

TIBCO Cloud Bus™

Cloud Bus Manager On-Premises

Installation Guide

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Preface

TIBCO is proud to announce the latest release of TIBCO Cloud Bus™ an Integration Platform as a Service (iPaaS) solution.

TIBCO Cloud Bus™ can also be deployed on-premises as an integrated platform solution that provides you and your enterprise with TIBCO Silver Fabric and more than twenty TIBCO Cloud-ready, scalable, enterprise application distributions, plug-ins, and enablers that are well-suited to meet your business requirements.

TIBCO Cloud Bus provides rapid and elastic provisioning for your on-premises or private cloud integrated platform and project scaling.

TIBCO Cloud Bus accelerates the time to value of SaaS solutions and supports on-demand deployment. Ready-to-use templates speed integration with SaaS applications, enterprise applications, and social networks. You and your customers will benefit from seamless application availability and real-time responses to changes in your business environment.

To find out more about how TIBCO Cloud Bus™ and other TIBCO products please visit us at www.tibco.com.



Software that is available for use with TIBCO Cloud Bus™ (and TIBCO Silver® Fabric) can run on different Engines using different operating systems. However, not all operating system platforms for a specific software version are released at the same time. Please see the readme files for the availability of the product software versions on specific operating system platforms.

Topics

- [Changes from the Previous Release of this Guide, page iv](#)
- [Related Documentation, page v](#)
- [Typographical Conventions, page vii](#)
- [Connecting with TIBCO Resources, page x](#)

Changes from the Previous Release of this Guide

TIBCO Cloud Bus™ Manager On-Premises Installation Guide is essentially unchanged from the previous release of this guide.

Related Documentation

TIBCO Silver Fabric Documentation

All TIBCO product documents are accessible for viewing and for download from <https://docs.tibco.com>.

The following documentation is included with the installation of TIBCO Silver Fabric. To view the guides installed with TIBCO Silver Fabric, log in to the TIBCO Silver Fabric Administration Tool and go to **Admin > Documentation**. The PDF files are also on the Broker at:

`SILVERFABRIC_HOME/webapps/livecluster/admin/docs`

The following documents form the Silver Fabric documentation set:

- *TIBCO Silver Fabric Release Notes* Describes new features for this release, changes in functionality, migration and compatibility notes, closed and known issues.
- *Introducing Silver Fabric* Contains an introduction to Silver Fabric, including definitions of key concepts and terms, such as Enablers, Stacks, Components, Engines, and Brokers. Read this first if you are new to Silver Fabric.
- *Silver Fabric Installation Guide* Covers installation of Silver Fabric for Windows and Unix, including Brokers, Engines, and pre-installation planning.
- *Silver Fabric Cloud Administration Guide* Covers Silver Fabric cloud administration, configuration of Engines, Enablers, and Components, and configuration and use of Skyway. Also covers security, general maintenance, performance tuning, and database administration.
- *Silver Fabric Developer's Guide* Developer-related topics such as logging and debugging, using the Admin API, and the Enabler SDK.
- *Silver Fabric User's Guide* Covers Silver Fabric use and operation, including management of Engines, Enablers, Components, and Stacks.
- *Silver Fabric Skyway User's Guide* Covers usage of Skyway, which enables users to quickly and easily provision and manage their Silver Fabric Stacks.
- *Silver Fabric Tomcat Enabler Guide* Covers installation and configuration of applications run on the Tomcat Enabler.
- *Silver Fabric Command Line Enabler Guide* Covers installation and configuration of applications run on the Command Line Enabler.

Other Documentation and Help

All TIBCO product documents are accessible for viewing and for download from <https://docs.tibco.com>.

After you install TIBCO Silver Fabric with this guide you will then install the TIBCO Cloud Bus™ Enablement On-Premises package using the:

TIBCO Cloud Bus™ Enablement On-Premises Installation Guide

Using the TIBCO Cloud Bus™ Manager On-Premises Installation Guide will install a large number of TIBCO product distributions, plug-ins, and enablers. You will be best served by the documentation specific to the products you will be using in your integrated platform.

