FUJITSU

ServerView Resource Coordinator VE

Command Reference

Windows/Linux

J2X1-7461-03ENZ0(00)
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Preface

Purpose

This manual explains the commands available in ServerView Resource Coordinator VE (hereinafter Resource Coordinator VE).

Target Readers

This manual is written for people who will install and administer systems using Resource Coordinator VE.
It is strongly recommended that you read the "ServerView Resource Coordinator VE Setup Guide" before using this manual.
When setting up systems, it is assumed that readers have the basic knowledge required to configure the servers, storage and network devices to be installed.

Organization

This manual consists of five chapters and a glossary. The contents of these chapters and the glossary are listed below.

Title	Description
Chapter 1 Overview	Gives an overview of the commands provided in Resource Coordinator VE.
Chapter 2 Login	Explains the command used to log in to Resource Coordinator VE.
Chapter 3 Resource Operations	Explains the commands used to manage resources in Resource Coordinator VE.
Chapter 4 Image Operations	Explains the command used to perform image operations in Resource Coordinator VE.
Chapter 5 Control and Environment Setup	Explains the commands used to control Resource Coordinator VE managers and agents, and to configure environment settings.
Glossary	Explains the terms used in this manual. Please refer to it when necessary.

Notational Conventions

The notation in this manual conforms to the following conventions.

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

[Windows]	Sections related to Windows (When not using Hyper-V)
[Linux]	Sections related to Linux
[Solaris]	Sections related to Solaris
[VMware]	Sections related to VMware
[Hyper-V]	Sections related to Hyper-V
[Xen]	Sections related to Xen
[Windows/Hyper-V]	Sections related to Windows and Hyper-V
[Windows/Linux]	Sections related to Windows and Linux
[Linux/VMware]	Sections related to Linux and VMware
[Linux/Xen]	Sections related to Linux and Xen
[Linux/Solaris/VMware]	Sections related to Linux, Solaris, and VMware
[Linux/VMware/Xen]	Sections related to Linux, VMware, and Xen
[Linux/Solaris/VMware/Xen]	Sections related to Linux, Solaris, VMware, and Xen

[VM host]	Sections related to VMware, Windows Server 2008 with Hyper-V enabled, and Xen

- Unless specified otherwise, the blade servers mentioned in this manual refer to PRIMERGY BX servers.
- 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 square brackets ([ ]).
- Button names are shown enclosed by angle 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 "#".

Command Examples

The paths used in command examples are abbreviated. When executing commands, do so using the path given in "Name".

Related Manuals

The following manuals are provided with Resource Coordinator VE. Please refer to them when necessary.

- ServerView Resource Coordinator VE Installation Guide

  Explains the methods for installing and configuring the software components of Resource Coordinator VE.

- ServerView Resource Coordinator VE Setup Guide

  Explains Resource Coordinator VE and its functions, as well as the settings and operations necessary for setup.

- ServerView Resource Coordinator VE Operation Guide

  Explains the functions provided by Resource Coordinator VE as well as the settings and operations necessary when using it.

- ServerView Resource Coordinator VE Command Reference (This manual)

  Explains the types, formats, and functions of the commands used with Resource Coordinator VE.

- ServerView Resource Coordinator VE Messages

  Explains the meanings of messages output by Resource Coordinator VE, and the corrective action to be taken.

Abbreviations

The following abbreviations are used in this manual:

Abbreviation	Products
Windows	Microsoft(R) Windows Server(R) 2008 Standard (x86, x64) Microsoft(R) Windows Server(R) 2008 Enterprise (x86, x64) Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Datacenter Microsoft(R) Windows Server(R) 2003 R2, Standard Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition Microsoft(R) Windows(R) 7 Professional

Abbreviation	Products
	Microsoft(R) Windows(R) 7 Ultimate Microsoft(R) Windows Vista(R) Business Microsoft(R) Windows Vista(R) Enterprise Microsoft(R) Windows Vista(R) Ultimate Microsoft(R) Windows(R) XP Professional operating system
Windows Server 2008	Microsoft(R) Windows Server(R) 2008 Standard (x86, x64) Microsoft(R) Windows Server(R) 2008 Enterprise (x86, x64) 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 x64 Edition	Microsoft(R) Windows Server(R) 2008 Standard (x64) Microsoft(R) Windows Server(R) 2008 Enterprise (x64)
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 7	Microsoft(R) Windows(R) 7 Professional Microsoft(R) Windows(R) 7 Ultimate
Windows Vista	Microsoft(R) Windows Vista(R) Business Microsoft(R) Windows Vista(R) Enterprise Microsoft(R) Windows Vista(R) Ultimate
Windows XP	Microsoft(R) Windows(R) XP Professional operating system
Linux	Red Hat(R) Enterprise Linux(R) AS (v.4 for x86) Red Hat(R) Enterprise Linux(R) ES (v.4 for x86) Red Hat(R) Enterprise Linux(R) AS (v.4 for EM64T) Red Hat(R) Enterprise Linux(R) ES (v.4 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.5 for x86) Red Hat(R) Enterprise Linux(R) ES (4.5 for x86) Red Hat(R) Enterprise Linux(R) AS (4.5 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.5 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.6 for x86) Red Hat(R) Enterprise Linux(R) ES (4.6 for x86) Red Hat(R) Enterprise Linux(R) AS (4.6 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.6 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.7 for x86) Red Hat(R) Enterprise Linux(R) ES (4.7 for x86) Red Hat(R) Enterprise Linux(R) AS (4.7 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.7 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.8 for x86) Red Hat(R) Enterprise Linux(R) ES (4.8 for x86) Red Hat(R) Enterprise Linux(R) AS (4.8 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.8 for EM64T) Red Hat(R) Enterprise Linux(R) 5 (for x86) Red Hat(R) Enterprise Linux(R) 5 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.1 (for x86) Red Hat(R) Enterprise Linux(R) 5.1 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.2 (for x86) Red Hat(R) Enterprise Linux(R) 5.2 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.3 (for x86) Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.4 (for x86)

Abbreviation	Products
	Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) SUSE Linux Enterprise Server 10 SP2 for x86, AMD64, Intel64 SUSE Linux Enterprise Server 10 SP3 for x86, AMD64, Intel64 SUSE Linux Enterprise Server 11 for x86, AMD64, Intel64 Oracle Enterprise Linux Release 5 Update 4 for x86 (32 Bit) Oracle Enterprise Linux Release 5 Update 4 for x86_64 (64 Bit)
Red Hat Enterprise Linux	Red Hat(R) Enterprise Linux(R) AS (v.4 for x86) Red Hat(R) Enterprise Linux(R) ES (v.4 for x86) Red Hat(R) Enterprise Linux(R) AS (v.4 for EM64T) Red Hat(R) Enterprise Linux(R) ES (v.4 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.5 for x86) Red Hat(R) Enterprise Linux(R) ES (4.5 for x86) Red Hat(R) Enterprise Linux(R) AS (4.5 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.5 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.6 for x86) Red Hat(R) Enterprise Linux(R) ES (4.6 for x86) Red Hat(R) Enterprise Linux(R) AS (4.6 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.6 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.7 for x86) Red Hat(R) Enterprise Linux(R) ES (4.7 for x86) Red Hat(R) Enterprise Linux(R) AS (4.7 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.7 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.8 for x86) Red Hat(R) Enterprise Linux(R) ES (4.8 for x86) Red Hat(R) Enterprise Linux(R) AS (4.8 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.8 for EM64T) Red Hat(R) Enterprise Linux(R) 5 (for x86) Red Hat(R) Enterprise Linux(R) 5 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.1 (for x86) Red Hat(R) Enterprise Linux(R) 5.1 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.2 (for x86) Red Hat(R) Enterprise Linux(R) 5.2 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.3 (for x86) Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64)
Red Hat 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)
SUSE Linux Enterprise Server	SUSE Linux Enterprise Server 10 SP2 for x86, AMD64, Intel64 SUSE Linux Enterprise Server 10 SP3 for x86, AMD64, Intel64 SUSE Linux Enterprise Server 11 for x86, AMD64, Intel64
Oracle Enterprise Linux	Oracle Enterprise Linux Release 5 Update 4 for x86 (32 Bit) Oracle Enterprise Linux Release 5 Update 4 for x86_64 (64 Bit)
Solaris	Solaris(TM) 10 Operating System
VMware	VMware(R) Infrastructure 3 VMware vSphere(TM) 4

Abbreviation	Products
Xen	Citrix XenServer(TM) 5.5 Citrix Essentials(TM) for XenServer 5.5, Enterprise Edition Red Hat(R) Enterprise Linux(R) 5.3 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64) Linux Virtual Machine Function 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
VIOM	ServerView Virtual-IO Manager
ServerView Agent	ServerView SNMP Agents for MS Windows (32bit-64bit) ServerView Agents Linux ServerView Agents VMware for VMware ESX Server
Excel	Microsoft(R) Office Excel(R) 2007 Microsoft(R) Office Excel(R) 2003 Microsoft(R) Office Excel(R) 2002
Excel 2007	Microsoft(R) Office Excel(R) 2007
Excel 2003	Microsoft(R) Office Excel(R) 2003
Excel 2002	Microsoft(R) Office Excel(R) 2002
Resource Coordinator	Systemwalker Resource Coordinator
Resource Coordinator VE	ServerView Resource Coordinator VE

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Contents

Chapter 1 Overview

This chapter provides an overview of the commands available in Resource Coordinator VE.

Four types of commands are available: the login command, the resource operation commands, the image operation command, and the control and environment setup commands.

