

Release Notes

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Platform Compatibility

SonicWALL Appliance / Firmware Compatibility

SonicWALL Directory Services Connector version 3.2.2 software is a supported release for use with the following SonicWALL platforms:

- NSA E-Class E5500 / E6500 / E7500 running SonicOS Enhanced 5.0 and above
- NSA 240 / 2400 / 3500 / 4500 / 5000 running SonicOS Enhanced 5.0 and above
- TZ 210 / 210W / 200 / 200W / 100 / 100W running SonicOS Enhanced 5.0 and above
- TZ 190 / 190W / 180 / 180W running SonicOS Enhanced 4.0 and above
- PRO 2040 / 3060 / 4060 / 4100 / 5060 running SonicOS Enhanced 4.0 and above



Note: SonicOS Enhanced 5.5 or newer is required for the Novell eDirectory Support in this release.

Server Compatibility

SonicWALL Directory Services Connector version 3.2.2 software is supported for installation on servers running the following operating systems:

- Windows 32-bit:
 - Windows Server 2008
 - Windows Server 2003
 - Windows Server 2000
- Windows 64-bit:
 - Windows Server 2008
 - Windows Server 2003
 - Windows Server 2000

On all Windows 32-bit and 64-bit servers, a .Net Framework must be installed. The following versions of .Net Framework are supported:

- .Net Framework 2.0
- .Net Framework 3.0
- .Net Framework 3.5



Note: The following Microsoft Windows operating systems and service packs are **not** supported as servers for this version of SonicWALL Directory Connector:

- Windows Vista – All versions
- Windows XP – All versions
- Windows 2000 – All versions

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Client Compatibility

The following client operating systems are supported by SonicWALL Directory Services Connector 3.2.2 software:

- Windows 7
- Windows Vista
- Windows XP
- Windows 2000 Professional
- Linux/Unix machines running Samba 3.5 or newer

For information about Samba support, see the *Using Single Sign-On with Samba* technote, available on:

<http://www.sonicwall.com/us/Support.html>

New Features

SonicWALL Directory Services Connector 3.2.2 provides a new version of the SSO Agent with the following new features:

- Authentication in Novell eDirectory environments is now supported for Novell eDirectory version 8.7 or newer.
During Directory Services Connector installation on a server, you can select Novell eDirectory Support to enable SonicWALL SSO to work with Novell users if the server has network access to the eDirectory server. In SonicOS Enhanced 5.5 and newer, operability with Novell eDirectory is available for the SonicWALL NSA or TZ series appliance, enabling SonicWALL SSO to work with Novell users.
- Windows 7 clients are supported for use with Single Sign-On and the SSO Agent.
- Linux/Unix machines running Samba 3.5 or newer are supported for use with Single Sign-On and the SSO Agent.
- Improvements in performance and scalability for the SSO Agent.
- The SSO Agent synchronizes with a configurable list of Windows service names on the SonicWALL appliance (SonicOS 5.5 or newer), allowing the service names to be ignored or filtered by the SSO Agent. An option to view the synchronized Windows service list is now available in the Configuration Tool.

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Known Issues

This section contains a list of known issues in the SonicWALL Directory Services Connector 3.2.2 release.

Configuration Tool

Symptom	Condition / Workaround	Issue
The Log displays as empty when the Show number of logs value is modified.	Occurs when the number of log entries requested to be shown exceeds the total number of current log entries that exist.	87262
The Help link is not enabled in the Directory Connector configuration tool.	Occurs because no online help is available for the Directory Connector configuration tool.	81464

Installation

Symptom	Condition / Workaround	Issue
Novell eDirectory Admin User Configuration page does not display.	Occurs during SSO Agent installation, when a user clicks between the Default SSO Agent Appliance Configuration page and the Novell eDirectory Admin User Configuration page.	87225
A validation check for appliance IP and port number may not occur.	Occurs when an invalid appliance IP address or port number is entered during installation.	87197

Single Sign-On

Symptom	Condition / Workaround	Issue
On Windows Server 2008, Single Sign-On does not start after the Directory Connector installation.	Occurs when the Directory Connector installer prompts the user to install the .NET framework, but fails to install it without informing the user of the failure. Workaround: Install .NET Framework 2.0 or higher before installing SonicWALL Directory Connector or SSO.	81154

Resolved Issues

This section contains a list of issues that are resolved in the SonicWALL Directory Services Connector 3.2.2 release.

