Sun GlassFish Communications Server Installation Guide

Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054
U.S.A.

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Preface

This Installation Guide contains instructions for installing and uninstalling Sun GlassFish Communications Server.

This preface contains information about and conventions for the entire GlassFish Communications Server documentation set.

Sun GlassFish Communications Server Documentation Set

The Uniform Resource Locator (URL) for Sun GlassFish Communications Server documentation is `http://docs.sun.com/coll/1343.8`. For an introduction to GlassFish Communications Server, refer to the books in the order in which they are listed in the following table.

TABLE P–1 Books in the GlassFish Communications Server Documentation Set

Book Title	Description
Release Notes	Late-breaking information about the software and the documentation. Includes a comprehensive, table-based summary of the supported hardware, operating system, Java™ Development Kit (JDK™), and database drivers.
Quick Start Guide	How to get started with the GlassFish Communications Server product.
Installation Guide	Installing the software and its components.
Application Deployment Guide	Deployment of applications and application components to the GlassFish Communications Server. Includes information about deployment descriptors.
Developer's Guide	Creating and implementing Java Platform, Enterprise Edition (Java EE platform) applications intended to run on the GlassFish Communications Server that follow the open Java standards model for Java EE components and APIs. Includes information about developer tools, security, debugging, and creating lifecycle modules.
Java EE 5 Tutorial	Using Java EE 5 platform technologies and APIs to develop Java EE applications.
Java WSIT Tutorial	Developing web applications using the Web Service Interoperability Technologies (WSIT). Describes how, when, and why to use the WSIT technologies and the features and options that each technology supports.

TABLE P–1 Books in the GlassFish Communications Server Documentation Set *(Continued)*

Book Title	Description
Administration Guide	System administration for the GlassFish Communications Server, including configuration, monitoring, security, resource management, and web services management.
High Availability Administration Guide	Post-installation configuration and administration instructions for the high-availability database.
Administration Reference	Editing the GlassFish Communications Server configuration file, `domain.xml`.
Reference Manual	Utility commands available with the GlassFish Communications Server; written in man page style. Includes the `asadmin` command line interface.

Default Paths and File Names

The following table describes the default paths and file names that are used in this book.

TABLE P–2 Default Paths and File Names

Placeholder	Description	Default Value
install-dir	Represents the base installation directory for GlassFish Communications Server.	Solaris™ and Linux installations, non-root user: *user's-home-directory*`/SUNWappserver` Other Solaris and Linux installations, root user: `/opt/SUNWappserver` Windows, all installations: *SystemDrive*`:\Sun\AppServer`
domain-root-dir	Represents the directory containing all domains.	*install-dir*`/domains/`
domain-dir	Represents the directory for a domain. In configuration files, you might see *domain-dir* represented as follows: `${com.sun.aas.instanceRoot}`	*domain-root-dir*`/`*domain-dir*
instance-dir	Represents the directory for a server instance.	*domain-dir*`/`*instance-dir*

Typographic Conventions

The following table describes the typographic changes that are used in this book.

TABLE P–3 Typographic Conventions

Typeface	Meaning	Example
`AaBbCc123`	The names of commands, files, and directories, and onscreen computer output	Edit your `.login` file. Use `ls -a` to list all files. `machine_name% you have mail.`
`AaBbCc123`	What you type, contrasted with onscreen computer output	`machine_name%` **`su`** `Password:`
AaBbCc123	A placeholder to be replaced with a real name or value	The command to remove a file is `rm` *filename*.
AaBbCc123	Book titles, new terms, and terms to be emphasized (note that some emphasized items appear bold online)	Read Chapter 6 in the *User's Guide*. A *cache* is a copy that is stored locally. Do *not* save the file.

Symbol Conventions

The following table explains symbols that might be used in this book.

