FUJITSU Software
Systemwalker
Service Catalog Manager V15.3.2

Installation Guide

Windows/Linux

Preface

Purpose of This Document

This document explains the installation and setup procedure of Systemwalker Service Catalog Manager V15.3.2.

The purpose of this manual is as follows:

- To learn to be able to install Systemwalker Service Catalog Manager.

- To learn to be able to set up Systemwalker Service Catalog Manager.

Intended Readers

This document is intended for people who install and set up Systemwalker Service Catalog Manager.

This document assumes that readers already have the following knowledge:

- Basic knowledge of the operating system being used.

Structure of This Document

This document is structured as follows:

Explains the Active Directory Federation Service Integration.

Conventions Used in This Document

The following names and symbols are used for explanation in the manuals.

- Product name

  The manuals refer to Systemwalker Service Catalog Manager V15 as "Systemwalker Service Catalog Manager", omitting "V15".

- Manual name

  - The manual sometimes refers to themselves as "this document".

  - The titles of the manuals for this product are sometimes abbreviated to "Installation Guide" or "Operator's Guide" for example, omitting "Systemwalker Service Catalog Manager V15" in front of the manual name.

- Operating system specific information

  This document provides the information about server operating systems using this product that is common to both the Windows version and the Linux version. Read only the information that is relevant to the operating system for the server that is being used.

  Information that is only relevant to particular operating systems is distinguished from common information by attaching the following symbols:

  - Headline [Windows]

    The entire description of the title and sub-header is a topic specific to the Windows edition.

  - Headline [Linux]

    The entire description of the title and sub-header is a topic specific to the Linux edition.

  If the description differs between the Windows and Linux editions, each description is distinguished by adding words "For Windows system, ..." and "For Linux system, ..." and explained separately.

- Symbols

  - [ ] symbols

    Window names, menu names and window item names provided by Systemwalker Service Catalog Manager are surrounded by these symbols.

  - Symbols used in command

    The symbols used with commands are explained below:

    Entry example

    [PARA= { <u>a</u> | b |c | ⋯ }]

    Meaning of each symbol

Symbol	Meaning
[]	Items enclosed in square brackets are optional.
{}	Select one of the items enclosed in braces ({ }).
__	When all optional items enclosed in square brackets ([ ]) are omitted, the default value indicated by an underscore (_) is used.
|	Select one of the items separated by vertical bars.
⋯	The item immediately before the ellipsis (...) can be repeatedly specified.

- Symbols used in the manual

  The following note types are used in the manuals:

Note

. . . .

This note type highlights particularly important points.

. . . .

Point

. . . .

This note type highlights information that is worth remembering.

. . . .

Information

. . . .

This note type indicates additional reference information.

. . . .

See

. . . .

This note type indicates references to other sources.

. . . .

- Notations of Operating Systems

  This document abbreviates Operating systems as follows.

Official name	Abbreviation	
Microsoft(R) Windows Server(R) 2008 Standard Microsoft(R) Windows Server(R) 2008 Enterprise	Windows 2008	Windows
Microsoft(R) Windows Server(R) 2012 Standard Microsoft(R) Windows Server(R) 2012 Datacenter	Windows 2012	
Microsoft(R) Windows Server(R) 2012 R2 Standard Microsoft(R) Windows Server(R) 2012 R2 Datacenter	Windows 2012 R2	
Red Hat Enterprise Linux 7 (for Intel64)	RHEL7	Linux
Red Hat Enterprise Linux 6 (for Intel64)	RHEL6	
Red Hat Enterprise Linux 6 (for x86) Red Hat Enterprise Linux 5 (for Intel64) Red Hat Enterprise Linux 5 (for x86)	RHEL5	

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Contents

Chapter 1 Configuration

This chapter explains the configuration and certification mode of Systemwalker Service Catalog Manager.

1.1 Standalone Configuration and Distributed Database Configuration

In the server feature of Systemwalker Service Catalog Manager, main feature running on Java EE execution environment and database server feature are included.

Main feature and database server feature are available to run on the same server, and also available to run on the different server.

The configuration is called as "standalone configuration" where the two features run on the same server, and the other configuration is called as "distributed database configuration" where they run on the different servers

📝 Note
....
In case that IaaS integration feature would be used, which is provided by Systemwalker Service Catalog Manager, setup with Systemwalker Service Catalog Manager with a standalone configuration.
....
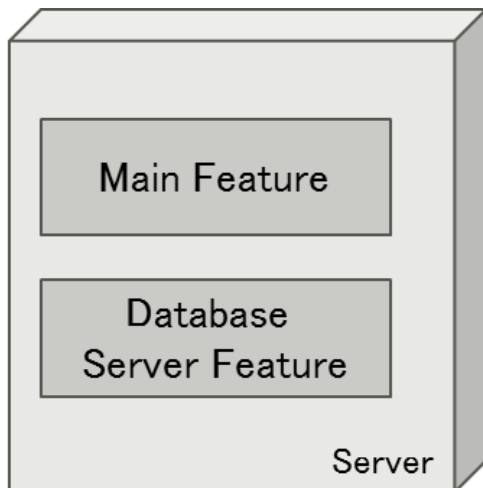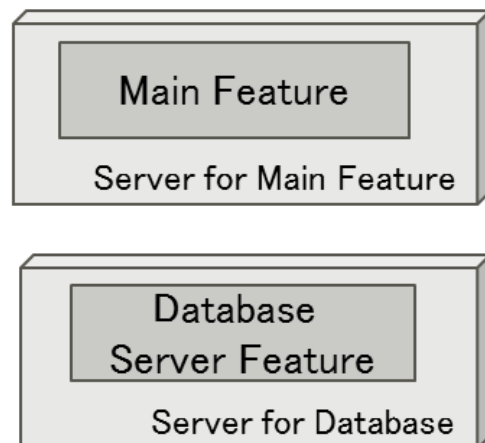
1.1.1 Install and Setup for Standalone Configuration

A flow of installation for standalone configuration is explained below.

1. Install Systemwalker Service Catalog Manager. Refer to "Chapter 2 Installation" for how to install.

2. Setup Systemwalker Service Catalog Manager. Refer to "Chapter 3 Setup" for how to setup.

1.1.2 Install and Setup for Distributed Database Configuration

In case using distributed database configuration, Systemwalker Service Catalog Manager must be installed to both servers where the database server feature or main feature are set up.

A flow of installation for distributed database configuration is explained below.

1. Install Systemwalker Service Catalog Manager to the servers for database and main feature. Refer to "Chapter 2 Installation" for how to install.

2. Setup database server feature to the server for database. Refer to "4.1 Setup the Database Server Feature" for how to setup.

3. Setup main feature to the server for main feature. Refer to "4.2 Setup the Main Feature" for how to setup.

1.2 Authentication Mode

Before starting to install and setup Systemwalker Service Catalog Manager, you must decide on how users and Web services are to be authenticated. Systemwalker Service Catalog Manager supports INTERNAL and SAML_SP authentication mode. The default setting is INTERNAL authentication mode.

1.2.1 INTERNAL Authentication Mode

As for INTERNAL authentication mode, Systemwalker Service Catalog Manager is installed as a platform for public access from anywhere in the Internet. Users are authenticated with Systemwalker Service Catalog Manager and can be managed in CT-MG or an existing LDAP system of an organization. Web service calls are formatted as SOAP messages and are authenticated in Systemwalker Service Catalog Manager either by providing a user ID and password in their header, or by certificates. This authentication mode is referred to as INTERNAL.

It is recommended to use the INTERNAL authentication mode if Web browser single sign-on is not required, and if your customers are to be able to register themselves.

Refer to "Chapter 3 Setup" or "Chapter 4 Setup (Distributed Database Configuration)" how to setup based on your configuration.

1.2.2 SAML_SP Authentication Mode

As for SAML_SP authentication mode, Systemwalker Service Catalog Manager works as a SAML 2.0 service provider. SAML (Security Assertion Markup Language) is an XML-based protocol that uses SAML assertions to pass information about a user between a SAML identity provider (IdP) and a SAML service provider (SP). With SAML 2.0, Web browser single sign-on is provided.

All users and Web service calls are authenticated against the authentication system underlying the IdP. The IdP provides a Web browser single sign-on profile (SSO profile) and a Security Token Service (STS). This is a Web service that issues security tokens as defined in the WS-Security/WS-Trust specification. A connection to the IdP is always established by the client (Web browser or Web service application), not by Systemwalker Service Catalog Manager.

The client sends a request for a SAML assertion. The IdP returns an assertion authenticating the calling user. The user data is managed in the IdP system. Additionally, all users who are to work with CT-MG must be registered explicitly in Systemwalker Service Catalog Manager.

It is recommended to use the SAML_SP authentication mode if you want to operate CT-MG and use existing authentication mechanisms that support the SAML 2.0 standard. Customer self-registration is not supported in this case, and should thus be disabled as required. Refer to "Operation Guide" for detail how to disable.

In case of Systemwalker Service Catalog Manager setup with SAML_SP authentication mode, the configuration files must be changed. Refer to "Appendix D Setup for SAML_SP Authentication Mode" in detail.

Chapter 2 Installation

This chapter explains how to install software on the server.

Note

⚠ **Note**

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The procedure described in this chapter requires the administrative privileges to execute.

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2.1 Installation on Server

This section explains how to install software on the Server.

2.1.1 Pre-installation Tasks

The following tasks must be performed before installing software on the server.

Confirm the installation requirements

Refer to "Appendix A Operation Environment" and confirm that the installation environment meets the installation requirements.

Check Port Numbers

This product uses port numbers shown in "B.1 Port Number List". Installation will fail if some port numbers are already used.

Make sure that the port numbers are not used before installation.

You can use operating system's netstat command to check whether the port numbers are used. Refer to the command help or the manuals on how to use netstat.

Follow the steps below to install and setup the software if the port numbers are already used.

1. Stop the applications or services that are using the ports.

2. Install and setup the software.

3. Modifying port number of this product.

4. Restart the applications or services that were using the ports.

Check Firewall Function

If this product is to be installed in the environment where firewall function is used, it is necessary to set required communication (ports) be allowed in the firewall. Refer to "B.1 Port Number List" for the information on the required ports and set "port numbers on which the connections from external servers to be accepted" for each server. Refer to OS manuals for the information on how to set required communication (port) be allowed in the firewall.

Confirm parameters

The following values are set during installation. Confirm the values in advance.

- Installation folder

Setting the SMTP server

Systemwalker Service Catalog Manager requires the E-mail function. Prepare the SMTP server where E-mail can be used.

[Windows 2012] [Windows 2012 R2] Confirm .NET Framework 3.5

This product uses .NET Framework 3.5 (includes .NET 2.0 and 3.0). Make sure that .NET Framework 3.5 (includes .NET 2.0 and 3.0) is installed from following list before installation.

- Server Manager, <target server >, ROLES AND FEATURES

If .Net Framework 3.5 is not installed, install by using "Add Roles and Features Wizard" or DISM. When installing by using DISM, open a Windows PowerShell with administrator rights and execute following command.

- If the server has access to Windows Update, or if a default source file location has already been configured in Group Policy, execute the following command.

```
DISM /Online /Enable-Feature /FeatureName:NetFx3 /All
```

- If the server has access to install media of OS and the install media is located on drive, execute the following command.

```
DISM /Online /Enable-Feature /FeatureName:NetFx3 /All /LimitAccess /Source:d:\sources\sxs
```

[Linux] Confirm hostname

This product uses the hostname which is the output result by hostname command. Confirm that hostname displayed by hostname command can be available for name resolution.

2.1.2 Installation Flow

A flow of installation is explained below.

There is one Systemwalker Service Catalog Manager installation DVD.
Insert DVD and execute the install command. The following settings windows will be displayed one by one. Set the items required on each window

1. Select functions

2. Select installation destination

3. Confirms the installation settings

2.1.3 Installation [Windows]

This section explains the installation procedure when the server runs Windows.

Execute installation

1. Log in as the administrator.

   Login as the administrator to the server on which Systemwalker Service Catalog Manager is being installed.

2. Insert the DVD-ROM to the DVD-ROM device.

   Insert the DVD-ROM entitled "Systemwalker Service Catalog Manager V15 Media pack" to the DVD-ROM device.

3. The function selection window will be displayed.

The installer will be started automatically to display the function selection window. Execute swsetup.exe to start the installer in case it does not start automatically.
Select [Install on server].

4. The Installation Wizard window will be displayed.

    To continue installation, click the [Next] button.
    To terminate installation, click the [Cancel] button.
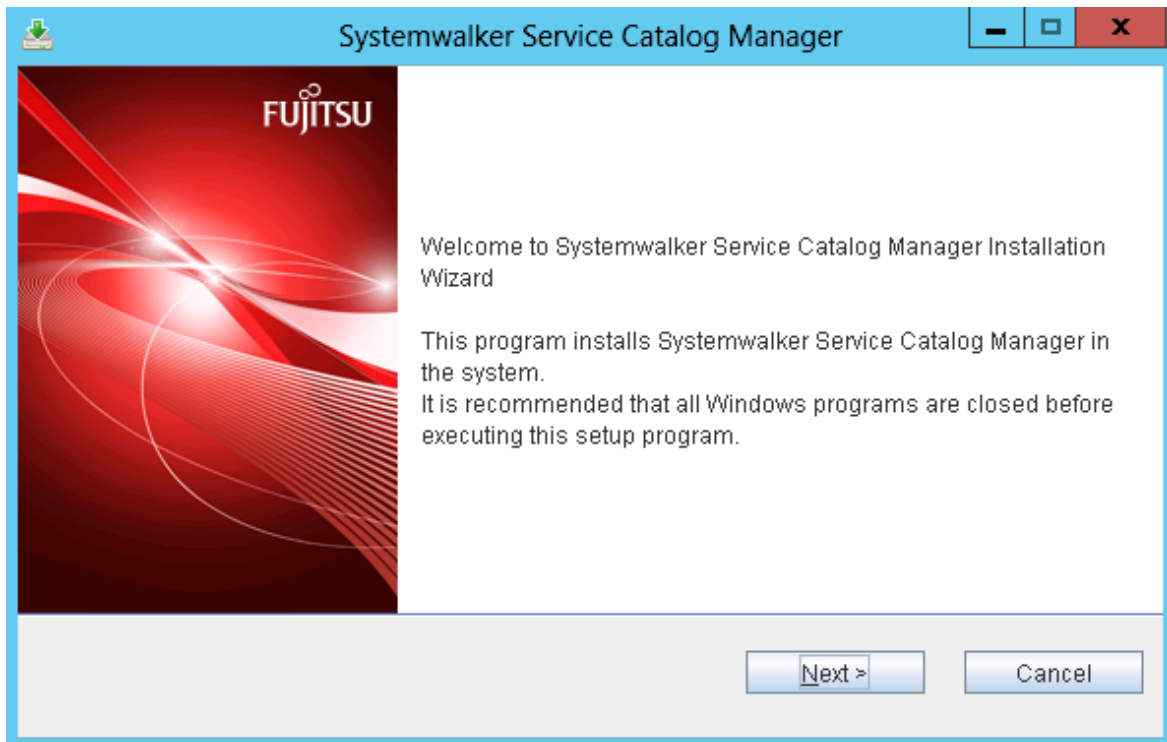
5. Specify the installation folder.

    To install on the folder displayed, click the [Next] button.
    To change the installation folder, click the [Browse] button and select the installation folder. Then, click the [Next] button.
    To terminate installation, click the [Cancel] button. To go back to the previous window, click the [Back] button.
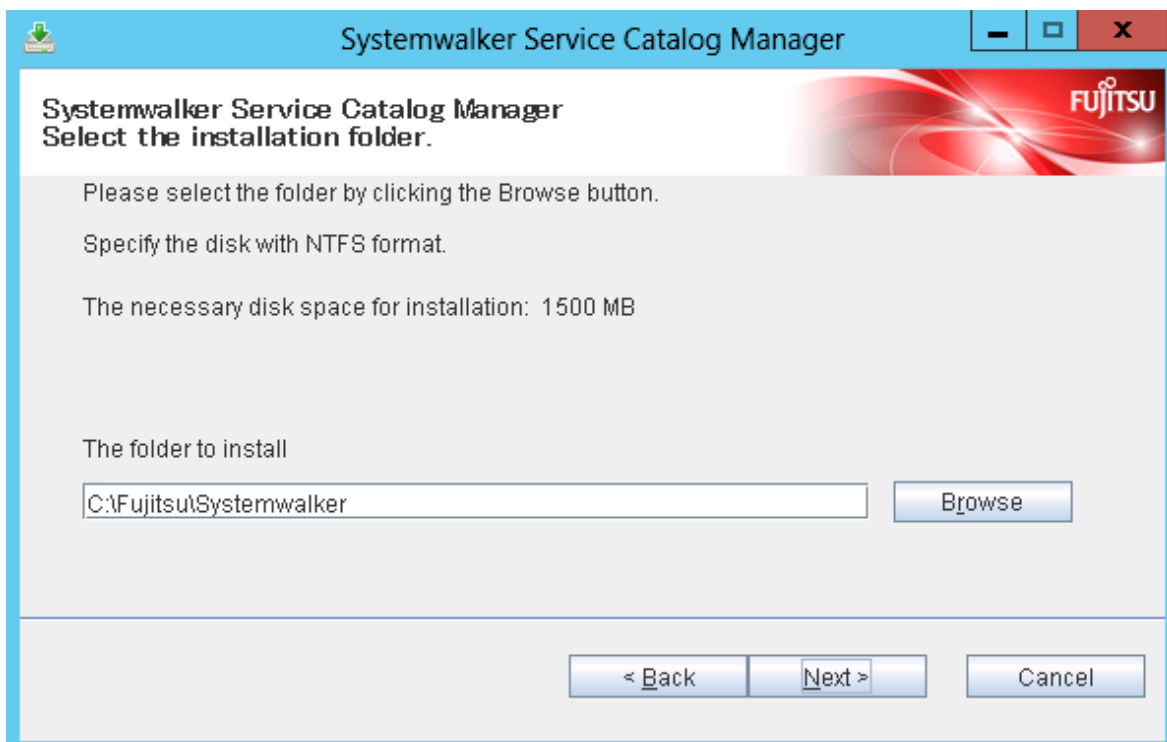
The installation folder entered must be alphanumeric character, colon(:), underscore(_), minus(-) and backslash(\) within 25 characters.

Space characters cannot be specified.

