

FUJITSU Software

Cloud Services Management V1.1.0

Overview

Windows(64)

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Preface

Purpose of This Document

This manual explains an overview of Cloud Services Management.

Intended Readers

This manual is written for people who are considering installing Cloud Services Management, and want to understand its concept. It provides knowledge for people who want to deepen their understanding of Cloud Services Management, or are already using Cloud Services Management and want to know more about it.

Required Knowledge

The following knowledge is necessary.

- General knowledge regarding ICT (Information and Communication Technology)
- General knowledge regarding cloud computing

Structure of This Document

The structure and content of this manual is as follows.

[Chapter 1 Overview of Cloud Services Management](#)

Explains the outline, the features, and the system configuration of Cloud Services Management.

[Chapter 2 Departments and Roles](#)

Explains the departments managed using Cloud Services Management and each user's role.

[Chapter 3 Functions](#)

Explains the functions provided by Cloud Services Management.

[Chapter 4 Operational Environment](#)

Explains the hardware and software that are necessary to operate Cloud Services Management.

[Glossary](#)

Explains the terms used in Cloud Services Management.

Positioning of This Document

Refer to the "FUJITSU Software Cloud Services Management Documentation Roadmap" for an overview of the Cloud Services Management manuals.

Notational Conventions

For details about the names, abbreviations, and symbols used in this manual, refer to the "FUJITSU Software Cloud Services Management Documentation Roadmap".

Proper Name	Abbreviation
FUJITSU Software Cloud Services Management	Cloud Services Management
FUJITSU Software ServerView Resource Orchestrator	ROR
FUJITSU Cloud Service A5 for Microsoft Azure	Azure
Amazon Web Services	AWS
FUJITSU Cloud Service K5	K5
VMware vSphere	VMware
ServerView Operations Manager	SVOM

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Chapter 1 Overview of Cloud Services Management

This chapter explains the overview, features, and system configuration of Cloud Services Management.

1.1 What is Cloud Services Management

This section explains the overview of Cloud Services Management.

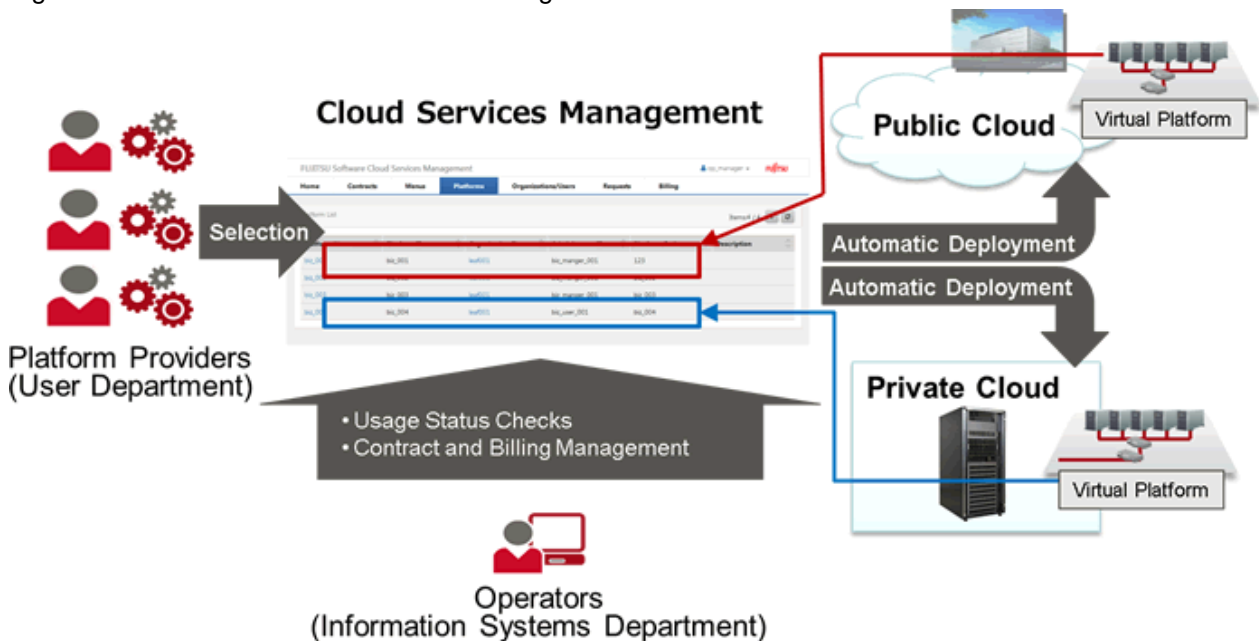
In competitive business environments in which business processes and ICT systems must change flexibly according to business policies, and in which the need to reduce costs is increasing, so too has utilization of cloud systems developed. In particular, there is a growing demand for multi-cloud environments that use public clouds in addition to private clouds.

Multi-cloud operation environments present new challenges, however, as it is difficult for operators (information systems departments) to control all clouds in a company, making it difficult to achieve company-wide optimization of ICT resources.

Cloud Services Management is software that realizes control of cloud usage in multi-cloud environments.

By using this product, the usage of clouds, which was previously managed by individual departments and group companies, can be managed collectively. In addition, by standardizing private clouds and public clouds based on secure and reliable information in multi-cloud environments, platform providers (user departments) can select the cloud type that best fits their needs.

