



Sun OpenSSO Enterprise Policy Agent 3.0 Guide for Sun Java System Web Server 7.0



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

Part No: 820-4579
October 3, 2008

Copyright 2008 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more U.S. patents or pending patent applications in the U.S. and in other countries.

U.S. Government Rights – Commercial software. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

This distribution may include materials developed by third parties.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, the Solaris logo, the Java Coffee Cup logo, docs.sun.com, Java, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and SunTM Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

Products covered by and information contained in this publication are controlled by U.S. Export Control laws and may be subject to the export or import laws in other countries. Nuclear, missile, chemical or biological weapons or nuclear maritime end uses or end users, whether direct or indirect, are strictly prohibited. Export or reexport to countries subject to U.S. embargo or to entities identified on U.S. export exclusion lists, including, but not limited to, the denied persons and specially designated nationals lists is strictly prohibited.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2008 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. Tous droits réservés.

Sun Microsystems, Inc. détient les droits de propriété intellectuelle relatifs à la technologie incorporée dans le produit qui est décrit dans ce document. En particulier, et ce sans limitation, ces droits de propriété intellectuelle peuvent inclure un ou plusieurs brevets américains ou des applications de brevet en attente aux Etats-Unis et dans d'autres pays.

Cette distribution peut comprendre des composants développés par des tierces personnes.

Certains composants de ce produit peuvent être dérivés du logiciel Berkeley BSD, licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays; elle est licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, le logo Solaris, le logo Java Coffee Cup, docs.sun.com, Java et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui, en outre, se conforment aux licences écrites de Sun.

Les produits qui font l'objet de cette publication et les informations qu'il contient sont régis par la législation américaine en matière de contrôle des exportations et peuvent être soumis au droit d'autres pays dans le domaine des exportations et importations. Les utilisations finales, ou utilisateurs finaux, pour des armes nucléaires, des missiles, des armes chimiques ou biologiques ou pour le nucléaire maritime, directement ou indirectement, sont strictement interdites. Les exportations ou réexportations vers des pays sous embargo des Etats-Unis, ou vers des entités figurant sur les listes d'exclusion d'exportation américaines, y compris, mais de manière non exclusive, la liste de personnes qui font objet d'un ordre de ne pas participer, d'une façon directe ou indirecte, aux exportations des produits ou des services qui sont régis par la législation américaine en matière de contrôle des exportations et la liste de ressortissants spécifiquement désignés, sont rigoureusement interdites.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFACON.

Sun OpenSSO Enterprise Policy Agent 3.0 Guide for Sun Java System Web Server 7.0

Last revised October 3, 2008

The Sun Java™ System Web Server 7.0 policy agent is a version 3.0 web agent that functions with Java System OpenSSO Enterprise to protect applications and resources on web servers and web proxy servers deployed on Web Server 7.0.

This agent supports Web Server 7.0, Web Server 7.0 Update 1, and Web Server 7.0 Update 2. A version 2.2 web agent also exists for Web Server 7.0. However, to use the new version 3.0 features described in [“What's New in Version 3.0 Web Agents” on page 4](#), you must deploy the version 3.0 Web Server 7.0 agent.

This guide provides specific information about the Web Server 7.0 agent, including:

- [“What's New in Version 3.0 Web Agents” on page 4](#)
- [“Supported Platforms, Compatibility, and Coexistence for the Web Server 7.0 Agent” on page 5](#)
- [“Pre-Installation Tasks for the Web Server 7.0 Agent” on page 7](#)
- [“Installing the Web Server 7.0 Agent” on page 11](#)
- [“Post-Installation Tasks for the Web Server 7.0 Agent” on page 19](#)
- [“Managing the Web Server 7.0 Agent” on page 22](#)
- [“Uninstalling the Web Server 7.0 Agent” on page 23](#)
- [“Migrating a Version 2.2 Web Server 7.0 Policy Agent” on page 25](#)
- [“Revision History” on page 28](#)

What's New in Version 3.0 Web Agents

Sun is developing version 3.0 web agents in conjunction with OpenSSO Enterprise 8.0. The version 3.0 web agents have the following new features and improvements over the version 2.2 web agents:

- Centralized agent configuration

The centralized agent configuration feature moves most of the agent configuration properties from the `AMAgent.properties` file to the OpenSSO Enterprise centralized data repository.

An agent administrator can then manage the multiple agent configurations from a central server location, using either the OpenSSO Enterprise Administration Console or the `ssoadm` command-line utility.

The centralized agent configuration feature separates the version 3.0 agent configuration data into two sets:

- The properties required for the agent to start up and initialize itself are stored in the `OpenSSOAgentBootstrap.properties` file locally on the server where the agent is installed. For example, the agent profile name and password used to access the OpenSSO Enterprise server are stored in the bootstrap file.
- The rest of the agent properties are stored either centrally in the OpenSSO Enterprise data repository (centralized configuration option) or locally in the `OpenSSOAgentConfiguration.properties` file (local configuration option).

For backward compatibility with Access Manager 7.1 and Access Manager 7 2005Q4, a version 3.0 agent supports the local configuration option. See [“Compatibility With Access Manager 7.1 and Access Manager 7 2005Q4” on page 6](#).

- Agent types

Version 3.0 agents are classified according to type: `J2EEAgent` or `WebAgent`.

- Agent groups

You can assign version 3.0 agents of the same type (`J2EEAgent` or `WebAgent`) to an agent group. All agents in a group then selectively share a common set of configuration properties. Thus, the agent configuration and management is simplified, because an administrator can manage all of the agents within a group as a single entity.

Although all agents in the same group can share the same properties, you might need to define some individual properties for an agent (for example, the notification URL or agent URI properties).

