

   - Backup for OVM XML configuration information

     There is no need to operate it.

   - Recovery for domain configurations

     Recover all domain configurations in system from domain configurations' XML files which were saved before server switchover.

     ```
     primary# ldm init-system -r -i /etc/opt/FJSVrcvat/config/ovm_config.xml <RETURN>
     ```

   - Restart of control domain

     There is no need to operate it.

   - Wait for OS stop completion

     There is no need to operate it.

   - Wait for server startup completion

     There is no need to operate it.

- Recovery of PCIe

    Reconfigure the physical I/O devices allocated to the control domain and IO domain.
    The same physical I/O device may have been configured for both the control domain and IO domain by OVM specification.
    Reconfigure the allocations of physical I/O devices.
    The list of PCIe endpoint devices can be confirmed using the ldm list-io command.
    For details, refer to the "Oracle VM Server for SPARC Administration Guide" provided by Oracle.

- Restart of control domain

    Please restart the control domain.

    ```
    primary# shutdown -y -i6 -g0 <RETURN>
    ```

- Wait for OS stop completion

    There is no need to operate it.

- Wait for server startup completion

    There is no need to operate it.

- Recovery of virtual console

    Reconfigure the port number used for the console of the guest domain.
    When the port number of a certain console for the guest domain is configured during setup of the environment using OVM specifications, that port number may be disabled.
    If the configured port number is disabled, reconfigure the port number.
    Use the ldm set-vconsole command to set the port number.
    For details, refer to the "Oracle VM Server for SPARC Administration Guide" provided by Oracle.

- IO domain startup

    Please startup IO domain.
    When the IO domain has not been created outside the control domain, this operation is not necessary.

- Guest domain startup

    Please startup each guest domains after IO domain startup has completed.

- Save domain configuration information in the file.

    primary # ldm add-spconfig configuration information name<RETURN>

- Update for switchover status

    There is no need to operate it.

2. Please save OVM XML configuration information.

    While server switchover, automatic saving processing of configuration information's XML file has stopped.
    In order to start automatic saving processing of XML file, please save the configuration information's XML file from GUI or CLI.
    For details, refer to the following:

    Refer to "18.5.4.1 Saving from GUI" in the "User's Guide VE".

    Refer to "18.5.4.2 Saving from CLI" in the "User's Guide VE".

    Refer to "18.5.4.3 Automatic Saving" in the "User's Guide VE".

2.6 HBA Address Rename is Set by Mistake

This section explains the troubleshooting steps to perform when HBA address rename is mistakenly set for a managed server that does not need it (such as when the managed server only uses internal disks).

If HBA address rename is set for a server that does not have an HBA, the following message will be output to the managed server console when the managed server is restarted:

```
FJSVrcx:ERROR:61308:WWN setting failed. code=%1,%2
```

An internal error code is displayed in %1.
One of the following messages is displayed in %2.

    a. HBA adapter not found

    b. command error

    c. TFTP error

To prevent HBA address rename from being used, delete and then re-register the managed server.

2.7 Boot Issues (Boot Order Related)

This section explains the action to take when a managed server cannot be booted from the CD-ROM, or the system disk (local disk or SAN storage) cannot be recognized even though the managed server can be booted from the CD-ROM.

If this trouble occurs, it may mean that the priority boot order of the system BIOS is incorrect.
Refer to "6.2.7 Configuring BIOS Settings of Managed Servers" in the "Design Guide VE", and check that the boot order of the system BIOS is correct.

2.8 Boot Issues (Endless Reboot Cycle)

This section explains how to troubleshoot a managed server stuck in an endless reboot cycle, when that managed server is using HBA address rename.

Confirm the following points to identify and resolve the cause of this issue.

- Make sure that BIOS settings were properly configured. For instructions on BIOS settings, refer to "6.2.7 Configuring BIOS Settings of Managed Servers" in the "Design Guide VE".

- Make sure that the network environment was properly configured. For instructions on the network configuration, refer to "Required Network Configuration when Using HBA address rename" in "7.1 Network Configuration" in the "Design Guide VE".

- Make sure that all manager services are started. For details on manager services, refer to "2.1 Starting and Stopping Managers" in the "Operation Guide VE".

- Make sure that HBA firmware/BIOS version installed on a managed server are supported.

2.9 The dialog for the HBA address rename setup service is displayed with garbled characters.

Description

When starting the HBA address rename setup service in the following Linux environments, the characters in the displayed dialog may be garbled.

- Red Hat(R) Enterprise Linux(R) 6.4 (for x86) or later

- Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64) or later

Corrective Action

Perform the following procedure, then redisplay the dialog.

1. Create the fallback directory.

    # mkdir /opt/FJSVrcvhb/jre6/lib/fallback <RETURN>

2. Create a symbolic link to the font path in the fallback directory.

```
# cd /opt/FJSVrcvhb/jre6/lib/fallback <RETURN>
# ln -s /usr/share/fonts/vlgothic/VL-Gothic-Regular.ttf VL-Gothic-Regular.ttf <RETURN>
# ln -s /usr/share/fonts/vlgothic/VL-PGothic-Regular.ttf VL-PGothic-Regular.ttf <RETURN>
```

3. Restart the HBA address rename setup service.

```
# nohup /opt/FJSVrcvhb/bin/rcxhbactl start& <RETURN>
```

Chapter 3 L-Server Operations

This chapter explains the operations to use when troubleshooting L-Servers.

3.1 The Guest OS Associated with the L-Server Does Not Start Properly.

Description

When an L-Server assigned with an image is started for the first time or when the guest OS is being started, one of the following messages is displayed on the guest OS console and the guest OS fails to startup.

 a. "The computer restarted unexpectedly or encountered an unexpected error. " is displayed

 b. "Windows could not parse or process the unattend answer file for pass [specialize]" is displayed

 c. "Your Product Key uniquely identifies your copy of windows." is displayed on the product key entry screen

 d. "The system could not log you on. Make sure your User name and domain are correct, then type your password again. Passwords are case-sensitive." is displayed

Corrective Action

The parameters set for the OS specified when creating an L-Server may be incorrect. Set the correct values and perform the operation again.

 - For a. through c.:

  Check the product key value. If the value is not correct, set the correct value.

 - For d.:

  Check the administrator password value. If the value is not correct, set the correct value.

For details on the parameters set for the OS, refer to "16.2.5 [OS] Tab" or "16.3.5 [OS] Tab" in the "User's Guide for Infrastructure Administrators (Resource Management) CE".

3.2 Login to VMs Using Japanese Keyboard Environments Fails.

Description

When creating an L-Server using images with the following OS types, login to VMs using Japanese keyboard environments may fail.

 - Windows Server 2012

 - Windows Server 2008 R2

 - Windows Server 2008

 - Windows 8

 - Windows 7

 - Windows Vista

Corrective Action

Log in to a VM guest using a software keyboard, by opening "Regional and Language Options" on the Control Panel, and set the appropriate language.

3.3 When Opening the Physical L-Server Console Screen, the iRMC Management Window may be Opened.

Description

When right-clicking the target physical L-Server in the orchestration tree, and selecting [Console Screen] from the popup menu, the L-Server console screen is opened. After this is done once, this operation may open the iRMC management window instead of the physical L-Server console screen.

In this case, the following message is displayed on the iRMC management window.

```
Login required to continue.
Please login with a valid username and password
```

Corrective Action

Perform the following corrective actions:

1. Close the displayed iRMC management window.

2. Then open the physical L-Server console screen again from the ROR console.

3.4 Cannot Communicate Outside of the Chassis after Creating the L-Server.

Description

If the switch blade is being used is in end host mode, then there may have been a pin-group other than the default pin-group created.

Corrective Action

Delete all but the default pin-group.

3.5 When Creating or Starting a Physical L-Server, the Update of VIOM Configuration Information in Recent Operations may be Displayed.

Description

It shows that VIOM profiles have been updated on a different physical L-Server from before, based on the usage change of physical L-Servers.

That is not the problem as only VIOM profiles are updated. The information may be displayed multiple times, depending on the timing.

Corrective Action

No action is necessary.

3.6 When Trying to Open the [Migrate an L-Server] Dialog for an L-Server, it may Indicate Loading but not become Operable.

Description

When trying to open the [Migrate an L-Server] dialog for an L-Server with unknown status, it may indicate loading but not become operable. The following causes are possible:

a. During L-Server deletion, system failure of the VM management software server or VM management software has occurred

b. During L-Server deletion, system failure of admin server or manager occurs

Corrective Action

Close the [Migrate an L-Server] dialog, when loading takes a very long time.
After that, check that the admin server, manager, VM management software server, or VM management software have been started, and perform the relevant operation again.

3.7 Creation of a Virtual L-Server does not Finish even after a long Time.

Description

[Solaris Zone]
Creation of a virtual L-Server for a Solaris Zone may not finish even after a long time has passed. In such cases, there is a chance that creation has stopped at the window for parameter entry during the installation of the virtual L-Server's OS.