Figure 1.1 Overview of Cloud Services Management



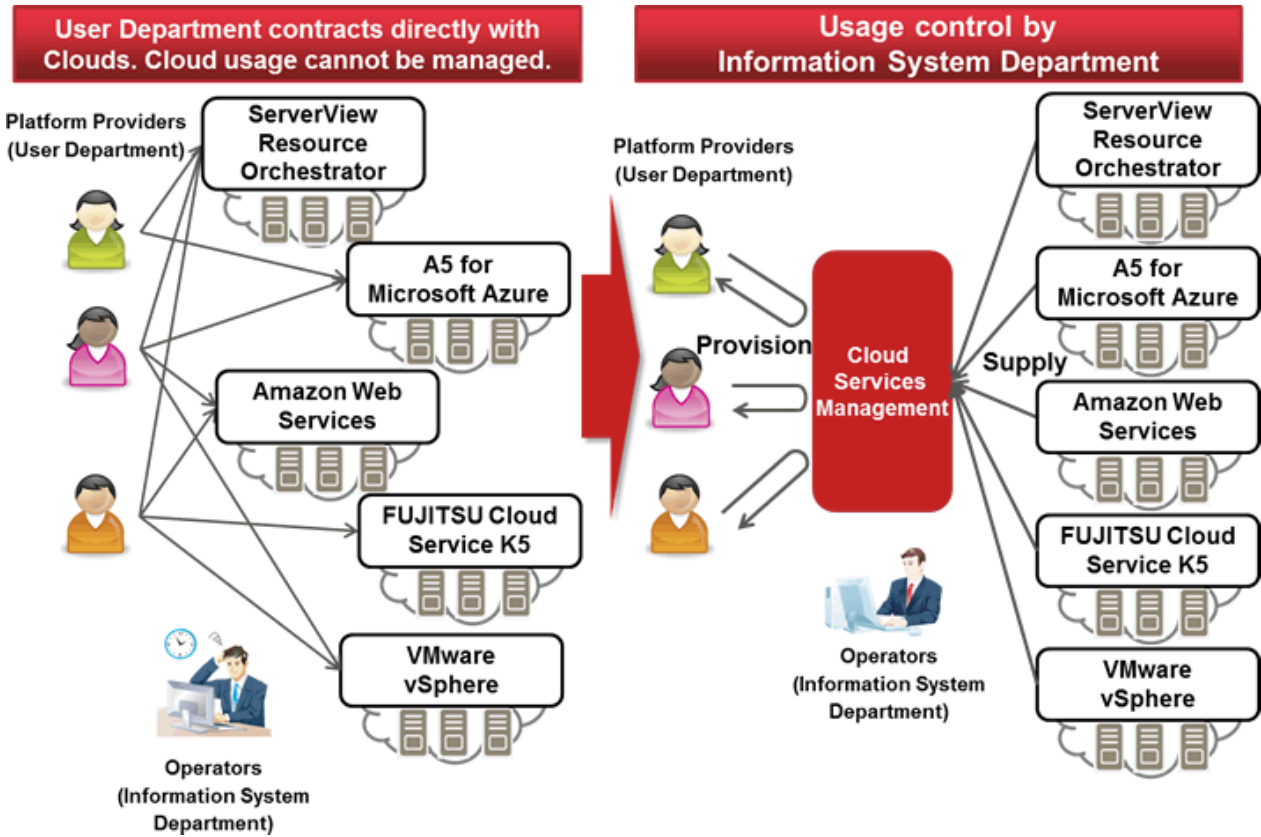
1.2 Features

This section explains the main features of Cloud Services Management.

1.2.1 Controlled Cloud Usage

- Operators (information systems departments) can realize cloud usage control by centralizing everything from contracts to service delivery.
- Operators (information systems departments) can check the cloud usage status of each platform provider (user department).
- This frees platform providers (user departments) from work related to contracts that previously had to be performed individually, and lets them focus on business development.

Figure 1.2 Cloud Usage Control Using Cloud Services Management



1.2.2 Clear Cloud Selection Criteria

- Operators (information systems departments) can create cloud menus sorted by the service and security requirements of platforms, and select the cloud service best suited for meeting the requirements of each menu.
- Design of cloud menus can be performed flexibly according to how the cloud is used.
- Operators can set multiple virtual machine specifications in individual menus and provide them to platform providers (user departments).
- Platform providers (user departments) can select the menu options from the published menu that fit their requirements.

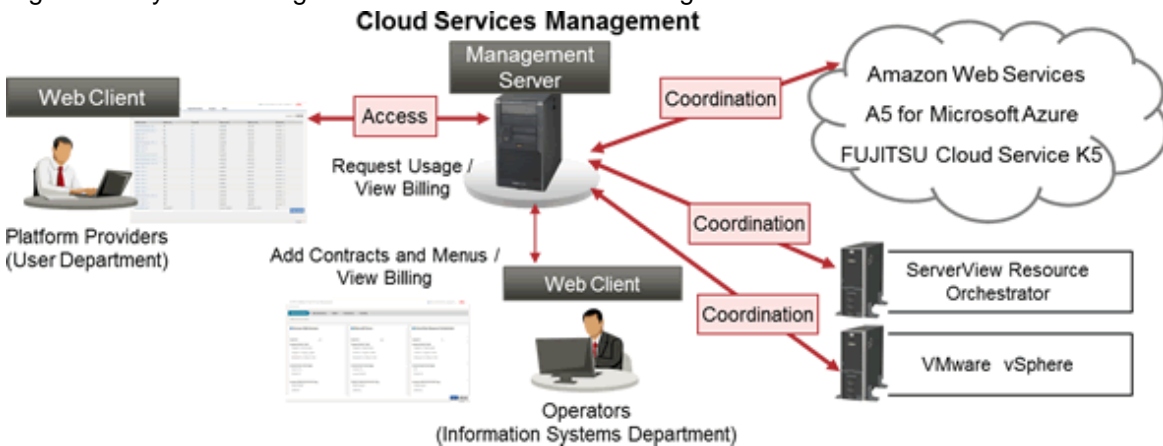
Figure 1.3 Examples of Categories of Menus

Sorting of Menu				Cloud Selection		
Menu Configuration		Service Availability	Permitted Time for Service Outtage	Security Level		
Premium	Critical System Unstoppable	24 hours 365 days	Under 10 minutes	AAA - AA	CPU/Memory: L Disk: 200 GB min.	Private Cloud
Gold	Critical System Nonstop	24 hours 365 days	Under 1 hour	AA - A	CPU/Memory : M - L Disk: 150 GB min.	
Silver	Critical or Dept. System	24 hours 365 days	Under 4 hours	A - BBB	CPU/Memory: S - M Disk: 120 GB min.	
Bronze	Dept. System High Security	Best Effort	Under 8 hours	A - BBB	CPU/Memory: S - M Disk: 100 GB min.	
	Windows Dept. System	Best Effort	Under 8 hours	BBB	CPU/Memory: S - M Disk: 80 GB min.	Public Cloud
	Linux Dept. System	Best Effort	Under 8 hours	BBB	CPU/Memory: S - M Disk: 50 GB min.	

1.3 System Configuration

This chapter explains the system configuration of Cloud Services Management.

Figure 1.4 System Configuration of Cloud Services Management



Management Server

The server on which Cloud Services Management operates.

Web Client

Used to access the Cloud Management Portal provided by Cloud Services Management.



- For details on the Cloud Management Portal, refer to "3.1 Cloud Management Portal".

- For categories of users, refer to "[Chapter 2 Departments and Roles](#)".

Chapter 2 Departments and Roles

This chapter explains the departments and user roles (authorities) managed by Cloud Services Management.

- Departments
- User Roles

2.1 Departments

Cloud Services Management manages the following three departments:

- Planners
- Operators
- Platform Providers

Planners

This section explains the planners department.

Planners handle the selection of the clouds to be used by a company and their contracts.

Planners have the following roles:

- Responsibility for contracts with cloud providers.
- Management of menus published for platform providers.



See

For details on menus, refer to "[3.4 Menu Management](#)".

Operators

This section explains the operators department.

Operators handle the operation and management of a system.

Operators have the following roles:

- User management and approval of service requests made by the platform providers.
- Configuration and operation of private cloud environments.

Platform Providers

This section explains the platform providers department.

Platform providers develop and provide applications and platforms using clouds.

Platform providers have the following roles:

- Development and provision of applications and platforms using clouds.
- Platform management such as starting and stopping platforms.



See

For details on platforms, refer to "[3.6 Platform Management](#)".

2.2 User Roles

This section explains user roles.

User roles refer to the operation authorities granted to the users of Cloud Services Management. There are two types of user roles: approver and representative, which are assigned to each department.

In addition to the approver and representative roles, operators possess the administrator role with special authorities for Cloud Services Management operation.

The representative role and the approver role have almost the same authority, but approvers use request approval operations to finalize the addition and modification operations performed by representatives.

The administrator role is a role used to perform special operations related to maintenance and operation, such as investigating and recovering from failures, and verifying connections with external clouds.

In addition, users can operate simultaneously as planners and platform providers, or as operators and platform providers, and have the authorities of both departments.

The operation authorities granted to each department and its roles are as shown below.