- Hot-swappable agent configuration properties

Version 3.0 web agents have hot-swappable configuration properties. An administrator can change a hot-swappable configuration property value without having to restart the agent's deployment container for the new value to take effect. Properties in `OpenSSOAgentBootstrap.properties` are not hot-swappable.

- One-level wildcard support in URL policy and not enforced URLs

While the regular wildcard support applies to multiple levels in a resource, the one-level wildcard applies to only the level where it appears in a resource.
- Default agent installation option with minimal questions asked during the installation

Default or custom installation:

 - **Default** (`agentadmin -install`): The `agentadmin` program displays a minimal number of prompts and uses default values for the other options. Use the default install option when the default options, as shown in [Table 1](#), meet your deployment requirements.
 - **Custom** (`agentadmin -custom-install`): The `agentadmin` program displays a full set of prompts, similar to the version 2.2 program. Use the custom install option when you want to specify values other than the default options shown in [Table 1](#).
- Option to create the agent profile during installation

The 3.0 agent installer supports an option to create the agent profile in the OpenSSO Enterprise server during the agent installation so you don't have to create the profile manually using the OpenSSO Enterprise Console or CLI.
- Property name changes

Version 3.0 web agent property names have been changed to correspond to J2EE agent property names. The same names are now used for properties that are common to both web and J2EE agents.
- Automated migration support

You can migrate a version 2.2 agent to a version 3.0 agent using the `agentadmin` program with the `-migrate` option.

Supported Platforms, Compatibility, and Coexistence for the Web Server 7.0 Agent

- [“Supported Platforms for the Web Server 7.0 Agent” on page 5](#)
- [“Supported Deployment Containers for the Web Server 7.0 Agent” on page 6](#)
- [“Compatibility With Access Manager 7.1 and Access Manager 7 2005Q4” on page 6](#)
- [“Coexistence With Version 2.2 Policy Agents” on page 6](#)

Supported Platforms for the Web Server 7.0 Agent

The Web Server 7.0 agent is supported on these platforms:

- Solaris OS on SPARC platforms, versions 9 and 10 (32-bit/64-bit)
- Solaris OS on x86 platforms, versions 9 and 10 (32-bit/64-bit)

- Red Hat Enterprise Linux Advanced Server 4.0 and 5.0 (32-bit/64-bit)
- Windows 2003, Enterprise Edition (32-bit/64-bit)
- Windows 2003, Standard Edition (32-bit/64-bit)

Note: Web Server 7.0 runs as a 32-bit application on Windows and Linux systems.

Supported Deployment Containers for the Web Server 7.0 Agent

You can deploy the Web Server 7.0 agent on the following deployment containers. The links are to the Web Server documentation collections.

- Sun Java System Web Server 7.0: <http://docs.sun.com/coll/1308.3>
- Sun Java System Web Server 7.0 Update 1: <http://docs.sun.com/coll/1653.1>
- Sun Java System Web Server 7.0 Update 2: <http://docs.sun.com/coll/1653.2>

Compatibility With Access Manager 7.1 and Access Manager 7 2005Q4

Access Manager 7.1 and Access Manager 7 2005Q4 are compatible with version 3.0 policy agents. However, because Access Manager does not support centralized agent configuration, a version 3.0 agent deployed with Access Manager must store its configuration data locally in the `OpenSSOAgentBootstrap.properties` and `OpenSSOAgentConfiguration.properties` files.

The `com.sun.am.policy.agents.config.repository.location` property in the OpenSSO Enterprise server Agent Service schema (`AgentService.xml` file) specifies where the agent configuration data is stored:

- `local`: Configuration data is stored locally in the `OpenSSOAgentConfiguration.properties` file on the server where the agent is deployed.
- `centralized`: Configuration data is stored remotely in the OpenSSO Enterprise central data repository.

For both configurations, the `OpenSSOAgentBootstrap.properties` file on the server where the agent is deployed contains the information required for the agent to start and initialize itself.

Coexistence With Version 2.2 Policy Agents

OpenSSO Enterprise supports both version 3.0 and version 2.2 agents in the same deployment. The version 2.2 agents, however, must continue to store their configuration data locally in the `AMAgent.properties` file. And because the version 2.2 agent configuration data is local to the

agent, OpenSSO Enterprise centralized agent configuration is not supported for version 2.2 agents. To configure a version 2.2 agent, you must continue to edit the agent's `AMAgent.properties` file.

For documentation about version 2.2 agents, see <http://docs.sun.com/coll/1322.1>.

Pre-Installation Tasks for the Web Server 7.0 Agent

- “Setting Your `JAVA_HOME` Environment Variable” on page 7
- “Downloading and Unzipping the Agent Distribution File” on page 7
- “Creating an Agent Profile” on page 8
- “Creating a Password File” on page 9
- “Creating an Agent Administrator” on page 10

Setting Your `JAVA_HOME` Environment Variable

The agent installation program requires the Java Runtime Environment (JRE) 1.5 or later. Before you install the agent, set your `JAVA_HOME` environment variable to point to the JDK installation directory for the JDK version you are using. If you have not set this variable (or if you set it incorrectly), the program will prompt you for the correct path.

Downloading and Unzipping the Agent Distribution File

▼ To Download and Unzip the Agent Distribution File

- 1 Login into the server where you want to install the agent.
- 2 Create a directory to unzip the agent distribution file.
- 3 Download and unzip the agent distribution file, depending on your platform:
 - Solaris SPARC systems (32-bit): `sjsws_v70_SunOS_sparc_agent_3.zip`
 - Solaris SPARC systems (64-bit): `sjsws_v70_SunOS_sparc_64_agent_3.zip`
 - Solaris x86 systems (32-bit): `sjsws_v70_SunOS_x86_agent_3.zip`
 - Solaris x86 systems (64-bit): `sjsws_v70_SunOS_x86_64_agent_3.zip`
 - Linux systems: `ssjsws_v70_Linux_agent_3.zip`
 - Windows systems: `sjsws_v70_WINNT_agent_3.zip`

These distribution files are available from the OpenSSO project site:

<https://opensso.dev.java.net/public/use/index.html>

The following table shows the layout after you unzip the agent distribution file. *PolicyAgent-base* is where you unzipped the file.

