

FUJITSU Cloud Service K5

IaaS Service Portal User Guide

Version 2.0
FUJITSU LIMITED

Preface

Purpose of This Document

This guide describes the operating procedures of the IaaS Service Portal for the services provided by FUJITSU Cloud Service K5.

You are recommended to also refer to the following related manuals.

- IaaS Features Handbook
- IaaS API References
- IaaS Service Portal User Guide (Classic)
- IaaS Limitations and cautions

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Document history

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Chapter 1 Introduction

1.1 IaaS Service Portal Overview

1.1.1 IaaS Service Portal

IaaS Service Portal is a GUI application for using FUJITSU Cloud Service K5 IaaS (K5 IaaS or IaaS) service. On the IaaS Service Portal, you can operate on some of the IaaS resources.

1.1.2 Recommended Environment

The recommended environment for the integrated service portal is as follows.

Table 1 Screen Resolution

Screen Resolution	1366x768
-------------------	----------

1.1.3 Essential Information for the use of K5 IaaS Service Portal

The basic information on using K5 IaaS service portal is shown below.

Abbreviation in the present document

In this document, product names are written as follows.

Table 2 Abbreviation

Formal Name	Abbreviation	
FUJITSU Cloud Service K5 IaaS	K5 IaaS or IaaS	
Microsoft® Windows Server® 2012 SE R2	Windows 2012 R2	Windows
Microsoft® Windows Server® 2008 SE R2	Windows 2008 R2	
Microsoft® Windows Server® 2008 EE R2		
Red Hat® Enterprise Linux® 6.8(for Intel64)	RHEL6.8	Linux
Red Hat® Enterprise Linux® 7.2(for Intel64)	RHEL7.2	
Community Enterprise Operating System 6.8	CentOS 6.8	CentOS
Community Enterprise Operating System 7.2	CentOS 7.2	
Red Hat Update Infrastructure	RHUI	

Windows Server Update Services	WSUS	
VMware® vSphere®	VMware vSphere	VMware
VMware® ESX®	ESX	
VMware® ESXi™	ESXi	
VMware® vCenter Server™	vCenter Server	
VMware® vSphere® Client	vSphere Client	
VMware Tools™	VMware Tools	

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Chapter 2 Overall Structure

2.1 GUI Structure

GUI of K5 IaaS service portal is configured as follows.

Table 3 Area Name

No.	Name	Details
1	System Area	Displays a service name, a user name, etc.
2	Side Bar	Select a resource and display it in the display area.
3	Display Area	Display information on the selected resource.

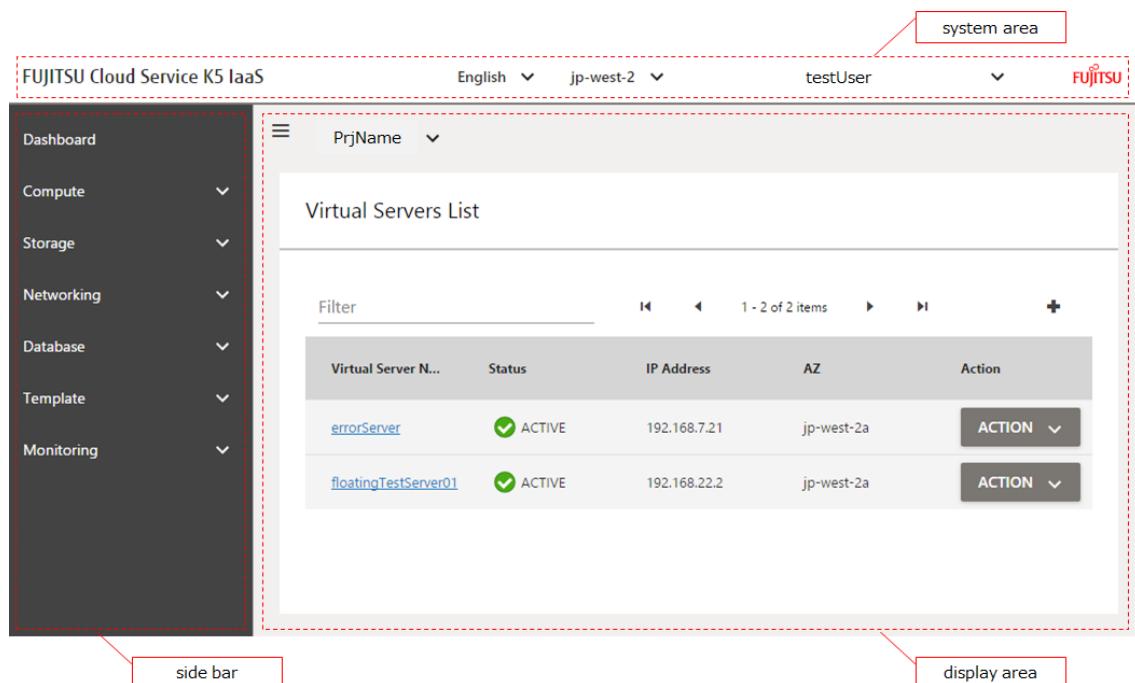


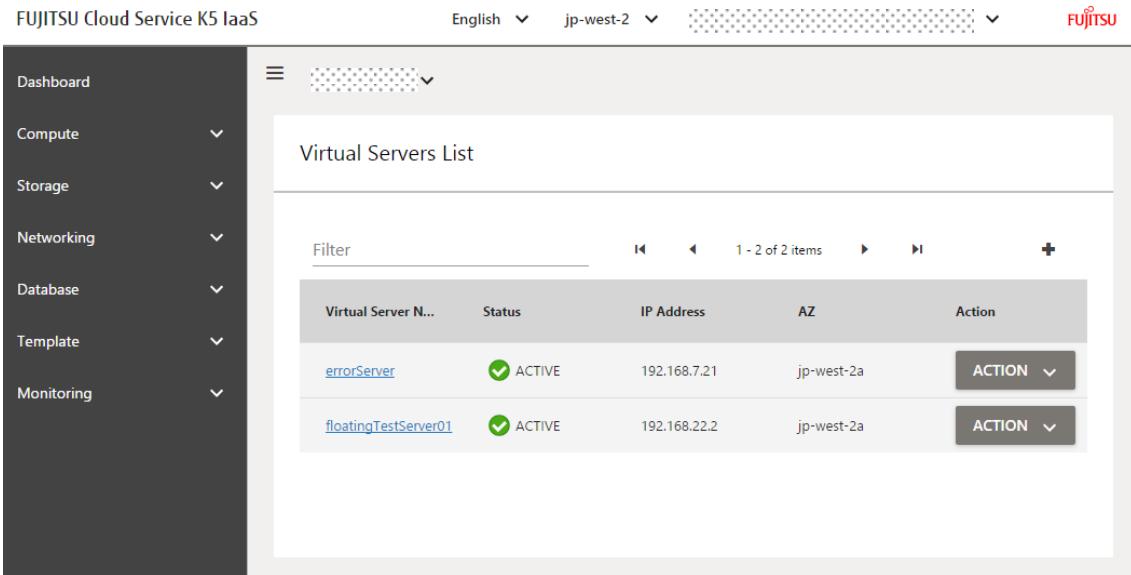
Figure 1 Service Portal

Chapter 3 Common Operations

3.1 Side Bar

The sidebar displays a resource list of operable IaaS. By clicking each name, a list of resources clicked is displayed in the display area.

You can switch display/non-display of the sidebar by clicking 



The screenshot shows the FUJITSU Cloud Service K5 IaaS interface. On the left is a dark sidebar with a list of services: Dashboard, Compute, Storage, Networking, Database, Template, and Monitoring. The main area is titled "Virtual Servers List". It includes a "Filter" input field and a table with two rows. The table columns are: Virtual Server N..., Status, IP Address, AZ, and Action. The first row contains "errorServer", ACTIVE, 192.168.7.21, jp-west-2a, and an "ACTION" button. The second row contains "floatingTestServer01", ACTIVE, 192.168.22.2, jp-west-2a, and an "ACTION" button. The top right of the screen shows language settings ("English") and region ("jp-west-2"), along with a dotted pattern and the FUJITSU logo.

Virtual Server N...	Status	IP Address	AZ	Action
errorServer	ACTIVE	192.168.7.21	jp-west-2a	ACTION
floatingTestServer01	ACTIVE	192.168.22.2	jp-west-2a	ACTION

Figure 2 Side Bar Display

FUJITSU Cloud Service K5 IaaS English jp-west-2 testUser FUJITSU

≡ PrjN

Virtual Servers List

Filter 1 - 2 of 2 items +

Virtual Server Name	Status	IP Address	AZ	Action
errorServer	ACTIVE	192.168.7.21	jp-west-2a	ACTION
floatingTestServer01	ACTIVE	192.168.22.2	jp-west-2a	ACTION

Figure 3 Side Bar Non- display

3.2 Filtering

If there is the following on the list etc., filtering the list by string is available.

Filter

Figure 4 Filter

3.3 Paging

In the list, when the number of items is large, you can move to "first page", "previous page", "next page", "last page" by paging operation.

◀ ◀ 1 - 2 of 2 items ▶ ▶

Figure 5 Paging

3.4 Add Resource

You can add resources by clicking  on the list.

Virtual Server N...	Status	IP Address	AZ	Action
				

Figure 6 Add Resource

3.5 Required Fields

Items marked with * (asterisk) to the right of each label are required to enter.

3.6 Switch Region

You can switch regions by selecting a region name from the region name pulldown at the top left of the window.



Figure 7 Switch Region

3.7 Switch Project

You can switch project by selecting a project name from the project name pull-down at the top left of the window. Switching may not be possible, such as while creating resources.

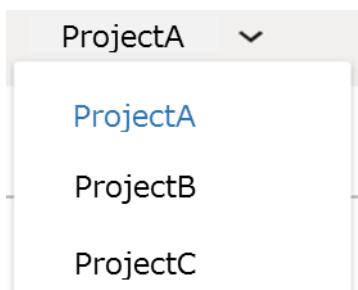


Figure 8 Switch Project

3.8 Switch Language

You can switch the language to Japanese or English with the pulldown at the top right of the window.



Figure 9 Switch Language

Chapter 4 Login

4.1 How to Login

1. Enter contract number, user name and password. (*1)
2. Press Login button. (*2)

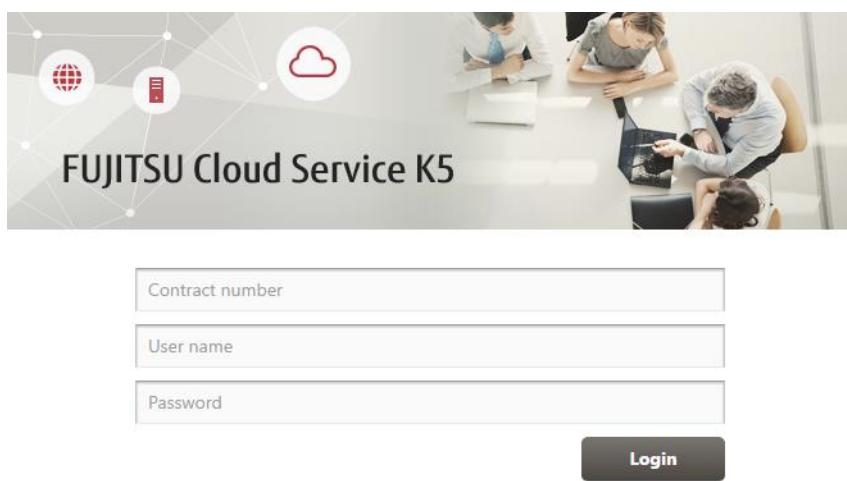


Figure 10 Login

*1

If there is a mistake in any one of the three items, you can not log in and the error message "Contract number, user name or password is wrong" is displayed.



Figure 11 Login with an error message

*2

From a security point of view, if login fails five times consecutively in 15 minutes, you can not log in for 15 minutes.

Chapter 5 Top

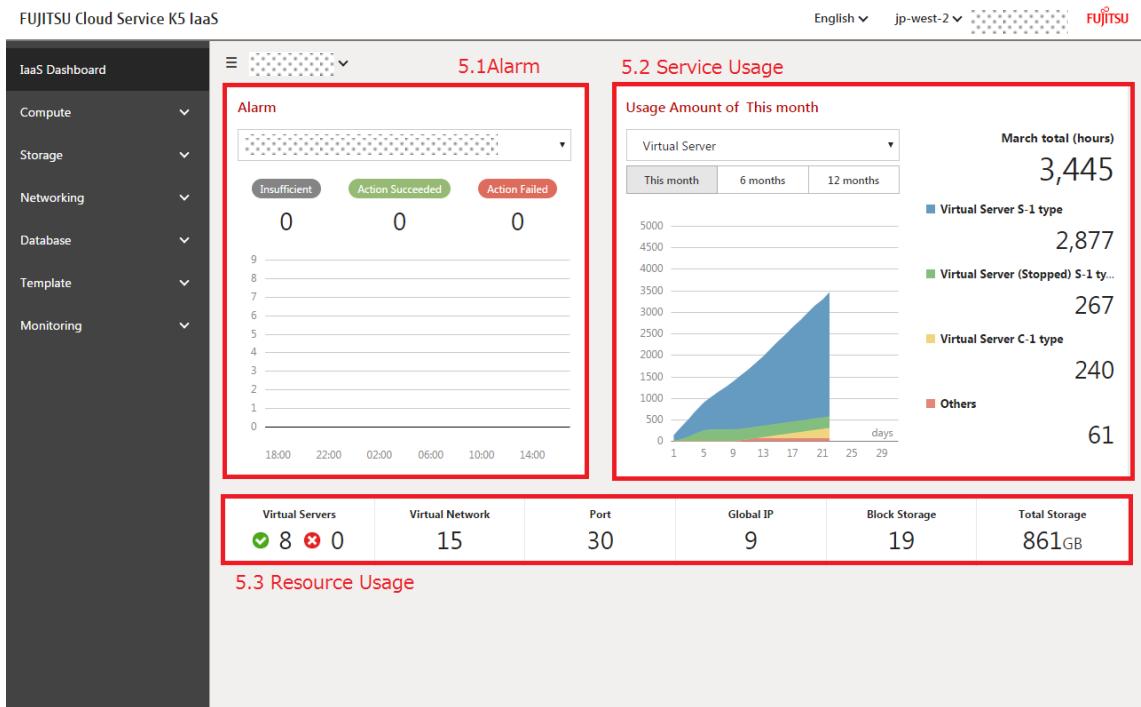
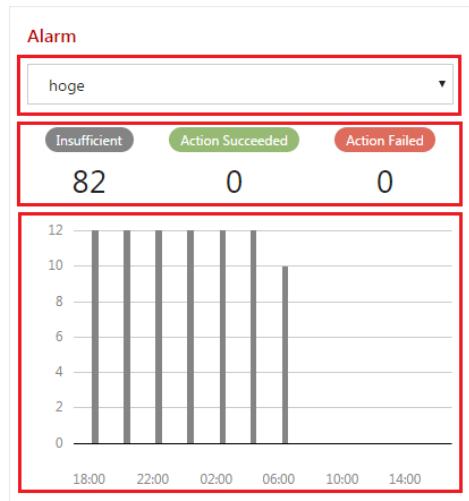


Figure 12 Top

5.1 Alarm



5.1.1 Select Alarm

5.1.2 Alarm History

5.1.3 Graph

Figure 13 Alarm

5.1.1 Select Alarm

Select an alarm whose graph you want to display from alarm list.



Figure 14 Select Alarm

5.1.2 Alarm History

Table 4 Items of Alarm

No	Item Name	Description
1	Insufficient	Number of alarms with insufficient condition settings
2	Action Succeeded	Number of successful alarms
3	Action Failed	Number of failed alarms

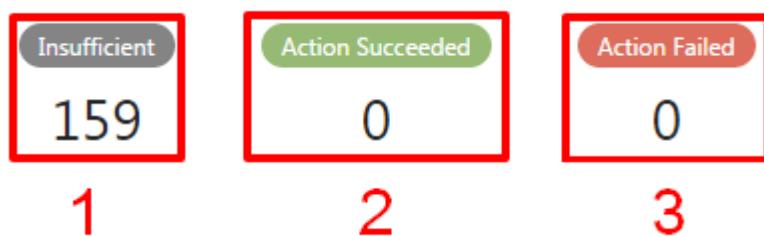


Figure 15 Result of Alarm Collection

Most of data that are highly likely to be conditional settings as meaningless alarms are distributed to Insufficient.

5.1.3 Graph

The graph on the horizontal axis shows time and the vertical axis shows the number of alarms. When you move the cursor closer to the graph, you can check the details of each time zone.



Figure 16 Alarm Graph Details

Also, if you move a mouse wheel upwards on the graph, you can zoom in on the graph, and when you move it down, you can zoom out the graph.

5.2 Service Usage

You can check the usage of each service in the project by graph or ranking.

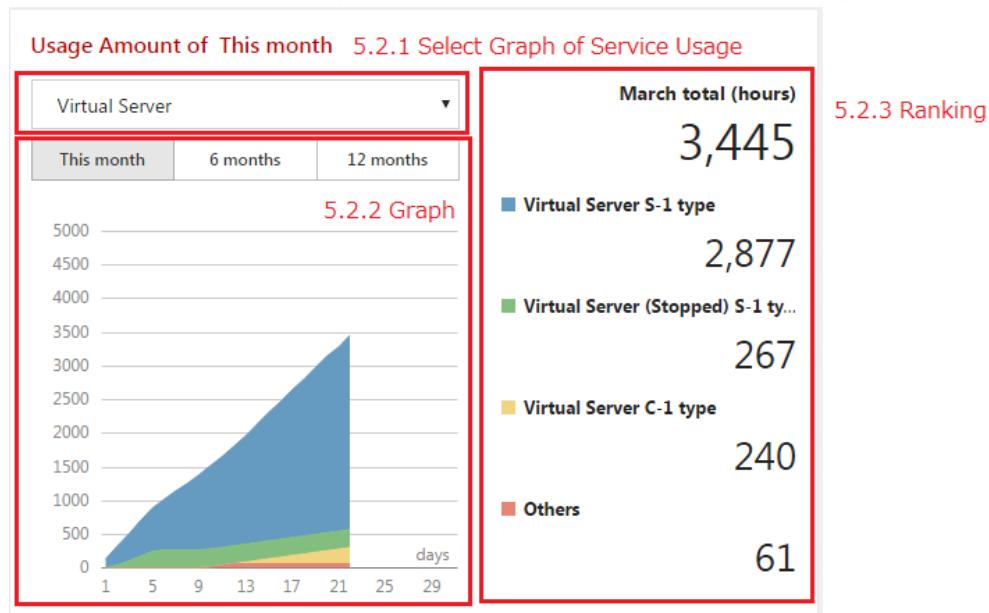


Figure 17 Service Usage

5.2.1 Select Graph of Service Usage

You can select service usage graphs from the following 5.

- Virtual Server (Default)
- Block Storage
- Image
- Load Balancer
- Network

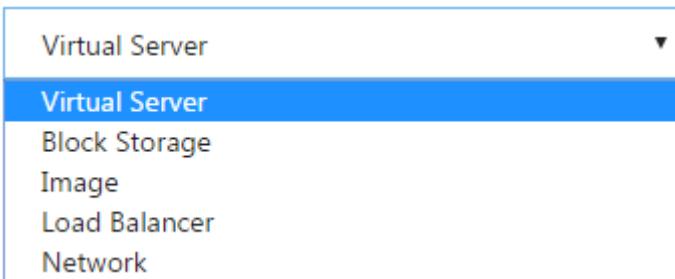


Figure 18 Select Service

5.2.2 Graph

The graph on the horizontal axis shows time and the vertical axis shows the operation time. The graph display period can be selected from the following 3.

- This Month (Default)
- 6 Months
- 12 Months



Figure 19 Graph after switching display period

Also, by moving the cursor closer to the graph, you can check the details of each time zone. When "this month" is selected, daily details are displayed, when "6 months" or "12 months" is selected, monthly details are displayed.

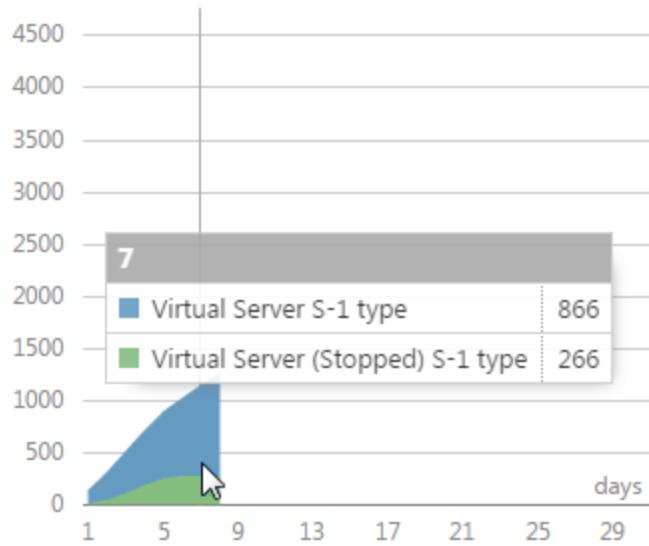


Figure 20 Service Usage Graph Details (This Month)

5.2.3 Ranking

We will display usage status of this month in ranking format. The color of the ranking corresponds to the color of the graph.

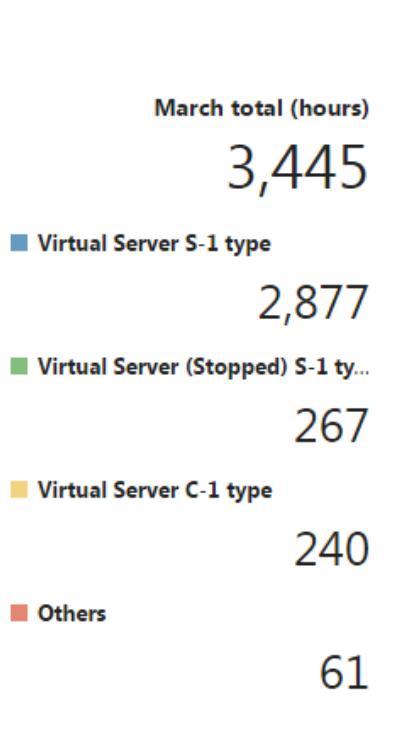


Figure 21 Ranking of Service Usage

5.3 Resource Usage

You can check the number of each item created in the project.