- Login command

  rcxlogin

- Resource operation commands

  rcxadm chassis
  rcxadm server (rcxserver) (*1)

- Image operation command

  rcxadm image (rcximage) (*1)

- Control and environment setup commands

  rcxadm agtctl
  rcxadm certctl
  rcxadm deployctl
  rcxadm imagemgr
  rcxadm lanctl
  rcxadm mgrctl
  deployment_service_uninstall

*1: rcxserver and rcximage are abbreviated forms of the 'rcxadm server' and 'rcxadm image' commands. They both produce exactly the same results as their counterparts.

User accounts with administrative privileges within the operating system have access to all commands.
For user accounts that do not have administrative privileges within the operating system, it is necessary to first log into Resource Coordinator VE as a privileged user with the login command. This will grant access to the resource operation, control and environment setup (only 'rcxadm mgrctl snap -all'), and image operation command.
For details on privileged users, refer to "Chapter 4 User Accounts" in the "ServerView Resource Coordinator VE Operation Guide".

The table below lists the permissions required to execute each command depending on the server on which they are executed.

Table 1.1 List of commands

Command	Function	Required Privileges		Location	
		OS Administrator	Resource Coordinator VE Privileged User	Admin Server	Managed Server
rcxlogin	Logs in to Resource Coordinator VE	-	-	Yes	No
rcxadm chassis	Chassis power control	- (*1)	Yes	Yes	No
rcxadm server	Managed server control	- (*1)	Yes	Yes	No
rcxadm image	Image operations (backup and restore, cloning)	- (*1)	Yes	Yes	No
rcxadm agtctl	Agent control	Yes	-	No	Yes
rcxadm certctl	SSL certificate operations	Yes	-	Yes	Yes
rcxadm deployctl	Encryption of license information definition files	Yes	-	No	Yes
rcxadm imagemgr	Image management settings	Yes	-	Yes	No
rcxadm lanctl	Network parameter configuration	Yes	-	No	Yes

Command	Function		Required Privileges		Location	
			OS Administrator	Resource Coordinator VE Privileged User	Admin Server	Managed Server
rcxadm mgrctl	Manager control	"snap -all"	- (*1)	Yes	Yes	No
		Other than "snap -all"	Yes	-		
deployment_service_uninstall	Uninstalls the deployment services		Yes	-	Yes	Yes

Yes: Can be used
No: Cannot be used
-: Not required
*1: This command can also be executed by a user with administrative privileges within the operating system. However, if the same user executes this command after logging into Resource Coordinator VE, the operating system privileges will be replaced by Resource Coordinator VE privileges. To use this command when logged into Resource Coordinator VE, administrative privileges for Resource Coordinator VE are required.

Information

- Executing privileged commands within a script requires the user to be logged in with administrative privileges within the operating system. Otherwise, the rcxlogin command should first be run with the -save option to grant access to privileged commands from scripts.
  Refer to "2.1 rcxlogin" for details.
- If, in Windows Server 2008, a user account with administrative privileges that does not have the user name "Administrator" starts up a command prompt from the menu, commands executed in that prompt cannot be executed with administrative privileges.
  Right-click the command prompt in the menu, select [Run as administrator] from the displayed menu to start up the command prompt, and run the required command from there.

Point

Commands available on the admin server are all located under the following folder.

[Windows]

- *Installation_folder*\Manager\bin

In Systemwalker Resource Coordinator VE V13.3.0, commands were also kept under the following folder for retro-compatibility with V13.2.0. However, they have been removed in this version.

- *Installation_folder*\Site Manager\opt\FJSVrcxmr\bin

[Linux]

- /opt/FJSVrcvmr/bin

Chapter 2 Login

This chapter explains the command used to log in to Resource Coordinator VE.

2.1 rcxlogin

Name

[Windows]
*Installation_folder***Manager\bin\rcxlogin** - Logs in to Resource Coordinator VE

[Linux]
/opt/FJSVrcvmr/bin/rcxlogin - Logs in to Resource Coordinator VE

Synopsis

```
rcxlogin [-save] user_name
```

Description

rcxlogin is the command used to authenticate users in Resource Coordinator VE.
If you are using commands for which administrative privileges are required, first use this command to log in as a user with administrative privileges.
If a user already has administrative privileges within the operating system, it is not necessary for that user to execute this command in order to use Resource Coordinator VE commands.

user_name

Specify a user name that has been registered in Resource Coordinator VE. You will then be asked to enter the password of the specified user. If the correct password is entered, a new command prompt will be displayed showing that the authentication succeeded.
If an invalid password or user name is entered, an error message is displayed.

To log off, execute the 'exit' command. To log in as a different user without logging off, re-execute the rcxlogin command.

Option

-save (optional)

Saves the entered password. This password is remembered only for the user account (within the operating system) used to execute this command. Once a password has been saved for a given user account, this command can then be executed from the same account without being asked for a password again.
Saving the password also allows scripts to use commands for which administrative privileges are required.
Refer to "Automation using scripts" in the "Examples" section for details.

- Saving the password makes it possible to log in to Resource Coordinator VE just by logging in to the operating system user account for which the password was saved. When using this function, ensure that strict control is exercised over this user account on the admin server.
- In a clustered manager configuration, use the following procedure to save the password on both the primary and secondary cluster nodes.

  [Windows]

1. Start the cluster service on the primary node.

   In the Failover Cluster Management tree, right-click [RC-manager] under [Services and Applications], and select [Bring this service or application online] from the popup menu.
   Confirm that all resources are turned online.

2. Run the "rcxlogin -save *user_name*" command on the primary node.

3. Move the manager "service or application" to the secondary node.

   Confirm that all resources are turned online on the secondary node.

4. Run the "rcxlogin -save *user_name*" command on the secondary node.

5. Move the manager "service or application" back to the primary node.

   Confirm that all resources are turned online on the primary node.

[Linux]

1. Start the cluster service on the primary node.

   Use the cluster system's operation management view (Cluster Admin) and start the cluster service of the manager.

   Confirm that all resources are turned online.

2. Run the "rcxlogin -save *user_name*" command on the primary node.

3. Use the cluster system's operation management view (Cluster Admin) and switch to the secondary node.

   Confirm that all resources are turned online on the secondary node.

4. Run the "rcxlogin -save *user_name*" command on the secondary node.

5. Use the cluster system's operation management view (Cluster Admin) and switch to the primary node.

   Confirm that all resources are turned online on the primary node.

For a user account with OS administrative privileges, Resource Coordinator VE commands can be executed freely without needing to save a password first.

Requirements

Permissions

Not required

Location

Admin server

Examples

- Logging in using password authentication

```
>rcxlogin userA <RETURN>
Password: password <RETURN>
```

- Automation using scripts

  To use commands requiring administrative privileges from within a script, thus allowing automated calls from external products, the user account's password must be registered in advance using the rcxlogin command with the -save option.

  Within the script, the RCX_USER environment variable must be defined and set to the user name of the account for which the password was saved.

  Once this variable is properly set, Resource Coordinator VE commands can be executed using the previously saved password.

Note

The script must be executed by the operating system user account that was used to save the password on the admin server.

Example

Script (batch file) content:

[Windows]

```
@echo off

set RCX_USER=userA
rem Write down commands that can be run with userA's privileges.
Installation_folder\Manager\bin\rcxserver stop -name svr0001 -force
Installation_folder\Manager\bin\rcxserver start -name svr0002
...
```

[Linux]

```
#!/bin/sh

RCX_USER=userA
export RCX_USER
# Write down commands that can be run with userA's privileges.
/opt/FJSVrcvmr/bin/rcxserver stop -name svr0001 -force
/opt/FJSVrcvmr/bin/rcxserver start -name svr0002
...
```

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

Chapter 3 Resource Operations

This chapter explains the commands used to manage resources in Resource Coordinator VE.

3.1 rcxadm chassis

Name

[Windows]
*Installation_folder***Manager\bin\rcxadm chassis** - Chassis power control

[Linux]
/opt/FJSVrcvmr/bin/rcxadm chassis - Chassis power control

Synopsis

```
rcxadm chassis start -name resource [-nowait]

rcxadm chassis stop -name resource [-nowait] [-force]
```

Description

rcxadm chassis is the command used to power on or power off a blade chassis.
This function can only be used with chassis for PRIMERGY BX servers.

Subcommands

start

Powers on the target chassis.

stop

Powers off the target chassis.

Options

-name *resource*

Specify the name of the target chassis in *resource*.

-nowait (optional)

Use this option to return directly to the command prompt without waiting for the command to complete its execution.

-force (optional)

Use this option to forcibly stop a chassis.

Requirements

Permissions

Resource Coordinator VE privileged user or operating system administrator

Location

Admin server

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

Note

- When powering off a chassis, all management blades contained in the target chassis will be gracefully shut down. This function requires ServerView Agent to be installed on all server blades in the chassis.
- Server blade BIOS settings can be configured to automatically start up when powering on the chassis. Refer to the server blade manual for details about such settings.

3.2 rcxadm server

Name

[Windows]
*Installation_folder***Manager\bin\rcxadm server** - Managed server control

[Linux]
/opt/FJSVrcvmr/bin/rcxadm server - Managed server control

Synopsis

```
rcxadm server start -name resource [-nowait]

rcxadm server stop -name resource [-force] [-nowait]

rcxadm server restart -name resource [-force] [-nowait]

rcxadm server switchover -name resource [-spare spare_server] [-nowait]

rcxadm server failback -name resource [-nowait]

rcxadm server takeover -name resource [-nowait]

rcxadm server list [{[-type {physical|vmguest|all}] | [-spare]}]

rcxadm server migrate -name guest_name -to vmhost [-mode {live|cold}] [-nowait]

rcxadm server set -name resource -attr {vmm_mode={maintenance|active}|
vmware.maintenance={maintenance|active}} [VMware]

rcxadm server set -name resource -attr vmm_mode={maintenance|active|maintenance_with_move} [Hyper-V]
[Xen]
```

Information

rcxserver is an abbreviated form of the 'rcxadm server' command. Both forms provide the same subcommands and options, and produce the same results.

