CA SiteMinder®

Web Agent Installation Guide for Domino

r12.5

2nd Edition

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CA Technologies Product References

This document references the following CA Technologies products:

- CA SiteMinder®
- CA CA Identity Manager
- CA SOA Security Manager

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Documentation Changes

The following documentation updates have been made since the last release of this documentation:

- How to Prepare for a Web Agent Installation on Domino Servers (see page 10)—Removed reference to Visual C++ library prerequisite. Installation program now checks for and installs this library if needed. Resolves CQ171379.

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Chapter 1: Preparation

This section contains the following topics:

Only Domino Server Procedures in this Guide (see page 7)
Hardware Requirements for SiteMinder Agents (see page 8)
Preparation Roadmap for Domino Servers (see page 9)
How to Prepare for a Web Agent Installation on Domino Servers (see page 10)

Only Domino Server Procedures in this Guide

This guide only contains procedures for installing or configuring SiteMinder agents on Domino servers.

To install or configure a SiteMinder agent on any other type of web server or operating environment, see one of the following guides:

- *Web Agent Installation Guide for Apache-based servers*.
- *Web Agent Installation Guide for IIS*.
- *Web Agent Installation Guide for Oracle iPlanet*.

Hardware Requirements for SiteMinder Agents

Computers hosting SiteMinder agents require the following hardware:

Windows operating environment requirements

SiteMinder agents operating on Windows operating environments require the following hardware:

- CPU: x86 or x64
- Memory: 2-GB system RAM.
- Available disk space:
  - 2-GB free disk space in the installation location.
  - .5-GB free disk space in the temporary location.

UNIX operating environment requirements

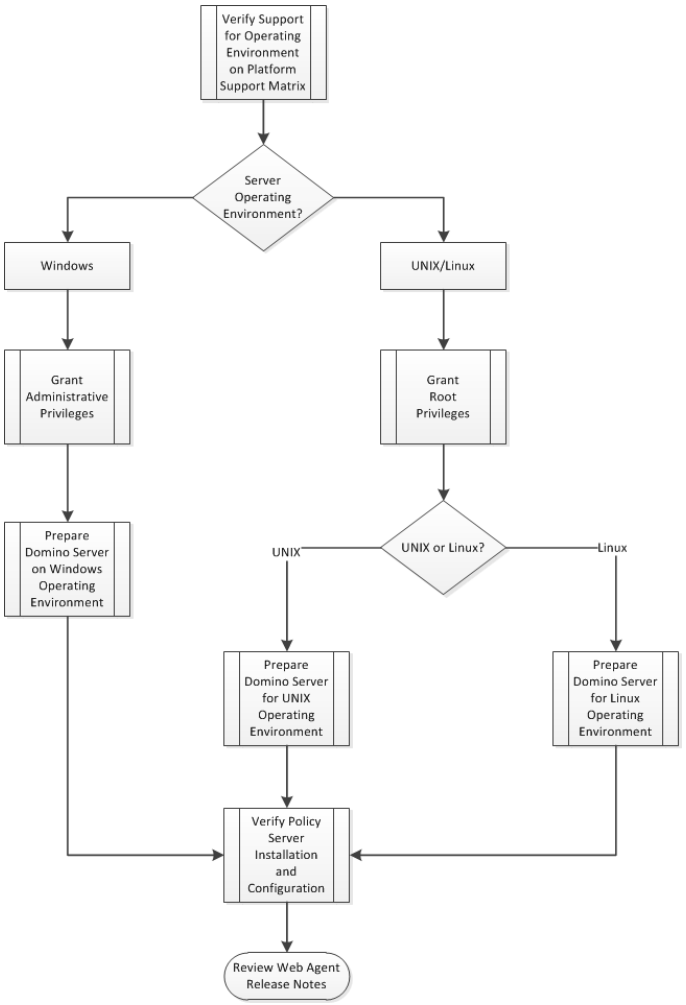
SiteMinder agents operating on UNIX operating environments require the following hardware:

- CPU:
  - Solaris operating environment: SPARC
  - Red Hat operating environment: x86 or x64
- Memory: 2-GB system RAM.
- Available disk space:
  - 2-GB free disk space in the installation location.
  - .5-GB free disk space in /temp.

  Note: Daily operation of the agent requires 10 MB of free disk space in /tmp. The agent creates files and named pipes under /tmp. The path to which these files and pipes are created cannot be changed.

Preparation Roadmap for Domino Servers

The following illustration describes how to prepare your web server before you install a SiteMinder agent:



How to Prepare for a Web Agent Installation on Domino Servers

To prepare for a SiteMinder agent installation on a Domino server, use the following process:

1. Locate the Platform Support Matrix. Verify that your web server supports the version of the SiteMinder agent that you want to install.
2. Verify that you have an account with one of the following types of privileges for your web server:
   - Administrative privileges (for the Windows operating environment)
   - Root privileges (for the UNIX or Linux operating environments)
3. Configure the appropriate additional that a SiteMinder Agent requires by using *one* of the following lists:
   - Domino server preparations for UNIX operating environments.
   - Domino server preparations for Linux operating environments.
4. Verify that the Policy Server is installed and configured.
5. Review the known issues section of the Web Agent Release Notes.

Locate the Platform Support Matrix

Use the Platform Support Matrix to verify that the operating environment and other required third-party components are supported.

Follow these steps:

1. Log in to the CA Support site.
2. Locate the Technical Support section.
3. Enter SiteMinder in the Product Finder field.

   The SiteMinder product page appears.
4. Click Product Status, SiteMinder Family of Products Platform Support Matrices.

Note: You can download the latest JDK and JRE versions at the Oracle Developer Network.

Domino Server Preparations for UNIX Operating Environments

Domino servers running on UNIX operating environments require the following preparations before installing a SiteMinder agent:

1. Set the display variable (see page 11).
2. Verify that the appropriate Solaris patches (see page 11) have been installed for your operating environment.

Set the DISPLAY For SiteMinder Agent Installations on UNIX

If you are installing the SiteMinder Agent on a UNIX system from a remote terminal, such as a Telnet or Exceed terminal, be sure the DISPLAY variable is set for the local system. For example, if your machine is 111.11.1.12, set the variable as follows:

```
DISPLAY=111.11.1.12:0.0
export DISPLAY
```

Note: You can also install the agent using the console mode installation, which does not require the X window display mode.

Required Solaris Patches

Before installing a SiteMinder Agent on a Solaris computer, install the following patches:

Solaris 9

Requires patch 111711-16.

Solaris 10

Requires patch 119963-08.

You can verify installed patch versions by logging in as the root user and executing the following command:

```
showrev -p | grep patch_id
```

To locate Solaris patches, go to the Oracle Solution Center.

Domino Server Preparations for Linux Operating Environments

Domino servers running on Linux operating environments require the following preparations before installing a SiteMinder agent:

1. Verify that the required patches are installed (see page 12).
2. Verify that the required libraries are installed (see page 12).

Required Linux Patches

The following Linux patches are required:

For Web Agents running on 64-bit Linux systems

- Binutils 2.17
- GCC 4.1.0

Required Linux Libraries

Certain library files are required for components operating on Linux operating environments. Failure to install the correct libraries can cause the following error:

```
java.lang.UnsatisfiedLinkError
```

If you are installing, configuring, or upgrading a Linux version of this component, the following libraries are required on the host system:

Red Hat 5.x

compat–gcc-34-c++-3.4.6-*patch_version*.I386

Red Hat 6.x (32-bit)

libstdc++-4.4.6-3.el6.i686.rpm

To have the appropriate 32-bit C run–time library for your operating environment, install the previous rpm.