Table 5 Resource Usage List

No.	Item Name	Description
1	Virtual Server (Green)	Number of running virtual server resources
2	Virtual Server (Red)	Error number of virtual server resources
3	Virtual Network	Number of virtual network resources
4	Port	Number of resources on port
5	IP Address	Number of global IP address resources
6	Block Storage	Number of block storage resources
7	Total Storage	Total block storage capacity

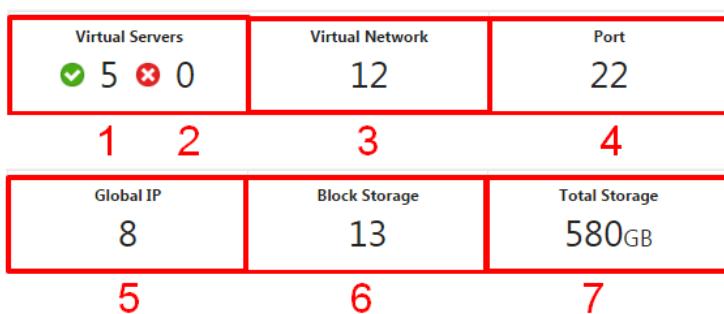


Figure 22 Resource Usage List

Chapter 6 Virtual Server

6.1 Virtual Servers List

You can check the list and status of the virtual servers created in the project.

Virtual Server N...	Status	IP Address	AZ	Action
floatingTestServer01	ACTIVE	192.168.22.2	jp-west-2a	ACTION ▾

Figure 23 Virtual Server List

Table 6 Virtual Server List Table

No.	Item Name	Description
1	Virtual Server Name	Name of a virtual server
2	Status	Refer to Table 7 Virtual Server Status Virtual Server Status
3	IP Address	IP address of a virtual server Display multiple lines if you have multiple IP addresses
4	AZ	The availability zone in which virtual servers reside
5	Action	Various operations on virtual servers

Table 7 Virtual Server Status

No.	Status	Description
1	ACTIVE	Active State
2	BUILD	Build State
3	DELETED	Deleted State
4	ERROR	Error State
5	HARD_REBOOT	Forced Reboot State
6	MIGRATING	Migration State
7	PASSWORD	Password Setting State
8	PAUSED	Paused state

9	REBOOT	Reboot State
10	REBUILD	Rebuild State
11	RESCUE	Rescue State
12	RESIZE	Resize State
13	REVERT_RESIZE	Revert Resize State
14	SHELVED	Released State (Resource Pending)
15	SHELVED_OFFLOADED	Released State
16	SHUTOFF	Stopped State
17	SOFT_DELETED	Deleted State (Disk is suspended)
18	SUSPENDED	Suspend State
19	UNKNOWN	Unknown State
20	VERIFY_RESIZE	Verify Resize State

6.1.1 Action



Figure 24 Virtual Server Action

We will provide the following as actions of the virtual server list.

1. Resize
Please refer to Resize Virtual Server.
2. Soft Reboot
Restart a virtual server.
3. Hard Reboot
Turn off an instance, then back on
4. Shutdown
Shutdown a virtual server.
5. Shelve
Shelve a virtual server.
6. Remote Console
Open Remote Console.
Some browsers are blocked by pop-ups. In that case please allow pop-ups.
7. Edit
Please refer to Edit Virtual Server.
8. Delete
Delete a virtual server.
9. Start-up
Start a virtual server.
10. Restore
Restore a virtual server.

6.2 Virtual Server Details

You can open virtual server details by clicking a virtual server name in a virtual server list.

Detailed information on a virtual server not displayed in a virtual server list is displayed.

The screenshot shows a user interface for viewing virtual server details. At the top, the virtual server name "floatingTestServer01" is displayed, along with a "BACK" button. Below this, there are two main sections: "Information" and "Spec".

Information:

Virtual Server Name	floatingTestServer01
Virtual Server ID	[REDACTED]
Status	ACTIVE
AZ	jp-west-2a
Date and Time of Creation	2017-01-31T01:47:07Z

Spec:

Virtual Server Type	P-1
Memory	512

Figure 25 Virtual Server Details

Table 8 Virtual Server Details

No.	Classification	Item Name	Description
1	Information	Virtual Server Name	Name of a virtual server
2		Virtual Server ID	Unique value
3		Status	Status of a virtual server
4		AZ	Availability Zone
5		Date and Time of Creation	Date and Time of Creation
6	Spec	Virtual Server Type	Specification of a virtual server
7		Memory	Memory Size
8		Virtual CPU	Number of CPUs

9	Connected Disk	Access Point	Connection Block Storage
10	Port	Port Name	Port Name
11		Virtual Network Name	Virtual Network Name
12		IP Address	IP Address
13		Global IP	Displayed when global IP address is set.
14		Security Group	Security Group Name
15		Action	Various operations on ports

6.2.1 Action

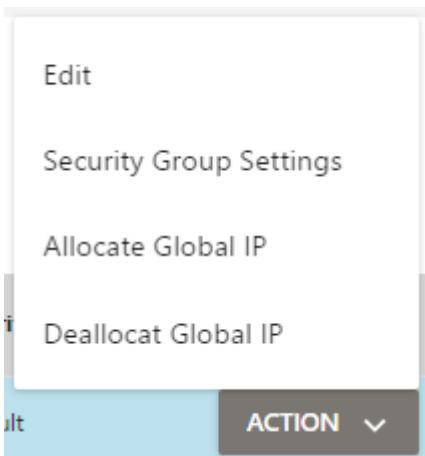


Figure 26 Port Action

As a port action it provides the following.

1. Edit
2. Security Group Settings
3. Allocate Global IP
4. Deallocate Global IP

6.3 Create Virtual Server

This is the GUI when creating a new virtual server. Click Create icon of Virtual Server List.

6.3.1 How to Create Virtual Server

When creating a virtual server, it is necessary to create a virtual network in advance.

1. Click an icon of virtual server list
2. Set the following and click "Next".

Create Virtual Server CANCEL

1 Virtual Server —— 2 Virtual Network —— 3 Access and Security —— 4 Post Creation —— 5 Confirmation

AZ	<input type="text"/>
Virtual Server Name	<input type="text"/>
Virtual Server Type	<input type="text"/> • Virtual CPU : • Memory :
Boot Source	<input type="text"/>
Device Name	<input type="text"/> /dev/vd

Back NEXT

Figure 27 Create Virtual Server (Virtual Server)

- AZ
- Virtual Server Name
- Virtual Server Type
- Boot Source
 - When "Storage" is selected, set the following.
 - ✧ Storage of AZ
 - ✧ Device name
 - When "Image" is selected, set the following.
 - ✧ Image
 - ✧ Device Size

- ✧ Device Name
 - When "Snapshot" is selected, set the following.
 - ✧ Storage Snapshot
 - ✧ Device Name
3. Set the following and then click "Next".

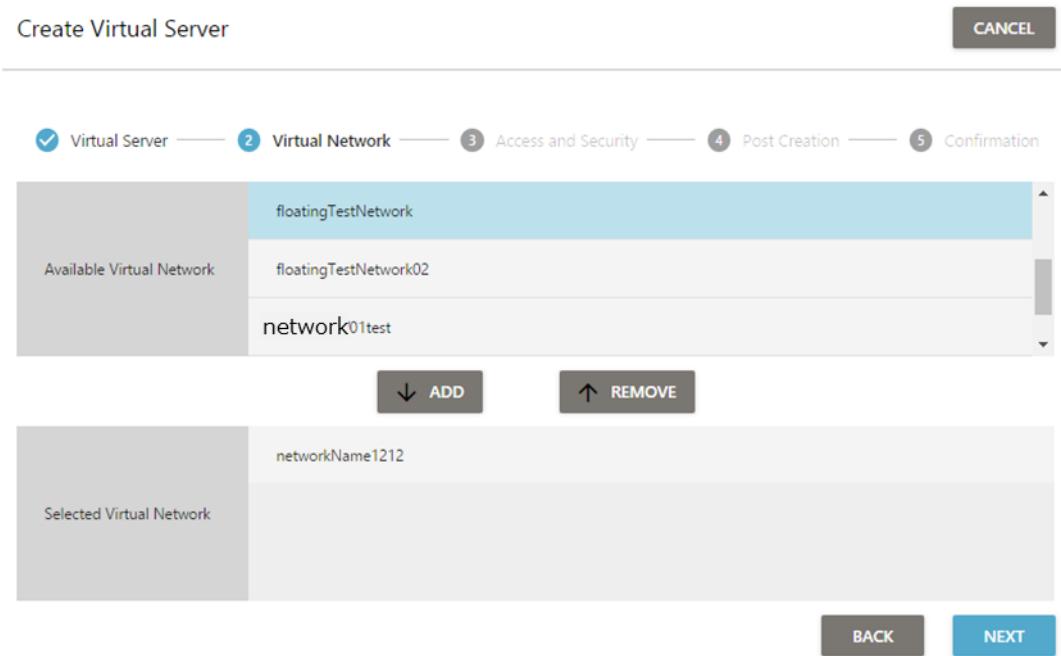


Figure 28 Create Virtual Server (Virtual Network)

- Virtual Network
4. Set the following and click "Next".

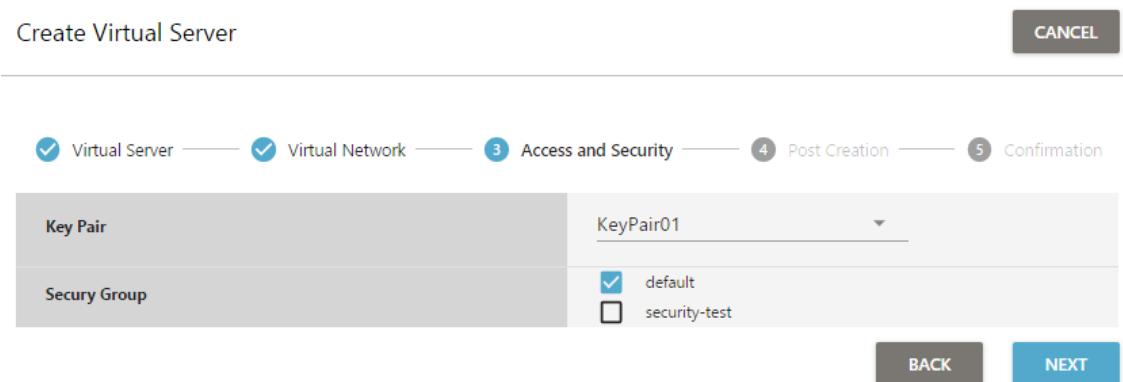


Figure 29 Create Virtual Server (Access and Security)

- Key Pair
 - Security Group
5. Set the following and then click "Next".
-
- The screenshot shows a software interface for creating a virtual server. At the top, there's a header 'Create Virtual Server' and a 'CANCEL' button. Below the header, a progress bar indicates five steps: 'Virtual Server' (checked), 'Virtual Network' (checked), 'Access and Security' (checked), 'Post Creation' (step 4, indicated by a blue circle with the number 4), and 'Confirmation' (step 5, indicated by a blue circle with the number 5). The 'Post Creation' step is currently active. A large grey box below the progress bar contains the text 'Provisioning Script'. At the bottom right, there are 'BACK' and 'NEXT' buttons.
- Figure 30 Create Virtual Server (Option)**
- Provisioning Script
6. Confirm the settings so far on the confirmation window. If there is no problem, click "Create".
Please return to the virtual server list and make sure that the state of the created virtual server is "BUILD". It will become available when the status is changed to "Active".

Create Virtual Server CANCEL

Virtual Server Name: test

Virtual Server Type: P-1
Virtual CPU : 1
Memory : 512MB

Boot Source: Image
Image: CentOS 6.8 64bit (English) 01

Device Size (GB): 10

Post Creation

Provisioning Script

BACK CREATE

Figure 31 Create Virtual Server (Confirmation)

6.4 Edit Virtual Server

You can edit a server name of a virtual server. You can make transition from "Edit" in the pull-down of the action of the virtual server you want to edit on the virtual server list window.

6.4.1 How to Edit Virtual Server

1. Click the "Edit" from the pull-down of the virtual server that you want to edit on the virtual server list window.

Virtual Server Name	Status	IP Address	AZ	Action
floatingTestServer01	ACTIVE	192.168.22.2	jp-west-2a	ACTION ▾
<div style="background-color: #f0f0f0; padding: 5px;">Resize Soft Reboot Hard Reboot Shutdown Shelve Remote Console Edit </div>				

Figure 32 Virtual Server List

2. On the Edit Virtual Server window, enter a new virtual server name and click "Update".

Edit Virtual Server

[CANCEL](#) [UPDATE](#)

Virtual Server Name	<input type="text" value="TestServer01"/>
---------------------	---

Figure 33 Edit Virtual Server

6.5 Resize Virtual Server

You can change the specifications (number of virtual CPUs etc.) of a virtual server. You can make transition from "Resize" of the action pull down of the virtual server you want to change on the virtual server list window.

6.5.1 How to Resize Virtual Server

1. Click "Resize" from the pull-down of the virtual server you want to edit on the virtual server list window.



Figure 34 Resize

2. Select a new flavor. Number of virtual CPUs, memory size after resizing can be confirmed in the flavor details..

A screenshot of a 'Resize Virtual Server' dialog box. At the top left is the title 'Resize Virtual Server'. At the top right are two buttons: 'CANCEL' and 'RESIZE'. The main area has two sections: 'Current Flavor' (showing 'P-1') and 'New Flavor' (a dropdown menu currently set to 'New Flavor'). Below these is a section titled 'Flavor Details' containing three input fields: 'Virtual Server Type', 'Virtual CPU', and 'Memory'. The 'Virtual Server Type' field contains the text 'Virtual Server Type'. The 'Virtual CPU' field contains the text 'Virtual CPU'. The 'Memory' field contains the text 'Memory'.

Figure 35 Resize Virtual Server

3. If there is no problem with the new flavor, click "Resize" button.
4. This completes resizing a virtual server. Return to the server list window, and it will become available when the status is changed to "ACTIVE".

Chapter 7 Key Pair

7.1 Key Pair List

You can check the list and status of the key pair created in a project.

Key Pair List		
		<input type="button" value="Import Key Pair"/>
<input type="text"/> Filter		1 - 4 of 4 items
Key Pair Name	Fingerprint	Action
KeyValuePair1	[REDACTED]	<input type="button" value="Delete"/>
KeyValuePair2	[REDACTED]	<input type="button" value="Delete"/>
KeyValuePair3	[REDACTED]	<input type="button" value="Delete"/>
KeyValuePair4	[REDACTED]	<input type="button" value="Delete"/>

Figure 36 Key Pair List

Table 9 Displayed Contents of Key Pair List Table

No.	Item Name	Description
1	Key Pair Name	Key Pair Name
2	Fingerprint	Fingerprint of key pair
3	Action	Deletion of key pair

7.2 Key Pair Creation

Newly create the key pair to be used at the time of logging in to the virtual server.

7.2.1 How to Create a Key Pair

1. Click the creation icon “+” on the key pair list screen and display the key pair creation screen.
2. On the “Key Pair Details” step screen, set the below information and click “Next Page”.

Create Key Pair

Key Pair Details		Confirmation
Key Pair Name *	test	
AZ *	jp-east-1a	
Cancel Next Page		

Figure 37 (Entry of Key Pair Details information)

- Key Pair Name
 - AZ
3. Check the setting contents you have entered so far on “Confirmation” screen. If there is no problem, click “Create”.

Create Key Pair

Key Pair Details		Confirmation
Key Pair Name	test	
AZ	jp-east-1a	
Cancel Back Create		

Figure 38 (Confirmation for Setting Contents)

- If a key pair has been created, a private key is then started to be downloaded. Keep it in a secure location.

7.3 Key Pair Import

Import the key pair created in another place in order to use it in the virtual server of K5. Here register a public key only.

7.3.1 How to import the key pair

- Click “Import Key Pair” on the Key Pair List screen.
- Set the below information and click “Create”

Key Pair Details		Confirmation
Key Pair Name *	test	
Public Key *	ssh-rsa AAAAB3NzaC1yc2EAAAQEA... <small>7RgU0MyY8eXSHlt1DBICBv943Raauis46s9F5TApaGfHq/tDvPb7gvMsjCd0Gz qGzQfxw== Generated by Nova</small>	
AZ *	jp-east-1a	

[Cancel](#)
[Next Page](#)

Figure 39 (Entry of key pair details information)

- Key Pair Name
 - Public Key
 - AZ
- Check the setting contents you have entered so far on the confirmation screen. If there is no problem, click “Create”.

Import Key Pair

Key Pair Details Confirmation

Key Pair Name	test
Public Key	ssh-rsa AAAAB3NzaC1yc2EAAAQEA... zQfxw== Generated by Nova
AZ	jp-east-1a

Cancel Back Create

Figure 40 Confirmation of Setting Contents

7.4 Key Pair Details

Click the key pair name on the key pair list to open “Key Pair Details” screen.
Check the detailed information not displayed on the key pair list.

Detail Key Pairs		Back to the List
Key Pair Name	kp_test_0306_2	
Created At	2017-03-06 00:53:10Z	
Fingerprint	[REDACTED]	
Public Key	ssh-rsa AAAAB3NzaC1yc2EAAAQEA... AzT8SFnw== Generated by Nova	
AZ	jp-east-1a	

Figure 41 Key Pair Details

Table 10 Displayed Contents of Key Pair Details

No.	Category	Item Name	Displayed Contents
1	Key Pair Details	Key Pair Name	Key Pair Name
2		Created At	Created At
3		Fingerprint	Fingerprint of Key Pair
4		Public Key	A string of the key of a key pair
5		AZ	Availability Zone where a key pair exists

7.5 Key Pair Deletion

You can delete a key pair.

7.5.1 How to delete a key pair

1. On “Key Pair List” screen, click the “Delete” button of the key pair you want to delete.

Key Pair Name	Fingerprint	Action
KeyPair1	[REDACTED]	
KeyPair2	[REDACTED]	Delete

Figure 42 Key Pair List (Deletion)

2. If you check the contents to be deleted and there is no problem, click “Delete” button.

Delete Key pair

Delete the following Key Pair.

KeyPair1

 Delete  Cancel

Figure 43 Confirmation Dialogue of Deletion

Chapter 8 Image

8.1 Image List

You can check an available image list and status, etc.

Image Name	Status	Visibility	Protected	Disk Format	Action
Red Hat Enterpr...	active	public	true	qcow2	ACTION ▾
CentOS 6.8 64b...	active	public	true	qcow2	ACTION ▾
Windows Server...	active	public	true	qcow2	ACTION ▾
Windows Server...	active	public	true	qcow2	ACTION ▾
Windows Server...	active	public	true	qcow2	ACTION ▾

Figure 44 Image List

Table 11 Image List Table

No.	Item Name	Description
1	Image Name	Name of an image
2	Status	Status of an image
3	Visibility	Visibility of an image
4	Protection	Protected or not
5	Disk Format	Format of an image disk
6	Action	Various operations on an image

8.1.1 Action

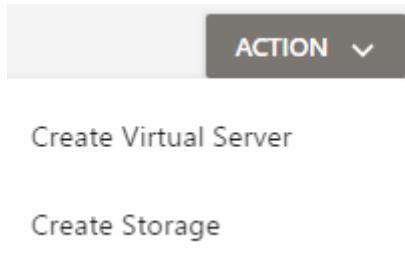


Figure 45 Images Action

Provides the following as an action of an image list.

1. Create Virtual Server

Create a virtual server based on the selected image. For the virtual server creation, refer to Create Virtual Server.

2. Create Storage

Create storage based on the selected image. For the storage details, refer to Create Storage.

8.2 Image Details

You can open image details by clicking an image name on an image list.
Detailed information on an image not displayed in an image list is displayed.

Red Hat Enterprise Linux 6.8 64bit (English) 01

BACK

Information

Image Name	Red Hat Enterprise Linux 6.8 64bit (English) 01
Image ID	83278dcc-d2b2-41f3-9154-d10c7bb778e9
Status	active
Visibility	public
Protected	true
Checksum	e84976c1ce9ada1caa7adefc94565f86
Date and Time of Creation	2017-02-24T10:17:32Z
Update Date	2017-02-28T01:02:37Z

Figure 46 Image List

Table 12 Image Details

No.	Classification	Item Name	Description
1	Information	Image Name	Image Name
2		Image ID	ID to identify an image in unique
3		Status	Status
4		Visibility	Visibility
5		Protection	Protection
6		Checksum	Checksum of an image
7		Date and Time of Creation	Date and Time of Creation
8		Date Updated	Date Updated
9	Spec	Size	Size
10		Storage Format	Storage Format
11		Disk Format	Disk Format
12		Minimum Disk	Minimum Disk Size
13	Custom Attribute	Attribute Name	Customized attributes of the image

Chapter 9 Schedule

9.1 Schedule List

You can check a list and status of schedule created in a project.

Schedule List		
<input type="text"/> Filter		1 - 20 of 22 items
Schedule Name	Time of Execution	Action
dairy103	Daily 08:10	
month001	Monthly 10 09:20	
dairy1234567890	Weekly Tue,Wed,Thu 10:15	
dairy201	Monthly 10 08:50	
dairy105	Weekly Tue,Thu,Sat 12:30	

Figure 47 Schedule List

Table 13 Schedule List Table

No.	Item Name	Description
1	Schedule Name	Name of a Schedule
2	Time of Execution	Time of Schedule Execution
3	Action	Deletion of Schedule

9.2 Create Schedule

This is the GUI when creating a new schedule .Click Create icon of Schedule List

9.2.1 How to Create Schedule

When creating a Schedule, it is necessary to create a stack including schaling policy.