Description

rcxadm server is the command used to control server resources. This function provides the following functionality:

- Display of server statuses (physical OS, VM host or VM guest)
- Startup, shutdown, or restart of a designated server (physical OS, VM host, VM guest)
- Switchover, failback, or takeover of a designated server (physical OS or VM host)
- VM guest migration
- VM maintenance settings for VM hosts

When stopping or restarting a VM host, any VM guests that are running will also be stopped.
Verify that stopping the affected VM guests will not cause any problems before stopping or restarting a VM host.
For details on the switchover, failback, and takeover operations, refer to "Chapter 9 Server Switchover Settings" of the "ServerView Resource Coordinator VE Setup Guide".

For details on VM guest migrations, refer to "7.1 Migration of VM Guests between Servers" in the "ServerView Resource Coordinator VE Operation Guide".

For details on VM maintenance mode settings, refer to "7.2 VM Maintenance Mode of VM Hosts" in the "ServerView Resource Coordinator VE Operation Guide".

Subcommands

start

Starts the target server (physical server, physical OS, VM host, or VM guest).

stop

Stops the target server (physical server, physical OS, VM host, or VM guest).

restart

Restarts the target server (physical server, physical OS, VM host, or VM guest).

switchover

Switches over the target server (physical OS or VM host) with one of its spare servers.

failback

Switches back a server in switchover state (physical OS or VM host). The spare server that was switched over with is stopped, and the operating system will be restarted on the primary server.

takeover

Sets a post-switchover configuration as final, and allows the spare server to take over the role of the original primary server (physical OS or VM host). After takeover both servers exchange their roles: the original spare server becomes the new primary server, while the original primary server becomes the new spare server.

list

Displays all registered servers (physical OS's, VM hosts, and VM guests).

The following properties are displayed for each server (when no options are specified).

Property	Contents
PHYSICAL_SERVER	Physical server name
SERVER	Server name (for a Physical OS or VM host)
ADMIN_IP	Admin LAN IP address
STATUS	Server status

Property	Contents
	Displays one of the following statuses: "normal", "warning", "unknown", "stop", "error", or "fatal". For an explanation of possible server statuses, refer to "5.2 Resource Status" of the "ServerView Resource Coordinator VE Operation Guide".
MAINTENANCE	Current maintenance mode Displays "ON" if maintenance mode is set. Displays "OFF" if maintenance mode is not set. For details on maintenance modes, refer to "Appendix F Maintenance Mode" of the "ServerView Resource Coordinator VE Setup Guide".

migrate

Migrates a VM guest to a VM host on a different physical server.

set

Sets or releases VM maintenance mode for a given VM host.

Options

-name *resource*

Specify the name of the target server in *resource*.

The following option can be specified for the start, stop, restart, switchover, failback, takeover, and migrate subcommands:

-nowait (optional)

Use this option to return directly to the command prompt without waiting for the command to complete its execution.

The following option can be specified for the stop and restart subcommands:

-force (optional)

Use this option to forcibly stop or restart a server without shutting down its operating system.

The following option can be specified for the switchover subcommand:

-spare *spare_server* (optional)

This defines the spare server (physical server) to be switched over with. If omitted, an appropriate server will be automatically selected from the list of spare servers already assigned to the target server.

The following options can be specified for the list subcommand:

-type {physical|vmguest|all} (optional)

This defines the type of server (physical servers, VM guests, all servers) to be listed up.
The following properties are displayed for each server. The option column shows the relationship between displayed properties and the option given in -type ("always" in the table below designates properties that are always displayed, independently from the option given in -type).

Property	Contents	Option
PHYSICAL_SERVER	Physical server name	always
SERVER	Server name (for a Physical OS, VM host, or VM guest)	always
TYPE	Server type	physical

Property	Contents	Option
	Displays one of the following types: "native": physical OS "vm_host": VM host "vm_guest": VM guest	all
VM_HOST	VM host name For a VM guest, this shows the name of the VM host on which this VM guest operates.	vmguest all
ADMIN_IP	Admin LAN IP address	always
STATUS	Server status Displays one of the following statuses: "normal", "warning", "unknown", "stop", "error", or "fatal". For an explanation of possible server statuses, refer to "5.2 Resource Status" of the "ServerView Resource Coordinator VE Operation Guide".	always
MAINTENANCE	Current maintenance mode Displays "ON" if maintenance mode is set. Displays "OFF" if maintenance mode is not set. For details on maintenance modes, refer to "Appendix F Maintenance Mode" of the "ServerView Resource Coordinator VE Setup Guide".	physical all

-spare (optional)

When using spare servers, this shows the spare server(s) (physical server) assigned to each server.
The following properties are displayed.

Property	Meaning
SERVER	Server name (physical OS or VM host)
PRIMARY	Primary server Name of the server that will be switched over with a spare server during a server switchover.
SPARE	Spare server Name of the spare server (switchover destination) assigned to the primary server. If multiple spare servers are assigned, the name of each spare server is displayed using commas (",") as a delimiters.
VLAN_SWITCH (*1)	Network re-configuration flag This flag defines whether or not network settings will be re-configured during a server switchover. Displays "ON" when network settings will be re-configured during server switchover. Displays "OFF" when network settings will no be re-configured during server switchover.
AUTO_SWITCH	Auto-Recovery flag This flag defines whether or not Auto-Recovery is enabled. Displays "ON" when Auto-Recovery is enabled. Displays "OFF" when Auto-Recovery is not enabled.
ACTIVE	Active server

Property	Meaning
	Displays the name of the currently active physical server.
SWITCHOVER_STATE	Switchover state Displays the current switchover state. This can be one of the following types: "normal": normal status (There are no switchover, failback, or takeover operations in progress). "switchover running": a switchover operation is in progress. "switchover completed": a switchover operation has been completed. "failback running": a failback operation is in progress. "takeover running": a takeover operation is in progress.

*1: When a LAN switch blade is in IBP mode, the details of settings are displayed in this parameter.

The following options can be specified for the migrate subcommand:

-to *vmhost*

Specify the name of the destination VM host in *vmhost*.

-mode {live|cold} (optional)

The type of migration method to perform is given for mode.
Depending on the power state of the VM guest to migrate, only one of those types may be available. When omitted, the appropriate type will be chosen depending on the state of the VM guest.
The following values can be specified.

live

Performs a live migration: migration of an active (powered-on) VM guest.

cold

Performs a cold migration: migration of an inactive (powered-off) VM guest.

The power status of the VM guest after migration will be the same as it was before migration.

The following options can be specified for the set subcommand:

-attr {vmm_mode={maintenance|active}|vmware.maintenance={maintenance|active}}

Sets or releases VM maintenance mode for the target VM host.

-attr vmm_mode={maintenance|active|maintenance_with_move}

Sets or releases VM maintenance mode for the target VM host, or migrates the VM guest when set.

Requirements

Permissions

Resource Coordinator VE privileged user or operating system administrator

Location

Admin server

Examples

- To display a list of registered servers and their properties

```
>rcxadm server list <RETURN>
PHYSICAL_SERVER    SERVER         ADMIN_IP       STATUS    MAINTENANCE
```

```
---------------    ------          --------        ------    -----------
blade01            WebServer01     192.168.1.4     normal    ON
rackserver01       AppServer01     192.168.1.2     normal    OFF
rackserver02       DBServer01      192.168.1.6     stop      OFF
rackserver03       DBServer02      192.168.1.7     normal    ON
```

- To display spare server settings

```
>rcxadm server list -spare <RETURN>
SERVER      PRIMARY      SPARE                VLAN_SWITCH  AUTO_SWITCH ACTIVE       SWITCHOVER_STATE
------      -------      -----                -----------  ----------- ------       ----------------
Server1     blade1-1     blade1-9             ON           ON          blade1-9     failback running
Server2     blade1-2     blade1-9,blade1-10   OFF          ON          blade1-2     normal
```

- To display a list of physical servers (including physical OS's and VM hosts)

```
>rcxadm server list -type physical <RETURN>
PHYSICAL_SERVER  SERVER        TYPE      ADMIN_IP        STATUS  MAINTENANCE
---------------  ------        ----      --------        ------  -----------
blade1-1         Server1       native    192.168.3.121   stop    ON
blade1-10        -             -         192.168.3.130   stop    -
blade1-2         Server2       native    192.168.3.122   normal  OFF
blade1-3         Server3       native    192.168.3.123   stop    ON
blade1-5         Server5       native    192.168.3.125   normal  ON
blade1-7         vmesx1        vm_host   192.168.3.127   normal  OFF
blade1-8         Server8       native    192.168.3.128   normal  OFF
blade1-9         -             -         192.168.3.129   stop    -
```

- To display a list of VM guests

```
>rcxadm server list -type vmguest <RETURN>
PHYSICAL_SERVER  SERVER        VM_HOST          ADMIN_IP        STATUS
---------------  ------        -------          --------        ------
blade1-7         vm-1          vmesx1           192.168.3.127   normal
blade1-7         vm-2          vmesx1           192.168.3.127   normal
```