Table 2.1 Operation Authorities of Platform Providers

Menu	Approver	Representative
Contract Management	No authorities	No authorities
Menu Management	Reference	Reference
Project Management	Add Modify/Delete (Refer to " Roles in Projects ")	Modify/Delete (Refer to " Roles in Projects ")
Platform Management	Refer to " Roles in Projects "	Refer to " Roles in Projects "
Organization/User Management	Reference of the organization information in the platform provider's own organization Add/Modify/Delete of the user information in the platform provider's own organization	Reference of the organization information in the platform provider's own organization Add/Modify/Delete of the user information in the platform provider's own organization
Request Management	Request/Cancel/Approve/Reject	Request/Cancel
Billing Management	Reference by organization in the platform provider's own organization/reference by project of the projects to which the platform provider belongs	Reference by organization in the platform provider's own organization/reference by project of the projects to which the platform provider belongs

Table 2.2 Operation Authorities of Operators

Menu	Approver	Representative	Administrator
Contract Management	Add/Modify/Delete	Add/Modify/Delete	Add/Modify/Delete
Menu Management	Reference	Reference	Add/Modify/Delete
Project Management	Reference	Reference	Add/Modify/Delete
Platform Management	Reference	Reference	Add/Modify/Delete
Organization/User Management	Add/Modify/Delete	Add/Modify/Delete	Add/Modify/Delete
Request Management	Request/Cancel/Approve/Reject	Request/Cancel/Approve/Reject	Request
Billing Management	Reference By Organization	Reference By Organization	Reference By Organization

Menu	Approver	Representative	Administrator
	Reference By Menu	Reference By Menu	Reference By Menu
	Reference By Project	Reference By Project	Reference By Project

Table 2.3 Operation Authorities of Planners

Menu	Approver	Representative
Contract Management	Reference	Reference
Menu Management	Add/Modify/Delete	Add/Modify/Delete
Project Management	Reference	Reference
Platform Management	Reference	Reference
Organization/User Management	Reference only of organization information Add/Modify/Delete of user information	Reference only of organization information Add/Modify/Delete of user information
Request Management	Request/Cancel/Approve/Reject	Request/Cancel
Billing Management	Reference By Organization Reference By Menu Reference By Project	Reference By Organization Reference By Menu Reference By Project

Dual Roles

Dual roles can be assigned to users.

The following dual roles can be assigned:

- Planners & Platform Providers - Approver
- Planners & Platform Providers - Representative
- Operators & Platform Providers - Approver
- Operators & Platform Providers - Privileged Approver
- Operators & Platform Providers - Representative
- Operators & Platform Providers - Privileged Representative
- Operators - Privileged Approver
- Operators - Privileged Representative

When a dual role user performs an operation for a department, the user's role must be switched accordingly.

However, users can cancel their own requests without switching roles.



Note

A user cannot be both an approver and a representative.

Roles in Projects

Project users have roles valid within the relevant project in addition to the approver or representative role. During creation of a project, a role is granted to each user added as a project member.

This role determines the user's authorities for service operations targeting the project and platforms in the project.

Project Manager

The project manager role is granted to the user who created the project.

Projects can be created by users who have the platform provider approver role.

Project managers can manage, modify, and delete information of the relevant project.

Project User

The project user role is granted to the members added to the project.

Users who have this role can use platforms added to the project and services added to those platforms.

Each role has the following operation authorities.

Service operations refer to the starting and stopping of virtual machines, and the creation, restoration, and deletion of snapshots.

Table 2.4 Project Roles and Authorities

Project Role	Projects	Platforms	Services
Project Manager	Modify/Delete Add/Delete of project members	Add/Modify/Delete	Add/Modify/Delete Service Operations
Project User	Add/Delete of project members	Add/Modify/Delete	Add/Modify/Delete Service Operations

Chapter 3 Functions

This chapter explains the functions provided by Cloud Services Management.

Cloud Services Management provides the following functions:

- Cloud Management Portal
- Organization/User Management
- Contract Management
- Menu Management
- Project Management
- Platform Management
- Request Management
- Billing Management

The functions of Cloud Services Management can be operated using the web interface called the "Cloud Management Portal".



See

For details on operation procedures of the functions explained in this chapter, refer to the "FUJITSU Software Cloud Services Management User's Guide for Planner and Operator" and the "FUJITSU Software Cloud Services Management User's Guide for Platform Provider".

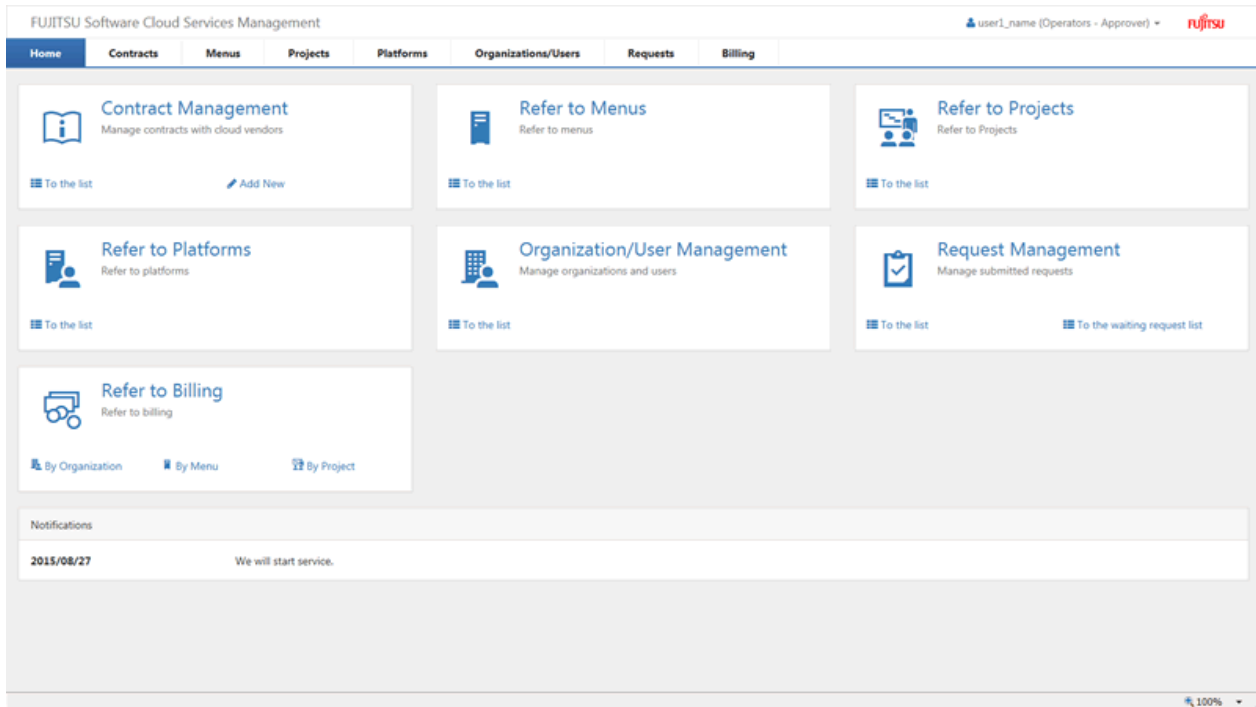
3.1 Cloud Management Portal

Operation management of this product can be performed from the Cloud Management Portal. Users can use the Cloud Management Portal to perform management work based on their user roles.