7. Click an icon of schedule list
8. Set the following and click "Next".

The screenshot shows a 'Create Schedule' interface with three tabs: 'Schedule Information' (selected), 'Execution URL', and 'Confirmation'. The 'Schedule Information' tab contains fields for 'Schedule Name' (containing 'test') and 'Time of Execution'. A 'Setting' button is located next to the execution time field. At the bottom right are 'Cancel' and 'Next Page' buttons.

Figure 48 Entry of Schedule Details information

- Schedule Name
- Time of Execution

Click "Setting" and set the following.

- If "Monthly" is selected, set the below information

The screenshot shows a 'Time of Execution Setting' dialog for 'Monthly' mode. It includes fields for 'Day', 'Hour', and 'minutes', each with validation messages. At the bottom are 'Setting' and 'Cancel' buttons.

Figure 49 Time of Execution Setting(Monthly)

- ✧ Day
- ✧ Hour
- ✧ minutes

- If “Weekly” is selected, set the below information

The screenshot shows a dialog box titled "Time of Execution Setting". It has a "MODE" section with radio buttons for "Monthly", "Weekly" (selected), "Daily", and "Hourly", and a "cron" option. Below this is a "WEEK" section with checkboxes for days of the week: Mon, Tue, Wed, Thu, Fri, Sat, and Sun. Under "Hour" and "minutes", there are input fields with validation messages: "Please enter between 0 and 23." and "Please enter between 0 and 59.". At the bottom are "Setting" and "Cancel" buttons.

Figure 50 Time of Execution Setting(Weekly)

- ❖ Week
- ❖ Hour
- ❖ minutes

- If “Daily” is selected, set the below information

The screenshot shows a dialog box titled "Time of Execution Setting". It has a "MODE" section with radio buttons for "Monthly", "Weekly", "Daily" (selected), and "Hourly", and a "cron" option. Below this is a "Hour" section with an input field and a validation message: "Please enter between 0 and 23.". Under "minutes", there is another input field with a validation message: "Please enter between 0 and 59.". At the bottom are "Setting" and "Cancel" buttons.

Figure 51 Time of Execution Setting(Daily)

- ❖ Hour
- ❖ minutes

- If “Hourly” is selected, set the below information

Time of Execution Setting

MODE *

Monthly Weekly Daily Hourly
 cron

minutes * Please enter between 0 and 59.

Setting **Cancel**

Figure 52 Time of Execution Setting(Hourly)

❖ minutes

- If “cron” is selected, set the below information

Time of Execution Setting

MODE *

Monthly Weekly Daily Hourly
 cron

CRON format * Please enter with cron.

Setting **Cancel**

Figure 53 Time of Execution Setting(cron)

❖ CRON format

1. Set the following and click "Next"

Create Schedule

Schedule Information Execution URL Confirmation

Stack *	Please select
Resource *	
Execution URL	

Cancel **Back** **Next Page**

Figure 54 Setting Execution URL

- Stack
- Resource
- Execution URL

Execution URL is automatically set from “Stack” and “Resource”.

2. Confirm the settings so far on the confirmation window. If there is no problem, click "Create"

Create Schedule

Schedule Information Execution URL Confirmation

Schedule Name	test
Time of Execution	Hourly 10
Execution URL	https://orchestration.jp-west-2.cloud.global.fujitsu.com/v1/ .../ resources/web_server_scaleup_policy/signal

Cancel Back Create

Figure 55 Confirmation for Setting Contents

9.3 Schedule Details

Click the schedule name on the schedule list to open “Schedule Details” screen.

Check the detailed information not displayed on the schedule list.

Schedule Details		Back to the List
Schedule Information		
Schedule Name	dairy103	
Time of Execution	Daily 08:10	
Execution URL	https://orchestration.jp-west-2.cloud.global.fujitsu.com/v1:/resources/web_server_scaleup_policy/signal	

Figure 56 Schedule Detail

Table 14 Displayed Contents of Schedule Details

No.	Category	Item Name	Displayed Contents
1	Schedule Details	Schedule Name	Schedule Name
2		Time of Execution	Time of Schedule Execution
3		Execution URL	Execution URL

9.4 Schedule Deletion

You can delete a schedule.

9.4.1 How to delete Schedule

On “Schedule List” screen, click the “Delete” button of the schedule you want to delete

Schedule Name	Time of Execution	Action
dairy103	Daily 08:10	
month001	Monthly 10 09:20	

Figure 57 Schedule List

1. If you check the contents to be deleted and there is no problem, click “Delete” button.

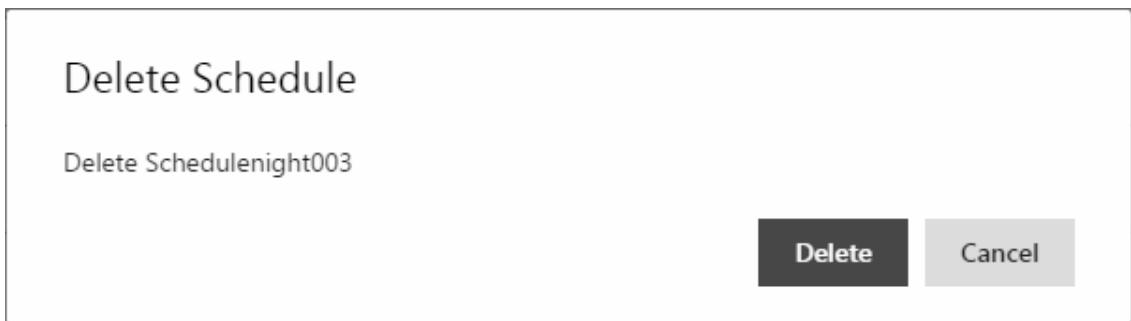


Figure 58 Confirmation Dialogue of Deletion

Chapter 10 Storage

10.1 Storage List

You can check a list and status of block storage created in a project.

Block Storage N...	Status	Connected Virtu...	Size (GB)	AZ	Action
(a6ba7b19-540e-4509	in-use	errorServerTo /dev/vdeConnected tc	30GB	jp-west-2a	ACTION ▾

Figure 59 Storage List

Table 15 Storage List Table

No.	Item Name	Description
1	Storage Name	Name of a Storage
2	Status	Major Storage Status <ul style="list-style-type: none">● in-use : In use● creating : Creating● available : Available
3	Access Point	Access point when connected to a virtual server.
4	Capacity	Storage Capacity
5	AZ	Availability zone in which a storage resides
6	Action	Various operations on a storage

10.1.1 Action

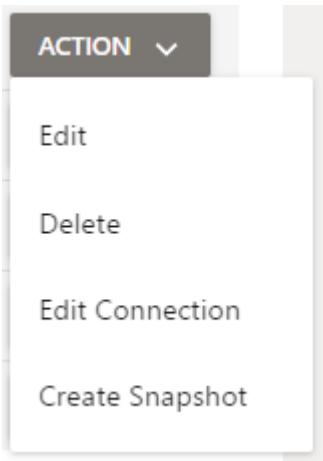


Figure 60 Storage Action

Provide the following as actions of a storage list.

1. Edit Storage
Please refer to Edit Storage.
2. Delete Storage
Delete a storage.
3. Edit Connection
Please refer to Edit Storage Connection.
4. Create Snapshot
Please refer to Create Snapshot.

10.2 Storage Details

You can open storage details by clicking a storage name of a storage list.
Detailed information on a storage not displayed in a storage list is displayed.

The screenshot shows a storage details interface. At the top left is the storage ID: (a6ba7b19-540e-4509-93f9-7d7b7aac7ac). At the top right is a 'BACK' button. Below the header, there are two tabs: 'Information' and 'Spec'. The 'Information' tab is active, displaying the following data in a table:

Storage Name	[REDACTED]
ID	[REDACTED]
Status	in-use
AZ	jp-west-2a

The 'Spec' tab is shown below, also in a table format:

Size (GB)	30GB
Date and Time of Creation	2017-02-07T05:27:06.000000

Figure 61 Storage Details

Table 16 Virtual Server Details

No.	Classification	Item Name	Description
1	Information	Storage Name	Storage Name
2		Storage ID	Storage ID
3		Status	in-use, etc
4		AZ	Availability Zone
5	Spec	Capacity	Storage Capacity
6		Date and Time of Creation	Date and Time of Creation
7	Connection Status	Access Point	Connected Device
8	Metadata	-	Combination of Key-Value

10.3 Create Storage

This is the GUI when creating a new storage. You can make transition from an icon on a storage list window.

10.3.1 How to Create Storage

1. Click an icon on a storage list window..
2. Set the following and click "Create".

The screenshot shows a 'Create Storage' dialog box. At the top right are two buttons: 'CANCEL' and 'CREATE'. The main area contains several input fields and dropdown menus:

- Storage Name:** A text input field.
- Description:** A text input field.
- Type:** A dropdown menu.
- Size (GB):** A text input field with 'GB' units indicated.
- Storage Source:** A dropdown menu.
- AZ:** A dropdown menu.

Figure 62 Create Storage

- Storage Name
- Description
- Type
- Capacity
- Storage Source
 - Select a snapshot name to use if you select "snapshot".
 - Select images and AZ if you select "image".
 - Select a storage to use if you select "storage".

10.4 Edit Storage

10.4.1 How to Edit Storage

The screenshot shows a user interface for editing storage. At the top left is the title "Edit Storage". At the top right are two buttons: "CANCEL" and "UPDATE". Below the title is a horizontal line. The main area contains two input fields. The first field is labeled "Storage Name" and has a dotted placeholder text. The second field is labeled "Description" and also has a dotted placeholder text. The entire form is contained within a light gray border.

Figure 63 Edit Storage

You can edit the following. Click "Update" after editing.

- Storage Name
- Description

10.5 Edit Storage Connection

If a selected storage is connected to a virtual server, you can detach.

10.6 Create Snapshot

10.6.1 How to Create Snapshot

1. Enter the following in Create Snapshot window, and click "Create".

Create Snapshot	<input type="button" value="CANCEL"/>	<input type="button" value="CREATE"/>
Snapshot Name	<input type="text"/>	
Description	<input type="text"/>	

Figure 64 Create Snapshot

- Snapshot Name
- Description

Chapter 11 Virtual Network

11.1 Virtual Network List

You can check the list and status of virtual networks created in the project.

Virtual Network...	Status	Allocated Subnet	AZ	Shared	Management St...	Action
floatingTestNetw...	ACTIVE	192.168.22.0/24	jp-west-2a	No	UP	ACTION ▾
floatingTestNetw...	ACTIVE	192.168.40.0/24	jp-west-2a	No	UP	ACTION ▾

Figure 65 Virtual Network List

Table 17 Virtual Network List

No.	Item Name	Description
1	Virtual Network Name	Name of a virtual network
2	Status	Network Status
3	Allocated Subnet	Allocated Subnet
4	AZ	Availability Zone in which a virtual network resides
5	Shared	Shared Status
6	Management State	Management State
7	Action	Various operations on a virtual network

11.1.1 Action

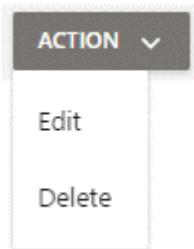


Figure 66 Virtual Network Action

As actions of a virtual network list we provide the following.

1. Edit
Please refer to Edit Virtual Network.
2. Delete
Delete a virtual network.

11.2 Virtual Network Details

You can open virtual network details by clicking a virtual network name in the virtual network list.

Display detailed information on a virtual network that is not displayed in a virtual network list.

The screenshot shows a user interface for viewing virtual network details. At the top left is the network name "floatingTestNetwork01". At the top right is a "BACK" button. Below this is a section titled "Virtual Network Overview" containing a table with the following data:

Virtual Network Name	floatingTestNetwork01
Virtual Network ID	[REDACTED]
Project ID	[REDACTED]
AZ	jp-west-2a
Status	ACTIVE
Management State	UP

Figure 67 Virtual Network Details

Table 18 Virtual Network Details

No.	Classification	Item Name	Description
1	Virtual Network Overview	Virtual Network Name	Name of a virtual server
2		Virtual Network ID	Unique Value
3		Project ID	Virtual Server Status
4		AZ	Availability Zone
5		Status	Always ACTIVE
6		Management State	UP / DOWN
7		Shared	Yes / No
8		External Virtual Network	Yes / No
9		Provider Virtual Network	-
10	Subnet	Subnet Name	Subnet Name
11		Virtual Network Address	Virtual Network Address
12		IP Version	IPv4 / IPv6
13		Gateway IP	Set Gateway IP
14		Action	Various operations on subnet
15	Port	Port Name	Port Name
16		Private IP	Private IP
17		Connected Device	Type of Connected Device
18		Connected Virtual Server	Virtual Server ID
19		Status	ACTIVE, etc.
20		Management State	UP / DOWN
21		Action	Edit operation for port

11.2.1 Action for Subnet

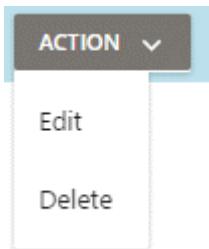


Figure 68 Subnet Action

As subnet actions, it provides the following.

1. Edit (edit subnet name, select Gateway "Yes" or "No")
2. Delete

11.2.2 Action for Port

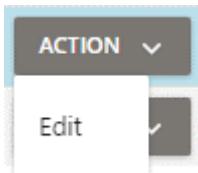


Figure 69 Port Action

As port actions, it provides the following.

1. Edit (edit a port name, select an management state "UP" or "DOWN", edit a private IP address)

11.3 Create Virtual Network

This is a screen to create a new virtual network. Click Create icon of Virtual Network List window.

11.3.1 How to Create Virtual Network

1. Click an icon of virtual server list window.
2. Set the following and click "Next".

Create Virtual Network CANCEL

1 Virtual Network ————— 2 Subnet ————— 3 Subnet Detail ————— 4 Confirmation

AZ	
Virtual Network Name	
Management State	UP

Back NEXT

Figure 70 Create Virtual Network (Virtual Network)

- AZ
- Virtual Network Name
- Management State

3. Set the following and click "Next".

The screenshot shows a step-by-step wizard for creating a virtual network. The current step is 'Subnet' (Step 2). The interface includes a 'Create Subnet' section with fields for 'Subnet Name', 'Virtual Network Address', 'Virtual Network ID', 'Gateway', and 'Gateway IP'. A dropdown menu for 'Exist' is set to 'Exist'. Navigation buttons at the bottom are 'BACK' and 'NEXT'.

Figure 71 Create Virtual Network (Subnet)

- Create Subnet (Yes/No)
- Subnet Name
- Virtual Network Address (e.g..192.168.0.0/24)
- Gateway (Yes/No)
- Gateway IP

4. Set the following and click "Create".

The screenshot shows the 'Subnet Details' step of the wizard (Step 3). It includes sections for 'DHCP' (set to 'Enabled'), 'IP Address Allocation Pool' (with an 'Add' button), 'DNS Server' (with an 'Add' button), and 'Adding a Route Setting' (with an 'Add' button). Navigation buttons at the bottom are 'BACK' and 'NEXT'.

Figure 72 Create Virtual Network (Subnet Details)

- DHCP (Enable/Disable)
 - IP Address Allocation Pool
- Click "Add" to assign multiple address ranges.

- DNS Server
Click "Add" to set multiple DNS servers.
 - Adding a Routing Setting
Click "Add" to set multiple routes.
5. Confirm the settings so far on the confirmation window. If there is no problem, click "Create".

Create Virtual Network CANCEL

✓ Virtual Network ✓ Subnet ✓ Subnet Detail 4 Confirmation

Virtual Network

AZ	jp-west-2a AZ
Virtual Network Name	vnet1
Management State	UP

Subnet

Create Subnet	Exist
Subnet Name	subnt1
Virtual Network Address	192.168.1.0

Subnet Detail

DHCP	Enabled
IP Address Allocation Pool	192.168.1.10 - 192.168.1.20
DNS Server	
Adding a Route Setting	Destination Nexthop

BACK CREATE

Figure 73 Confirmation of Setting Details

11.4 Edit Virtual Network

11.4.1 How to Edit Virtual Network

You can edit the following. After editing, click "Update".



The screenshot shows a dialog box titled "Edit Virtual Network". At the top right are two buttons: "CANCEL" and "UPDATE". Below the title, there are two input fields. The first field is labeled "Virtual Network Name" and contains the value "floatingTestNetwork01". The second field is labeled "Management State" and has a dropdown menu showing the value "UP".

Virtual Network Name	<input type="text" value="floatingTestNetwork01"/>
Management State	<input type="text" value="UP"/>

CANCEL UPDATE

Figure 74 Edit Virtual Network

- Virtual Network Name
- Management State (UP/ DOWN)

Chapter 12 Security Group

12.1 Security Group List

You can check the list and status of the security group created in a project.

Security Group List		
<input type="text"/> SecurityGroup X		+/-
Security Group Name	Description	Action
SecurityGroup1	SecurityGroup1	Action ▾
SecurityGroup2	SecurityGroup2	Action ▾
SecurityGroup3	SecurityGroup3	Action ▾
SecurityGroup4	SecurityGroup4	Action ▾

Figure 75 Security Group List

Table 19 Displayed Contents of Security Group List Table

No.	Item Name	Description
1	Security Group Name	Security Group Name
2	Description	Description of Security Group
3	Action	Various Operations for Security Group

12.1.1 About Operation

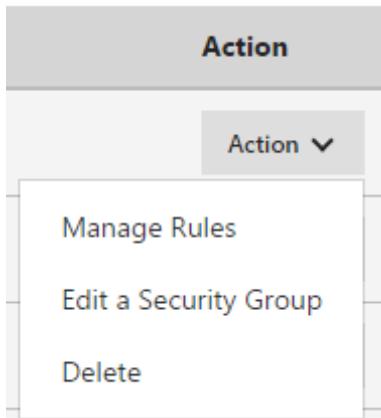


Figure 76 Security Group Action

See below for the operations for security group.

1. Manage Rules
See 12.4,12.5,12.6 and 12.7.
2. Edit a Security Group
See 12.9.
3. Delete
See 12.10.

12.2 Security Group Creation

Newly create a security group.

12.2.1 How to create a security group

1. Click the creation icon “+” at the upper right on the security group list screen.
2. Set the below information and click “Next Page”.

Create a Security Group

Security Group Details		Confirmation
Security Group Name *	test	
Description	Please enter within 255 bytes	

Cancel **Next Page**

Figure 77 (Security Group Details)

- Security Group Name
 - Description
3. Check the setting contents you have entered so far on the confirmation screen. If there is no problem, click “Create”.

Create a Security Group

Security Group Details		Confirmation
Security Group Name	test	
Description		

Cancel **Back** **Create**

Figure 78 Confirmation for Setting Contents

12.3 Security Group Details

Click Security Group Name on the security group list to open the Security Group Details.

You can check the detailed information not displayed on the security group list.

The screenshot shows the 'Security Group Details' page. At the top, there are buttons for 'Back to Security Group List' and 'Manage Rules'. Below this, the 'Security Group Details' section contains fields for 'Security Group Name' (default), 'Security Group ID' (redacted), and 'Description' (default). Under the 'Applied Rule' section, there is a table with columns: Direction, IP Version, Protocol, Port Range, and Connected to. The table shows two entries: one for ingress IPv6 with port range '-' and connected to 'default', and another for ingress IPv4 with port range '-' and connected to 'default'. A filter bar at the top of the rule table allows searching and filtering.

Figure 79 Security Group Details

Table 20 Displayed Contents of Security Group Details

No.	Category	Item Name	Description
1	Security Group Details	Security Group Name	Security Group Name
2		Security Group ID	Security Group ID
3		Description	Description of Security Group
4	Applied Rule	Direction	ingress/egress
5		IP Version	IPv4/IPv6
6		Protocol	TCP / UDP / ICMP / Other protocols
7		Port Range	Port Range * In case of "ICMP" specified as protocol, this value should be

			ICMP type and code.
8		Connected to	Connected to

12.4 Manage Security Group Rules

You can check the list and status of the security group and add/import/export rules.

Direction	IP Version	Protocol	Port Range	Connected to	Action
egress	IPv6	-	-	-	Delete
egress	IPv4	-	-	-	Delete

Figure 80 Security Group Rule Management

Table 21 Displayed Contents of Manage Security Group Rules

No.	Item Name	Description
1	Security Group Name	Security Group Name
2	Direction	ingress/egress
3	IP Version	IPv4/IPv6
4	Protocol	HTTP / HTTPS / TCP / SSL
5	Port Range	Port Range
6	Connected to	Destination of Connection
7	Action	Deletion of security group rules

12.4.1 How to Transfer to the Rule Management Screen

On the security group list, select “Manage Rules” from the pull-down menu of the security group you want to manage for its rules, or click “Manage Rules” button on the Security Group Details screen to go to the Rule Management screen.

Security Group Name	Description	Action
SecurityGroup1	SecurityGroup1	Action ▾
SecurityGroup2	SecurityGroup2	Manage Rules 
SecurityGroup3	SecurityGroup3	Edit a Security Group Delete

Figure 81 Security Group List (Rule Management)

Security Group Details		Back to Security Group List	Manage Rules
Security Group Details			
Security Group Name	SecurityGroup1		
Security Group ID	[REDACTED]		
Description	SecurityGroup1		
Applied Rule			
Direction	IP Version	Protocol	Port Range
egress	IPv6	-	
egress	IPv4	-	

Figure 82 Security Group Details (Rule Management)

12.5 Addition of Rules

You can newly add the rules to an existing security group.

12.5.1 How to Add Rules

1. Click “Add Rule” button on the Manage Security Group Rules screen.



Figure 83 Rule Management (Rule Addition)

2. Set the below information and click “Add”. (*1)

A screenshot of the "Add Rule" dialog box. It contains the following fields:

- Rule *: Custom TCP Rule
- Direction *: Receive
- Open Port *: Port
- Port *: Please enter port number.
- Connected to *: CIDR
- CIDR *: Please enter IP address.

At the bottom right of the dialog are two buttons: "Add" and "Cancel".