File or Directory	Description
<i>PolicyAgent-base</i> /web_agents/sjsws_agent	
README.txt and license.txt	Readme and license files
/bin	agentadmin and agentadmin.bat programs
/config	Template, properties, and XML files
/data	license.log file. Do not edit this file.
/etc	Empty
/lib	Required library and JAR files
/locale	Required properties files
/logs	Log files

Creating an Agent Profile

A web agent uses an agent profile to communicate with OpenSSO Enterprise server. A version 2.2 web agent could use the default agent profile (UrlAccessAgent). A version 3.0 agent, however, must create an agent profile using any of these methods:

- Use the OpenSSO Enterprise Console, as described in [“Creating an Agent Profile” on page 8](#).
- Use the ssoadm command-line utility with the create-agent subcommand. For more information about the ssoadm command, see the *OpenSSO Enterprise 8.0 Administration Reference*.
- Choose the “Option to create the agent profile in the server during installation” when you run the agentadmin program.

▼ To Create an Agent Profile in the OpenSSO Enterprise Console

- 1 Login into the OpenSSO Enterprise Administration Console as amAdmin.
- 2 Click Access Control, realm-name, Agents, and Web.
- 3 Under Agent, click New.
- 4 In the Name field, enter the name for the new agent profile.

5 Enter and confirm the Password.

Important: This password must be the same password that you enter in the agent profile password file that you specify when you run the `agentadmin` program to install the agent.

6 In the Configuration field, check the location where the agent configuration properties are stored:

- **Local:** In the `OpenSSOAgentConfiguration.properties` file on the server where the agent is installed.
- **Centralized:** In the OpenSSO Enterprise server central configuration data repository.

7 In the Server URL field, enter the OpenSSO Enterprise server URL.

For example: `http://openssohost.example.com:8080/opensso`

8 In the Agent URL field, enter the URL for the agent.

For example: `http://agenthost.example.com:8090/`

9 Click Create.

The console creates the agent profile and displays the `WebAgent` page again with a link to the new agent profile.

To do additional configuration for the agent, click this link to display the `Edit agent` page. For information about the agent configuration fields, see the [Console online Help](#).

If you prefer, you can also use the `ssoadm` command-line utility to edit the agent profile. For more information, see the *OpenSSO Enterprise 8.0 Administration Reference*.

Creating a Password File

A password file is an ASCII text file with only one line specifying the password in clear text. By using a password file, you are not forced to expose a password at the command line during the agent installation. When you install the Web Server 7.0 agent using the `agentadmin` program, you are prompted to specify paths to following password files:

- An **agent profile password file** is required for both the `agentadmin` default and custom installation options.
- An **agent administrator password file** is required only if you use the custom installation option and have the `agentadmin` program automatically create the agent profile in OpenSSO Enterprise server during the installation.

▼ To Create a Password File

1 Create an ASCII text file for the agent profile. For example: `ws7agent.pw`

- 2 If you want the `agentadmin` program to automatically create the agent profile in OpenSSO Enterprise server during the installation, create another password file for the agent administrator. For example: `/tmp/agentadminpw`
- 3 Using a text editor, enter the appropriate password in clear text on the first line in each file.
- 4 Secure each password file appropriately, depending on the requirements for your deployment.

Creating an Agent Administrator

An agent administrator can manage agents in OpenSSO Enterprise, including:

- **Agent management:** Use the agent administrator to manage agents either in the OpenSSO Enterprise Console or by executing the `ssoadm` utility.
- **Agent installation:** If you install the agent using the custom installation option (`agentadmin --custom-install`) and want to have the installation program create the agent profile, specify the agent administrator (and password file) when you are prompted.

▼ To Create an Agent Administrator

- 1 Login to OpenSSO Enterprise Console as `amadmin`.
- 2 Create a new agents administrator group:
 - a. Click Access Control, *realm-name*, Subjects, and then Group.
 - b. Click New.
 - c. In ID, enter the name of the group. For example: `agentadmingroup`
 - d. Click OK.
- 3 Create a new agent administrator user and add the agent administrator user to the agents administrator group:
 - a. Click Access Control, *realm-name*, Subjects, and then User.
 - b. Click New and provide the following values:
 - **ID:** Name of the agent administrator. For example: `agentadminuser`
This is the name you will use to login to the OpenSSO Enterprise Console .
 - **First Name** (optional), **Last Name**, and **Full Name**.

For simplicity, use the same name for each of these values that you specified in the previous step for ID.

- **Password** (and confirmation)
- **User Status:** Active

c. Click OK.

d. Click the new agent administrator name.

e. On the Edit User page, click Group.

f. Add the agents administrator group from Available to Selected.

g. Click Save.

4 Assign read and write access to the agents administrator group:

a. Click Access Control, *realm-name*, Privileges and then on the new agents administrator group link.

b. Check Read and write access to all configured Agents.

c. Click Save.

Next Steps Login into the OpenSSO Enterprise Console as the new agent administrator. The only available top-level tab is Access Control. Under *realm-name*, you will see only the Agents tab and sub tabs.

Installing the Web Server 7.0 Agent

- [“Gathering Information to Install the Web Server 7.0 Agent” on page 11](#)
- [“Installing the Web Server 7.0 Agent Using the agentadmin Program” on page 13](#)
- [“Considering Specific Deployment Scenarios for the Web Server 7.0 Agent” on page 18](#)

Gathering Information to Install the Web Server 7.0 Agent

The following table describes the information you will need to provide when you run the agentadmin program to install Web Server 7.0 agent. For some agentadmin prompts, you can accept the default value displayed by the program, if you prefer.

