



FUJITSU Software Systemwalker Service Catalog Manager V15.3.1

Release Notes

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Contents

	About this Manual.....	4
1	What's New?.....	6
1.1	System Environment.....	6
1.2	Public Web Service Interface.....	6
1.3	SAML_SP Authentication Mode.....	7
1.4	Additional Language Support.....	7
1.5	Multiple User Import.....	7
1.6	Billing.....	7
1.7	ROR Integration.....	8
1.8	Asynchronous Provisioning Platform (APP).....	8
1.9	Extension Interface.....	8
1.10	Service Operation Parameters.....	9
1.11	Graphical User Interface.....	9
1.12	Documentation.....	10
2	Compatibility.....	11
3	Restrictions.....	14

About this Manual

This manual provides information on new features and changes made to existing features of FUJITSU Software Systemwalker Service Catalog Manager (CT-MG) V15.3.1 as compared to V15.3. In addition, this manual provides information on known restrictions of this release.

CT-MG can be operated on the platforms specified in the *Installation Guide*.

This manual is structured as follows:

Chapter	Description
<i>What's New?</i> on page 6	Describes changes and enhancements made in CT-MG since V15.3.
<i>Compatibility</i> on page 11	Describes compatibility issues when upgrading to CT-MG V15.3.1.
<i>Restrictions</i> on page 14	Describes the known restrictions of this CT-MG release.

Readers of this Manual

This manual is directed to operators who are responsible for installing CT-MG.

It assumes that you are familiar with the following:

- Administration of the operating systems in use, including the adaption and execution of batch files or shell scripts.
- Java EE technology, particularly as to the deployment on application servers.
- Relational databases and their administration, in particular, the PostgreSQL database.
- CT-MG concepts as explained in the *Overview* manual.
- Installation and administration of Web servers.
- Installation and administration of the GlassFish application server.

Notational Conventions

This manual uses the following notational conventions:

Add	The names of graphical user interface elements like menu options are shown in boldface.
<code>init</code>	System names, for example, command names, and text that is entered from the keyboard are shown in Courier font.
<code><variable></code>	Variables for which values must be entered are enclosed in angle brackets.
<code>[option]</code>	Optional items, for example, optional command parameters, are enclosed in square brackets.
<code>one two</code>	Alternative entries are separated by a vertical bar.
<code>{one two}</code>	Mandatory entries with alternatives are enclosed in curly brackets.

Available Documentation

The following documentation on CT-MG is available:

- *Overview*: A PDF manual introducing CT-MG. It is written for everybody interested in CT-MG and does not require any special knowledge.
- *Online Help*: Online help pages describing how to work with the administration portal of CT-MG. The online help is directed and available to everybody working with the administration portal.
- *Installation Guide*: A PDF manual describing how to install and uninstall CT-MG. It is directed to operators who set up and maintain CT-MG in their environment.
- *Operator's Guide*: A PDF manual for operators describing how to administrate and maintain CT-MG.
- *Technology Provider's Guide*: A PDF manual for technology providers describing how to prepare applications for usage in a SaaS model and how to integrate them with CT-MG.
- *Supplier's Guide*: A PDF manual for suppliers describing how to define and manage service offerings for applications that have been integrated with CT-MG.
- *Reseller's Guide*: A PDF manual for resellers describing how to prepare, offer, and sell services defined by suppliers.
- *Broker's Guide*: A PDF manual for brokers describing how to support suppliers in establishing relationships to customers by offering their services on a marketplace.
- *Marketplace Owner's Guide*: A PDF manual for marketplace owners describing how to administrate and customize marketplaces in CT-MG.
- *Developer's Guide*: A PDF manual for application developers describing the public Web service interface of CT-MG and how to integrate applications and external systems with CT-MG.
- *ServerView Resource Orchestrator Integration*: A PDF manual for operators describing how to offer and use virtual platforms and servers controlled by ServerView Resource Orchestrator through services in CT-MG.
- Javadoc documentation for the public Web service interface of CT-MG and additional resources and utilities for application developers.