6. Confirm the installation settings

To start installation using the displayed settings, click the [Confirm] button.
To terminate installation, click the [Cancel] button. To go back to the previous window, click the [Back] button.
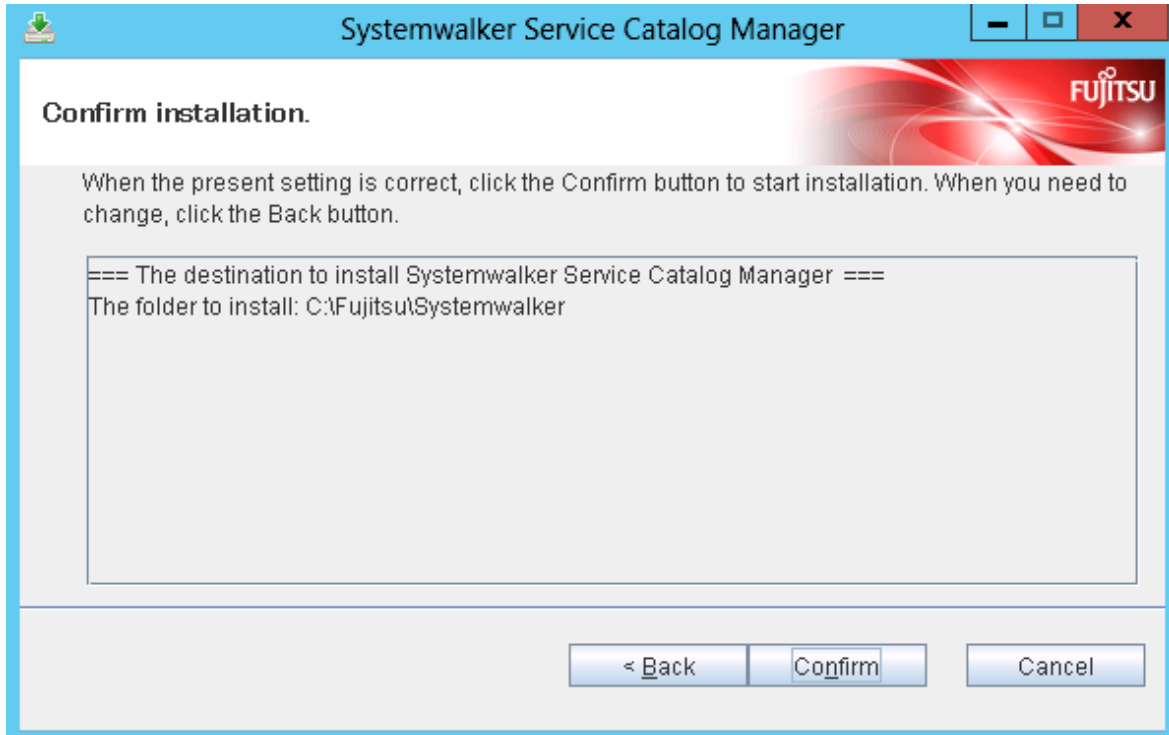
7. Confirm the completion

Click the [Finish] button to complete.
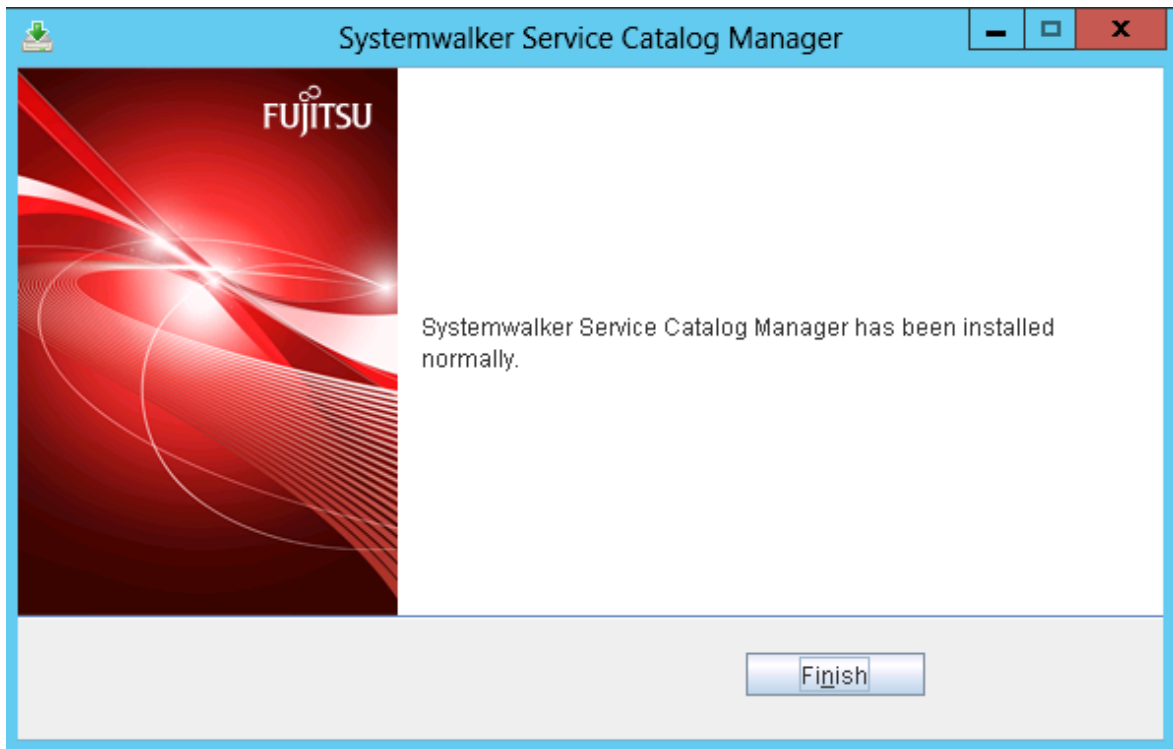
2.1.4 Installation [Linux]

This section explains the installation procedure when the server runs Linux.

Execute the install command

1. Log in as the super user.

Login as the super user to the server on which Systemwalker Service Catalog Manager is being installed.

2. Insert the DVD-ROM to the DVD-ROM device

Insert the DVD-ROM entitled "Systemwalker Service Catalog Manager V15 Media pack" to the DVD-ROM device

3. Mount the DVD-ROM.

Use following command to mount the DVD-ROM.
The installer will fail to start if DVD-ROM is mounted by auto-mounting daemon (autofs) because "noexec" is specified as a mount option in this case.

```
# mkdir <DVD-ROM mount point>
# mount -t iso9660 -r /dev/cdrom <DVD-ROM mount point>
```

4. Execute the install command.

Execute the install command of Systemwalker Service Catalog Manager.

```
# cd <DVD-ROM mount point>
# ./swsetup
```

5. The welcome message will be displayed.

Press the return key.

```
================================================================================
    Systemwalker Service Catalog Manager Setup
                            V15.3.2
 All Rights Reserved, Copyright(c) FUJITSU LIMITED 2010-2015
================================================================================
Welcome to Systemwalker Setup!
The setup program install Systemwalker Service Catalog Manage.


Press ENTER.
```

6. The Select the installation confirmation message will be displayed.

   To continue installation, enter [1]. To terminate installation, enter [q]

```
<< Select the installation >>

1. Install on Server


================================================================================
Select one of the items above.
[q,number]
=>
```

7. The installation confirmation message will be displayed.

   To continue installation, enter [y]. To terminate installation, enter [n]

```
Systemwalker Service Catalog Manager
Do you want to start installing?
[y,n]
=>
```

Confirm the installation settings

Confirm the installation settings.

To start installation using the settings displayed, enter [y]. To terminate installation, enter [q].

```
 === The directory to install  ===
The destination to deploy a program.(Can't Change): /opt
The destination to deploy the setting file.(Can't Change): /etc/opt
The destination to deploy a temporary file.(Can't Change): /var/opt

Do you install it by this setting?
[y,q]
=>
```

Start installation

The installation starts.

```
installing...
```

2.2 Checking Installed Products

This section explains how to check products that are already installed.

[Windows]

1. Select [Uninstall (middleware)] on [Start] > [Program] > [Fujitsu].

   The "Uninstall(middleware)" window will be displayed.
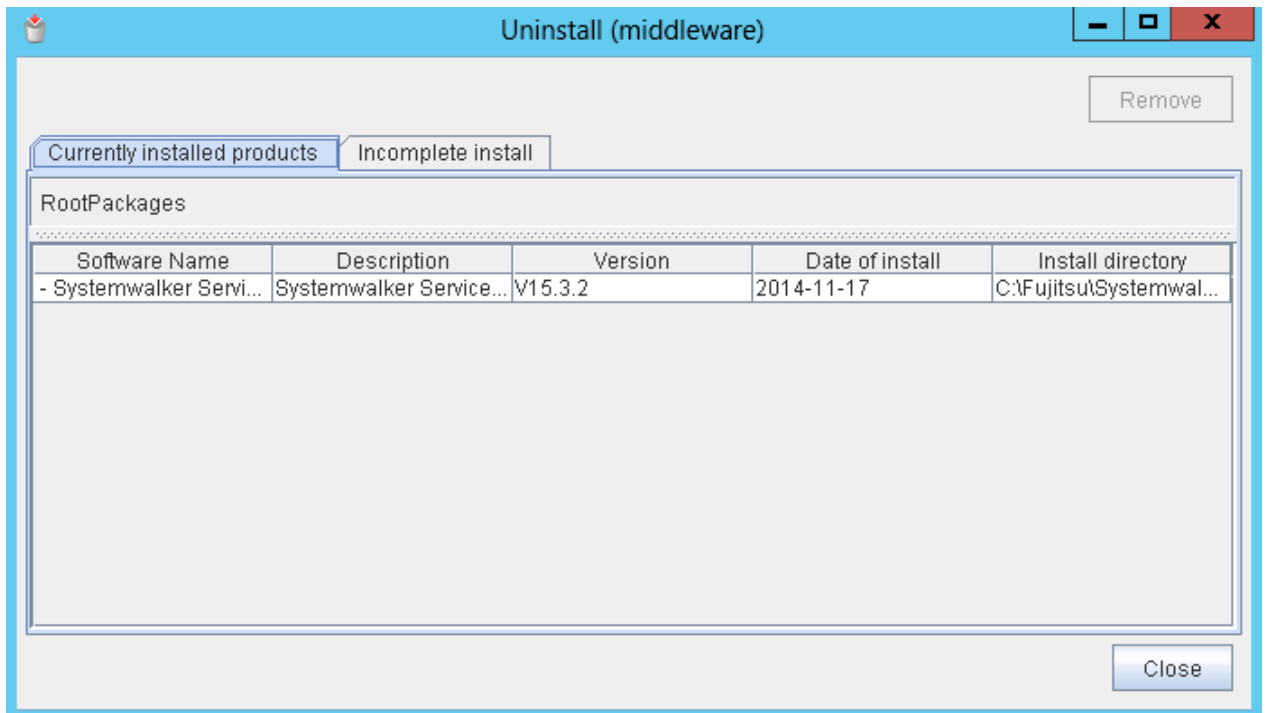
2. Click [Close] to finish.

Information

Product information will appear in "Incomplete install" tab if installation failed with an error. After removing the error cause, remove the product information from "Incomplete install" tab as appropriate.

[Linux]

1. Execute following command.

```
/opt/FJSVcir/cimanager.sh -c
```

   "Uninstallation and management (middleware)" will start and list of installed products will be displayed.

2. Enter the number for the product to see the details of the product information.

```
Uninstallation and management (middleware) is being loaded...

Software already installed
1. Systemwalker Service Catalog Manager V15.3.2

Enter the number of software to be uninstalled.
[number,q]
=>1

Systemwalker Service Catalog Manager V15
    Description: Systemwalker Service Catalog Manager
    Version: V15.3.2
    Company name: Fujitsu Limited
    Installation directory: /opt
```

```
     Installation date: 2014-11-19

Do you want to start uninstalling?
[y,b,q]
q
```

3. Enter [b] to go back to previous information, or enter [q] to quit.

Note

. . . .

Be careful not to enter [y]. Otherwise, the selected product will be uninstalled.

. . . .

Chapter 3 Setup

This chapter explains how to setup Systemwalker Service Catalog Manager with a standalone configuration on the server.

With Systemwalker Service Catalog Manager, you can set up with a standalone configuration described in this chapter, or with the distributed database configuration described in "Setup (distributed database configuration)". The setup for standalone configuration allows you to setup the databases and applications (Java EE execution environment) for Systemwalker Service Catalog Manager on the same server.

P Point
. . . .

A flow of installation and setup for standalone configuration is explained below.

1. Install Systemwalker Service Catalog Manager. Refer to "Chapter 2 Installation" for how to install.

2. Setup Systemwalker Service Catalog Manager. Refer to this chapter for how to setup.

. . . .

Note
. . . .

The procedure described in this chapter requires the administrative privileges to execute.

In case that IaaS integration feature would be used, which is provided by Systemwalker Service Catalog Manager, setup with Systemwalker Service Catalog Manager with a standalone configuration.
. . . .

3.1 Setup on the Server

This section explains how to set up software on the server.

3.1.1 Tasks before Setup

Before setting up software on the server, the following tasks must be performed without fail.

Confirm installation

Confirm that the procedure described in "2.1 Installation on Server" is completed.

Check the password for the OS user for the database

Use the Systemwalker Service Catalog Manager setup command to add new OS users (pgctbss) for the database. When a password is to be set for the OS user for the database, execute the following command (the default is for no password to be set).

[Windows]

```
set SWCTMG_DBUSER_PASSWORD=<Password of the OS user for the database being configured>
```

[Linux]

```
export SWCTMG_DBUSER_PASSWORD=<Password of the OS user for the database being configured>
```

Note
. . . .

<Password of the OS user for the database being configured> must be following letters.

[Windows]

Alphanumeric letters, colon(:), underscore(_), minus(-), plus(+), equal mark(=) sharp(#), colon(:), comma(,), period(.), question mark(?), at mark(@), braces([]) and curly brackets({}) within 127 characters

[Linux]

Alphanumeric letters and symbols excluding single quote mark(ʻ) and backslash(\). Unix meta-character must be specified with backslash(\).

3.1.2 Setup [Windows]

This section explains the procedure for setting up when the server runs Windows.

📌 **Note**

The "SWCTMG_HOME" which is used in command description is set as the system environment variable by the installer.

Execute setup command on the command prompt which is executed after complete installation.

Setup command will create two domains in Java EE execution environment: One is for the search indexer application (indexer domain). Systemwalker Service Catalog Manager applies a master/slave search architecture: Every slave node delegates its index-related work to the master node. The slave node is where Systemwalker Service Catalog Manager application runs; the master node is where the search indexer application runs. The other one is for the actual Systemwalker Service Catalog Manager application (main domain). Both domains are created when running setup command.

Execute the setup command

1. Login as the administrator.

   Login as the administrator to the server where Systemwalker Service Catalog Manager is being set up.

2. Use the following command to setup.

   ```
   %SWCTMG_HOME%\setup\swctmg_setup <parameters>
   ```

In <parameter>, all of the following parameters must be specified in order from No.1. Also, an ASCII space character must be put between parameters. Refer to "B.1 Port Number List" for the information on the port numbers used by Systemwalker Service Catalog Manager.

Setup Parameter List

No.	Parameter name	Mandatory	Explanation
1	HOSTNAME	Yes	Host name or IP address of Systemwalker Service Catalog Manager server. It is used in the setting of accessible host to the database and access URL to each portal page. Example: 10.0.0.1
2	AS_ADMIN_USER	Yes	User name of Java EE execution environment. It will be set to the user name for the administrator of Java EE execution environment for both domains. Example: Administrator
3	AS_ADMIN_PASSWORD	Yes	Password of Java EE execution environment. It will be set to the password for the administrator of Java EE execution environment. Example: User1234
4	AS_BASE_PORT	Yes	Base port number for Java EE execution environment (main domain). Each port of main domain will be set to the number which each port number is added to this base number. Example: 8000
5	AS_INDEXER_BASE_PORT	Yes	Base port number for Java EE execution environment (indexer domain). Each port of indexer domain will be

No.	Parameter name	Mandatory	Explanation
			set to the number which each port number is added to this base number. Example: 8400
6	WEBSERVICE_LISTENER_PORT	Yes	Port number to be used to connect between Systemwalker Service Catalog Manager and applications. Example: 8082
7	PGS_SERVER	Yes	Only localhost is allowed to be specified.
8	PGS_PORT	Yes	Port number to be used to connect to the database. Example: 5443
9	SMTP_HOST	Yes	Host name of SMTP server. Specify the host name or IP address of the SMTP server that was prepared in "2.1.1 Pre-installation Tasks". Example: smtp.example.com
10	SMTP_PORT	Yes	Port number of SMTP server. Specify the port number of the SMTP server that was prepared in "2.1.1 Pre-installation Tasks" Example: 25

Example:

```
%SWCTMG_HOME%\setup\swctmg_setup 10.0.0.1 Administrator User1234 8000 8400 8082 localhost 5443
smtp.example.com 25
```

Note

Port numbers must be specified by numeric letters in the 1 to 65535 range.

Base port numbers must be specified by numeric letters in the 0 to 65359 range.

AS_ADMIN_USER must be specified by alphanumeric letters, underscore(_),hyphon(-) and period(.).

AS_ADMIN_PASSWORD must be specified by alphanumeric letters, underscore(_),hyphon(-) and period(.). and at least 8 characters in length.

Port numbers for each domain will use are following eight numbers: the each port number of main domain when AS_BASE_PORT is specified to 8000 is described.

8080: HTTP listener (Base port + 80)

8081: HTTP SSL listener (Base port + 81)

8048: JavaEE HTTP listener. This will be used as AS_ADMIN_DOMAIN_PORT in unsetup. (Base port + 48)

8086: JMX connector listener (Base port + 86)

8076: JMS host (Base port + 76)

8176: RMI registry for Message Queue broker (JMS host port + 100)

8037: IIOP listener (Base port + 37)

8038: IIOP SSL listener (Base port + 38)

8039: IIOP listener for client authentication of SSL communication (Base port + 39)

Only in executing the setup command, each domain will use following two numbers temporarily: following two port numbers are not used after you execute setup command. The each port number of main domain when AS_BASE_PORT is specified to 8000 is described.

8009 (Base port + 9)

8066 (Base port + 66)

As for HOSTNAME, specify the hostname or IP address to which the server is available to access with the port of JMS host (Base port + 76). The server is that to Systemwalker Service Catalog Manager is set up.

・・

Confirm execution

A message is displayed prompting you to confirm execution of the setup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_setup: INFO: 136: Are you sure you want to start setup Systemwalker Service Catalog Manager?
(y/n)[n]
```

Start the setup

Following message will be displayed when setup procedure starts.

```
swctmg_setup: INFO: 101: Systemwalker Service Catalog Manager setup start
```

Confirm the completion

Following message will be displayed when setup procedure completes.

```
swctmg_setup: INFO: 102: Systemwalker Service Catalog Manager setup end.
```

Execute tasks after setup

Referring to "3.1.4 Tasks after Setup", execute the tasks after setup.

📓 **Note**

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Depending on the environment, it takes around several to 10 minutes for setup to complete. Do not terminate the command while it is running.

In such case that the load of server is high where setup command of Systemwalker Service Catalog Manager is executed, following message display and setup may fails.

```
swctmg_setup: ERROR: 254: Failed to setup Java EE execution environment.
```

```
swctmg_setup: ERROR: 256: Failed to register services. Please check if input parameters are correct
and not duplicated.
```

In this case, execute following procedure, and then repeat setup command:

1. Open the following file using text editor.

```
%SWCTMG_HOME%\setup\files\glassfish_bes.properties
```

```
%SWCTMG_HOME%\setup\files\glassfish_indexer.properties
```

2. Modify the values of "glassfish.domain.stop.waitSeconds" and "glassfish.domain.start.maxWaitSeconds" items to the bigger ones, and save the file. These settings mean the time (unit: second) to wait the completion for stopping and starting Java EE execution environment in setup command process.

   Example: to change the value of "glassfish.domain.stop.waitSeconds" to 90, and that of "glassfish.domain.start.maxWaitSeconds" to 900.

   Before modifying:

   glassfish.domain.stop.waitSeconds=60

   glassfish.domain.start.maxWaitSeconds=600

After modifying:

glassfish.domain.stop.waitSeconds=90

glassfish.domain.start.maxWaitSeconds=900

3. Repeat setup command.

. . . .

Information

When you failed to execute setup command, please handle according to the message displayed on command prompt. Please refer to the following log files:

- %SWCTMG_HOME%\logs\swctmg_setup.log: General setup

- %SWCTMG_HOME%\logs\swctmg_initdb.log: Database Initializing

- %SWCTMG_HOME%\logs\build-db-ant.log: setting up for database

- %SWCTMG_HOME%\logs\build-glassfish-setup-ant.log: setting up for Java EE execution environment

3.1.3 Setup [Linux]

This section explains the procedure for setting up when the server runs Linux.

Execute the setup command

1. Log in as the super user.

   Login as the super user to the server where Systemwalker Service Catalog Manager is being set up.

2. Use the following command to setup.

   ```
   /opt/FJSVctbss/setup/swctmg_setup.sh <parameter>
   ```

Refer to the parameter list in "3.1.2 Setup [Windows]" for details of <parameter>.

Confirm execution

A message is displayed prompting you to confirm execution of the setup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_setup: INFO: 136: Are you sure you want to start setup Systemwalker Service Catalog Manager?
(y/n)[n]
```

Start the setup

The setup procedure starts.

```
swctmg_setup: INFO: 101: Systemwalker Service Catalog Manager setup start
```

Confirm the completion

Confirm that the setup procedure has completed.

```
swctmg_setup: INFO: 102: Systemwalker Service Catalog Manager setup end
```

Execute tasks after setup

Referring to "3.1.4 Tasks after Setup", execute the tasks after setup.