Figure 84 Add Rule

- Rule
 - If “Custom TCP Rule” or “Custom UDP Rule” is selected, set the below information.
 - ✧ Direction (Receive/Send)
 - ✧ Open Port (Port/Port Range)
 - ✧ Connected to (CIDR/Security Group)
 - If “Custom ICMP Rule” is selected, set the below information.
 - ✧ Direction (Receive/Send)
 - ✧ Type
 - ✧ Code

- ✧ Connected to (CIDR/Security Group)

- If you select “Other Protocols”, set the below information.
 - ✧ Direction (Receive/Send)
 - ✧ IP Protocol
 - ✧ Connected to (CIDR/Security Group)

- If you select “ALL ICMP”, “ALL TCP”, or “ALL UDP”, set the below information.
 - ✧ Direction (Receive/Send)
 - ✧ Connected to (CIDR/Security Group)

- If you select “DNS”, “HTTP”, “HTTPS”, “IMAP”, “IMAPS”, “LDAP”, “MS SQL”, “MY SQL”, “POP3”, “POP3S”, “RDP”, “SMTP”, “SMTPS”, or “SSH”, set the below information.
 - ✧ Direction (Receive/Send)
 - ✧ Connected to (CIDR/Security Group)

*1

In “Add Rule”, you cannot add the same rule as the one added by default when a security group is created. If you want to add the same rule, export the default rule and import it. See 12.6 for how to export and 12.7 for how to import.

Direction	IP Version	Protocol	Port Range	Connected to
egress	IPv6	-	-	-
egress	IPv4	-	-	-

Figure 85 Rule Management (Default Rules)

12.6 Export Rules

You can export rules.

12.6.1 How to Export Rules

1. Click “Export” button on the Manage Security Group Rules screen.



Figure 86 Rule Management (Export)

2. The security group rule list is downloaded in the JSON format.

12.7 Import Rules

You can import rules.

12.7.1 How to Import Rules

1. Click “Import” button on the Manage Security Group Rules screen.



Figure 87 Rule Management (Import)

2. Click “Import” button and select a file to import.

Confirmation of Importing Rules

If some error happens, importing may fail.

To avoid losing the current rules, you should export the rules before importing.



Figure 88 Confirmation of Importing Rules

3. A security group rule is created from an imported file.

12.8 Deletion of Rules

You can delete rules.

12.8.1 How to Delete Rules

1. Click “Delete” button of the rule to be deleted on the Manage Security Group Rules screen.

Direction	IP Version	Protocol	Port Range	Connected to	Action
egress	IPv6	-	-	-	

Figure 89 Manage Security Group Rules (Deletion)

2. If you check the contents to be deleted and there is no problem, click “Delete” button.

Confirmation of rule deletion

Delete the following rule.

Direction	egress
IP Version	IPv6
Protocol	-
Port Range	-
Connected to	-

Delete **Cancel**

Figure 90 Confirmation of Deletion

12.9 Security Group Edition

You can edit the group name and description of a security group.

12.9.1 How to Edit a Security Group

1. On the Security Group List screen, select “Edit a Security Group” from the pull-down menu of the security group to be edited.

Security Group Name	Description	Action
create1	create1	Action ▾
create2	create2	
DeepSecurity	Testing	Manage Rules Edit a Security Group Delete

Figure 91 Security Group List (Edition)

1. On the Edit a Security Group screen, enter the new security group name and description and click “Update”.

Edit a Security Group

Cancel Update

Security Group Details

Security Group Name *	create1
Description *	create1

Figure 92 Edit a Security Group

12.10 Deletion of Security Group

You can delete a security group.

12.10.1 How to Delete a Security Group

1. On the security group list screen, select “Delete” from the pull-down menu of the security group to be deleted.

Security Group Name	Description	Action
SecurityGroup1	SecurityGroup1	Action ▾
SecurityGroup2	SecurityGroup2	Manage Rules Edit a Security Group
SecurityGroup3	SecurityGroup3	Delete 

Figure 93 Security Group List (Deletion)

2. If you check the contents to be deleted and there is no problem, click “Delete” button.

Delete security group

Delete the following security group.

All rules included in the security group are also deleted.

SecurityGroup1

Delete **Cancel**

Figure 94 Confirmation of Deletion

Chapter 13 Global IP

13.1 Global IP List

You can refer to a list of reserved global IP.

IP Address	Global IP Granted	Global IP Pool	AZ	Action
0000000000	floatingTestServer01	inf_az1_ext-net01	jp-west-2a	ACTION ▾
0000000000	router	inf_az1_ext-net01	jp-west-2a	ACTION ▾

Figure 95 Global IP List

13.1.1 Action

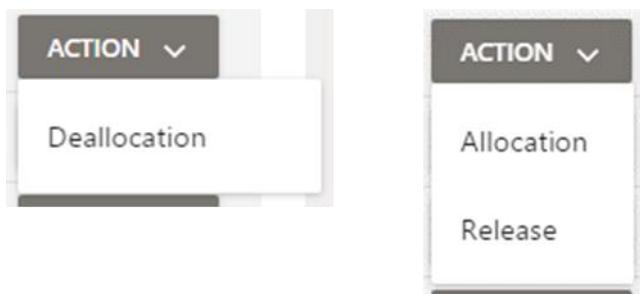


Figure 96 Global IP Action

13.2 Reserved Global IP

You can allocate global IP from a port action of virtual server details. Click "Add" from a global IP list window when you get a new global IP.

1. Select Global IP Pool and click "Next".

Reserved Global IP

CANCEL

1 Reserved Global IP 2 Port Assignment 3 Confirmation

Global IP Pool: inf_az1_ext-net01(jp-west-...)

Back NEXT

Figure 97 Reserved Global IP (Reserved Global IP)

2. When you associate the acquired global IP with a port, select "Global IP Address assignment port", and click "Next".
If you do not assign to a port, leave is a "Global IP Address assignment port" blank and click " Next ".

Reserved Global IP

CANCEL

1 Reserved Global IP 2 Port Assignment 3 Confirmation

Global IP Address: ::ffff:0:0

Global IP Address assignment port:

BACK NEXT

Figure 98 Reserved Global IP (port assignment)

3. Confirm the settings so far on the confirmation window. If there is no problem, click "Setting".



Figure 99 Reserved Global IP (Confirmation)

13.3 Allocate Global IP

Select a resource to be allocated from the global IP address assignment port, and click "Settings".



Figure 100 Allocate Global IP

13.4 Deallocate Global IP

Deallocate the global IP assigned to the resources like a virtual server from the resource.

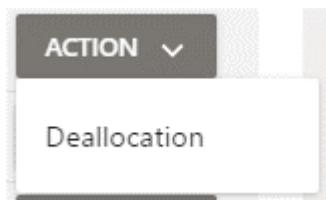


Figure 101 Deallocate Global IP

13.5 Release Global IP

IP addresses that are no longer needed will be released from the global IP pool by clicking "Release".



Figure 102 Release Global IP

Chapter 14 Firewall

14.1 Firewall List

The list and status of the firewall created in the project can be checked.

Firewall List				
Filter		Virtual Router ID	Status	Management State
Firewall Name	Virtual Router ID	Status	Management State	AZ
SSL-VPN_Firewall	[REDACTED]	ACTIVE	true	jp-west-2a
test_firewall	[REDACTED]	ACTIVE	true	jp-west-2a
Test_IPsec_Firewall	[REDACTED]	ACTIVE	true	jp-west-2a

Figure 103 Firewall List

Table 22 Displayed Contents of the Firewall List Table

No.	Item Name	Displayed Contents
1	Firewall Name	Firewall name
2	Virtual Router ID	ID of a virtual router
3	Status	See Table 23 Firewall Status
4	Management status	true/false
5	AZ	Availability Zone

Table 23 Firewall Status

No.	Status	Description
1	ACTIVE	Startup status
2	DOWN	Shut-down status
3	EROOR	Abnormal status
4	PENDING_CREATE	Creation pending status
5	PENDING_UPDATE	Update pending status
6	PENDING_DELETE	Deletion pending status

14.2 Firewall Details

Click the firewall name on the Firewall List to open the details of the firewall.

Here you can check its detailed information which is not displayed on the firewall list.

Firewall Details	
Firewall Information	
Firewall Name	test_firewall
Firewall ID	[REDACTED]
Status	ACTIVE
Virtual Router ID	[REDACTED]
AZ	jp-west-2a
Description	

Figure 104 Firewall Details (Firewall Information)

Firewall Policy	
Firewall Policy Name	test_firewallpolicy
Firewall Policy ID	[REDACTED]
audited	false
shared	false
AZ	jp-west-2a
Description	

Figure 105 Firewall Details (Firewall Policy)

Firewall Rule List						
Firewall Rule Name	Priority	Protocol	Active or Disabled	Action	Source IP Address	Destination IP Address
test_firewallrule1	1	tcp	true	allow	192.168.0.0/16	: 22
test_firewallrule2	2	tcp	true	allow	192.168.0.0/16	: 443
test_firewallrule6	3	tcp	true	allow	192.168.0.0/16	: 3389
test_firewallrule4	4		true	deny		

Figure 106 Firewall Details (Firewall Rule List)

Table 24 Displayed Contents of the Firewall Detail Table

No.	Category	Item Name	Displayed Content
1	Firewall Information	Firewall Name	Firewall Name
2		Firewall ID	Firewall ID
3		Status	See Table 23 Firewall Status
4		Virtual Router ID	ID of a virtual router
5		AZ	Availability Zone
6		Description	Description of the firewall
7	Firewall Policy	Firewall Policy Name	Firewall Policy Name
8		Firewall Policy ID	ID of the firewall policy
9		audited	true/false
10		Shared	Always false
11		AZ	Availability Zone
12		Description	Description of Firewall Policy
13	Firewall Rule List	Firewall Rule Name	Name of a firewall rule
14		Priority	Priority
15		Protocol	NULL / TCP / UDP / ICMP /
16		valid/invalid	true / false
17		Action	allow: Permission Rule deny: Rejection Rule
18		Source IP Address	Source IP Address

19		Destination IP Address	Destination IP Address
----	--	------------------------	------------------------

14.3 Firewall Rule Details

Click the rule name on the Firewall Rule List of the Firewall Details to open the details of the firewall.

Here you can check its detailed information which is not displayed on the firewall rule list.

Firewall Rule Details		Back to the Firewall Details
Firewall Rule Name	test_firewallrule1	
Firewall Rule ID	XXXXXXXXXXXXXX	
Priority	1	
Protocol	tcp	
IP Version	4	
Active or Disabled	true	
Source IP Address	192.168.0.0/16	
Source Port		
Destination IP Address		
Destination Port	22	
Action	allow	
AZ	jp-west-2a	
shared	false	
Description		

Figure 107 Firewall Rule Details

Table 25 Displayed Contents of the Firewall Rule Details Table

No.	Item Name	Displayed Contents
1	Firewall Rule Name	Name of the firewall rule
2	Firewall Rule ID	ID of the firewall rule
3	Priority	Priority
4	Protocol	NULL / TCP / UDP / ICMP /
5	IP version	IPv4 / IPv6

6	Active or Disabled	true / false
7	Source IP Address	Source IP Address
8	Source Port	Destination IP Address
9	Destination IP Address	Destination Port
10	Action	allow: Permission Rule deny: Rejection Rule
11	AZ	Availability Zone
12	Shared	Always false
13	Description	Description of the fire wall rule

Chapter 15 Load Balancer

15.1 Load Balancer List

You can check a list and status of load balancers created in the project.

Load Balancer Name	DNS Name	Status	Action
sample	InService	ACTION ▾

Figure 108 Load Balancers List

Table 26 Load Balancer List Table

No.	Item Name	Description
1	Load Balancer Name	Name of a load balancer
2	DNS Name	FQDN for accessing a load balancer
3	Status	Status of a load balancer (In Service, etc.)
4	Action	Various operations on a load balancer

15.1.1 Action

The figure consists of four separate screenshots of a user interface, each showing a list of actions for a specific component of a load balancer. From left to right:

- Subnet:** Actions include Delete, Add, and Delete.
- Listener:** Actions include Delete, Subnet, Add, and Delete.
- Health Check Information:** Actions include Delete, Listener, Add, and Delete.
- Virtual Server:** Actions include Delete, Subnet, Listener, Health Check Information, Add, and Delete.
- Policy:** Actions include Delete, Virtual Server, Policy, and Delete.
- Security Group Setting:** Actions include Delete, Policy, and Delete.

On the far right, there is a summary table for the load balancer itself:

Loadbalancing-jp-west-2/internal...	InService	Action
Delete	Subnet	...
Cipher Suite Setting	Listener	...
Policy Management	Health Check Information	...
Create Session Persistence Policy	Virtual Server	...
Create Sorry Page Redirect Policy	Policy	...
Security Group Setting		

Figure 109 Load Balancer Action

As actions of a virtual server list, provide the following.

1. Delete
Delete a load balancer.
2. Add Subnet
Please refer to Add Subnet.
3. Delete Subnet
Please refer to Delete Subnet.
4. Add Listener
Please refer to Add Listener.
5. Delete Listener
Please refer to Delete Listener.
6. Set Health Check Information
Please refer to Set Health Check Information.
7. Add Virtual Server
Please refer to Add Virtual Server.
8. Delete Virtual Server
Please refer to Delete Virtual Server.
9. Set Cipher Suite
Please refer to Set Cipher Suite.
10. Create/Delete Policy
Please refer to Create/Delete Policy.
11. Create Session Persistence Policy
Please refer to Create Session Persistence Policy.
12. Create SorryServer Policy
Please refer to Create SorryServer Policy.
13. Set Security Group
Please refer to Set Security Group.

15.2 Load Balancer Details

You can open load balancer details by clicking a load balancer name in a load balancer list.

Detailed information on a load balancer not displayed in a load balancer list is displayed.

The screenshot shows a user interface for managing load balancers. At the top left is the word "sample". On the right is a "BACK" button. Below this is a section titled "Load Balancer" containing a table with three rows: "Load Balancer Name" (sample), "Type" (internal), and "Grade" (Standard). Underneath this is a section titled "Listener" containing a table with six columns: "Load Balancer P...", "Load Balancer P...", "Virtual Server P...", "Virtual Server P...", "Certificate", and "Policy". The first row has entries "HTTP", "80", "HTTP", "80", and two empty cells. The second row has the text "DISPLAYED" in a button-like style. The entire interface is presented in a light gray background with dark gray header bars and buttons.

Figure 110 Load Balancer Details

Table 27 Load Balancer Detailed

No.	Classification	Item Name	Description
1	Load Balancer Information	Load Balancer Name	Name of a load balancer
2		Type	public / internal
3		Grade	Standard / Middle / High
4	Listener	Load Balancer Protocol	HTTP / HTTPS / TCP / SSL
5		Load Balancer Port	Listen Port Number of a load balancer
6		Virtual Server Protocol	HTTP / HTTPS / TCP / SSL
7		Virtual Server Port	Listen Port Number of a virtual server
8		Certificate	Select for HTTPS, SSL

9		Session Persistence Policy	Policy Name
10		SorryServer Redirect Policy	Policy Name
12	Subnet Information	Subnet	Subnet Name
13	Security Group Information	Security Group	Security Group Name
14	Health Check Information	Health check consecutive success times judged as recovery	Times
15		Health check execution time interval (sec)	Seconds
16		Protocol	HTTP / HTTPS / TCP / SSL
17		Port	Port Number
18		URL	Health check target URL
19		Health check response timeout time (sec)	Seconds
20		Health check consecutive failed times judged as faulty	Times
21	Virtual Server Information	Virtual Server Name	Virtual server name of distribution target
22		IP Address	IP Address
23		Status	Virtual Server Status
24		AZ	Availability Zone
25	Policy Information Session Persistence Policy Information	Policy Name	Policy Name
26		Maximum time to maintain session (sec)	Seconds
27	Policy Information Policy Information to redirect to	Policy Name	Policy Name
28		Redirect Destination	URL

	SorryServer	LocationURI	
--	-------------	-------------	--

15.3 Create Load Balancer

This is the GUI when creating a new load balancer. You can make transition from an icon on a load balancer list window.

15.3.1 How to Create Load Balancer

1. Click an icon of load balancer list.
2. Set the following and click "Next".

Create Load Balancer CANCEL

1 Load Balancer Settings ————— 2 Subnet Settings ————— 3 Security Group Settings ————— 4 Confirmation

Load Balancer Name	
Type	public
Grade	Standard

Listener

Load Balancer Prot...	Load Balancer Port	Virtual Server Proto...	Virtual Server Port	Certificate
HTTP		HTTP		

Back NEXT

Figure 111 Create Load Balancer (Load Balancer Definition)

- Load Balancer Name
- Type (public/internal)
- Grade (Standard, Middle or High)
- Load Balancer Protocol (HTTP/HTTPS/TCP/SSL)
- Listen Port Number of a load balancer
- Virtual Server Protocol (HTTP/HTTPS/TCP/SSL)
- Listen Port Number of a virtual server
- Credential (if you select HTTPS or SSL as a load balancer protocol)

3. Set the following and click "Next".

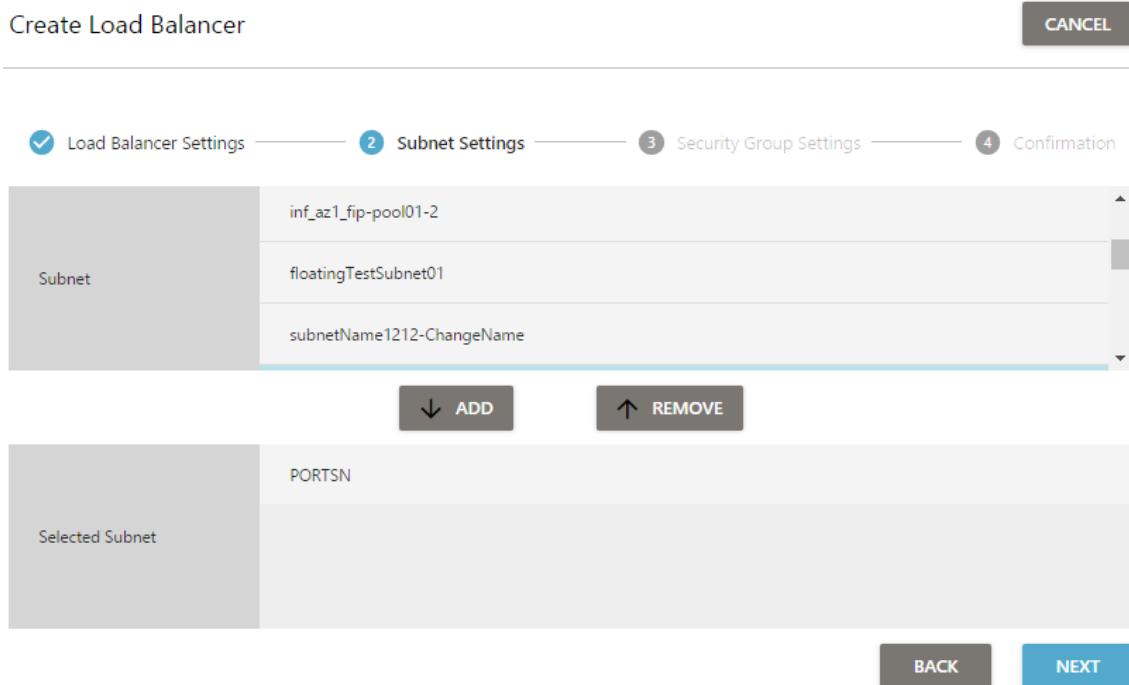


Figure 112 Create Load Balancer (Set Subnet)

- Selected Subnet

4. Set the following then click "Create".

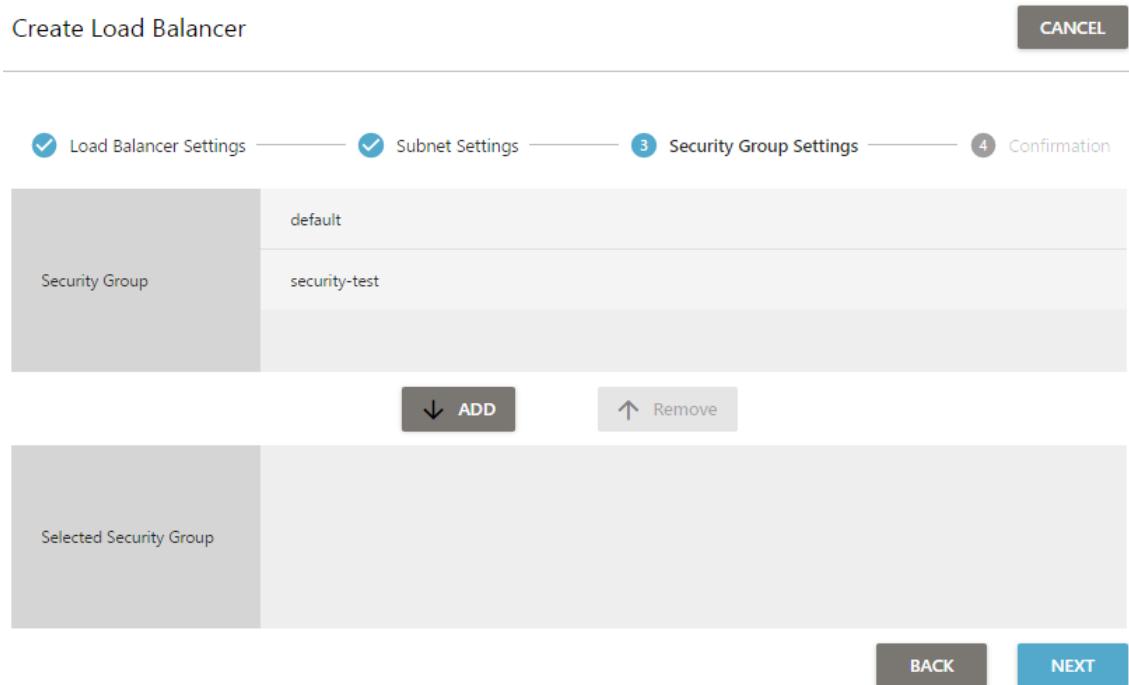


Figure 113 Create Load Balancer (Set Security Group)