Red Hat 6.x (64-bit)

libXau-1.0.5-1.el6.i686.rpm

libxcb-1.5-1.el6.i686.rpm

libstdc++-4.4.6-4.el6.i686.rpm

compat-db42-4.2.52-15.el6.i686.rpm

compat-db43-4.3.29-15.el6.i686.rpm

libX11-1.3-2.el6.i686.rpm

libXrender-0.9.5-1.el6.i686.rpm

libexpat.so.1 (provided by expat-2.0.1-11.el6_2.i686.rpm)

libfreetype.so.6 (provided by freetype-2.3.11-6.el6_2.9.i686.rpm)

libfontconfig.so.1 (provided by fontconfig-2.8.0-3.el6.i686.rpm)

libICE-1.0.6-1.el6.i686.rpm

libuuid-2.17.2-12.7.el6.i686.rpm

libSM-1.1.0-7.1.el6.i686.rpm

libXext-1.1-3.el6.i686.rpm

compat-libstdc++-33-3.2.3-69.el6.i686.rpm

compat-db-4.6.21-15.el6.i686.rpm

libXi-1.3-3.el6.i686.rpm

libXtst-1.0.99.2-3.el6.i686.rpm

libXft-2.1.13-4.1.el6.i686.rpm

libXt-1.0.7-1.el6.i686.rpm

libXp-1.0.0-15.1.el6.i686.rpm

Policy Server Requirements

Verify that your Policy Server meets the following requirements:

- Installed and configured.
- Able to communicate with the computer on which you plan to install the agent.

Note: For more information, see the Policy Server documentation.

To install and configure a SiteMinder agent, a Policy Server requires at least the following items:

- A SiteMinder administrator that has the right to register trusted hosts.

  A trusted host is a client computer where one or more SiteMinder Agents are installed and registered with the Policy Server. The SiteMinder administrator must have permissions to register trusted hosts with the Policy Server. Registering a trusted host creates a unique trusted host name object on the Policy Server.

- Agent identity

  An Agent identity establishes a mapping between the Policy Server and the name or IP address of the web server instance hosting an Agent. You define an Agent identity from the Agents object in the Administrative UI. You assign it a name and specify the Agent type as a Web Agent.

- Host Configuration Object (HCO)

  The host configuration object on the Policy Server defines the communication between the agent and the Policy Server after an initial connection. Initial connections use the parameters in the SmHost.conf file.

- Agent Configuration Object (ACO)

  This object includes the parameters that define the agent configuration. All SiteMinder agents require at least one of the following configuration parameters defined in the ACO:

  AgentName

  Defines the identity of the web agent. This identity links the name and the IP address or FQDN of each web server instance hosting an Agent.

  The value of the DefaultAgentName is used instead of the AgentName parameter if any of the following events occur:

  - The AgentName parameter is disabled.
  - The value of AgentName parameter is empty.
  - The values of the AgentName parameter do *not* match any existing agent object.

  Note: This parameter can have more than one value. Use the multivalue option when setting this parameter in an Agent Configuration Object. For local configuration files, add each value to a separate line in the file.

  Default: No default

  Limit: Multiple values are allowed, but each AgentName parameter has a 4,000 character limit. Create additional AgentName parameters as needed by adding a character to the parameter name. For example, AgentName, AgentName1, AgentName2.

  Limits: Must contain 7-bit ASCII characters in the range of 32-127, and include one or more printable characters. Cannot contain the ampersand (&) and asterisk (*) characters. The value is not case-sensitive. For example, the names MyAgent and myagent are treated the same.

  Example: myagent1,192.168.0.0 (IPV4)

  Example: myagent2, 2001:DB8::/32 (IPV6)

  Example: myagent,www.example.com

  Example (multiple AgentName parameters): AgentName1, AgentName2, AgentName3. The value of each AgentName*number* parameter is limited to 4,000 characters.

DefaultAgentName

Defines a name that the agent uses to process requests. The value for DefaultAgentName is used for requests on an IP address or interface when no agent name value exists in the AgentName parameter.

If you are using virtual servers, you can set up your SiteMinder environment quickly by using a DefaultAgentName. Using DefaultAgentName means that you do not need to define a separate agent for each virtual server.

Important! If you do not specify a value for the DefaultAgentName parameter, then the value of the AgentName parameter requires every agent identity in its list. Otherwise, the Policy Server cannot tie policies to the agent.

Default: No default.

Limit: Multiple values are allowed.

Limits: Must contain 7-bit ASCII characters in the range of 32-127, and include one or more printable characters. Cannot contain the ampersand (&) and asterisk (*) characters. The value is not case-sensitive. For example, the names MyAgent and myagent are treated the same.

SiteMinder Agents for Domino also require values for the following parameters:

DominoDefaultUser

Specifies the name by which the Domino Web Agent identifies the users that SiteMinder has previously authenticated against another directory to the Domino server.

Important! This parameter must be encrypted if it is stored in a local configuration file. Use the encryptkey tool to encrypt this parameter. Do not change it by editing the local configuration file directly.

Default: No default

DominoSuperUser

Identifies a user who has access to all resources on the Domino server. Helps ensure that all users successfully logged in to SiteMinder are also logged in to the Domino server as the Domino SuperUser.

This value can be encrypted.

This parameter affects the following parameters:

- SkipDominoAuth

Default: No default

Chapter 2: Install and Configure an Agent for Domino on Windows

This section contains the following topics:

Agent Installation Compared to Agent Configuration (see page 17)
How to Install and Configure an Agent for Domino on Windows (see page 18)

Agent Installation Compared to Agent Configuration

The concepts of installation and configuration have specific meanings when used to describe SiteMinder agents.

Installation means installing the SiteMinder agent software on a computer system. For example, installing an agent creates directories and copies the SiteMinder agent software and other settings to the computer.

Configuration occurs after installation and means the act of preparing the SiteMinder agent software for a specific web server on a computer. This preparation includes registering the agent with SiteMinder Policy Servers, and creating a runtime server instance for the web server that is installed on the computer.

Use the wizard-based installation and configuration programs to install and configure your agent on your first web server. The wizard-based programs create a .properties file.

Use the .properties file and the respective executable file to install or configure the agent silently on additional web servers.

How to Install and Configure an Agent for Domino on Windows

Installing and configuring the SiteMinder Agent for Domino involves several separate procedures. To install and configure the Agent for Domino, use the following process:

1. Gather the information for the installation program (see page 18).
2. Run the wizard based installation program (see page 19).
3. Gather the information that the configuration that the program requires (see page 19).
4. Add the Domino Agent DLL file (see page 23).
5. Run the configuration program (see page 24).
6. (Optional) Install and configure the Agent for Domino on additional Domino servers silently (see page 25).
7. (Optional) Perform any of the following procedures:
   - Configure the CGI Directory and CGI URL path settings (see page 26).
   - Configure alias settings to enable HTML forms authentication (see page 26).

Gather the Information for the Installation Program

Gather the following information about your web server before running the installation program for the SiteMinder agent:

Installation Directory

Specifies the location of the SiteMinder agent binary files on your web server. The *web_agent_home* variable is set to this location.

Limit: SiteMinder requires the name "webagent" for the bottom directory in the path.

Run the Installation Program on Windows

The installation program for the SiteMinder agent installs the agent on one computer at a time using the Windows operating environment. This installation program can be run in wizard or console modes. The wizard and console-based installation programs also create a .properties file for subsequent installations and configurations using the unattended or silent method with the same settings.

For example, suppose the Agents in your environment use the same web server version, installation directory, Agent Configuration Object and Policy Servers. Use the installation wizard or console-based installation program for your first installation. Afterwards, you could create your own script to run the installation program with the .properties file the wizard or console-based installation program created.

Follow these steps:

1. Copy the SiteMinder Web Agent installation executable file to a temporary directory on your web server.
2. Do *one* of the following steps:
   - For wizard-based installations, right-click the installation executable file, and then select Run as Administrator.
   - For console-based installations, open a command line window and run the executable as shown in the following example:

     ```
     executable_file_name.exe -i console
     ```
3. Use the information that you gathered previously to complete the installation.

Gather the Information that the Configuration Program Requires on Windows

Gather the following information about your SiteMinder environment before running the configuration program for the SiteMinder agent on your Domino server:

Register Host

Indicates whether you want to register a trusted host. This registration creates a trusted host object in the SiteMinder Policy Server and an SmHost.conf file on the web server. The agent uses this information to make an initial connection to SiteMinder Policy Servers when it starts. Register each agent instance as a trusted host only once.

Default:Yes

Limits: Yes, No

Admin User Name

Specifies the name of a SiteMinder user with Administrative privileges that is already defined in the SiteMinder Policy Server. This SiteMinder user account requires privileges to register trusted hosts.

Admin Password

Specifies a password for the Admin User Name that is already defined in the SiteMinder Policy Server.