Depending on the environment, it takes around several to 10 minutes for setup to complete. Do not terminate the command while it is running.

In such case that the load of server is high where setup command of Systemwalker Service Catalog Manager is executed, following message display and setup may fails.

```
swctmg_setup: ERROR: 254: Failed to setup Java EE execution environment.
```

```
swctmg_setup: ERROR: 256: Failed to register services. Please check if input parameters are correct
and not duplicated.
```

In this case, execute following procedure, and then repeat setup command:

1. Open the following file using text editor.

```
/opt/FJSVctbss/setup/files/glassfish_bes.properties
```

```
/opt/FJSVctbss/setup/files/glassfish_indexer.properties
```

2. Modify the values of "glassfish.domain.stop.waitSeconds" and "glassfish.domain.start.maxWaitSeconds" items to the bigger ones, and save the file. These settings mean the time (unit: second) to wait the completion for stopping and starting Java EE execution environment in setup command process.

   Example: to change the value of "glassfish.domain.stop.waitSeconds" to 90, and that of "glassfish.domain.start.maxWaitSeconds" to 900.

   Before modifying:

   glassfish.domain.stop.waitSeconds=60

   glassfish.domain.start.maxWaitSeconds=600

   After modifying:

   glassfish.domain.stop.waitSeconds=90

   glassfish.domain.start.maxWaitSeconds=900

3. Repeat setup command.

When you failed to execute setup command, please handle according to the message displayed on command prompt. Please refer to the following log files:

- /var/opt/FJSVctbss/logs/swctmg_setup.log: General setup

- /var/opt/FJSVctbss/logs/swctmg_initdb.log: Database Initializing

- /var/opt/FJSVctbss/logs/build-db-ant.log: setting up for database

- /var/opt/FJSVctbss/logs/build-glassfish-setup-ant.log: setting up for Java EE execution environment

3.1.4 Tasks after Setup

After setting up software on the server, the following tasks must be performed without fail.

Input license key

License key must be input to this product with the input command of license key. By inputting this key, you are specified as the official user of this product. After inputting this key, the official usage is started.

When you input the trial license key, you would be not able to start "Systemwalker Service Catalog Manager service" after 90 days would pass from inputting the trial key.

The command to input license key is following, and you can use either command:

[Windows]

```
%SWCTMG_HOME%\lic\fjlic.exe register -k <license key>
```

```
%SWCTMG_HOME%\lic\fjlic.exe register -f <file path of license key>
```

[Linux]

```
/opt/FJSVctbss/lic/fjlic.sh register -k <license key>
```

```
/opt/FJSVctbss/lic/fjlic.sh register -f <file path of license key>
```

P Point

....

As for "-k" option, divide multiple keys with comma.

As for "-f" option, divide multiple keys with line break. The code of line break must be "\r\n or \n"

....

Confirm the completion

Confirm that the input procedure has completed.

```
The specified license keys were registered to the system
```

Start

Start "Systemwalker Service Catalog Manager service". In detail, please refer to "9.1 Start/Stop"

Chapter 4 Setup (Distributed Database Configuration)

This chapter describes the setup of Systemwalker Service Catalog Manager in a distributed database configuration.

With Systemwalker Service Catalog Manager, you can setup with a standalone configuration, described in "Chapter 3 Setup", or the distributed database configuration, described in this chapter. The distributed database configuration allows you to setup the databases and applications (Java EE execution environment) for Systemwalker Service Catalog Manager on separate servers for each.

P Point

A flow of installation and setup for distributed database configuration is explained below.

1. Install Systemwalker Service Catalog Manager to the server for database. Refer to "Chapter 2 Installation" for how to install.

2. Setup database server feature to the server for database. Refer to "4.1 Setup the Database Server Feature" for how to setup.

3. Install Systemwalker Service Catalog Manager to the server for main feature. Refer to "Chapter 2 Installation" for how to install.

4. Setup main feature to the server for main feature. Refer to "4.2 Setup the Main Feature" for how to setup.

Note

Execute the procedures explained in this chapter using OS administrative privileges.

When using the distributed database configuration, setup the database server feature first, then setup the main feature.

Setup the database server feature and the main feature on servers running on the same type of operating system.

Systemwalker Service Catalog Manager, the database server feature, and main feature cannot be setup on a server where Systemwalker Service Catalog Manager, the database server feature, or and main feature has already been setup. The setup command will fail if it is executed in this case.

In case that IaaS integration feature would be used, which is provided by Systemwalker Service Catalog Manager, setup with Systemwalker Service Catalog Manager with a standalone configuration.

4.1 Setup the Database Server Feature

This section explains how to set up the database server feature.

4.1.1 Tasks before Setup

Refer to "3.1.1 Tasks before Setup" to perform the tasks required before setting up on the server.

4.1.2 Setup [Windows]

This section explains steps for setting up the database server feature in Windows.

Note

The SWCTMG_HOME environment variable used in the command explanations is set as a system environment variable by the installer.

Execute the command in the command prompt that is started after installation finishes.

Execute the setup command

1. Log in as the OS administrator.

    Log in as OS administrator to the server on which the database server feature of Systemwalker Service Catalog Manager will be setup.

2. Use the following command to setup.

```
%SWCTMG_HOME%\setup\swctmg_setupDB <parameter>
```

In place of <*parameter*>, enter the following parameters in order, starting with number 1. Enter a space between each parameter. Refer to "B.1 Port Number List" for details on the port numbers used by Systemwalker Service Catalog Manager.

Table 4.1 Setup Parameter List

No.	Parameter name	Required	Description
1	HOSTNAME	Yes	Host name or IP address of the server for Systemwalker Service Catalog Manager main feature. This is set in the URLs for accessing the various portal windows. Specify the host name or IP address of the server to be setup in "4.2 Setup the Main Feature". For example: 10.0.0.1
2	AS_BASE_PORT	Yes	Base port number of the Java EE runtime environment (main domain). The ports for the main domains are set with numbers that contain this base port number added to each port number. For example: 8000
3	AS_INDEXER_BASE_PORT	Yes	Base port number of the Java EE runtime environment (indexer domain). The ports for the indexer domains are set with numbers that contain this base port number added to each port number. For example: 8400
4	WEBSERVICE_LISTENER_PORT	Yes	The port number used for communication between the Systemwalker Service Catalog Manager and the applications. For example: 8082
5	PGS_SERVER	Yes	Only localhost is available.
6	PGS_PORT	Yes	Port number used to connect to the database. For example: 5443
7	SMTP_HOST	Yes	SMTP server host name. Specify the host name or IP address of the SMTP server prepared in "2.1.1 Pre-installation Tasks". For example: smtp.example.com
8	SMTP_PORT	Yes	SMTP server port number. Specify the port number of the SMTP server prepared in "2.1.1 Pre-installation Tasks". For example: 25
9	AP_IP_ADDRESS	Yes	IP address of the server for main feature. This IP address is permitted to access the database. Specify the IP address of the server to be setup in "4.2 Setup the Main Feature". For example: 10.0.0.1

For example:

```
%SWCTMG_HOME%\setup\swctmg_setupDB 10.0.0.1 8000 8400 8082 localhost 5443 smtp.example.com 25 10.0.0.1
```

Note

Refer to the notes in "3.1.2 Setup [Windows]" and specify the port numbers.

Confirm execution

A message is displayed prompting you to confirm execution of the setup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_setup: INFO: 117: Are you sure you want to start setup Systemwalker Service Catalog Manager DB
Server? (y/n)[n]
```

Start the setup

The following message is displayed when you start setup:

```
swctmg_setup: INFO: 124: Systemwalker Service Catalog Manager DB Server setup start.
```

Confirm the completion

The following message is displayed when setup completes:

```
swctmg_setup: INFO: 126: Systemwalker Service Catalog Manager DB Server setup end.
```

Note

It takes a few minutes between starting setup of the database server feature and completion. Do not cancel the command during setup.

Information

When you failed to execute setup command, please handle according to the message displayed on command prompt. Please refer to the following log files:

- %SWCTMG_HOME%\logs\swctmg_setup.log: General setup

- %SWCTMG_HOME%\logs\swctmg_initdb.log: Database Initializing

- %SWCTMG_HOME%\logs\build-db-ant.log: setting up for database

4.1.3 Setup [Linux]

This section explains steps for setting up the database server feature in Linux.

Execute the setup command

1. Log in as the super user.

   Log in as the super user to the server on which the database server feature Systemwalker Service Catalog Manager database will be setup.

2. Use the following command to setup:

   ```
   /opt/FJSVctbss/setup/swctmg_setupDB.sh <Parameter>
   ```

3. Refer to "Table 4.1 Setup Parameter List" in "4.1.2 Setup [Windows]" for details on parameters.

Confirm execution

A message is displayed prompting you to confirm execution of the setup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_setup: INFO: 117: Are you sure you want to start setup Systemwalker Service Catalog Manager DB
Server? (y/n)[n]
```

Start the setup

The following message is displayed when you start setup:

```
swctmg_setup: INFO: 124: Systemwalker Service Catalog Manager DB Server setup start.
```

Confirm the completion

The following message is displayed when setup completes:

```
swctmg_setup: INFO: 126: Systemwalker Service Catalog Manager DB Server setup end.
```

Note

It takes a few minutes between starting setup of the database server feature and completion. Do not cancel the command during setup.

Information

When you failed to execute setup command, please handle according to the message displayed on command prompt. Please refer to the following log files:

- /var/opt/FJSVctbss/logs/swctmg_setup.log: General setup

- /var/opt/FJSVctbss/logs/swctmg_initdb.log: Database Initializing

- /var/opt/FJSVctbss/logs/build-db-ant.log: setting up for database

4.2 Setup the Main Feature

This section explains the setup of the main feature.

4.2.1 Tasks before Setup

Refer to "3.1.1 Tasks before Setup" to perform the tasks required before setting up on the server. The following tasks must be performed before setting up the main feature.

Check the database server

Confirm that the procedures described in "4.1 Setup the Database Server Feature" have been completed.

4.2.2 Setup [Windows]

This section explains the steps for setting up for the main feature in Windows.

Note

The SWCTMG_HOME environment variable used in the command explanations is set as a system environment variable by the installer.

Execute the command in the command prompt that is started after installation finishes.

The setup command creates two domains in the Java EE runtime environment. One is used for the application that searches in the database (indexer domain). Systemwalker Service Catalog Manager uses a master/slave search structure. The entire database search is performed using the master node. Systemwalker Service Catalog Manager applications run on these slave nodes and the applications for searching

the database run on the master node. The second domain is for Systemwalker Service Catalog Manager itself (main domain). Both domains are created when you execute the setup command.

· ·

Execute the setup command

1. Log in as the OS administrator.

   Log in as OS administrator to the server on which the main feature of Systemwalker Service Catalog Manager will be setup.

2. Use the following command to setup:

   ```
   %SWCTMG_HOME%\setup\swctmg_setupAP <Parameter>
   ```

   In place of <*parameter*>, enter the following parameters in order, starting with number 1. Enter a space between each parameter. Refer to "B.1 Port Number List" for details on the port numbers used by Systemwalker Service Catalog Manager.

Table 4.2 Setup Parameter List

No.	Parameter name	Required	Description
1	HOSTNAME	Yes	Host name or IP address of the server for Systemwalker Service Catalog Manager main feature. This is set in the URLs for accessing the various portal windows. For example: 10.0.0.1
2	AS_ADMIN_USER	Yes	User name of the administrator of the Java EE runtime environment. This is set as the user name of the Java EE runtime environment administrator. For example: Administrator
3	AS_ADMIN_PASSWORD	Yes	Password of the administrator of the Java EE runtime environment. This is set as the password of the Java EE runtime environment administrator. For example: User1234
4	AS_BASE_PORT	Yes	Base port number of the Java EE runtime environment (main domain). The ports for the main domains are set with numbers that contain this base port number added to each port number. For example: 8000
5	AS_INDEXER_BASE_PORT	Yes	Base port number of the Java EE runtime environment (indexer domain). The ports for the indexer domains are set with numbers that contain this base port number added to each port number. For example: 8400
6	WEBSERVICE_LISTENER_PORT	Yes	The port number used for communication between the Systemwalker Service Catalog Manager and the applications. For example: 8082
7	PGS_SERVER	Yes	Host name or IP address of the database server set up using the procedures described in "4.1 Setup the Database Server Feature". This is set as the URL for accessing the database server. For example: 10.0.0.2
8	PGS_PORT	Yes	Port number used to connect to the database.

No.	Parameter name	Required	Description
			For example: 5443
9	SMTP_HOST	Yes	SMTP server host name. Specify the host name or IP address of the SMTP server prepared in "2.1.1 Pre-installation Tasks". For example: smtp.example.com
10	SMTP_PORT	Yes	SMTP server port number. Specify the port number of the SMTP server prepared in "2.1.1 Pre-installation Tasks". For example: 25

For example:

```
%SWCTMG_HOME%\setup\swctmg_setupAP 10.0.0.1 Administrator User1234 8000 8400 8082 10.0.0.2 5443
smtp.example.com 25
```

Note
. . . .

Refer to the notes in "3.1.2 Setup [Windows]" and specify the port numbers.

Specify the same numbers for HOSTNAME, SMTP_HOST, and the port numbers as the numbers you specified in "4.1 Setup the Database Server Feature".

. . . .

Confirm execution

A message is displayed prompting you to confirm execution of the setup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_setup: INFO: 118: Are you sure you want to start setup Systemwalker Service Catalog Manager AP
Server? (y/n)[n]
```

Start the setup

The following message is displayed when you start setup:

```
swctmg_setup: INFO: 125: Systemwalker Service Catalog Manager AP Server setup start.
```

Confirm the completion

The following message is displayed when setup completes:

```
swctmg_setup: INFO: 127: Systemwalker Service Catalog Manager AP Server setup end.
```

Execute tasks after setup

Referring to "4.2.4 Tasks after Setup", execute the tasks after setup.

Note
. . . .

It takes a few minutes (10 or more) between starting setup of main feature and completion. Do not cancel the command during setup.

In such case that the load of server is high where setup command of Systemwalker Service Catalog Manager is executed, following message display and setup may fails.

```
swctmg_setup: ERROR: 254: Failed to setup Java EE execution environment.
```

```
swctmg_setup: ERROR: 256: Failed to register services. Please check if input parameters are correct
and not duplicated.
```

In this case, execute following procedure, and then repeat setup command:

1. Open the following file using text editor.

    ```
    %SWCTMG_HOME%\setup\files\glassfish_bes.properties
    ```

    ```
    %SWCTMG_HOME%\setup\files\glassfish_indexer.properties
    ```

2. Modify the values of "glassfish.domain.stop.waitSeconds" and "glassfish.domain.start.maxWaitSeconds" items to the bigger ones, and save the file. These settings mean the time (unit: second) to wait the completion for stopping and starting Java EE execution environment in setup command process.

    Example: to change the value of "glassfish.domain.stop.waitSeconds" to 90, and that of "glassfish.domain.start.maxWaitSeconds" to 900.

    Before modifying:

    glassfish.domain.stop.waitSeconds=60

    glassfish.domain.start.maxWaitSeconds=600

    After modifying:

    glassfish.domain.stop.waitSeconds=90

    glassfish.domain.start.maxWaitSeconds=900

3. Repeat setup command.

Information

When you failed to execute setup command, please handle according to the message displayed on command prompt. Please refer to the following log files:

-   %SWCTMG_HOME%\logs\swctmg_setup.log: General setup

-   %SWCTMG_HOME%\logs\swctmg_initdb.log: Database Initializing

-   %SWCTMG_HOME%\logs\build-db-ant.log: setting up for database

-   %SWCTMG_HOME%\logs\build-glassfish-setup-ant.log: setting up for Java EE execution environment

4.2.3 Setup [Linux]

This section explains the steps for setting up for the main feature.

Execute the setup command

1. Log in as the superuser.

    Log in as the superuser to the server on which the main feature of Systemwalker Service Catalog Manager will be setup.

2. Use the following command to setup:

    ```
    /opt/FJSVctbss/setup/swctmg_setupAP.sh <Parameter>
    ```

3. Refer to "Table 4.2 Setup Parameter List" in "4.2.2 Setup [Windows]".

Confirm execution

A message is displayed prompting you to confirm execution of the setup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_setup: INFO: 118: Are you sure you want to start setup Systemwalker Service Catalog Manager AP
Server? (y/n)[n]
```

Start the setup

The following message is displayed when you start setup:

```
swctmg_setup: INFO: 125: Systemwalker Service Catalog Manager AP Server setup start.
```

Confirm the completion

The following message is displayed when setup completes:

```
swctmg_setup: INFO: 127: Systemwalker Service Catalog Manager AP Server setup end.
```

Execute tasks after setup

Referring to "4.2.4 Tasks after Setup", execute the tasks after setup.

📒 Note

. . . .

It takes a few minutes (10 or more) between starting setup of main feature and completion. Do not cancel the command during setup.

In such case that the load of server is high where setup command of Systemwalker Service Catalog Manager is executed, following message display and setup may fails.

```
swctmg_setup: ERROR: 254: Failed to setup Java EE execution environment.
```

```
swctmg_setup: ERROR: 256: Failed to register services. Please check if input parameters are correct
and not duplicated.
```

In this case, execute following procedure, and then repeat setup command:

1. Open the following file using text editor.

```
/opt/FJSVctbss/setup/files/glassfish_bes.properties
```

```
/opt/FJSVctbss/setup/files/glassfish_indexer.properties
```

2. Modify the values of "glassfish.domain.stop.waitSeconds" and "glassfish.domain.start.maxWaitSeconds" items to the bigger ones, and save the file. These settings mean the time (unit: second) to wait the completion for stopping and starting Java EE execution environment in setup command process.

   Example: to change the value of "glassfish.domain.stop.waitSeconds" to 90, and that of "glassfish.domain.start.maxWaitSeconds" to 900.

   Before modifying:

   glassfish.domain.stop.waitSeconds=60

   glassfish.domain.start.maxWaitSeconds=600

   After modifying:

   glassfish.domain.stop.waitSeconds=90

   glassfish.domain.start.maxWaitSeconds=900

3. Repeat setup command.

. . . .

Information

. . . .

When you failed to execute setup command, please handle according to the message displayed on command prompt. Please refer to the following log files:

- /var/opt/FJSVctbss/logs/swctmg_setup.log: General setup

- /var/opt/FJSVctbss/logs/swctmg_initdb.log: Database Initializing

- /var/opt/FJSVctbss/logs/build-db-ant.log: setting up for database

- /var/opt/FJSVctbss/logs/build-glassfish-setup-ant.log: setting up for Java EE execution environment

. . . .

4.2.4 Tasks after Setup

After setting up software on the server, the tasks to input license key and to start main feature must be performed without fail. Please refer to "3.1.4 Tasks after Setup" in detail

Chapter 5 Unsetup

This chapter explains how to unsetup Systemwalker Service Catalog Manager with a standalone configuration on the server.