1 What's New?

This chapter describes changes and enhancements made in CT-MG since V15.3.

1.1 System Environment

Database

With this release, the PostgreSQL database management system (DBMS) version 9.1.12 is supported.

Configuration Settings

- The default value for the following configuration setting has been increased to 60 seconds:
`glassfish.domain.stop.waitSeconds`

Web Browsers

The CT-MG user interface supports the following Web browsers:

- Google Chrome 23.0 - 34.0
- Microsoft Internet Explorer 8.0, or Microsoft Internet Explorer 9.0 or 10.0 running in 8.0 compatibility mode, or Microsoft Internet Explorer 11.0
- Mozilla Firefox 16.0 - 28.0

1.2 Public Web Service Interface

Provisioning and Subscription Service

Changing a subscription including subscription parameters is now also implemented as an asynchronous call of the provisioning service.

The following new statuses have been introduced for subscriptions: `PENDING_UPDATE` and `SUSPENDED_UPDATE`.

The following methods have been introduced:

- `ProvisioningService.asyncModifySubscription`
- `SubscriptionService.completeAsyncModifySubscription`
- `SubscriptionService.abortAsyncModifySubscription`

The `ProvisioningService.modifyParameterSet` method of the provisioning service has been renamed to `ProvisioningService.modifySubscription`. The `ProvisioningService.upgradeSubscription` method has been added.

The methods of the provisioning service have been extended to provide information on the requesting user. The `userName` parameter has been replaced by `userFirstName` and `userLastName`.

Integration Helper

The functionality of the integration helper package (`Integrationhelper.war`) has been extended: The Web service proxy can now be created for all kinds of services (not only for the session service) so that the single sign-on functionality is supported. The base functionality has been

extracted into a new project (`fujitsu-adm-um-webservices-proxy`). All properties have been extracted so that they are configurable.

1.3 SAML_SP Authentication Mode

The following changes have been made in order to improve the integration of an IdP (Identity Provider) for using Web browser single sign-on (SSO) and a security token service (STS) for authenticating Web service calls:

- Changed URL to which the IdP is to send its responses (`metadata.jsp`)
- New configuration setting for encryption key length: `SSO_STS_ENCKEY_LEN`
- New configuration setting for defining the HTTP method used for authentication requests to the IdP (GET or POST): `SSO_IDP_AUTHENTICATION_REQUEST_HTTP_METHOD`
- New target in `build-glassfish-setup.xml` for updating STS-related configuration settings
- Enhanced documentation (*Installation Guide*, *Operator's Guide*, *Developer's Guide*)

1.4 Additional Language Support

By default, CT-MG supports English, German, and Japanese. With this release, the platform operator can add additional languages and customize the texts provided in the English, German, and Japanese language bundles (user interface resources, report labels, online help for the administration portal, and FAQs for the marketplaces).

In the administration portal, the **Manage languages** option has been added to the **Operation** menu. Existing texts can be exported; customized texts and new language texts can be imported. All activated languages can be selected by users when choosing a language in their user profile.

A separate `.war` file, `fujitsu-bss-portal-help.war`, is provided with the `fujitsu-bss-install-pack.zip` file. This file contains the online help and FAQs to facilitate localization.

1.5 Multiple User Import

Users who are to work with an organization's subscriptions are usually registered by an organization administrator. An administrator can now register multiple users for his organization in one operation. For this purpose, the **Register new users** page of the administration portal and the equivalent administration page on marketplaces have been extended. They allow to import a user data file containing the data of the users to be registered with CT-MG.

The platform operator can also register multiple users on behalf of organizations that do not use an external system for user authentication: In the administration portal, the **Manage users** page has been extended to import a user data file.

1.6 Billing

With this release, cost calculation issues have been clarified as described in the following sections.