When a user enters the ID and password to log in to the Cloud Management Portal, the [Home] window of the Cloud Management Portal is displayed. The Cloud Management Portal provides the following functions:

- Notifications
 - Provides notifications of the information about the systems that use this product as well as the information about public and private clouds.
- Function List
 - Displays a list of the functions provided by this product. Users can use those functions by selecting the desired function from the list.

Figure 3.1 Example of the Home Window



3.2 Organization/User Management

This product provides Organization/User Management that enables management of organizations and users. By reflecting information about organizations and users onto this product, it is possible to perform control and management which conforms to the actual conditions of cloud users.

Organization/User Management is a function available to all users. The available functions differ depending on the role of the department and user.

For planners, Organization/User Management provides the following functions:

- Organization List

Displays all of the added organizations, accounting codes that are not allocated to organizations, and the information of users of planners and operators in list format.

- Add User

The addition of users to planners is possible.

For operators, Organization/User Management provides the following functions:

- Organization List

Displays all of the added organizations, available accounting codes that are not allocated to organizations, and the information of users belonging to planners and operators in list format.

- Add Organization

Create a new organization using the [Add Organization] button.

- Add User

The addition of users to all departments is possible.

For platform providers, Organization/User Management provides the following functions:

- Details and User List

Displays detailed information about the organizations belonging to the organization, available accounting codes, and the user list of the organization to which the platform provider belongs.

- Add User

Users can be added to the target organization.



- Organizations, accounting codes, and users can be added and modified in batches using commands. For details on how to perform commands, refer to the "Cloud Services Management Operation Guide".
- By specifying an existing installation of Active Directory as the coordinated directory service of SVOM, user authentication in Cloud Services Management can be integrated with Active Directory.

Figure 3.2 Example of the Organization/User Management Window (User List)

The screenshot displays the 'Organization/User Management' window in the FUJITSU Software Cloud Services Management application. The interface includes a navigation menu with options like Home, Contracts, Menus, Projects, Platforms, Organizations/Users (selected), Requests, and Billing. The main content area is divided into three sections:

- Organization List:** A table with columns for Organization Name, Organization ID, Organization Short Name, and Description. It lists five organizations: AHeadquarters, BHeadquarters, CHeadquarters, wd_org_a, and project001.
- Accounting Code List - Unallocated:** A table with one column for Accounting Code, listing three codes: AC:523, AC:525, and AC:527.
- Planners - User List:** A table with columns for User Name, User ID, Role, and Description. It lists seven users, including several with roles like 'Planners - Approver' and 'Planners - Representative', and one with role 'Planners - Approver' and description 'demo'.
- Operators - User List:** A table with columns for User Name, User ID, Role, and Description. It lists ten users, including several with roles like 'Operators - Approver' and 'Operators - Representative', and two with roles 'Operators - Privileged Approver' and 'Operators - Administrator'.

The interface also features a search bar at the top right, a 'Page Top' button at the bottom right, and a zoom level indicator at the bottom right showing 100%.

3.3 Contract Management

This product provides Contract Management that manages the IDs of the contracts provided by cloud providers as well as various types of information. By collating and managing various types of information related to the actual virtual machines and cloud providers in use, it is possible provide greater convenience to the operators of a system.

Contract Management is a function for use by operators.

By using Contract Management, not only the contracts provided by cloud providers, but also private cloud information, can be managed. Contract Management provides the following functions:

- Contract List

Displays a list of the contracts that have been added in the system. Details of the added contracts can be checked by selecting the name of a contract from the list.

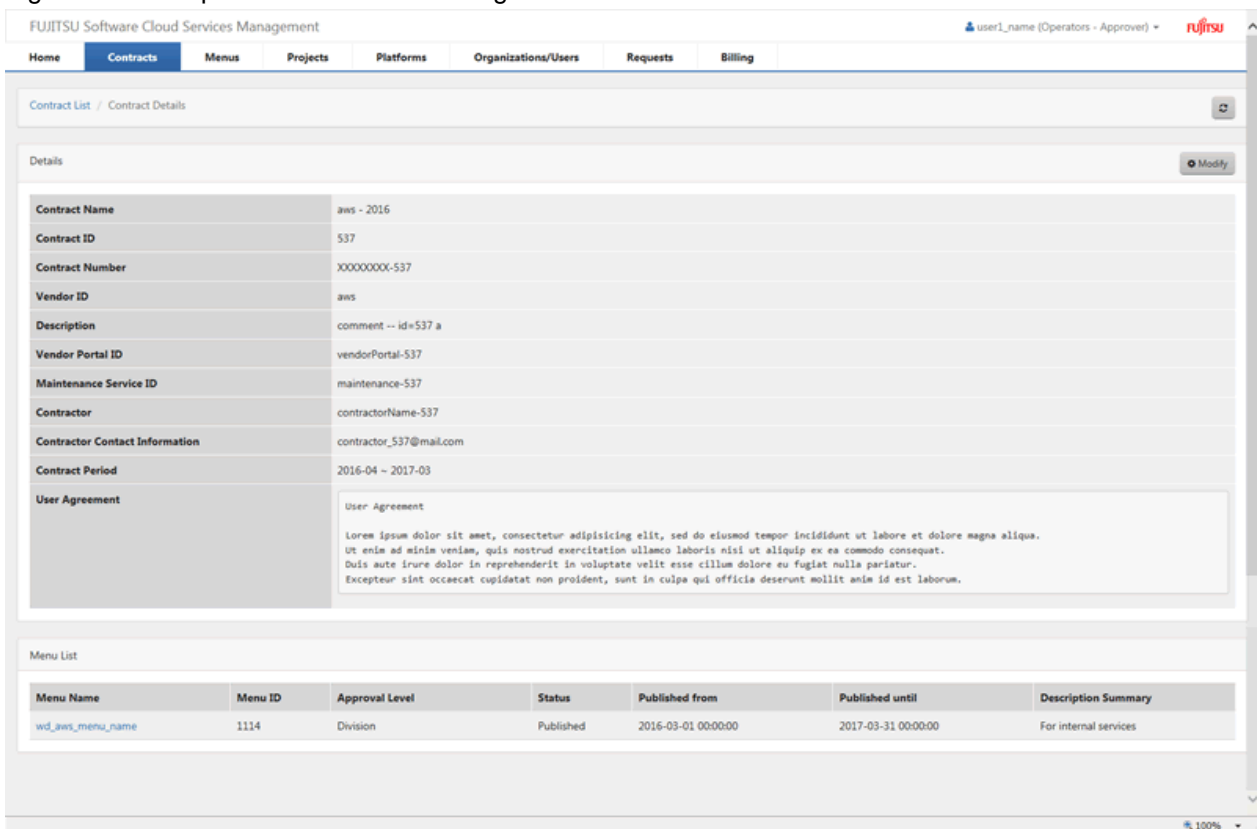
- Add Contract

Enables the easy addition of contracts using in-program navigation, including the selection of a cloud vendor, addition of basic information such as the Contract ID, etc.



Batch addition can be performed using a command. For details on how to perform commands, refer to the "Cloud Services Management Operation Guide".

Figure 3.3 Example of the Contract Management Window



3.4 Menu Management

This product provides Menu Management that enables the creation and update of the menus to be published for platform providers.

A menu is a systematic structure that enables easy comparison and selection of a cloud provider and contracted cloud, or an on-premises environment, based on metrics, such as service levels and security levels, which the menu provides.