Note
. . . .

The procedure described in this chapter requires the administrative privileges to execute.

. . . .

5.1 Unsetup on the Server

This section explains how to unsetup software on the server.

5.1.1 Tasks before Unsetup

Save the resources

Save the environment resources as required.
Refer to "9.4 Online backup and restoration" for details.

Information
. . . .

The OS user for the database for this product is "pgctbss". In unsetup of Systemwalker Service Catalog Manager, The OS user for the database (pgctbss) would be deleted

. . . .

Unify the user names and passwords

If you have changed administrator's password of Java EE execution environment after setup Systemwalker Service Catalog Manager, unify the user names and passwords of main-domain and indexer domain.
Refer to "8.4 Changing Administrator's Password of Java EE Execution Environment" for details.

Unsetup IaaS Integration

If you have set up Systemwalker Service Catalog Manager IaaS Integration after setting up Systemwalker Service Catalog Manager, unsetup Systemwalker Service Catalog Manager IaaS Integration. Refer to "IaaS Integration Guide" for detail.

5.1.2 Unsetup [Windows]

This section explains the procedure for unsetting up when the server runs Windows.

Execute the unsetup command

1. Login as the super user.

   Login as the administrator to the server from which Systemwalker Service Catalog Manager will be unsetup.

2. Use the following command to execute the unsetup procedure.

   ```
   %SWCTMG_HOME%\setup\swctmg_unsetup <parameters>
   ```

   In <parameter>, all of the following parameters must be specified in order from No.1. Also, an ASCII space character must be put between parameters. Refer to "B.1 Port Number List" for the information on the port numbers used by Systemwalker Service Catalog Manager.

Parameter List for unsetup

No.	Parameter name	Mandatory	Explanation
1	AS_ADMIN_USER	Yes	User name of the administrator of Java EE execution environment. Example: Administrator
2	AS_ADMIN_PASSWORD	Yes	Password of the administrator of Java EE execution environment. Example: User1234
3	AS_ADMIN_DOMAIN_PORT	Yes	Admin port number of Java EE execution environment of main domain. Example: 8048
4	AS_INDEXER_ADMIN_DOMAIN_PORT	Yes	Admin port number of Java EE execution environment of indexer domain. Example: 8448

Example:

```
%SWCTMG_HOME%\setup\swctmg_unsetup Administrator User1234 8048 8448
```

📙 **Note**

. . . .

Port number must be specified by numeric letters in the 1 to 65535 range.

. . . .

Confirm execution

A message is displayed prompting you to confirm execution of the unsetup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_unsetup: INFO: 103: Are you sure you want to start unsetup Systemwalker Service Catalog
Manager? (y/n)[n]
```

Start unsetup

Start message of the execution of unsetup will be displayed.

```
swctmg_unsetup: INFO: 104:Systemwalker Service Catalog Manager unsetup start.
```

Confirm the completion

Following message will be displayed when the unsetup procedure completes.

```
swctmg_unsetup: INFO: 106: Systemwalker Service Catalog Manager unsetup end
```

5.1.3 Unsetup [Linux]

This section explains the procedure for unsetting up when the server runs Linux.

Execute the unsetup command

1. Login as the super user.

   Login as the super user to the server where Systemwalker Service Catalog Manager will be unsetup.

2. Use the following command to execute the unsetup procedure.

   ```
   /opt/FJSVctbss/setup/swctmg_unsetup.sh <parameter>
   ```

3. Refer to the parameter list in "5.1.2 Unsetup [Windows]" for details on <parameter>.

Confirm execution

A message is displayed prompting you to confirm execution of the unsetup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_unsetup: INFO: 103: Are you sure you want to start unsetup Systemwalker Service Catalog
Manager? (y/n)[n]
```

Start the unsetup

Start message of the execution of unsetup will be displayed.

```
swctmg_unsetup: INFO: 104: Systemwalker Service Catalog Manager unsetup start.
```

Confirm the completion

Confirm that the unsetup procedure has completed.

```
swctmg_unsetup: INFO: 106: Systemwalker Service Catalog Manager unsetup end.
```

5.1.4 Tasks after Unsetup

This section explains the tasks to be performed after completing software unsetup on the server.

Delete the database

Delete the files located below the following data dictionary of the database as required.

[Windows]

```
%SWCTMG_HOME%\pgctbss\data
```

[Linux]

```
/var/opt/FJSVctbss/pgsql/data/
```

Chapter 6 Unsetup (Distributed Database Configuration)

This chapter describes the unsetup of Systemwalker Service Catalog Manager in a distributed database configuration.

🅿 Point

. . . .

A flow of unsetup for distributed database configuration is explained below.

1. Unsetup main feature from the server for main feature. Refer to "6.1 Unsetup the Main Feature" for how to unsetup.

2. Unsetup database server feature to the server for database. Refer to "6.2 Unsetup the Database Server Feature" for how to unsetup.

. . . .

🅖 Note

. . . .

Execute the procedures explained in this chapter using OS administrative privileges.

Only perform the procedures described in this chapter when Systemwalker Service Catalog Manager was setup according to "Chapter 4 Setup (Distributed Database Configuration)".

When you unsetup Systemwalker Service Catalog Manager in the distributed database configuration, unsetup of the main feature first, and then unsetup the database server feature.

. . . .

6.1 Unsetup the Main Feature

This section explains the unsetup of the main feature.

6.1.1 Tasks before Unsetup

Backup resources

Back up environment resources if necessary.
Refer to "9.4 Online backup and restoration" for details.

Match the user names and passwords

If you changed the password for the Java EE runtime environment administrator after setting up Systemwalker Service Catalog Manager, make sure you match the user names and passwords for the main domain and the indexer domain. Refer to "8.4 Changing Administrator's Password of Java EE Execution Environment" for details.

6.1.2 Unsetup [Windows]

This section explains the steps for unsetup of the main feature.

Execute the unsetup command

1. Log in as the OS administrator.

   Log in as OS administrator to the server from which the main feature of Systemwalker Service Catalog Manager will be unsetup.

2. Use the following command to execute the unsetup procedure.

   ```
   %SWCTMG_HOME%\setup\swctmg_unsetupAP <Parameter>
   ```

In place of <*Parameter*>, enter the following parameters in order, starting with number 1. Enter a space between each parameter. Refer to "B.1 Port Number List" for details on the port numbers used by Systemwalker Service Catalog Manager.

Table 6.1 Unsetup Parameter List

No.	Parameter name	Required	Description
1	AS_ADMIN_USER	Yes	User name of the administrator of the Java EE runtime environment. For example: Administrator
2	AS_ADMIN_PASSWORD	Yes	Password of the administrator of the Java EE runtime environment. For example: User1234
3	AS_ADMIN_DOMAIN_PORT	Yes	Port number of the main domain of Java EE runtime environment. For example: 8048
4	AS_INDEXER_ADMIN_DOMAIN_PORT	Yes	Port number of the indexer domain of Java EE runtime environment. For example: 8448

For example:

```
%SWCTMG_HOME%\setup\swctmg_unsetupAP Administrator User1234 8048 8448
```

Note
. . . .

Specify numbers between 1 and 65535 for the port numbers.
. . . .

Confirm execution

A message is displayed prompting you to confirm execution to unsetup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_unsetup: INFO: 118: Are you sure you want to start unsetup Systemwalker Service Catalog Manager
AP Server? (y/n)[n]
```

Start the unsetup

The following message is displayed when you start unsetup:

```
swctmg_unsetup: INFO: 133: Systemwalker Service Catalog Manager AP Server unsetup start.
```

Confirm completion

The following message is displayed when unsetup is complete:

```
swctmg_unsetup: INFO: 135: Systemwalker Service Catalog Manager AP Server unsetup end.
```

6.1.3 Unsetup [Linux]

This section explains the procedure for unsetup for the main feature in Linux.

Execute the unsetup command

1. Log in as the superuser.

   Log in as the superuser to the server from which the main feature of Systemwalker Service Catalog Manager will be unsetup.

2. Use the following command to execute the unsetup procedure.

```
/opt/FJSVctbss/setup/swctmg_unsetupAP.sh <Parameter>
```

Refer to "6.1.2 Unsetup [Windows]" for details on parameters.

Confirm execution

A message is displayed prompting you to confirm execution to unsetup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_unsetup: INFO: 118: Are you sure you want to start unsetup Systemwalker Service Catalog Manager
AP Server? (y/n)[n]
```

Start the unsetup

The following message is displayed when you start the unsetup:

```
swctmg_unsetup: INFO: 133: Systemwalker Service Catalog Manager AP Server unsetup start.
```

Confirm completion

The following message is displayed when unsetup is complete:

```
swctmg_unsetup: INFO: 135: Systemwalker Service Catalog Manager AP Server unsetup end.
```

6.2 Unsetup the Database Server Feature

This section explains how to unsetup the database server feature.

6.2.1 Tasks before Unsetup

Backup resources

Back up environment resources if necessary.
Refer to "9.4 Online backup and restoration" for details.

📖 Information

. . . .

The OS user for the database for this product is "pgctbss". In unsetup of Systemwalker Service Catalog Manager, The OS user for the database (pgctbss) would be deleted

. . . .

6.2.2 Unsetup [Windows]

This section explains the procedure for unsetup for the database server feature in Windows.

Execute the unsetup command

1. Log in as the OS administrator.

   Log in as OS administrator to the server from which the database server feature of Systemwalker Service Catalog Manager will be unsetup.

2. Use the following command to execute the unsetup procedure.

```
%SWCTMG_HOME%\setup\swctmg_unsetupDB
```

Confirm execution

A message is displayed prompting you to confirm execution to unsetup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_unsetup: INFO: 117: Are you sure you want to start unsetup Systemwalker Service Catalog Manager
DB Server? (y/n)[n]
```

Start the unsetup

The following message is displayed when you start unsetup:

```
swctmg_unsetup: INFO: 132: Systemwalker Service Catalog Manager DB Server unsetup start.
```

Confirm completion

The following message is displayed when unsetup is complete:

```
swctmg_unsetup: INFO: 134: Systemwalker Service Catalog Manager DB Server unsetup end.
```

6.2.3 Unsetup [Linux]

This section explains the procedure for unsetup for the database server feature in Linux.

Execute the unsetup command

1. Log in as the superuser.

   Log in as the superuser to the server from which the Systemwalker Service Catalog Manager setup will be unsetup.

2. Use the following command to execute the unsetup procedure.

   ```
   /opt/FJSVctbss/setup/swctmg_unsetupDB.sh
   ```

Confirm execution

A message is displayed prompting you to confirm execution to unsetup.

To execute enter [y], to abort enter [n], then press the ENTER key.

```
swctmg_unsetup: INFO: 117: Are you sure you want to start unsetup Systemwalker Service Catalog Manager
DB Server? (y/n)[n]
```

Start the unsetup

The following message is displayed when you start unsetup:

```
swctmg_unsetup: INFO: 132: Systemwalker Service Catalog Manager DB Server unsetup start.
```

Confirm completion

The following message is displayed when unsetup is complete:

```
swctmg_unsetup: INFO: 134: Systemwalker Service Catalog Manager DB Server unsetup end.
```

6.2.4 Tasks after Unsetup

This section explains the tasks performed after unsetup for the server.

Delete the database data dictionary

The content of the database data dictionary folders is not deleted by the unsetup process.

Delete if not required.

[Windows]

```
%SWCTMG_HOME%\pgctbss\data
```

[Linux]

```
/var/opt/FJSVctbss/pgsql/data/
```

Chapter 7 Uninstallation

This chapter explains how to uninstall software on the server.

Note

The procedure described in this chapter requires the administrative privileges to execute.

7.1 Uninstall on the Server

This section explains how to uninstall software on the Server.

7.1.1 Tasks before Uninstallation

The following tasks must be performed without fail before uninstalling software on the server.

Execute unsetup

If Systemwalker Service Catalog Manager has not been unsetup, it must be unsetup before uninstalled. Refer to "Chapter 5 Unsetup" and "Chapter 6 Unsetup (Distributed Database Configuration)" for details of unsetup.

Note

Unsetup must be done before uninstallation. Otherwise, resources such as registered database service will never be removed.

Terminate applications

Terminate all the applications. If resources such as disks and registries that Systemwalker Service Catalog Manager may use are being used during uninstallation, the uninstallation may fail.

7.1.2 Uninstallation Flow

A flow of uninstallation procedure is explained below.

When the uninstall command is executed, the following settings Windows will be displayed one by one. Set the items required on each window.

[Windows]

- Execute uninstallation

- Start uninstallation

- Confirm the completion

[Linux]

- Execute uninstallation command

- Start uninstallation

- Confirm the completion

7.1.3 Uninstallation [Windows]

This section explains the uninstallation procedure when the server runs Windows.

Execute uninstallation

1. Login as the administrator.

   Login as the administrator to the server on which Systemwalker Service Catalog Manager is being uninstalled.

2. Select the product.

   Select [Uninstall (middleware)] on [Start] > [Program] > [Fujitsu].

   The following window will be displayed. Select "Systemwalker Service Catalog Manager" and click the [Remove] button.
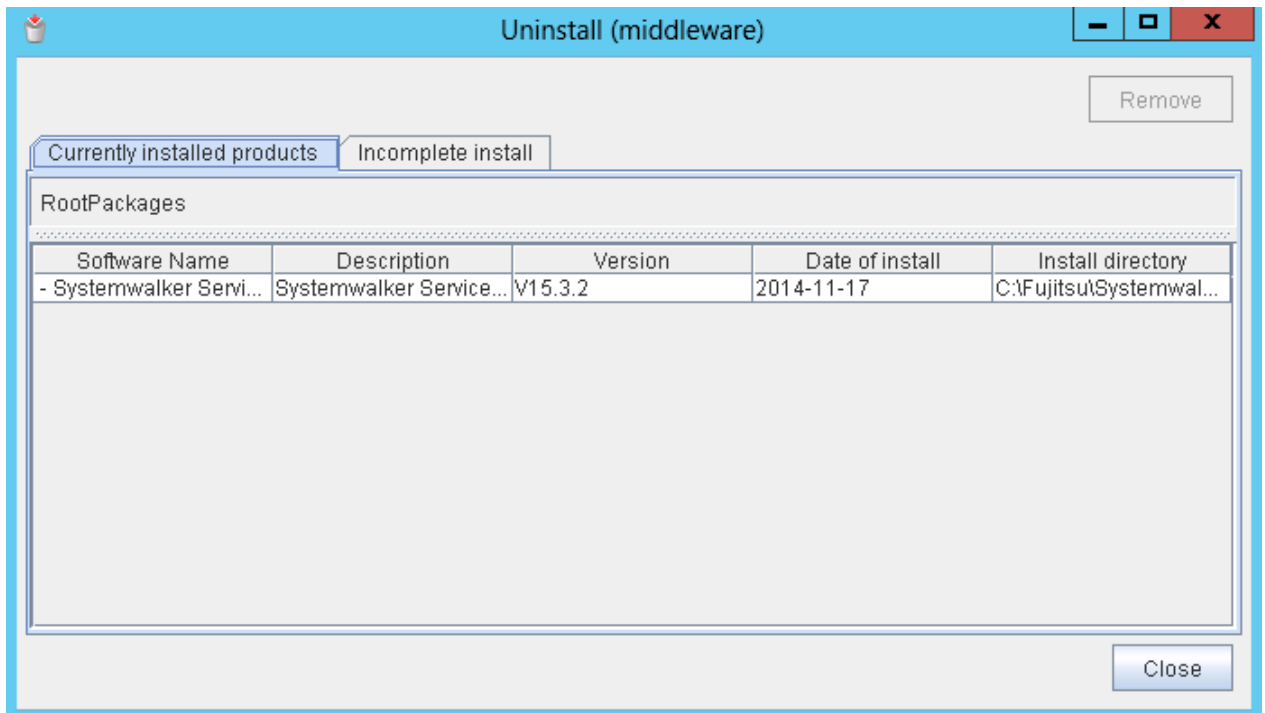
Start uninstalling

To continue uninstalling, click the [Uninstall] button. To terminate uninstallation, click the [Cancel] button.
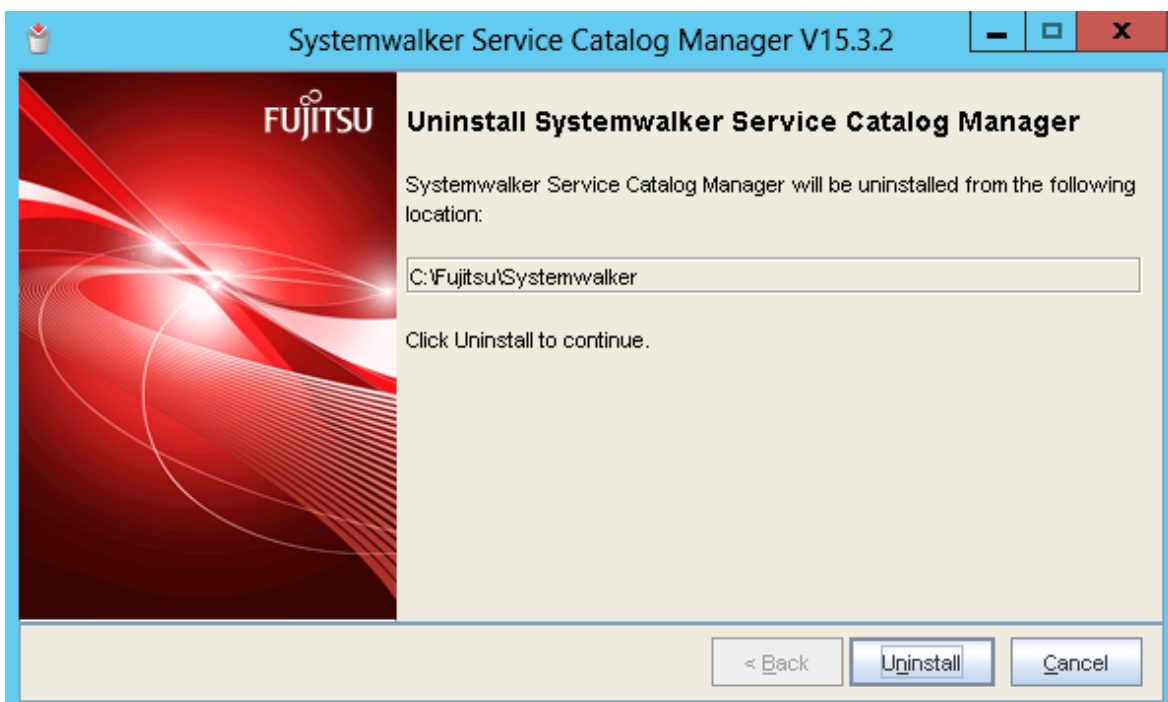
Confirm the completion

Click the [Finish] button.

7.1.4 Uninstallation[Linux]

This section explains the uninstallation procedure when the server runs Linux.

Execute the uninstall command

1. Login as the super user.

    Login as the super user to the server on which Systemwalker Service Catalog Manager is being uninstalled.

2. Execute the uninstall command.

    Execute the uninstall command of Systemwalker Service Catalog Manager.

    ```
    # /opt/FJSVcir/cir/bin/cimanager.sh -c
    ```

3. Select the product to be uninstalled.

    Enter the number of the product to be uninstalled. To uninstall [1. Systemwalker Service Catalog Manager], enter [1].

    ```
    Loading Uninstaller...

    Currently installed products
    1. Systemwalker Service Catalog Manager V15.3.2

    Type [number] to select the software you want to uninstall.
    [number,q]
    =>
    ```

4. The uninstallation confirmation message will be displayed.

    To continue uninstallation, enter [y], To terminate uninstallation, enter [q]. To go back to the previous window, enter [b].

    ```
    Systemwalker Service Catalog Manager
        Description: Systemwalker Service Catalog Manager
        Version: V15.3.2
    ```

```
    Company name: Fujitsu Limited
    Installation directory: /opt
    Installation date: 2014-11-19


Starting the uninstall of the software. Are you sure you want to continue?
[y,b,q]
=>
```

Start uninstalling

Following message will be displayed when uninstallation starts.