Log in to the VM host being used to create the virtual L-Server and check the following.

1. Execute the following command and check that the status of the non-global zone being created is "running".

zoneadm list -vc <RETURN>

2. Execute the following command and log in to the non-global zone that was checked in step 1.

   After logging in, if the window for parameter entry during OS installation is being displayed, this problem has occurred.

zlogin -C *zonename* <RETURN>

[OVM for SPARC]
Creation of a virtual L-Server for an OVM for SPARC may not finish even after a long time has passed. In such cases, there is a chance that installation of the virtual L-Server's OS has failed.

Log in to the VM host being used to create the virtual L-Server and check the following.

1. Execute the following command and check that the status of the guest domain being created is "active".

ldm list-domain <RETURN>

2. Check the following log file stored in the service domain that provides the virtual console concentrator service.

   - The log file for a check

   /var/log/vntsd/*guest domain's name*/console-log

   The contents outputted to the virtual console of the guest domain are recorded on this log file. So, it is enable that checking the advance situation of installation.
   Check whether installation of OS is completed normally with reference to the manual of Solaris.

Corrective Action

The following causes are possible:

[Solaris Zone]

- Check that a network interface which does not exist on the VM host has not been specified.

  For details, refer to "C.7.4 Manual Network Configuration" in the "Setup Guide CE".

- Check that a network interface used by another zone has not been specified on the VM host.

  For details, refer to "C.7.4 Manual Network Configuration" in the "Setup Guide CE".

- When the L-Server network interface was configured using the DHCP settings, check that the settings to allocate IP addresses from the DHCP server have been configured.

- Check that the IP address allocated to the L-Server has not been allocated in duplicate.

For details on network interfaces, refer to "C.7.4 Manual Network Configuration" in the "Setup Guide CE".

After executing the following corrective action, review the parameters specified when creating the virtual L-Server, and perform the operation again.

1. Log out from the non-global zone that was logged in to.

2. Stop the non-global zone.

3. Execute the following command to delete the non-global zone.

> # **zoneadm -z** *zonename* **uninstall** <RETURN>
>
> # **zoneadm -z** *zonename* **delete** <RETURN>

4. Check from the ROR console that the executed process has been completed.

[OVM for SPARC]
If OS installation fails, the following causes are possible.

- The IP address specified at the time of L-Server creation may be used by other servers.

  Check that the specified IP address is not competing with other servers.

- The composition of CPU, memory size, a disk, etc. which were specified at the time of L-Server creation may not be satisfying the requirements for installation of Solaris.

  Check whether the specified composition is satisfying the requirements for installation of Solaris with reference to the manual of Solaris.

- This product might have been unable to be accessed during installation of OS at an installation server.

  Check whether this product can access an installation server.

- Two or more default gateways may have been specified at the time of creation of L-Server which specified the image of Solaris 10.

  Check the default gateway specified at the time of L-Server creation.

  Moreover, please check whether the default gateway of management LAN must have been set up by referring to "IP address specified during L-Server creation" in "C.8.8 Advisory Notes for OVM for SPARC Usage" in the "Setup Guide CE".

Please execute the following corrective action.

1. Cancel the job under execution with reference to "Procedure for checking the run state of a job in BladeLogic Server Automation" in "Message number 67390" in "Messages".

2. Check the operation which was being performed has been completed by a ROR console.

3. Please operate, after improving the parameter specified at the time of virtual L-Server creation, and environment.

3.8 After Virtual L-Server Creation is Complete, VM Guests with the Same Name Are Created on a Single Host.

Description

During creation of an L-Server, if the admin server or the manager of Resource Orchestrator reboots, or system failure occurs, creation will continue after Resource Orchestrator is restarted. However, after L-Server creation is complete, there may be two VM guests with the same names on a single host.

Corrective Action

Use the following procedure to perform recovery.

1. Connect with VM management software or VM hosts, and check whether two VM guests with the same name have been created.

2. If VM guests with the same name were found in step 1, display the ROR console, and link the L-Server with those VM guests. For details, refer to "Chapter 18 Linking L-Servers with Configured Physical Servers or Virtual Machines" in the "User's Guide for Infrastructure Administrators (Resource Management) CE".

3. Delete the L-Server linked in step 2.

4. Connect with VM management software or VM hosts, and check that one of the VM guests checked in step 1 has been deleted, and there are no other VM guests with the same names.

3.9 When the Status is "unknown", Operations of a Virtual L-Server Fail.

Description

When the status of a virtual L-Server is "unknown", an error may occur when performing the following operations:

- Modifying settings

- Power operations

- Reversion

- Migration of L-Servers between servers

When an error occurs, the following message may be displayed:

- When performing operations using the [Resource] tab of the ROR console

  The following message is displayed in the details of the error dialog.

  ```
  67154
  VM Guest:not found
  ```

- When performing operations using the rcxadm lserver command

  The following message is output.

  ```
  FJSVrcx:ERROR:67154:VM Guest:not found
  ```

The following causes are possible:

a. A VM guest used on the L-Server has been deleted from server virtualization software

b. A virtual machine for which the configuration parameter (uuid.action) is not configured or a parameter other than keep is configured, has been migrated between servers

   For details on the configuration parameters of virtual machines, refer to "D.2 Configuration Requirements" in the "Design Guide VE".

c. As backup and restore has been performed, the UUID of the virtual machine has changed

Corrective Action

Use the following procedure to delete the virtual L-Server.

1. On the [Resource] tab of the ROR console, check if "-" is displayed for the following items of the virtual L-Server with the status "unknown".

   - [Resource name] in [Allocated Resource Information] on the [Resource Details] tab

   - [Guest name] in [Allocated Resource Information] on the [Resource Details] tab

2. Take either one of following corrective actions for the virtual L-Server in step 1 depending on the situation.

   a. When managing a virtual machine which remains in VM management software as a virtual L-Server again

      Execute the rcxadm lserver show command, and back up the detailed information of the virtual L-Server.

   b. When using a virtual L-Server included in an L-Platform

      Release the virtual L-Server from the L-Platform.

3. Delete the virtual L-Server.

When managing a virtual machine which remains in VM management software in Resource Orchestrator again, perform the following procedure.

1. Link the virtual machine with a virtual L-Server.

   When the virtual machine is powered on, and the virtual L-Server is imported as an L-Platform under the tenant folder, specify the tenant folder that is the creation destination of the L-Platform as the [Destination folder].

2. Modify virtual L-Server specifications.

   Modify the following virtual L-Server specifications based on the detailed information of virtual L-Servers which was backed up in advance.

   - L-Server template name

   - Image name

   - VM host to use

   Use the rcxadm lserver modify command to modify virtual L-Server specifications.

3. Import a virtual L-Server to an L-Platform.

   When managing it as an L-Platform, import a virtual L-Server to an L-Platform.

See
. . . .
For details on the rcxadm lserver command, refer to "3.6 rcxadm lserver" in the "Reference Guide (Command/XML) CE".

For details on L-Platform management commands, refer to "Chapter 10 L-Platform Commands" in the "Reference Guide (Command/XML) CE".
. . . .

3.10 Migration of a Virtual L-Server between Servers or Modification of Specifications Fails.

Description

When performing the following operations on a VMware virtual L-Server that is powered on, an error may occur:

- Moving of an L-Server between Servers (Migration)

- Modification of Specifications (CPU and Memory Size)

When an error occurs, the following message is displayed.

- When performing operations using the [Resource] tab of the ROR console

  The following messages are displayed in the event log.

  - Moving of an L-Server between Servers (Migration)

    > FJSVrcx:ERROR:67385:migrating VM guest failed. vmguest1 migrate from vmhost1 to vmhost2.
    > detail=(vmguest1:validate migrate invalid,vmerrno=150,ip=XXX.XXX.XXX.XXX)

    The following information is displayed in the detailed message.

    > [ERROR]Insufficient capacity on each physical CPU.
    > [ERROR]Insufficient capacity on each physical CPU.

  - Modification of Specifications (Memory Size)

> FJSVrcx:ERROR:67392:modifying VM guest failed. detail=operation failed:customizing vm guest (memory settings)

The following information is displayed in the detailed message.

> [ERROR]The host does not have sufficient CPU resources to satisfy the reservation.

- Modification of Specifications (CPU)

> FJSVrcx:ERROR:67392:modifying VM guest failed. detail=operation failed:customizing vm guest (cpu settings)

The following information is displayed in the detailed message.

> [ERROR]The host does not have sufficient CPU resources to satisfy the reservation.

- When performing operations using the rcxadm lserver command

When the -nowait option is omitted, the following message is output.

- Moving of an L-Server between Servers (Migration)

> FJSVrcx:ERROR:67385:migrating VM guest failed. vmguest1 migrate from vmhost1 to vmhost2.
> detail=(vmguest1:validate migrate invalid,vmerrno=150,ip=XXX.XXX.XXX.XXX)
> Reported from the following:
> product=-
> request=-
> message="[ERROR]Insufficient capacity on each physical CPU.
> [ERROR]Insufficient capacity on each physical CPU."