TABLE 1 Information Required to Install the Web Server 7.0 Agent

Prompt Request	Description
Sun Java System Web Server Config Directory Path	<p>Complete path to the directory used by Web Server to store its configuration files.</p> <p>For example: /opt/sun/webserver7/https-agenthost/config</p>
OpenSSO Enterprise URL	<p>For example: http://openssohost.example.com:8080/opensso</p>
Agent URL	<p>For example: http://agent.example.com:8090</p>
Encryption Key	<p>Key used to encrypt the agent profile password. The encryption key must be at least 7 characters long. You can accept the default key or create a new key using the agentadmin --getEncryptKey command.</p> <p>Applies only to the custom installation option.</p>
Agent Profile Name	<p>A policy agent communicates with OpenSSO Enterprise server using the name and password in the agent profile. For information, see “Creating an Agent Profile” on page 8.</p> <p>For example: WS7Agent</p>
Agent Profile Password File	<p>ASCII text file with only one line specifying the agent profile password. You create the agent profile password file as a pre-installation step. For information, see “Creating a Password File” on page 9.</p>
Option to create the agent profile	<p>To have the installation program create the agent profile, enter true. The program then prompts you for:</p> <ul style="list-style-type: none">■ Agent administrator who can create, update, or delete the agent profile. For example: agentadmin <p>Important: To use this option, the agent administrator must already exist in OpenSSO Enterprise and must have agent administrative privileges. For information see, “Creating an Agent Administrator” on page 10. If you prefer, you can also specify amadmin as this user.</p> <ul style="list-style-type: none">■ Path to the agent administrator password file. For information, see “Creating a Password File” on page 9.

Installing the Web Server 7.0 Agent Using the agentadmin Program

Before you install the Web Server 7.0 agent:

- A OpenSSO Enterprise server instance must be installed.
- The Web Server 7.0 instance must be installed and configured on the server where you plan to install the agent.
- You have downloaded and unzipped the agent distribution file, as described in [“Downloading and Unzipping the Agent Distribution File” on page 7.](#)

▼ To Install the Web Server 7.0 Agent Using the agentadmin Program

1 Login into the server where you want to install the agent.

Important: To install the agent, you must have write permission to the files and directories for the Web Server 7.0 instance.

2 Change to the following directory:

PolicyAgent-base/web_agents/sjsws_agent/bin

3 Stop the Web Server 7.0 instance.

4 Start the agent installation:

```
# ./agentadmin --install
```

On Windows systems, run the agentadmin.bat program.

5 Enter information as requested by the agentadmin program, or accept the default values displayed by the program.

After you have made your choices, the agentadmin program displays a summary of your responses. For example:

```
-----
SUMMARY OF YOUR RESPONSES
-----
```

```
Sun Java System Web Server Config Directory :
/opt/SUNWwbsvr7/https-agenthost/config
Access Manager URL : http://openssohost.example.com:8080/opensso
Agent URL : http://agenthost.example.com:8090
Encryption Key : Cj6ThCocoqGAwy5V4Zsjjd8/cZ7KcZdd
Agent Profile name : WS7Agent
Agent Profile Password file name : /tmp/ws7agentpw
Agent Profile will be created right now by agent installer : true
Agent Administrator : amadmin
```

Agent Administrator's password file name : /tmp/amadminpw

Verify your settings above and decide from the choices below.

1. Continue with Installation
2. Back to the last interaction
3. Start Over
4. Exit

Please make your selection [1]:

6 Verify your choices and either continue with the installation (selection 1, the default), or make any necessary changes.

If you continue, the program installs the agent and displays a summary of the installation. For example:

SUMMARY OF AGENT INSTALLATION

Agent instance name: Agent_001

Agent Bootstrap file location:

/opt/Agents30/web_agents/sjsws_agent/Agent_001/config/OpenSSOAgentBootstrap.properties

Agent Configuration Tag file location

/opt/Agents30/web_agents/sjsws_agent/Agent_001/config/OpenSSOAgentConfiguration.properties

Agent Audit directory location:

/opt/Agents30/web_agents/sjsws_agent/Agent_001/logs/audit

Agent Debug directory location:

/opt/Agents30/web_agents/sjsws_agent/Agent_001/logs/debug

Install log file location:

/opt/Agents30/web_agents/sjsws_agent/installer-logs/audit/custom.log

Thank you for using Sun OpenSSO Enterprise Policy Agent. INSTALL NOTE:

Installer modifies obj.conf file in the config directory you specified. To make agent changes effective do Pull and deploy configuration using Web Server Admin Console or CLI. If there are multiple obj.conf files already present, then manually add agent settings to the required obj.conf files.

UNINSTALL NOTE: Uninstall removes agent settings from obj.conf file in the config directory you specified. If there are multiple obj.conf files configured manually in the same config directory, then please remove them manually. For more information, please refer agent documentation.

All files are under the *PolicyAgent-base/web_agents/sjsws_agent/* directory, where *PolicyAgent-base* is where you unzipped the agent distribution file.

7 After the installation finishes successfully, if you wish, check the installation log file in the following directory:

PolicyAgent-base/web_agents/sjsws_agent/logs/audit

8 Restart the Web Server 7.0 instance that is being protected by the policy agent.

Note – After you install the Web Server 7.0 agent for a specific domain, you cannot use that same agent on the same host for a different domain. To use the Web Server 7.0 agent for another domain on the same host, you must install the agent specifically for that domain.