Confirm Admin Password

Repeats the password entered in the Admin Password field. This value verifies the password for the Admin User Name already defined in the SiteMinder Policy Server.

Trusted Host Object Name

Specifies a unique name for the trusted host you are registering. This trusted host object is stored on the SiteMinder Policy Server.

Host Configuration Object

Specifies the name of a Host Configuration Object that is already defined in the SiteMinder Policy Server. After the agent initially connects to a Policy Server (using the SmHost.conf file settings), subsequent connections use the settings from the Host Configuration Object.

Policy Server IP Address

Specifies the Internet Protocol address of the Policy Servers to which the agent attempts to connect upon startup. If your Policy Server is behind a firewall, specify a port number also.

If a hardware load balancer is configured to expose Policy Servers in your environment through a single Virtual IP Address (VIP), enter the VIP. For more information, see the *Policy Server Administration Guide*.

Example: (IPV4) 192.168.1.105

Example: (IPV4 with the port number) 192.168.1.105:44443

Example: (IPV6) 2001:DB8::/32

Example: (IPV6) [2001:DB8::/32]:44443

FIPS Mode Setting

Specifies *one* of the following algorithms:

FIPS Compatibility/AES Compatibility

Uses algorithms existing in previous versions of SiteMinder to encrypt sensitive data and is compatible with previous versions of SiteMinder. If your organization does *not* require the use of FIPS-compliant algorithms, use this option.

FIPS Migration/AES Migration

Allows a transition from FIPS-compatibility mode to FIPS-only mode. In FIPS-migration mode, SiteMinder environment continues to use existing SiteMinder encryption algorithms as you reencrypt existing sensitive data using FIPS-compliant algorithms.

FIPS Only/AES Only

Uses *only* FIPS-compliant algorithms to encrypt sensitive data in the SiteMinder environment. This setting does *not* interoperate with, *nor* is backwards-compatible with, previous versions of SiteMinder.

Default: FIPS Compatibility/AES Compatibility

Note: FIPS is a US government computer security standard that accredits cryptographic modules which meet the Advanced Encryption Standard (AES).

Important! Use a compatible FIPS/AES mode (or a combination of compatible modes) for both the SiteMinder agent and the SiteMinder Policy Server.

Name

Specifies the name of the SmHost.conf file which contains the settings the Web Agent uses to make initial connections to a SiteMinder Policy Server.

Default: SmHost.conf

Location

Specifies the directory where the SmHost.conf file is stored.

Default: *web_agent_home*\config

Enable Shared Secret Rollover

Select this check box to change the shared secret that the SiteMinder Policy Server uses to encrypt communications to the Web Agents.

iNotes File

Specifies the location of the iNotes file for a Web Agent running on a Domino web server.

Select Servers

Indicates the web server instances that the configuration program finds on the computer. Select the check boxes of the instances you want to configure. Clear the check boxes of those instances from which you want to remove SiteMinder protection.

Agent Configuration Object Name

Specifies the name of an agent configuration object (ACO) already defined on the Policy Server.

Default: AgentObj

Advanced Authentication Scheme Dialog

Specifies the advanced authentication scheme for the web server instances you selected previously.

Add the Domino Web Agent DLL (Windows)

To make the Domino Web Agent operate properly, add the DOMINOWebAgent.dll file to the filter DLLs. The Web Agent DLL must be the first DLL in the list.

Follow these steps:

1. Open Lotus Notes.
2. Select File, Database, Open.
3. In the Server field, select the Domino Server where you installed the Web Agent.
4. In the Database scroll box, select the address book of the server.

   Verify that names.nsf appears in the Filename field.
5. Click Open.

   The address book of the server opens.
6. In the left pane, expand the Server folder and double-click the All Server Documents icon.
7. Select your server and click Edit Server.

   The administration console of the Domino server opens.
8. Select the Internet Protocols tab.
9. In the DSAPI section of the window, find the DSAPI filter file names field and enter the full path to the Domino Web Agent DLL. Verify that the Domino Web Agent DLL appears first in the list. The default location of this DLL file is shown in the following example:

   web_agent_home\bin\
   DOMINOWebAgent.dll

   web_agent_home

   Indicates the directory where the SiteMinder agent is installed on your web server.

   Default (Windows 32-bit installations only): C:\Program Files\CA\webagent

   Default (Windows 64-bit installations only): C:\Program Files\CA\webagent\win64

   Default (Windows 32-bit applications operating on 64-bit systems [Wow64]): C:\Program Files (x86)\webagent\win32
10. Click Save and Close.
11. Restart the web server. In some situations, a reboot could possibly be necessary.

Run the Web Agent Configuration Program on Windows

After gathering the information for your agent configuration, run the agent configuration program. This program creates an agent runtime instance for the web servers running on your computer.

This configuration program is wizard or console based, depending on the option you select. Running the configuration program in the wizard or console modes once creates a properties file. Use the properties file to run unattended configurations on other computers with same operating environment in the future.

Follow these steps:

1. Open the following directory on your web server:

   web_agent_home\install_config_info

   web_agent_home

   Indicates the directory where the SiteMinder agent is installed on your web server.

   Default (Windows 32-bit installations only): C:\Program Files\CA\webagent

   Default (Windows 64-bit installations only): C:\Program Files\CA\webagent\win64

   Default (Windows 32-bit applications operating on 64-bit systems [Wow64]): C:\Program Files (x86)\webagent\win32

2. Use *one* of the following configuration methods:
   - For a GUI-based configuration, go to Step 3.
   - For a console-based configuration, go to Step 5.
3. Right-click the following executable, and then select Run as Administrator:

   ca-wa-config.exe
4. Go to Step 8.
5. Open a Command Prompt window with Administrator privileges.
6. Navigate to the executable file listed previously, and then run it with the following switch:

   -i console
7. Go to Step 8.
8. Follow the prompts shown in the configuration program. Provide the requested values from your agent configuration worksheet.

   The agent runtime instance is created for your web servers.

Run the Unattended or Silent Installation and Configuration Programs for Subsequent Agents on Windows

The unattended or silent installation option can help you automate the installation and configuration process. This method saves time if you have a large SiteMinder environment that uses many agents with identical settings.

For example, suppose the Agents in your environment use the same web server version, installation directory, Agent Configuration Object and Policy Servers. Use the installation wizard or console-based installation program for your first installation. Afterwards, you could create your own script to run the installation program with the .properties file the wizard or console-based installation program created.

Follow these steps:

1. Run the following wizards on your first web server (in the order shown):
   a. The SiteMinder Web Agent Installation wizard.
   b. The SiteMinder Web Agent Configuration wizard.
2. Locate the following file on your first web server:

   web_agent_home\install_config_info\ca-wa-installer.properties

   Note: If the path contains spaces, surround it with quotes.

   web_agent_home

   Indicates the directory where the SiteMinder agent is installed on your web server.

   Default (Windows 32-bit installations only): C:\Program Files\CA\webagent

   Default (Windows 64-bit installations only): C:\Program Files\CA\webagent\win64

   Default (Windows 32-bit applications operating on 64-bit systems [Wow64]): C:\Program Files (x86)\webagent\win32
3. Perform each of the following steps on the other web servers in your environment:

   Note: To automate this process, create your own customized script to execute these files on your systems. Use any scripting language that you want.

   a. Create a temporary directory on the subsequent web server.
   b. Copy the following files from the first web server (Steps 1 and 2) to the temporary directory on your subsequent web server:
      - The SiteMinder Web Agent Installation executable file.
      - SiteMinder ca-wa-installer properties file.
   c. Open a Command Prompt window with Administrative privileges in the temporary directory.
   d. Run the following command:

agent_executable -f *properties_file* -i silent

The SiteMinder agent is installed and configured on the subsequent server silently.

e. (Optional) Delete the temporary directory from your subsequent web server.

4. Repeat Step 3 for each additional web server in your SiteMinder environment that uses the configuration that the settings in your ca-wa-installer.properties file specify.