Using menus, platform providers can use clouds without having to be conscious of hardware configurations and cloud types. In addition, operators can standardize criteria for use during the selection of a cloud, which can prevent issues relating to high cost systems or those with low levels of service.

Menu Management is a function for use by planners and platform providers. The available functions differ depending on the role of the department.

For planners, Menu Management provides the following functions:

- Menu List

Displays a list of the menus already added in the system. In the list, the approval level and status are visualized. In addition, details of added menu information can be checked by selecting a menu name from the list.

- Add Menu

Adds menu information, including basic information such as menu names, approval levels, and billing information, based on the contract. Users can add menus easily, by following the navigation provided by this product.

For platform providers, Menu Management provides the following functions:

- Menu List

Displays a list of the menus available for platform providers.

- Add Platform

Select a desired menu from the menu list and add a platform. To add a platform, add the necessary information such as the name and ID of the platform, following the navigation provided by this product.



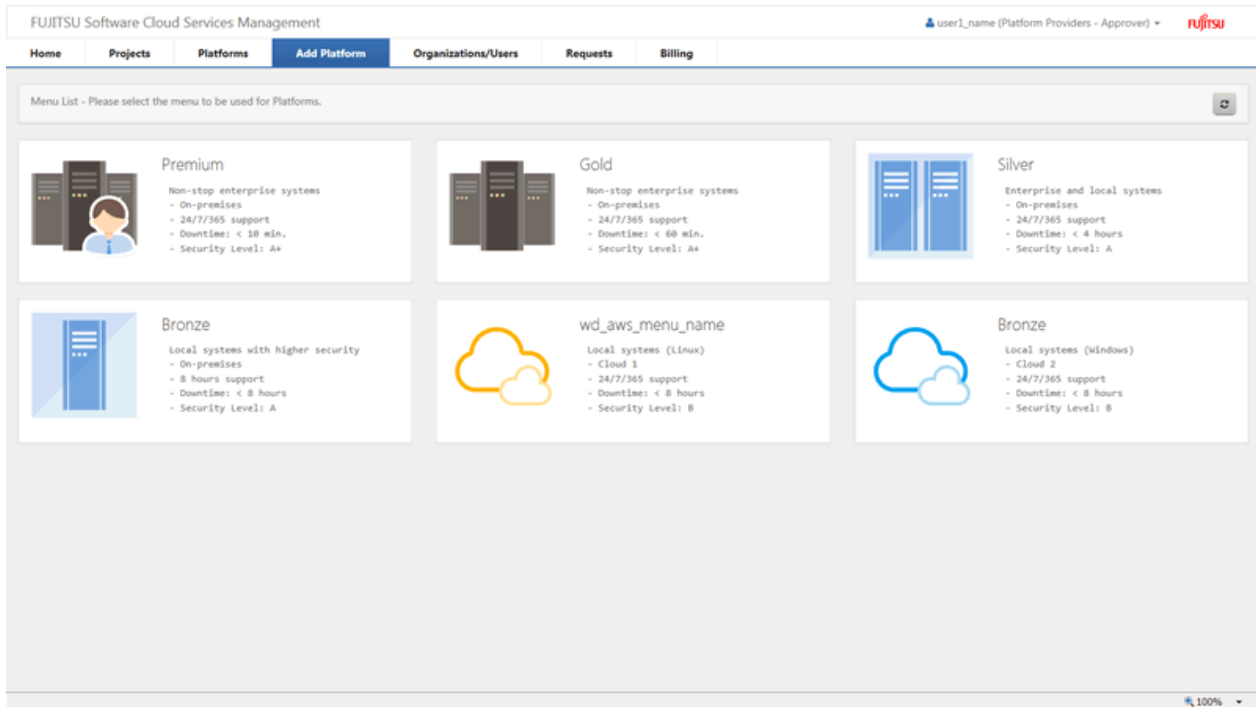
- Batch addition of menus and platforms can be performed using commands. For details on how to perform commands, refer to the "Cloud Services Management Operation Guide".
- In order to create a platform, it is necessary to create a project beforehand.

Figure 3.4 Example of the Menu List (for Planners)

Menu Name	Menu ID	Contract ID	Approval Level	Status	Published from	Published until	Description Summary
Premium	546	541	project	Hidden	2015-01-01 00:00:00	2015-02-01 00:00:00	For key service
Gold	688	541	Group	Published	2015-01-01 00:00:00	2015-02-01 00:00:00	For sectional service
Silver	830	541	Headquarters	Published	2015-01-01 00:00:00	2015-02-01 00:00:00	For sectional service
Bronze	972	541	Group	Published	2015-01-01 00:00:00	2015-02-01 00:00:00	For sectional service
wd_aws_menu_name	1114	537	Headquarters	Published	2015-01-01 00:00:00	2015-02-01 00:00:00	For sectional service
Bronze	1256	539	Headquarters	Published	2015-01-01 00:00:00	2015-02-01 00:00:00	For sectional service

For platform providers, the menu list can be viewed from the [Add Platform] navigation tab.

Figure 3.5 Example of the Menu List (for Platform Providers)



3.5 Project Management

This product provides the project management function to manage the operating users with the function to bundle multiple platforms.

Users belonging to any organization can be added as members of a project. Project members can share platforms in the project to which they belong. To each member, a role valid within the project is allocated in addition to the role of the user in Cloud Services Management (representative or approver). There are two types of project roles: Project managers, who are responsible for the management of project information, and project users, who are users of the project.

In each project, multiple platforms can be added. These platforms share the approval flows, usage charges, and usage limits configured for the menu. The project manager manages usage limits based on a budget in order to facilitate appropriate platform usage.

Project management is a function used by operators, planners and platform providers. The available functions differ depending on the role of the department.

For operators, and planners, Project Management provides the following functions:

- Project List

A list of all projects held by the system is displayed. In the project list, information such as the project name, the project ID, and the accounting code can be checked.

Selecting the name of the project you want to reference from the project list to check the information such as the platforms linked with the related project and the project members.

For platform providers, Project Management provides the following functions:

- Project List

An approver can check the projects for which a payer is configured under the approver's own organization and the projects for which the approver is configured as a member.

A representative can check the projects for which the representative is configured as a member.