TABLE P–4 Symbol Conventions

Symbol	Description	Example	Meaning
`[ ]`	Contains optional arguments and command options.	`ls [-l]`	The `-l` option is not required.
`{ | }`	Contains a set of choices for a required command option.	`-d {y|n}`	The `-d` option requires that you use either the `y` argument or the `n` argument.
`${ }`	Indicates a variable reference.	`${com.sun.javaRoot}`	References the value of the `com.sun.javaRoot` variable.
-	Joins simultaneous multiple keystrokes.	Control-A	Press the Control key while you press the A key.
+	Joins consecutive multiple keystrokes.	Ctrl+A+N	Press the Control key, release it, and then press the subsequent keys.

TABLE P–4 Symbol Conventions *(Continued)*

Symbol	Description	Example	Meaning
→	Indicates menu item selection in a graphical user interface.	File → New → Templates	From the File menu, choose New. From the New submenu, choose Templates.

Documentation, Support, and Training

The Sun web site provides information about the following additional resources:

- Documentation (`http://www.sun.com/documentation/`)
- Support (`http://www.sun.com/support/`)
- Training (`http://www.sun.com/training/`)

Searching Sun Product Documentation

Besides searching Sun product documentation from the docs.sun.com℠ web site, you can use a search engine by typing the following syntax in the search field:

search-term `site:docs.sun.com`

For example, to search for "broker," type the following:

```
broker site:docs.sun.com
```

To include other Sun web sites in your search (for example, java.sun.com, www.sun.com, and developers.sun.com), use `sun.com` in place of `docs.sun.com` in the search field.

Third-Party Web Site References

Third-party URLs are referenced in this document and provide additional, related information.

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◆ ◆ ◆ CHAPTER 1

Installing Sun GlassFish Communications Server Software

This chapter provides instructions for installing the Sun GlassFish Communications Server software available from the Sun download site. It also has instructions on how to install SailFin, the open source implementation of SunGlassFish Communications Server. The following topics are discussed:

- "Distribution Types and Their Components" on page 9
- "Installing GlassFish Communications Server" on page 10
- "Installing SailFin" on page 17
- "Registering Your Installation of Sun GlassFish Communications Server" on page 18

Distribution Types and Their Components

The various distributions and their components are as follows:

- Sun GlassFish Communications Server - Includes the Sun GlassFish Enterprise Server software with added SIP capabilities, converged load balancer, Java DB, and SunJava System Message Queue 4.1. GlassFish Communications Server is available from `http://www.sun.com/download` as a file-based installer, which offers both graphic and command-line modes for installation
- SailFin: Open source implementation of Sun GlassFish Communications Server. This distribution is available as a JAR file and includes an Ant distribution that has been extended with tasks to facilitate developing applications.

Installing GlassFish Communications Server

If you are using the Sun GlassFish Communications Server installer available from the Sun Download page , use one of the following procedures:

- "To Install GlassFish Communications Server in GUI or CLI Mode" on page 10
- "To Install GlassFish Communications Server in Silent Mode" on page 12

▼ To Install GlassFish Communications Server in GUI or CLI Mode

Before You Begin Use this procedure if you are using the Graphic User Interface (GUI) or Command-Line Interface (CLI) mode of the file-based installer for GlassFish Communications Server. Verify that your system meets the requirements specified in the Release Notes.

Solaris and Linux installations support both root and non-root user installations. Users of Windows installations should have Power User or Administrator access. If you are installing as a non-root user on Solaris or Linux, you must have read-write access to the following directories:

- The installation directory you select
- The home directory of the installation user
- The `/var/tmp` directory
- The `/tmp` directory
- The web server installation directory and the web server instance directory, if applicable.

1. **Navigate to the directory where you downloaded the distribution file.**

2. **If you have downloaded a `.bin` file, change the permission of the distribution file so that you have execute access:**

   `chmod +x` *distribution_filename*

3. **Run the installation program.**

   - **If you are installing from a `.bin` file on Solaris or Linux, use the following command to run the installation program :**

     `./`*distribution_filename*

     Use the `-console` option to run the installation program in command-line mode.