- To display a list of all server resources (including physical OS's, VM hosts, and VM guests)

```
>rcxadm server list -type all <RETURN>
PHYSICAL_SERVER  SERVER        TYPE        VM_HOST       ADMIN_IP       STATUS  MAINTENANCE
---------------  ------        ----        -------       --------       ------  -----------
blade1-1         Server1       native      -             192.168.3.121  stop    ON
blade1-10        -             -           -             192.168.3.130  stop    -
blade1-2         Server2       native      -             192.168.3.122  normal  OFF
blade1-3         Server3       native      -             192.168.3.123  stop    ON
blade1-5         Server5       native      -             192.168.3.125  normal  ON
blade1-7         vmesx1        vm_host     -             192.168.3.127  normal  OFF
blade1-7         vm-1          vm_guest    vmesx1        192.168.3.127  normal  OFF
blade1-7         vm-2          vm_guest    vmesx1        192.168.3.127  normal  OFF
blade1-8         Server8       native      -             192.168.3.128  normal  OFF
blade1-9         -             -           -             192.168.3.129  stop    -
```

- To migrate an active VM guest

```
> rcxadm server migrate -name vm_guest01 -to vm_host02 -mode live <RETURN>
```

- To migrate an inactive VM guest

```
> rcxadm server migrate -name vm_guest01 -to vm_host02 -mode cold <RETURN>
```

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

Note

- A VM guest can be configured to automatically start or stop whenever its VM host starts up or shuts down. This can be achieved by setting up the VM guest's startup and shutdown options in the server virtualization software used.
  For more information, please refer to the manual of the server virtualization software.
- As a result of power operation being performed on a VM guest, an error may occur if the VM guest is moved to another VM host and processes executed. Refer to "A.3 Functional Differences between Products" of the "ServerView Resource Coordinator VE Setup Guide" for details.
- VM guests should be properly configured in order to use the "stop" or "restart" subcommands.
  Stopping or restarting a VM guest that was not properly configured will result in an error unless the -force option is specified.
  Refer to "A.2 Configuration Requirements" of the "ServerView Resource Coordinator VE Setup Guide" for details.
- For PRIMERGY Partition Model servers, the warning message will not be displayed, even if there is a chance that the switchover will not be correctly performed using Reserved SB settings.
- If ServerView Deployment Manager is used on the admin LAN, the switchover and failback subcommands cannot be used if the managed servers do not fulfill the following conditions.
  For more details, please refer to "Appendix H Co-Existence with ServerView Deployment Manager" of the "ServerView Resource Coordinator VE Setup Guide".
  - Servers in local boot environments
  - Servers in SAN boot environments without VIOM profiles

Chapter 4 Image Operations

This chapter explains the commands used for operations on images managed by Resource Coordinator VE.

4.1 rcxadm image

Name

[Windows]
*Installation_folder***Manager\bin\rcxadm image** - Image operations

[Linux]
/opt/FJSVrcvmr/bin/rcxadm image - Image operations

Synopsis

rcxadm image backup -server *resource* [**-comment** *comment*] [**-nowait**] [**-force**]

rcxadm image restore -server *resource* [**-version** *version*] [**-nowait**]

rcxadm image create -server *resource* **-name** *image* [**-comment** *comment*] [**-nowait**]

rcxadm image deploy -server *resource* [:*hostname*][,*resource*[:*hostname*]]... **-name** *image* [**-version** *version*] [**-nowait**]

rcxadm image delete -server *resource* **-version** *version*

rcxadm image delete -name *image* **-version** *version*

rcxadm image list -type {**backup**|**cloning**} {[**-server** *resource*]|[**-name** *image*]}

rcxadm image list -server [*resource*]

Information

rcximage is an abbreviated form of the rcxadm image command. Both forms provide the same subcommands and options, and produce the same results.

Point

A list of system images can be obtained using one of the following two methods.

a. **rcxadm image list -type backup** [**-server** *resource*]

b. **rcxadm image list -server** [*resource*]

Method b. is only supported only for compatibility purposes with Systemwalker Resource Coordinator Virtual Server Edition V13.2.0 and V13.3.0. As future versions may not support this method, it is recommended to use method a. instead.

Description

rcxadm image is the command used to perform operations involving system images and cloning images.
Backup and restore operations are done by collecting a system image from a managed server (physical OS or VM host) and storing it on the admin server disk. This system image can later be restored to the same managed server.
Cloning is done by collecting a cloning image from a reference server, and storing it on the admin server disk. Cloning images can later be distributed to other servers (either individually or simultaneously to multiple servers). All image operations (backup, restore, and

cloning) are performed remotely over the network.
Before using this command, refer to the overview and sections about each operation mentioned in the following manuals.

- "Chapter 8 Backup and Restore" of the "ServerView Resource Coordinator VE Operation Guide"
- "Chapter 8 Cloning [Windows/Linux]" of the "ServerView Resource Coordinator VE Setup Guide"

If any one of the "backup", "restore", "create", or "deploy" subcommands is executed, the target server is automatically placed into maintenance mode until processing completes. Once complete, the server is set back to its original mode.

Note

- The number of cloning image versions that can be kept for a given cloning image (identified by its name attribute) is limited.
  Using the create subcommand to collect a new cloning image while this limit has already been reached will fail and display an error.
  In such a case, delete either one of the existing versions before collecting a new version of the cloning image. Existing versions can be checked using the list subcommand.
  By default, this limit is set to 3 versions per cloning image.
  This limit can be changed by following the instructions given in "6.3.1.4 Changing the Maximum Number of Cloning Image Versions" in the "ServerView Resource Coordinator VE Setup Guide".
- This command is not available if ServerView Deployment Manager is used on the admin LAN. For details, please refer to "Appendix H Co-Existence with ServerView Deployment Manager" of the "ServerView Resource Coordinator VE Setup Guide".

Subcommands

backup

Backs up a system image from the specified server (physical OS or VM host) to the admin server.

restore

Restores a system image to the specified server (physical OS or VM host).

create

Collects a cloning image from the specified server (physical OS).

deploy

Deploys a cloning image to one or multiple servers (physical OS).

delete

System image deletion
Deletes a system image belonging to the specified server (physical OS or VM host).

Cloning image deletion
Deletes the specified cloning image.

list

System image list

Displays a list of system images for the specified server.
The following properties are displayed.

Property	Content
SERVERNAME	Name of the server (physical OS or VM host) from which the system image was backed up
VERSION	Version number of the system image
BACKUPDATE	Backup date and time of the system image
COMMENT	Comment describing the system image

Cloning image list

Displays a list of cloning images for the specified server.
The following properties are displayed.

Property	Content
NAME	Name of the cloning image
VERSION	Version number of the cloning image
CREATIONDATE	Creation date and time of the cloning image
COMMENT	Comment describing the cloning image

Options

The following option can be specified for the backup, restore, create, or deploy subcommands:

-nowait (optional)

Use this option to return directly to the command prompt without waiting for the command to complete its execution.

The following option can be specified for the backup, restore or delete subcommand:

-server *resource*

Specify the name of the target server (physical OS or VM host) in *resource*.

The following options can be specified for the deploy or delete subcommand:

-name *image*

Specify the name of the target cloning image in *image*.

-version *version*(optional)

Specify the version of the target cloning image to distribute in *version*.
This option can be omitted when deploying the latest cloning image version.

The following option can be specified for the backup subcommand:

-comment *comment*(optional)

Specify a comment to help identify the system image.
Enter a string no longer than 128 characters (either single or double-byte characters).
Note that percent signs ("%"), backslashes ("\") and double quotes (") cannot be used for *comment*.

When using blank spaces in *comment*, enclose the whole character string, *comment*, in double quotes (").

-force (optional)

Forces execution of a server backup when the target server's status is one of the following:

"normal", "warning", "unknown", "error", or "fatal"

The following option can be specified for the restore subcommand:

-version *version*(optional)

Specify the version number of the system image to restore in *version*.
If omitted, the latest version of the system image will be restored.

The following options can be specified for the create subcommand:

-server *resource*

Specify the name of the target server (physical OS) in *resource*.

-name *image*

Specify a name to assign to the collected cloning image in *image*.
Enter a string that is no more than 32 characters long, where the first character is a letter and the remaining characters are alphanumeric characters or underscores ("_").

-comment *comment*(optional)

Specify a comment to help identify the cloning image.
Enter a string no longer than 128 characters (either single or double-byte characters).
Note that percent signs ("%"), backslashes ("\") and double quotes (") cannot be used for *comment*.

Note

When using blank spaces in *comment*, enclose the whole character string, *comment*, in double quotes (").

The following option can be specified for the deploy subcommand:

-server *resource*[[:*hostname*],...]

Specify the name of the server(s) (physical server) to deploy a cloning image to in *resource*.
Multiple server names can be specified using commas (",").
The name attributed to a server after deployment can be specified in *hostname*. This is done by adding a colon (":") and the hostname string behind each server's resource identifier string. If the *hostname* string is omitted, the post-deployment server name is set to the following.

- When a physical OS has not been registered

  Physical server (*resource*) name

- When a physical OS has been registered

  Physical OS name

Use the following syntax for the *hostname*.

[Windows]
A string of up to 63 characters, including alphanumeric characters, underscores ("_"), and hyphens ("-").
Hostnames made of only numbers are not allowed.

[Linux]
A string of up to 64 characters, including alphanumeric characters, underscores ("_"), hyphens ("-"), and periods (".").

Note

When using SUSE Linux Enterprise Server, server names including periods (".") cannot be configured for post-deployment server names of cloning images.

Information

As the physical OS name of a managed server refers to that server's hostname, it is recommended to use only characters specified in the RFC (Request For Comments) 952. Those characters are listed below.