Configure the CGI Directory and CGI URL Path Settings on Windows Operating Environments (Optional)

To configure appropriate cgi-bin (ScriptAlias) settings for the Domino Web Agent, navigate to Internet Protocols tab for your server configuration in the Domino Administrator and configure the following settings:

- CGI directory: domino\html\cgi-bin
- CGI URL path: /cgi-bin

Configure Alias Settings to Enable HTML Forms Authentication Schemes (Optional)

To configure the Domino Web Agent to support HTML Forms authentication schemes perform the following tasks:

1. Create a subdirectory named "siteminderagent" in the Domino document root (\domino\html\) directory.
2. Copy all the subdirectories of *agent_home*\samples to the siteminderagent directory you created in Step 1.

   agent_home

   Specifies the SiteMinder Web Agent installation path.

3. To support X.509 Client Certificate and HTML Forms authentication schemes, additionally create a directory named "certoptional" in the siteminderagent directory you created in Step 1 and also copy all the subdirectories of *agent_home*\samples into it.

Chapter 3: Install and Configure an Agent for Domino on UNIX/Linux

This section contains the following topics:

Agent Installation Compared to Agent Configuration (see page 27)
How to Install and Configure an Agent for Domino on UNIX/Linux (see page 28)

Agent Installation Compared to Agent Configuration

The concepts of installation and configuration have specific meanings when used to describe SiteMinder agents.

Installation means installing the SiteMinder agent software on a computer system. For example, installing an agent creates directories and copies the SiteMinder agent software and other settings to the computer.

Configuration occurs after installation and means the act of preparing the SiteMinder agent software for a specific web server on a computer. This preparation includes registering the agent with SiteMinder Policy Servers, and creating a runtime server instance for the web server that is installed on the computer.

Use the wizard-based installation and configuration programs to install and configure your agent on your first web server. The wizard-based programs create a .properties file.

Use the .properties file and the respective executable file to install or configure the agent silently on additional web servers.

How to Install and Configure an Agent for Domino on UNIX/Linux

Installing and configuring the SiteMinder Agent for Domino involves several separate procedures. To install and configure the Agent for Domino, use the following process:

1. Gather the information for the installation program (see page 28).
2. Run the wizard based installation program (see page 29).
3. Gather the information that the configuration program requires (see page 29).
4. Add the Domino Agent library file (see page 33).
5. Source the agent environment script (see page 34).
6. Set the library path variable for your operating environment (see page 34).
7. Run the configuration program (see page 35).
8. (Optional) Install and Configure the Agent for Domino on additional Domino servers silently (see page 36).
9. (Optional) Configure alias settings to enable HTML forms authentication (see page 37).

Gather the Information for the Installation

Gather the following information about your web server before running the installation program for the SiteMinder agent:

Installation Directory

Specifies the location of the SiteMinder agent binary files on your web server. The *web_agent_home* variable is set to this location.

Limit: SiteMinder requires the name "webagent" for the bottom directory in the path.

Run the Installation Program on UNIX/Linux

The installation program for the SiteMinder agent installs the agent on one computer at a time using the UNIX or Linux operating environments. This installation program can be run in wizard or console modes. The wizard and console-based installation program also creates a .properties file for subsequent installations and configurations using the unattended or silent method with the same settings.

For example, suppose the Agents in your environment use the same web server version, installation directory, Agent Configuration Object and Policy Servers. Use the installation wizard or console-based installation program for your first installation. Afterwards, you could create your own script to run the installation program with the .properties file the wizard or console-based installation program created.

Follow these steps:

1. Copy SiteMinder agent installation executable file to a temporary directory on your web server.
2. Log in as a root user.
3. Do *one* of the following steps:
   - For wizard-based installations, run the installation executable file.
   - For console-based installations, open a command-line window and run the executable as shown in the following example:

     executable_file_name.exe -i console
4. Use the information from your agent Installation worksheet to complete the installation program.

Gather the Information that the Configuration Program Requires for UNIX or Linux

Gather the following information about your SiteMinder environment before running the configuration program for the SiteMinder agent on your Domino server:

Register Host

Indicates whether you want to register a trusted host. This registration creates a trusted host object in the SiteMinder Policy Server and an SmHost.conf file on the web server. The agent uses this information to make an initial connection to SiteMinder Policy Servers when it starts. Register each agent instance as a trusted host only once.

Default:Yes

Limits: Yes, No

Admin User Name

Specifies the name of a SiteMinder user with Administrative privileges that is already defined in the SiteMinder Policy Server. This SiteMinder user account requires privileges to register trusted hosts.

Admin Password

Specifies a password for the Admin User Name that is already defined in the SiteMinder Policy Server.

Confirm Admin Password

Repeats the password entered in the Admin Password field. This value verifies the password for the Admin User Name already defined in the SiteMinder Policy Server.

Trusted Host Object Name

Specifies a unique name for the trusted host you are registering. This trusted host object is stored on the SiteMinder Policy Server.

Host Configuration Object

Specifies the name of a Host Configuration Object that is already defined in the SiteMinder Policy Server. After the agent initially connects to a Policy Server (using the SmHost.conf file settings), subsequent connections use the settings from the Host Configuration Object.

Policy Server IP Address

Specifies the Internet Protocol address of the Policy Servers to which the agent attempts to connect upon startup. If your Policy Server is behind a firewall, specify a port number also.

If a hardware load balancer is configured to expose Policy Servers in your environment through a single Virtual IP Address (VIP), enter the VIP. For more information, see the *Policy Server Administration Guide*.

Example: (IPV4) 192.168.1.105

Example: (IPV4 with the port number) 192.168.1.105:44443

Example: (IPV6) 2001:DB8::/32

Example: (IPV6) [2001:DB8::/32]:44443

FIPS Mode Setting

Specifies *one* of the following algorithms:

FIPS Compatibility/AES Compatibility

Uses algorithms existing in previous versions of SiteMinder to encrypt sensitive data and is compatible with previous versions of SiteMinder. If your organization does *not* require the use of FIPS-compliant algorithms, use this option.

FIPS Migration/AES Migration

Allows a transition from FIPS-compatibility mode to FIPS-only mode. In FIPS-migration mode, SiteMinder environment continues to use existing SiteMinder encryption algorithms as you reencrypt existing sensitive data using FIPS-compliant algorithms.

FIPS Only/AES Only

Uses *only* FIPS-compliant algorithms to encrypt sensitive data in the SiteMinder environment. This setting does *not* interoperate with, *nor* is backwards-compatible with, previous versions of SiteMinder.

Default: FIPS Compatibility/AES Compatibility

Note: FIPS is a US government computer security standard that accredits cryptographic modules which meet the Advanced Encryption Standard (AES).

Important! Use a compatible FIPS/AES mode (or a combination of compatible modes) for both the SiteMinder agent and the SiteMinder Policy Server.

Name

Specifies the name of the SmHost.conf file which contains the settings the Web Agent uses to make initial connections to a SiteMinder Policy Server.

Default: SmHost.conf

Location

Specifies the directory where the SmHost.conf file is stored.

Default: *web_agent_home*\config

Enable Shared Secret Rollover

Select this check box to change the shared secret that the SiteMinder Policy Server uses to encrypt communications to the Web Agents.

iNotes File

Specifies the location of the iNotes file for a Web Agent running on a Domino web server.

Select Servers

Indicates the web server instances that the configuration program finds on the computer. Select the check boxes of the instances you want to configure. Clear the check boxes of those instances from which you want to remove SiteMinder protection.

Agent Configuration Object Name

Specifies the name of an agent configuration object (ACO) already defined on the Policy Server.

Default: AgentObj

Advanced Authentication Scheme Dialog

Specifies the advanced authentication scheme for the web server instances you selected previously.

Add the Domino Web Agent Library File (UNIX)

To make the Domino Web Agent operate properly, add the libdominowebagent.so library file to the filter files. The Web Agent library file must be the first file in the list.

Follow these steps:

1. Open Lotus Notes.
2. Select File, Database, Open.
3. In the Server field, select the Domino Server where you installed the Web Agent.
4. In the Database scroll box, select the address book of the server.

   Verify that names.nsf appears in the Filename field.
5. Click Open.

   The address book of the server opens.
6. In the left pane, expand the Server folder and double-click the All Server Documents icon.
7. Select your server and click Edit Server.