Additional help and information about TIBCO Silver Fabric development is available from the following sources:

- *Silver Fabric Administration Tool Help* Context-sensitive help is provided throughout the Silver Fabric Administration Tool by clicking the Page Help button located on any page.
- *API Reference* Silver Fabric API reference information is available in the Silver Fabric SDK in the api directory in JavaDoc format. You can also view and search them from the Silver Fabric Administration Tool; log in to the Administration Tool and go to **Admin > Documentation**.

Typographical Conventions

The following typographical conventions are used in this manual.

Table 1 General Typographical Conventions

| Convention | Use |
|--------------------------|---|
| <i>TIBCO_HOME</i> | Many TIBCO products must be installed within the same home directory. This directory is referenced in documentation as <i>TIBCO_HOME</i> . The default value of <i>TIBCO_HOME</i> depends on the operating system. For example, on Windows systems, the default value is C:\tibco. |
| <i>SILVERFABRIC_HOME</i> | TIBCO Silver [®] Fabric installs into a directory within <i>TIBCO_HOME</i> . This directory is referenced in documentation as <i>SF_HOME</i> . The default value of <i>SILVERFABRIC_HOME</i> depends on the operating system. For example on Windows systems, the default value is C:\tibco\fabric. |
| code font | Code font identifies commands, code examples, filenames, pathnames, and output displayed in a command window. For example: Use MyCommand to start the foo process. |
| bold code font | Bold code font is used in the following ways: <ul style="list-style-type: none"> • In procedures, to indicate what a user types. For example: Type admin. • In large code samples, to indicate the parts of the sample that are of particular interest. • In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, MyCommand is enabled: MyCommand [enable disable] |
| italic font | Italic font is used in the following ways: <ul style="list-style-type: none"> • To indicate a document title. For example: See <i>TIBCO ActiveMatrix BusinessWorks Concepts</i>. • To introduce new terms. For example: A portal page may contain several portlets. <i>Portlets</i> are mini-applications that run in a portal. • To indicate a variable in a command or code syntax that you must replace. For example: MyCommand <i>PathName</i> |

Table 1 General Typographical Conventions (Cont'd)




| Convention | Use |
|---|--|
| Key combinations | <p>Key names separated by a plus sign indicates keys pressed simultaneously. For example: Ctrl+C.</p> <p>Key names separated by a comma and space indicate keys pressed one after the other. For example: Esc, Ctrl+Q.</p> |
|  | The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances. |
|  | The tip icon indicates an idea that could be useful, for example, a way to apply the information provided in the current section to achieve a specific result. |
|  | The warning icon indicates the potential for a damaging situation, for example, data loss or corruption if certain steps are taken or not taken. |

Table 2 Syntax Typographical Conventions

| Convention | Use |
|------------|--|
| [] | <p>An optional item in a command or code syntax.</p> <p>For example:</p> <p>MyCommand [optional_parameter] required_parameter</p> |
| | <p>A logical OR that separates multiple items of which only one may be chosen.</p> <p>For example, you can select only one of the following parameters:</p> <p>MyCommand para1 param2 param3</p> |

Table 2 Syntax Typographical Conventions

| Convention | Use |
|------------|---|
| { } | <p>A logical group of items in a command. Other syntax notations may appear within each logical group.</p> <p>For example, the following command requires two parameters, which can be either the pair param1 and param2, or the pair param3 and param4.</p> <pre>MyCommand {param1 param2} {param3 param4}</pre> <p>In the next example, the command requires two parameters. The first parameter can be either param1 or param2 and the second can be either param3 or param4:</p> <pre>MyCommand {param1 param2} {param3 param4}</pre> <p>In the next example, the command can accept either two or three parameters. The first parameter must be param1. You can optionally include param2 as the second parameter. And the last parameter is either param3 or param4.</p> <pre>MyCommand param1 [param2] {param3 param4}</pre> |
| < > | <p>A parameter name that is to be replaced with an actual implementation value. For example, a configuration parameter shows the syntax for an entry:</p> <pre><IP_Address>:<Port>/<Directory>/<SubDir></pre> <p>And so the implementation value entry could be something like:</p> <pre>10.8.156.33:8080/MyTarget/SubFolder</pre> |

Connecting with TIBCO Resources

How to Join TIBCOCommunity

TIBCOCommunity is an online destination for TIBCO customers, partners, and resident experts, a place to share and access the collective experience of the TIBCO community. TIBCOCommunity offers forums, blogs, and access to a variety of resources. To register, go to <http://www.tibcommunity.com>.