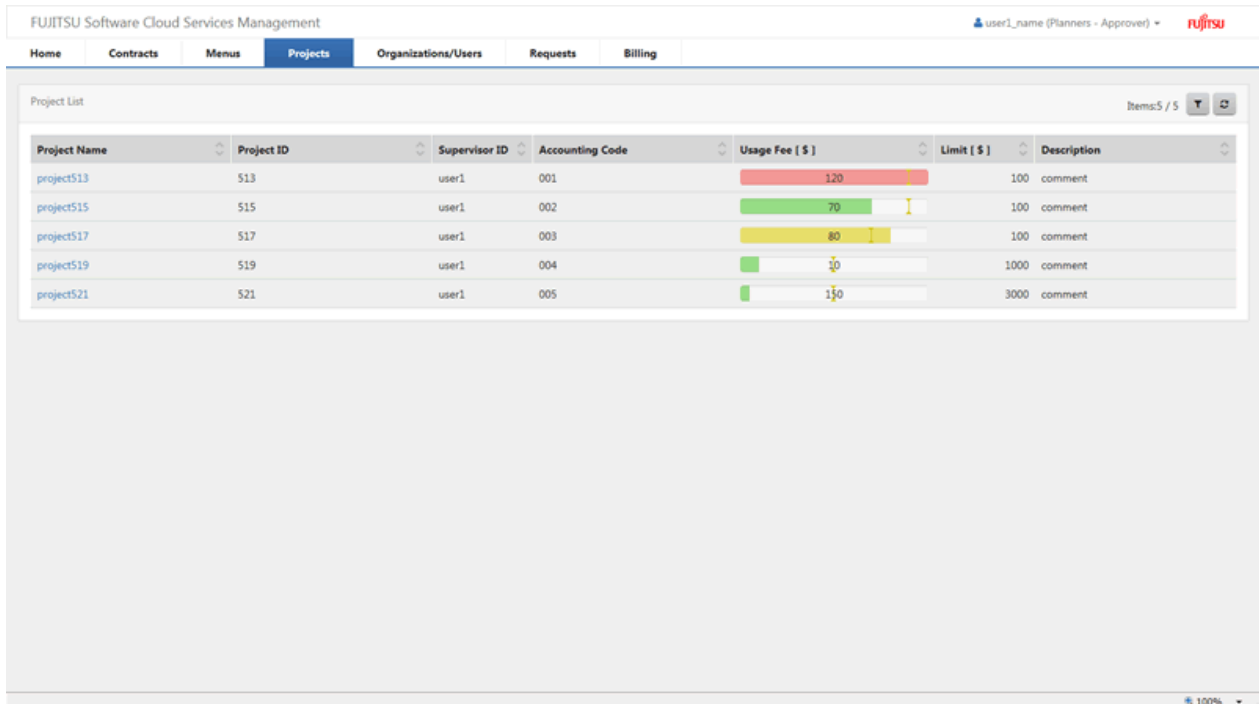
By selecting the name of the project to reference from the project list, the information such as the platforms linked with the related project and the project members can be checked.

- Adding Projects and Project Members

An approver defines the payer organization, operating members, etc. of a platform to be created, and adds the project.

The added project members can add or modify platforms or services linked with the project, and operate added services.

Figure 3.6 Example of the Project Management Window



Project Name	Project ID	Supervisor ID	Accounting Code	Usage Fee [\$]	Limit [\$]	Description
project513	513	user1	001	120	100	comment
project515	515	user1	002	70	100	comment
project517	517	user1	003	80	100	comment
project519	519	user1	004	10	1000	comment
project521	521	user1	005	150	3000	comment

Point

- Billing limits (thresholds) can be set on the level of the individual project. If the billing of a project exceeds the specified limit, additional operations, etc. of resources (platforms and services) belonging to that project are restricted.
- In order to create a project, it is necessary to create an accounting codes and allocate them to an organizations beforehand.

3.6 Platform Management

This product provides Platform Management that enables the reference and updating of the platforms created by platform providers. Using Platform Management, created platforms, information about connection with the clouds to be used, and usage environments can be managed. It is possible to consolidate cloud usage statuses based on the duties of cloud users.

Platform Management is a function used by operators, planners, and platform providers. The available functions differ depending on the role of the department and user.

For operators and planners, Platform Management provides the following functions:

- Platform List

Displays a list of all platforms managed by the system. Platform list enables the confirmation of information about platforms, including names, IDs, supervisors, etc.

In addition, the details of each platform can be confirmed by selecting the platform from the list of platforms.

For platform providers, Platform Management provides the following functions:

- Platform List

Displays a list of all platforms being used by the platform providers who are project members. By selecting a platform that you want to view and update from the list of platforms, the details of that platform can be checked.

- Update Platforms and Add Services

From the detailed information of the platform, it is possible to update the basic information and add services.



- Batch addition of platforms can be performed using commands. For details on how to perform commands, refer to the "Cloud Services Management Operation Guide".
- In order to create a platform, it is necessary to create a project beforehand.

Figure 3.7 Example of the Platform Management Window (Add Service)

The screenshot displays the 'Platform Management Window' for 'System Development - 1114 - 9'. The interface includes a navigation menu with 'Platforms' selected, and a 'Details' section with the following information:

Platform Name	System Development - 1114 - 9
Platform ID	1228
Project ID	513
Supervisor ID	user@290
Platform Code	code-108
Description	comment -- 8
Menus	wd_aws_menu_name

Below the details are 'Operation Options' (Backup: \$10,000,000 per month; DR: \$10,000,000 per service-month) and 'Key Pair' (Name: keyPair1). The 'Services' section shows a summary of resources: 4 Virtual Machines, 1 SLB, and 1 RDB. Below this, individual service details are shown for VM 1228-0, VM 1228-1, VM 1228-2, and VM 1228-3, along with SLB 1228 and RDB 1228. Each service card displays its Service ID, Status, IP Address, Instance Type, and System Disk Image.

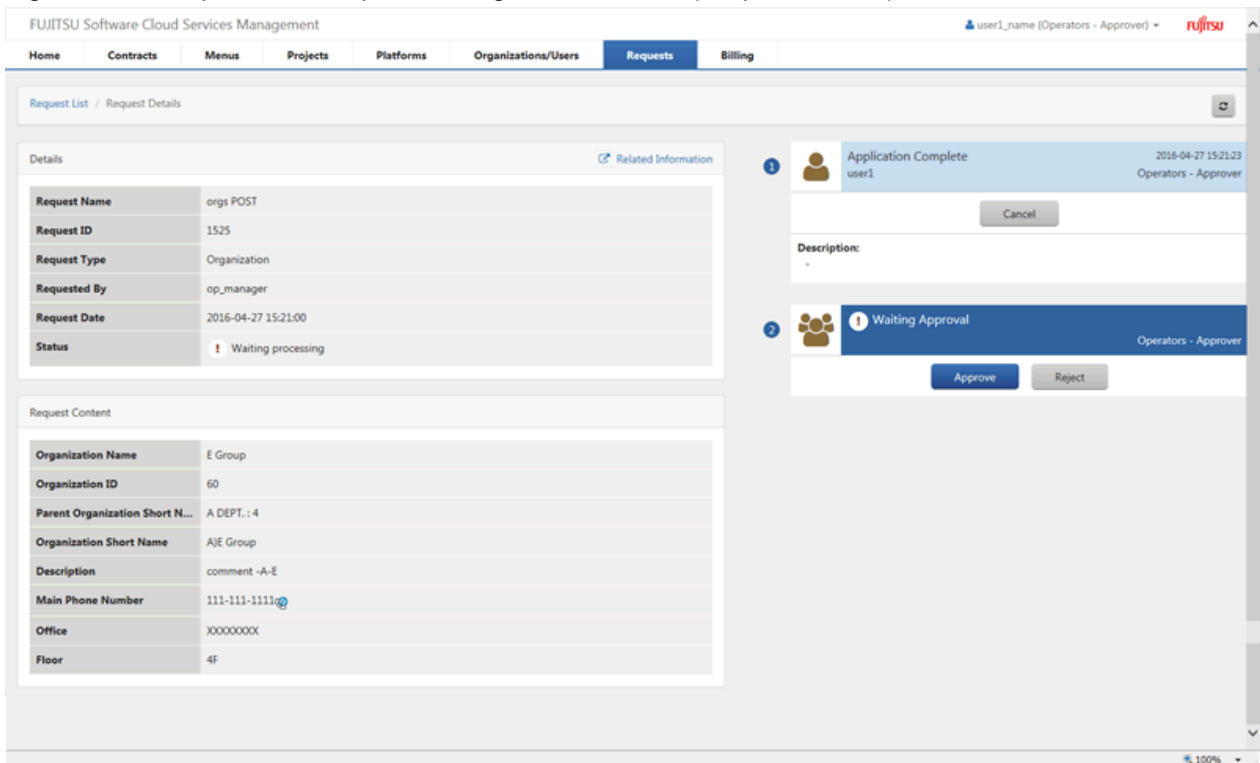
- Starting and stopping of allocated services can also be performed on this window.
- If the limit for the billing of an individual project is exceeded, the addition of services or other operations which may incur additional billing charges are restricted.