- Modification of Specifications (Memory Size)

> FJSVrcx:ERROR:67392:modifying VM guest failed. detail=operation failed:customizing vm guest (memory settings)
> Reported from the following:
> product=-
> request=-
> message="[ERROR]The host does not have sufficient CPU resources to satisfy the reservation."

- Modification of Specifications (CPU)

> FJSVrcx:ERROR:67392:modifying VM guest failed. detail=operation failed:customizing vm guest (cpu settings)
> Reported from the following:
> product=-
> request=-
> message="[ERROR]The host does not have sufficient CPU resources to satisfy the reservation."

The following cause is possible:

- The CPU reservation performance configured for the virtual L-Server exceeds the one recognized by the server virtualization software.

Corrective Action

Modify the maximum CPU frequency specified for the image information of the L-Platform template so that it is less than physical CPU performance recognized by the server virtualization software.
Modify the following values specified for the L-Server template so that they are less than the physical CPU performance recognized by the server virtualization software.

- CPU Performance

- CPU Reservation Performance

Only specify the CPU reservation performance when the overcommit function is used in the environment.

For the maximum CPU frequency, CPU performance, and CPU reservation performance, set the CPU performance recognized by the server virtualization software in units of GHz, using the numbers with up to one decimal place.

For already created L-Servers, modify the limit values and reserved values of CPUs using the server virtualization software.

3.11 When Opening the Virtual L-Server Console Screen of VMware vSphere 5.1, Error 65311 is Output.

Description

When opening the virtual L-Server console screen of VMware vSphere 5.1 with browser's automatic configuration (*) of proxy server, error 65311 is output. The following messages are displayed in Details.

> Connection timed out.

* Note: In Internet Explorer, the following each check boxes enable automatic configuration of proxy server.

 - Automatic configuration - Automatically detect settings

 - Automatic configuration - Use automatic configuration script

Corrective Action

Automatic configuration function of proxy server cannot be used by virtual L-Server console screen of VMware vSphere 5.1.

Please specify the address and the port of the proxy server directly for the browser.

Please refer to browser's manual for details.

Chapter 4 Operations for Images or Cloning Images

This chapter explains the operations to use when troubleshooting images or cloning images.

4.1 An Error Occurs When Performing Backup and Restore of System Images or Collection and Deployment of Cloning Images. [Physical Servers] [Hyper-V]

If the admin server IP address that was set up in the [Admin Server Registration] window described in "2.2.2 Installation [Windows] [Hyper-V]" or "2.2.3 Installation [Linux] [VMware] [Xen] [KVM]" in the "Setup Guide VE" is incorrect, the following message may be displayed when collecting or deploying cloning images, or when backing up or restoring system images.

> FJSVrcx:ERROR:68295:deployment engine error:
> no response from the managed server node. invalid BIOS setting found *detail*

detail

 The information describing error details is displayed.

Use the following procedure to confirm and correct the problem.

[Windows] [Hyper-V]

1. On the managed server, select [start]-[Run], and then execute the following command.

> *Installation_folder*\Agent\scw\config.bat

The IP address of the admin server that has been set up and the port settings are displayed.

📖 Note

. . . .
Note that the "Deployment Server" referred to in this section actually refers to the admin server.
. . . .

2. In the Deployment Server field, check that either the admin server IP address or the server name is correctly set up.

If the settings are incorrect, change the value displayed and click <OK>.

📖 Note

. . . .
When entering the server name, check that the IP address on the managed server side of the admin server can be resolved from the server name.
. . . .

In the confirmation dialog asking to restart the client agent, click the <Yes> button.

3. Click <Yes>.

[Linux]

1. Open the /etc/scwagent.conf file on the managed server.

Confirm the admin server IP address and the settings of the port currently being used.

2. In the server_ip field, check that either the admin server IP address or the server name is correctly set up.

If the settings are incorrect, edit scwagent.conf directly, and then restart the managed server.

After resolving the cause of the error, execute the operation again as described in step 4 of "Message number 68295" in "Messages".

If the settings are found to be satisfactory, take the corrective action described in "Message number 68295" in "Messages".

4.2 An Error Occurs during Cloning after the Manager is Reinstalled.

This section explains how to troubleshoot cloning issues that occur after re-installing the manager.

When performing a cloning image operation (collection or deployment) on a managed server that was already registered on the manager before re-installation, the following problem may occur. The manager and agent certificates may not match, resulting in the admin server being unable to communicate with its managed server. In such a case, trying to deploy or collect an image to or from the managed server will fail. This problem occurs when the following conditions are met.

- The manager was re-installed, but its certificate store was not properly backed up, as described in "11.1.2 Uninstallation [Windows Manager]" or "11.1.3 Uninstallation [Linux Manager]" in the "Setup Guide VE"

- Both the manager and agent were re-installed (and their certificates renewed), but a cloning image that was collected before the re-installation has been deployed, thus restoring an outdated agent certificate on the managed server

Use the following procedure to correct the problem.
To avoid the same certificate problem, recollect the cloning images which include the cause of the problem after the problem has been corrected.

Checking the Certificates

How to check certificates

1. Stop the manager and then display SSL certificate data by executing the following commands on the admin server.

   [Windows Manager]

   ```
   >"Installation_folder\SVROR\Manager\bin\rcxadm" mgrctl stop <RETURN>
   >"Installation_folder\SVROR\Manager\bin\rcxadm" certctl list <RETURN>
   ```

   [Linux Manager]

   ```
   # /opt/FJSVrcvmr/bin/rcxadm mgrctl stop <RETURN>
   # /opt/FJSVrcvmr/bin/rcxadm certctl list <RETURN>
   ```

   For details on the command, refer to "5.4 rcxadm certctl" or "5.11 rcxadm mgrctl" in the "Reference Guide (Command) VE".

   Example Results

   ```
   Truststore:
   --------------

   Keystore type: jks
   Keystore provider: SUN

   The key store includes four entries.

   client2,May,10,2007, trustedCertEntry,
   Certificate fingerprint (MD5): 0F:4E:1C:DB:19:AE:3B:82:9D:74:93:6C:46:D8:7C:D2
   client1,May,10,2007, trustedCertEntry,
   Certificate fingerprint (MD5): 9D:99:ED:88:C0:8F:32:26:60:FA:4C:96:A2:34:5A:45
   server4,May,11,2007, trustedCertEntry,
   Certificate fingerprint (MD5): DC:E3:19:59:08:6D:C4:AD:B4:C7:F6:5C:E1:52:0A:1A (*1)
   server3,May,11,2007, trustedCertEntry,
   Certificate fingerprint (MD5): 9B:EB:94:58:90:E8:09:BE:BD:FA:14:83:9D:87:3A:E4

   ...

   Keystore:
   --------------
   ```

```
Keystore type: jks
Keystore provider: SUN

2 entries are included in the keystore.

client, 2007/05/11, keyEntry,
Certificate fingerprint (MD5):
AA:55:85:54:6B:57:80:4F:8C:6E:2E:AA:7C:77:DB:F6 (*2)
server, 2007/05/11, keyEntry,
Certificate fingerprint (MD5):
14:48:31:68:C9:CA:66:E1:E0:34:8A:FC:1C:17:19:EF
```

2. Stop the agent and display SSL certificate data by executing the following commands on the managed server where the error occurred.

   [Windows]

   ```
   >"Installation_folder\Agent\bin\rcxadm" agtctl stop <RETURN>
   >"Installation_folder\Agent\bin\rcxadm" certctl list <RETURN>
   ```

   [Linux]

   ```
   # /opt/FJSVrcxat/bin/rcxadm agtctl stop <RETURN>
   # /opt/FJSVrcxat/bin/rcxadm certctl list <RETURN>
   ```

   [Solaris]

   ```
   # /opt/FJSVrcvat/bin/rcxadm agtctl stop <RETURN>
   # /opt/FJSVrcvat/bin/rcxadm certctl list <RETURN>
   ```

   For details on the command, refer to "5.2 rcxadm agtctl" or "5.4 rcxadm certctl" in the "Reference Guide (Command) VE".

   Example Results

   ```
   Truststore:
   --------------

   Keystore type: jks
   Keystore provider: SUN

   1 entries are included in the keystore.

   client1, 2007/05/11, trustedCertEntry,
   Certificate fingerprint (MD5):
   AA:55:85:54:6B:57:80:4F:8C:6E:2E:AA:7C:77:DB:F6 (*2)
   ...

   Keystore:
   --------------

   Keystore type: jks
   Keystore provider: SUN

   The key store includes one entry.

   server, 2007/05/11, keyEntry,
   Certificate fingerprint (MD5): DC:E3:19:59:08:6D:C4:AD:B4:C7:F6:5C:E1:52:0A:1A (*1)
   ```

3. Check the fingerprint that is contained in the agent Keystore.

   As shown in the example in (*1), check that the fingerprint that is contained in the agent Keystore is also contained in the manager Truststore that is shown in "Example Results" of step 1.
   If it is not, refer to "Corrective Action" to take proper corrective action.