- Selected Security Groups

5. Confirm the settings so far on the confirmation window. If there is no problem, click "Create".

Create Load Balancer CANCEL

Load Balancer Settings Subnet Settings Security Group Settings Confirmation

Load Balancer Settings

Load Balancer Name	lb001
Type	internal
Grade	Standard

Listener

Load Balancer Prot...	Load Balancer Port	Virtual Server Proto...	Virtual Server Port
	80		80

Security Group Settings

Selected Security Group	default
-------------------------	---------

BACK CREATE

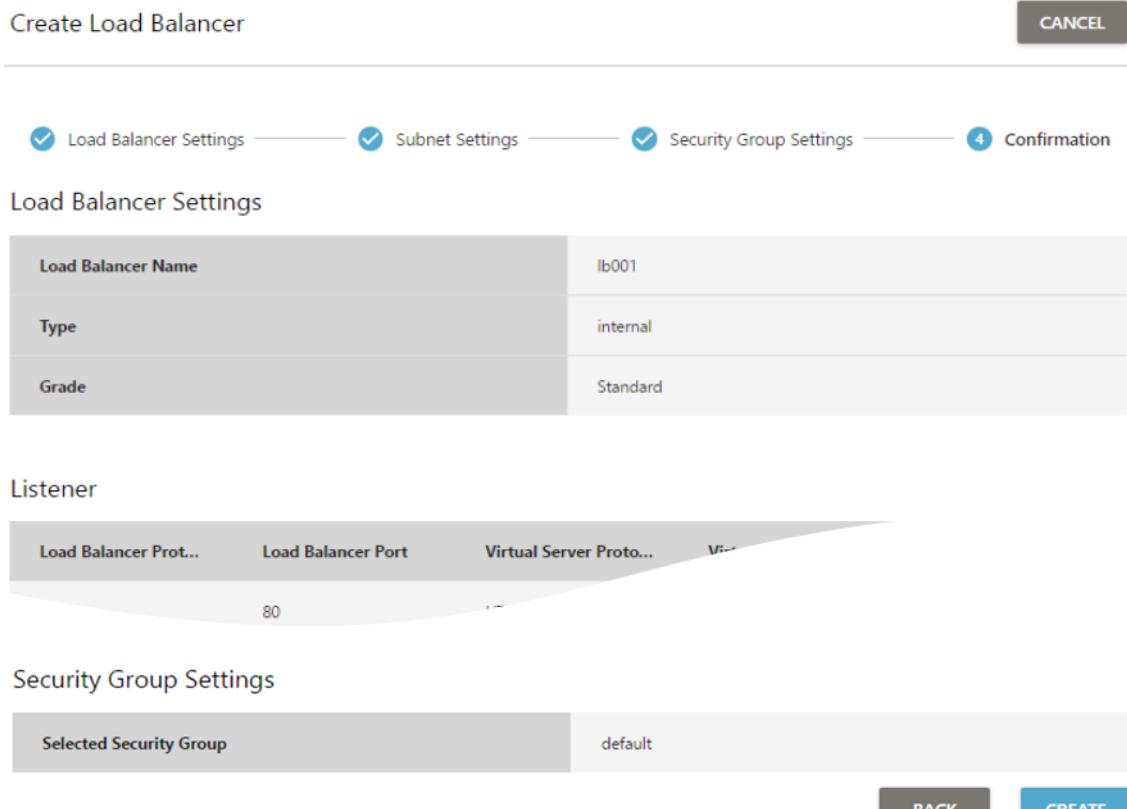


Figure 114 Create Load Balancer (Confirmation)

15.4 Add Subnet

You can select a subnet to add to a load balancer.

15.4.1 How to Add Subnet

1. Select a predefined subnet you want to add to a load balancer displayed in the "Subnet", then move to the "Selected Subnet".
2. Click "Add".

15.5 Delete Subnet

You can select a subnet to remove from a load balancer.

15.5.1 How to Delete Subnet

1. Select the deletion target from the subnet displayed in the list and click "Delete".

15.6 Add Listener

You can select a listener to add to a load balancer.

15.6.1 How to Add Listener

1. In "Load Balancer Protocol", select a protocol accepted by a load balancer. (HTTP/HTTPS/TCP/SSL).
2. Enter a port number acceptable for a load balancer in "Load Balancer Port".
3. Select a protocol to communicate from a load balancer to a virtual server in "Virtual Server Protocol". (HTTP/HTTPS/TCP/SSL)
4. Enter a port number acceptable for a virtual server in "Virtual server port".
5. Select a credential if you select "HTTPS" or "SSL" in "Load Balancer Protocol".
6. Click "Add".

15.7 Delete Listener

You can delete a listener from a load balancer.

15.7.1 How to Delete Listener

1. Select a listener you want to delete from the list, then click "Delete".

15.8 Add Virtual Server

You can select a virtual server to which a load balancer distributes requests.

15.8.1 How to Add Virtual Server

1. From a virtual server list, select a server you want to add to a load balancer.
2. Click "Add".

15.9 Delete Virtual Server

You can delete a virtual server to which a load balancer distributes requests.

Just out of the load balancer distribution target, the virtual server itself will remain.

15.9.1 How to Delete Virtual Server

1. From a virtual server list, select a server you want to delete from a load balancer.
2. Click "Delete".

15.10 Create Session Persistence Policy

You can create a session persistence policy for a load balancer.

15.10.1 How to Create Session Persistence Policy

1. Set the following and click "Create".
 - Policy Name
 - Maximum time to maintain session (sec)

15.11 Create SorryServer Policy

You can create a policy to redirect to SorryServer when there is no destination for a load balancer to distribute.

15.11.1 How to Create SorryServer policy

1. Set the following and click "Create".
 - Policy Name
 - Redirect Destination Location URL

15.12 Create/Delete Policy

For a load balancer, you can set a session persistence policy created and a SorryServer policy to set.

15.12.1 How to Create/Delete Policy

1. Set the following and click "Set".

- Load Balancer Port
- Session Persistence Policy to set
- SorryServer Policy to set

* The values of Session persistence policy and SorryServer policy are displayed by selecting a policy.

15.13 Set Health Check Information

You can set health check information of a virtual server by a load balancer.

15.13.1 How to Set Health Check Information

1. Set the following and click "Create".

- Health check consecutive success times judged as recovery
- Health check execution time interval (sec)
- Protocol (HTTP/HTTPS/TCP/SSL)
- Port
- URL
- Health check response timeout time (sec)
- Health check consecutive failed times judged as faulty

15.14 Set Security Group

You can set a security group on a load balancer.

15.14.1 How to Set Security Group

1. Select a predefined security group you want to add to a load balancer displayed in "Security Group", then move to "Security Group Settings."
2. Click "Set".

15.15 Set Cipher Suite

You can set cipher suites on a load balancer.

15.15.1 How to Set Cipher Suite

1. Select "Add" or an action of the created cipher suite.
2. Select a cipher suite name and a cipher suite to use in the cipher suite add (edit) dialog.
3. Click "Set".

Chapter 16 DNS

16.1 DNS Zone List

You can check the list and status of DNS zone which is created in project.

DNS Zone List			
Filter		1 - 5 of 5 items	Action
DNS Zone Name	Number of Records	Description	Action
k5d-iaas-test-001.me	12		Action ▾
k5d-iaas-test-002.me	0		Action ▾
k5d-iaas-test-003.me	0		Action ▾
k5d-iaas-test-004.me	0	k5d-iaas-test-004.me	Action ▾

Figure 115 DNS Zone List

Table 28 Displayed Contents of DNS Zone List Table

No.	Item Name	Displayed Contents
1	DNS Zone Name	Name of DNS zone
2	Number of Records	Number of records registered in a zone
3	Description	Description of DNS zone
4	Action	Various operation for DNS zone

16.1.1 About Operation

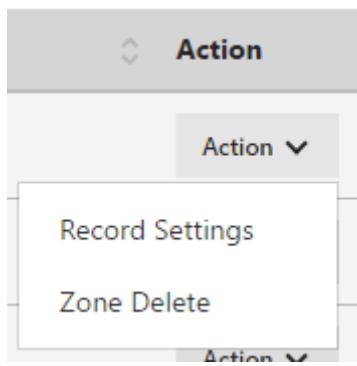


Figure 116 DNS zone action

The following items will be provided as the operation of DNS zone list.

1. Record Settings
See 16.3, 16.4 and 16.5.
2. Zone Delete
See 16.8.

16.2 DNS Zone Registration

DNS zone will newly be registered.

16.2.1 How to Register DNS Zone

1. Click the icon “+” at the upper right on the DNS zone list screen.
2. Enter appropriate information as below and click “Next”.

Registration

The registration form consists of two main sections: 'Zone information' and 'Confirmation'. The 'Zone information' section contains fields for 'DNS Zone Name' (set to 'k5d-iaas-test-001.me') and 'Description' (with placeholder text 'Please enter 255 characters and below.'). The 'Confirmation' section is currently empty. At the bottom right are 'Cancel', 'Next', and 'Create' buttons. The 'Zone information' tab is highlighted in blue.

Zone information	Confirmation
DNS Zone Name *	k5d-iaas-test-001.me
Description	Please enter 255 characters and below.

Cancel Next

Figure 117 Registration

- DNS Zone Name
 - Description
2. Check the setting details you have entered so far on the confirmation screen. If there is no problem, click “Create”.

Registration

The confirmation form is identical to the registration form, showing the entered 'DNS Zone Name' ('k5d-iaas-test-001.me') and an empty 'Description' field. At the bottom right are 'Cancel', 'Back', and 'Create' buttons. The 'Zone information' tab is highlighted in blue.

Zone information	Confirmation
DNS Zone Name	k5d-iaas-test-001.me
Description	

Cancel Back Create

Figure 118 Confirmation of Setting Details

- If “DNS zone registration authentication confirmation” dialogue is displayed after it is created, follow the displayed contents and register DNS zone again.

16.3 Record List

You can move to this screen by selecting “Record Management” in the pull-down menu of “Action” in the DNS zone you want to edit on the DNS zone list screen.

The screenshot shows a table titled "Record List" with the following data:

Record Name	Type	Value	TTL	Policy	Action
r1020.k5d-iaas-test-002.me	A	192.168.100.25	600	Failover:PRIMARY	Action ▾
r1000.k5d-iaas-test-002.me	A	192.168.1.100	300	Weight:100	Action ▾

Figure 119 Record List

Table 29 Displayed Contents of Record List Table

No.	Item Name	Displayed Contents
1	Record Name	Record Name
2	Type	NS / A / AAAA / CNAME / MX / TXT / LBR
3	Value	Value
4	TTL	TTL Value
5	Policy	None / Fail Over / Weighting
6	Action	Various Operations for Record

16.3.1 About Operation

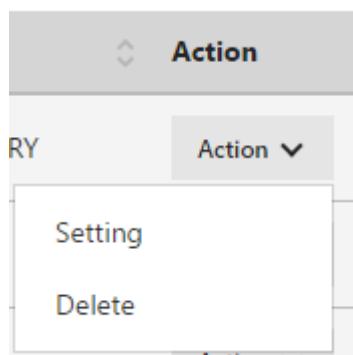


Figure 120 Record List Action

The below items will be provided as the operations of Record List.

- Setting
See 16.5
- Delete
See 16.7

16.4 Record Details

You can open record details by clicking the record name of Record List.

You can check the detailed information that is not displayed on the record list.

Record Details		Back to Record List
DNS Zone	k5d-iaas-test-001.me	
Record Name	cnametest.k5d-iaas-test-001.me	
Type	CNAME	
TTL	3600	
Value	cname.com	
Description	CNAME type test	

Figure 121 Record Details (if policy is “none”)

Record Details		Back to Record List
DNS Zone	k5d-iaas-test-001.me	
Record Name	test05.k5d-iaas-test-001.me	
Type	A	
TTL	60	
Value	0.0.0.0	
Description		
Policy	Weight Settings	

Weight Details	
Weight	100

Figure 122 Record Details (if policy is “weighting”)

Record Details		Back to Record List
DNS Zone	k5d-iaas-test-001.me	
Record Name	aaaatest.k5d-iaas-test-001.me	
Type	AAAA	
TTL	3600	
Value	2001:db8::9abc	
Description		
Policy	Failover	

Failover Details	
Failover	PRIMARY

Health Check Preference	
IP	10.0.0.0
Port	5240
Protocol	HTTP
Health Check Path	
Health Check Destination Domain Name	

Figure 123 Record Details (if policy is “fail-over”)

Table 30 Displayed Contents of Record Details Table

No.	Category	Item Name	Displayed Contents
1	Record Details	DNS Zone	DNS zone
2		Record Name	Record Name
3		Type	NS / A / AAAA / CNAME / MX / TXT / LBR
4		TTL	TTL Value
5		Value	Value
6		Description	Description of Records
7		Policy	None/Fail-Over/Weighting
8	Weight	Weight	Weighting Value
9	Failover	Failover	PRIMARY / SECONDARY
10	Health Check	IP Address	Health Check Destination IP

	Preference (If failover is selected)		Address
11		Port	Health Check Destination Port
12		Protocol	HTTP / HTTPS / TCP
13		Health Check Path	Health Check Path
14		Health Check Destination Domain Name	Health Check Destination Domain Name

16.5 Record Registration

Records can newly be registered.

16.5.1 How to register records

4. Click the icon “+” at the upper right on the Record List screen.
- 1.
3. Enter appropriate information as below and click “Next”.
2.
 - If type “A” or “AAAA” is selected, enter appropriate information on the below screen.

Create Record

Record Info		Confirmation
DNS Zone	k5d-iaas-test-001.me	
Record Name *	Please enter with half-width alphanumeric characters (a to z, 0 to 9), hyphen	
Type *	A	▼
TTL	Please enter between 60 and 86400, and half-width number with 5 digits for	
Value *	Please enter with the available IPv4 address range.	
Description	Please enter 255 characters and below.	
Policy	<input checked="" type="radio"/> No <input type="radio"/> Failover <input type="radio"/> Weight Settings	
<input type="button" value="Cancel"/> <input type="button" value="Next"/>		

Figure 124 Create Record (Record Information : If type A)

- Record Name
- TTL
- Value (Usable IPv4 address if type “A”, and Usable IPv4 address if type “AAAA”)
- Description
- Policy (No/Failover/Weight Settings)
- Details of Failover (If failover is selected in policy)

Failover Details

Failover *	<input checked="" type="radio"/> PRIMARY	<input type="radio"/> SECONDARY
-------------------	--	---------------------------------

Figure 125 Record Information (Fail-over details)

- ✧ Failover (PRIMARY / SECONDARY)

- Health Check Setting (Failover is selected in Policy)

Health Check Preference

IP *	Please enter with half-width alphanumeric characters (a - z, 0 - 9), dot (.) forr
Port *	Please enter with Half-width number format, and then enter within 5 charact
Protocol	HTTP
Health Check Path	Please enter with Half-width alphanumeric characters and marks.
Health Check Destination Domain Name	Please enter with half-width character (a - z) format, and then enter within 2!

Cancel **Next**

Figure 126 Record Information (Health Check Setting)

- ✧ IP
- ✧ Port
- ✧ Protocol (HTTP / HTTPS / TCP)
- ✧ Health Check Path
- ✧ Health Check Destination Domain Name

- Weight Details (If Weight is selected in policy)

Weight Details

Weight *	Please enter between 0 and 100, and Half-width number format.
-----------------	---

Cancel **Next**

Figure 127 Record Information (Weight Details)

- Set the below information if type “CNAME” or “NS” is selected.

Create Record

Record Info		Confirmation
DNS Zone	k5d-iaas-test-001.me	
Record Name *	Please enter with half-width alphanumeric characters (a - z, 0 - 9, -, *) format	
Type *	CNAME	
TTL	Please enter between 60 and 86400, and half-width number with 5 digits for	
Value *	Please enter with half-width alphanumeric characters (a to z, 0 to 9), multiby	
Description	Please enter 255 characters and below.	
<input type="button" value="Cancel"/> <input type="button" value="Next"/>		

Figure 128 Record Registration (Record Information: type CNAME)

- Record Name
 - TTL
 - Value
 - Description
- Set the below if type “MX” is selected.

Create Record

Record Info		Confirmation
DNS Zone	k5d-iaas-test-001.me	
Record Name *	Please enter with half-width alphanumeric characters (a to z, 0 to 9), hyphen	
Type *	MX	
TTL	Please enter between 60 and 86400, and half-width number with 5 digits for	
Value *	priority host(Input example:10 mail.example.com)	
Description	Please enter 255 characters and below.	
<input type="button" value="Cancel"/> <input type="button" value="Next"/>		

Figure 129 Record Registration (Record Information: type MX)

- Record Name

- TTL
 - Value (priority and host are half-width space separated when specified)
 - Description
- Set the below if type “LBR” is selected.

Create Record

Record Info		Confirmation
DNS Zone	k5d-iaas-test-001.me	
Record Name *	Please enter with half-width alphanumeric characters (a - z, 0 - 9), hyphen (-)	
Type *	LBR	▼
Default Host *	Please enter with Half-width alphanumeric format, and then enter within 255	
Value *	area1 host1, area2 host2, ...,(Input example:10 server1, 20 server2, ...)	
Description	Please enter 255 characters and below.	

Cancel Next

Figure 130 Record Registration (Record Information: if type LBR)

- Record Name
 - Default Host
 - Value (Area and host are half-width separated)
 - Description
3. You can check the setting details you have entered so far on the confirmation screen. If there is no problem, click “Create”.

Create Record

Record Info		Confirmation
DNS Zone	k5d-iaas-test-001.me	
Record Name	mtest	
Type	A	
TTL		
Value	10.0.0.0	
Description		
Policy	No	

[Cancel](#) [Back](#) [Create](#)

Figure 131 Record Registration (Confirmation)

16.6 Record Edition

You can edit the details of registered records.

16.6.1 How to edit records

1. On the Record List screen, click “Edit” from the pull-down menu of the record you want to edit.

Record Name	Type	Value	TTL	Policy	Action
r1020.k5d-iaas-test-002.me	A	192.168.100.25	600	Failover:PRIMARY	Action ▾
r1000.k5d-iaas-test-002.me	A	192.168.1.100	300	Weight:100	Setting  Delete

Figure 132 Record List (Edition)

2. You can edit the below information on the record edition screen. Depending on the type you selected, the items to be edited are changed. See 16.5.1 for the edition items of each type.

Record Settings		Cancel	Setting
DNS Zone	k5d-iaas-test-002.me		
Record Name	r1020.k5d-iaas-test-002.me		
Type *	<input type="button" value="A"/>		
TTL	600		
Value *	192.168.100.25		
Description	Please enter 255 characters and below.		
Policy	<input type="radio"/> No <input checked="" type="radio"/> Failover <input type="radio"/> Weight Settings		

Figure 133 Record Edition

3. Click “Update” after edited.

16.7 Record Deletion

You can delete the registered records.

16.7.1 How to delete records

1. On the record list screen, click “Delete” by selecting from the pull-down menu of the record you want to delete.

Record Name	Type	Value	TTL	Policy	Action
r1020.k5d-iaas-test-002.me	A	192.168.100.25	600	Failover:PRIMARY	<button>Action ▾</button>
r1000.k5d-iaas-test-002.me	A	192.168.1.100	300	Weight:100	<button>Setting</button> <button>Delete</button>

Figure 134 Record List (Delete)

2. Click “Delete” button if there is no problem after you have checked the deletion details.

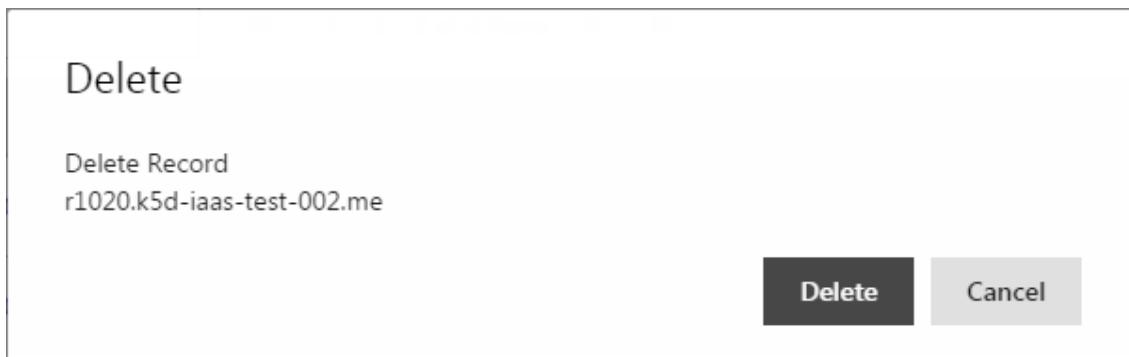


Figure 135 Confirmation of Deletion

16.8 DNS Zone Deletion

You can delete the registered DNS zone.

16.8.1 How to delete DNS zone

1. On the DNS zone list screen, click “DNS Zone Deletion”, selecting from the pull-down menu of the DNS zone to be deleted.

DNS Zone Name	Number of Records	Description	Action
k5d-iaas-test-001.me	12		<button>Action ▾</button>
k5d-iaas-test-002.me	0		<button>Record Settings</button> <button>Zone Delete</button>
k5d-iaas-test-003.me	0		

Figure 136 DNS Zone List (DNS Zone Deletion)

2. Click “Delete” button if there is no problem after you have checked deletion details.

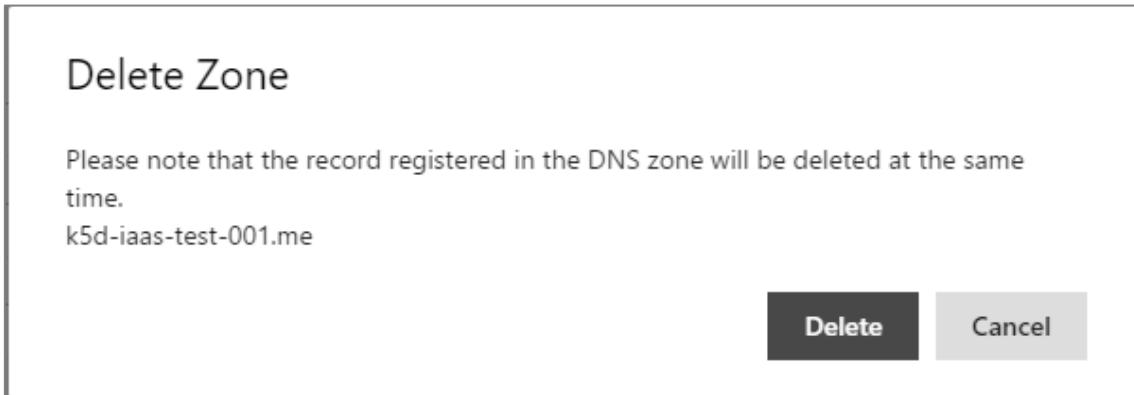


Figure 137 Confirmation of Deletion

Chapter 17 Database Virtual Server

17.1 Database Virtual Server List

You can check the list and status of the database virtual server created in project.