Pro-Rata Calculation

Daylight saving time now is supported for price models using the pro-rata calculation mode:

The length of every time unit is considered when computing a pro-rata factor. A DAY, WEEK, or MONTH time unit is automatically one hour shorter or longer if a daylight saving time switch occurs during this time unit.

PSP Integration

The sample for integrating Heidelberg as a payment service provider (PSP) has been removed from the `fujitsu-bsp-integration-pack` file. If you need to integrate Heidelberg, please contact your FUJITSU support organization.

1.7 ROR Integration

CT-MG comes with an integration package for FUJITSU ServerView Resource Orchestrator (ROR): `fujitsu-bss-ror-install-pack.zip`. ROR is a data center management tool which provisions virtual systems configured and tuned for the user's needs. On virtual platforms, users can, for example, request specific servers and operating systems, firewalls, load balancers, or pre-installed software and databases. Servers can be added and removed dynamically as required.

The integration of ROR with CT-MG provides for an Infrastructure as a Service (IaaS) solution that leverages the features of both products: Through services, which are published on a marketplace in CT-MG, users can request and use virtual platforms and servers in ROR. The usage costs can be calculated and charged by means of the CT-MG billing and payment services.

The ROR integration package provided with CT-MG includes the components required for connecting existing CT-MG and ROR installations. A new manual, *Systemwalker Service Catalog Manager ServerView Resource Orchestrator Integration*, is available describing how to deploy this package and how to create and use services for ROR on a CT-MG marketplace.

1.8 Asynchronous Provisioning Platform (APP)

The following changes have been made to the APP software provided in the `fujitsu-bss-integration-app-pack.zip` file:

- APP now provides an implementation of an operation service in addition to a provisioning service. This means that service operations are passed on to the service controllers which are responsible for their execution.
- APP now also supports the asynchronous modification of application instances triggered by changes to service parameters at the corresponding subscriptions.
- APP can now handle SAML_SP authentication mode.
- APP offers a Web interface for viewing and changing the status of provisioning operations for each of the registered controllers. This tool is useful for recovering from problems in the integrated applications and in the communication between the components involved.
- The exception and error handling has been improved.
- The ROR service controller is no longer provided as a sample. CT-MG now comes with an integration package for ROR. Refer to *ROR Integration* on page 8 for details.

1.9 Extension Interface

A supplier organization can now integrate a third-party or proprietary tool for configuring service parameters with CT-MG. The tool can be used by the supplier's customers for defining and updating the parameters of a service. It replaces the default user interface for configuring service parameters on a marketplace.

CT-MG allows for a seamless integration of the tool. A generic JavaScript interface is provided by which supplier organizations can integrate a tool of their choice. The following basic concepts are relevant:

- Cross-document messaging is used for the communication between CT-MG and the external parameter configuration tool.
- The exchange of data is based on JavaScript Object Notation (JSON).

The *Developer's Guide* describes the basic concepts and provides an overview of the implementation tasks required for integrating an external parameter configuration tool. The `fujitsu-bss-integration-pack` contains a parameter configuration tool sample including a description of how to integrate the sample with CT-MG.

1.10 Service Operation Parameters

Parameters can be defined for service operations so that, for example, the following scenario is now supported: A customer has multiple backups or snapshots made with an external system. Operations have been implemented that allow for backup and restore. By a service parameter, the customer can now control which backup or snapshot to restore. The list of backups or snapshots can be retrieved from an external system, for example, a backup system.

The `OperationService` interface is now available as version V1.2. Version 1.1 is still supported.

The `OperationService` interface has been extended by the following methods:

- `executeServiceOperation`
- `getParameterValues`

In the technical service definition XML file, the `<Operation>` element has been extended by the `<OperationParameter>` element.

1.11 Graphical User Interface

Long Lists of Subscriptions

In the administration portal, the drop-down lists for selecting a subscription have been replaced by item lists. They allow for sorting, filtering, paging, and resizing.