   - **If you are installing from an `.exe` file on Windows, double-click the file.**

4. **Read and accept the license agreement.**

5 Specify the directory where you want to install the software or accept the default installation directory. Click Next.

6 Choose to install JDK 5 or JDK 6 or use a pre-installed version of JDK. Click Next.

7 In the Administration Configuration page (or when prompted at the command line), enter the following fields and click Next.

- Admin User Name – Name of the user who administers the server.
- Password – Admin user's password to access the Admin Server (8-character minimum).
- Choose whether you want to be prompted for the Admin User Name and Password.
- Admin Port – Administration port number for initial server instance. The default value is 4848.
- HTTP Port - Port number to access the default server instance. The default is 8080
- HTTPS Port - Secure port number to access the default server instance. The default is 8181

8 In the SIP Configuration page, provide the following configuration information and click Next.

- SIP Port – The port on which SIP listener listens for SIP requests. The default value is 5060.
- SIPS Port – Secure SIP port. The default value is 5061.
- Choose whether you want an installation with clustering capabilities or an installation without clustering capabilities.

  For more information on clustering, see the Clustering section in the High-Availability Administration guide.

Note – The installation program automatically detects ports in use and suggests unused ports for the default settings.

In addition, five other ports are automatically assigned. You can change the automatically assigned values after installation using the Admin Console. The ports are assigned with the following default values:

- Sun Java System Message Queue – The default is 7676
- IIOP – The default is 3700 for IIOP, and 3820 and 3890 for IIOP/SSL
- JMX™ – The default is 8686

If these default port numbers are in use, the installation program assigns random port numbers from the dynamic port range. This number may not be the next available port number.

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9 In the Installation Options page, select the options that you want. Click Next

The following installation options are available:

- Register Application Server – Select this option if you want to register your installation of application server. A registration form will be displayed after installation.
- Enable Updatecenter Client – Select this option to enable Updatecenter to check for available updates and collect system data.
- Create Desktop Shortcut to the AutoDeploy directory – Select this option to automatically deploy items dragged to this directory. You see this option only if you are using Windows.
- Add bin Directory to PATH – Select this option to add *install-dir*`/bin` to the PATH variable for simplifying the process of running the server and tools from the command line. You see this option only if you are using Windows.
- Create Windows Service: Select this option to create a Windows service to start and stop Application Server,

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Note – To create a Windows service, the `sc.exe` utility must be available on the system. Windows 2000 users may need to install the Windows 2000 Resource Kit to get this utility. For other supported Windows versions, the utility is included in the operating system.

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10 On the Ready to Install page, click Install Now.

11 After installation completes, use the Registration Options screen for registering you installation of application server. For instructions, see "To Register Your Installation of GlassFish Communications Server" on page 18.

12 Verify the installation by following the procedures in the Sun Java System Communications Application Server 1.0 Quick Start guide, located in *install-dir*`/docs/QuickStart.html` **or on docs.sun.com.**

▼ To Install GlassFish Communications Server in Silent Mode

You can use this procedure only with the GlassFish Communications Server installer. Sailfin does not offer silent mode installation. The silent mode involves using a installation configuration file for installing in a non-interactive mode.

1 Create the installation configuration file by running one of the following commands:

- **On Solaris or Linux for GUI mode:**

  `./`*distribution_filename* **`-savestate`** *configuration_filename*

- **On Solaris or Linux for CLI mode:**

  `./`*distribution_filename* **`-console -savestate`** *configuration_filename*

- **On Windows for GUI mode:**
  distribution_filename **-savestate** *configuration_filename*
- **On Windows for CLI mode:**
  distribution_filename **-console -savestate** *configuration_filename*

The installation configuration file is created when you use the `savestate` option when starting an interactive installation. During the interactive installation, your input is collected and stored in the configuration file you specified. This file forms the template for silent installation, which you can use later to install the product on one or more machines. If needed, you can modify the installation configuration file.