4. Check the fingerprint that is contained in the agent Truststore.

   As shown in the example in (*2), check that the fingerprint that is contained in the agent Truststore is also contained in the manager Keystore that is shown in "Example Results" of step 1.
   If it is not, refer to "Corrective Action" to take proper corrective action.

Corrective Action

1. Execute the following commands on the managed server for which the problem occurred to re-initialize its SSL certificate, and restart its agent.

   [Windows]

   ```
   >"Installation_folder\Agent\bin\rcxadm" certctl init <RETURN>
   >"Installation_folder\Agent\bin\rcxadm" agtctl start <RETURN>
   ```

   [Linux]

   ```
   # /opt/FJSVrcxat/bin/rcxadm certctl init <RETURN>
   # /opt/FJSVrcxat/bin/rcxadm agtctl start <RETURN>
   ```

   [Solaris]

   ```
   # /opt/FJSVrcvat/bin/rcxadm certctl init <RETURN>
   # /opt/FJSVrcvat/bin/rcxadm agtctl start <RETURN>
   ```

2. Execute the following command on the admin server to start the manager.

   [Windows Manager]

   ```
   >"Installation_folder\SVROR\Manager\bin\rcxadm" mgrctl start
   <RETURN>
   ```

   [Linux Manager]

   ```
   # /opt/FJSVrcvmr/bin/rcxadm mgrctl start <RETURN>
   ```

4.3 After the cloning image collection is completed, an unnecessary image is created on the VM management software.

Description

During cloning image collection of a virtual L-Server, if the admin server or the manager of Resource Orchestrator reboots, or system failure occurs, cloning image collection will continue after Resource Orchestrator is restarted. However, an unnecessary image might be created on the VM management software.

Corrective Action

Use the following procedure to perform recovery.

1. Log on to the admin server with OS administrative privileges.

2. Display the list of cloning images by executing the following command.

[Windows Manager]

>"*Installation_folder***SVROR\Manager\bin\rcxadm**" **image list -type cloning** <RETURN>

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxadm image list -type cloning <RETURN>

3. Confirm whether the image of the following name exists in the list of the image displayed in step 2.

image name_index

📄 Note

. . . .

- In images not used in Resource Orchestrator, the first character of the image name is something other than a slash ("/").

  Check that the image is not used in Resource Orchestrator.

- *index* indicates the number one or higher.

. . . .

4. When there were images collected before or after restarting of Resource Orchestrator in step 3, delete those images by executing the following command.

[Windows Manager]

>"*Installation folder***SVROR\Manager\bin\rcxadm**" **Image delete -name** *image name_index* **-version** *version* <RETURN>

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxadm image delete -name *image name_index* **-version** *version* <RETURN>

Chapter 5 Operations for Snapshots

This chapter explains the operations to use when troubleshooting snapshots.

5.1 Snapshots which cannot be Referred to or Operated from Resource Orchestrator Remain on VM Management Software.

Description

Even if snapshot collection fails due to problems other than those involving VM management software, such as the manager stopping, collected snapshots may exist on VM management software.

Corrective Action

Start the manager, ensure that the collection of snapshots has been completed, and then use the following procedure for restoration:

1. Display the VM management console. Check if there are multiple snapshots whose *L-Server_host_name* and *Version* are the same among the snapshots whose name is RCX_*L-Server_host_name@ Version*.

2. If there were multiple snapshots in step 1, delete snapshots other than latest ones from the VM management console.

    For details on how to delete snapshots, refer to the server virtualization software manual.

5.2 After Restarting vCenter Server Services, Snapshots of L-Server are not Managed.

Description

When restarting services of vCenter Server registered as VM management software, L-Server snapshots using the vCenter Server may no longer be managed by Resource Orchestrator.

```
FJSVrcx:INFO:21162:(version=version):snapshot image is lost.
```

The version of the snapshot which is not managed is displayed in *version*.

The snapshot identification information notified by vCenter Server before and after restarting of the vCenter Server services may differ. Therefore, Resource Orchestrator determines that the snapshots are no longer managed by vCenter Server, and deletes the snapshot identification information. Snapshots which are not managed by Resource Orchestrator cannot be recognized. However, snapshots exist on vCenter Server.

Corrective Action

Operate snapshots which cannot be recognized from the vSphere Client (GUI for vCenter Server). When operation is not possible, contact your vCenter Server administrator.

To determine the relevant snapshots, check VM guest snapshots managed by the vCenter Server which had its services restarted. Snapshots created by Resource Orchestrator are named as follows: Snapshots with names in this format that are not recognized by Resource Orchestrator are the relevant snapshots.

```
RCX_L-Server_host_name@ version
```

L-Server_host_name: a host name for the L-Server which holds relevant snapshots is displayed.
The version of the snapshot displayed in the message is displayed in *version*.

Delete unnecessary snapshots from vSphere Client.

5.3 After the operation of restoring a snapshot for virtual L-Server, the number of disk resources changes. [KVM]

Description

Snapshot of KVM has virtual machine configuration.

The virtual machine configuration contains disk resource configuration(*).

In case that number of disk resource is not the same between the virtual L-Server to restore and the snapshot information, the number of disk resources changes after the operation of restoring a snapshot for virtual L-Server.

(*) This means the following.
Number, type and filepath of qcow2 image files corresponding to disk resources created from virtual storages automatically.
And, number, type and filepath of raw devices or partitions corresponding to disk resources that were created in advance.

Corrective Action

Handle appropriately on VM hosts.

📩 Example
. . . .

1. Delete unnecessary qcow2 image files in a shared directory on a NFS server.

2. Attach again qcow2 image files in a shared directory on a NFS server, raw devices or partitions.

   Refer to the RHEL-KVM manual for how to attach to VM guests.

   For details, refer to the following sections in the "Red Hat Enterprise Linux 6 Virtualization Administration Guide".

   Chapter 14. Managing guest virtual machines with virsh

   | URL: https://access.redhat.com/site/documentation/en-US/Red_Hat_Enterprise_Linux/6/html/ Virtualization_Administration_Guide/index.html |

. . . .

5.4 Snapshot for virtual L-Server fails and error message shows snapshot is unsupported. [KVM]

Description

Snapshot for virtual L-Server of KVM fails and error message may show snapshot is unsupported.

📩 Example
. . . .

```
FJSVrcx:ERROR:67397:failed to create image. detail=(libvir: QEMU Driver error : unsupported
configuration: internal snapshot for disk fda unsupported for storage type
raw,vmerrno=400,ip=192.168.3.63,host=192.168.3.63)
```

. . . .

Corrective Action

Snapshot for virtual L-Server fails by reason of that VM guest is attached with virtual floppy disks.

After detaching virtual floppy disks, execute the operation again.

Chapter 6 Operations for VM Management Software or Server Virtualization Software

This chapter explains the operations to use when troubleshooting VM management software or server virtualization software.

6.1 Operations do not Complete due to Rebooting of a VM Host (Admin OS) or Communication Failure. [Xen] [KVM]

Description

When a VM host (Admin OS) is rebooted using reboot or panic, or when communication failure occurs between the manager of Resource Orchestrator and VM host, the following operations may not be completed:

- Creating and deleting an L-Server

- Moving L-Servers between servers (migration)

- Collecting cloning images

Corrective Action

Restart the Resource Orchestrator manager.

6.2 The Error, vmerrno=104, Occurs during Operations for Virtual L-Servers, and .NET Runtime Errors are Recorded on the SCVMM Server. [Hyper-V]

Description

In response to operations for virtual L-Servers on Hyper-V, the following message may be displayed, as the detailed error number 104(vmerrno=104) has failed.

FJSVrcx:ERROR:67390:creating VM guest failed. detail=(PowerShell script execution error :task result error.,vmerrno=104,ip=*IP_address*,host=*VM_host_IP_address*)

The parts "67390" and "creating VM guest failed" may change to different messages.

One of the following .NETRuntime errors is recorded in the application event log on the SCVMM server.

Level: Error
Source: .NET Runtime
ID: 0
Message(part):
.NET Runtime version : 2.0.50727.5456 - Application ErrorApplication has generated an exception that could not be handled.

Level: Error
Source: .NET Runtime
ID: 0
Message(part):
.NET Runtime version : 2.0.50727.5456 - Application Error

Level: Error
Source: .NET Runtime
ID: 0
Message(part):
.NET Runtime version : 2.0.50727.5456 - No debugger found. Registered JIT debugger is not available.

```
Level: Error
Source: .NET Runtime
ID: 1023
Message:
.NET Runtime version 2.0.50727.5456 - Fatal Execution Engine Error (000007FEF9E89357) (800703e9)
```

This event may occur as the memory size necessary for correct operation cannot be reserved for the PowerShell host process operating on the SCVMM server.