   The administration console of the Domino server opens.
8. Select the Internet Protocols tab.
9. In the DSAPI section of the window, find the DSAPI filter file names field and enter the full path to the Domino Web Agent file. Verify that the Domino Web Agent file appears first in the list. The default location of the file is shown in the following example:

   web_agent_home\bin\libdominowebagent.so

   web_agent_home

   Indicates the directory where the SiteMinder Agent is installed.

   Default (UNIX/Linux installations): /opt/ca/webagent

   Note: If the Domino Web Agent is installed on an AIX operating system, the file name of the Domino Web Agent for the DSAPI filter is libdominowebagent.a
10. Click Save and Close.
11. Restart the web server.

Source the Agent Environment Script on UNIX or Linux Operating Environments

The agent installation program creates an environment script in the following directory:

web_agent_home/ca_wa_env.sh

web_agent_home

Indicates the directory where the SiteMinder Agent is installed.

Default (UNIX/Linux installations): /opt/ca/webagent

Source this script *after* doing any of the following tasks:

- Running the agent configuration program.
- Starting the web server.

  Note: If you perform *all* the previous tasks in the *same* shell, only source the script *once*.

Set the Library Path Variable on UNIX or Linux Systems

Set the library path variable on UNIX or Linux systems before running the agent configuration program.

The following table lists the library path variables for the various UNIX and Linux operating environments:

Operating System	Name of Library Path Variable
AIX	LIBPATH
Linux	LD_LIBRARY_PATH
Solaris	LD_LIBRARY_PATH

Set the value of the library path variable to the *web_agent_home*/bin directory.

web_agent_home

Indicates the directory where the SiteMinder Agent is installed.

Default (UNIX/Linux installations): /opt/ca/webagent

Run the Web Agent Configuration Program on UNIX/Linux

After gathering the information for your agent configuration, run the agent configuration program. This program creates an agent runtime instance for the web servers running on your computer.

This configuration program is wizard or console based, depending on the option you select. Running the configuration program in the wizard or console mode once creates a properties file. Use the properties file to run unattended configurations on other computers with same operating environment in the future.

Follow these steps:

1. Open the following directory on your web server:

   web_agent_home/install_config_info

   web_agent_home

   Indicates the directory where the SiteMinder Agent is installed.

   Default (UNIX/Linux installations): /opt/ca/webagent

2. Use *one* of the following configuration methods:
   - For a GUI-based configuration, go to Step 3.
   - For a console-based configuration, go to Step 5.
3. Run the following executable file:

   ca-wa-config.bin

4. Go to Step 8.
5. Open a Command Prompt window with root privileges.
6. Navigate to the executable file listed previously, and then run it with the following switch:

   -i console

7. Go to Step 8.
8. Follow the prompts shown in the configuration program. Provide the requested values from your agent configuration worksheet.

   The agent runtime instance is created for your web servers.

Run the Unattended or Silent Installation and Configuration Programs for Agents on UNIX/Linux

The unattended or silent installation option can help you automate the installation and configuration process. This method saves time if you have a large SiteMinder environment that uses many agents with identical settings.

For example, suppose the Agents in your environment use the same web server version, installation directory, Agent Configuration Object and Policy Servers. Use the installation wizard or console-based installation program for your first installation. Afterwards, you could create your own script to run the installation program with the .properties file the wizard or console-based installation program created.

Follow these steps:

1. Run the following wizards on your first web server (in the order shown):
   a. The SiteMinder Web Agent Installation wizard.
   b. The SiteMinder Web Agent Configuration wizard.
2. Locate the following file on your first web server:

   web_agent_home/install_config_info/ca-wa-installer.properties

   Note: If the path contains spaces, surround it with quotes.

   web_agent_home

   Indicates the directory where the SiteMinder Agent is installed.

   Default (UNIX/Linux installations): /opt/ca/webagent
3. Perform each of the following steps on the subsequent web server:

   Note: To automate this process, create your own customized script to execute these files on your systems. Use any scripting language that you want.

   a. Create a temporary directory on the subsequent web server.
   b. Copy the following files from the web server where you ran the wizards (from Steps 1 and 2) to the temporary directory on your subsequent web server:
      - The SiteMinder Web Agent Installation executable file.
      - SiteMinder ca-wa-installer properties file.
   c. Open a Command Prompt window with root privileges in the temporary directory.
   d. Run the following command:

      agent_executable.bin -f *properties_file* -i silent

      The SiteMinder agent is installed and configured on the web server silently.
   e. (Optional) Delete the temporary directory from your web server.

4. Repeat Step 3 for each additional web server in your SiteMinder environment that uses the configuration that the settings in your ca-wa-installer.properties file specify.

Configure Alias Settings to Enable HTML Forms Authentication

To configure the Domino Web Agent to support HTML Forms authentication schemes perform the following tasks:

1. Create a subdirectory named "siteminderagent" in the Domino document root (\domino\html\) directory.
2. Copy all the subdirectories of *agent_home*\samples to the siteminderagent directory you created in Step 1.

   agent_home

   Specifies the SiteMinder Web Agent installation path.

To support X.509 Client Certificate and HTML Forms authentication schemes, additionally create a directory named "certoptional" in the siteminderagent directory you created in Step 1 and also copy all the subdirectories of *agent_home*\samples into it.

Chapter 4: Dynamic Policy Server Clusters

Earlier versions of SiteMinder agents did *not* automatically discover when Policy Servers were added or removed from a cluster. The agents recognized the changes only after their respective web servers were restarted.

SiteMinder r12.5 supports dynamic Policy Server clusters. Agents automatically discover Policy Servers that are added or removed from an existing cluster when dynamic Policy Server Clusters are enabled.

For example, suppose that your agent connects to a cluster of the following Policy Servers:

- 192.168.2.100
- 192.168.2.101
- 192.168.2.103
- 192.168.2.104

Suppose that you later decide to remove the server 192.168.2.103 to upgrade its operating system. In this situation, enabling dynamic Policy Server clusters lets your agents recognize the change in the membership of the cluster without restarting.

Restart your web server if you do any of the following tasks:

- Change the configuration of an existing Policy Server (using the configuration wizard).
- Create a Policy Server cluster.
- Delete a Policy Server cluster.
- Change the values for any of the following Policy Server settings:
  - EnableFailOver
  - MaxSocketsPerPort
  - MinSocketsPerPort
  - NewSocketStep
  - RequestTimeout

Connect a Web Agent to a Dynamic Policy Server Cluster

You can connect a Web Agent to one or more dynamic Policy Server clusters by modifying the SmHost.conf file on your web server.

Follow these steps:

1. Open the following file with a text editor:

   web_agent_home\config\SmHost.conf

   web_agent_home

   Indicates the directory where the SiteMinder agent is installed on your web server.

   Default (Windows 32-bit installations only): C:\Program Files\CA\webagent

   Default (Windows 64-bit installations only): C:\Program Files\CA\webagent\win64

   Default (Windows 32-bit applications operating on 64-bit systems [Wow64]): C:\Program Files (x86)\webagent\win32

2. Do *one* of the following tasks:

If this Web Agent has *never* been connected to dynamic cluster of Policy Servers before, create a line (anywhere in the file) with the following text:

```
enableDynamicHCO="YES"
```

- If this Web Agent has previously been connected to a dynamic cluster of Policy Servers, change the value of the existing enableDynamicHCO parameter from "NO" to "YES".

1. Save the SmHost.conf file, and then close the text editor.
2. Restart your web server.

   The Web Agent is connected to dynamic Policy Server clusters.

Chapter 5: Starting and Stopping Web Agents

This section contains the following topics:

Enable a Web Agent (see page 41)
Disable a Web Agent (see page 41)

Enable a Web Agent

Configure your agent parameters and then enable the agent to protect the resources on the web server.

Note: *No* resources are protected until you also define policies in the SiteMinder Policy Server.

Follow these steps:

1. Open the WebAgent.conf file with a text editor.
2. Change the value of the EnableWebAgent parameter to yes.
3. Save and close the WebAgent.conf file.
4. Restart the web server (the web server itself, not the computer on which it runs).

   The Web Agent is enabled.

Disable a Web Agent

If you want to stop the Web Agent from protecting the resources on your web server, disable the Web Agent.

Follow these steps:

1. Open the WebAgent.conf file with a text editor.
2. Change the value of the EnableWebAgent parameter to no.
3. Save and close the WebAgent.conf file.
4. Restart the web server (the web server itself, not the computer on which it runs).