Note – If you do not include a path to the installation configuration file, the file is created in the directory where you are running the installation program.

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2 Modify the installation configuration file, as required.

Variable Name	Valid Values (If Applicable)	Content	Comments
`Build ID`		The string of characters following the distribution in the STATE_BEGIN and STATE_END sections. This value is automatically generated.	No need to alter this value unless installing a different distribution file than the one that produced the configuration file. To find the build ID, enter **distribution_filename -id** at the command prompt.
`defaultInstallDirectory`		Default installation directory path.	
`currentInstallDirectory`		Selected absolute installation directory path.	
`JDK_LOCATION`		Selected JDK installation directory path.	This entry is needed only for distributions that do not contain a bundled JDK.
`INST_ASADMIN_USERNAME`		Administrator user name for initial server instance.	

INST_ASADMIN_PASSWORD		Administrator password for initial server instance.	This entry is obfuscated by default. See also:ADMIN_PASSWORD_ENCRYPTED.
INST_ASADMIN_PORT	0 - 65535	Administration server port number for initial server instance.	Default value is 4848.
INST_ASWEB_PORT	0 - 65535	HTTP port number for initial server instance.	Default value is 8080.
INST_HTTPS_PORT	0 - 65535	HTTPS port number for initial server instance.	Default value is 8081.
SIP_PORT	0 - 65535	SIP port number.	Default value is 5060.
SIPS_PORT	0 - 65535	Secure SIP port number.	Default value is 5061.
STORE_ADMIN_AUTH	TRUE, FALSE	Whether to create admin authentication user preference file.	
ADMIN_PASSWORD_ENCRYPTED	TRUE, FALSE	Obfuscated admin password flag.	In the initial statefile created by the product installer, this flag is set to TRUE, since the admin password value is obfuscated for security reasons. To override the value for admin password, enter INST_ASADMIN_PASSWORD value in clear text and set this flag to FALSE to enable silent installation to process it correctly.
INST_JMS_PORT	0 - 65535	JMS port number for initial server instance.	If the configuration file does not include this entry, default value of 7676 is used.
INST_ORB_PORT	0 - 65535	ORB port number for initial server instance.	If the configuration file does not include this entry, default value of 3700 is used.

INST_ORB_SSL_PORT	0 - 65535	Secure ORB port number for initial server instance.	If the configuration file does not include this entry, default value of 3820 is used.
INST_ORB_MUTUALAUTH_PORT	0 - 65535	Mutual authentication ORB port number for initial server instance.	If the configuration file does not include this entry, default value of 3920 is used.
INST_JMX_PORT	0 - 65535	JMX port number for initial server instance.	If the configuration file does not include this entry, default value of 8686 is used.
CREATE_DESKTOP_SHORTCUT	TRUE, FALSE	Whether to create autodeploy folder desktop shortcut.	Valid for Windows platforms only and is disregarded otherwise.
UPDATE_PATH	TRUE, FALSE	Whether to update PATH environment variable to include GlassFish Communications Server `bin` directory.	Valid only for Windows platforms and is disregarded otherwise. If this entry is not present, default value of FALSE is used.
CREATE_WINDOWS_SERVICE	TRUE, FALSE	Whether to create the server as a Windows service.	Valid for Windows platforms only and is disregarded otherwise.
SELECTED_ADDONS	JBI	Add-ons selected for installation. If no add-ons are selected, the value is blank.	Valid for Java EE SDK SOA Starter Kit Preview installations only and is disregarded otherwise.
CREATE_DAS	TRUE, FALSE	Creates a DAS if set to TRUE. The default domain is named `domain1` and is created under default *domain-root-dir*.	Creates the default domain and installs the software components that are required to run the DAS.
CREATE_NA	TRUE, FALSE	Creates a node agent if set to TRUE. The default node agent would be named `agent1` and is created under default node agents root.	Creates the default node agent and installs the software components that are required to run the node agent.