Example 1 Sample agentadmin --custom-install for the Web Server 7.0 Agent

```
*****
Welcome to the Sun OpenSSO Enterprise Policy Agent for Sun Java System
Web Server.
*****

Enter the complete path to the directory which is used by Sun Java System Web
Server to store its configuration Files. This directory uniquely
identifies the Sun Java System Web Server instance that is secured by this
Agent.
[ ? : Help, ! : Exit ]
Enter the Sun Java System Web Server Config Directory Path
[/var/opt/SUNWwbsvr7/https-agenthost.example.com/config]:
/opt/SUNWwbsvr7/https-agenthost/config

Enter the URL where the Access Manager is running. Please include the
deployment URI also as shown below:
(http://openssohost.sample.com:58080/opensso)
[ ? : Help, < : Back, ! : Exit ]
Access Manager URL: http://openssohost.example.com:8080/opensso

Enter the Agent URL as shown below: (http://agent1.sample.com:1234)
[ ? : Help, < : Back, ! : Exit ]
Agent URL: http://agenthost.example.com:8090

Enter a valid Encryption Key.
[ ? : Help, < : Back, ! : Exit ]
Enter the Encryption Key [Cj6ThCocoqGAwy5V4Zsjd8/cZ7KcZdd]:

Enter the Agent profile name
[ ? : Help, < : Back, ! : Exit ]
Enter the Agent Profile name: WS7Agent

Enter the path to a file that contains the password to be used for identifying
the Agent.
[ ? : Help, < : Back, ! : Exit ]
Enter the path to the password file: /tmp/ws7agentpw

WARNING:
Agent profile/User: WS7Agent does not exist in OpenSSO
Either "Hit the Back button, and re-enter the correct agent profile
```

name/user name", or "Create this agent profile when asked(available only in custom-install)", or "Continue without validating it because agent profile is in sub realm", or "Continue without validating/creating it, and manually validate/create it in OpenSSO Enterprise after installation".

Enter true if the Agent Profile is being created into OpenSSO by the installer. Enter false if it will be not be created by installer.

[? : Help, < : Back, ! : Exit]

This Agent Profile does not exist in OpenSSO Enterprise, will it be created by the installer? (Agent Administrator's name and password are required) [true]:

Agent Administrator is the Administrator user that can create, delete or update agent profile.

[? : Help, < : Back, ! : Exit]

Enter the Agent Administrator's name: amadmin

Enter the path to a file that contains the password of Agent Administrator

[? : Help, < : Back, ! : Exit]

Enter the path to the password file that contains the password of Agent Administrator: /tmp/amadminpw

SUMMARY OF YOUR RESPONSES

Sun Java System Web Server Config Directory :
/opt/SUNWwbsvr7/https-agenthost/config
Access Manager URL : http://openssohost.example.com:8080/opensso
Agent URL : http://agenthost.example.com:8090
Encryption Key : Cj6ThCocoqGAwy5V4Zsjjd8/cZ7KcZdd
Agent Profile name : WS7Agent
Agent Profile Password file name : /tmp/ws7agentpw
Agent Profile will be created right now by agent installer : true
Agent Administrator : amadmin
Agent Administrator's password file name : /tmp/amadminpw

Verify your settings above and decide from the choices below.

1. Continue with Installation
2. Back to the last interaction
3. Start Over
4. Exit

Please make your selection [1]:

Creating directory layout and configuring Agent file for Agent_001 instance ...DONE.

Reading data from file /tmp/ws7agentpw and encrypting it ...DONE.

Generating audit log file name ...DONE.

Creating tag swapped OpenSSOAgentBootstrap.properties file for instance Agent_001 ...DONE.

Creating the Agent Profile WS7Agent ...DONE.

Creating a backup for file
/opt/SUNWwbsvr7/https-agenthost/config/obj.conf ...DONE.

Creating a backup for file
/opt/SUNWwbsvr7/https-agenthost/config/magnus.conf ...DONE.

Adding Agent parameters to
/opt/SUNWwbsvr7/https-agenthost/config/magnus.conf file ...DONE.

Adding Agent parameters to
/opt/SUNWwbsvr7/https-agenthost/config/obj.conf file ...DONE.

SUMMARY OF AGENT INSTALLATION

Agent instance name: Agent_001
Agent Bootstrap file location:
/opt/Agents30/web_agents/sjsws_agent/Agent_001/config/OpenSSOAgentBootstrap.properties
Agent Configuration Tag file location
/opt/Agents30/web_agents/sjsws_agent/Agent_001/config/OpenSSOAgentConfiguration.properties
Agent Audit directory location:
/opt/Agents30/web_agents/sjsws_agent/Agent_001/logs/audit
Agent Debug directory location:
/opt/Agents30/web_agents/sjsws_agent/Agent_001/logs/debug

Install log file location:
/opt/Agents30/web_agents/sjsws_agent/installer-logs/audit/custom.log

Thank you for using Sun OpenSSO Enterprise Policy Agent. **INSTALL NOTE:**
Installer modifies obj.conf file in the config directory you specified. To make agent changes effective do Pull and deploy configuration using Web Server Admin Console or CLI. If there are multiple obj.conf files already present, then manually add agent settings to the required obj.conf files.
UNINSTALL NOTE: Uninstall removes agent settings from obj.conf file in the config directory you specified. If there are multiple obj.conf files configured manually in the same config directory, then please remove them manually. For more information, please refer agent documentation.

After You Finish the Install

Agent Instance Directory: The installation program creates the following directory for each Web Server 7.0 agent instance:

PolicyAgent-base/web_agents/sjsws_agent/Agent_nnn

where:

- *PolicyAgent-base* is where you unzipped the agent distribution file.
- *nnn* identifies the agent instance as Agent_001, Agent_002, and so on for each additional agent instance.

Each agent instance directory contains the following subdirectories:

- */config* contains the configuration files for the agent instance, including *OpenSSOAgentBootstrap.properties* and *OpenSSOAgentConfiguration.properties*.
- */logs* contains the following subdirectories
 - */audit* contains local audit trail for the agent instance.
 - */debug* contains the debug files for the agent instance when the agent runs in debug mode.