This applies to the following pages in the administration portal:

- Define price model for subscription
- View subscription
- Terminate subscription
- Manage subscription attributes

Customizable Marketplace Home Page

Services listed on a marketplace home page can now be grouped by categories. Customers subscribing to a service on such a marketplace can now instantly use this service when accessing the marketplace home page. The following pages in the administration portal have been extended or changed:

- Define featured services
- Define publishing options
- Manage categories
- Create marketplace

- Update marketplace

Grouping services on a marketplace home page by categories is independent of whether categories are enabled or disabled for the marketplace.

1.12 Documentation

All manuals and online help pages as well as the marketplace FAQs have been revised to reflect the features introduced or changed with this release.

The following new manual is available:

Systemwalker Service Catalog Manager ServerView Resource Orchestrator Integration. This manual describes the integration of FUJITSU ServerView Resource Orchestrator (ROR) with CT-MG. It is directed to operators who want to offer virtual platforms and servers controlled by ROR through services on a marketplace provided by CT-MG.

2 Compatibility

This chapter describes compatibility issues when upgrading to CT-MG V15.3.1.

Technical Service Definitions

The Platform and Proxy access types, which were deprecated before, have been removed. This means that they must no longer be used in technical service definitions. Subscriptions and services using these access types have to be terminated and deleted before upgrading to V15.3.1. Otherwise these subscriptions and services become unusable and the system may return "operation failed" exceptions whenever a user tries to access them.

Public Web Service Interface

If applications integrated with CT-MG rely on pure HTTP calls, you need to change their setup to use HTTPS.

CT-MG V15.3 comes with a **compatibility layer** so that applications (clients) implemented with CT-MG V15.0, V 15.1, V15.2, V15.2.1, or V15.3 can still be used without having to be rewritten. Versions older than V15.0 are not supported.

A Web service client accesses exactly one version of the public Web service interface. The versioning pattern is as follows:

Web service version	CT-MG version
Platform services: v1.2 Notification service API: v1.2 Provisioning service API: v1.2 Operation service API: v1.1 PSP integration service: v1.2	V15.0
Platform services: v1.3 Notification service API: v1.3 Provisioning service API: v1.3 Operation service API: v1.1 PSP integration service: v1.3	V15.1
Platform services: v1.4 Notification service API: v1.4 Provisioning service API: v1.3 Operation service API: v1.1 PSP integration service: v1.4	V15.2, V15.2.1
Platform services: v1.5 Notification service API: v1.5 Provisioning service API: v1.4 Operation service API: v1.1 PSP integration service: v1.5	V15.3
Platform services: v1.6	V15.3.1 (this release)

Web service version	CT-MG version
Notification service API: v1.6 Provisioning service API: v1.5 Operation service API: v1.2 PSP integration service: v1.6	

A WSDL URL is used to address a specific Web service. For new Web service calls, this is the current version of the Web services with basic, certificate-based, or security token service authentication (`BASIC`, `CLIENTCERT`, or `STS`). In the case that existing Web service calls are to be upgraded to the current release, the version information provided in the WSDL URLs in question must be updated to the corresponding versions.

If CT-MG is installed in `INTERNAL` authentication mode, Web services with the `BASIC` or `CLIENTCERT` suffix can be used. If CT-MG is installed in `SAML_SP` mode, Web services with the `STS` or `CLIENTCERT` suffix can be used.

The WSDL URL of a specific service can be found out as follows:

1. In the GlassFish administration console, go to **Common Tasks -> Applications -> fujitsu-bss**.
2. On the **Descriptor** tab, open the `META-INF/sun-ejb-jar.xml` descriptor file of the `fujitsu-adm-um-webservices.jar` subcomponent.

For every Web service, the endpoint address URI shows the Web service name, its version, and whether it is to be addressed through basic authentication (`BASIC`), certificate-based authentication (`CLIENTCERT`), or a security token service (`STS`).