Corrective Action

Configure the maximum memory size (MaxMemoryPerShellMB) that can be reserved by each Shell to a value larger than the current one, and check if the error can be avoided.
For details on how to modify the settings, refer to the procedure described in "E.2.5 Pre-setup Preparations in Hyper-V Environments" in the "Design Guide CE".
The necessary memory size differs depending on the sizes and configurations of managed targets. Therefore, if an error still occurs even when the settings have been modified to 1024 MB, set larger values (ex. 2048 MB) and check if the error can be avoided.

6.3 Operations of a Virtual L-Server Are not Completed and an Error Occurs. [KVM]

Description

An error may occur when operations of a virtual L-Server are not completed due to failure of the information update process on a KVM host.

In this case, "timeout occurred" is displayed for detail as follows:

```
FJSVrcx:ERROR:67390:creating VM guest failed. detail=timeout occurred
```

Corrective Action

Perform corrective action referring to "Messages".

If the problem occurs again after performing those corrective actions, perform the following corrective actions:

Register all KVM hosts which share a virtual storage as storage management software.

For details on the procedure for registration as storage management software, refer to "5.17 rcxadm storagemgr" in the "Reference Guide (Command/XML) CE".

Chapter 7 Operations for ROR Console

This chapter explains the operations to use when troubleshooting the ROR console.

7.1 The Values on the [Resource List] Tab are "?", and on Other Tabs, "There is no information to display." is Displayed.

Description

In the following cases, on the ROR console, the values of resources on the [Resource List] tab will be "?", and on the other tabs, "There is no information to display." is displayed.

- When a user who has had all of their access scope settings deleted logs in to the ROR console

- When a user who has had all of the resources in their set access scope deleted logs in to the ROR console

- When the access scope settings of a user are all deleted while the user is logged in to the ROR console

- When all the resources in the access scope settings of a user are all deleted while the user is logged in to the ROR console

📝 Example

. . . .

Example of Panel Display Trouble

- [Resource List] tab
  The values of resources will be "?".

- Other tabs
  "There is no information to display." is displayed.

. . . .

Corrective Action

Log off from the ROR console as the relevant user, then configure the range of the access for the user so that the relevant resources exist. Log in to the ROR console again and the information is displayed correctly.

For details on the access scope settings, refer to "5.1 Restricting Access Using Roles" in the "Design Guide CE".

7.2 When Clicking <OK> Repeatedly, the Same Definition is Added across Multiple Lines.

Description

On the ROR console, when <OK> is clicked repeatedly, the same definition may be added across multiple lines on the screen.

- When <OK> is clicked repeatedly in the [Disk Definitions] dialog. This dialog is displayed from the [Disk] tab in the [Create an L-Server] dialog or the [Modify L-Server's definition] dialog

- When <OK> is clicked repeatedly in the [Add a NIC] dialog. This dialog is displayed from the [Network] tab in the [Create an L-Server] dialog or in the [Modify L-Server's definition] dialog

- When <OK> is clicked repeatedly in the [Excluded IP Setting] dialog. This dialog is displayed from the [Create a network resource] dialog or the [Modify a network resource] dialog

Corrective Action

When unnecessary definitions are added, delete them from the dialog using the following procedure.

- For the [Disk] tab in the [Create an L-Server] dialog or in the [Modify L-Server's definition] dialog

    1. Select the radio button corresponding to the unnecessary disk definitions.

2. Click <Delete>.

The unnecessary definitions are deleted.

- For the [Network] tab in the [Create an L-Server] dialog or in the [Modify L-Server's definition] dialog

  Clicking <Delete> deletes the unnecessary definitions.

- For the [Create a network resource] dialog or the [Modify a network resource] dialog

  1. Select the unnecessary definitions from the "Exclusion IP range" list.

  2. Click <Delete>.

     The unnecessary definitions are deleted.

7.3 The Screen Layout Collapses, or the Error Dialog "Establishing connection with admin server failed." is Displayed.

Description

When using a web browser while logged in to the ROR console, if the cookies stored in the browser are deleted, the session information (such as user IDs) of the ROR console contained in the cookies also deleted.

As a result, the screen layout may collapse, or the error dialog "Establishing connection with admin server failed." may be displayed.

Corrective Action

Perform the following corrective actions:

1. Press F5, or click <Refresh> on the web browser.

2. Log in again from the Login window.
   The ROR console is displayed.

7.4 The Progress of all Operations Including the Operation Being Executed is Complete.

Description

When restarting a manager or admin server, the Recent Operations on the ROR console may display Completed for all operations including the operation being executed.

As a result, operations in the completed state may output the following message and abort.

FJSVrcx:ERROR:67210:*Resource_name*:is busy

Corrective Action

Since there is no way to check the progress of ongoing processes displayed as Completed, restart the manager or admin server, wait for a short time, and then perform the operation again.

7.5 Display of Resource Information Collapses.

Description

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

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

Corrective Action

Perform the following corrective actions:

- When there is update information for resources

  Update will be performed automatically during the regular update.

- When there is no update information for resources

  Click the page switch button of the resource information.

- When there is no update information for resources, and no page switch button for the resource information

  Select a different resource from the tree.

7.6 Nothing may be Shown in the List of the [Resource] Tab.

Description

In the [Resource] tab of the ROR console, if a resource is deleted when displaying the last page of the list in the main panel, nothing may be shown in the list.

Corrective Action

Perform the following corrective actions:

- Select another resource on the tree

- Switch to a different tab in the main panel

7.7 The Member Ports Belonging to the Link Aggregation are not Updated.

Description

For a PY CB Eth Switch/IBP 10Gbps 18/8 LAN switch blade, the LLDP and VLAN settings of the member ports of the link aggregation may mean that the information for the member ports of the link aggregation will not be updated.

Corrective Action

Perform the following corrective actions:

1. LLDP settings of the member ports belonging to the link aggregation
   Enable the LLDP of the member port.
   When doing so, disable the [VLAN Name] in the LLDP options, and enable the other items.

2. VLAN settings of the member ports belonging to the link aggregation
   Make the Untagged VLAN and Tagged VLAN settings for all member ports belonging to the link aggregation the same.

3. Click the [Update] button of the LAN switch blade on the server resource tree in the ROR console.

7.8 The Error Message "Internet Explorer cannot display the webpage" is Displayed.

Description

When the following combinations of OSs and browsers are used, due to effects of the OS operation, when logging in to the ROR console the error message "Internet Explorer cannot display the webpage" may be displayed.

- Windows XP SP3 + InternetExplorer8

- Windows Server 2003 + InternetExplorer8

- Windows Server 2008 + InternetExplorer8

Corrective Action

Perform one of the following corrective actions:

- Connect to the ROR console using a combination of OS and Web browsers other than those above

- When this trouble occurs, reload the web page

- Specify an IP address instead of an FQDN for the URL

7.9 Display of Resource Information Collapses.

Description

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

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

Corrective Action

Perform the following corrective actions:

- When there is update information for resources

  Update will be performed automatically during the regular update.

- When there is no update information for resources

  Click the page switch button of the resource information.

- When there is no update information for resources, and no page switch button for the resource information

  Select a different resource from the tree.

7.10 Login to the ROR Console is not Possible even when a Correct User ID and Password are Used.

Description

- If Cloud Edition is installed, or SSO (ServerView Single sign-on) is selected when installing Virtual Edition, automatic registration of the directory service with Resource Orchestrator may fail for the following reason.

  - When communication with ServerView Operations Manager is not possible

    When registration of a directory service with Resource Orchestrator fails, an authentication error will occur even in a correct user ID and password are entered, and you will be unable to log in.

- When Active Directory is operated by the redundant configuration

  The error occurs in one of domain controllers, and there is a possibility of failing in the synchronization of user information between domain controllers.

Corrective Action

Refer to the following, and check if a directory service is registered with Resource Orchestrator.

- If Cloud Edition is installed, or SSO (ServerView Single sign-on) is selected when installing Virtual Edition

    - For Virtual Edition

        "13.1.1.3 Checking Directory Service Connection Information" in the "Operation Guide VE"

    - For Cloud Edition

        "8.10.1.3 Checking Directory Service Connection Information" in the "Operation Guide CE"

    If directory service is not registered, refer to the following and perform registration again.

    - For Virtual Edition

        "5.3 rcxadm authctl" in the "Reference Guide (Command) VE"

    - For Cloud Edition

        "5.4 rcxadm authctl" in the "Reference Guide (Command/XML) CE"

- When Active Directory is operated by the redundant configuration

    Restore Active Directory where the error occurs, and synchronize user information between domain controllers.

7.11 "Authentication Failure Trap" or "user authentication failure" is Periodically Displayed in the [Event] Tab.

Description

When SNMP communication using an unauthenticated community name is performed with the device displaying the message, one of the following messages is output in the event log.

"Authentication Failure Trap" or "user authentication failure"

Corrective Action

Check the following:

- Check the SNMP settings of the device for which the message is displayed, considering the following points.