3.7 Request Management

This product provides Request Management that enables the management of contract requests from platform providers.

Request Management is a function available to all users. Using Request Management, it is possible to check the requests issued by users in each department. The approver of each department approves or rejects the issued requests.

Figure 3.8 Example of the Request Management Window (Request Details)



- The approval flow of a request can be changed by the approval flow configuration information and the Menu Management window. For details, refer to the "Cloud Services Management Operation Guide".
- Requests which have been entered are automatically deleted after the preconfigured storage period. For details on the automatic deletion of requests, refer to the "Cloud Services Management Operation Guide".

3.8 Billing Management

This product provides Billing Management that calculates usage charges according to the actual amount of usage of the clouds.

Billing Management is a function for use by planners, operators, and platform providers.

Using Billing Management, it is possible to display information by organization, by platform, by project, and by time period.

The available functions differ depending on the role of the department and user.

For planners and operators, Billing Management provides the following functions:

- Billing By Organization
Displays the transition of usage charges of all organizations and the usage charge for each platform.
- Billing By Menu
Displays the usage charges for each menu.
- Billing By Project
Displays the billing charges for each project.

For platform providers, Billing Management provides the following functions:

- Billing By Organization
Displays the transition of usage charges of the user's own department and the usage charges for each platform.
- Billing By Project
Displays the billing charges for each project.

Figure 3.9 Example of the Billing Management Window (Graph)

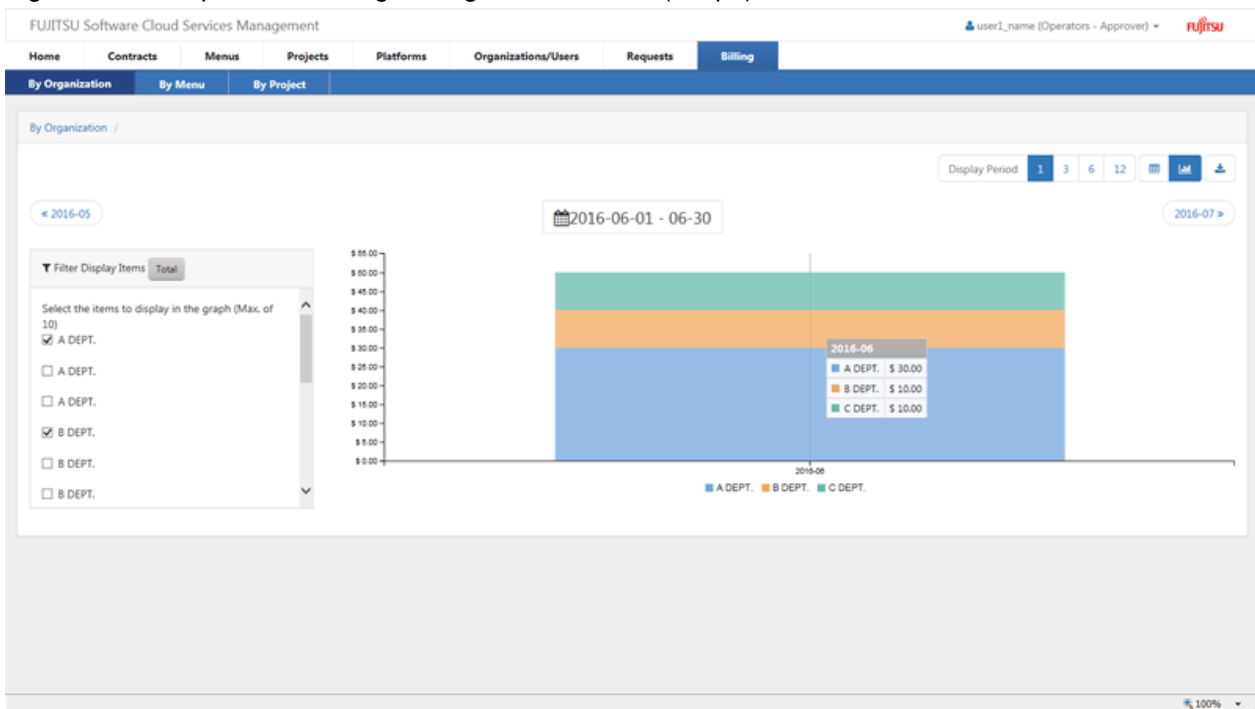


Figure 3.10 Example of the Billing Management Window (List)

FUJITSU Software Cloud Services Management user1_name (Operators - Approver)

Home Contracts Menus Projects Platforms Organizations/Users Requests **Billing**

By Organization **By Menu** By Project

By Organization /

Display Period **1** 3 6 12

← 2016-05 📅 2016-06-01 - 06-30 2016-07 →

Organization Short Name	Number of Platforms (cumulative)	Basic Menu [\$]	Operation Options [\$]	Configuration Options [\$]	Total [\$]
A DEPT.	3	10.00	20.00	30.00	60.00
B DEPT.	3	10.00	20.00	30.00	60.00
C DEPT.	3	10.00	20.00	30.00	60.00
wd_org_a	3	10.00	20.00	30.00	60.00
wd_org_b	3	10.00	20.00	30.00	60.00
Accounting Code List	2	20.00	40.00	60.00	120.00
Total	17	70.00	140.00	210.00	420.00

100%

Chapter 4 Operational Environment

This chapter explains the operational environment of Cloud Services Management.

4.1 Hardware

This section explains the hardware necessary for operating Cloud Services Management and the virtualization software that supports operations on guest OSs.

Table 4.1 Supported Hardware

Type	Requirements
Server	PRIMERGY, PRIMEQUEST
CPU	Intel® Xeon(R) Quad-core or higher
Memory size	8 GB or more
Disk space necessary for installation	2.0 GB or more

Table 4.2 Supported Virtualization Software

Virtualization Software	Remarks
Hyper-V	Live migration, quick migration, import and export, failover, and Hyper-V replication functions are not supported.
VMware	vMotion, HA, cloning, FT, and DR functions are not supported.

4.2 Software

This section explains the software necessary for installing Cloud Services Management.

4.2.1 Supported Operating Systems

Cloud Services Management operates on the following operating systems.

Table 4.3 Supported Operating Systems

Type	Product
Windows (64-bit versions)	Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise Microsoft(R) Windows Server(R) 2012 Standard Microsoft(R) Windows Server(R) 2012 Datacenter Microsoft(R) Windows Server(R) 2012 R2 Standard Microsoft(R) Windows Server(R) 2012 R2 Datacenter

4.2.2 Required Software

Cloud Services Management operates using the following software.

Table 4.4 Required Software

Type	Product	Remarks
Web client	Internet Explorer 10, 11 or Microsoft Edge	Necessary for displaying the Cloud Management Portal.