```
Uninstalling...
```

Confirm the completion

Following message will be displayed when uninstallation completes.

```
The following products have been uninstalled successfully:
    Systemwalker Service Catalog Manager


Exiting Uninstaller.
```

7.1.5 Tasks after Uninstallation

A following folder is kept after uninstallation.

[Windows]

```
%SWCTMG_HOME%\logs
```

[Linux]

```
/var/opt/FJSVctbss/logs
/var/opt/FJSVctbss/pgsql/data/
```

Remove the folder manually.

Chapter 8 Modifying Installation Environment

This chapter explains how to modify the installation environment of Systemwalker Service Catalog Manager.

Information

The parameters are available to check the setting value of the installation environment by executing check command. The objected parameters are those which are modified by "set" subcommand of "asadmin" command for the way to modify installation environment described in this chapter.

The check command is following:

```
<absolute path of "asadmin" command> <OPTION> get <parameter>
```

As for absolute path of "asadmin" command and parameter, refer to the example for each command.

As for OPTION of check command, refer to "8.7 Options of Admin Command"

As for the example of check command refer to "B.2 Checking Port Numbers"

8.1 Modifying Port Number of Server

This section explains how to modify the port number used by the main feature of this product.

The port numbers explained in this section can be modified by commands. Execute them on Command Prompt or console.

Note

- Systemwalker Service Catalog Manager must be running in order to execute the commands.

- The modification will become effective after restarting Systemwalker Service Catalog Manager Server service. However, following port will become effective just after executing the modification command:

    - HTTP listener port

    - HTTP SSL listener port

    - Web service port

- The admin port number of Java EE execution environment must be specified as a command option for each domain, main domain and indexer domain. You can choose the domain you will change by specifying the admin port of Java EE execution environment. Refer to "B.2.1 Admin Port Number of Java EE Execution Environment" for the information on how to check the port number.

    Refer to "8.7 Options of Admin Command" for the information on the command option.

    The explanation for the commands in this section assumes that the options are specified by the following environment variable.

    [Windows]

    %OPTION%

    [Linux]

    $OPTION

8.1.1 Modifying Admin Port of Java EE Execution Environment

Use following commands to modify the setting.

[Windows]

1. Change admin port of Java EE Execution Environment.

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server-config.network-config.network-
listeners.network-listener.admin-listener.port=<PORT NO>
```

2. Stop the domain of which admin port was changed above.

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" -H <hostname, other than "localhost"> -p <the old admin
port number> stop-domain
```

3. Start Systemwalker Service Catalog Manager service of which the admin port of domain was changed above. Refer to "9.1.1 Start" for details.

[Linux]

1. Change admin port of Java EE Execution Environment.

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server-config.network-config.network-
listeners.network-listener.admin-listener.port=<PORT NO>
```

2. Stop the domain of which admin port was changed above.

```
/opt/FJSVctbss/glassfish3/bin/asadmin -H <hostname, other than "localhost"> -p <the old admin
port number> stop-domain
```

3. Start Systemwalker Service Catalog Manager service of which the admin port of domain was changed above. Refer to "9.1.1 Start" for details.

📝 Note
....

Before changing the admin port for the indexer domain, execute the following command to stop the main domain:

[Windows]

```
net stop "Systemwalker Service Catalog Manager Server"
```

[Linux]

```
service swctmgserver stop
```

After making the above changes, execute the following command to start the main domain:

[Windows]

```
net start "Systemwalker Service Catalog Manager Server"
```

[Linux]

```
service swctmgserver start
```
....

8.1.2 Modifying HTTP Listener Port Number

Executing the command to modify

Use following command to modify the setting.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server-config.network-config.network-
listeners.network-listener.http-listener-1.port=<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server-config.network-config.network-
listeners.network-listener.http-listener-1.port=<PORT NO>
```

Updating configuration settings

Log into the Admin Portal as the operator and change the port numbers of BASE_URL, REPORT_ENGINEURL, REPORT_SOAP_ENDPOINT and REPORT_WSDLURL in the "Update configuration settings" page. Refer to the Operator's Guide for details.

8.1.3 Modifying HTTP SSL Listener Port Number

Executing the command to modify

Use following command to modify the setting.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server-config.network-config.network-
listeners.network-listener.http-listener-2.port=<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server-config.network-config.network-
listeners.network-listener.http-listener-2.port=<PORT NO>
```

Updating configuration settings

Log into the Admin Portal as the operator and change the port number of BASE_URL_HTTPS in the "Update configuration settings" page. Refer to the Operator's Guide for details.

8.1.4 Modifying IIOP Listener Port Number

Use following command to modify the setting.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server-config.iiop-service.iiop-listener.orb-
listener-1.port=<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server-config.iiop-service.iiop-listener.orb-
listener-1.port=<PORT NO>
```

8.1.5 Modifying IIOP Listener Port Number for SSL Communication

Use following command to modify the setting.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server-config.iiop-service.iiop-
listener.SSL.port=<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server-config.iiop-service.iiop-
listener.SSL.port=<PORT NO>
```

8.1.6 Modifying IIOP Listener Port Number for Client Authentication of SSL Communication

Use following command to modify the setting.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server-config.iiop-service.iiop-listener.SSL_MUTUALAUTH.port=<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server-config.iiop-service.iiop-listener.SSL_MUTUALAUTH.port=<PORT NO>
```

8.1.7 Modifying RMI registry connection port number used by JMX connector

Use following command to modify the setting.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server.admin-service.jmx-connector.system.port=<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server.admin-service.jmx-connector.system.port=<PORT NO>
```

8.1.8 Modifying Port Number for JMS Host and RMI Registry for Message Queue broker

Use following command to modify the setting of JMS host port number. The port number for RMI registry for Message Queue broker will be changed to the JMS host port number + 100.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server.jms-service.jms-host.default_JMS_host.port=<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server.jms-service.jms-host.default_JMS_host.port=<PORT NO>
```

📒 Note

. . . .

In case the JMS host port of indexer domain is modified, the address must be modified which the JMS factory of main domain uses for connecting to indexer domain. Execute following command:

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set resources.connector-connection-pool.jms/bss/masterIndexerQueueFactory.property.AddressList=mq://<server host name>:<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set resources.connector-connection-pool.jms/bss/masterIndexerQueueFactory.property.AddressList=mq://<server host name>:<PORT NO>
```

. . . .

8.1.9 Modifying Web Service Port Number

Use following command to modify the setting. This port number can be modified for main domain only.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server-config.network-config.network-
listeners.network-listener.ws-listener.port=<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server-config.network-config.network-
listeners.network-listener.ws-listener.port=<PORT NO>
```

8.2 Modifying Port Number of Database

This section explains how to modify port number used by the database of this product.

The port number of database is used as the port number on which the database service accepts the connection from the clients as well as the port number Java EE connection pool uses when it connects to the database.

A flow when modifying the port number is shown below.

1. Modify the port number Java EE connection pool uses as the destination.

2. Stop Systemwalker Service Catalog Manager.

3. Modify the listening port number of database server.

4. Modify the listening port number of JMS connection

5. Start Systemwalker Service Catalog Manager.

8.2.1 Modifying Port Number of Connection Pool

Modify the destination port number used by connection pool so that it can connect to the database.

Use following command to modify the setting.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server.resources.jdbc-connection-
pool.BSSPool.property.portNumber=<PORT NO>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server.resources.jdbc-connection-
pool.BSSPool.property.portNumber=<PORT NO>
```

8.2.2 Stopping Systemwalker Service Catalog Manager

Stop Systemwalker Service Catalog Manager. Refer to "9.1.2 Stop" for details.

8.2.3 Modifying Listening Port Number of Database

1. Open the following file using text editor.

   [Windows]

   ```
   %SWCTMG_HOME%\pgctbss\data\postgresql.conf
   ```

   [Linux]

   ```
   /var/opt/FJSVctbss/pgsql/data/postgresql.conf
   ```

2. Modify the value of "port" item.

Example: to change the port from 5432 to 5433

Before modifying:

port = 5432

After modifying:

port = 5433

8.2.4 Modifying Listening Port Number of JMS Connection

1. Open the following file using text editor.

[Windows]

```
%SWCTMG_HOME%\glassfish3\glassfish\domains\bes-domain\imq\instances\imqbroker\props
\config.properties
```

```
%SWCTMG_HOME%\glassfish3\glassfish\domains\master-indexer-domain\imq\instances\imqbroker\props
\config.properties
```

[Linux]

```
/opt/FJSVctbss/glassfish3/glassfish/domains/bes-domain/imq/instances/imqbroker/props/
config.properties
```

```
/opt/FJSVctbss/glassfish3/glassfish/domains/master-indexer-domain/imq/instances/imqbroker/
props/config.properties
```

2. Modify the port number of "imq.persist.jdbc.postgresql.opendburl" item.

Example: to change the port from 5432 to 5433

Before modifying:

imq.persist.jdbc.postgresql.opendburl=jdbc\:postgresql\://localhost\:5432/bssjms

After modifying:

imq.persist.jdbc.postgresql.opendburl=jdbc\:postgresql\://localhost\:5433/bssjms

8.2.5 Starting Systemwalker Service Catalog Manager

Start Systemwalker Service Catalog Manager. Refer to "9.1.1 Start" for details.

8.3 Modifying SMTP Server Settings

This section explains how to change the setting of SMTP server.

The setting of SMTP server can be modified by commands. Execute them on Command Prompt or console.

📒 Note

. . . .

- The Systemwalker Service Catalog Manager server service must be started to execute the command.

- You need to specify the port number for the main domain of Java EE runtime environment administration using command options. Refer to "B.2.1 Admin Port Number of Java EE Execution Environment" for details on how to check the port number for Java EE runtime environment administration.

- Refer to "8.7 Options of Admin Command" for details on command options.

The commands described in this section are executed assuming that the following options are specified in the environment variables:

[Windows]

```
%OPTION%
```

[Linux]

```
$OPTION
```

8.3.1 Modifying SMTP Server

Use following command to modify the SMTP server setting.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server.resources.mail-resource.mail/
BSSMail.host=<Host name of the SMTP server>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server.resources.mail-resource.mail/
BSSMail.host=<Host name of the SMTP server>
```

8.3.2 Modifying Mail Address

This default setting is "service@example.com". Use following command to modify the settings.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server.resources.mail-resource.mail/
BSSMail.from=<Mail address>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server.resources.mail-resource.mail/
BSSMail.from=<Mail address>
```

8.3.3 Modifying SMTP Authentication

This default setting is "false". Use following command to modify the SMTP authentication settings.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server.resources.mail-resource.mail/
BSSMail.property.mail-smtp-auth=<SMTP authentication(true/false)>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server.resources.mail-resource.mail/
BSSMail.property.mail-smtp-auth=<SMTP authentication(true/false)>
```

8.3.4 Modifying SMTP User

This default setting is "saas". Use following command to modify the SMTP server settings.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server.resources.mail-resource.mail/
BSSMail.user=<SMTP user>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server.resources.mail-resource.mail/
BSSMail.user=<SMTP user>
```

8.3.5 Modifying SMTP Password

This default setting is "password". Use following command to modify the SMTP password settings.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server.resources.mail-resource.mail/
BSSMail.property.mail-smtp-password=<SMTP password>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server.resources.mail-resource.mail/
BSSMail.property.mail-smtp-password=<SMTP password>
```

8.3.6 Modifying SMTP Server Port

Use following command to modify the SMTP server port settings.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set server.resources.mail-resource.mail/
BSSMail.property.mail-smtp-port=<Port number of the SMTP server>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set server.resources.mail-resource.mail/
BSSMail.property.mail-smtp-port=<Port number of the SMTP server>
```

8.4 Changing Administrator's Password of Java EE Execution Environment

This section explains how to change Administrator's password of Java EE execution environment.

The administrator's password explained in this section can be modified by commands. Execute them on Command Prompt or console.

📒 Note

. . . .

- Systemwalker Service Catalog Manager must be running in order to execute the commands.

- The modification will become effective after restarting Systemwalker Service Catalog Manager Server service.

- The admin port number of Java EE execution environment must be specified as a command option for each domain, main domain and indexer domain. Refer to "B.2.1 Admin Port Number of Java EE Execution Environment" for the information on how to check the port number.

    Refer to "8.7 Options of Admin Command" for the information on the command option.

    The explanation for the commands in this section assumes that the options are specified by the following environment variable.

    [Windows]

    %OPTION%

    [Linux]

    $OPTION

- If you have changed administrator's password of Java EE execution environment, unify the user names and passwords of main-domain and indexer domain when you unsetup Systemwalker Service Catalog Manager.

. . . .

Use following command to change

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% change-admin-password --domaindir %SWCTMG_HOME%
\glassfish3\glassfish\domains --domain_name <Domain name(bes-domain or master-indexer-domain)>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION change-admin-password --domaindir /opt/FJSVctbss/
glassfish3/glassfish/domains --domain_name <Domain name(bes-domain or master-indexer-domain)>
```

8.5 Changing the Context Root

This section describes how to change the context root of this product.

Commands are used to change the context root as described in this section. Execute using either the command prompt or the console.

📒 Note

- -

- The Systemwalker Service Catalog Manager server service must be started to execute the command.

- You need to specify the port number for the main domain of Java EE runtime environment administration using command options. Refer to "B.2.1 Admin Port Number of Java EE Execution Environment" for details on how to check the port number for Java EE runtime environment administration.

- Refer to "8.7 Options of Admin Command" for details on command options.

  The commands described in this section are executed assuming that the following options are specified in the environment variables:

  [Windows]

  %OPTION%

  [Linux]

  $OPTION

- -

Use following command to change

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set applications.application.fujitsu-bss-
portal.context-root=/<Context root after the change>
```

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% set applications.application.fujitsu-bss-portal-
help.context-root=/<Context root after the change>-help
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set applications.application.fujitsu-bss-
portal.context-root=/<Context root after the change>
```

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION set applications.application.fujitsu-bss-portal-
help.context-root=/<Context root after the change>-help
```

📖 See

- -

The default context root is "fujitsu-bss-portal".

- -

8.6 Managing the War File

This section describes how to manage the war files of this product.

Commands are used to manage the war files as described in this section. Execute using either the command prompt or the console.

> ℹ️ **Note**
>
> ....
>
> - The Systemwalker Service Catalog Manager server service must be started to execute the command.
>
> - You need to specify the port number for the main domain of Java EE runtime environment administration using command options. Refer to "B.2.1 Admin Port Number of Java EE Execution Environment" for details on how to check the port number for Java EE runtime environment administration.
>
> - Refer to "8.7 Options of Admin Command" for details on command options.
>
>   The commands described in this section are executed assuming that the following options are specified in the environment variables:
>
>   [Windows]
>
>   %OPTION%
>
>   [Linux]
>
> $OPTION
>
> ....

Copy and edit war file

Copy each war file to the any given folder and edit it. Refer to "Operator's Guide" in detail for how to edit. fujitsu-bss-portal-help.war file is registered in following folder:

[Windows]

```
"%SWCTMG_HOME%\setup
```

[Linux]

```
/opt/FJSVctbss/setup
```

eclipse-birt-runtime.war file is registered in following folder:

[Windows]

```
"%SWCTMG_HOME%\deployment
```

[Linux]

```
/opt/FJSVctbss/deployment
```

Deploy war file

Use following command to deploy.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% deploy <absolute path of deploying file>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION deploy <absolute path of deploying file>
```

Undeploy war file

Use following command to undeploy.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% undeploy <Module name of deployed file (example:
fujitsu-bss-portal-help)>
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION undeploy < Module name of deployed file (example:
fujitsu-bss-portal-help)>
```

8.7 Options of Admin Command

This section explains the options of admin command.

The admin port number of Java EE execution environment must be specified as a command option for each domain, main domain and indexer domain. Also the password of Java EE execution environment must be specified.

Refer to "B.2.1 Admin Port Number of Java EE Execution Environment" for the information on how to check the port number.

Specify following command options in the case the admin port number has been modified.

Option	Description
-p	Specify the admin port number of Java EE execution environment of the domain you will modify.
	If the port has been modified, the execution of the command will fail unless correct value is specified with this option.
-u	Specify the user name of the administrator of Java EE execution environment.
	The user name will be asked after invoking the command if this option is omitted.

Example: Specifying options to the environment variable OPTION

[Windows]

```
SET OPTION=-p 8048 -u Administrator
```

[Linux]

```
export OPTION="-p 8048 -u Administrator"
```

Chapter 9 Operations

This chapter explains the operations of this product.

9.1 Start/Stop

This section explains how to start and stop this product.

9.1.1 Start

This section explains how to start this product.

1. Start Database

   Execute following command to start the database.

   [Windows]

   ```
   net start "Systemwalker Service Catalog Manager DB Service"
   ```

   [Linux]

   ```
   /opt/FJSVctbss/bin/swctmg_startdb.sh
   ```

   [RHEL7]

   ```
   systemctl start swctmgpgsql.service
   ```

2. Start Systemwalker Service Catalog Manager service

   Execute following two commands in following order to start Systemwalker Service Catalog Manager service.

   [Windows]

   ```
   net start "Systemwalker Service Catalog Manager Indexer Server"
   ```

   ```
   net start "Systemwalker Service Catalog Manager Server"
   ```

   [Linux]

   ```
   service swctmgindexer start
   ```

   ```
   service swctmgserver start
   ```

   [RHEL7]

   ```
   systemctl start swctmgindexer.service
   ```

   ```
   systemctl start swctmgserver.service
   ```

9.1.2 Stop

This section explains how to start this product.

1. Stop Systemwalker Service Catalog Manager service

   Execute following two commands in following order to stop Systemwalker Service Catalog Manager service.

   [Windows]

   ```
   net stop "Systemwalker Service Catalog Manager Server"
   ```

   ```
   net stop "Systemwalker Service Catalog Manager Indexer Server"
   ```

[Linux]

```
service swctmgserver stop
```

```
service swctmgindexer stop
```

[RHEL7]

```
systemctl stop swctmgserver.service
```

```
systemctl stop swctmgindexer.service
```

2. Stop Database

Execute following command to stop the database.

[Windows]

```
net stop "Systemwalker Service Catalog Manager DB Service"
```

[Linux]

```
/opt/FJSVctbss/bin/swctmg_stopdb.sh
```

[RHEL7]

```
systemctl stop swctmgpgsql.service
```

9.2 Changes of the Context Root

This section describes how to change the context root of this product.

You can change the access URLs for the Admin Portal and Marketplace Portal by changing the context root.

Executing the command for changing the context root

Execute the command for changing the context root. Refer to "8.5 Changing the Context Root" for details on how to change.

Changing the BASE_URL

Log into the Admin Portal as the operator and change the BASE_URL in the "Update configuration settings" page. Refer to the Operator's Guide for details.

Note

Only change the context root after setup. The access URL from before the modification is invalid if the context root is changed after a user is registered or a service is subscribed to.

9.3 Accessing to Portal

This section explains how to access the portals provided by this product.

This product provides Admin Portal (administrative user interface) and Marketplace Portal.

9.3.1 Accessing to Admin Portal

To access the login screen of Admin Portal, start a web browser and enter following URL as the address.

The first operator is created when setup is completed. This operator is initially assigned the following credentials:

- User ID: administrator

- Initial password: admin123

Login to admin portal with above credentials.