Considering Specific Deployment Scenarios for the Web Server 7.0 Agent

- [“Installing the Web Server 7.0 Agent on Multiple Web Server 7.0 Instances” on page 18](#)
- [“Installing Web Server 7.0 Agent on the OpenSSO Enterprise Host Server” on page 18](#)

Installing the Web Server 7.0 Agent on Multiple Web Server 7.0 Instances

After you install the Web Server 7.0 agent for a specific Web Server 7.0 instance, you can install the agent on another Web Server 7.0 instance by executing the *agentadmin* program again for that instance.

Installing Web Server 7.0 Agent on the OpenSSO Enterprise Host Server

Installing the Web Server 7.0 agent on the OpenSSO Enterprise host server is not recommended in a production deployment because performance can be degraded.

However, if you do install the agent on the OpenSSO Enterprise host server on the same Web Server 7.0 instance, add the URLs related to OpenSSO Enterprise to the not enforced URL list. If you are installing the agent on a different Web Server 7.0 instance, configuration of the not enforced URL list is not required.

▼ To Configure the Not Enforced URL List

- 1 Login into the Administration Console as `amAdmin`.
- 2 Under Access Control, *realm-name*, Agents, and Web, click the name of the agent you want to configure.
The Console displays the Edit page for the agent.
- 3 Under Non Enforcement, add the URLs related to OpenSSO Enterprise to the Not Enforced URL List.
- 4 Click Save.

Post-Installation Tasks for the Web Server 7.0 Agent

Changing the Password for an Agent Profile

After you install the agent, you can change the agent profile password, if required for your deployment.

▼ To Change the Password for an Agent Profile

- 1 On the OpenSSO Enterprise server:
 - a. Login into the Administration Console as `amAdmin`.
 - b. Under Access Control, *realm-name*, Agents, and Web, click the name of the agent you want to configure.
The Console displays the Edit page for the agent profile.
 - c. Enter and confirm the new unencrypted password.
 - d. Click Save.
- 2 On the server where the Web Server 7.0 agent is installed:
 - a. In the agent profile password file, replace the old password with the new unencrypted password.
 - b. Change to the `PolicyAgent-base/web_agents/sjsws_agent/bin` directory.
PolicyAgent-base is where you unzipped the agent distribution file.

c. Encrypt the new password using the `agentadmin` program. For example:

```
#./agentadmin --encrypt Agent_002 /tmp/ws7agentpw
```

Agent_002 is the agent instance whose password you want to encrypt.

passwd is the password file in the /tmp directory.

The agentadmin program returns the new encrypted password. For example:

The encrypted value is: /54GwN432q+MEnfh/AHLMA==

d. In the `agent-instance/config/OpenSSOAgentBootstrap.properties` file, set the following property to the new encrypted password from the previous step. For example:

```
com.sun.am.policy.am.password=/54GwN432q+MEnfh/AHLMA==
```

e. Restart the Web Server 7.0 instance that is being protected by the policy agent.

Using SSL With the Web Server 7.0 Agent

During the agent installation, if you specify the HTTPS protocol, the Web Server 7.0 agent is automatically configured and ready to communicate over Secure Sockets Layer (SSL). Before continuing with the tasks in this section, ensure that the Web Server 7.0 instance is configured for SSL. For information, see <http://docs.sun.com/doc/820-2202/gbthq?a=view>.

The SSL related tasks in this section include:

- “To Install the OpenSSO Enterprise Root CA Certificate on a Remote Web Server 7.0 Instance” on page 20
- “To Configure Notifications For the Web Server 7.0 Agent” on page 20
- “To Disable the Trust Behavior of the Web Server 7.0 Agent” on page 21

▼ To Install the OpenSSO Enterprise Root CA Certificate on a Remote Web Server 7.0 Instance

- The root CA certificate that you install on the remote Web Server 7.0 instance must be the same certificate that is installed on the OpenSSO Enterprise server.

To install the OpenSSO Enterprise root CA certificate on Web Server 7.0, see the Web Server 7.0 documentation: [http://docs.sun.com/doc/820-2202/gbrtm?l=ru\[amp\]a;=view](http://docs.sun.com/doc/820-2202/gbrtm?l=ru[amp]a;=view)

▼ To Configure Notifications For the Web Server 7.0 Agent

- 1 Add the Web Server 7.0 root CA certificate to the OpenSSO Enterprise certificate database.
- 2 Mark the root CA certificate as trusted to enable OpenSSO Enterprise to successfully send notifications to the Web Server 7.0 agent.

▼ To Disable the Trust Behavior of the Web Server 7.0 Agent

By default, an agent installed on a remote Web Server 7.0 instance trusts any server certificate presented over SSL by the OpenSSO Enterprise host. The web agent does not check the root CA certificate. If the OpenSSO Enterprise host is SSL-enabled and you want the Web Server 7.0 agent to perform certificate checking, you can disable this behavior.

- **In the Web Server 7.0 agent's `OpenSSOAgentBootstrap.properties` file, set the following properties, depending on the requirements for your deployment.**

Note: These properties have new names for version 3.0 web agents.

- Disable the option to trust server certificate sent over SSL by the OpenSSO Enterprise host:
`com.sun.identity.agents.config.trust.server.certs = false`
- Set the certificate database directory. For example:
`com.sun.identity.agents.config.sslcert.dir = /var/opt/SUNWwbsvr7/https-agent-host.example.com/config`
- If the certificate database directory has multiple certificate databases, set the following property to the prefix of the database you want to use. For example:
`com.sun.identity.agents.config.certdb.prefix = https-agent-host.example.com.host-`
- Set the certificate database password:
`com.sun.identity.agents.config.certdb.password = password`
- Set the certificate database alias:
`com.sun.identity.agents.config.certificate.alias = alias-name`

Preserving POST Data For Web Server 7.0

Only the Web Server 7.0 agent supports POST data preservation. Other web agents do not support this feature. POST data is submitted to Web Server 7.0 through HTML forms before users log into OpenSSO Enterprise. An HTML page containing the HTML form should be in the not enforced list. By default, POST data preservation is disabled.