Type	Product	Remarks
	or Mozilla Firefox ESR 38, ESR 45	
	Adobe Reader	Necessary for viewing the PDF manuals.
Server operation management	ServerView Operations Manager V6.30 - V7.11	Necessary for the authentication function of this product. The directory service included with SVOM or Active Directory may be used.

Note

- When accessing this product, configure the web browser as follows:
- Enable cookies in the web browser.
- Specify "English" for the language used by the web browser.
- Do not use the web browser on the management server. Some pages cannot be displayed correctly.

Note

When installing this product on a server on which a product that uses the directory service of SVOM is installed, in order to have both products use the SVOM directory service, configure operation as follows to prevent conflicts related to user management.

- Configure the communication settings for the directory service of this product in the same way as when configuring for coordinated authentication with Active Directory. For details on configuration refer to "ldap.mode" in "System Information" in the "Cloud Services Management Operation Guide".
- As when coordinating authentication with Active Directory, the entry of user information into the directory service is managed externally from this program. For details, refer to the "Cloud Services Management Operation Guide".

4.2.3 Related Software

The following software can be operated in coordination with Cloud Services Management.

- ServerView Resource Orchestrator V3.2 Cloud Edition
Required when coordinating with ServerView Resource Orchestrator.
- VMware vSphere 6.0
Required when coordinating with VMware.

4.2.4 Exclusive Software

Cloud Services Management cannot coexist with the following software.

Table 4.5 Exclusive Software

Product	Version/Level
Cloud Services Management	Coexistence is not possible with any version
FUJITSU Software Enterprise Service Catalog Manager	V16.0

4.3 Supported Cloud Environments

This section explains the supported cloud environments.

Cloud Services Management can operate in coordination with the following cloud environments.

Table 4.6 Supported Cloud Environments

Type	Service or Product	Supported Version	Supported Features
Public cloud	Amazon Web Services	-	<ul style="list-style-type: none"> - Deploy/Modify/Terminate/Start/Stop virtual machines, and Create/Restore/Delete snapshots - Request SLBs and RDBs - Attach/Remove additional disks - Create/Delete key pairs
	FUJITSU Cloud Service A5 for Microsoft Azure	-	<ul style="list-style-type: none"> - Deploy/Modify/Terminate/Start/Stop virtual machines - Attach/Remove additional disks <p>* Compatible with the classic deployment model. Compatible with "Azure virtual machine (classic)".</p>
	FUJITSU Cloud Service K5	-	<ul style="list-style-type: none"> - Deploy/Modify/Terminate/Start/Stop virtual machines, and Create/Restore/Delete snapshots - Attach/Remove additional disks - Create/Delete key pairs
Private cloud	ServerView Resource Orchestrator	V3.2.0	<ul style="list-style-type: none"> - Create/Return L-Platforms - Deploy/Modify/Terminate/Start/Stop virtual machines in L-Platforms - Attach/Remove additional disks
	VMware vSphere	6.0	<ul style="list-style-type: none"> - Deploy/Modify/Terminate/Start/Stop virtual machines - Attach/Remove additional disks

4.4 Operating Conditions

This section explains the operating conditions of Cloud Services Management.

The assumed operating scale is as follows:

- Number of contracts: 5
- Number of menus: 5 Published, 20 Hidden
- Number of platforms: 300
Maximum number of platforms per project: 10
- Number of virtual machines: 600
Maximum number of virtual machines per platform: 20
Maximum number of snapshots per virtual machine: 3
- Number of organizations: 100
Maximum number of organizations belonging to an organization: 10
- Number of platform provider users: 1,000
Maximum number of users per organization: 30
Maximum number of projects to which a user can belong: 10

- Number of projects: 150

Maximum number of projects per accounting code: 10

Maximum number of members per project: 30

- Number of accounting codes: 100

Maximum number of accounting codes per organization: 5

- Number of requests: 12,000

Glossary

operation options

The service specifications of configurable operations that are added to the basic menu (business monitoring, disaster recovery, etc.). Operation options are configured when operators perform installation.

basic menu

The basic services such as availability, security levels, and common operations, as specified in the service specifications.

basic charges

The fixed monthly charges determined by the items of the basic menu. These fixed charges are applied to each platform, regardless of the number of virtual machines that are used.

platform

The management unit used by platform providers who use the cloud. Platforms are comprised of the applied menu, the management information of the selected operation expansion menu, and the information of the used virtual machines, SLBs, and RDBs.

platform providers

Organizations that use the cloud to develop applications.

cloud management portal

The web interface used by users to perform operation management.

operators

Organizations that manages the operation of systems using this product. Operators add organizations, process requests, manage infrastructures, etc.

quota

The threshold value for billing charges. The upper limit of billing charges per month for each project.

contract

Information related to the contract with the cloud vendor, such as the contract number, the name of the contractor, the contract period, etc.

configuration options

The specifications regarding the configuration of the instance options and system disk images, etc., that can be used for each menu.

service

A collective term referring to virtual machines and options (SLB/RDB).

planners

Organizations responsible for selecting the clouds to be used by their company, and arranging the contracts.

approver

Users that have the authority to approve requests from representatives or other departments in their organization.

initial costs

The charges incurred in the first month after a request is made to use a platform. The installation charges for physical servers, etc. can be configured.

request

Request information for a process or operation that requires approval. When approved by an approver, the process is executed or the information is reflected.

organization

The individual departments to which planners, operators, and platform providers belong. For platform providers, this is the unit used for billing calculations.

by organization

References billing information on the level of the individual organization.

representative

Users in organizations with no approval authority to request to use services, etc.

administrator

One of the user roles among operators. Administrators have the authority to perform any resource operations except for the submission of requests.

This role is used when performing special actions related to the maintenance or operation of Cloud Services Management, including investigating trouble, checking which clouds are coordinated, forcibly stopping the services during periods of overuse, etc.

accounting code

Code used for categorizing the payers of billing charges. Multiple accounting codes can be added to a single organization for ease of management. By specifying an accounting code while creating a project, the organizations belonging to that project can be linked to it.

project

The unit used for the management of platforms. Projects are used to manage the users who configure and operate platforms as project members, and contain the payer information of platforms. Multiple platforms can be managed as a single project. In addition, project members can be specified regardless of which organization they belong to.

project manager

One of the user roles used within a project. Project managers possess the authority to modify project configuration information, add or delete project members, and perform all operations related to the configuration, operation, etc. of the platforms belonging to a project. In the initial configuration of CSM, the user who creates a project is the manager of that project. Only users in platform providers with the approver role can create projects.

project user

One of the user roles used within a project. The authorities possessed by a project member added to a project. Project users can add or delete project members, and configure or operate platforms belonging to a project.

by project

References billing information on the level of the individual project.

menu

The content and level of services provided to platform providers. There is one menu for each platform. A menu is comprised of the basic menu, the operation options, and the configuration options.

by menu

References billing information on the level of the individual menu.

user

People who use this product. Used when it is not necessary to distinguish between departments or roles.

resources

Information (organizations, users, menus, projects, platforms, and services) managed by Cloud Services Management.

billing

Information calculated based on metering information and charge information. The charges that platform providers should be invoiced for. No invoicing function is included.

coordination adapter

The function which coordinates with the specific processes of a target coordinating cloud service. Coordination adapters perform processes such as the control of the automated provisioning of services, etc. Coordination adapters operate on management servers.