`WEBSERVER_INSTALL_DIR`	A valid, read-writable directory location.	Installation directory of a supported Web server.	Used only when the load balancing plug-in component is selected for installation.
`WEBSERVER_INSTANCE_DIR`	A valid read-writable directory location.	Instance directory of selected web server where the load balancing plug-in will be configured.	Used when load balancing plug-in component is selected to be installed on Sun Java System Web Server. Not applicable for other web servers.
`PLUGIN_TYPE`	`Sun ONE Web Server`, `Apache HTTP Server`, or `Microsoft IIS Web Server`.	Type of web server on which the load balancing plug-in will be installed/configured.	Used only when the load balancing plug-in component is selected for installation.
`PLUGIN_CERTIFICATE_FILE`	A valid path to a certificate file.		Used only when Apache HTTP Server is selected for load balancing plug-in installation. Not supported or is ignored for other web servers.

3 Copy your installation configuration file to each machine where you plan to install the software.

4 Copy the GlassFish Communications Server distribution file to each machine where you plan to install the software.

5 Navigate to the directory where you copied the distribution file and your installation configuration file.

6 Start silent installation at the command line using one of the following command formats:

- **On Solaris or Linux:**

  `./`*distribution_filename* **`-silent`** *configuration_filename*

- **On Windows:**

  distribution_filename **`-silent`** *configuration_filename*

The installation program reads the specified *configuration_filename*, checks for adequate disk space, then installs the product based on the data in *configuration_filename*.

When the prompt is returned, the silent installation is complete and the installation components are installed on your systems.

Installing SailFin

This section provides instructions for installing SailFin distribution.

▼ To Install Sailfin

Before You Begin Get JDK 5 Update 8 or higher from `http://java.sun.com/javase/`, if you are using Solaris, Linux, or Windows.

If you are using Mac OS X, you need to download JDK 5 (supported on Mac OS X 1.4 or later) from `http://www.apple.com/support/downloads/java2se50release3.html` and make JDK 5 the default JVM.

If you are using AIX, download JDK 5 from:
`http://www.ibm.com/developerworks/java/jdk/aix/service.html`.

1. **Download the SailFin distribution from `https://sailfin.dev.java.net/downloads/`.**
2. **Set the environment variable `JAVA_HOME` to point to the directory in which JDK 5 is installed.**
3. **Run the following command:**

   ```
   java -Xmx256m -jar filename.jar
   ```

4. **Set `ANT_HOME` to point to the ant 1.6.5 installation, which is at `<install-dir>/glassfish/lib/ant` directory.**
5. **Navigate to the `glassfish` directory:**

   ```
   cd sailfin
   ```

6. **Run one of the following commands:**

   - **If you want to use SailFin with clustering, run the following command:**

     ```
     ant -f setup-cluster.xml
     ```

   - **If you do not want clustering capabilities, run the following command:**

     ```
     ant -f setup.xml
     ```

7. **Use the Admin Console or Update Center to register your installation of SailFin. Start SailFin using the instructions in the Quick Start guide.**

Registering Your Installation of Sun GlassFish Communications Server

This section explains how to register your installation of Sun GlassFish Communications Server with Sun Connection (`http://www.sun.com/service/sunconnection/index.jsp`).

▼ To Register Your Installation of GlassFish Communications Server

To register your installation of GlassFish Communications Server with Sun Connection (`http://www.sun.com/service/sunconnection/index.jsp`), you must have a Sun Online Account (`https://reg.sun.com/whyregister`). If you do not have a Sun Online Account, the GlassFish Communications Server installer enables you to create an account while registering Application Server.

Note – If you create a Sun Online Account while registering GlassFish Communications Server, you are prompted only for the required information. You can provide additional, optional information by updating your Sun Online Account (`https://reg.sun.com/updateaccount`).