    - Does the SNMP community name match one that is registered with ROR

    - Has configuration been performed to enable SNMP communication from the admin server (Has it been configured to only allow local access)

    - Has the necessary configuration of the device been performed

    ### 📝 Example

    For PRIMERGY Servers with ServerView Linux Agents Installed

    Perform configuration to allow access using the SNMP community name (public) from local hosts, for internal communication.

    [Linux]
    If it is not already specified, add the following to /etc/snmp/snmpd.conf.

    com2sec svSec localhost public

- When the SNMP settings for ROR and the device are correct, it is possible that access has been performed using something other than ROR, with a different SNMP community name. Check the SNMP log to find the relevant device or software.

7.12 For console screen of VMware vSphere 5.1 or later, even if the connection of the device has failed, the result is not reflected in the list of devices.

Description

When using multiple L-Server console screens (VMware vSphere 5.1 or later) to connect to the same guest OS device, later attempts of connecting to the same guest OS device would fail. However, "In use on another console screen" message is not displayed.

Corrective Action

The connection status is not reflected in the device list when connecting to the same guest OS device. Please click the "Update" icon to get the latest connection status.

7.13 The error details are not correctly displayed in the Error Dialog even if the operation in the console screen (VMware vSphere 5.1 or later) has failed.

Description

The reason of the error message may be become an empty string ("") or "Error" in the Error Dialog when any of the following operations is performed while the network between the vCenter server and the client is disconnected.

- opening the L-Server console screen (vSphere 5.1 or later)

- operation within the L-Server console screen

Corrective Action

Please check the network connection between the vCenter server and the client.

Chapter 8 Operation of L-Platform Management Functions

This chapter explains strategies for handling problems in the operation of L-Platform management functions.

8.1 VSYS10098 Error when Using Template Builder Window or Template Builder Command

The messages that are output are as follows:

At Template Builder window operation:

```
ERROR VSYS10098 SQL error.[Connection refused. Check that the hostname and port are correct and
 that the postmaster is accepting TCP/IP connections.]
```

At Template Builder command operation:

```
TPLCnnnnn:<Message>(VSYS10098) (*)
```

* Note: nnnnn is the message number. Refer to "Chapter 18 Messages Starting with TPLC" in the "Messages" for details.

Cause

The cause is one of the following:

1. The database is not started.
   A WorkUnit (RCXCT_VSYS) of the L-Platform management function API was probably started while the database was stopped.

2. The database is not started.
   In the state where a WorkUnit is started, probably only the database has been stopped.

Action

Take action 1 in response to cause 1 and action 2 in response to cause 2.

1. Check whether the following message has been output to the trace log (vsys_trace_log) of the L-Platform management function:

   ```
   1) VSYS10098 and VSYS00000 have been output alternately, and
   2) After 1), VSYS00001 has been output, and
   3) After 2), VSYS00003 has been output.
   ```

   ### 📄 Example

   ```
   [2012-05-25 11:24:17,428] ERROR VSYS10098 SQL error.[Connection refused. Check that the hostname
    and port are correct and that the postmaster is accepting TCP/IP connections.]
   [2012-05-25 11:24:17,428] WARN VSYS00000 Failed to connect to the database. Retrying...
   ...
   (VSYS10098 and VSYS00000 are repeatedly output alternately)
   ...
   [2012-05-25 11:26:41,441] ERROR VSYS10098 SQL error.[Connection refused. Check that the hostname
    and port are correct and that the postmaster is accepting TCP/IP connections.]
   [2012-05-25 11:26:41,441] ERROR VSYS00001 Failed retry. The database may not be ready.
   [2012-05-25 11:26:41,441] ERROR VSYS00003 VSYS API Startup is terminated.
   ```

   Start the database according to the action in "VSYS00001" in the "Messages"

2. Check whether the following message has been output to the trace log (vsys_trace_log) in the L-Platform management window:

   ```
   1) VSYS10098 has been output, and
   2) "Connection refused. Check that the hostname and port are correct and that the postmaster
   ```

```
  is accepting TCP/IP connections." has been output as a detailed error message of 1), and
3) After 1), a Java exception display (stack trace) has been output.
```

📔 Example

```
[2012-05-25 11:45:13,648] ERROR VSYS10098 SQL error.[Connection refused. Check that the hostname
 and port are correct and that the postmaster is accepting TCP/IP connections.]
org.postgresql.util.PSQLException: Connection refused. Check that the hostname and
 port are correct and that the postmaster is accepting TCP/IP connections.
 at org.postgresql.core.v3.ConnectionFactoryImpl.openConnectionImpl(ConnectionFactoryImpl.java:
136)
...
(Java stack trace is output.)
...
```

Start the database according to the action in "VSYS00001" in the "Messages".

8.2 is20147 Error when Starting or Stopping a WorkUnit (Linux Manager)

Cause

A Systemwalker Centric Manager process (opasyslog) is not started.

Action

This product operates in the Interstage Application Server WorkUnit. Interstage Application Server provides a function for linking with Systemwalker Centric Manager, and if the system is unable to link with the Systemwalker Centric Manager process (opasyslog), Interstage Application Server outputs following message.

```
UX:IS: ERROR: is20147:The linkage with SystemWalker failed Error information(vopfmt:-1)
```

Ignore this message if the environment is one in which the Systemwalker Centric Manager process (opasyslog) has been stopped intentionally. If it has not been stopped intentionally, check that Systemwalker Centric Manager is operating normally and then remove the cause of opasyslog not starting.

If the above is not the cause, implement actions according to the "Interstage Application Server" manuals.

8.3 The Values Set in the VM Specific Information Definition File are not Updated in the L-Platform Management Window

Cause

If an overcommit value has not been set for the L-Server template selected in "type" on the **Reconfiguration** page of the L-Platform subscription window, then the values set in the VM specific information definition file will not be used, even if the file is used. Rather, the following values are applied:

[VMware]

- CPU Reserved: 0.1GHz

- CPU Shares: 1000

- Memory Reserved: Memory Size

- Memory Shares: Memory Size * 10240

[Hyper-V]

  - CPU Reserved: 0.1GHz

  - CPU weight: 100

  - Memory RAM: Memory Size

  - Memory weight: 5000

[Citrix XenServer]

  - CPU Weight: 100

  - Memory Reserved: Memory Size

Action

In L-Server templates used on L-Platforms, set the overcommit value in the L-Server template rather than in a VM specific information definition file.

Chapter 9 L-Platform Operations

This chapter explains strategies for handling problems with L-Platform operations.

9.1 Deployment Is Successful but Connection Cannot Be Performed Using IP Address of L-Server

Cause

The cause is one of the following:

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

2. There is a possibility that Sysprep is failing due to software installed on the L-Server which collected the image.

Action

Take action 1 in response to cause 1 and action 2 in response to cause 2.

1. See whether the deployment is successful, but connection cannot be performed using the IP address of the L-Server (Windows) displayed in the management window. Also, server virtualization software such as VMware has a function that allows connection to an L-Server using a console instead of an IP address. Use this function to login to Windows. If this happens, check whether any of the following are occurring:

   - Password resetting is requested, and

     Login is impossible because password resetting fails.

   - Password resetting is requested, and

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

   Reinstall Windows to perform image re-creation.

2. Check if the message "Windows could not finish configuring the system" is displayed.

   Identify the software which is the cause and do not install it. In order to identify the source of the problem, install the operating system and programs one by one and check the point where the problem occurs. However, the problem may occur even if the software identified as the cause of the problem is uninstalled. Ensure the process is performed starting from installing the operating system.

9.2 When a Tenant Administrator or a Tenant User Tries to Perform an Operation such as Starting or Stopping a Server, a Message Saying the Right is not Granted is Displayed, and the Operation Fails

A message similar to the one below is displayed (the exact message varies depending on the operation):

```
"Processing can't be continued because the right to stop the server is not granted."
```

Cause

The cause is one of the followings:

1. The user's rule does not have access authority for the operation.

2. The right of the user to operate the L-Platform has not been set correctly.

Action

Ensure that the access authority for the operation is set.

Refer to "Chapter 3 Configuring Users and Customizing Roles" in the "User's Guide for Infrastructure Administrators (Resource Management) CE" for details.

1. If the access authority is not set, the operation is expected to fail. If it is necessary, add the authority to the role.

2. If the access authority is set, the right to operate the L-Platform may have not been set successfully.
   The right to operate the L-Platform can be set as follows:

   a. Log in as a dual-role administrator or an infrastructure administrator, and open the **Tenants** tab.

   b. List the L-Platforms of the tenant that the L-Platform to set the right belongs to.

   c. Change the owner of the L-Platform to a user with the tenant administrator role.

   d. Change the owner back to the user of the failed operation.

9.3 Error 67392 is Output when L-Platform Reconfiguration Fails

Cause

If the following message is output to vsys_batch_log, there is a possibility that the memory capacity for a server was reduced during operation.

```
VSYS20003: Status of task is error in CBRM response. task_id=xxxxx, error_code=67392,
message=modifying VM guest failed. detail=operation failed:customizing vm guest (memory settings)
```

The memory capacity of the server is automatically changed to the maximum value of the pool during the reconfiguration if the maximum physical memory capacity of the VM pool is less than the memory capacity of the server included in the L-Platform when canceling a VM host, for example.