- Alphanumeric characters
- Hyphens ("-")
- Periods (".") [Linux]

The following options can be specified for the delete subcommand:

-version *version*

Specify the version number of the system image or cloning image to delete in *version*.

The following options can be specified for the list subcommand:

-type {backup|cloning}

Specify the type of image to list up. If backup is specified, a list of system image is displayed. If cloning is specified, a list of cloning images is displayed.

-server *resource*

Specify the name of the server (physical OS or VM host) for which to display system images in *resource*. This option should not be specified if the "-type" option has been set to "cloning".
If the "-type" option has been set to "backup", omitting this option will output a list of system images for all managed servers.

If the "-type" option is not specified, the same list of system images (for all servers) can be output by specifying only the -server option without specifying a *resource* (this command usage differs from that of Systemwalker Resource Coordinator Virtual Server Edition V13.2.0 and V13.3.0. refer to "Point" at the top of this section for details).

-name *image*

Specify the name of the cloning image to display.
If omitted, a list of all cloning images will be displayed.

Requirements

Permissions

Resource Coordinator VE privileged user or operating system administrator

Location

Admin server

Examples

- To create a system image backup

```
>rcxadm image backup -server blade07 -comment "Database Server-2" <RETURN>
```

- To restore a system image to a managed server

```
>rcxadm image restore -server blade07 -version 2 <RETURN>
```

- To delete a system image

```
>rcxadm image delete -server blade07 -version 2 <RETURN>
```

- To display a list of all system images

```
>rcxadm image list -type backup -server blade07 <RETURN>
SERVERNAME    VERSION    BACKUPDATE             COMMENT
----------    -------    ----------             -------
blade07       2          2007/11/01-10:06:35    Database Server-1
blade07       3          2007/11/12-15:16:55    Database Server-2
```

- To display a list of all system images

```
>rcxadm image list -type backup <RETURN>
SERVERNAME    VERSION    BACKUPDATE             COMMENT
----------    -------    ----------             -------
blade01       2          2007/11/01-10:06:35    Application Server-1
blade01       3          2007/11/12-15:16:55    Application Server-2
blade05       2          2007/12/01-10:06:35    File Server-1
blade05       3          2007/12/12-15:16:55    File Server-2
blade07       2          2007/01/31-20:46:25    Database Server-1
```

- To collect a cloning image

```
>rcxadm image create -server blade01 -name AppImage -comment "Windows" <RETURN>
```

- To deploy a cloning image

```
>rcxadm image deploy -server blade08:db02,blade09 -name AppImage -version 2 <RETURN>
```

- To delete a cloning image

```
>rcxadm image delete -name AppImage -version 2 <RETURN>
```

- To display a list of image versions for a given cloning image

```
>rcxadm image list -type cloning -name AppImage <RETURN>
NAME         VERSION    CREATIONDATE           COMMENT
----         -------    ------------           -------
AppImage     1          2008/11/12-16:54:05    Windows
AppImage     2          2008/11/13-10:16:53    Windows+patch
```

- To display a list of all cloning images

```
>rcxadm image list -type cloning <RETURN>
NAME         VERSION    CREATIONDATE           COMMENT
----         -------    ------------           -------
AppImage     1          2008/11/12-16:54:05    Windows
AppImage     2          2008/11/13-10:16:53    Windows+patch
DBImage      1          2008/11/13-13:21:38    Redhat
DBImage      2          2008/11/14-04:39:27    -
```

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

Chapter 5 Control and Environment Setup

This chapter explains the commands used to control the manager and agent, as well as those used to configure environment settings.

5.1 rcxadm agtctl

Name

[Windows/Hyper-V]
*Installation_folder***Agent\bin\rcxadm agtctl** - Agent control

[Linux/VMware/Xen]
/opt/FJSVrcxat/bin/rcxadm agtctl - Agent control

[Solaris]
/opt/FJSVrcvat/bin/rcxadm agtctl - Agent control

Synopsis

```
rcxadm agtctl start

rcxadm agtctl stop

rcxadm agtctl modify -manager ip

rcxadm agtctl snap [-dir dir] [-full]
```

Description

rcxadm agtctl is the command used to start and stop the agent, collect troubleshooting data and modify the admin LAN IP address of the manager that is registered in the agent.
For information on starting and stopping agents, refer to "5.2 Agent" of the "ServerView Resource Coordinator VE Setup Guide".
For information on collecting troubleshooting data, refer to "15.1.1 Collecting Initial Troubleshooting Data" and "15.1.2 Collecting Exhaustive Troubleshooting Data" of the "ServerView Resource Coordinator VE Operation Guide". For information on changing the manager's admin LAN IP address, refer to "6.3.1.1 Changing Admin IP Addresses" of the "ServerView Resource Coordinator VE Setup Guide".

Subcommands

start

Starts the Agent.

stop

Stops the Agent.

modify [Windows/Linux] [Hyper-V]

Modifies the admin LAN IP address of the manager that is registered in the agent.

snap

Collects troubleshooting data from the managed server.

The collected data is stored in the following compressed files:

[Windows/Hyper-V]
rcxtssnap_*server_name*.jar

[Linux/Solaris/VMware/Xen]
When collecting troubleshooting data, data is compressed on managed servers using the bzip2, gzip, or compress command. Depending on the command used, the name assigned to troubleshooting data will be one of the following.

Resource Coordinator VE uses the command with the best compression ratio (bzip2 -> gzip -> compress) available on the managed server.

- When compressing with bzip2

  rcxtssnap_*server_name*.tar.bz2

- When compressing with gzip

  rcxtssnap_*server_name*.tar.gz

- When compressing with compress

  rcxtssnap_*server_name*.tar.Z

Options

Specify the following options when using the modify subcommand:

-manager *ip*

Specify the new manager IP address.

Specify the following options when using the snap subcommand:

-dir *dir*(Optional)

Specify the folder used to store the collected data in *dir*.
If this option is omitted, the data will be stored in the following folder:

[Windows/Hyper-V]
The folder defined by the TEMP environment variable

[Linux/Solaris/VMware]
/tmp

- When using full paths in the *dir* and the TEMP environment variable

  The length of the full path string must not exceed 100 characters. If more than 100 characters are used the troubleshooting data cannot be collected, and the "Message number 67131" or "Message number 67265" will be displayed.

- When using relative paths in the *dir* and the TEMP environment variable

  When specifying a relative folder path, its equivalent full path must not exceed 100 characters (calculated using the Windows 8.3 format (*1)). If the converted full path string exceeds 100 characters, the troubleshooting data will not be collected, and the "Message number 67131" will be displayed.

  *1: This rule specifies that the file name can be a maximum of 8 characters, with a file extension of up to 3 characters

- The following symbols cannot be specified in the name of the folder in which the collected data is stored:

  """, "|", "*", "?", "/", "<", ">", ",", "%", "&", "^", "=", "!", ";"

-full (Optional)

Collects exhaustive managed server troubleshooting data. This data is required to isolate the cause of a problem which could not be identified from initial troubleshooting data alone.
This requires significantly more disk space for the generated data files. This option can be omitted when collecting troubleshooting data for an initial investigation (first diagnostic).

Requirements

Permissions

Operating system administrator

Location

Managed server

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

5.2 rcxadm certctl

Name

- Manager

  [Windows]
  *Installation_folder***Manager\bin\rcxadm certctl** - SSL certificate operations

  [Linux]
  /opt/FJSVrcvmr/bin/rcxadm certctl - SSL certificate operations

- Agent

  [Windows/Hyper-V]
  *Installation_folder***Agent\bin\rcxadm certctl** - SSL certificate operations

  [Linux/VMware/Xen]
  /opt/FJSVrcxat/bin/rcxadm certctl - SSL certificate operations

  [Solaris]
  /opt/FJSVrcvat/bin/rcxadm certctl - SSL certificate operations

Synopsis

```
rcxadm certctl list

rcxadm certctl delete -alias alias

rcxadm certctl init
```

Description

rcxadm certctl is the command used to manage the certificates required for SSL communication between a manager and its agents.
For more information regarding this command, refer to "15.7 Cloning Issues Following Manager Re-installation" in the "ServerView Resource Coordinator VE Operation Guide".

Note

The manager or agent must be stopped in order to use this command.
For information on stopping managers and their agents, refer to "5.6 rcxadm mgrctl" and "5.1 rcxadm agtctl".

Subcommands

list

Displays a list of current SSL certificates. Each certificate stored in the certificates data file is indexed by a unique alias (*1). The example below shows how to display aliases using the list subcommand.