Configuration Tool

Symptom	Condition / Workaround	Issue
An error message is returned when modifying the refresh time for the SSO Agent.	Occurs when a user adjusts the refresh time within the SSO Agent properties, and an error message is returned that does not indicate a maximum length for the entered value.	87230
An irregular port number may be accepted for SSO Agent service.	Occurs when a user enters and applies a port number greater than 65535 for single sign-on agent service.	87196

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Management support does not exist for Novell eDirectory for SSO Agent.	Occurs when a user attempts to use Novell eDirectory for a SSO directory solution.	86507
The SSO Agent does not delete its Windows service user names after receiving a “no services user names” notification from the SonicWALL appliance.	Occurs when the Windows service user names are configured during SSO Agent installation, and then all Windows service user names are deleted on the SonicWALL appliance.	81662
Clicking the scrollbar when editing SonicWALL appliance settings causes any changes to revert to the previous values.	Occurs when changes are made in the Edit SonicWALL Appliance window, and then the scrollbar is used before clicking the Apply button.	81575
Version information for directory connector is not available on the main screen.	Occurs when a user must navigate to Help > About SonicWALL Directory Connector to discover current version information.	81449
Using the built-in log viewer may cause an increase in CPU utilization.	Occurs when the log viewer within the directory connector console is used, resulting in varying increases in CPU utilization, particularly on older systems.	81157
Windows service names, such as “_vmware_user_”, appear as user names in the SSO Agent.	Occurs when a Windows service, such as the VMware service, is running under a specific user’s context and the SSO Agent identifies that user as the last one logged in. This is a NETAPI problem.	81082
The Directory Connector Configurator tool cannot view or edit the configuration of a second appliance.	Occurs when the same friendly name is used when adding the second appliance. Workaround: Use a unique friendly name for each appliance.	79426
The user information dialog box is greyed out.	Occurs when the SSO Agent Users and Hosts dialog box displays as grey, preventing the display of IP address, user, and time information.	63601

Policies

Symptom	Condition / Workaround	Issue
A local user not logged into the domain can pass traffic through SSO.	Occurs when the SSO Agent is configured on a firewall, and a local user is logged into a LAN-side PC, but not the domain, and can still ping out to a WAN-side IP, passing authentication through the SSO Agent.	81477

Single Sign-On Agent

Symptom	Condition / Workaround	Issue
Wildcards are not able to be used in select fields.	Occurs when a user attempts to use wildcards in the Windows service name exclusion list for SSO.	86505
The default port of 2258 is not provided for the SSO Agent.	Occurs when installing the SSO Agent.	67321

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Overview of SonicWALL Directory Services Connector

SonicWALL Directory Services Connector 3.2.2 allows SonicWALL NSA and TZ 210 series appliances to achieve transparent, automated Single-Sign-On (SSO) integration with both Active Directory and Novell eDirectory, and allows SonicWALL PRO and TZ 190/180 series appliances to achieve Single-Sign-On (SSO) integration with Active Directory.

SonicWALL Directory Services Connector 3.2.2 includes only the Single Sign-On Agent (SSO Agent) with new support for Novell eDirectory and other enhancements. It does not include a new version of ADConnector (ADC) or NDConnector (NDC).

With Directory Services Connector 3.2.2, the SonicWALL appliance can use Active Directory or Novell eDirectory to authenticate users and determine the filtering policies to assign to each user or user group. The SonicWALL SSO Agent identifies users by IP address and automatically determines when a user has logged out to prevent unauthorized access.

The SonicWALL SSO Agent is not supported in a Citrix or Terminal Services Environment. In these environments, you can use the SonicWALL Terminal Services Agent (TSA) to communicate with SonicWALL SSO. The TSA is not included as part of this release. For more information about the TSA, see the *SonicOS Enhanced 5.6 Administrator's Guide* (or newer) and the *SonicOS Enhanced 5.6 Single Sign-On Feature Module*, available on <http://www.sonicwall.com/us/Support.html>.