▼ To Enable POST Data Preservation for the Web Server 7.0 Agent

- 1 **Login to the OpenSSO Enterprise Console as `amadmin`.**
- 2 **Under Access Control, *realm-name*, Agents, and Web, click the name of the agent you want to configure.**
- 3 **Click Advanced, and then Post Processing.**

4 On the Edit agent page:

- a. For POST Data Preservation, **check** Enabled.
- b. For POST Data Entries Cache Period, **specify a value in minutes, if you want a value other than the default value of 10.**
This value determines the time in minutes that POST data is valid in the Web Server 7.0 cache.
- c. **Click Save.**

Both values are hot-swappable, which means you don't have to restart Web Server 7.0 after you set them.

Managing the Web Server 7.0 Agent

OpenSSO Enterprise stores version 3.0 policy agent configuration data (as well as server configuration data) in a centralized data repository. You manage this configuration data using these options:

- OpenSSO Enterprise Administration Console

You can manage both version 3.0 J2EE and web agents from the OpenSSO Enterprise Console. Tasks that you can perform include creating, deleting, updating, listing, and displaying agent configurations. Using the Console, you can set properties for an agent that you previously set by editing the agent's `AMAgent.properties` file.

For more information, refer to the Administration Console online Help.

- `ssoadm` command-line utility

The `ssoadm` utility is available on the OpenSSO Enterprise server after you install the tools and utilities in the `openssoAdminTools.zip` file. The `ssoadm` utility includes subcommands to manage policy agents, including:

- Creating, deleting, updating, listing, and displaying agent configurations
- Creating deleting, listing, and displaying agent groups
- Adding and removing an agent to and from a group

For information about the `ssoadm` utility, including the syntax for each subcommand, see the *OpenSSO Enterprise 8.0 Administration Reference*.

Managing a Version 3.0 Agent With a Local Configuration

In some scenarios, you might need to deploy a version 3.0 agent using a local configuration. For example, you are deploying the agent with Access Manager 7.1 or Access Manager 7 2005Q4, which do not support centralized agent configuration.

The following property in the OpenSSO Enterprise server Agent Service schema (AgentService.xml file) indicates that the configuration is local:

```
com.sun.identity.agents.config.repository.location=local
```

In this scenario, you must manage the version 3.0 agent by editing properties in the agent's local OpenSSOAgentConfiguration.properties file (in the same manner that you edit the AMAgent.properties file for version 2.2 agents).



Caution – A version 3.0 agent also stores configuration information in the local OpenSSOAgentBootstrap.properties file. The agent uses information in the bootstrap file to start and initialize itself and to communicate with OpenSSO Enterprise server. In most cases, you won't need to edit the bootstrap file; however, if you do edit the file, be very careful, or the agent might not function properly.

Uninstalling the Web Server 7.0 Agent

- [“Preparing to Uninstall the Web Server 7.0 Agent” on page 23](#)
- [“Uninstalling the Web Server 7.0 Agent Using the agentadmin Program” on page 24](#)

Preparing to Uninstall the Web Server 7.0 Agent

▼ To Prepare to Uninstall Web Server 7.0 Agent

- 1 Undeploy any applications protected by the Web Server 7.0 agent.
- 2 Stop the Web Server 7.0 instance, if it is running.

Uninstalling the Web Server 7.0 Agent Using the agentadmin Program

▼ To Uninstall the Web Server 7.0 Agent

1 Change to the following directory:

PolicyAgent-base/web_agents/sjsws_agent/bin

where *PolicyAgent-base* is where you unzipped the agent distribution file.

2 Issue one of the following commands:

```
# ./agentadmin --uninstall
```

or

```
# ./agentadmin --uninstallAll
```

The `--uninstall` removes only one instance of the agent, while the `--uninstallAll` option prompts you to remove all configured instances of the agent.

3 The `uninstall` program prompts you for the Web Server configuration directory path.

Default: `/var/opt/SUNWwbsvr7/https-agenthostname/config`

4 The `uninstall` program displays the path and then asks if you want to continue:

To continue with the uninstallation, select 1 (the default).

Example 2 Uninstallation Sample for the Web Server 7.0 Agent

```
*****
Welcome to the OpenSSO Enterprise Policy Agent for Sun Java System Web Server If
the Policy Agent is used with Federation Manager services, User needs to
enter information relevant to Federation Manager.
```

```
*****
Enter the complete path to the directory which is used by Sun Java
System Web Server to store its configuration Files. This directory
uniquely identifies the Sun Java System Web Server instance that is
secured by this Agent.
```

```
[ ? : Help, ! : Exit ]
```

```
Enter the Sun Java System Web Server Config Directory Path
[/var/opt/SUNWwbsvr7/https-agenthost/config]:
```

```
-----
SUMMARY OF YOUR RESPONSES
```

```
-----
Sun Java System Web Server Config Directory :
```



```
/var/opt/SUNWwbsvr7/https-agenthost/config
```

Verify your settings above and decide from the choices below.

1. Continue with Uninstallation
2. Back to the last interaction
3. Start Over
4. Exit

Please make your selection [1]:

After You Finish the Uninstall

- The /config directory is removed from the agent instance directory, but the /logs directory still exists.
- The uninstall program creates an uninstall log file in the *PolicyAgent-base/web_agents/sjsws_agent/logs/audit* directory.
- The agent instance directory is not automatically removed. For example, if you uninstall the agent for Agent_001, a subsequent agent installation creates the Agent_002 instance directory. To remove an agent instance directory, you must manually remove the directory.