Virtual Database Server List		
Virtual Database Server Name		Status
No.	Item Name	Displayed Contents
1	Virtual Database Server Name	Virtual Database Server Name
2	Status	See Table 32 Database Virtual Server Status
3	Action	Various Operations for database virtual server

Figure 138 Database Virtual Server List

Table 31 Displayed Contents of Database Virtual Server List Table

No.	Item Name	Displayed Contents
1	Virtual Database Server Name	Virtual Database Server Name
2	Status	See Table 32 Database Virtual Server Status
3	Action	Various Operations for database virtual server

Table 32 Database Virtual Server Status

No.	Status	Description
1	Active	SQL Statement Receiving State
2	Backup	Back-up Status
3	Build	DB Virtual Server Creating Status
4	Failed	State where POST/PUT API execution has failed
5	Error	Illegal state

6	Deleted	State where DB Virtual Server has already been deleted but the snapshot linked to the virtual server exists
7	Reboot	Start-up State
8	Resize	State where data volume is being resized
9	Modifying	State where an attribute is being changed
10	Restart_Required	State where restart is required
11	Degenerated	State where one DB virtual server is in degenerate operation
12	Switched	State where original server is switched with duplicate one due to DB fail-over

17.1.1 About Operation

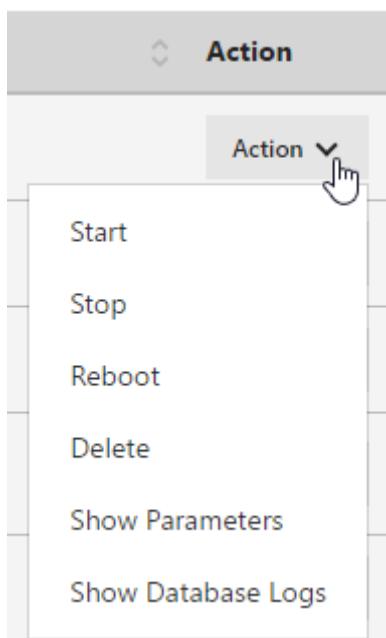


Figure 139 Database Virtual Server List Action

See below for the operations of database virtual server list.

1. Start

- See 17.4
- 2. Stop
 - See 17.5
- 3. Reboot
 - See 17.6
- 4. Delete
 - See 17.7
- 5. Show Parameters
 - See 17.8
- 6. Show Database Logs
 - See 17.9 and 17.10

17.2 Database Virtual Server Creation

Database Virtual Server is newly created.

17.2.1 How to create database virtual server

5. Click the icon “+” at the upper right on the Database Virtual Server List screen.
1. Enter the appropriate information as below and click “Next”.

Create Virtual Database Server

Instance Info Flavor Type DB Subnet Group Security Group Confirmation

Virtual Database Server Name *	Please enter with Half-width alphanumeric characters or hyphen format, and
Database Master User Name *	Please enter with Half-width alphanumeric characters or underscore format,
Database Master Password *	Please enter within 1024 characters.
Database Master Password Confirmation *	Please enter within 1024 characters.
Data Disk Size (GB) *	Please enter between 10 and 10240, and Multiples of 10 format.
Backup *	<input checked="" type="radio"/> Set <input type="radio"/> Do Not Set
Backup Retention Period (Days) *	1
Redundancy *	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Description	Please enter within 1024 characters.

Cancel Next Page

Figure 140 Database Virtual Server Information

- Virtual Database Server Name
- Database Master User Name
- Database Master Password
- Database Master Password Confirmation
- Data Disk Size (GB)
- Backup Retention Period (Days)
 - If you select “Set”, you need to set the following information.

Backup Retention Period (Days)
s) *

Set
1
 Do Not Set

Figure 141 Backup Retention Period

❖ Number of Days for Backup Retention (1 to 10 days)

- Redundancy (Enabled/Disabled)
- Description

2. Enter the appropriate information as below and click “Next”.

Create Virtual Database Server

Instance Info Flavor Type DB Subnet Group Security Group Confirmation

Flavor Type *

Please select

Cancel Back Next Page

Figure 142 Flavor Type

- Flavor Type

3. Enter the appropriate information as below and click “Next”.

Create Virtual Database Server

Instance Info Flavor Type DB Subnet Group Security Group Confirmation

DB Subnet Group *

Please select

Cancel Back Next Page

Figure 143 DB Subnet Group

- DB Subnet Group

4. Enter the appropriate information as below and click “Next”.

Create Virtual Database Server

Instance Info Flavor Type DB Subnet Group **Security Group** Confirmation

🔍 SecurityGroup X

1 - 4 of 4 items

Security Group Name
SecurityGroup1
SecurityGroup2
SecurityGroup3
SecurityGroup4

Cancel Back Next Page

Figure 144 Security Group

- Security Group
5. You can check the setting details you have entered so far on the confirmation screen. If there is no problem, click “Create”. (*1)

Create Virtual Database Server

Instance Info	Flavor Type	DB Subnet Group	Security Group	Confirmation
Instance Info				
Virtual Database Server Name	test			
Database Master User Name	test			
Database Master Password	****			
Data Disk Size (GB)	10			
Backup	Set			
Backup Retention Period (Days)	1			
Redundancy	Enabled			
Description				
Flavor Type				
Flavor Type	S-1			
DB Subnet Group				
DB Subnet Group Name	test_subnet1			
Security Group				
Security Group	default			
Automatically generated parameters				
shared_buffers	104857			
effective_cache_size	262144			
log_line_prefix	'[%m][%h][%p][%c-%l][%x][%e]'			
<input type="button" value="Cancel"/> <input type="button" value="Back"/> <input type="button" value="Create"/>				

Figure 145 Confirmation for Setting Contents

*1

“Automatically generated parameters”, which is displayed on the confirmation screen for database creation, is automatically set from “recommended value of database engine”.

Table 33 Contents of “Automatically generated parameters”

No.	Item Name	Displayed Contents
1	shared_buffers	Buffer size which is about 20% of the memory size of selected flavor.
2	effective_cache_size	Cache size which is about 50% of the memory size of selected flavor.
3	log_line_prefix	Log format for the database log.

17.3 Database Virtual Server Details

You can open the database virtual server details by clicking the database virtual server name of database virtual server list.

The detailed information not displayed on the database virtual server list can be checked.

Virtual Database Server Details	
Virtual Database Server Information	
ID	[REDACTED]
Virtual Database Server Name	[REDACTED]
Status	Active
Creation Time	2017-02-17T06:46:39Z
Update Time	
Data Storage Size	20
Data Storage Type	M1
Availability Zone of Master Running	jp-west-2a
Redundancy	false
Multi AZ Option	false
Associated Read Replica	
Original ID of Read Replica	
Availability Zone of Slave Running	
Status of Read Replica	
Security Group	[REDACTED]
Description	

Figure 146 Database Virtual Server Details (Database Virtual Server Information)

Flavor Type	
Flavor ID	1101
Network Information	
Internal FQDN	[REDACTED]
External FQDN	[REDACTED]
Internal IP Address	10.0.1.7
Global IP Address	[REDACTED]
Connectable from Internet	false
DB Subnet Group	[REDACTED]

Figure 147 Database Virtual Server Details (Flavor Type Network Information)

Database Information	
Port Number	5432
DB Encoding	[REDACTED]
DB Collation Order	C
DB Type	symfoware
DB Version	12.1
Database Master User Name	admin
DB Parameter Group ID	[REDACTED]

Figure 148 Database Virtual Server Details (Database Information)

Database Operation Information	
Automatic application of minor version up	true
Backup Retention Period	0
Time Zone of Backups	15:20-15:50
Timezone of Maintenance	thu:08:38-thu:09:08
Recover Redundancy Immediately	true
Automatic Recovery of Redundancy Start At	

Figure 149 Database Virtual Server Details (Database Operation Information)

Parameters to be changed when next rebooting	
Data Storage Size	
Data Storage Type	
Backup Retention Period	
Flavor ID	
ID	
Name	
DB Parameter Group ID	
DB Version	
Database Master User Name	
Database Master Password	
Multi DB Option	
Multi AZ Option	
Port Number	

Figure 150 Database Virtual Server Details (Parameters to be changed at the time of next reboot)

Table 34 Displayed Contents of Database Virtual Server Details

No.	Category	Item Name	Displayed Contents
1	Virtual Database Server Details	ID	Database Virtual Server ID
2		Virtual Database Server Name	Database Virtual Server Name
3		Status	Table 32 Database Virtual Server Status

4		Creation Time	Created Date and Time
5		Update Time	Update Date and Time
6		Data Storage Size	Data Storage Size
7		Data Storage Type	M1
8		Availability Zone of Master Running	Availability Zone where the main server is starting up
9		Redundancy	true / false
10		Multi AZ Option	true / false
11		Associated Read Replica	Linked Read Replica
12		Original ID of Read Replica	Replication Source Database Virtual Server ID
13		Availability Zone of Slave Running	Availability Zone where duplicate server is starting up
14		Status of Read Replica	Status of Read Replica
15		Security Group	Security Group
16		Description	Description
17	Flavor Type	Flavor ID	Flavor ID
18	Network Information	Internal FQDN	Internal FQDN
19		External FQDN	External FQDN
20		Internal IP Address	IP Address
21		Global IP Address	Global IP Address
22		Connectable from Internet	true / false
23		DB Subnet Group	Subnet Group
24	Database Information	Port Number	Port Number
14		DB Encoding	Database Encoding
15		DB Collation Order	Checking Flow
16		DB Type	Type
17		DB Version	Version
18		Database Master	Database Management

		User Name	User Name
19		DB Parameter Group ID	DB Parameter Group ID
20	Database Operation Information	Automatic application of minor version up	true / false
21		Backup Retention Period	Number of Days for Backup Storage
22		Backup Retention Period	Backup Time Range
23		Time Zone of Backups	Maintenance Time Range
24		Recover Redundancy Immediately	true / false
25		Automatic Recovery of Redundancy Start At	Automatic Recovery Start Time
26	Parameters to be changed when next rebooting	Data Storage Size	Data Storage Size
27		Data Storage Type	M1
28		Backup Retention Period	Number of Days for Backup Storage
29		Flavor ID	Flavor ID
30		ID	Database Virtual Server ID
31		Name	Database Virtual Server Name
32		DB Parameter Group ID	DB Parameter Group ID
33		DB Version	Database Version
34		Database Master User Name	Database Management User Name
35		Database Master Password	Database Management Password
36		Multi DB Option	true / false
37		Multi AZ Option	true / false
38		Port Number	Port Number

17.4 Database Virtual Server Startup

You can start up Database Virtual Server.

17.4.1 How to start up Database Virtual Server

1. On the Database Virtual Server List screen, click “Start” selecting from the pull-down menu of the database virtual server that is starting up.

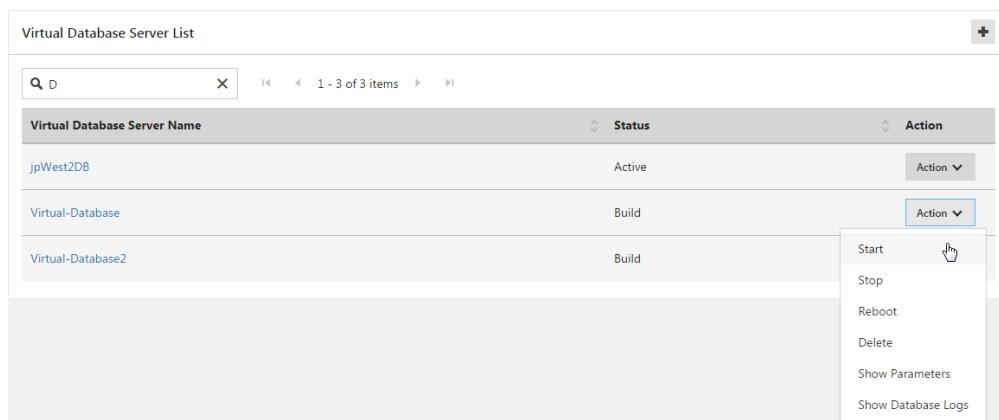


Figure 151 Database Virtual Server List (Start)

2. If you check the start-up status and there is no problem, click “Start” button.

Boot the Virtual Database Server

Start this Virtual Database Server
Virtual-Database

Start **Cancel**

Figure 152 Start-up Check

17.5 Database Virtual Server Stop

You can stop the database virtual server.

17.5.1 How to stop database virtual server

1. On the database virtual server list screen, click “Stop” selecting from the pull-down menu of the database virtual server that you want to stop.

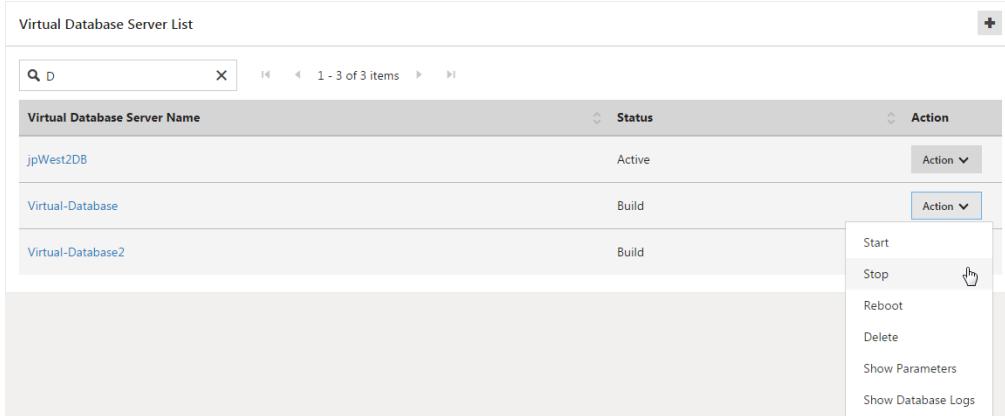


Figure 153 Database Virtual Server List (Stop)

2. If you check the stop status and there is no problem, click “Stop” button.

Stop the Virtual Database Server

Stop this Virtual Database Server
Virtual-Database

Stop **Cancel**

Figure 154 Stop Check

17.6 Database Virtual Server Reboot

You can reboot the database virtual server.

17.6.1 How to reboot the database virtual server

1. On the database virtual server list screen, click “Reboot” selecting from the pull-down menu of the database virtual server that you want to reboot.

Virtual Database Server List		
Virtual Database Server Name	Status	Action
jpWest2DB	Active	Action ▾
Virtual-Database	Build	Action ▾
Virtual-Database2	Build	Action ▾ Start Stop Reboot  Delete Show Parameters Show Database Logs

Figure 155 Database Virtual Server List (Reboot)

2. If you check reboot status and there is no problem, click “Reboot” button.

Reboot the Virtual Database Server

Reboot this Virtual Database Server
Virtual-Database

Reboot **Cancel**

Figure 156 Reboot Check

17.7 Database Virtual Server Deletion

You can delete the database virtual server.

17.7.1 How to delete the database virtual server

1. On the database virtual server list screen, click “Delete” selecting from the pull-down menu of the database virtual server that you want to delete.

Virtual Database Server List		
Virtual Database Server Name	Status	Action
jpWest2DB	Active	Action ▾
Virtual-Database	Build	Action ▾
Virtual-Database2	Build	Action ▾ Start Stop Reboot Delete Show Parameters Show Database Logs

Figure 157 Database Virtual Server List (Deletion)

2. If you check the deletion status and there is no problem, click “Delete” button.

Delete the Virtual Database Server

Delete this Virtual Database Server. It takes for a while to complete deletion.
Virtual-Database

Delete **Cancel**

Figure 158 Deletion Check

17.8 DB Parameter Group Details

You can check the details of DB parameter group.

17.8.1 How to Check DB Parameter Group

1. On the database virtual server list screen, click “Show Parameters” selecting from the pull-down menu of DB parameter group check.

Virtual Database Server List			
Virtual Database Server Name		Status	Action
jpWest2DB		Active	Action ▾
Virtual-Database		Build	Action ▾
Virtual-Database2		Build	Action ▾

Figure 159 Database Virtual Server List (Show Parameters)

2. DB Parameter Group Details screen is open.

You can check the detailed information on DB parameter group.

DB Parameter Group Details		Back to the List
DB Parameter Group		
DB Parameter Group Name	Virtual-Database-RDS-ParameterGrp	
DB Parameter Group ID		

Figure 160 DB Parameter Group Details (Show Parameters)

DB Parameter Details	
Parameter Name	
archive_mode	
default_transaction_isolation	
bonjour	
bonjour_name	
krb_caseins_users	
default_text_search_config	
data_directory	

Figure 161 DB Parameter Group Details (Parameter Details)

Table 35 Displayed Contents of DB Parameter Group Details

No.	Category	Item Name	Displayed Contents
1	DB Parameter Group	DB Parameter Group Name	DB Parameter Group Name
2		DB Parameter Group	DB Parameter Group

		ID	ID
4	Parameter Group Details	Parameter Name	Parameter Name
5		DB Parameter Name	DB Parameter Values

17.9 Database Log List

You can check the database log list.

The screenshot shows a web-based interface titled "Database Log List". At the top right is a link "Back to the Virtual Database Server List". Below the title, it says "Virtual Database Server Name : Virtual-Database". A table lists four log files:

Log File Name	Date	File Size (KB)
postgresql.log-2017-03-27_000000	2017-03-27 09:00:00	0.0
postgresql.log-2017-03-25_000000	2017-03-25 09:00:00	0.0
postgresql.log-2017-03-26_000000	2017-03-26 09:00:00	0.0
postgresql.log-2017-03-24_094830	2017-03-24 19:48:35	33.2

Figure 162 Database Log List

17.9.1 How to see log

1. On the database virtual server list screen, click “Show Database Logs” selecting from the pull-down menu of the database in which you want to see log.

The screenshot shows a "Virtual Database Server List" screen. It includes a search bar, a navigation bar with icons, and a table listing three servers:

Virtual Database Server Name	Status	Action
jpWest2DB	Active	Action ▾
Virtual-Database	Build	Action ▾
Virtual-Database2	Build	Action ▾

A context menu is open over the "Virtual-Database" entry, listing options: Start, Stop, Reboot, Delete, Show Parameters, and Show Database Logs. The "Show Database Logs" option is highlighted with a blue box.

Figure 163 Database Virtual Server List (Show Database Logs)

17.10 Database Log Details

Click the log file name of database log list to open database log details.

You can check the detailed information which is not displayed on the database log list.

The screenshot shows a 'Database Log Details' page. At the top left is the title 'Database Log Details'. At the top right is a button labeled 'Back to the Database Log List'. Below the title, it says 'Log File Name : postgresql.log-2017-03-06_000000'. A large text box contains the following log entries:

```
LOG: received fast shutdown request (11198)
LOG: aborting any active transactions (11199)
LOG: autovacuum launcher shutting down (11272)
LOG: shutting down (10150)
LOG: database system is shut down (10151)
```

Figure 164 Database log details

Table 36 Displayed Contents of Relational Database Log Details

No.	Item Name	Displayed Contents
1	Log File Name	Log File Name
2	Log	Log

Chapter 18 Stack

18.1 Stack List

You can check a list and status of a stack created in a project.

Stack Name	Description	Stack ID	Status	Action
sample	TEST of Y...	 UPDATE_COMPLETE		ACTION ▾

Figure 165 Stack List

Table 37 Stack List Table

No.	Item Name	Description
1	Stack name	Name of a stack
2	Description	Description of a stack
3	Stack ID	ID to identify a stack in unique
4	Status	Status of a stack
5	Action	Various operations on a stack

18.2 Stack Details

You can check a list and status of a stack created in a project.

sample

BACK

Information

Description	TEST of YAML
Status	UPDATE_COMPLETE
Date and time of creation	2017-02-23T01:56:44Z
Timeout (minutes)	5
Resource deletion at stack creation failure	true

Template parameter

Name	Value
network_name	NetworkName

Figure 166 Stack Details

Table 38 Stack Details Table

No.	Classification	Item Name	Description
1	Information	Description	Description of a stack
2		Status	Status
3		Date and time of creation	Date and time of creation
4		Timeout (minutes)	Timeout
5		Resource deletion at stack creation failure	Behavior at creation failure
6	Template parameter	Name	Key
7		Value	Value corresponding to the key

18.3 Create Stack

18.3.1 How to Create Stack

1. Click an icon on Virtual Server List window..
2. Set the following and click "Create".

Create Stack

CANCEL PARAMETER SETTINGS CREATE

Stack Name	<input type="text"/>
How to Specify Template	<input type="text"/> URL
URL	<input type="text"/>
Timeout (minutes)	<input type="text"/>
Delete resources at the time of the stack creation failure	<input type="checkbox"/> Delete

Figure 167 Create Stack

- Stack Name
- How to Specify Template
 - If you select "URL", specify the following.
 - ✧ "URL"
 - If you select "File", specify the following.
 - ✧ Drop a configuration file in "File".
 - If you select "YAML", specify the following.
 - ✧ "YAML"
- Timeout (minutes)
- Resource deletion at stack creation failure (Delete or not)

18.4 Edit Stack

You can edit the created stack.