The URL pointing to the WSDL definition of a platform service is constructed as follows:

```
<base_URL_HTTPS>/<endpoint-address-uri>?wsdl
```

`<base_URL_HTTPS>` points to the server and port where the CT-MG Web services have been deployed.

`<endpoint-address-uri>` is the address as defined in the `sun-ejb-jar.xml` descriptor file. `?wsdl` is the suffix to be used for identifying a WSDL file.

Example: `https://myserver:8081/AccountService/v1.6/BASIC?wsdl`

The `fujitsu-adm-um-webservices-v1_2.jar` subcomponent contains the descriptor file for CT-MG V15.0; the `fujitsu-adm-um-webservices-v1_3.jar` subcomponent contains the descriptor file for CT-MG V15.1; the `fujitsu-adm-um-webservices-v1_4.jar` subcomponent contains the descriptor file for CT-MG V15.2 and V15.2.1; the `fujitsu-adm-um-webservices-v1_5.jar` subcomponent contains the descriptor file for CT-MG V15.3.

The CT-MG integration package (`fujitsu-bss-integration-pack.zip`) contains four archive files, `changes_v15.0_v15.2.zip`, `changes_v15.1_v15.2.zip`, `changes_v15.2_v15.3.zip`, and `changes_v15.3_v15.3.1.zip` in the `doc/en` subdirectory, where you can find detailed information on changes to the Web services. Use the `changes.html` file of every package for viewing the respective documentation.

Java 5 Client Applications with Certificate-Based Authentication

If applications integrated with CT-MG are implemented with JDK 5 and use certificate-based authentication, you need to set the following security property for GlassFish 3.1.2.2 in the JVM options of the `bes-domain` domain:

```
sun.security.ssl.allowUnsafeRenegotiation=true
```

This setting is required because the handshake protocol has changed since JDK 5. However, it is not recommended. It is safer to migrate your applications to a higher Java version.

If credentials are passed for a Web service call, although certificate-based authentication is defined, authentication takes place using the user name and password. In order to use certificate-based authentication, the applications must be changed in a way that no user name and password is sent via HTTP headers. With GlassFish 2.1 and JDK 5, the credentials were not evaluated.

Asynchronous Provisioning Platform (APP)

The API of APP (in `fujitsu-bss-integration-app-pack.zip`) includes incompatible changes compared to the previous version. Existing service controllers must be adapted accordingly. For details, please contact your FUJITSU support organization.

Marketplace Branding

With this release (V15.3.1), the `fujitsu-branding.war` file for FUJITSU-style branding of marketplaces is no longer part of the delivery. If you require this branding package for your marketplaces, please contact your FUJITSU support organization.

3 Restrictions

This chapter describes known restrictions of this CT-MG release.

Java Version

CT-MG requires a Java Development Kit (JDK), version 7, 64 bit. Deployment of CT-MG with JDK 7, Update 20 has been tested and is recommended.

As of JDK, version 7, Update 25, sending a newly created HashMap over a remote EJB call in GlassFish and adding an entry to the HashMap in the EJB method throws an `ArrayIndexOutOfBoundsException`. Workaround: Add and remove an entry before sending the HashMap in the EJB call.

Due to a CORBA library change which is incompatible with Oracle GlassFish Server version 3.1.2.2, CT-MG cannot be deployed with JDK 7, Update 55, and higher.

Note: Third-party tools that you integrate with CT-MG may require a different Java version.

Certificate-Based Authentication

Certificate-based authentication cannot be used when calling CT-MG functions whose execution requires the specification of a user role. The user role determines whether the calling user is allowed to execute the function. Instead, you must use basic authentication for such Web service calls.

If you need to use certificate-based authentication in such scenarios anyway, contact your FUJITSU support organization.

Web Browsers

Concurrent Sessions

CT-MG does not support multiple sessions in Web browsers. This means that you cannot run and log in to CT-MG using several tabs or instances of the same Web browser. If you want to use multiple sessions, run CT-MG in different Web browsers, for example, in Microsoft Internet Explorer and Mozilla Firefox.