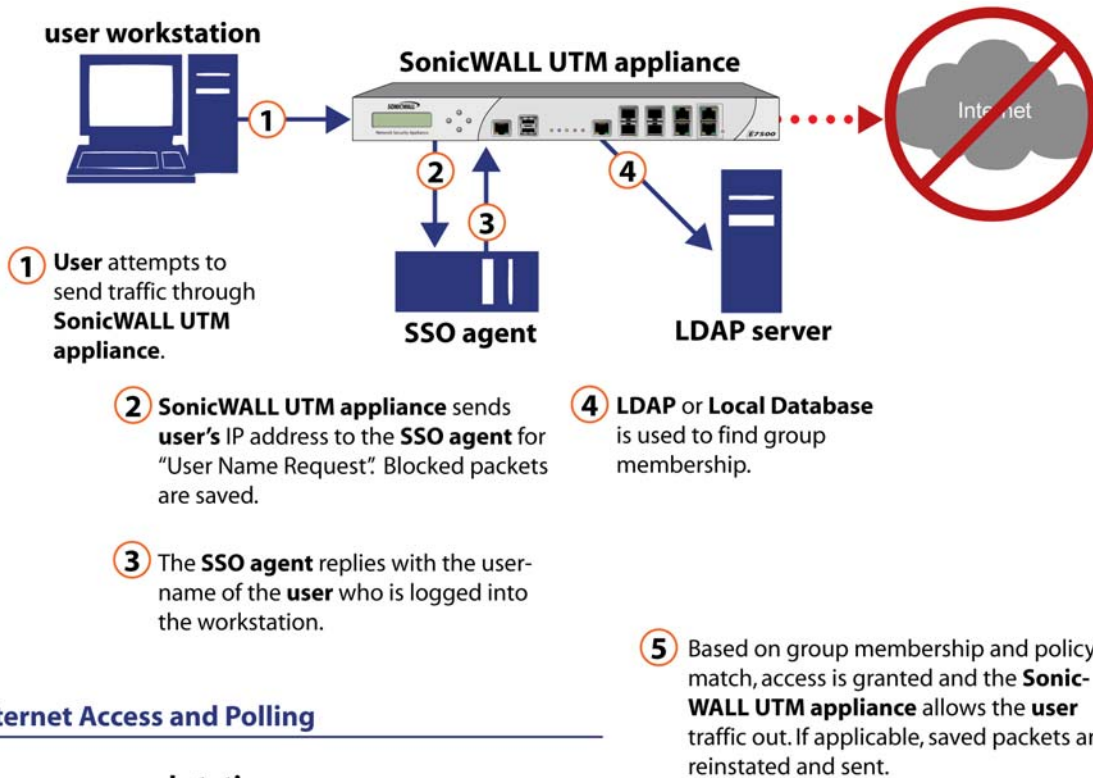
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About SonicWALL SSO and the SSO Agent with Active Directory

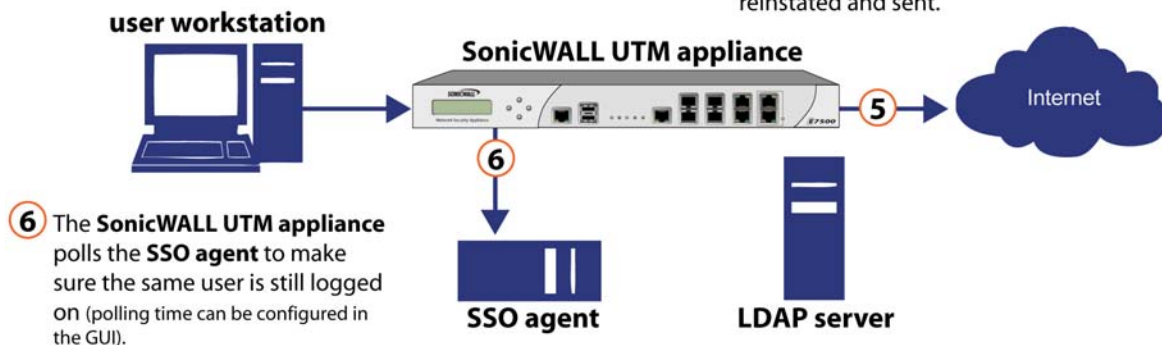
Single Sign-On (SSO) is a transparent user authentication mechanism that provides privileged access to multiple network resources with a single workstation login. SonicWALL security appliances provide SSO functionality using the SonicWALL Single Sign-On Agent (SSO Agent) to identify user activity based on workstation IP address. SSO is configured in the Users > Settings page of the SonicOS management interface. SSO is separate from the authentication method for login settings, which can be used at the same time for authentication of VPN/L2TP client users or administrative users.

SonicWALL Single Sign-On Solution Architecture with Active Directory or LDAP

User Login Authorization



Internet Access and Polling



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When installed without the Novell eDirectory Support option, SonicWALL SSO Agent identifies users by IP address using a protocol compatible with Active Directory and automatically determines when a user has logged out to prevent unauthorized access. Based on data from SonicWALL SSO Agent, the SonicWALL security appliance queries LDAP or the local database to determine group membership. Memberships are optionally checked by firewall policies to control who is given access, and can be used in selecting policies for Content Filtering and Application Firewall to control what they are allowed to access.