Action

Take one of the following actions:

1. Re-register the VM host whose registration was canceled.

2. Stop the servers that have memory capacities exceeding the maximum physical memory capacity of the VM pool.
   This will change the memory capacity of the server to the maximum physical memory capacity of the VM pool.

9.4 Error VSYS10096 is Output when Subscribing or Reconfiguring an L-Platform

Cause

The cause is one of the following:

1. If the following message is output to vsys_trace_log, there is a possibility that image information has not been synchronized.

```
VSYS10096 Status[404] returned from CBRM is illegal.[code: 67154][message: server image link
id=xxxxx:not found]
```

1. If the following message is output to vsys_trace_log, there is a possibility that two or more NICs have been defined in the L-Server template.

```
VSYS10096 Status[412] returned from CBRM is illegal.[code:62501][message:NICs.NIC.NetworkLink:is
required]
```

Action

Take action 1 in response to cause 1 and action 2 in response to cause 2.

1. The above error occurs if there is no cloning image associated with a piece of image information.
   Synchronize the image information using the following procedure:

   a. Open the **Template** tab in the ROR console and display the image information.

   b. If a warning icon is displayed with the image information in the preceding step, it means that the cloning image has been deleted.

   c. In this case, create an L-Server with the same OS and software installed as the cloning image had, then from the L-Server recollect the cloning image with the name displayed in the **Cloning image** column of the image information.
      This task is not required if there is no warning icon.

   d. Hide all L-Platform templates using image information.

   e. Click the **Synchronize** button for the image information.

   f. If the **Synchronize** button is disabled, click the reload button for the image information.

2. The above error is output when you specify a number of NICs that is less than the number of NICs defined in the L-Server template when creating a server in L-Platform management.

   Set to 1 the number of NICs defined in the L-Server template used in L-Platform management.

9.5 Error VSYS10096 is Output when Starting or Stopping an L-Server

A message similar to the one below is displayed (the exact message varies depending on the operation):

```
The request to stop Server was failed.
Tenant ID: cfmgadm
Error code: VSYS10096
Please contact your system administrator.
```

Cause

If switching a physical server has failed, the power status of the server in the L-Platform tab may be different from the status of the actual server.

Action

Log in as a dual-role administrator or an infrastructure administrator, and open the Resource tab.
Check the server status from the server tree.
If the status is different from in the L-Platform tab, switch the power status from the server tree and match the status.

9.6 Whan a Tenant Administrator or a Tenant User Tries to Refer to Template Information to Subscribe to an L-Platform, the Message "Because there are no available pools for some servers, this template is not available. Please contact your system administrator." is Output

Cause

The L-Platform template that you chose may include the image information for which no VM pools or server pools are available.
If resource tags are set to image information, the only VM pools or server pools available are those whose comment field contains the character string specified as the resource tags.

Action

Confirm the image information used in the L-Platform template that you chose and set the image information appropriately in the **Image** tab of the **L-Platform Template** window.

Note that, to edit the image information, all L-Platform templates using it must be hidden.

Refer to "Chapter 8 Template" in the "User's Guide for Infrastructure Administrators CE" or "Chapter 7 Template" in the "User's Guide for Tenant Administrators CE" for details.

9.7 When It Is not Possible to Change Server CPU and Memory Specifications, or Disk Sizes during L-Platform Reconfiguration

Cause

When the following operations are performed on the [Resource] tab of the ROR console, the results are not reflected on the [L-Platform] tab, so the server specifications of the VM host and storage space information may become incorrect. For that reason, server CPU, memory specifications, and disk size modification operations become invalid.

- Renaming of VM pools/storage pools

- Moving of VM pools/storage pools

- Moving of VM host resources/storage resources to another pool

Corrective Action

Take one of the following corrective actions:

1. If VM pools or storage pools have been renamed, change the names back to their previous names.

   If VM pools or storage pools have been moved, move them back to their previous locations.

   If VM host resources or storage resources have been moved, move them back to the previous pool they belonged to.

2. If a VM pool has been modified, perform L-Server migration between servers.

   If a storage pool has been modified, perform storage migration using virtualization software.

   ## P Point
   ....
   Performing migration reflects changes to VM pools and storage pools on the [L-Platform] tab.

   If only one resource is registered in a pool, move that resource to another pool first and then move it back to the previous pool.
   ....

3. First, release the L-Server from the L-Platform using the cfmg_deletelserver command, then specify the VM pool or storage pool that was changed, and import it back to the L-Platform using the cfmg_importlserver command.

   - For details on the cfmg_deletelserver command, refer to "10.2 cfmg_deletelserver (Release L-Server)" in the "Reference Guide (Command/XML) CE".

   - For details on the cfmg_importlserver command, refer to "10.5 cfmg_importlserver (Import L-Server)" in the "Reference Guide (Command/XML) CE".

When a VM pool or storage pool that has been changed has been configured in an L-Platform template, it is necessary to edit, copy, or create the L-Platform template again.

For the operation procedure of L-Platform templates, refer to "Chapter 8 Template" in the "User's Guide for Infrastructure Administrators CE".

When using accounting functions, it is necessary to set the accounting information for the VM pool or storage pool that was modified on the product master. For information on accounting functions, refer to "Chapter 15 Accounting" in the "Operation Guide CE".

Chapter 10 VM hosts Operations

This chapter explains strategies for handling problems with VM hosts operations.

10.1 Messages are output to system log in Linux environments or event log (application log) in Windows environments when the manager fails to connect to a VM host.

When this problem occurs, one or some of the following messages will be output.

[Windows Manager]

Event ID	Type	Messages
8029	Warning	Unable to receive data from the server %1. %2 %1: IP address of the VM host %2: Error messages Example: Unable to receive data from the server 192.168.1.101. No route to host
8030	Warning	Server %1 disconnect. %1: IP address of the VM host Example: Server 192.168.1.101 disconnect.
8033	Warning	%1 SOCKET error: %2 %1: System call %2: Error messages Example: select() SOCKET error: exception 10060 for server 192.168.1.101 id 192.168.1.101
8151	Error	%1. SOAP error: %2 Detail: %3 %1: Information of the VM host %2: Error messages %3: Detail messages (only output when there are detail messages) Example: server=192.168.1.101 (https:// 192.168.1.101:443/sdk). SOAP error: No route to host Detail: connect failed in tcp_connect()

[Linux Manager]

Event ID	Messages
DSA8029W	Unable to receive data from the server %1. %2 %1: IP address of the VM host %2: Error messages Example: Unable to receive data from the server 192.168.1.101. No route to host
DSA8030W	Server %1 disconnect.

Event ID	Messages
	%1: IP address of the VM host Example: Server 192.168.1.101 disconnect.
DSA8033W	%1 SOCKET error: %2 %1: System call %2: Error messages Example: select() SOCKET error: exception 10060 for server 192.168.1.101 id 192.168.1.101
DSA8151E	%1. SOAP error: %2 Detail: %3 %1: Information of the VM host %2: Error messages %3: Detail messages (only output when there are detail messages) Example: server=192.168.1.101 (https:// 192.168.1.101:443/sdk). SOAP error: No route to host Detail: connect failed in tcp_connect()

Note

The manager cannot collect and update the information of the VM host and the operated VM guests.
This problem affects [Dashboard]-[System Conditions] and [Dashboard]-[Capacity Planning]

Cause

The VM host might be powered off, causing the manager to fail to connect to the VM host.
The messages will also be output when in maintenance mode.

Action

Start the VM host.
When in maintenance mode and doing maintenance work, ignore the messages.

Chapter 11 Dashboard Operations

This chapter explains strategies for handling problems with Dashboard operations.

11.1 Messages Notifying of Update Checking Failures are Output to the Windows Event Log (Application Log) or the Linux System Log

Messages such as the one in the example below continue to be output to the Windows event log (application log) or the Linux system log, and information might not display on the dashboard (System Conditions) window.

```
"Update check processing has failed. ..."
```

The message differs for each operation.

Cause

The configuration information of System Conditions has failed to update for some reason, which may have caused a disparity.

Action

Refer to "13.1 cmdbrefresh (Refresh Configuration Information of SystemCondition)" in the "Reference Guide (Command/XML) CE" for information on how to update the configuration information of System Conditions.

11.2 Dynamic Disk Space Used by Dashboard (Pool Conditions) Has Increased More Than Expected

Cause

If the FSM (Free Space Map) value in the database of pool conditions is insufficient, usage of the disk that stores the pool condition information might have increased if the Vacuum operation was not performed correctly by Autovacuum.