- **In the Product Registration screen, provide the required information as follows:**
  - **If you already have a Sun Online Account, provide the required information as follows:**
    a. **Select the I Already Have a Sun Online Account option.**
    b. **In the User Name field, type the user name that you specified when registered for your Sun Online Account.**
    c. **In the Password field, type that you specified when registered for your Sun Online Account.**
    d. **Click Register.**
  - **If you do not have a Sun Online Account, provide the required information as follows:**
    a. **Select the I Don't Have a Sun Online Account option.**
    b. **In the Email Address field, type your email address.**
    Your email address will be your Sun Online Account user name.

c. **In the Password field, type the password to use for your Sun Online Account.**
   The password is case sensitive and must be 6 – 10 characters long.

d. **In the Retype Password field, retype the password that you typed in the preceding step.**

e. **Complete the remaining fields and click Register.**

- **Choose the Skip Registration option if you want to register later through the Admin Console or through the Update Center.**

◆ ◆ ◆ CHAPTER 2

Uninstalling Sun GlassFish Communications Server Software

If you installed GlassFish Communications Server as part of a Java Enterprise System installation, see the *Sun Java System Installation Guide* for uninstallation instructions. If you installed the stand-alone version of GlassFish Communications Server it is important to use the uninstall routine described here. If you attempt another method, problems arise when you try to reinstall the same version or when you install a new version.

All components in the current GlassFish Communications Server installation directory are automatically selected for uninstallation.

If you have installed GlassFish Communications Server 8.2 (from the JES 5 installer) and upgraded to GlassFish Communications Server 9.1, ensure that you run the Java ES uninstaller before you run the GlassFish Communications Server 9.1 uninstaller.

Caution – Do not manually delete files or directories from your GlassFish Communications Server installation. Always use the uninstallation program.

Uninstalling Sun GlassFish Communications Server

Use this procedure if you have installed the Sun GlassFish Communications Server available from

Before you run the uninstallation program, stop all clustered instances and node agents, if any, and then stop all domains. If you do not stop all domains before the uninstallation, orphaned processes might exist on your system after the uninstallation. On UNIX® platforms, identify the processes using the `ps -ef` command and terminate them using the `kill` command. Stop the HADB and any associated `ma` processes, if you are using HADB.

To uninstall the GlassFish Communications Server software, perform the following steps.

▼ To Run the Uninstallation Program on UNIX or Linux

Before You Begin Make sure that you have stopped all domains and other related processes, command prompts using the installation directory or its subdirectories, and any applications using Java Platform, Standard Edition (Java SE) files bundled with the product.

1. **Navigate to your GlassFish Communications Server installation directory.**
2. **Invoke the uninstallation program as follows:**
   - **To use the uninstallation that has a graphical interface, at the command prompt, type:**
     `./uninstall`
   - **To use the uninstallation that has a command-line interface, at the command prompt, type:**
     `./uninstall -console`

Note – Use the `-javahome` option to provide a path to a JRE installation if the uninstaller is unable to locate it on your machine.

▼ To Run the Uninstallation Program on Windows

Before You Begin Make sure that you have stopped all domains and other related processes, and command prompts using the installation directory or its subdirectories, and any applications using Java SE files bundled with the product.

- **Invoke the Uninstallation program in one of the following ways:**
  - **Under the Sun Microsystems, Application Server program group in the Start Programs area of your desktop, click Uninstall.**
  - **Invoke the uninstall program through the Control Panel:**
    a. **Navigate to the Control Panel.**
    b. **Choose Add/Remove Programs.**
    c. **From the list of installed programs, select Sun Java System Application Server Enterprise Edition.**
    d. **Click Remove.**

Next Steps After uninstallation is complete, carefully examine the installation directory contents and remove the remaining files or directories that you do not require.

Uninstalling SailFin

To uninstall SailFin, perform the following steps:

1. Change to the directory that has the `sailfin` directory.
2. Run the following command: `rm –r sailfin`

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