User names learned via SSO are reported in the SonicWALL appliance logs of traffic and events from the users. The configured inactivity timer applies with SSO but the session limit does not, though users who are logged out are automatically and transparently logged back in when they send further traffic.

Users logged into a workstation directly, but not logged into the domain, will not be authenticated. For users that are not logged into the domain, an Authentication Required screen will display, indicating that a manual login is required for further authentication.

Users that are identified, but lack the group memberships required by the configured policy rules, are redirected to an Access Barred page.

To use SonicWALL SSO, it is required that the SonicWALL SSO Agent be installed on a server that can communicate with the Active Directory server and with clients and the SonicWALL security appliance directly using the IP address or using a path, such as VPN. The following requirements must be met in order to run the SSO Agent:

- Port 2258 must be open; the firewall uses UDP port 2258 by default to communicate with SonicWALL SSO Agent; if a custom port is configured instead of 2258, then this requirement applies to the custom port
- Windows Server, with latest service pack
- .NET Framework 2.0 or above
- Net API or WMI
- The SSO Agent must run under Domain Admin privileges

Samba 3.5 or newer is required on Linux/Unix clients for use with SonicWALL SSO. Samba is a software package used on Linux/Unix machines to give them access to resources in a Windows domain (via Samba's **smbclient** utility). A user working on a Linux PC with Samba in a Windows domain can be identified via SSO, but it requires proper configuration of the Linux PC, and possibly some reconfiguration of the appliance, as described in the *Using Single Sign-On with Samba* technote, available on: <http://www.sonicwall.com/us/Support.html>

Without Samba, Mac and Linux PCs do not support the Windows networking requests that are used by the SonicWALL SSO Agent, and hence do not work with SonicWALL SSO. MAC and Linux users can still get access, but will need to log in to do so. They can be redirected to the login prompt if policy rules are set to require authentication.

Installing the SonicWALL SSO Agent

When using SSO with Windows, install the SonicWALL SSO Agent on a host on your network that has access to the Active Directory server and all client workstations.

When using SSO with Novell eDirectory Support, install the SonicWALL SSO Agent on a host on your network that has access to the Novell eDirectory server. See the following section for more information about using SSO with Novell eDirectory Support:

[About Novell eDirectory Support and the SonicWALL SSO Agent](#)

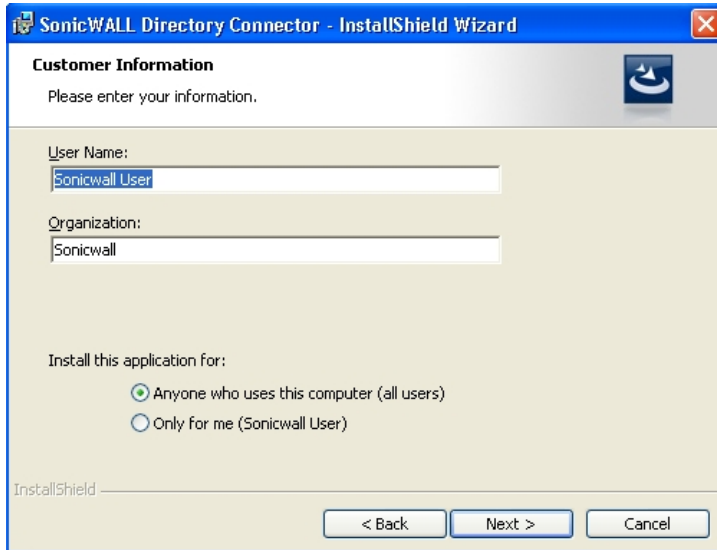
To install the SonicWALL SSO Agent, perform the following steps:

1. Download one of the following installation programs, depending on your computer:
 - **SonicWALL Directory Connector (32-bit) 3.2.2.exe**
 - **SonicWALL Directory Connector (64-bit) 3.2.2.exe**

You can find these on <http://www.mysonicwall.com> under Directory Services Connector.