   The Web Agent is disabled.

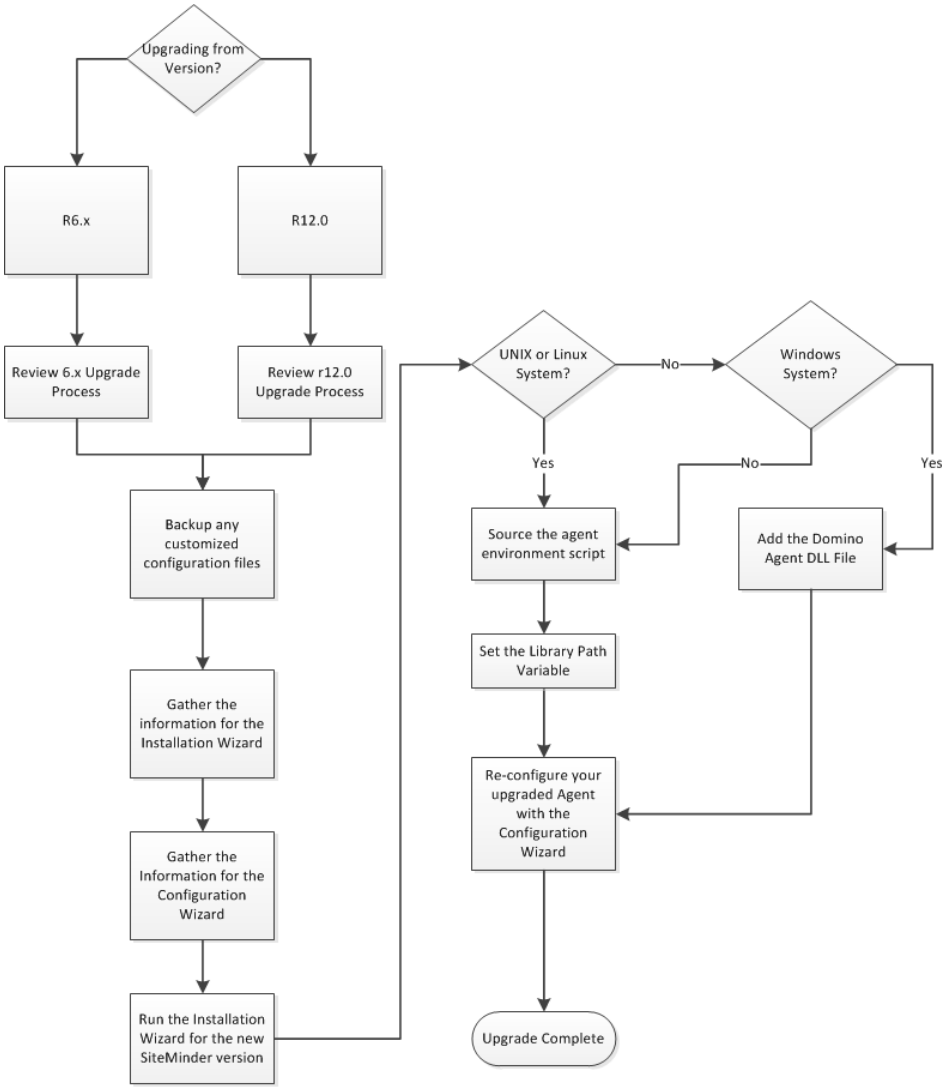
Chapter 6: Upgrade a Web Agent to r12.5

This section contains the following topics:

Agent for Domino Upgrade Roadmap (see page 44)
How to Upgrade an Agent for Domino (see page 45)

Agent for Domino Upgrade Roadmap

The following illustration shows the separate procedures that are required to upgrade an Agent for Domino to r12.5:



How to Upgrade an Agent for Domino

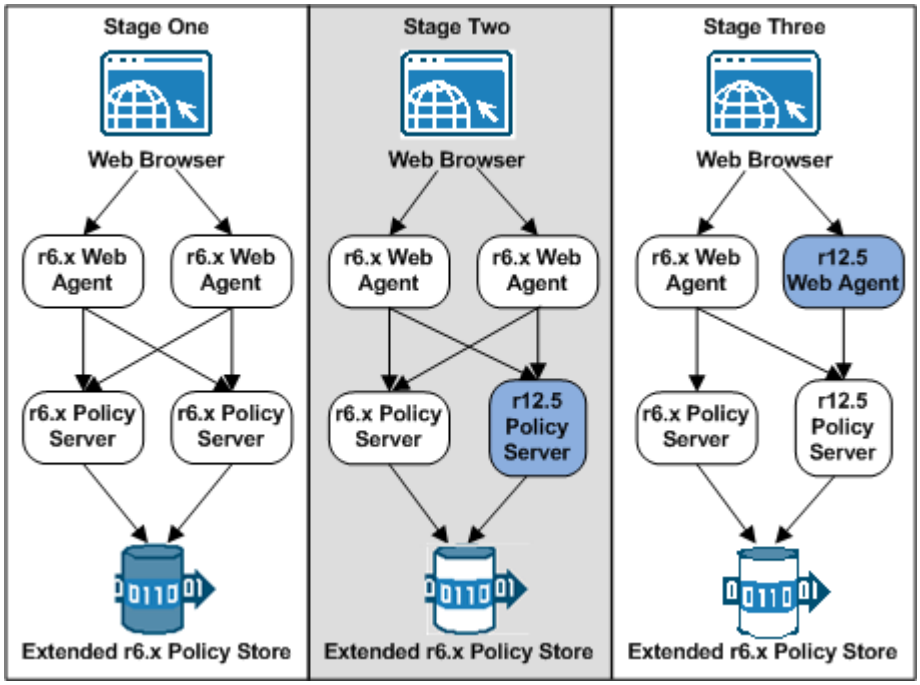
Upgrading a SiteMinder agent involves several separate procedures. To prepare for an upgrade of your agent, follow these steps:

1. Use one of the following diagrams to verify that you are in the proper step of the SiteMinder upgrade process for an agent upgrade:
   - Upgrade process from r6.x (see page 46).
   - Upgrade process from r12.0 (see page 47).
2. Create backup copies of any customized SiteMinder files on your Domino server. Examples of files you could have customized after installing or configuring your agent include the following files:
   - LocalConfig.conf.
   - WebAgent.conf.
3. Gather information for the following SiteMinder programs.
   - Agent installation wizard.
   - Agent configuration wizard.
4. Use *one* of the following procedures to upgrade your agent:
   - Run the installation wizard for Windows operating environments (see page 48).
   - Run the installation wizard for UNIX/Linux operating environments (see page 49).
5. Perform the appropriate procedures for your operating environment from the following list:
   - For upgrades on Windows operating environments, add the Domino web agent DLL file (see page 50).
   - For upgrades on UNIX/Linux operating environments, do *all* the following steps:
     a. Add the Web Agent Domino Library file (see page 51).
     b. Source the agent environment script (see page 52).
     c. Set the library path variable (see page 52).
6. Use *one* of the following procedures to configure the upgraded agent:
   - Configure your upgraded agent on Windows operating environments (see page 53).
   - Configure your upgraded agent on UNIX/Linux operating environments (see page 54).