<Example>

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

Keystore type: jks
Keystore provider: SUN

The keystore contains 4 entries.

client1 (*1), May 10, 2007, trustedCertEntry,
Certificate fingerprints (MD5): 0F:4E:1C:DB:19:AE:3B:82:9D:74:93:6C:46:D8:7C:D2
...
```

delete

Deletes the data of the designated SSL certificate.

init

Initializes the file used to store SSL certificates data.

Option

Specify the following option when using the delete subcommand:

-alias *alias*

Specify the alias of the SSL certificate to delete in *alias*.

Requirements

Permissions

Operating system administrator

Location

Admin server, managed server

Examples

- To display a list of SSL certificates currently used by the manager

```
>rcxadm certctl list <RETURN>
```

- To delete an SSL certificate used by the manager

  >**rcxadm certctl delete -alias** *alias* <RETURN>

- To initialize the file used by the manager to store SSL certificates data

  >**rcxadm certctl init** <RETURN>

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

5.3 rcxadm deployctl

Name

[Windows]
*Installation_folder***Agent\bin\rcxadm deployctl** - Encryption of license information definition files

[Linux]
/opt/FJSVrcxat/bin/rcxadm deployctl - Encryption of license information definition files

Synopsis

```
rcxadm deployctl passwd -encrypt
```

Description

rcxadm deployctl is the command used to encrypt the administrator password on managed servers running on Windows Server 2008, after editing the license information definition file.
The license information definition file is created by installing the Resource Coordinator VE Agent. With the cloning function, use this file to perform Windows license authorization.
For information on the usage of this command, refer to "8.2 Collecting a Cloning Image" of the "ServerView Resource Coordinator VE Setup Guide".

Subcommands

passwd

Encrypts the administrator password that is included in the license information definition file.

Option

-encrypt

Always specify this option when encrypting the password.

Requirements

Permissions

Operating system administrator

Location

Managed server

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

5.4 rcxadm imagemgr

Name

[Windows]
*Installation_folder***Manager\bin\rcxadm imagemgr** - Image management settings

[Linux]
/opt/FJSVrcvmr/bin/rcxadm imagemgr - Image management settings

Synopsis

```
rcxadm imagemgr info

rcxadm imagemgr set -attr imagedir=dir

rcxadm imagemgr set -attr {backup|clone}.maxversion=value
```

Description

rcxadm imagemgr is the command used to change the image files folder location, or the maximum number of image versions that can be kept in Resource Coordinator VE.
For details on changing the maximum number of system image versions, refer to "6.3.1.3 Changing the Maximum Number of System Image Versions" of the "ServerView Resource Coordinator VE Setup Guide".
For details on changing the maximum number of cloning image versions, refer to "6.3.1.4 Changing the Maximum Number of Cloning Image Versions" of the "ServerView Resource Coordinator VE Setup Guide".
For details on changing the path for the image file storage folder, refer to "6.3.1.5 Changing the Image Folder Location" in the "ServerView Resource Coordinator VE Setup Guide".

Subcommands

info

Displays current image settings (the maximum number of image versions and the location of the image files folder).
The following properties are displayed.

Table 5.1 info Subcommand Display Parameters

Property	Content
backup.maxversion	Maximum number of system image versions
clone.maxversion	Maximum number of cloning image versions
imagedir	Location of the image files folder

set

Sets a new location for the image files folder, or sets a new limit for the number of image versions.

Options

The following options can be specified for the set subcommand:

-attr imagedir=*dir*

Specify a new location (path) for the image files folder in *dir*.
The specified folder path should match the following requirements.

- The specified path should be no more than 100 characters long
- The specified path should include none of the following characters

  """, "|", ":", "*", "?", ".", "<", ">", ",", "%", "&", "^", "=", "!", ";", "#", "'", "+", "[", "]", "{", "}"

  [Windows]
  "/"

  [Linux]
  "\"
- Only local folder paths are allowed (UNC paths are not permitted)
- The specified path should not point to any of the following folders

  [Windows]
  Installation_folder\Manager

  [Linux]
  /opt/FJSVrcvmr

  /etc/opt/FJSVrcvmr

  /var/opt/FJSVrcvmr
- The specified folder is empty

  [Linux]
  If a partition (file-system) was specially created to store image files, this partition will include a "lost+found" folder, and therefore cannot be considered as empty.

  In that case, be sure to create and use a dedicated directory to store image files within that partition.
- The specified path should have proper security settings

  [Linux]
  For safer administration, it is recommended to use either the following permissions settings for each ancestor directory of the image files directory.

  - Give write permissions only to system administrators
  - Use the sticky bit to prevent other users from renaming or deleting image files

  If permissions are not set as above, this command may fail to change the image files folder location.

When changing the image files folder location, image files are copied to the new location, which may take some time to complete.

-attr {backup|clone}.maxversion=*value*

Changes the maximum number of image versions.
To change the maximum number of system image versions, specify backup.
To change the maximum number of cloning image versions, specify clone.
Specify a new maximum number of image versions in *value*.
Enter a numerical value between 1 and 10 in *value*.

Requirements

Permissions

Operating system administrator

Location

Admin server

The manager should be stopped when changing the image files folder location. Refer to "5.1 Manager" in the "ServerView Resource Coordinator VE Setup Guide" for details on how to stop the manager.

If the RC console was opened, the Web browser should be refreshed after changing the maximum number of image versions.

Examples

- Displays current image management settings

  [Windows]

```
>rcxadm imagemgr info <RETURN>
backup.maxversion: 3
clone.maxversion: 2
imagedir: C:\Program Files\Resource Coordinator VE
\ScwPro\depot\
```

  [Linux]

```
# rcxadm imagemgr info <RETURN>
backup.maxversion: 3
clone.maxversion: 2
imagedir: /var/opt/FJSVscw-deploysv/depot
```

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

5.5 rcxadm lanctl

Name

[Windows]
*Installation_folder***Agent\bin\rcxadm lanctl** - Network parameters configuration

[Linux]
/opt/FJSVrcxat/bin/rcxadm lanctl - Network parameters configuration

Synopsis

```
rcxadm lanctl set

rcxadm lanctl unset

rcxadm lanctl enable

rcxadm lanctl disable
```

Description

rcxadm lanctl is the command used to configure network parameters for network interfaces on managed servers.

This command cannot be used on managed servers running SUSE Linux Enterprise Server as their operating system.

Subcommands

set

Applies the settings previously defined in the network configuration file to the managed server's network interfaces.
For more information regarding the network configuration file, refer to "8.6 Network Parameter Auto-Configuration for Cloning Images" of the "ServerView Resource Coordinator VE Setup Guide".

unset

Clears the network parameters previously applied to the managed server's network interfaces via the set subcommand.

enable

Enables the network parameter auto-configuration function for cloning image deployment.

disable

Disables the network parameter auto-configuration function for cloning image deployment.

Requirements

Permissions

Operating system administrator

Location

Managed server

Examples

- To apply the network parameters configuration

  >**rcxadm lanctl set** <RETURN>

- To undo the network parameters configuration

  >**rcxadm lanctl unset** <RETURN>

- To enable the network parameter auto-configuration function

  >**rcxadm lanctl enable** <RETURN>

- To disable the network parameter auto-configuration function

```
>rcxadm lanctl disable <RETURN>
```

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

5.6 rcxadm mgrctl

Name

[Windows]
*Installation_folder***Manager\bin\rcxadm mgrctl** - Manager control

[Linux]
/opt/FJSVrcvmr/bin/rcxadm mgrctl - Manager control

Synopsis

```
rcxadm mgrctl start

rcxadm mgrctl stop

rcxadm mgrctl modify {-ip ip |-port name=number}

rcxadm mgrctl snap [-dir dir] [-full|-all]
```

Description

rcxadm mgrctl is the command used to start and stop managers, collect troubleshooting data, and change admin LAN IP addresses and port numbers.
For information on starting and stopping the manager, refer to "5.1 Manager" of the "ServerView Resource Coordinator VE Setup Guide".
For information on troubleshooting data collection methods, refer to "15.1.1 Collecting Initial Troubleshooting Data" and "15.1.2 Collecting Exhaustive Troubleshooting Data" of the "ServerView Resource Coordinator VE Operation Guide".
For information on IP address and port number change methods, refer to "6.3.1.1 Changing Admin IP Addresses" and "6.3.1.2 Changing Port Numbers" of the "ServerView Resource Coordinator VE Setup Guide".

[Windows]
If the port number has been changed, the following lines in the *Windows_system_folder*\system32\drivers\etc\services file will be automatically changed.

[Linux]
If the port number has been changed, the following lines in the\etc\services file will be changed automatically.

```
# service name  port number/protocol name
rcxmgr          23460/tcp
rcxweb          23461/tcp
rcxtask         23462/tcp
rcxmongrel1     23463/tcp
```