Edit Stack		CANCEL	PARAMETER SETTINGS	UPDATE
Stack Name	sample			
How to Specify Template	URL			
URL				
Timeout (minutes)	5			
Template Parameters				
Name	Value			
network_name	NetworkName			

Figure 168 Edit Stack

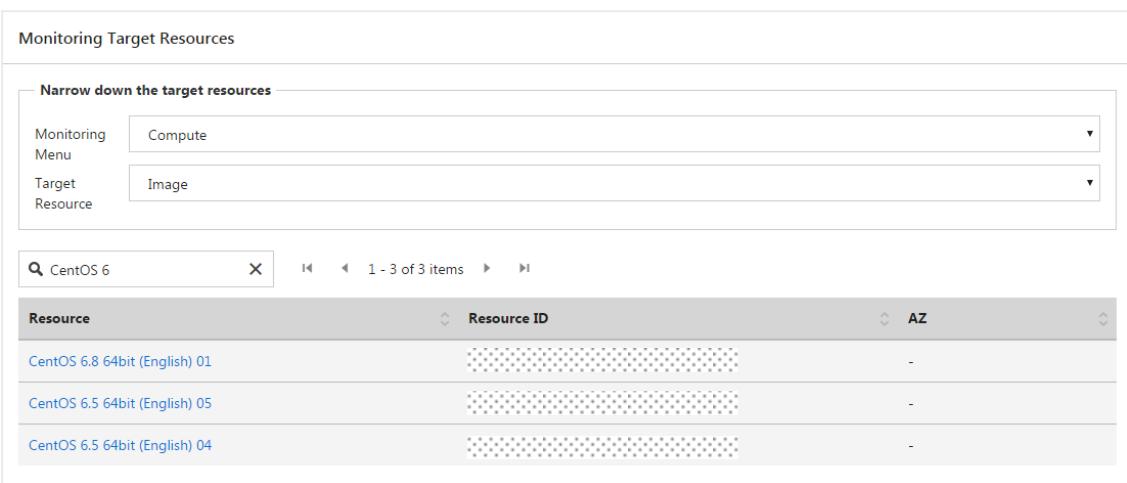
You can edit the following. Click "Update" after editing.

- How to Specify Templates
- Timeout
- Parameter

Chapter 19 Monitoring

19.1 Monitoring Target Resource List

Monitoring Target Resource List is displayed.



The screenshot shows the 'Monitoring Target Resources' interface. At the top, there is a search bar with the text 'CentOS 6'. Below the search bar, there are two dropdown menus: 'Monitoring Menu' set to 'Compute' and 'Target Resource' set to 'Image'. A table below the search bar displays three items, each with a dotted icon next to it. The columns are labeled 'Resource', 'Resource ID', and 'AZ'. The items listed are 'CentOS 6.8 64bit (English) 01', 'CentOS 6.5 64bit (English) 05', and 'CentOS 6.5 64bit (English) 04'.

Figure 169 Monitoring Target Resource List

Table 39 Displayed Contents of Monitoring Target Resource List Table

No.	Item Name	Displayed Contents
1	Resource	Resource Name
2	Resource ID	Resource ID
3	AZ	Availability Zone

19.1.1 How to display target resource list

1. On the Monitoring Target Resource List screen, select the menu from the pull-down menu of the audit menu.



Figure 170 Monitoring Target Resource List (Audit Item Sorting : Audit Menu)

- Audit Menu
 - Compute
 - Storage
 - Database
 - Network
 - Custom
- 2. Select the resource from the pull-down menu of the target resource.
*By selecting any of the Audit Menu items, items are displayed in the pull-down menu of Target Resource. The target resource that corresponds to the Audit Menu is as follows.

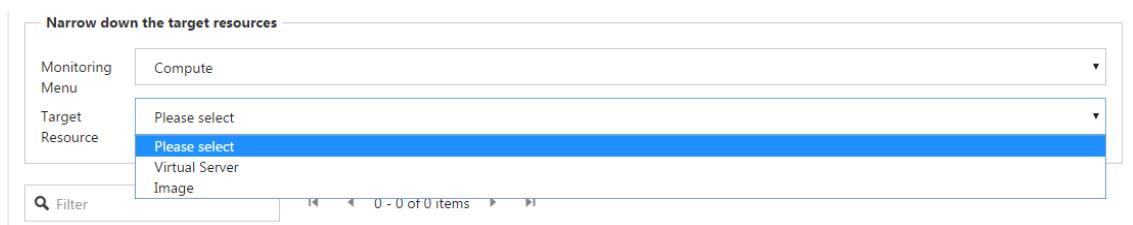


Figure 171 Monitoring Target Resource List (Audit Item Sorting : Target Resource)

- Target Resource if “compute” is selected
 - Virtual Server
 - Image
- Target Resource if “storage” is selected
 - Block Storage
 - Object Storage
- Target Resource if “database” is selected

- Database
- Target Resource if “network” is selected
 - Port
 - Global IP
 - Load Balancer
- Target Resource if “Custom” is selected
 - Custom Audit

3. Resource List is displayed.

Narrow down the target resources			
Monitoring Menu	Compute		
Target Resource	Image		
<input type="text"/> Windows Server 2012 R2 SE 6 X ✖			
Resource	Resource ID	AZ	
Windows Server 2012 R2 SE 64bit (Japanese) CMGR-AGT 01	[REDACTED]	-	
Windows Server 2012 R2 SE 64bit (Japanese) CMGR-MGR 01	[REDACTED]	-	
Windows Server 2012 R2 SE 64bit (Japanese) OPMR 01	[REDACTED]	-	
Windows Server 2012 R2 SE 64bit (Japanese) Symfo 01	[REDACTED].c	-	
Windows Server 2012 R2 SE 64bit (Japanese) APS 01	[REDACTED]1	-	

Figure 172 Monitoring Target Resource List (After Audit Item Sorting)

19.2 Resource Audit Information

By clicking the resource name of the resource displayed on the Monitoring Target Resource List, you can open the resource audit information screen. Here you can check the detailed information not displayed on the target resource list.



Figure 173 Resource Audit Information (Resource Information)

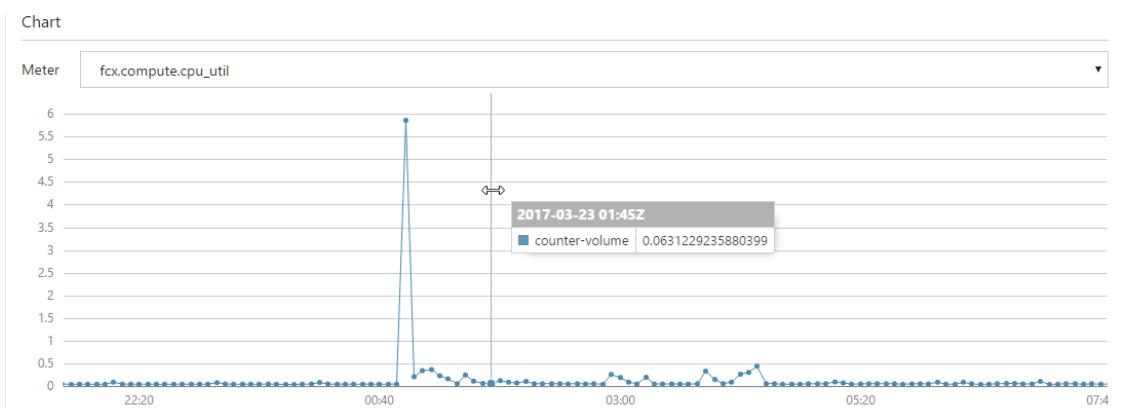


Figure 174 Resource Audit Information (Graph)



Figure 175 Resource Audit Information (Sample Statistical Value)

Table 40 Displayed Contents of Resource Audit Information

No.	Category	Item Name	Displayed Contents
1	Resource Information	Resource	Resource Name
2		Resource ID	Resource ID
3	Graph	Meter	See 19.3
4		Line Chart	
5	Sample Statistical	Minimum Value	Minimum Value of Statistical

	Value		Value
6		Maximum Value	Maximum Value of Statistical Value
7		Average Value	Average Value of Statistical Value

19.3 Graph

The graph with the horizontal axis being time and vertical axis being sample values is displayed.

19.3.1 How to change the displayed content of the graph

From the pull-down menu of Meter of the resource audit information, select the meter for which you want to display a graph.

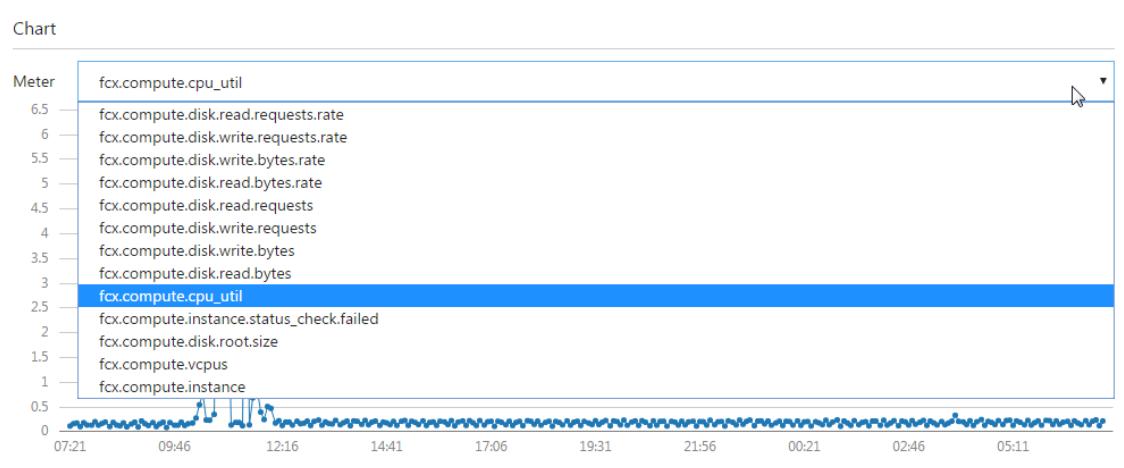


Figure 176 Resource Audit Information (Graph : Meter)

19.3.2 Graph Operation

If you move a cursor to a graph, the details of each time range (date, time, and sample values) are displayed.

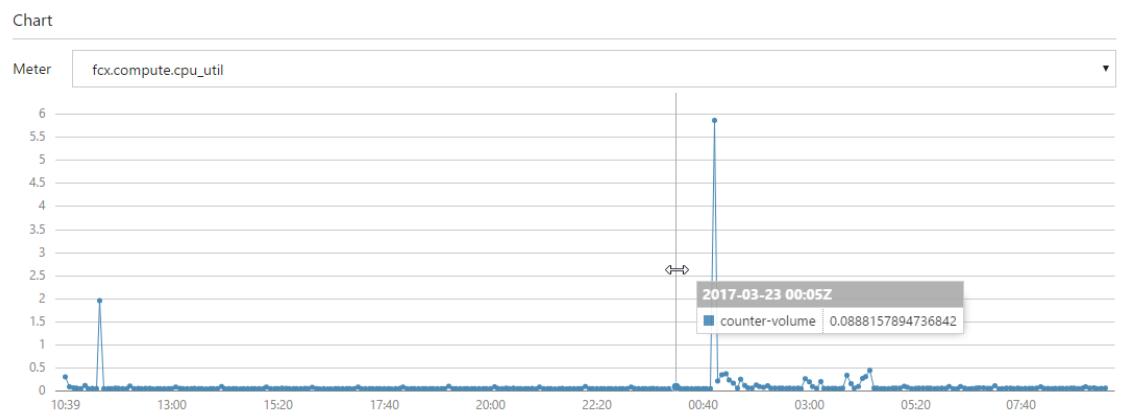


Figure 177 Resource Audit Information (Graph Details)

Also, if you move your mouse wheel upward on a graph, you can zoom in the graph. If you move it downward, you can zoom it out.

Chapter 20 Alarm

20.1 Alarm List

You can check the list and status of the alarm created in project.

Alarm List					
Search		Type	Enable/Disable	Status	Action
Alarm Name					
[REDACTED]	threshold	true	insufficient data	Action ▾	
combi-source0001	threshold	true	ok	Action ▾	
combi-source0002	threshold	true	ok	Action ▾	
combi0001	combination	true	ok	Action ▾	
[REDACTED]	threshold	true	insufficient data	Action ▾	

Figure 178 Alarm List

Table 41 Displayed Contents of Alarm List Table

No.	Item Name	Displayed Contents
1	Alarm Name	Alarm Name
2	Type	threshold / combination
3	Enable/Disable	true / false
4	Status	ok / insufficient data / alarm
5	Action	Various Operations for Alarm

20.1.1 About Operations

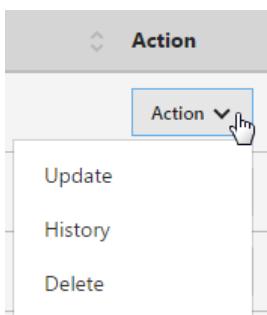


Figure 179 Alarm List Action

The below are provided as the alarm list operations.

1. Update

See 20.4

2. History

See 20.5

3. Delete

See 20.6

20.2 Alarm Creation

An alarm can newly be created.

20.2.1 How to create an alarm

6. Click the icon “+” at the upper right on the Alarm List screen.
1. Set the below information and click “Next”.

The screenshot shows the 'Create Alarm' wizard with five steps: 'Alarm Type', 'Alarm Details', 'Monitoring Item', 'Alarm evaluation schedule', and 'Action setting'. The 'Alarm Type' step is highlighted with a teal background. Below the steps is a 'Confirmation' section. Under 'Alarm Type', there are two radio buttons: 'threshold' (selected) and 'combination'. At the bottom are 'Cancel' and 'Next Page' buttons.

Figure 180 Alarm Type

- Alarm Type (threshold / combination)
- 2. Set the below information and click “Next”.

The screenshot shows the 'Create Alarm' wizard with the 'Alarm Details' step highlighted in teal. It includes fields for 'Alarm Name' (with a note: 'Please enter 255 characters and below.'), 'Enable/Disable' (radio buttons for 'Enable' and 'Disable'), 'How to Execute Action' (radio buttons for 'Rerun' and 'Do Not Rerun'), and a 'Description' text area (with a note: 'Please enter 1023 characters and below.'). At the bottom are 'Cancel', 'Back', and 'Next Page' buttons.

Figure 181 Alarm Details

- Alarm Name
- Enable/Disable
- How to Execute Action (Rerun / Do Not Rerun)
- Description
- 3. Set the below information and click “Next”.

If Alarm Type “threshold” is selected

The screenshot shows the 'Create Alarm' wizard with five steps: 'Alarm Type', 'Alarm Details', 'Monitoring Item' (highlighted in teal), 'Alarm evaluation schedule', and 'Action setting'. Below the steps is a 'Confirmation' section. Under 'Monitoring Item', there is a field labeled 'Monitoring Item *' containing 'fcx.compute.disk.read.bytes.rate' and a 'Set' button.

Figure 182 Audit Item

- Audit Item
- Click “Set” button and a pop-up window will be displayed. The below information should be set.**

The dialog box is titled 'Setting of monitoring items'. It has two sections: 'Narrow down monitoring items' and 'Monitoring Item'. The 'Narrow down monitoring items' section contains dropdown menus for 'Resource' (set to 'Please select') and 'Type'. The 'Monitoring Item' section contains a 'Filter' input field, a pagination area showing '0 - 0 of 0 items', and a dropdown menu for 'Monitoring item name'. At the bottom are 'Set' and 'Cancel' buttons.

Figure 183 Audit Item Setting

- Resource Type
 - ✧ Virtual Server
 - ✧ Database
 - ✧ Global IP
 - ✧ Virtual Network
 - ✧ Virtual Router
 - ✧ Load Balancer

- Threshold

Threshold

Threshold *	Please input within the range of -1E+308 to 1E+308 (double precision float)
Operator for comparing threshold and sampling value	Please select
Threshold Evaluation Interval	Please enter with 'Threshold Evaluation Interval' * 'Number of Threshold Eval
Number of Threshold Evaluation Repeats	Please enter between 1 and 1440.
Statistics for comparing with threshold	Please select
Treatment of data point when the number of samples is abnormally small.	<input checked="" type="radio"/> Exclude <input type="radio"/> Does not exclude

Figure 184 Audit Item (Threshold)

- Threshold
 - Operator for comparing threshold and sampling value
(equal/larger than/equal to or larger than/smaller than/equal to or smaller than)
 - Threshold Evaluation Interval (sec)
 - Number of Threshold Evaluation Repeats
 - Statistics for comparing with threshold (Average Value/Number of Samples/Maximum Value/Minimum Value/Total Value)
 - Treatment of data point when the number of samples is abnormally small
(Exclude/Does not exclude)
- Query
If you click “Add Query” button, a pop-up window will be displayed. Please set appropriate information.

Query

Field Name	Relative Operator	Value	Action
------------	-------------------	-------	--------

Add Query 

Figure 185 Alarm Creation (Add Query)

Add Query

Field Name *	Please select
Relative Operator *	Please select
Value *	

Add **Cancel**

Figure 186 Add Query

- Field Name (Project Name/User Name)
- Relative Operator
(equal/larger than/equal to or larger than/smaller than/equal to or smaller than)
- Value

If an alarm type “combination” is selected

- How to evaluate a combination (AND condition / OR condition)

Create Alarm

Alarm Type Alarm Details **Select alarm** Alarm evaluation schedule Action setting Confirmation

Condition of combination *

And Or

Figure 187 Alarm Selection (How to evaluate a combination)

- Alarm List for Combination
If you click “Add alarm” button, a pop-up window will be displayed. Please set the below information.

Combination alarm list

Alarm Name	Type	Enable/Disable	Status	Action
				Add alarm

Figure 188 Alarm Selection (Alarm List for combination)

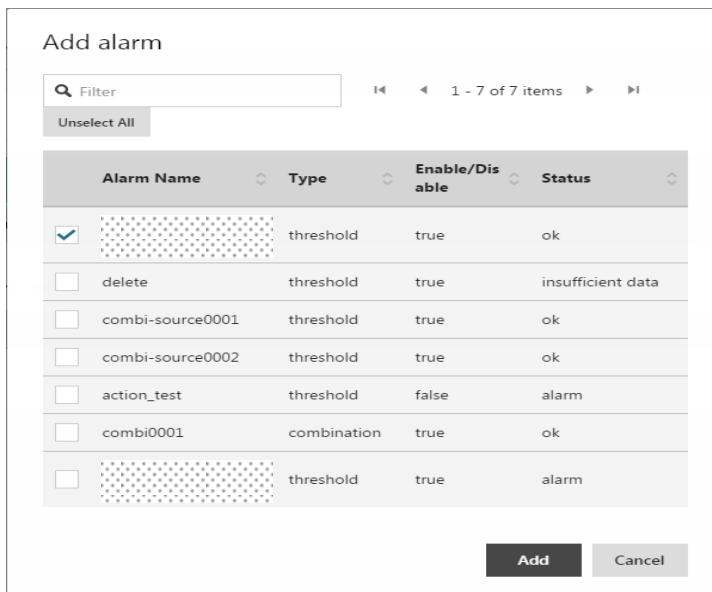


Figure 189 Add alarm

- Alarm to add

4. Please set the appropriate information and click “Next”.

The screenshot shows the 'Create Alarm' wizard with the current step being 'Alarm evaluation schedule'. The navigation bar at the top has five steps: 'Alarm Type', 'Alarm Details', 'Monitoring Item', 'Alarm evaluation schedule' (which is highlighted in blue), and 'Action setting'. Below the navigation bar is a 'Confirmation' section. Under 'Set/Not Set', there is a radio button labeled 'Set' and another labeled 'Not Set', which is currently selected. At the bottom right are buttons for 'Cancel', 'Back', and 'Next Page'.

Figure 190 Alarm Evaluation Schedule (No setting)

To be set no matter whether the alarm type “threshold” or “combination” is selected

- Setting/No Setting
 - If “setting” is selected, evaluation schedule can be added.
If you click “Add evaluation schedule” button, a pop-up window will be displayed. Set the below information.

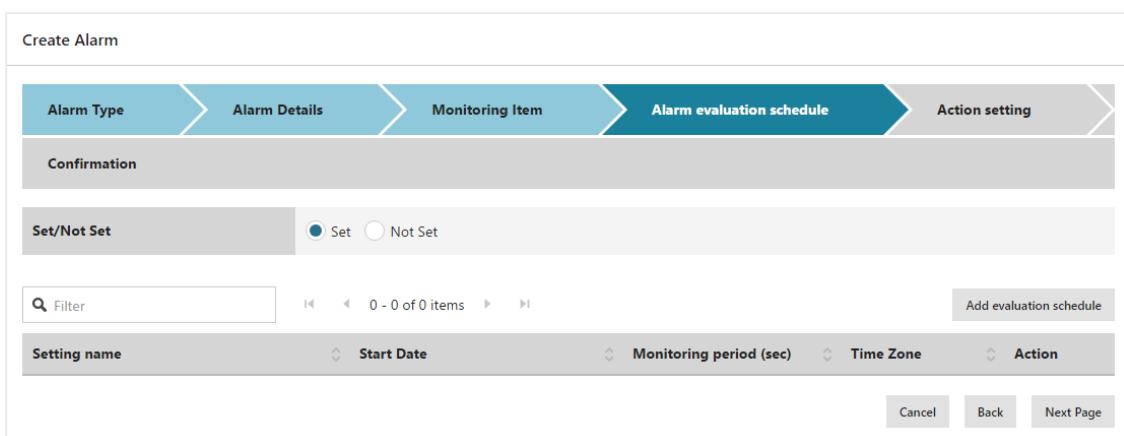


Figure 191 Alarm Evaluation Schedule (Set)

Add evaluation schedule

Basic Configuration

Setting name *	Please enter within 255 characters.
Description	Please enter within 1023 characters.

Start Date

MODE *	<input checked="" type="radio"/> Monthly <input type="radio"/> Weekly <input type="radio"/> Daily <input type="radio"/> Hourly <input type="radio"/> cron
Day *	Please enter between 1 and 31.
Hour *	Please enter between 0 and 23.
minutes *	Please enter between 0 and 59.

Monitoring period (sec) *	Please enter between 60 and 86400.
Time Zone *	UTC(+00:00) UTC

Add **Cancel**

Figure 192 Add evaluation schedule

- Basic Setting
 - Setting name
 - Description
- Start Date
 - If you select “Monthly”, set the below information.