It is strongly recommended that you change the initial password after login.

Accessing to Admin Portal

```
http://[server host name]:[port number]/fujitsu-bss-portal/
```

Accessing to marketplace specific Admin Portal

```
http://[server host name]:[port number]/fujitsu-bss-portal/shop/updateMarketplace.jsf?
mId=[marketplace ID]
```

Parameter	Description
server host name	Specify the host name or IP address of the server where this product is installed.
port number	Specify the HTTP listener port number specified in "Chapter 3 Setup" or "Chapter 4 Setup (Distributed Database Configuration)". Refer to "B.2.2 HTTP Listener Port Number" to check the port number currently used.
marketplace ID	Specify the ID of the marketplace. The ID is generated when the Operator registers the marketplace.

The URL for accessing marketplace specific Admin Portal is notified to the Marketplace Owner by a mail when the marketplace is registered.

9.3.2 Accessing to Marketplace Portal

There are two way to access Marketplace Portal as follows.

- Accessing to the login screen by specifying URL in the web browser.

- Accessing from Admin Portal you are already logged in.

Accessing by specifying URL

Start a web browser and specify following URL as the address.

```
http://[server host name]:[port number]/fujitsu-bss-portal/marketplace?mId=[marketplace ID]
```

Parameter	Description
server host name	Specify the host name or IP address of the server where this product is installed.
port number	Specify the HTTP listener port number specified in "Chapter 3 Setup" or "Chapter 4 Setup (Distributed Database Configuration)". Refer to "B.2.2 HTTP Listener Port Number" to check the port number currently used.
marketplace ID	Specify the ID of the marketplace. The ID is generated when the Operator registers the marketplace.

Accessing from Admin Portal

Log in Admin Portal and click [Go to marketplace] menu.

Choose Marketplace Portal from pull-down menu and click [Go to] button.

9.4 Online backup and restoration

This section describes the online backup and restoration procedures for Systemwalker Service Catalog Manager.

9.4.1 Online backups

This section describes the procedure for creating backup files after installation and setup has been completed.

Preparing for backups

Create the archive directory that will store the WAL logs. The WAL log is a file for recording transactions when executing online backup.

Note

. . . .

[Linux]

The archive directory must be created so that the OS user (pgctbss) for the Systemwalker Service Catalog Manager database has full control permissions.

The LD_LIBRARY_PATH also needs to be configured. Execute the following command:

```
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/opt/FJSVctbss/fjsvpgs91/lib/
```

. . . .

Editing the database configuration file

[Windows]

Edit the following database configuration file:

```
%SWCTMG_HOME%\pgctbss\data\postgresql.conf
```

The parameters to be edited and their values after modification are shown below:

- wal_level=archive

- archive_mode=on

- archive_command='<*copy command for the WAL log file*>'

Refer to the following when editing the WAL log file copy command:

Example

```
copy "%p" "<Full path for the location where the archive directory will be created>\\%f"
```

Note

. . . .

When setting the full path of the location where the archive directory is to be created, convert single "\" to double "\\".

For example: "C:\\Fujitsu\\Systemwalker\\SWCTMG\\archivedir"

. . . .

[Linux]

Edit the following database configuration file:

```
/var/opt/FJSVctbss/pgsql/data/postgresql.conf
```

The parameters to be edited and their values after modification are shown below:

- wal_level=archive

- archive_mode=on

- archive_command='<*copy command for the WAL log file*>'

Refer to the following when editing the WAL log file copy command:

Example

```
/bin/cp -f %p <Full path for the location where the archive directory will be created>/%f
```

Information

When the backup is executed, %p is automatically converted to the file name of the copy source and %f is changed to the copy destination file name.

Restart the service

Restart the database service. Refer to "" for details on how to restart.

Starting backup

Execute the following command to start backup:

[Windows]

```
"%SWCTMG_HOME%\fjsvpgs91_64\bin\psql.exe" -p <PGS_PORT> -U pgctbss -c "SELECT
pg_start_backup(now()::text, true)"
```

[Linux]

```
/opt/FJSVctbss/fjsvpgs91/bin/psql -p 5443 -U pgctbss -c "SELECT pg_start_backup(now()::text, true)"
```

Copying the database data dictionary

Refer to the example copy command and copy the data dictionary of the following database:

[Windows]

```
%SWCTMG_HOME%\pgctbss\data
```

[Linux]

```
/var/opt/FJSVctbss/pgsql/data/
```

Example copy command:

[Windows]

```
robocopy "%SWCTMG_HOME%\pgctbss\data" <Folder path of the copy destination> /MIR /XD "%SWCTMG_HOME%
\pgctbss\data\pg_xlog" /XF " SWCTMG_HOME%\pgctbss\data\postmaster.pid"
```

[Linux]

```
rsync -av --delete --exclude=pg_xlog --exclude=postmaster.pid /var/opt/FJSVctbss/pgsql/data/
<Directory of the copy destination>
```

Note

Copy everything in the database dictionary folder apart from the pg_xlog folder and the postmaster.pid file.

Stopping backup

Execute the following command to stop backup:

[Windows]

```
"%SWCTMG_HOME%\fjsvpgs91_64\bin\psql.exe" -p <PGS_PORT> -U pgctbss -c "SELECT pg_stop_backup()"
```

[Linux]

```
/opt/FJSVctbss/fjsvpgs91/bin/psql -p 5443 -U pgctbss -c "SELECT pg_stop_backup()"
```

9.4.2 Restore

This section describes the procedure for restoring from backup files after a backup has been completed.

Stop the service

Stop the database service. Refer to "9.1 Start/Stop" for details on how to stop.

Delete the database data dictionary

Delete the data dictionary of the following database:

[Windows]

```
%SWCTMG_HOME%\pgctbss\data
```

[Linux]

```
/var/opt/FJSVctbss/pgsql/data/
```

Restoring the database data dictionary

Copy the data dictionary folder for the database created in "9.4.1 Online backups" to the following folder:

[Windows]

```
%SWCTMG_HOME%\pgctbss
```

[Linux]

```
/var/opt/FJSVctbss/pgsql
```

Restoring the WAL log file

Make following folder and copy the WAL log file created with the WAL log file copy command in "9.4.1 Online backups" to the following folder:

[Windows]

```
%SWCTMG_HOME%\pgctbss\pg_xlog
```

[Linux]

```
/var/opt/FJSVctbss/pgsql/pg_xlog
```

Editing the restore configuration file

[Windows]

Copy the following restore configuration file to the database dictionary folder. Change the extension from ".conf.sample" to ".conf" after copying.

```
%SWCTMG_HOME%\ fjsvpgs91_64\share\recovery.conf.sample
```

The parameters to be edited and their values after modification are shown below:

- restore_command='<*copy command for the WAL log file*>'

Refer to the following when editing the WAL log file copy command:

[Windows]

Example

```
copy "<Full path for the location where the archive directory will be created>\\%f" "%p"
```

> ## 🎫 Note
> ....
>
> When setting the full path of the location where the archive directory is to be created, convert single "\" to double "\\".
>
> For example: "C:\\Fujitsu\\Systemwalker\\SWCTMG\\archivedir"
>
> ....

[Linux]

Copy the following restore configuration file to the database dictionary folder. Change the extension from ".conf.sample" to ".conf " after copying.

```
/opt/FJSVctbss/fjsvpgs91/share/recovery.conf.sample
```

The parameters to be edited and their values after modification are shown below:

- restore_command='<copy command for the WAL log file>'

Refer to the following when editing the WAL log file copy command:

Example

```
/bin/cp -f <Full path for the location where the archive directory will be created>/%f %p
```

> ## 📘 Information
> ....
>
> When the backup is executed, %p is automatically converted to the file name of the copy source and %f is changed to the copy destination file name.
>
> ....

Starting the service

Start the database service. Restoration is automatically executed when you start the service. Refer to "9.1 Start/Stop" for details on how to start.

Check the results of the restoration

Access the Systemwalker Service Catalog Manager admin portal and marketplace to confirm that the backed up files were restored.

Appendix A Operation Environment

This Appendix explains operation environment of Systemwalker Service Catalog Manager.

A.1 Hardware Resources

This section explains hardware resources required to install and operate Systemwalker Service Catalog Manager.

A.1.1 Recommended Hardware Resources

Hardware type	Condition
Model	PRIMERGY, PRIMEQUEST 1000 Series
CPU	Intel(R) Xeon(R) 3GHz or above
Memory (excluding OS)	4GB or more

A.1.2 Disk Capacity

Static disk capacity:

Product name	Required disk capacity for installation
Systemwalker Service Catalog Manager	Installation directory: 1.5GB

A.2 Software Resources

This section explains software resources to install Systemwalker Service Catalog Manager.

A.2.1 Supported OS

Either one of the following basic software is required.

[Windows]

- 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

[Linux]

- Red Hat Enterprise Linux 7 (for Intel64)

- Red Hat Enterprise Linux 6 (for x86)

- Red Hat Enterprise Linux 6 (for Intel64)

- Red Hat Enterprise Linux 5 (for x86)

- Red Hat Enterprise Linux 5 (for Intel64)

-

A.2.2 Required Software

Following software is required.

- Web browser

    Either one of the following web browsers is required.

    - Windows (R) Internet Explorer(R) 8

    - Windows (R) Internet Explorer(R) 9

    - Windows (R) Internet Explorer(R) 10

    - Windows (R) Internet Explorer(R) 11

    - Google Chrome 23.0-39.0

    - Mozilla(R) Firefox(R) 16.0-33.0

- Adobe(R) Reader(R)

Note

. . . .

Before accessing this product, configure the browser as follows according to the browser's setup procedure.

- Enable browser's cookie setting.

- The web browser environment on the server where Systemwalker Service Catalog Manager is running cannot be used.

. . . .

A.2.3 Exclusive Software

Following software is exclusive for Systemwalker Service Catalog Manager.

Product	V/L
Systemwalker Service Catalog Manager	Exclusive regardless of the version

Appendix B Port Number

This appendix explains the port numbers used by Systemwalker Service Catalog Manager.

B.1 Port Number List

The default port numbers used by Systemwalker Service Catalog Manager are shown below.

Server

The port numbers on which the connections from external servers to be accepted.

Function	Port number / protocol used	Configurable
HTTP listener	8080/tcp	Yes
HTTP SSL listener	8081/tcp	Yes

The port number used for database.

Function	Port number / protocol used	Configurable
Database port number	5443/tcp	Yes

The port number used for main domain internally.

Function	Port number / protocol used	Configurable
Web Service listener	8082/tcp	Yes
JavaEE HTTP listener	8048/tcp	Yes
JMX connector listener	8086/tcp	Yes
JMS host	8076/tcp	Yes
RMI registry for Message Queue broker	8176/tcp	Yes
IIOP listener	8037/tcp	Yes
IIOP SSL listener	8038/tcp	Yes
IIOP listener for client authentication of SSL communication	8039/tcp	Yes
Port number used temporarily in executing setup command	8009/tcp	-
Port number used temporarily in executing setup command	8066/tcp	-

The port number used for indexer domain internally.

Function	Port number / protocol used	Configurable
HTTP listener	8480/fcp	Yes
HTTP SSL listener	8481/tcp	Yes
JavaEE HTTP listener	8448/tcp	Yes
JMX connector listener	8486/tcp	Yes
JMS host	8476/tcp	Yes
RMI registry for Message Queue broker	8576/tcp	Yes
IIOP listener	8437/tcp	Yes

Function	Port number / protocol used	Configurable
IIOP SSL listener	8438/tcp	Yes
IIOP listener for client authentication of SSL communication	8439/tcp	Yes
Port number used temporarily in executing setup command	8409/tcp	-
Port number used temporarily in executing setup command	8466/tcp	-

Information

. . . .

Refer to "Chapter 8 Modifying Installation Environment" for information on how to modify the port numbers marked configurable on the table above.

In case that ServerView Resource Orchestrator is used, the domain for Asynchronous Provisioning Platform (APP) must be installed. The port numbers used for APP domain are followings:

The port number used for APP domain internally.

Function	Port number / protocol used	Configurable
HTTP listener	8880/fcp	Yes
HTTP SSL listener	8881/tcp	Yes
JavaEE HTTP listener	8848/tcp	Yes
JMX connector listener	8886/tcp	Yes
JMS host	8876/tcp	Yes
RMI registry for Message Queue broker	8976/tcp	Yes
IIOP listener	8837/tcp	Yes
IIOP SSL listener	8838/tcp	Yes
IIOP listener for client authentication of SSL communication	8839/tcp	Yes
Port number used temporarily in executing setup command	8809/tcp	-
Port number used temporarily in executing setup command	8866/tcp	-

. . . .

B.2 Checking Port Numbers

This section explains how to change port numbers used by this product.

The port numbers explained in this section can be modified by commands. Execute them on Command Prompt or console.

Note

. . . .

- Systemwalker Service Catalog Manager must be running in order to execute the commands.

- The admin port number of Java EE execution environment must be specified as a command option for each domain, main domain and indexer domain. Refer to "B.2.1 Admin Port Number of Java EE Execution Environment" for the information on how to check the port number.

  Refer to "8.7 Options of Admin Command" for the information on the command option.

The explanation for the commands in this section assumes that the options are specified by the following environment variable.

[Windows]

%OPTION%

[Linux]

$OPTION

....

B.2.1 Admin Port Number of Java EE Execution Environment

This section explains how to check the admin port number of Java EE execution environment.

Use following command to check.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% get server-config.network-config.network-
listeners.network-listener.admin-listener.port
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION get server-config.network-config.network-
listeners.network-listener.admin-listener.port
```

In following example, the port number is the value just after"server-config.network-config.network-listeners.network-listener.admin-listener.port=".

Example output:

```
server-config.network-config.network-listeners.network-listener.admin-listener.port=8048
```

B.2.2 HTTP Listener Port Number

This section explains how to check the HTTP listener port number.

Use following command to check.

[Windows]

```
"%SWCTMG_HOME%\glassfish3\bin\asadmin" %OPTION% get server-config.network-config.network-
listeners.network-listener.http-listener-1.port
```

[Linux]

```
/opt/FJSVctbss/glassfish3/bin/asadmin $OPTION get server-config.network-config.network-
listeners.network-listener.http-listener-1.port
```

In following example, the port number is the value just after"server-config.network-config.network-listeners.network-listener.http-listener-1.port=".

Example output:

```
server-config.network-config.network-listeners.network-listener.http-listener-1.port=8080
```

Appendix C Uninstall (middleware)

"Uninstall (middleware)" is a tool used by Fujitsu middleware products. It performs information management for middleware products, and also, launching the uninstaller for removing these products from the installed systems.

C.1 Notes about the Uninstall (middleware)

C.1.1 Uninstall product

To uninstall this product, uninstall from "Uninstall (middleware)".

C.1.2 Notes about the Uninstall (middleware)

- This tool manages information about other Fujitsu middleware products even if <Product name>. For this reason, do not uninstall it unless absolutely necessary. If you have accidentally uninstalled this tool, re-install it as described below.

  [Windows]

  1. Log into the system using an account that has Administrator or root privileges.

  2. Insert the media to the CD-ROM drive.

  3. Start the installer.

     ```
     <DVD-ROM drive>\CIR\cirinst.exe
     ```

  [Linux]

  1. Log into the system using an account that has Administrator or root privileges.

  2. Insert the media to the CD-ROM drive.

  3. Start the installer.

     ```
     # < DVD-ROM mount point>/CIR/cirinst.sh
     ```

C.1.3 Uninstall the Uninstall (middleware) from the server

- If you uninstall this tool as described below.

  1. Check that there are no Fujitsu middleware products installed in the system.
     You can check this by using "Uninstall (middleware)", which is launched by the command below.

     [Windows]

     Select [All Programs] > [Fujitsu] > [Uninstall (middleware)]

     [Linux]

     ```
     /opt/FJSVcir/cir/bin/cimanager.sh -c
     ```

     -c : CUI

  2. If no Fujitsu middleware products have been installed, then issue the command below.

     [Windows]

     ```
     %SystemDrive%\FujitsuF4CR\bin\cirremove.exe
     %ProgramFiles%\Fujitsu\FujitsuF4CR\bin\cirremove.exe
     ```

     [Linux]

     ```
     # /opt/FJSVcir/bin/cirremove.sh
     ```

3. At the uninstallation confirmation prompt, enter "y".