```
rcxmongrel2     23464/tcp
nfdomain        23457/tcp
nfagent         23458/tcp
```

Note

In a clustered manager configuration, this command should not be used to start or stop the manager.

[Windows]
Instead, the manager should be started and stopped as described below.

Start the Manager
In the Failover Cluster Management tree, right-click the manager "application or service" and select "Bring this service or application online".

Stop the Manager
In the Failover Cluster Management tree, right-click the manager "application or service" and select "Take this service or application offline".

[Linux]
Use the cluster system administration view (Cluster Admin) to start or stop the manager.
Refer to the PRIMECLUSTER manual for details.

Subcommands

start

Starts the manager.

stop

Stops the manager.

modify

Modifies the IP address used by the manager in the admin LAN or its port number.

snap

Collects troubleshooting data.

Options

Specify the following options when using the modify subcommand:

-ip *ip*

Specify the new manager IP address.

-port *name=number*

Specify the port name to be modified in *name*, and the new port number in *number*.
The port name can be one of the following values: "rcxmgr", "rcxweb", "rcxtask", "rcxmongrel1", "rcxmongrel2", "nfdomain", or "nfagent".

The following options can be specified for the snap subcommand:

-dir *dir*(Optional)

Specify the folder used to store the collected data in *dir*.
When omitted, the data will be stored in the folder specified by the TEMP environment variable:

Note

- When using full paths in the *dir* and the TEMP environment variable

  The length of the full path string must not exceed 100 characters. If more than 100 characters are used the troubleshooting data cannot be collected, and the "Message number 67131" or "Message number 67265" will be displayed.

- When using relative paths in the *dir* and the TEMP environment variable

  When specifying a relative folder path, its equivalent full path must not exceed 100 characters (calculated using the Windows 8.3 format (*1)). If the converted full path string exceeds 100 characters, the troubleshooting data will not be collected, and the "Message number 67131" will be displayed.

  *1: This rule specifies that the file name can be a maximum of 8 characters, with a file extension of up to 3 characters

- The following symbols cannot be specified in the name of the folder in which the collected data is stored:

  """, "|", "*", "?", "<", ">", ",", "%", "&", "^", "=", "!", ";"

  [Windows]
  "/"

  [Linux]
  "\"

-full (Optional)

Collects exhaustive troubleshooting data from the admin server. This data is required to isolate the cause of a problem which could not be identified from initial troubleshooting data alone.
This requires significantly more disk space for the generated data files. This option can be omitted when collecting troubleshooting data for an initial investigation (first diagnostic).

-all (Optional)

This option collects troubleshooting data not only from the admin server, but from all the managed servers as well. This option cannot be used together with the -full option.
Since only data required for initial troubleshooting is collected, it does not require much disk space. The data can also be collected quickly and sent easily via email.
Data collected from both the admin server and managed servers is stored in the directory specified by dir on the admin server from which the command was executed.
If the user account does not have administrative authority within the operating system, it is necessary to log in as a Resource Coordinator VE privileged user (using the 'rcxlogin' command) to use this option.
For information on the rcxlogin command, refer to "2.1 rcxlogin".

- Collected files

  The collected data is stored in the following compressed files:

  - Admin server

    [Windows]
    rcxtssnap_*server_name*.jar
    The *server_name* part will be in lower case when the -all option is specified, or upper case when omitted.

    [Linux]
    rcxtssnap_*server_name*.tar.bz2
    The *server_name* part will be in lower case when the -all option is specified, or upper case when omitted.

  - Managed server

    [Windows/Hyper-V]
    Managed_server\rcxtssnap_*physical_server_name*.jar

    [Linux/VMware]
    Managed_server\rcxtssnap_*physical_server_name*.tar.bz2
    The managed server's name is displayed in *Managed_server*.

Note

[Linux/VMware]
When collecting troubleshooting data, data is compressed on managed servers using either the bzip2 or gzip compression command. Depending on the command used, the resulting file extension will be either one of the following.
Resource Coordinator VE uses the command with the best compression ratio (bzip2 -> gzip) available on the managed server.

- When compressing with bzip2

*.tar.bz2

- When compressing with gzip

*.tar.gz

Execution Log

- Data collection results

  rcxtssnap_result.txt

  This file displays collection results in the following format:

  ```
  Server_name:Result
  ```

  Server_name
  Physical server name (managed server), server name (admin server)

  Result
  OK: Indicates that the data collection was successful.
  NG: Indicates that the data collection failed.

Example

```
blade1:OK
blade2:NG
blade4:NG
blade5:OK
Manager:OK
```

- Error Log

  Admin server
  rcxtssnap_*server_name*_error.txt

  Managed server

  [Windows]
  Managed_Server\rcxtssnap_*physical_server_name*_error.txt

  [Linux]
  Managed_Server/rcxtssnap_*physical_server_name*_error.txt

Requirements

Permissions

Operating system administrator
Note that when logged in as a Resource Coordinator VE privileged user (using the 'rcxlogin' command), only the -all option of the troubleshooting data collection subcommand ('snap') can be used.

Location

Admin server

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

5.7 deployment_service_uninstall

Name

- Manager

  [Windows]
  *Installation_folder***Manager\bin\deployment_service_uninstall.bat** - Uninstallation of the deployment services

  [Linux]
  /opt/FJSVrcvmr/bin/deployment_service_uninstall.sh - Uninstallation of the deployment services

- Agent

  [Windows]
  *Installation_folder***Agent\bin\deployment_service_uninstall.bat** - Uninstallation of the deployment service

  [Linux]
  /opt/FJSVrcxat/bin/deployment_service_uninstall.sh - Uninstallation of the deployment service

Synopsis

```
deployment_service_uninstall.bat
```

```
deployment_service_uninstall.sh
```

Description

deployment_service_uninstall is the command used to uninstall the deployment services.

When installing ServerView Deployment Manager in environments where Resource Coordinator VE has been installed, run this command after installing Resource Coordinator VE.

Stop managers and agents before using this command.

After using this command, please start managers and agents.

For information on starting and stopping managers, refer to "5.1 Manager" of the "ServerView Resource Coordinator VE Setup Guide".

For information on starting and stopping the agent, refer to "5.2 Agent" of the "ServerView Resource Coordinator VE Setup Guide".

Requirements

Permissions

Operating system administrator

Location

Admin server, managed server

Examples

- To uninstall the deployment services from the manager