How to Access All TIBCO Documentation

After you join TIBCOCommunity, you can access the documentation for all supported product versions here:

<https://docs.tibco.com>

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, please contact TIBCO Support as follows.

- For an overview of TIBCO Support, and information about getting started with TIBCO Support, visit this site:

<http://www.tibco.com/services/support>

- If you already have a valid maintenance or support contract, visit this site:

<https://support.tibco.com>

Entry to this site requires a user name and password. If you do not have a user name, you can request one.

Chapter 1

TIBCO Cloud Bus Manager Installation

This installation guide describes how to install the TIBCO Cloud Bus Manager for an on-premises installation of TIBCO Silver Fabric.

Topics

- [Product Overview, page 2](#)

Product Overview

TIBCO Cloud Bus is an integrated platform solution that provides you and your enterprise with TIBCO Silver Fabric and more than twenty TIBCO Cloud-ready, scalable, enterprise application services, distributions, and enablers that are well-suited to meet your business requirements.

TIBCO Cloud Bus provides rapid and elastic provisioning for your on-premises or private cloud integrated platform and project scaling.

TIBCO Cloud Bus accelerates the time to value of SaaS solutions and supports on-demand deployment. Ready-to-use templates speed integration with SaaS applications, enterprise applications, and social networks. You and your customers will benefit from seamless application availability and real-time responses to changes in your business environment.

TIBCO Cloud Bus Management Package

TIBCO Cloud Bus has two parts for installation of an on-premises solution:

1. TIBCO Cloud Bus Management Package, and
2. TIBCO Cloud Bus Enablement Package

The TIBCO Cloud Bus Management Package consists of TIBCO Silver® Fabric packaged for quick installation and use with the TIBCO Cloud Bus Enablement Package. TIBCO Silver Fabric Broker and the TIBCO Silver Fabric Administration Tool are at the heart of TIBCO Cloud Bus and the Management Package provides you with the bits to install them.

Installation

Prerequisites

The TIBCO Cloud Bus Manager On-Premises package must be installed on a x86-64 bit server running Red Hat Enterprise Linux 6.x.

TIBCO Cloud Bus Manager installation, installation of TIBCO Silver[®] Fabric, is the first step for hosting an on-premises TIBCO Cloud Bus solution.

TIBCO Silver Fabric Broker

Minimum hardware requirements:

- 2.8 GHz Dual-Core Xeon, 2 GB RAM
- 100 GB free disk space

Recommended hardware requirements:

- 3.0 GHz Quad-Core Xeon, 4 GB RAM
- 200 GB free disk space

Software requirements:

TIBCO Silver Fabric requires a **Java 2 Standard Edition (J2SE) SDK** installed on the Silver Fabric Broker machine. One of the following Sun Java SDKs is required for all components: SDK 1.6 or SDK 1.7.

A **Web Browser** is required for accessing the Silver Fabric Administration Tool on TIBCO Silver Fabric Broker:

- Internet Explorer 8.0 or 9.0
- Mozilla Firefox 3.6 or 10.0.2
- Google Chrome 17
- Apple Safari 5 or 5.1

The browser must be able to communicate with the Broker machine. JavaScript and cookies must be enabled.

Database - TIBCO Silver Fabric supports use of the following reporting databases:

- Oracle 10g
- Oracle 11g
- Microsoft SQL 2005
- Microsoft SQL 2008
- Sybase ASE 15

Installation of TIBCO Silver Fabric Engines and the TIBCO Cloud Bus Enablement package are separate procedures performed any time after this installation.

Install the TIBCO Cloud Bus Management Package

Task A Extract the TIBCO Cloud Bus Management Package

1. Get the TIBCO Cloud Bus Management package from the TIBCO Cloud Bus download page and put it in a directory on your RHEL 6.x x86-64 bit server.