Upgrade Process from SiteMinder r6.x

An agent upgrade to r12.5 from r6.x occurs at stage three of the SiteMinder upgrade process, as shown in the following illustration:

Figure 1: r6 SP5 migration. Stages 1 through 3

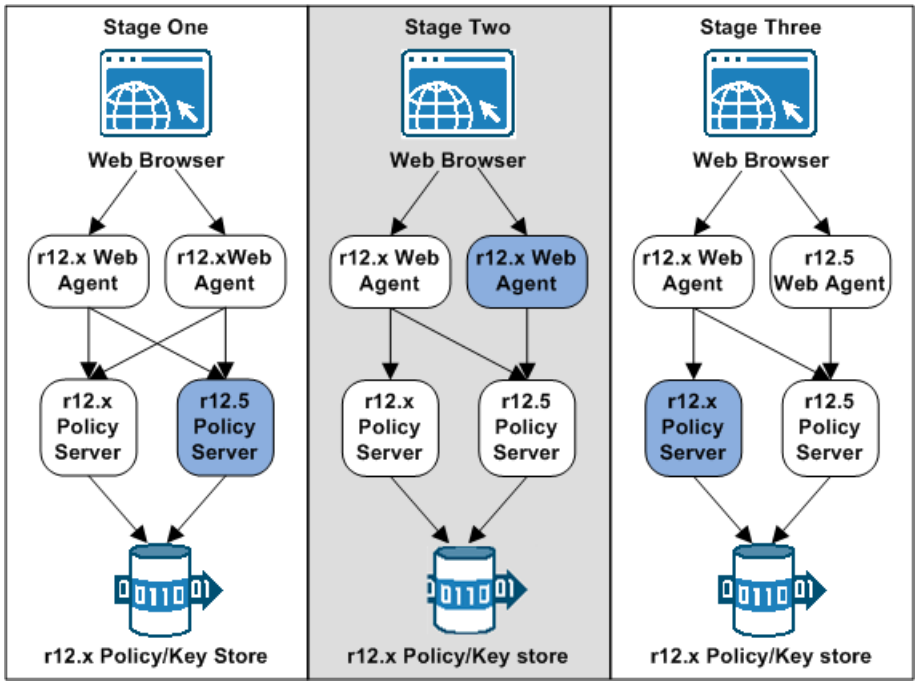


Note: For more information about the SiteMinder upgrade process, see the *Upgrade Guide*.

Upgrade Process from SiteMinder r12.0

An agent upgrade to r12.5 from r12.0 occurs at stage two of the SiteMinder upgrade process, as shown in the following illustration:

Figure 2: r12.x migration overview.



Note: For more information about the SiteMinder upgrade process, see the *Upgrade Guide*.

Run the Installation Wizard to Upgrade your Agent on Windows

The installation program for the SiteMinder agent installs the agent on one computer at a time using the Windows operating environment. This installation program can be run in wizard or console modes. The wizard and console-based installation programs also create a .properties file for subsequent installations and configurations using the unattended or silent method with the same settings.

For example, suppose the Agents in your environment use the same web server version, installation directory, Agent Configuration Object and Policy Servers. Use the installation wizard or console-based installation program for your first installation. Afterwards, you could create your own script to run the installation program with the .properties file the wizard or console-based installation program created.

Follow these steps:

1. Copy the SiteMinder Web Agent installation executable file to a temporary directory on your web server.
2. Do *one* of the following steps:
   - For wizard-based installations, right-click the installation executable file, and then select Run as Administrator.
   - For console-based installations, open a command line window and run the executable as shown in the following example:

     ```
     executable_file_name.exe -i console
     ```
3. Use the information that you gathered previously to complete the installation.

Run the Installation Wizard to Upgrade your Agent on UNIX/Linux

The installation program for the SiteMinder agent installs the agent on one computer at a time using the UNIX or Linux operating environments. This installation program can be run in wizard or console modes. The wizard and console-based installation program also creates a .properties file for subsequent installations and configurations using the unattended or silent method with the same settings.

For example, suppose the Agents in your environment use the same web server version, installation directory, Agent Configuration Object and Policy Servers. Use the installation wizard or console-based installation program for your first installation. Afterwards, you could create your own script to run the installation program with the .properties file the wizard or console-based installation program created.

Follow these steps:

1. Copy SiteMinder agent installation executable file to a temporary directory on your web server.
2. Log in as a root user.
3. Do *one* of the following steps:
   - For wizard-based installations, run the installation executable file.
   - For console-based installations, open a command-line window and run the executable as shown in the following example:

     ```
     executable_file_name.exe -i console
     ```
4. Use the information from your agent Installation worksheet to complete the installation program.

Add the Web Agent Domino DLL file to your upgraded Agent on Windows

To make the Domino Web Agent operate properly, add the DOMINOWebAgent.dll file to the filter DLLs. The Web Agent DLL must be the first DLL in the list.

Follow these steps:

1. Open Lotus Notes.
2. Select File, Database, Open.
3. In the Server field, select the Domino Server where you installed the Web Agent.
4. In the Database scroll box, select the address book of the server.

   Verify that names.nsf appears in the Filename field.
5. Click Open.

   The address book of the server opens.
6. In the left pane, expand the Server folder and double-click the All Server Documents icon.
7. Select your server and click Edit Server.

   The administration console of the Domino server opens.
8. Select the Internet Protocols tab.
9. In the DSAPI section of the window, find the DSAPI filter file names field and enter the full path to the Domino Web Agent DLL. Verify that the Domino Web Agent DLL appears first in the list. The default location of this DLL file is shown in the following example:

   web_agent_home\bin\
   DOMINOWebAgent.dll

   web_agent_home

   Indicates the directory where the SiteMinder agent is installed on your web server.

   Default (Windows 32-bit installations only): C:\Program Files\CA\webagent

   Default (Windows 64-bit installations only): C:\Program Files\CA\webagent\win64

   Default (Windows 32-bit applications operating on 64-bit systems [Wow64]): C:\Program Files (x86)\webagent\win32
10. Click Save and Close.
11. Restart the web server. In some situations, a reboot could possibly be necessary.

Add the Web Agent Domino Library file to your upgraded Agent on UNIX/Linux

To make the Domino Web Agent operate properly, add the libdominowebagent.so library file to the filter files. The Web Agent library file must be the first file in the list.

Follow these steps:

1. Open Lotus Notes.
2. Select File, Database, Open.
3. In the Server field, select the Domino Server where you installed the Web Agent.
4. In the Database scroll box, select the address book of the server.

   Verify that names.nsf appears in the Filename field.
5. Click Open.

   The address book of the server opens.
6. In the left pane, expand the Server folder and double-click the All Server Documents icon.
7. Select your server and click Edit Server.

   The administration console of the Domino server opens.
8. Select the Internet Protocols tab.
9. In the DSAPI section of the window, find the DSAPI filter file names field and enter the full path to the Domino Web Agent file. Verify that the Domino Web Agent file appears first in the list. The default location of the file is shown in the following example:

   web_agent_home\bin\libdominowebagent.so

   web_agent_home

   Indicates the directory where the SiteMinder Agent is installed.

   Default (UNIX/Linux installations): /opt/ca/webagent

   Note: If the Domino Web Agent is installed on an AIX operating system, the file name of the Domino Web Agent for the DSAPI filter is libdominowebagent.a
10. Click Save and Close.
11. Restart the web server.

Source the Agent Environment Script After an Upgrade on UNIX/Linux

The agent installation program creates an environment script in the following directory:

web_agent_home/ca_wa_env.sh

web_agent_home

Indicates the directory where the SiteMinder Agent is installed.

Default (UNIX/Linux installations): /opt/ca/webagent

Source this script *after* doing any of the following tasks:

- Running the agent configuration program.
- Starting the web server.

  Note: If you perform *all* the previous tasks in the *same* shell, only source the script *once*.

Set the Library Path Variable Before Configuring your Upgraded Agent on UNIX/Linux

Set the library path variable on UNIX or Linux systems before running the agent configuration program.

The following table lists the library path variables for the various UNIX and Linux operating environments:

Operating System	Name of Library Path Variable
AIX	LIBPATH
Linux	LD_LIBRARY_PATH
Solaris	LD_LIBRARY_PATH

Set the value of the library path variable to the *web_agent_home*/bin directory.

web_agent_home

Indicates the directory where the SiteMinder Agent is installed.

Default (UNIX/Linux installations): /opt/ca/webagent

Configure your Upgraded Agent on Windows

After gathering the information for your agent configuration, run the agent configuration program. This program creates an agent runtime instance for the web servers running on your computer.

This configuration program is wizard or console based, depending on the option you select. Running the configuration program in the wizard or console mode once creates a properties file. Use the properties file to run unattended configurations on other computers with same operating environment in the future.

Follow these steps:

1. Open the following directory on your web server:

   web_agent_home\install_config_info

   web_agent_home

   Indicates the directory where the SiteMinder agent is installed on your web server.