Migrating a Version 2.2 Web Server 7.0 Policy Agent

The version 3.0 agentadmin program includes the new `--migrate` option to migrate a version 2.2 agent to version 3.0. After you migrate a version 2.2 agent, the agent can use the new features, described in [“What’s New in Version 3.0 Web Agents” on page 4](#).

The migration process migrates the agent's binary files, updates the agent's deployment container configuration, and converts the agent's `AMAgent.properties` file to the new version 3.0 `OpenSSOAgentBootstrap.properties` and `OpenSSOAgentConfiguration.properties` files.

Migrating a version 2.2 agent involves these general steps:

1. On the server where the version 2.2 agent is installed, run the version 3.0 agentadmin program with the `--migrate` option.

To get the version 3.0 agentadmin program, you must download the version 3.0 agent that corresponds to the version 2.2 agent you are migrating. For example, if you are migrating the version 2.2 Web Server 7.0 agent, download the version 3.0 Web Server 7.0 agent.

2. On the OpenSSO Enterprise server, run the `ssoadm` utility to create the new version 3.0 agent configuration in the centralized agent configuration repository.

Therefore, the `ssoadm` utility must be installed from the `openssoAdminTools.zip` file on the OpenSSO Enterprise server. For information, see “Installing the OpenSSO Enterprise Utilities and Scripts” in the *Sun OpenSSO Enterprise 8.0 Installation and Configuration Guide*.

The `agentadmin` program creates a new deployment directory for the migrated agent, starting with `Agent_001`. The program does not modify the version 2.2 agent deployment directory files, in case you need these files after you migrate.

The following procedure, the migrated version 3.0 agent instance uses a new agent profile name, which is `WS7v3Agent` in the examples. The old version 2.2 and new version 3.0 agent profile passwords are the same. If you need to change the password for the new version 3.0 agent profile, see “[Changing the Password for an Agent Profile](#)” on page 19.

▼ To Migrate a Version 2.2 Agent:

1 Login to the server where the version 2.2 agent is installed.

To migrate the agent, you must have write permission to the version 2.2 agent's deployment container files and directories.

2 Stop the Web Server 7.0 instance for the version 2.2 agent.

3 Create a directory to download and unzip the version 3.0 agent. For example: `v30agent`

4 Download and unzip the version 3.0 agent that corresponds to the version 2.2 agent you are migrating.

The version 3.0 agents are available from the OpenSSO project site:
<https://opensso.dev.java.net/public/use/index.html>

5 Change to the version 3.0 agent's `/bin` directory.

For example, if you downloaded and unzipped the version 3.0 Web Server 7.0 agent in the `v30agent` directory:

```
cd /v30agent/web_agents/sjsws_agent/bin
```

6 Run the version 3.0 `agentadmin` program with the `--migrate` option. For example:

```
./agentadmin --migrate
```

7 When the `agentadmin` program prompts you, enter the path to the version 2.2 agent's deployment directory. For example:

```
...
Enter the migrated agent's deployment directory:
/opt/web_agents/sjsws_agent
...
```

In this example, `/opt` is the directory where you downloaded and unzipped the version 2.2 agent.

The `agentadmin` program migrates the version 2.2 agent.

8 After the agentadmin program finishes, set the following properties:**a. In Agent_nnn/config/OpenSSOAgentBootstrap.properties, change:**

`com.sun.identity.agents.config.username = new-v3.0-agent-profile-name`

For example:

`com.sun.identity.agents.config.username = WS7v3Agent`

9 Copy the Agent_nnn/config/OpenSSOAgentConfiguration.properties file to the /bin directory where ssoadm is installed on the OpenSSO Enterprise server.**10 In OpenSSOAgentConfiguration.properties, add the un-encrypted version 2.2 agent profile password at the end of the file, as follows:**

`userpassword=v2.2-agent-profile-password`

11 On OpenSSO Enterprise server, create a password file for the OpenSSO Enterprise administrator (amadmin).

This password file is an ASCII text file with only one line specifying the amadmin password in plain text. For example: /tmp/amadminpw

12 On OpenSSO Enterprise server, run ssoadm to create a new agent configuration in the OpenSSO Enterprise centralized agent configuration repository. For example:

```
cd tools_zip_root/opensso/bin
./ssoadm create-agent -b WS7v3Agent -t WebAgent -u amadmin
-f /tmp/amadminpw -D ./OpenSSOAgentConfiguration.properties
```

In this example:

- tools_zip_root is the directory where you unzipped openssoAdminTools.zip.
- WS7v3Agent is the version 3.0 agent configuration name.
- WebAgent is the agent type for J2EE agents.
- /tmp/amadminpw is the path to the amadmin password file.

Caution: After you run ssoadm, you might want to delete OpenSSOAgentConfiguration.properties from the /bin directory. This file contains sensitive information, including as the agent profile password, and the original file is maintained on the server where the agent is installed.

13 Restart the Web Server 7.0 instance for the migrated agent.

Next Steps After you migrate the agent, you can manage the new 3.0 agent configuration using the OpenSSO Enterprise Administration Console or the ssoadm utility, as described in [“Managing the Web Server 7.0 Agent”](#) on page 22.

Third-Party Web Site References

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

Note – Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

Revision History

Part Number	Date	Description
820-4579	October 3, 2008	In-progress RR review draft
820-4579-05	July 15, 2008	Early Access (EA) release draft

Sun Welcomes Your Comments

Sun is interested in improving its documentation and welcomes your comments and suggestions. To share your comments, go to <http://docs.sun.com/> and click Feedback. In the online form, provide the full document title and part number. The part number is a 7-digit or 9-digit number that can be found on the title page or in the document's URL. For example, the title of this guide is *Sun OpenSSO Enterprise Policy Agent 3.0 Guide for Sun Java System Web Server 7.0*, and the part number is 820-4579.