Start Date

MODE *	<input checked="" type="radio"/> Monthly <input type="radio"/> Weekly <input type="radio"/> Daily <input type="radio"/> Hourly <input type="radio"/> cron
Day *	Please enter between 1 and 31.
Hour *	Please enter between 0 and 23.
minutes *	Please enter between 0 and 59.
Monitoring period (sec) *	Please enter between 60 and 86400.
Time Zone *	UTC(+00:00) UTC ▾

Add **Cancel**

Figure 193 Start Date and Time (Monthly)

- ❖ Day
- ❖ Hour
- ❖ minutes
- ❖ Monitoring period (sec)
- ❖ Time Zone

➤ If “Weekly” is selected, set the below information.

Start Date

MODE *	<input type="radio"/> Monthly <input checked="" type="radio"/> Weekly <input type="radio"/> Daily <input type="radio"/> Hourly <input type="radio"/> cron
WEEK *	<input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri <input type="checkbox"/> Sat <input type="checkbox"/> Sun
Hour *	Please enter between 0 and 23.
minutes *	Please enter between 0 and 59.
Monitoring period (sec) *	Please enter between 60 and 86400.
Time Zone *	UTC(+00:00) UTC ▾

Add **Cancel**

Figure 194 Start Date (Weekly)

- ❖ WEEK
- ❖ Hour
- ❖ minutes
- ❖ Monitoring period (sec)
- ❖ Time Zone

➤ If you select “Daily”, set the below information.

Start Date

MODE *	<input type="radio"/> Monthly <input type="radio"/> Weekly <input checked="" type="radio"/> Daily <input type="radio"/> Hourly <input type="radio"/> cron
Hour *	Please enter between 0 and 23.
minutes *	Please enter between 0 and 59.
Monitoring period (sec) *	Please enter between 60 and 86400.
Time Zone *	UTC(+00:00) UTC ▾

Add Cancel

Figure 195 Start Date and Time (Every Day)

- ❖ Hour
- ❖ Minute
- ❖ Monitoring period (sec)
- ❖ Time Zone

➤ If “Hourly” is selected, set the below.

Start Date

MODE *	<input type="radio"/> Monthly <input type="radio"/> Weekly <input type="radio"/> Daily <input checked="" type="radio"/> Hourly <input type="radio"/> cron
minutes *	Please enter between 0 and 59.
Monitoring period (sec) *	Please enter between 60 and 86400.
Time Zone *	UTC(+00:00) UTC

Add **Cancel**

Figure 196 Start Date and Time (Every Hour)

- ✧ minutes
- ✧ Monitoring period (sec)
- ✧ Time Zone

➤ If “cron” is selected, set the below.

Start Date

MODE *	<input type="radio"/> Monthly <input type="radio"/> Weekly <input type="radio"/> Daily <input type="radio"/> Hourly <input checked="" type="radio"/> cron
CRON format *	Please enter with cron.
Monitoring period (sec) *	Please enter between 60 and 86400.
Time Zone *	UTC(+00:00) UTC

Add **Cancel**

Figure 197 Start Date and Time (cron)

- ✧ CRON format
- ✧ Monitoring period (sec)
- ✧ Time Zone

5. Set the below information and click the “Next”.

Create Alarm

Alarm Type Alarm Details Monitoring Item Alarm evaluation schedule Action setting

Confirmation

Set/Not Set

Set Not Set

Cancel Back Next Page

Figure 198 Action Setting (No Setting)

To be set no matter whether the alarm type “threshold” or “combination” is selected

- Setting / No Setting
 - If you select “Set”, you can add “Action at alarm”, “Action at OK”, “What to do when sufficient data is not collected”. If you click “Add action” button, a pop-up window will be displayed. Please set the below.

Create Alarm

Alarm Type Alarm Details Monitoring Item Alarm evaluation schedule Action setting

Confirmation

Set/Not Set

Set Not Set

Action at alarm

Add action

Service	Select Parameter1	Select Parameter2	Action
---------	-------------------	-------------------	--------

Action at OK

Add action

Service	Select Parameter1	Select Parameter2	Action
---------	-------------------	-------------------	--------

What to do when sufficient data is not collected

Add action

Service	Select Parameter1	Select Parameter2	Action
---------	-------------------	-------------------	--------

Cancel Back Next Page

Figure 199 Action Setting (Set)

Add action at alarm

Service *	Please select
Add Cancel	

Figure 200 Add action at alarm

- Service (compute / mail)
 - If you select “compute”, set the below.

Add action at alarm

Service *	compute
Select Parameter 1 *	Please select
Select Parameter 2 *	Please select
Add Cancel	

Figure 201 Add action at alarm(compute)

- ✧ Parameter 1
- ✧ Parameter 2

Added action at OK

Service *	Please select
Add Cancel	

Figure 202 Add Action when OK

- Service (compute / mail)
 - If you select “compute”, set the below.

Added action at OK

Service *	compute
Select Parameter 1 *	Please select
Select Parameter 2 *	Please select

Add **Cancel**

Figure 203 Add Action when OK (compute)

- ✧ Parameter 1
- ✧ Parameter 2

Add action when sufficient data is not collected

Service *	Please select
-----------	---------------

Add **Cancel**

Figure 204 Add Action when data is lacking

- Service (compute / mail)
 - If you select “compute”, set the below.

Add action when sufficient data is not collected

Service *	compute
Select Parameter 1 *	Please select
Select Parameter 2 *	Please select

Add **Cancel**

Figure 205 Add Action when data is lacking (compute)

- ✧ Parameter 1
- ✧ Parameter 2

6. The setting contents you have entered so far can be checked on the confirmation screen.
If there is no problem, click “create”.

Create Alarm

Alarm Type Alarm Details Monitoring Item Alarm evaluation schedule Action setting

Confirmation

Alarm Type

Alarm Type	threshold
------------	-----------

Alarm Details

Alarm Name	test
Enable/Disable	Enable
How to Execute Action	Rerun
Description	test

Figure 206 Create Alarm

20.3 Alarm Details

If you click the alarm name of alarm list, you can open the alarm details. The detailed information not displayed on alarm list can be checked.

Alarm Details		Back to the List
Alarm Type		
Alarm Type	threshold	
Alarm Details		
Alarm Name	[REDACTED]	
Resource ID	[REDACTED]	
Enable/Disable	true	
How to Execute Action	false	
Description	Scale-up if the average CPU > 50% for 1 minute	

Figure 207 Alarm Details (Alarm Type and Alarm Details)

Monitoring Item		
Monitoring Item	fcx.compute.disk.read.bytes.rate	
Threshold		
Threshold	100	
Operator for comparing threshold and sampling value	Equal	
Threshold Evaluation Interval	300	
Number of Threshold Evaluation Repeats	1	
Statistics for comparing with threshold	Average	
Treatment of data point when the number of samples is abnormally small.	Exclude	
Query		
Field Name	Relative Operator	Value
project_id	Equal	c3_om_project

Figure 208 Alarm Details (Monitoring Item and Threshold)

Query			
Field Name	Relative Operator	Value	
metadata.user_metadata.groupname	Equal		
project_id	Equal	c3_om_project	
Alarm evaluation schedule			
Setting name	Start Date	Monitoring period (sec)	Time Zone
			Description

Figure 209 Alarm Details (Query and Alarm evaluation schedule)

Select alarm				
Condition of combination				
And				
Combination alarm list				
Alarm Name	Type	Enable/Disable	Status	
combi-source0001	threshold	true	ok	
combi-source0002	threshold	true	ok	
Alarm evaluation schedule				
Setting name	Start Date	Monitoring period (sec)	Time Zone	Description
Setting name	00 20 20 * *	300	UTC	Description

Figure 210 Alarm Details (Select alarm and Alarm evaluation schedule)

Action at alarm	Add action
Service	Select Parameter1 Select Parameter2 Action
compute	NAS-01 terminate Delete
Action at OK	
Service	Select Parameter1 Select Parameter2 Action
mail	[redacted] send Delete
What to do when sufficient data is not collected	
Service	Select Parameter1 Select Parameter2 Action
compute	NAS-01 stop Delete

Figure 211 Alarm Details (Action at alarm, Action at OK, and What to do when sufficient data is not collected)

Table 42 Displayed Contents of Alarm Details

No.	Category	Item Name	Displayed Contents
1	Alarm Type	Alarm Type	threshold / combination
2	Alarm Details	Alarm Name	Alarm Name
3		Resource ID	Resource ID
4		Enable/Disable	true / false
5		How to Execute Action	true / false
6		Description	Alarm Description
7	Monitoring Item	Monitoring Item	Monitoring Item
8	Threshold	Threshold	Threshold
9		Operator for comparing threshold and sampling value	equal/larger than/equal to or larger than/smaller than/equal to or smaller than
10		Threshold Evaluation Interval	Number of seconds
11		Number of Threshold Evaluation Repeats	Number of Threshold Evaluation Repeats
12		Statistics for comparing with threshold	Average value/Number of samples/Maximum value/Minimum value/Total value
13		Treatment of data point when the number of samples is abnormally small	Exclude/Does not exclude
14		Field Name	Project Name/User Name
15	Query	Relative Operator	equal/larger than/equal to or larger than/smaller than/equal to or smaller than
16		Value	Value

17	Select alarm	Condition of combination	AND condition / OR condition
18		Alarm Name	Names of alarm to be evaluated in the combination
19		Alarm Type	Type of each alarm: threshold / combination
20		Enable / Disable	True / false
21		Status	The latest status of each alarm: ok / insufficient data / alarm
22	Alarm evaluation schedule	Setting name	Setting name
23		Start Date	Start Date
24		Monitoring period (sec)	Number of seconds
25		Time Zone	Time Zone
26		Description	Description of Alarm evaluation schedule
27	Action at alarm	Service	compute / mail
28		Parameter 1	Parameter 1
29		Parameter 2	Parameter 2
30	Action at OK	Service	compute / mail
31		Parameter 1	Parameter 1
32		Parameter 2	Parameter 2
33	What to do when sufficient data is not collected	Service	compute / mail
34		Parameter 1	Parameter 1
35		Parameter 2	Parameter 2

20.4 Action setting

You can edit the created alarm.

20.4.1 How to set an alarm

1. On the alarm list screen, click “Update” selecting from the pull-down menu of the alarm you want to edit.

Alarm Name	Type	Enable/Disable	Status	Action
action_test	threshold	false	alarm	Action 
Alarm Name	combination	true	ok	Update  History Delete
Alarm Name threshold	threshold	true	ok	

Figure 212 Alarm List (setting)

2. On the alarm setting screen, you can set the below. Items to be edited change depending on the alarm type you selected. See 20.2 for the items to be edited of each type.

Update Alarm Cancel  Update 

Alarm Type

Alarm Type * threshold combination

Alarm Details

Alarm Name *	Alarm Name threshold
Resource ID	[REDACTED]
Enable/Disable *	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
How to Execute Action *	<input checked="" type="radio"/> Rerun <input type="radio"/> Do Not Rerun
Description	Description

Figure 213 Alarm Setting (Alarm type and alarm details)

- Alarm Type (threshold / combination)
- Alarm Name
- Resource ID
- Enable/Disable
- How to Execute Action (Rerun / Do Not Rerun)

- Description

Monitoring Item

Monitoring Item *	fcx.compute.disk.read.bytes.rate	Set
--------------------------	----------------------------------	------------

Threshold

Threshold *	100
Operator for comparing threshold and sampling value	Equal
Threshold Evaluation Interval	300
Number of Threshold Evaluation Repeats	1
Statistics for comparing with threshold	Average
Treatment of data point when the number of samples is abnormally small	<input checked="" type="radio"/> Exclude <input type="radio"/> Does not exclude

Query

Field Name	Relative Operator	Value	Action
project_id	Equal	c3_om_project	Delete

Figure 214 Alarm Setting (Monitoring Item and threshold)

Query

Field Name	Relative Operator	Value	Action
metadata.user_metadata.groupname	Equal		Delete
project_id	Equal	c3_om_project	Delete

Figure 215 Alarm Setting (Query)

- Alarm Type (if threshold is selected)
 - Monitoring Item
 - Threshold
 - Operator for comparing threshold and sampling value
(equal/larger than/equal to or larger than/smaller than/equal to or smaller than)
 - Threshold Evaluation Interval (sec)
 - Number of Threshold Evaluation Repeats
 - Statistics for comparing with threshold
 - Treatment of data point when the number of samples is abnormally small

- (Exclude / Not Exclude)
- Query

Select alarm

Condition of combination *

And Or

Combination alarm list

Alarm Name	Type	Enable/Disable	Status	Action

Add alarm

Figure 216 Alarm Setting (Select alarm)

- If an alarm type “combination” is selected
 - Select alarm (And / Or)
 - Combination alarm list

Alarm evaluation schedule

Set/Not Set

Set Not Set

Filter

0 - 0 of 0 items

Add evaluation schedule

Setting name	Start Date	Monitoring period (sec)	Time Zone	Action

Figure 217 Alarm Setting (Alarm evaluation schedule)

To be set no matter whether alarm type “threshold” or “combination” is selected

- Set/Not Set

Action setting

Set/Not Set

Set Not Set

Figure 218 Alarm Setting (Action setting)

To be set no matter whether alarm type “threshold” or “combination” is selected

- Set/Not Set

Action at alarm

Service	Select Parameter1	Select Parameter2	Action
compute	[dotted icon]	terminate	<button>Delete</button>

Action at OK

Service	Select Parameter1	Select Parameter2	Action
mail	[dotted icon]	send	<button>Delete</button>

What to do when sufficient data is not collected

Service	Select Parameter1	Select Parameter2	Action
compute	[dotted icon]	stop	<button>Delete</button>

Figure 219 Alarm Setting (Action at alarm, Action at OK, What to do when sufficient data is not collected)

To be set no matter whether alarm type “threshold” or “combination” is selected

- Action at alarm
 - Action at OK
 - What to do when sufficient data is not collected
3. Click “Update” after edition.

20.5 History of Alarm

The alarm history is displayed.

The screenshot shows the 'History of Alarm' interface. At the top, it displays the alarm name: 'hs-stack01-cpu_alarm_high-olqatckmh2o'. Below this is a 'Filtering conditions' section with two radio buttons: 'Time stamp' (selected) and 'Alarm Type'. Under 'Time stamp', there are fields for 'Start Date' (2017-02-24) and 'End date' (2017-03-10), and a dropdown for 'Alarm Type' set to 'creation'. A 'View' button is located at the bottom right of this section. Below the filtering section is a pagination bar showing '1 - 20 of 1440 items'. The main area contains a table with three columns: 'Date and time', 'Alarm Type', and 'Contents'. The table data is as follows:

Date and time	Alarm Type	Contents
2017-03-10 05:52:10.52	state transition	{"state": "ok"}
2017-03-10 05:49:10.49	state transition	{"state": "insufficient data"}

Figure 220 History of Alarm

Table 43 Displayed Contents of Alarm History

No.	Item Name	Displayed Contents
1	Alarm Name	Alarm Name
2	Filtering conditions	See 20.5.1
3	Date and time	Alarm date and time
4	Alarm Type	creation / rule change / state transition / deletion / action
5	Description	Description of Alarm

20.5.1 How to display the history of alarm

1. Click “history” of the pull-down menu of the alarm that displays the history of alarm on the Alarm List screen.

The screenshot shows the 'Alarm List' screen. It lists three alarms with columns for 'Alarm Name', 'Type', 'Enable/Disable', 'Status', and 'Action'. The 'Action' column contains a dropdown menu with options: 'Update', 'History' (which is highlighted with a cursor icon), and 'Delete'. The table data is as follows:

Alarm Name	Type	Enable/Disable	Status	Action
action_test	threshold	false	alarm	Action ▾
Alarm Name	combination	true	ok	Update History Delete
Alarm Name threshold	threshold	true	ok	

Figure 221 Alarm List (History)

2. Set the below information under the filtering conditions on the alarm history screen, and

click “View” button.

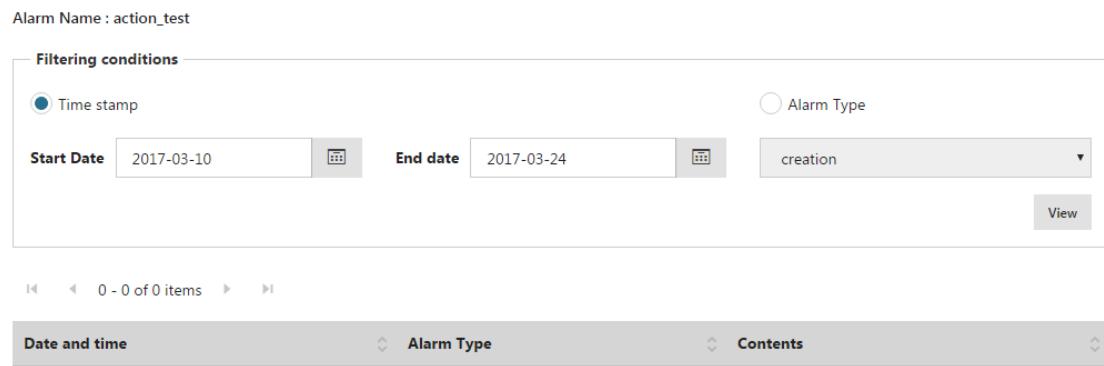


Figure 222 History of Alarm (Filtering Conditions “time stamp”)

- If a time stamp is selected, set the below.
 - Start Date
 - Click next to the text form of Start Date and select a date.

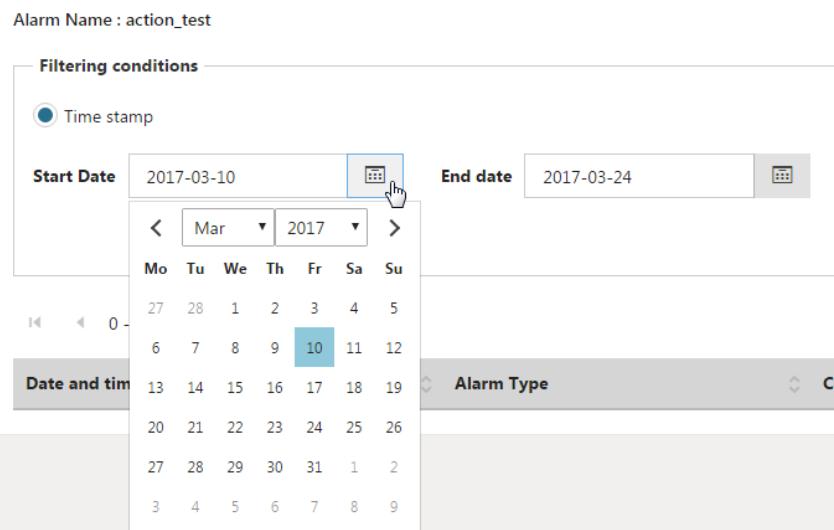


Figure 223 Time Stamp (Start Date)

- End date
 - Click next to the text form of Start Date and select a date.

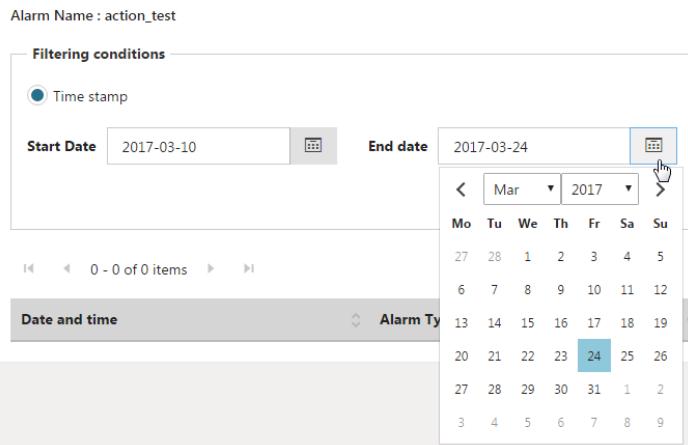


Figure 224 Time Stamp (End date)

- If “alarm type” is selected, set the below.

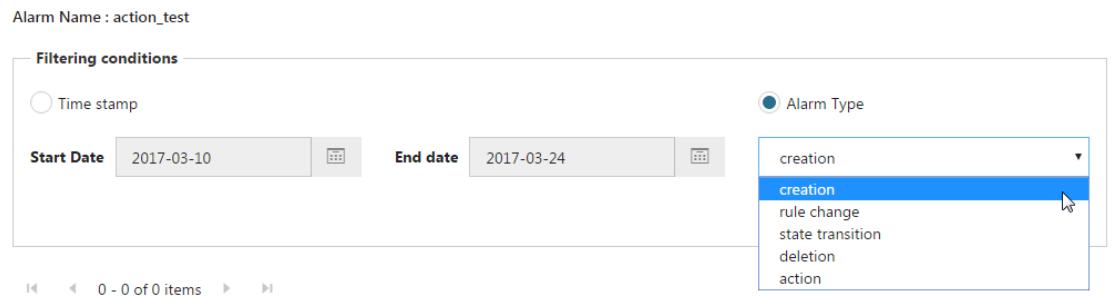


Figure 225 History of Alarm (Filtering conditions “alarm type”)

- Alarm Type
 - ✧ creation
 - ✧ rule change
 - ✧ state transition
 - ✧ deletion
 - ✧ action

20.6 Alarm Deletion

You can delete an alarm. On the alarm list screen, click “Delete” of the pull-down menu of the action of the alarm that will be deleted.

20.6.1 How to delete an alarm

1. On the alarm list screen, click “delete” of the pull-down menu of the alarm that will be

deleted.

Alarm Name	Type	Enable/Disable	Status	Action
action_test	threshold	false	alarm	Action ▾
Alarm Name	combination	true	ok	Update History
Alarm Name threshold	threshold	true	ok	Delete 

Figure 226 Alarm List (Deletion)

2. Click “delete” button if there is no problem after you have checked the contents to be deleted.

Delete Alarm

Delete the following alarm.

action_test

Delete **Cancel**

Figure 227 Deletion of Alarm

**FUJITSU Cloud Service K5
IaaS Service Portal User Guide**

Version 2.0

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