```
>deployment_service_uninstall.bat <RETURN>
```

Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

Glossary

access path

A logical path configured to enable access to storage volumes from servers.

active mode

The state where a managed server is performing operations.
Managed servers must be in active mode in order to use Auto-Recovery.
Move managed servers to maintenance mode in order to perform backup or restoration of system images, or collection or deployment of cloning images.

active server

A physical server that is currently operating.

admin client

A terminal (PC) connected to an admin server, which is used to operate the GUI.

admin LAN

A LAN used to manage resources from admin servers.
It connects managed servers, storage and networks devices.

admin server

A server used to operate the manager software of Resource Coordinator VE.

affinity group

A grouping of the storage volumes allocated to servers. A function of ETERNUS.

Equivalent to the LUN mapping of EMC.

agent

The section (program) of Resource Coordinator VE that operates on managed servers.

Auto-Recovery

A function which continues operations by automatically switching over the system image of a failed server to a spare server and restarting it in the event of server failure.
This function can be used when managed servers are in a local boot configuration, SAN boot configuration, or a configuration such as iSCSI boot where booting is performed from a disk on a network.
When using a local boot configuration, the system is recovered by restoring a backup of the system image of the failed server onto a spare server.
In configurations using SAN boot or booting from a disk on a LAN, the system is recovered by a spare server inheriting the system image of the failed server over the storage network.
Also, when a VLAN is set for the public LAN of a managed server, the VLAN settings of adjacent LAN switches are automatically switched to those of the spare server.

BACS (Broadcom Advanced Control Suite)

An integrated GUI application (comprised from applications such as BASP) that creates teams from multiple NICs, and provides functions such as load balancing.

BASP (Broadcom Advanced Server Program)

LAN redundancy software that creates teams of multiple NICs, and provides functions such as load balancing and failover.

blade server

A compact server device with a thin chassis that can contain multiple server blades, and has low power consumption.
As well as server blades, LAN switch blades, management blades, and other components used by multiple server blades can be mounted inside the chassis.

BladeViewer

A GUI that displays the status of blade servers in a style similar to a physical view and enables intuitive operation.
BladeViewer can also be used for state monitoring and operation of resources.

BMC (Baseboard Management Controller)

A Remote Management Controller used for remote operation of servers.

CA (Channel Adapter)

An adapter card that is used as the interface for server HBAs and fibre channel switches, and is mounted on storage devices.

chassis

A chassis used to house server blades and partitions.
Sometimes referred to as an enclosure.

cloning

Creation of a copy of a system disk.

cloning image

A backup of a system disk, which does not contain server-specific information (system node name, IP address, etc.), made during cloning.
When deploying a cloning image to the system disk of another server, Resource Coordinator VE automatically changes server-specific information to that of the target server.

environmental data

Measured data regarding the external environments of servers managed using Resource Coordinator VE.
Measured data includes power data collected from power monitoring targets.

FC switch (Fibre Channel Switch)

A switch that connects Fibre Channel interfaces and storage devices.

fibre channel switch blade

A fibre channel switch mounted in the chassis of a blade server.

GLS (Global Link Services)

Fujitsu network control software that enables high-availability networks through the redundancy of network transmission channels.

GSPB (Giga-LAN SAS and PCI_Box Interface Board)

A board which mounts onboard I/O for two partitions and a PCIe (PCI Express) interface for a PCI box.

GUI (Graphical User Interface)

A user interface that displays pictures and icons (pictographic characters), enabling intuitive and easily understandable operation.

HA (High Availability)

The concept of using redundant resources to prevent suspension of system operations due to single problems.

hardware initiator

A controller which issues SCSI commands to request processes.
In iSCSI configurations, NICs fit into this category.

hardware maintenance mode

In maintenance mode of PRIMERGY Partition Model servers, a state other than Hot System Maintenance.

HBA (Host Bus Adapter)

An adapter for connecting servers and peripheral devices.
Mainly used to refer to the FC HBAs used for connecting storage devices using Fibre Channel technology.

HBA address rename setup service

The service that starts managed servers that use HBA address rename in the event of failure of the admin server.

HBAAR (HBA address rename)

I/O virtualization technology that enables changing of the actual WWN possessed by an HBA.

host affinity

A definition of the server HBA that is set for the CA port of the storage device and the accessible area of storage.
It is a function for association of the Logical Volume inside the storage which is shown to the host (HBA), that also functions as security internal to the storage device.

Hyper-V

Virtualization software from Microsoft Corporation.

Provides a virtualized infrastructure on PC servers, enabling flexible management of operations.

image file

A system image or a cloning image. Also a collective term for them both.

I/O virtualization option

An optional product that is necessary to provide I/O virtualization.
The WWNN address and MAC address provided is guaranteed by Fujitsu to be unique.
Necessary when using HBA address rename.

IPMI (Intelligent Platform Management Interface)

IPMI is a set of common interfaces for the hardware that is used to monitor the physical conditions of servers, such as temperature, power voltage, cooling fans, power supply, and chassis.
These functions provide information that enables system management, recovery, and asset management, which in turn leads to reduction of overall TCO.

IQN (iSCSI Qualified Name)

Unique names used for identifying iSCSI initiators and iSCSI targets.

iRMC (integrated Remote Management Controller)

The name of the Remote Management Controller for Fujitsu's PRIMERGY servers.

iSCSI

A standard for using the SCSI protocol over TCP/IP networks.

LAN switch blade

A LAN switch that is mounted in the chassis of a blade server.

link aggregation

Function used to multiplex multiple ports and use them as a single virtual port.
With this function, if one of the multiplexed ports fails its load can be divided among the other ports, and the overall redundancy of ports improved.

logical volume

A logical disk that has been divided into multiple partitions.

maintenance mode

The state where operations on managed servers are stopped in order to perform maintenance work.
In this state, the backup and restoration of system images and the collection and deployment of cloning images can be performed.
However, when using Auto-Recovery it is necessary to change from this mode to active mode. When in maintenance mode it is not possible to switch over to a spare server if a server fails.

managed server

A collective term referring to a server that is managed as a component of a system.

management blade

A server management unit that has a dedicated CPU and LAN interface, and manages blade servers.
Used for gathering server blade data, failure notification, power control, etc.

Management Board

The PRIMERGY Partition Model system management unit.
Used for gathering information such as failure notification, power control, etc. from chassis.

manager

The section (program) of Resource Coordinator VE that operates on admin servers.
It manages and controls resources registered with Resource Coordinator VE.

NAS (Network Attached Storage)

A collective term for storage that is directly connected to a LAN.

network map

A GUI function for graphically displaying the connection relationships of the servers and LAN switches that compose a network.

network view

A window that displays the connection relationships and status of the wiring of a network map.

NFS (Network File System)

A system that enables the sharing of files over a network in Linux environments.

NIC (Network Interface Card)

An interface used to connect a server to a network.

OS

The OS used by an operating server (a physical OS or VM guest).

PDU (Power Distribution Unit)

A device for distributing power (such as a power strip).
Resource Coordinator VE uses PDUs with current value display functions as Power monitoring devices.

physical OS

An OS that operates directly on a physical server without the use of server virtualization software.

physical server

The same as a "server". Used when it is necessary to distinguish actual servers from virtual servers.

Pool Master

On Citrix XenServer, it indicates one VM host belonging to a Resource Pool.
It handles setting changes and information collection for the Resource Pool, and also performs operation of the Resource Pool.
For details, refer to the Citrix XenServer manual.

port backup

A function for LAN switches which is also referred to as backup port.

port VLAN

A VLAN in which the ports of a LAN switch are grouped, and each LAN group is treated as a separate LAN.

port zoning

The division of ports of fibre channel switches into zones, and setting of access restrictions between different zones.

power monitoring devices

Devices used by Resource Coordinator VE to monitor the amount of power consumed.
PDUs and UPSs with current value display functions fit into this category.

power monitoring targets

Devices from which Resource Coordinator VE can collect power consumption data.

pre-configuration

Performing environment configuration for Resource Coordinator VE on another separate system.

primary server

The physical server that is switched from when performing server switchover.

public LAN

A LAN used for operations by managed servers.
Public LANs are established separately from admin LANs.

rack

A case designed to accommodate equipment such as servers.

rack mount server

A server designed to be mounted in a rack.

RAID (Redundant Arrays of Inexpensive Disks)

Technology that realizes high-speed and highly-reliable storage systems using multiple hard disks.

RAID management tool

Software that monitors disk arrays mounted on PRIMERGY servers.
The RAID management tool differs depending on the model or the OS of PRIMERGY servers.

RC console

The GUI that enables operation of all functions of Resource Coordinator VE.

Remote Management Controller

A unit used for managing servers.
Used for gathering server data, failure notification, power control, etc.

- For Fujitsu PRIMERGY servers

  iRMC2

- For SPARC Enterprise

  XSCF (eXtended System Control Facility)

- For HP servers

  iLO2 (integrated Lights-Out)

- For Dell/IBM servers

  BMC (Baseboard Management Controller)

Remote Server Management

A PRIMERGY Partition Model feature for managing partitions.

Reserved SB

Indicates the new system board that will be embedded to replace a failed system board if the hardware of a system board embedded in a partition fails and it is necessary to disconnect the failed system board.

resource

Collective term or concept that refers to the physical resources (hardware) and logical resources (software) from which a system is composed.

Resource Pool

On Citrix XenServer, it indicates a group of VM hosts.
For details, refer to the Citrix XenServer manual.

resource tree

A tree that displays the relationships between the hardware of a server and the OS operating on it using hierarchies.

SAN (Storage Area Network)

A specialized network for connecting servers and storage.

server

A computer (operated with one operating system).

server blade

A server blade has the functions of a server integrated into one board.
They are mounted in blade servers.

server management unit

A unit used for managing servers.
A management blade is used for blade servers, and a Remote Management Controller is used for other servers.

server name

The name allocated to a server.

ServerView Deployment Manager

Software used to collect and deploy server resources over a network.

ServerView Operations Manager

Software that monitors a server's (PRIMERGY) hardware state, and notifies of errors by way of the network.
ServerView Operations Manager was previously known as ServerView Console.

ServerView RAID

One of the RAID management tools for PRIMERGY.

server virtualization software

Basic software which is operated on a server to enable use of virtual machines. Used to indicate the basic software that operates on a PC server.

SMB (Server Message Block)

A protocol that enables the sharing of files and printers over a network.

SNMP (Simple Network Management Protocol)

A communications protocol to manage (monitor and control) the equipment that is attached to a network.

software initiator

An initiator processed by software using OS functions.

spare server

A server which is used to replace a failed server when server switchover is performed.

storage blade

A blade-style storage device that can be mounted in the chassis of a blade server.

storage unit

Used to indicate the entire secondary storage as one product.

switchover state

The state in which switchover has been performed on a managed server, but neither failback nor continuation have been performed.

System Board

A board which can mount up to 2 Xeon CPUs and 32 DIMMs.

system disk

The disk on which the programs (such as the OS) and files necessary for the basic functions of servers (including booting) are installed.

system image

A copy of the contents of a system disk made as a backup.
Different from a cloning image as changes are not made to the server-specific information contained on system disks.

tower server

A stand-alone server with a vertical chassis.

UNC (Universal Naming Convention)

Notational system for Windows networks (Microsoft networks) that enables specification of shared resources (folders, files, shared printers, shared directories, etc.).

Example

\\hostname\dir_name

UPS (Uninterruptible Power Supply)

A device containing rechargeable batteries that temporarily provides power to computers and peripheral devices in the event of power failures.
Resource Coordinator VE uses UPSs with current value display functions as power monitoring devices.

URL (Uniform Resource Locator)

The notational method used for indicating the location of information on the Internet.

VIOM (ServerView Virtual -IO Manager)

The name of both the I/O virtualization technology used to change the MAC addresses of NICs and the software that performs the virtualization.
Changes to values of WWNs and MAC addresses can be performed by creating a logical definition of a server, called a server profile, and assigning it to a server.

Virtual I/O

Technology that virtualizes the relationship of servers and I/O devices (mainly storage and network) thereby simplifying the allocation of and modifications to I/O resources to servers, and server maintenance.
For Resource Coordinator VE it is used to indicate HBA address rename and ServerView Virtual-IO Manager (VIOM).

Virtual Machine

A virtual computer that operates on a VM host.

virtual server

A virtual server that is operated on a VM host using a virtual machine.

virtual switch

A function provided by server virtualization software to manage networks of VM guests as virtual LAN switches.
The relationships between the virtual NICs of VM guests and the NICs of the physical servers used to operate VM hosts can be managed using operations similar to those of the wiring of normal LAN switches.

VLAN (Virtual LAN)

A splitting function, which enables the creation of virtual LANs (seen as differing logically by software) by grouping ports on a LAN switch.
Through the use of a Virtual LAN, network configuration can be performed freely without the need for modification of the physical network configuration.

VLAN ID

A number (between 1 and 4,095) used to identify VLANs.

VM guest

A virtual server that operates on a VM host, or an OS that is operated on a virtual machine.

VM host

A server on which server virtualization software is operated, or the server virtualization software itself.

VM maintenance mode

One of the settings of server virtualization software, that enables maintenance of VM hosts.
For example, when using high availability functions (such as VMware HA) of server virtualization software, by setting VM maintenance mode it is possible to prevent the moving of VM guests on VM hosts undergoing maintenance.
For details, refer to the manuals of the server virtualization software being used.

VM management software

Software for managing multiple VM hosts and the VM guests that operate on them.
Provides value adding functions such as movement between the servers of VM guests (migration).

VMware

Virtualization software from VMware Inc.
Provides a virtualized infrastructure on PC servers, enabling flexible management of operations.

Web browser

A software application that is used to view Web pages.

WWN (World Wide Name)

A 64-bit address allocated to an HBA.
Refers to a WWNN or a WWPN.

WWNN (World Wide Node Name)

The WWN set for a node.
The Resource Coordinator VE HBA address rename sets the same WWNN for the fibre channel port of the HBA.

WWPN (World Wide Port Name)

The WWN set for a port.
The Resource Coordinator VE HBA address rename sets a WWPN for each fibre channel port of the HBA.

WWPN zoning

The division of ports into zones based on their WWPN, and setting of access restrictions between different zones.

Xen

A type of server virtualization software.

XSCF (eXtended System Control Facility)

The name of the Remote Management Controller for SPARC Enterprise.

zoning

A function that provides security for Fibre Channels by grouping the Fibre Channel ports of a Fibre Channel switch into zones, and only allowing access to ports inside the same zone.

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