Target Directories

[Windows Manager]

```
Installation_folder\RCXCTMG\Dashboard\var\pgsql\db\pg_log
```

[Linux Manager]

```
/var/opt/FJSVctdsb/pgsql/db/pg_log
```

File name

[Windows/Linux Manager]

```
postgres-ctdsb-YYYY-MM-DD_hhmmss.log
```

*: *YYYY-MM-DD_hhmmss* in file names is the date and time.

Output Message

[Windows/Linux Manager]

```
WARNING:  relation "public.b_edi_XXXXXXXXXX"
contains more than "max_fsm_pages" pages with useful free space
HINT:  Consider using VACUUM FULL on this
relation or increasing the configuration parameter "max_fsm_pages".
```

: One of the following messages will be output in the "public.b_edi_*xxxxxxxxxx" of the output message.

- public.b_edi_eub1salewp

- public.b_edi_ao0mykhq1o

- public.b_edi_cfsukxfdw3

Action

1. **Execute the following command to stop Dashboard (Pool Conditions).**

   Specify the -nodb option for the command because database maintenance will be performed.

   [Windows Manager]

   ```
   Installation_folder\RCXCTMG\Dashboard\bin\dsb_pool_stop -nodb
   ```

   [Linux Manager]

   ```
   /opt/FJSVctdsb/bin/dsb_pool_stop.sh -nodb
   ```

2. **Execute the following command to access database (PostgreSQL).**

   [Windows Manager]

   ```
   %ProgramFiles%\fjsvpgs83\bin\psql.exe" -d ctdsb -U rcxctdbdsb -h localhost -p PortNo
   ```

   [Linux Manager]

   ```
   /opt/FJSVpgs83/bin/psql -d ctdsb -U rcxctdbdsb -h localhost -p PortNo
   ```

   For PortNo, specify the port number used for the DB of Dashboard. The default value is 5442.

   Example in case of the port number 5442:

   [Windows Manager]

   ```
   "%ProgramFiles%\fjsvpgs83\bin\psql.exe" -d ctdsb -U rcxctdbdsb -h localhost -p 5442
   ```

   [Linux Manager]

   ```
   /opt/FJSVpgs83/bin/psql -d ctdsb -U rcxctdbdsb -h localhost -p 5442
   ```

3. **Optimize the following tables one by one.**

   - b_edi_eub1salewp

   - b_edi_ao0mykhq1o

   - b_edi_cfsukxfdw3

   📄 **Note**

   ··

   If this procedure needs to be suspended, do not suspend in the middle of the operations of one table.

   The operations 1 to 4, 5 to 8, and 9 to 12 of the procedure 3 are the operations for respective tables.

   ··

   1. When stopping the optimization, stop it between tables. After the "ctdsb=#" prompt, execute the commands in the following order.
      Any file name can be specified. However, specify a different file name for each table.

      [Windows Manager]

      The following is an execution example when the backup target is "C:/work/postgresql_bak/b_edi_eub1salewp.txt".

      ```
      ctdsb=# COPY b_edi_eub1salewp TO 'C:/work/postgresql_bak/b_edi_eub1salewp.txt';
      ```

The following is an execution example when the backup target is "/tmp/xxxxx/b_edi_eub1salewp".

```
ctdsb=# COPY b_edi_eub1salewp TO '/tmp/xxxxx/b_edi_eub1salewp';
```

2. Execute the following command to delete data from the disk.

[Windows/Linux Manager]

```
 ctdsb=# TRUNCATE b_edi_eub1salewp;
```

3. Execute the following commands to load valid data from the file backed up earlier.

Before executing the commands, check carefully the table name and the file name because it deletes all the contents of the table. If the COPY command has failed due to a shortage of disk capacity at the destination, resolve the problem by increasing free space, and execute the COPY command again.

[Windows Manager]

```
ctdsb=# BEGIN;
ctdsb=# TRUNCATE b_edi_eub1salewp;
ctdsb=# COPY b_edi_eub1salewp FROM 'C:/work/postgresql_bak/b_edi_eub1salewp.txt';
ctdsb=# COMMIT;
```

[Linux Manager]

```
ctdsb=# BEGIN;
ctdsb=# TRUNCATE b_edi_eub1salewp;
ctdsb=# COPY b_edi_eub1salewp FROM '/tmp/xxxxx/b_edi_eub1salewp';
ctdsb=# COMMIT;
```

4. Execute the following command.

[Windows/Linux Manager]

```
ctdsb=# VACUUM FREEZE ANALYZE VERBOSE b_edi_eub1salewp;
```

5. Execute the following command to back up valid data in the table to files.
Specify the backup file name using an absolute path.
Any file name can be specified. However, specify a different file name for each table.

[Windows Manager]

The following is an execution example when the backup target is "C:/work/postgresql_bak/b_edi_ao0mykhq1o.txt".

```
ctdsb=# COPY b_edi_ao0mykhq1o TO 'C:/work/postgresql_bak/b_edi_ao0mykhq1o.txt';
```

[Linux Manager]

The following is an execution example when the backup target is "/tmp/xxxxx/b_edi_ao0mykhq1o".

```
ctdsb=# COPY b_edi_ao0mykhq1o TO '/tmp/xxxxx/b_edi_ao0mykhq1o';
```

6. Execute the following command to delete data from the disk.

[Windows/Linux Manager]

```
 ctdsb=# TRUNCATE b_edi_ao0mykhq1o;
```

7. Execute the following commands to load valid data from the file backed up earlier.

Before executing the commands, check carefully the table name and the file name because it deletes all the contents of the table. If the COPY command has failed due to a shortage of disk capacity at the destination, resolve the problem by increasing free space, and execute the COPY command again.

[Windows Manager]

```
ctdsb=# BEGIN;
ctdsb=# TRUNCATE b_edi_ao0mykhq1o;
ctdsb=# COPY b_edi_ao0mykhq1o FROM 'C:/work/postgresql_bak/b_edi_ao0mykhq1o.txt';
ctdsb=# COMMIT;
```

[Linux Manager]

```
ctdsb=# BEGIN;
ctdsb=# TRUNCATE b_edi_ao0mykhq1o;
ctdsb=# COPY b_edi_ao0mykhq1o FROM '/tmp/xxxxx/b_edi_ao0mykhq1o';
ctdsb=# COMMIT;
```

8. Execute the following command.

   [Windows/Linux Manager]

   ```
   ctdsb=# VACUUM FREEZE ANALYZE VERBOSE b_edi_ao0mykhq1o;
   ```

9. Execute the following command to back up valid data in the table to files.
   Specify the backup file name using an absolute path.
   Any file name can be specified. However, specify a different file name for each table.
   [Windows Manager]

   The following is an execution example when the backup target is "C:/work/postgresql_bak/b_edi_cfsukxfdw3.txt".

   ```
   ctdsb=# COPY b_edi_cfsukxfdw3 TO 'C:/work/postgresql_bak/b_edi_cfsukxfdw3.txt';
   ```

   [Linux Manager]
   The following is an execution example when the backup target is "/tmp/xxxxx/b_edi_cfsukxfdw3".

   ```
   ctdsb=# COPY b_edi_cfsukxfdw3 TO '/tmp/xxxxx/b_edi_cfsukxfdw3';
   ```

10. Execute the following command to delete data from the disk.

    [Windows/Linux Manager]

    ```
     ctdsb=# TRUNCATE b_edi_cfsukxfdw3;
    ```

11. Execute the following commands to load valid data from the file backed up earlier.

    Before executing the commands, check carefully the table name and the file name because it deletes all the contents of the table.
    If the COPY command has failed due to a shortage of disk capacity at the destination, resolve the problem by increasing free space, and execute the COPY command again.

    [Windows Manager]

    ```
    ctdsb=# BEGIN;
    ctdsb=# TRUNCATE b_edi_cfsukxfdw3;
    ctdsb=# COPY b_edi_cfsukxfdw3 FROM 'C:/work/postgresql_bak/b_edi_cfsukxfdw3.txt';
    ctdsb=# COMMIT;
    ```

    [Linux Manager]

    ```
    ctdsb=# BEGIN;
    ctdsb=# TRUNCATE b_edi_cfsukxfdw3;
    ctdsb=# COPY b_edi_cfsukxfdw3 FROM '/tmp/xxxxx/b_edi_cfsukxfdw3';
    ctdsb=# COMMIT;
    ```

12. Execute the following command.

    [Windows/Linux Manager]

    ```
    ctdsb=# VACUUM FREEZE ANALYZE VERBOSE b_edi_cfsukxfdw3;
    ```

13. Execute the following command to end the access state of the database.

    [Windows/Linux Manager]

```
ctdsb=# \q
```

4. Execute the following command to start Dashboard (Pool Conditions).

   [Windows Manager]

   ```
   Installation_folder\RCXCTMG\Dashboard\bin\dsb_pool_start
   ```

   [Linux Manager]

   ```
   /opt/FJSVctdsb/bin/dsb_pool_start.sh
   ```

5. **Refer to "18.14 Setting the Database for the Dashboard (Pool Conditions)" in the "Setup Guide CE" to review the database settings.**