```
This software is a common tool of Fujitsu products.Are you sure you want to remove it?[y/n]:
```

Uninstallation will start.

C.2 Messages output by FJSVcir

FSP_FJSVCIR_CIRINST: ERROR: 101: CIRINST101: Administrator privilege is required.

Description

The user does not have administrator privileges.

Action method

Login with administrator privileges and run the command again.

FSP_FJSVCIR_CIRINST: ERROR: 102: CIRINST102: Failed to create *%s*

Parameters

%s: Directory name

Description

Failed to create a directory during the installation.

Action method

Creating the directory might have failed for some reason. Run the installer again, or run cirinst command again. If the problem persists, check the system log.

FSP_FJSVCIR_CIRINST: ERROR: 103: CIRINST103: It is required at least *%d*MB

Parameters

%d: Disk spaces

Description

Insufficient disk space (at least 150 MB required).

Action method

Confirm that the system has sufficient disk spaces.

[Windows] FSP_FJSVCIR_CIRINST: ERROR: 104: CIRINST104: Failed to copy CIR files.

[Linux]FSP_FJSVCIR_CIRINST: ERROR: 104: CIRINST104: Failed to copy CIR installer files.

Description

Failed to copy files required for the installation.

Action method

Copying the files failed for some reason. Run the installer again, or run cirinst command again. If the problem persists, check the system log.

FSP_FJSVCIR_CIRINST: ERROR: 105: CIRINST105: Failed to copy JRE.

Description

Failed to copy JRE required for installation.

Action method

Copying the files failed for some reason. Run the installer again, or run cirinst command again. If the problem persists, check the system log.

FSP_FJSVCIR_CIRINST: ERROR: 106: CIRINST106: Failed to copy CIR

Description

Failed to copy files during the installation.

Action method

Copying the files failed for some reason. Run the installer again, or run cirinst command again. If the problem persists, check the system log.

FSP_FJSVCIR_CIRINST: ERROR: 107: CIRINST107: invalid option.

Description

An invalid option was specified.

Action method

Specify a valid option. [-c]: CUI

FSP_FJSVCIR_CIRINST: ERROR: 108: CIRINST108: JRE which should be deployed is not bundled.

Description

An appropriate JRE for this system is not bundled.

Action method

Confirm that the product supports the platform.

FSP_FJSVCIR_CIRINST: ERROR: 109: CIRINST109: Unsupported OS.

Description

Unsupported operating system.

Action method

Confirm that the product supports the operating system.

[Linux]

If the product supports the operating system, there may be insufficient redhat-lsb packages. Check whether the redhat-lsb packages are in the system. If they are not, add them then re-execute the installer.

FSP_FJSVCIR_CIRINST: ERROR: 185: CIRINST185: lsb_release was not found. Please install the package below.
- redhat-lsb

Description

lsb_release command was not found.

Action method

Add redhat-lsb package and then execute install again.

FSP_FJSVCIR_CIRINST: ERROR: 186: CIRINST186: lsb_release was not found.

Description

lsb_release command was not found.

Action method

Add the relevant package and then execute install again.

FSP_FJSVCIR_CIRINST: ERROR: 201: CIRINST201: Administrator privilege is required.

Description

The user does not have administrator privileges.

Action method

Login with administrator privileges and run the command again.

FSP_FJSVCIR_CIRINST: ERROR: 203: CIRINST203: Failed to delete files.

Description

Failed to delete FJSVcir files.

Action method

Deleting the files failed for some reason. Run cirremove command again. If the problem persists, check the system log.

FSP_FJSVCIR_CIRINST: ERROR: 205: CIRINST205: invalid option.

Description

Invalid option is specified.

Action method

No option is supported. Retry without any options.

Specified installation parameters file was not found.

Description

Specified installation parameters file was not found. (silent mode)

Action method

Specify the installation parameters file.

It failed to install. See log for details

Description

An error occurred during install. (silent mode)

Action method

Collect the files stored in the following directories.

[Linux]

/var/opt/FJSVcir/cir/logs/cirlog0.log.0

[Windows]

%SystemDrive%\FujitsuF4CR\cir\logs\cirlog0.log.0

%ProgramData%\Fujitsu\FujitsuF4CR\cir\logs\cirlog0.log.0

Parameters are invalid. Please specifiy valid parameters.

Description

Invalid option is specified. (silent mode)

Action method

Specify a valid option.

Failed in cancelling.

Description

An error occurred during cancelling.

Action method

[Linux]

Uninstall program using following command

・rpm -e FJSVctbss

Delte following filder;

・/opt/FJSVctbss

[Windows]

Uninstall following program using "Control Panel"-"Programs and Features".

- Systemwalker Service Catalog Manager

Delte following filder;

- <Systemwalker Service Catalog Manager install folder>/SWCTMG

C.3 Messages output by Uninstall (middleware)

It has already been running in another process.

Description

An attempt was made to start Uninstall (middleware) more than once. Alternatively, an attempt was made to start Uninstall (middleware) while the installer was starting.

Action method

End any Uninstall (middleware) that have already started. Alternatively, start Uninstall (middleware) after the installer has ended.

Specified option is invalid.

Description

An invalid option was specified.

Action method

Specify valid options and run the command again.

Please enter a valid option.

Description

An invalid character was entered. Valid characters are y, n, or item numbers.

Action method

Enter a valid character.

Failed to uninstall of the following software packages:

Description

Failed to uninstall the software listed in this message.

Action method

Confirm the information shown after this message and take the appropriate action.

Unable to uninstall the software as it is referred from more than one software.

Description

Failed to uninstall the software because it is used by other software.

Action method

No specific action is required.

Unable to uninstall the software as the software is mandatory.

Description

Failed to uninstall the software because it is required by another program.

Action method

No specific action is required.

Internal data is broken.

Description

Internal data used by this product is corrupt.

Action method

Collect the files stored in the following directories and contact Fujitsu technical support:

[Linux]

/var/opt/FJSVCIR/cir/

/etc/opt/FJSVCIR/cir/CIR.properties

[Windows]

%SystemDrive%\FujitsuF4CR\cir\

%ProgramData%\Fujitsu\FujitsuF4CR\cir\

Unable to uninstall the software you were about to uninstall as the existence of the software is a precondition for the operation of another software.

Description

Failed to uninstall the software because it is required by another program.

Action method

No specific action is required.

The program terminated abnormally.

Description

The program has terminated abnormally.

Action method

Collect the files stored in the following directories and contact Fujitsu technical support:

[Linux]

/var/opt/FJSVCIR/cir/

/etc/opt/FJSVCIR/cir/CIR.properties

[Windows]

%SystemDrive%\FujitsuF4CR\cir\

%ProgramData%\Fujitsu\FujitsuF4CR\cir\

An unexpected error has occurred during uninstall.

Description

An error occurred during uninstall.

Action method

Collect the files stored in the following directories and contact Fujitsu technical support:

[Linux]

/var/opt/FJSVCIR/cir/

/etc/opt/FJSVCIR/cir/CIR.properties

[Windows]

%SystemDrive%\FujitsuF4CR\cir\

%ProgramData%\Fujitsu\FujitsuF4CR\cir\

It failed to uninstall.See log for details.

Description

An error occurred during uninstall. (silent mode)

Action method

Collect the files stored in the following directories and contact Fujitsu technical support:

[Linux]

/var/opt/FJSVcir/cir/logs/cirlog0.log.0

[Windows]

%SystemDrive%\FujitsuF4CR\cir\logs\cirlog0.log.0

%ProgramData%\Fujitsu\FujitsuF4CR\cir\logs\cirlog0.log.0

[Notice]Need to restart for uninstall completion.

Description

Uninstallation was completed. (silent mode)

Action method

Restart the system.

Appendix D Setup for SAML_SP Authentication Mode

This appendix explains how to setup in SAML_SP authentication mode.

D.1 Tasks before Setup

When using Systemwalker Service Catalog Manager in SAML_SP mode, additional configuration settings are necessary. For this, you require the following

- · A contractual relationship with the IdP operator so that the IdP can allow for Web browser SSO and secure of Web service calls using a Security Token Service (STS).

- Information on three service endpoints. Ask the IdP operator for the following information:

    - For Web browser SSO: SAML Redirect URL for the IdP service endpoint.

    - For STS communication: STS service endpoint URL as well as the URL pointing to the MEX address (Issuer Metadata Exchange) of the STS.

- Length of the encryption key used by the IdP.

- Information on whether the IdP can process GET or POST authentication requests.

- For Web browser SSO: the public key certificate from the IdP. Request this certificate from the IdP operator.

D.2 Setup

D.2.1 Changing Setting file

When using SAML_SP mode, the parameters' values are required to change in configuration settings files "configsettings.properties" and "sso.properties ". Change them according to following procedure:

1. Edit follofing file:

[Windows]

```
%SWCTMG_HOME%\setup\files\configsettings.properties
```

[Linux]

```
/opt/FJSVctbss/setup/files/configsettings.properties
```

The parameters of which values are changed are following:

- AUTH_MODE

- SSO_IDP_URL

- SSO_IDP_AUTHENTICATION_REQUEST_HTTP_METHOD

- SSO_IDP_TRUSTSTORE

- SSO_IDP_TRUSTSTORE_PASSWORD

- SSO_ISSUER_ID

- SSO_STS_ENCKEY_LEN

- SSO_STS_URL

- SSO_STS_METADATA_URL

Refer to "Operator's Guide" in detail of the parameters.

2. Edit follofing file:

[Windows]

```
%SWCTMG_HOME%\setup\BESSetup\sso.properties
```

[Linux]

```
/opt/FJSVctbss/setup/BESSetup/sso.properties
```

The parameters of which values are changed are following:

- ADMIN_USER_ID

  The ID of the user who is to become the first CT-MG operator. This user must relate to an existing user in IdP. User IDs are restricted to 100 characters and must not contain any of the following characters:

```
! " # $ % & ' * + , / : ; < = > ? \ ^ `
```

D.2.2 Executing Setup Command

Execute setup command. Refer to "Chapter 3 Setup" and "Chapter 4 Setup (Distributed Database Configuration)" in detail.

D.3 Tasks after Setup

This section explains the tasks after setup.

D.3.1 IdP Settings

Configuration Steps is required for IdP communication after having successfully deployed Systemwalker Service Catalog Manager in SAML_SP authentication mode, the following steps must be performed in the IdP and in CT-MG:

1. The IdP operator must ensure that the correct endpoints for the Web UI SSO and STS connections are activated.

2. For STS, the IdP operator must create the Relying Party for Systemwalker Service Catalog Manager in the IdP, and all CT-MG users must be allowed to access this relying party. The URL of the Relying Party is usually the URL for accessing the Systemwalker Service Catalog Manager administration portal.

3. For Web browser SSO, an SSO federation with the IdP must be established in a way that Systemwalker Service Catalog Manager acts as the relying party.

   The assertions returned to Systemwalker Service Catalog Manager must contain user IDs. This is required for Systemwalker Service Catalog Manager to map the users to the user roles (such as administrator, service manager, marketplace manager).

   To achieve this, the IdP must be configured such that its assertions contain an <AttributeStatement> element. Its <Attribute> subelement must contain a Name="userid" property, and the <AttributeValue> subelement must specify the user ID that matches the ID of the calling user in Systemwalker Service Catalog Manager .

   ### Example
   . . . .

   <saml:Assertion ...>

   ...

   <saml:AttributeStatement>

   <saml:Attribute Name="userid">

   <saml:AttributeValue>administrator</saml:AttributeValue>

   </saml:Attribute>

   </saml:AttributeStatement>

   </saml:Assertion>
   . . . .

4. Systemwalker Service Catalog Manager must be registered with the IdP. One way to achieve this is to use Systemwalker Service Catalog Manager metadata. The minimum data required are a name or ID of Systemwalker Service Catalog Manager as a service

provider (as specified in the SSO_ISSUER_ID configuration key) and the URL to which the IdP is to send its responses (as specified in the BASE_URL or BASE_URL_HTTPS configuration key).

The IdP operator requires a URL in the following format:

```
http://<host>:<port>/<context-root>/saml2/metadata.jsp
```

where <host>, <port>, and <context-root> point to the Systemwalker Service Catalog Manager installation.

5. For using the STS for authenticating Web service calls, the IdP operator requires the Systemwalker Service Catalog Manager domain certificate. He has to import this certificate into the truststore of the application server where the STS is deployed. Refer to the Operator's Guide for details on certificate handling.

6. For Web browser SSO: Import the IdP certificate into the application server truststore where Systemwalker Service Catalog Manager is deployed, and set the SSO_IDP_TRUSTSTORE and SSO_IDP_TRUSTSTORE_PASSWORD configuration keys accordingly. Refer to the Operator's Guide for details on certificate handling.

D.3.2 Log in

Log in to administration portal with following information:

- User ID: ADMIN_USER_ID defined in "sso.properties"

- Initial password: the password of ADMIN_USER_ID defined in IdP

Refer to "9.3 Accessing to Portal" in detail how to access to the portal

D.3.3 How to change settings

The parameters are following which are available for operator to change after setup:

- SSO_IDP_URL

- SSO_IDP_AUTHENTICATION_REQUEST_HTTP_METHOD

- SSO_IDP_TRUSTSTORE

- SSO_IDP_TRUSTSTORE_PASSWORD

- SSO_ISSUER_ID

- SSO_STS_ENCKEY_LEN

- SSO_STS_URL

- SSO_STS_METADATA_URL

Please refer to "Operator's Guide" in detail how to change the settings.

Appendix E Active Directory Federation Service Integration

This Appendix explains how to use Microsoftの Active Directory Federation Service(afterword, AD FS) for SAML_SP authentication mode of Systemwalker Service Catalog Manager.

AD FS integrates with Active Directory Domain Services, using it as an identity provider (IdP). AD FS can interact with other WS-* and SAML 2.0 compliant federation services as federation partners.

Using this function, followings are available:

- A Single Sign On can be configured, which allows users to access CT-MG in an Active Domain environment without additional log on.

- With Microsoft AD FS as IDP, Web services can be secured to allow services like APP or provisioning services to access CT-MG via Web service calls which are secured by tokens.

The version of each component is following:

Component	Version
Active Directory	Windows Server 2012 R2 Enterprise
Desktop Operating System for end user clients	Windows 7 Professional (SP1)
AD FS	http://www.microsoft.com/en-us/download/details.aspx?id=10909
AD FS Operating System	Windows Server 2012 R2 Enterprise
IIS on AD FS system installed	Version 7 or higher
Java Development Kit (JDK)	JDK 7: java version "1.7.0_17"
Web browser	Internet Explorer 8, 9 Mozilla Firefox 10, 11 Chrome 32

E.1 How to Configure AD FS SSO and STS on Windows Server 2012 R2 to Systemwalker Service Catalog Manager

This section explains how to configure Active Directory Federation Service Single SignOn (afterward, AD FS SSO) and Secure Token Service (afterward, STS) on Windows Server 2012 R2 to Systemwalker Service Catalog Manager.

E.2 Prerequisite

This subsection explains the preparation and prerequisite to configure AD FS SSO and STS on Windows Server 2012 R2 to Systemwalker Service Catalog Manager.

Preparation

Decide how you want to name the users in Systemwalker Service Catalog Manager.
Use either format for user name:

- SamAccountName

    Example: Administrator

- UserPrincipalName

    Example: Administrator@DomainName.com

> **Note**
> ....
> In Systemwalker Service Catalog Manager, the user name is case sensitive.
>
> Due to restrictions, a back slash ('\') inside a user name is not allowed in CT-MG.
> ....

Prerequisite

Following conditions must be fulfilled in order to configure AD FS SSO and STS on Windows Server 2012 R2 to Systemwalker Service Catalog Manager.

1. Windows Server 2012 R2 is up and running

2. DNS up and running with 'Reverse Lookup'

3. Active Domain is up and running

4. IIS is installed and running (Port 80 resp. 443)

5. AD FS is installed and running

   Make sure that the same certificate is used for IIS and AD FS.

6. Java 7 is already installed

   Install additionally Java Cryptography Extension (JCE) Unlimited Strength:

   ```
   http://www.oracle.com/technetwork/java/javase/downloads/jce-7-download-432124.html
   ```

E.3 AD FS Installation

This section explains how to install AD FS.

Log in to AD FS

How to log in to AD FS is explained in following:

1. Verify your configuration by launching a web browser.

   ```
   https://<AD FS-fqdn>/adfs/ls/IdpInitiatedSignon.aspx
   ```

   <AD FS-fqdn> is the FQDN of the Windows server that contains the AD FS instance.

   Example)

   ```
   https://time.darkside.com/adfs/ls/idpinitiatedsignon
   ```

   If the configuration is correct, you will see a "generic Sign-In" page.

2. Select [Sign in to this site], and clicking [Continue] button, you can log in to AD FS.

Set SPN name

```
setspn -S http/<your FQDN> besserv
```

You can check the existing set of SPNs for the machine account by running the following command:

```
> setspn.exe -L <NetBIOS name of IIS server>
```

Example)

```
PS C:\Users\Administrator> setspn -L Time
Registered ServicePrincipalNames for CN=TIME,OU=Domain Controllers,DC=DarkSide,DC=com:
        HOST/Time.DarkSide.com
        HOST/TIME
        HOST/TIME/DARKSIDE
        Dfsr-12F9A27C-BF97-4787-9364-D31B6C55EB04/Time.DarkSide.com
        ldap/Time.DarkSide.com/ForestDnsZones.DarkSide.com
        ldap/Time.DarkSide.com/DomainDnsZones.DarkSide.com
        DNS/Time.DarkSide.com
        GC/Time.DarkSide.com/DarkSide.com
        RestrictedKrbHost/Time.DarkSide.com
        RestrictedKrbHost/TIME
        RPC/282fb4d5-8105-4d72-bad0-23c94ce9f886._msdcs.DarkSide.com
        HOST/Time.DarkSide.com/DARKSIDE
        HOST/Time.DarkSide.com/DarkSide.com
        E3514235-4B06-11D1-AB04-00C04FC2DCD2/282fb4d5-8105-4d72-bad0-23c94ce9f886/DarkSide.com
        ldap/TIME/DARKSIDE
        ldap/282fb4d5-8105-4d72-bad0-23c94ce9f886._msdcs.DarkSide.com
        ldap/Time.DarkSide.com/DARKSIDE
        ldap/TIME
        ldap/Time.DarkSide.com
        ldap/Time.DarkSide.com/DarkSide.com
```

If you want to use Kerberos authentication than you need the following spn:

```
setspn -S http/adfsserver.domain.com domain.com\adfsuseraccount
```

Example:

```
setspn -S http/Time.DarkSide.com DarkSide.com\Administrator
```

List SPN name

```
setspn -Q */*dark* >> c:\tmp\xx.txt
```

The explanation of above command is following:

- setspn: name of utility, which can set SPN records or list their status

- -Q: switch to query mode (listing existing SPN records)

- */: wildcard of SPN name

- /*dark*: names of the servers with wildcards

- >> c:\tmp\xx.txt: direct output to file with append feature

AD FS Product installation information

Check and export the following certificates out of AD FS:

- Service communications

- "Token-signing" certificate

These certificates will be imported into the trust stores (cacerts.jks) of Systemwalker Service Catalog Manager and the APP (Client app) to establish the trust between AD FS and Systemwalker Service Catalog Manager.

For both certificates do following steps:

1. Open [AD-FS]-[Service]-[Certificates]

2. Select "View Certificate"

3. Select [Details] tab on [Certificate Window].

4. Copy them to files according to the menu.

E.3.1   AD FS Web UI SSO installation

This subsection explains how to install AD FS Web UI SSO.

1. Create Systemwalker Service Catalog Manager Relying Party (the certificate user) for SSO Web UI

   The assertions returned to Systemwalker Service Catalog Manager must contain user IDs. This is required for Systemwalker Service Catalog Manager to map the users to the user roles (such as administrator, service manager, marketplace manager).

   The IdP and the STS must be configured such that its assertions contain an <AttributeStatement> element. Its <Attribute> subelement must contain a Name="userid" property, and the <AttributeValue> subelement must specify the user ID that matches the ID of the calling user in Systemwalker Service Catalog Manager.

   The required steps are following:

   a. Open [AD FS]-[Trust Relationships]-[Relying Party Trusts], and click [Add a Relying Party Trust] which begins the wizard.

   b. Select [Import data about the relying party···].

   c. Enter "CT-MG Federation metadata address" and click [next] button.

   Example)

   ```
   https://<FQDN>:<port>/fujitsu-bss-portal/saml2/metadata.jsp
   ```

   📒 Note
   ···
   NOTE: Ignore the Warning that "Some of the content in the federation···". Systemwalker Service Catalog Manager provides HTTP and HTTPS endpoints, whereas AD FS only supports HTTPS. The HTTP entry will be ignored.
   ···

   d. Enter the Display name, and click [next] button.

   Example)

   ```
   Systemwalker Service Catalog Manager-SSO
   ```

   e. Permit all users to access this relying party, and click [next] button.

   f. Check the box to Open the "Edit Claim Rules..." and click Close to continue.

2. Create the Claim Rule which returns the user name back to Systemwalker Service Catalog Manager.
   The required steps are following:

   a. Click "Edit Claim Rules..." for your Relying Party trust.

   b. Select [Issuance Transform Rules] tab.

   c. Click [Add Rule].

   d. Select [Send LDAP Attributes as Claims], and click [next] button

   e. Name this rule~like "CT-MG-RetValue" and fill in the rest of the fields as displayed below:

   - Choose as Attribute store: [Active Directory]

   - Mapping of LDAP attributes to outgoing claim type:

     This depends on the choice of the Usernames in Systemwalker Service Catalog Manager

     LDAP_Attribute = "Sam-Account-Name"
     LDAP_Attribute = "User-Principal-Name"

   - Enter the string "userid" (without the quotes) for Outgoing Claim Type.
     Do not use the drop-down list.

   f. Click [Finish] button.

3. Change [Secure has algorithm] of Systemwalker Service Catalog Manager relaying party "CT-MG-SSO".
   The required steps are following:

   a. Select [AD FS]-[Trust Relationships]-[Relying Party Trusts]-[CT-MG-SSO].

   b. Right-click and select [Properties].

   c. In [Advanced] tab, set [Secure has algorithm] to SHA-1.

   d. Click [OK] and exit.

E.3.2   AD FS Web Service STS installation

This subsection explains how to install AD FS Web service STS.

1. Activate the correct endpoint in AD FS for the STS connection to Systemwalker Service Catalog Manager
   The required steps are following:

   a. Select [AD-FS]-[Service]-[Endpoints] in the AD FS Management tool.

   b. Search in [Endpoints] tab for the entry "/adfs/services/trust/13/usernamemixed".

   c. Check whether this endpoint is enabled and Proxy enabled.

      If not, highlight and right-click this line and enable both.

   d. Restart the AD FS Service.

2. Extract the AD FS metadata file for the APP Service
   The required steps are following:

   a. Open a browser and type the following URL.

   ```
   https://<FQDN>/adfs/services/trust/mex
   ```

   b. Save this file to disk under the name "ADFS_STS_Service.xml"
      this file is needed for the STS-Client (e.g. APP) installation.

3. Create Systemwalker Service Catalog Manager Relying Party for Web Service STS
   The required steps are following:

   a. Open [AD FS]-[Trust Relationships]-[Relying Party Trusts], and click [Add a Relying Party Trust] which begins the wizard.

   b. Click [Next] button.

   c. Enter the Display name and click [Next] button.

      Example)

   ```
   CT-MG_STS
   ```

   d. Select AD FS profile and click [Next] button.

   e. Specify an optional token encryption certificate, and click [Browse] button.

   f. Select the exported sa1s certificate of Systemwalker Service Catalog Manager and click [Next] button.

   g. Do not select any protocol here and click [Next] button.

   h. Enter [Relying party trust identifier]

   ```
   https://<FQDN>:<port>/
   ```

   ### 📖 Note
   ....
   Be aware of the spelling in your entering, it might be case sensitive or you might get problems with the certificates.
   ....

   i. Click [Add] and [Next] buttons

j. Select [Permit all users to access this relying party] and click [Next] button.

k. Click [Next] button.

l. Check the box to open the "Edit Claim Rules..." and click [Close] button to continue.

4. Create the Claim Rule which returns the user name back to Systemwalker Service Catalog Manager
The required steps are following:

a. Click [Edit Claim Rules...] for your relying party trust.

b. Select [Issuance Transform Rules] tab.

c. Click [Add Rule].

d. Select the following Claim Rule template:

```
"Send Claims Using a Custom Rule"
```

e. Name the rule.

Create the custom rule by hand through copying it from below:

[For use with SamAccountName]

```
c:[Type == "http://schemas.microsoft.com/ws/2008/06/identity/claims/windowsaccountname",
Issuer == "AD AUTHORITY"]
 => issue(store = "Active Directory", types = ("http://schemas.microsoft.com/ws/2008/06/
identity/claims/userid"), query = ";sAMAccountName;{0}", param = c.Value);
```

[For use with UserPrincipalName]

```
c:[Type == "http://schemas.microsoft.com/ws/2008/06/identity/claims/windowsaccountname",
Issuer == "AD AUTHORITY"] => issue(store = "Active Directory", types = ("http://
schemas.microsoft.com/ws/2008/06/identity/claims/userid"), query = ";userPrincipalName;
{0}", param = c.Value);
```

f. Click [OK] button and save.

5. Permit all users to access this relying party.
The required steps are following:

a. Click [Edit Claim Rules...] for your relying party trust.

b. Select [Issuance Transform Rules] tab.

c. Click [Add Rule] button.

d. Select "Permit ALL Users" in [Claim rule template].

e. Click [Next] button.

f. Click [Finish] button.

6. Change the [Secure has algorithm] of Systemwalker Service Catalog Manager relaying party.
The required steps are following:

a. Select [AD FS]-[Trust Relationships]-[Relying Party Trusts]-[CT-MG_STS].

b. Right-click and select "Properties".

c. In [Advanced] tab, set [Secure has algorithm] to "SHA-1".

d. Click [OK] and exit.

E.4 Systemwalker Service Catalog Manager Installation

Before installing Systemwalker Service Catalog Manager according to the Installation Guide, following prerequisite is required.

Prerequisite

1. Change the following AD FS specific values:

   [configsettings.properties file]

   ```
   SSO_IDP_URL= https://< FQDN>/adfs/ls/
   SSO_IDP_TRUSTSTORE= C:/BES/Glassfish/glassfish/domains/bessso/config/cacerts.jks
   SSO_IDP_TRUSTSTORE_PASSWORD= changeit
   SSO_ISSUER_ID= CT-MG-SSO
   AUTH_MODE= SAML_SP
   SSO_STS_ENCKEY_LEN=256
   SSO_STS_URL= https://<FQDN>/adfs/services/trust/13/usernamemixed
   SSO_STS_METADATA_URL= https://<FQDN>/adfs/services/trust/mex/
   SSO_IDP_AUTHENTICATION_REQUEST_HTTP_METHOD= (Note)
   ```

   Note) Specify either "POST" or "GET" which is supported by using IdP.
   AD FS supports both, so default "POST" would be fine.

2. Set the correct "Platform Operator" ID in "sso.properties"

   ```
   ADMIN_USER_ID=Administrator
   ```

   🈁 **Note**

   ....

   The user id is case sensitive in Systemwalker Service Catalog Manager; AD FS returns the user ids semi-capitalized.
   ....

3. AD FS requires a key length of 256, so you have to use the following setting:

   ```
   SSO_STS_ENCKEY_LEN=256
   ```

   📘 **Information**

   ....

   Currently the wsit files in Systemwalker Service Catalog Manager are configured to encrypt with a key length of 128. AD FS however requires a key length of 256.

   If you did not set the STS values correct in setting up Systemwalker Service Catalog Manager, the first place use the (new) update feature "updateBSSEarForSSO" after you have changed the values in "cofigurationsettings.properties":

   ```
   ant -f build-SSO-util.xml updateBSSEarForSSO
   ```
   ....

4. Install Systemwalker Service Catalog Manager

🈁 **Note**

....

- The trailing "/" in the SSO_IDP_URL and SSO_STS_METADATA_URL is mandatory

- The SSO_IDP_TRUSTSTORE is the place where the Token-signing certificate of AD FS is installed.

- Make sure that the admin user of Systemwalker Service Catalog Manager has exactly the same spelling as the Sam-Account-Name (or the UserPrincipalName) in AD.

- Install the AD FS Token Signing Certificate and the APP s1as certificate into the trust-store of your main domain (cacerts.jks) of Systemwalker Service Catalog Manager. Import these files via keytool:

  Example)

  ```
  E:\BES_Stuff\Certificates>-ADFS_Sign.cer - keystore c:\BES\Glassfish\glassfish\domains\bes-domain
  \config\cacerts.jks
  ```
....

E.4.1   Asynchronous Provisioning Platform Installation

This section explains how to install Asynchronous Provisioning Platform (afterward, APP)

Refer to IaaS Integration Guide in detail of APP.

1. APP needs to be installed on a (preferable own) Glassfish instance. There are currently dependencies between APP and Glassfish. The APP is using parts of the (Glassfish) Metro interface, which does not exist on other platforms like Tomcat.

2. The APP ear file needs to be prepared for AD FS, because it is currently designed to use the Mock-Up STS implementation from development.

3. Prepare the wsit file:
   The required steps are following:

   a. Delete the file: STS_Service.xml (optional, you can use the original name; in this case do not change the location)

   b. Copy the file ADFS_STS_Service.xml, which we created in step 2-b in the AD FS installation setup.

   c. Open the file wsit-client.xml

   d. Edit the following places location and namespace to the following values:

   ```
   <import
    location=ADFS_STS_Service.xml
    namespace="http://schemas.microsoft.com/ws/2008/06/identity/securitytokenservice"/>
   <wsdl:definitions the targetNamespace=…
   ```

   Note) The namespace information is extracted from the ADFS_STS_Service.xml file. Locate the xml tag: "<wsdl:definitions the targetNamespace="

   e. Save the file

4. If you want to change the settings after setting up APP, change the STS_Service.xml and the wsit-client.xml file from the fujitsu-bss- app.ear file:
   The required steps are following:

   a. Copy fujitsu-bss-app.ear into an empty directory.

   b. Extract it: with "jar -xf fujitsu-bss-app.ear" command.

   c. Copy fujitsu-bss-app.jar into an empty directory.

   d. Extract it: with "jar -xf fujitsu-bss-app.jar" command.

   e. Delete the file "STS_Service.xml STS_Service.xml"

   f. Copy the file "ADFS_STS_Service.xml", which is created in step 2-b in the AD FS installation setup.

   g. Open the file "wsit-client.xml"

   h. Edit the following places location and namespace to the following values

   ```
   <import
    location=ADFS_STS_Service.xml
    namespace="http://schemas.microsoft.com/ws/2008/06/identity/securitytokenservice"/>
   <wsdl:definitions the targetNamespace=…
   ```

   Note) The namespace information is extracted from the ADFS_STS_Service.xml file. Locate the xml tag: "<wsdl:definitions the targetNamespace="

   i. Save the file.

   j. Combine with "jar -cf fujitsu-bss-app.jar *" command.

   k. Copy the fujitsu-bss-app.jar to the ear file directory

   l. Combine the ear file again with "jar -cf fujitsu-bss-app.ear * command.

> **Note**
>
> ....
>
> These steps are reverse comparing to usual setting up steps of APP. If you want to change the settings after setting up APP.
>
> ....

5. Deploy the APP as described in IaaS Integration Guide.

6. Install the AD FS Token Signing Certificate, the AD FS Server communications certificate, and the Systemwalker Service Catalog Manager s1as certificate into the trust-store of your APP domain (cacerts.jks).

   Import these files via keytool:

   Example)

   ```
   E:\BES_Stuff\Certificates>-ADFS_Sign.cer -keystore c:\BES\Glassfish\glassfish\domains\app-domain
   \config\cacerts.jks)
   ```

> **Note**
>
> ....
>
> - Make sure that the admin user of Systemwalker Service Catalog Manager has exactly the same spelling as the Sam-Account-Name in AD.
>
> - Use in the APP settings for the user id the naming conventions of Systemwalker Service Catalog Manager.
>
> - Make sure that your IDP has the users already applied before you install Systemwalker Service Catalog Manager. Otherwise it's difficult to log on.
>
> - Install followings certificates into the trust-store of your APP domain (cacerts.jks). Import these files via keytool.
>
>   - AD FS Server Communications Certificate
>
>   - AD FS Token Signing Certificate
>
>   - the s1as certificate of Systemwalker Service Catalog Manager
>
> ....

E.4.2 Browser Setup / Installation for Web SSO

When accessing one of our URLs, Systemwalker Service Catalog Manager triggers authentication exchanges. Depending on the setup it will follow the SPNego protocol. (SPNEGO's most visible use is in Microsoft's "HTTP Negotiate" authentication extension. It was first implemented in Internet Explorer 5.01 and IIS 5.0 and provided single sign-on capability later marketed as Integrated Windows Authentication. The negotiable sub-mechanisms included NTLM and Kerberos, both used in Active Directory.) SPNego enables to negotiate the authentication mode used (for example NTLM or Kerberos) so that the client and the server reach an agreement on a mode they can both handle. The negotiation uses an HTTP 401 response from the application server, containing the SPNego headers which state that the server can handle Kerberos.

Once the browser and the server have agreed on the use of Kerberos, the browser calls the Windows API to request the Domain Controller for a Service Ticket to get access to the application server. Then, the ticket is validated by the Kerberos Extension by using the server's own service key described in the Kerberos presentation above.

If the ticket is validated, the user is authenticated and Systemwalker Service Catalog Manager Security authorization mechanisms (roles, ACLs) take place to grant or deny access to a given resource. The authorization phase is independent of Kerberos.

Firefox and Chrome compatibility

To be able to use ADFS SSO with either Firefox or Chrome, you will need to turn Windows Authentication on, in IIS.
The required steps are following:

1. Launch IIS Manager; on the left side tree view, access to [Sites]-[Default Web Site]-[adfs]-[ls]

2. Once you've selected the "/adfs/ls" folder, double-click the [Authentication] icon.

3. Right-click [Windows Authentication] and Enable it.
   You can disable on the same page [Anonymous Authentication] by disabling it.

4. Also be able to use ADFS SSO with either Firefox or Chrome, you will need to turn Extended Protection off. This can now be set via PowerShell at the farm level easily using PowerShell.

    a. Open PowerShell Command Window.

    b. Load ADFS PowerShell SnapIn.

    c. Execute "Add-PsSnapIn Microsoft.Adfs.Powershell".

    d. Set ADFS to disable EAP at the farm level.

    e. Execute "Set-ADFSProperties -ExtendedProtectionTokenCheck:None".

5. Resterd AD FS and IIS with following steps:

    a. Execute IISRESET command.

    b. Execute following command.

```
net stop "AD FS Windows Service"
```

    c. Execute following command.

```
net start "AD FS Windows Service"
```

Setup of the Client Browsers

How to set up client browser (IE, Chrome and Firefox) are explained in following

IE

Setup IE with following steps:

1. Click [Tools]-[Internet Options]-[Security]-[Local Intranet].

2. Click [Custom Level] button, and scroll down to the [User Authentication] section.

3. Checkmark [Automatic Logon only in Intranet zone].

4. Add the IDP (OpenAM server) to the list of trusted intranet sites.

5. Click [Tools]-[Options]-[Local Intranet].

6. Click [Site] button, [Advanced] button.

7. Add the OpenAM Server to the list.

8. Confirm Windows Integrated Security.

    a. Click [Tools]-[Options]-[Advanced].

    b. Scroll down to [Security] section, and ensure [Enable Integrated Windows Authentication] is checked.

Chrome

Chrome uses the same internet settings as IE, so once IE works, Chrome works too.

Setup Chrome with following steps:

1. Click [Settings] button, then type network into the search box.

2. [Change Proxy Settings] button, and you should see the same Internet Explorer dialog.

FireFox

When Firefox gets the 401, it can be configured to fall back to a negotiated authentication protocol that achieves SSO. Firefox must be configured to trust the OpenAM IDP for this negotiation to be successful.
Setup Firefox with following steps:

1. Launch Firefox, and in the address bar, type "about:config".

2. Click [I'll be careful] button.

3. In the Search box, type "network.negotiate" to filter the configurations to only the network negotiation options.

4. Change the two values. Both values will be the same.
   Use the appropriate IDP (OpenAM server) for the environment you want to test in.

```
(1) network.negotiate-auth.delegation-uris
(2) network.negotiate-auth.trusted-uris
```

📘 Information

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If you have more than one URL that you need to add you can add a COMMA SEPARATED LIST in FireFox.

Example) http://<your FQDN>, https://< your FQDN>

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Set up Firefox with following steps

1. In [about:config] page, double-click "network.auth.force-generic-ntlm", set the value to "true".

   Network

```
network.negotiate-auth.delegation-uris=telekom.intra
network.negotiate-auth.trusted-uris=telekom.intra
URL = https://test.iam.telekom.intra/IAM
```

2. Authenticated to the domain

   only the negotiateauth module is logged.

```
set NSPR_LOG_MODULES=negotiateauth:5
set NSPR_LOG_FILE=c:\firefox_in_domain_negotiateauth.log
"C:\Program Files\Mozilla Firefox\firefox.exe" -console
```

The preparation is over.

1. Start your Client System with the URL of Systemwalker Service Catalog Manager.

```
https://<your FQDN>:8081/fujitsu-bss-portal
```

   Login, if successful you are in the 'Management Portal'

2. Start the APP Adapter with following URL.

```
https://<your FQDN>:8881/fujitsu-bss-app/
```

3. You should be asked for User id and password of the operator of Systemwalker Service Catalog Manager. Enter your credentials.

4. You should see the initial APP configuration screen.

E.4.3 Allow Chrome to automatically sign-in internally (ADFS 3.0)

When upgrading from ADFS v2.0 to ADFS v3 built natively into Server 2012 R2, I noticed Chrome stopped auto-logging in people when trying to hit the ADFS server from inside the corporate network.

We need to allow NTLM authentication for the Google Chrome useragent.

The required steps are following:

1. Login to your primary ADFS server

2. Execute the following command to disable Extended Protection TokenCheck (See notes for what this is at the bottom of this article).

```
Set-ADFSProperties -ExtendedProtectionTokenCheck None
```

3. Execute the following command to get the current list of supported user-agents for NTLM authentication.

```
Get-ADFSProperties | Select  -ExpandProperty WIASupportedUserAgents
```

4. Take all the values you received in step 3 and then add , "Mozilla/5.0″ onto the end as an allowed user-agent.

```
Set-ADFSProperties -WIASupportedUserAgents @("MSIE 6.0", "MSIE 7.0″ , "MSIE 8.0", "MSIE 9.0",
"MSIE 10.0", "Trident/7.0″ , "MSIPC", "Windows Rights Management Client", "Mozilla/5.0″ )
```

Restart the Active Directory Federation Services service on each of the ADFS farm servers for the changes to take effect. You do not need to make any changes to the proxy servers.

Note

Specifies the level of extended protection for authentication supported by the federation server. Extended Protection for Authentication helps protect against man-in-the-middle (MITM) attacks, in which an attacker intercepts a client's credentials and forwards them to a server. Protection against such attacks is made possible through a Channel Binding Token (CBT) which can be either required, allowed or not required by the server when establishing communications with clients.

Possible values for this setting are: as follows, the default is "Require":

- Require: server is full hardened, extended protection is enforced.

- Allow: server is partially hardened, extended protection is enforced where systems involved have been patched to support it.

- None: Server is vulnerable, extended protection is not enforced

E.5 Troubleshooting

This section explains the troubleshooting. Refer to that of AD FS together.

HTTP tracing in Systemwalker Service Catalog Manager and APP(Glassfish)

1. Set following values.

   [JVM settings]

   ```
   Dcom.sun.xml.ws.transport.http.HttpAdapter.dump=true
   Dcom.sun.xml.ws.transport.http.client.HttpTransportPipe.dump=true
   ```

   [JVM log level]

   ```
   javax.enterprise.system.webservices.rpc    FINEST
   ```

2. Restart main domain and APP domain.

ADFS 3.0 token expiration time

ADFS 3.0 token expiration time can be configurable.

Example) You can set expiration to 5 minutes with following:

```
Set-AdfsRelyingPartyTrust -TargetName "Relying party name" -TokenLifeTime 5
```

The ADFS Service does not start

Service Control Manager (SCM) is timing out the service start before it is complete. This is usually due to lack of internet connectivity from the AD FS Federation Server or AD FS Federation Server Proxy. At service start, when "**generatePublisherEvidence**" is enabled for .NET 3.5, the server will attempt to connect to "**crl.microsoft.com**" over **TCP port 80**. AD FS does not rely on a positive or negative response from "generatePublisherEvidence", and the default value can cause Service Control Manager to time out while waiting on the TCP/80 connection to fail to connect to crl.microsoft.com.

The workaround is to add following tag in runtime tag in following file:

[File name]

```
C:\program files\Active Directory Federation Services
2.0\Microsoft.IdentityServer.Servicehost.exe.config
```

[The tag to add]

```
<generatePublisherEvidence enabled="false"/>
```

[Example]

```
<runtime>
   <gcServer enabled="true"/>
   <generatePublisherEvidence enabled="false"/>
</runtime>
```

Increase the default timeout value observed by SCM

The steps are following to increase the default timeout value observed by SCM

1. Start Registry Editor (Regedit.exe).

2. To change the value data for the "ServicesPipeTimeout DWORD" value to 60000 in the Control key.
   The required steps are following:

   a. Locate and then click the following registry key:

   ```
   HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet
   ```

   b. Click [Control] sub key.

   c. Right-click [ServicePipeTimeout DWORD value], and click [Modify] button.

   d. Click [Decimal].

   e. Type a value of "60000" then click [OK] button.

3. If the "ServicesPipeTimeout" value is not available, add the new "DWORD" value, and then set its value data to "60000" in the [Control] key.
   The required steps are following:

   a. Locate and then click the following registry key:

   ```
   HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet
   ```

   b. Click [Control] sub key.

   c. On the [Edit] menu, point to "New", and then click [DWORD Value].

   d. Type "ServicesPipeTimeout", and then press [ENTER].

   e. Right-click the [ServicesPipeTimeout DWORD value], and then click [Modify] button.

   f. Click [Decimal] button.

   g. Type a value of "60000" then click [OK] button.

      The value is 60000 milliseconds and is equivalent to 60 seconds or to one minute.

Note

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These changed contents do not take effect until the computer is restarted

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