The Cloud Bus Management package is named:

```
TIB_tcb-manager_1.1.0_linux24gl23_x86_64.zip
```

2. Extract the files from the Cloud Bus Manager zipped archive to a suitable destination directory such as: `/opt/tibco`

You could use the Shell prompt with the following command or use whatever utility is convenient for you.

```
unzip TIB_tcb-manager_1.1.0_linux24gl23_x86_64.zip
```

Extract the contents of the file `TIB_silver_fabric.5.5.0.tar.gz` into a local directory. Use both `gzip` and `tar` with the command:

```
gzip -d -c TIB_silver_fabric*.gz | tar xvf -
```

This unpacks the files into a directory such as:

```
/opt/tibco/fabric
```

This documentation will refer to this directory as: *SILVERFABRIC_HOME*

Task B Install the Java Cryptography Extension

Install an unlimited strength Java Cryptography Extension (JCE) to your JavaRuntime Environment (JRE).

1. Go to:

```
SILVERFABRIC_HOME/webapps/livecluster/WEB-INF/etc/jce/1.7.0
```

2. Copy the files: `local_policy.jar` and `US_export_policy.jar` to

```
JRE_HOME/lib/security
```

Task C Configure Server Settings

Set the *JAVA_HOME* environment variable to the location of your Java SDK installation. If for example, the Java installation were located in *java-install-dir* you could use one of the following shells to export the path:

Korn and Bash shells:

```
export JAVA_HOME=java-install-dir;
export PATH=$JAVA_HOME/bin:$PATH
```

Bourne shell:

```
JAVA_HOME=java-install-dir; export JAVA_HOME;
PATH=$JAVA_HOME/bin:$PATH; export PATH
```

C shell:

```
setenv JAVA_HOME java-install-dir; setenv PATH
$JAVA_HOME/bin:$PATH; export PATH=$JAVA_HOME/bin:$PATH
```

Task D Start and Initialize the TIBCO Silver Fabric Broker

1. Using a command prompt navigate to *SILVERFABRIC_HOME*, the installation directory, and start the Silver Fabric Broker with the command:

```
./server.sh start
```

2. Open a browser to use the Silver Fabric Administration Tool. When the browser is opened on the broker host machine the URL will be:

<http://localhost:8080/livecluster>

3. Accept the EULA and click **Proceed**.
4. Select the installation type: Typical or Custom.
5. Stop and restart the Broker with the commands


```
./server.sh stop
./server.sh start
```

6. Direct the browser to <http://localhost:8080/livecluster> and create the initial user, username and password, for the user who will have full administrator rights to change your installation of TIBCO Silver Fabric.

Task E Install the Server License

Your TIBCO Cloud Bus Management package zip file contains an XML license file that was extracted at the top level: TIBCO Silver Fabric License Key 5.ser

1. Login to the Silver Fabric Administration Tool in a browser opened to:

<http://localhost:8080/livecluster>
2. Go to **Config > License**.
3. Click **Browse** and find the license file where you extracted the TIBCO Cloud Bus Management package zipped archive, select it and click **Open**.
4. Click **Upload New License**.

Completing the TIBCO Cloud Bus Installation

The TIBCO Cloud Bus Manager On-Premises part of the TIBCO Cloud Bus Management Package is now complete. TIBCO Silver Fabric is now installed. Later you should install Silver Fabric Engines as publishing endpoints for your cloud. Refer to the TIBCO Silver Fabric documentation for details.



TIBCO Cloud Bus installation has two parts:

1. TIBCO Cloud Bus Manager On-Premises Installation, and
2. TIBCO Cloud Bus Enablement On-Premises Installation

Complete the TIBCO Cloud Bus installation by proceeding with the installation of the TIBCO Cloud Bus Enablement Package.

Refer to the *TIBCO Cloud Bus™ On-Premises Enablement Installation Guide* which describes how to provision your new TIBCO Silver Fabric installation with Enablers, Distributions and Plug-ins to complete your TIBCO Cloud Bus installation.