   Default (Windows 32-bit installations only): C:\Program Files\CA\webagent

   Default (Windows 64-bit installations only): C:\Program Files\CA\webagent\win64

   Default (Windows 32-bit applications operating on 64-bit systems [Wow64]): C:\Program Files (x86)\webagent\win32

2. Use *one* of the following configuration methods:
   - For a GUI-based configuration, go to Step 3.
   - For a console-based configuration, go to Step 5.
3. Right-click the following executable, and then select Run as Administrator:

   ca-wa-config.exe
4. Go to Step 8.
5. Open a Command Prompt window with Administrator privileges.
6. Navigate to the executable file listed previously, and then run it with the following switch:

   -i console
7. Go to Step 8.
8. Follow the prompts shown in the configuration program. Provide the requested values from your agent configuration worksheet.

   The agent runtime instance is created for your web servers.

Configure your Upgraded Agent on UNIX/Linux

After gathering the information for your agent configuration, run the agent configuration program. This program creates an agent runtime instance for the web servers running on your computer.

This configuration program is wizard or console based, depending on the option you select. Running the configuration program in the wizard or console mode once creates a properties file. Use the properties file to run unattended configurations on other computers with same operating environment in the future.

Follow these steps:

1. Open the following directory on your web server:

   web_agent_home/install_config_info

   web_agent_home

   Indicates the directory where the SiteMinder Agent is installed.

   Default (UNIX/Linux installations): /opt/ca/webagent

2. Use *one* of the following configuration methods:
   - For a GUI-based configuration, go to Step 3.
   - For a console-based configuration, go to Step 5.
3. Run the following executable file:

   ca-wa-config.bin
4. Go to Step 8.
5. Open a Command Prompt window with root privileges.
6. Navigate to the executable file listed previously, and then run it with the following switch:

   -i console
7. Go to Step 8.
8. Follow the prompts shown in the configuration program. Provide the requested values from your agent configuration worksheet.

   The agent runtime instance is created for your web servers.

Chapter 7: Uninstall a Web Agent

This section contains the following topics:

Notes About Uninstalling Web Agents (see page 55)
Set JRE in PATH Variable Before Uninstalling the SiteMinder Agent (see page 55)
Uninstall a Web Agent from a Windows Operating Environment (see page 57)
Uninstall a Web Agent from a UNIX System (see page 59)

Notes About Uninstalling Web Agents

Be aware of the following:

- All Web Agents for all installed web servers will be uninstalled.
- The Password Services and Forms directories, (pw_default, jpw_default, samples_default) will be removed. However, the non-default copies of these directories (pw, jpw, samples) are not removed because these directories may contain customized files.
- Make sure that the JRE is installed on the Web Agent system, as it is needed for uninstallation. For a supported version, see the SiteMinder r12.5 Platform Matrix at Technical Support.

Set JRE in PATH Variable Before Uninstalling the SiteMinder Agent

On Windows and UNIX systems, when you are uninstalling a SiteMinder Agent, make sure the JRE is in the PATH variable or the uninstallation program stops and issues one of the following error messages:

- “Could not find a valid Java virtual machine to load. You need to reinstall a supported Java virtual machine.”
- "No Java virtual machine could be found from your PATH environment variable. You must install a VM prior to running this program."

Follow these steps:

On Windows

1. Go to the Control Panel.
2. Double-click System.
3. In the Environment Variables dialog, add the location of the JRE to the PATH system variable.

   For example, C:\j2sdk*version_number*\jre\bin

On UNIX

Run the following commands:

1. PATH=$PATH:*JRE*/bin

   JRE

   Specifies the location of your JRE.

   For example, /usr/bin/j2sdk*version_number*/jre
2. export PATH

Uninstall a Web Agent from a Windows Operating Environment

Before you un–install the SiteMinder Web Agent from a Windows operating environment, consider making backup copies of your registry settings and Web Agent configuration settings.

Follow these steps:

1. Stop the web server.
2. Choose *one* of the following procedures:
   - To remove the Web Agent using the wizard, go to Step 3.
   - To remove the Web Agent using the console-based program, go to Step 8.
3. Click Start, Control Panel, Programs and Features.

   A list of installed programs appears.
4. Click CA SiteMinder Web Agent *version_number*.
5. Click Uninstall/Change.

   The uninstallation wizard appears.
6. Review the information in the Uninstall SiteMinder Web Agent dialog, then click Uninstall.

   The wizard removes the web agent.
7. Wait for the wizard to finish, then go to Step 12.
8. Open a command-line window.
9. Navigate to the following directory.

   web_agent_home

   web_agent_home

   Indicates the directory where the SiteMinder Agent is installed on your web server.

   Default (Windows 32-bit installations of SiteMinder IIS Web Agents only): C:\Program Files\CA\webagent

   Default (Windows 64-bit installations [SiteMinder Web Agents for IIS only]): C:\Program Files\CA\webagent\win64

   Default (Windows 32-bit applications operating on 64-bit systems [Wow64 with SiteMinder Web Agents for IIS only]): C:\Program Files (x86)\webagent\win32
10. Run the following command:

    ```
    ca-wa-uninstall.cmd -i console
    ```
11. Wait for the un–installation program to finish, then go to Step 12.

12. Start the web server.

Important! Delete the ZeroG registry file from the following location after uninstalling the Web Agent: C:\Program Files\ZeroG Registry\com.zerog.registry.xml

Uninstall a Web Agent from a UNIX System

These instructions are for GUI and Console Mode removal of an agent.

Note: Removing a Web Agent from a 64-bit SuSE Linux 10 system requires additional preparations.

The steps for the two modes are the same, with these exceptions for Console Mode:

- Select an option by entering a corresponding number.
- Press Enter after each step to proceed through the process. The prompts guide you through the process.

Note: Before you uninstall, we recommend copying your Web Agent configuration settings to have as a backup.

1. Stop the web server.
2. Log in to the UNIX system.
3. Specify the JRE in the PATH environment variable to uninstall the Web Agent. If you receive an error message, add the JRE to the PATH variable as follows:

   PATH=/*jre_home*/bin:${PATH}

   export PATH

   jre_home is the location of the JRE.
4. Navigate to the directory where the Web Agent is installed:
   web_agent_home/install_config_info/ca-wa-uninstall
5. If necessary, verify that you have execute permissions on the uninstallation program by entering chmod +x uninstall.
6. From a console window, enter one of the following commands:
   - GUI mode: ./uninstall
   - Console mode: ./uninstall -i console

   The uninstallation program starts.
7. Read the information in the dialog to confirm the removal of the Web Agent, then click Uninstall. The Web Agent is removed from the system.
8. Click Done to exit the uninstallation program.
9. Change to your home directory (the current directory has been deleted).
10. Restart the web servers.

Chapter 8: Troubleshooting

This section contains the following topics:

Domino Web Agent Not Enabled but the Web Server has Started (see page 61)
Domino Agent Cannot Initialize When Local Configuration Mode is Used (see page 61)

Domino Web Agent Not Enabled but the Web Server has Started

Valid on Domino

Symptom:

The Domino Web Agent is not enabled even though the web server has started.

Solution:

Do the following:

- In the WebAgent.conf file, set the EnableWebAgent parameter to yes.
- Ensure that the DOMINOWebAgent.dll file has been added to the filter DLLs. The Web Agent DLL must be the first DLL in the list.

More Information

Add the Domino Web Agent DLL (Windows) (see page 23)

Domino Agent Cannot Initialize When Local Configuration Mode is Used

Valid on Domino

Symptom:

Domino Agent cannot initialize in local configuration mode.

Solution:

Check that the full path to the WebAgent.conf file is added to the notes.ini file.

Appendix A: Worksheets

This section contains the following topics:

Agent Installation Worksheet (see page 63)
Web Agent Configuration Worksheet for Domino (see page 63)

Agent Installation Worksheet

Use the following table to record the information that the agent installation program requires:

Information Needed	Your Value
Installation Directory	

Web Agent Configuration Worksheet for Domino

Use the following table to record the information that the Agent configuration program requires for your Domino server:

Information Needed	Your Value
Host Registration (Yes/No)	
Admin User Name	
Admin Password	
Enable Shared Secret Rollover	
Trusted Host Name	
Host Configuration Object	
IP Address	
FIPS Mode Setting	
SmHost.conf file Name	
SmHost.conf file Location	
Select Server	
iNotes File Location	

Information Needed	Your Value
Agent Configuration Object Name	

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