Caching in Internet Explorer 8

If an administrator logs in to the CT-MG administration portal and, during the same session, accesses a marketplace, he is logged out as soon as he wants to return to the administration portal (for example, by entering the respective URL again - `http(s)://<domain>/<context-root>/`). This behavior is due to a setting in Internet Explorer 8 which controls the Web page caching. In order to avoid this behavior and to ensure that the administrator stays logged in:

In Internet Explorer, select **Tools** -> **Internet Options**. On the **General** tab, in the **Browsing history** section, click **Settings**. In the **Check for newer versions of stored pages** section, make sure that **Every time I visit the webpage** is selected.

Back Button

CT-MG does not support the usage of the "Back" button in Web browsers. This means that you must use the CT-MG buttons for moving forward and backward between the CT-MG pages.

HTTP or HTTPS Configuration

CT-MG can be configured to use the HTTP or the HTTPS protocol. If you use both protocols at a time, PSP (payment service provider) integration will not work.

We recommend to configure the HTTPS protocol for all URLs used by CT-MG.

Report Error Messages

The following reports require input parameters, for example, a billing data key or dates:

- Supplier revenue report (can be generated by platform operators)
- Detailed billing report for an existing invoice of a customer (can be generated by suppliers and operators)
- Detailed billing report for an existing invoice (can be generated by customers)

When the input parameter is entered in a wrong or invalid format, e.g. `My<>Key` as a billing data key or `2012.5.12` as a date, the error message generated by the report engine does not contain text explaining the reason for the error. If you receive an error message when trying to generate a report, check the input parameter(s) and ensure they are in the correct format. For example, you can find the date format in the dialog for entering the start and end date for a report; the billing data key is printed on the invoice.

Triggers

The trigger for registering a user (`Register user`) can only be configured for registering single users. For the import of multiple users in one operation from an LDAP system or a user data file, no trigger can be configured.

Asynchronous Provisioning Platform (APP)

Logging

APP does not support `log4j` tracing into the `<domain>/logs/app-core.log` file. Instead, the `slf4j` logger is used, which traces everything into the `server.log` file.

ROR Integration

If CT-MG is integrated with ServerView Resource Orchestrator (ROR), it is recommended to use the CT-MG user interface for subscribing to services, and to use the ROR user interface for problem solving purposes only.

Otherwise the following situation may occur:

A user requests the provisioning of a platform or a server on an existing platform in ROR and assigns a specific name. ROR deploys the new platform or server instance. If another user decides to use the CT-MG user interface for subscribing to a service for provisioning a platform or a server and assigns the same name, the CT-MG ROR controller assumes that the service instance has been created by APP. The pending subscription in CT-MG is successfully terminated (based on the existing platform or server).

Logout Error with Active Directory Federation Services in Internet Explorer 11

An error occurs when a user working with CT-MG tries to log out by clicking **Logout** in the administration portal or on a marketplace. This is true for a specific system configuration:

- CT-MG is installed in SAML_SP authentication mode so that Web browser single sign-on can be used.

- Windows Active Directory Federation Services is installed and used as Identity Provider (IdP).
- In CT-MG, the `SSO_IDP_AUTHENTICATION_REQUEST_METHOD` configuration setting is defined as `POST`.
- CT-MG is accessed using Internet Explorer 11.
- Internet Explorer is set up for integrated Windows authentication (IWA) so that no authentication is required when logging in to CT-MG.

The correct behavior would be that the Web browser is refreshed and the user is automatically logged in again. To achieve this, either use Mozilla Firefox or Google Chrome as Web browser, or set the `SSO_IDP_AUTHENTICATION_REQUEST_METHOD` setting to `GET`.

SAML_SP Mode: allowingOnBehalfActing Cannot be Used

The `allowingOnBehalfActing` attribute of the `TechnicalService` element in a technical service definition cannot be used if CT-MG is installed in SAML_SP mode.