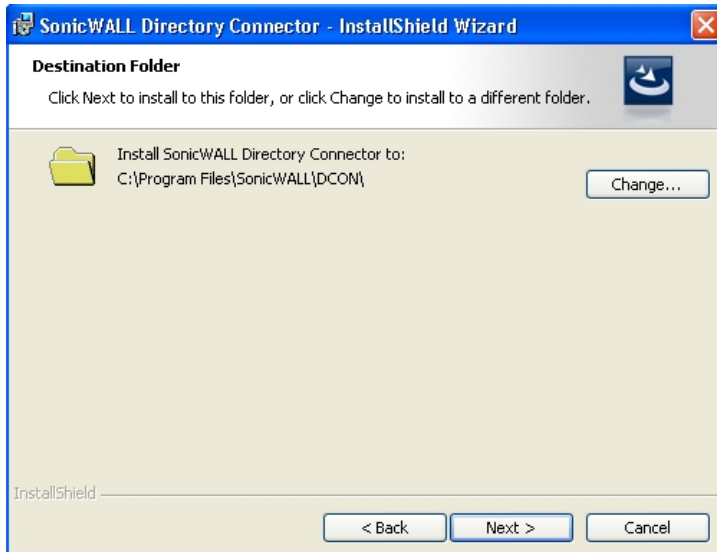
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2. Double-click the installation program to begin installation.
3. If prompted, install the Microsoft .NET framework.
4. In the Welcome screen, click **Next** to continue the installation.
5. In the License Agreement screen, accept the terms of the license agreement, and then click **Next**.
6. In the Customer Information screen, enter your username and the name of the company that owns the workstation where you are installing the Directory Connector, select the application use privileges, and then click **Next**.



The screenshot shows the 'Customer Information' screen of the SonicWALL Directory Connector - InstallShield Wizard. The window title is 'SonicWALL Directory Connector - InstallShield Wizard'. The main heading is 'Customer Information' with a sub-heading 'Please enter your information.' Below this, there are two text input fields: 'User Name:' with the value 'Sonicwall User' and 'Organization:' with the value 'Sonicwall'. Underneath, there is a section titled 'Install this application for:' with two radio button options: 'Anyone who uses this computer (all users)' (which is selected) and 'Only for me (Sonicwall User)'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner.

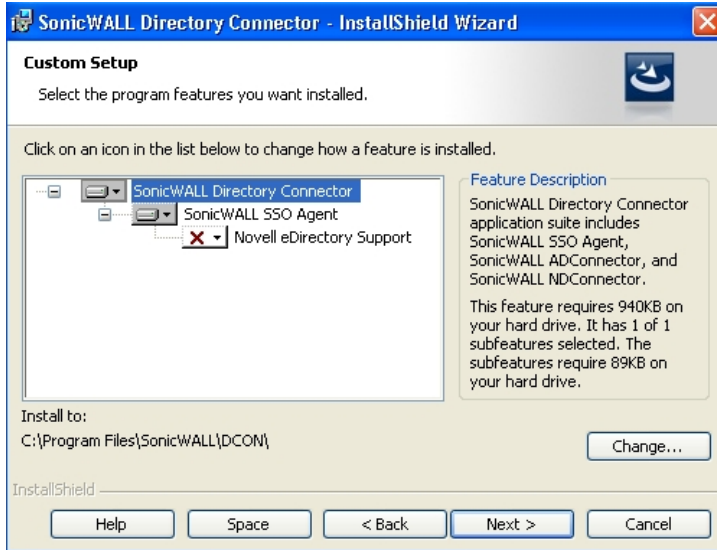
7. Select the destination folder. To use the default folder, C:\Program Files\SonicWALL\DCON, click **Next**. To specify a custom location, click **Change**, select the folder, and click **Next**.



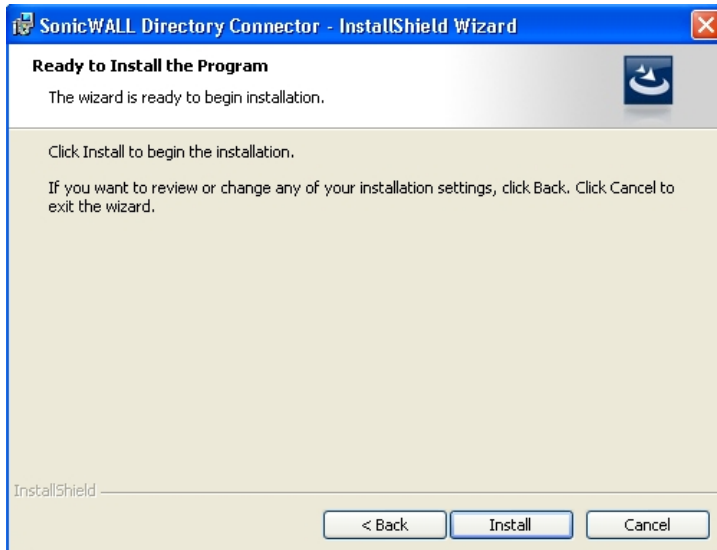
The screenshot shows the 'Destination Folder' screen of the SonicWALL Directory Connector - InstallShield Wizard. The window title is 'SonicWALL Directory Connector - InstallShield Wizard'. The main heading is 'Destination Folder' with a sub-heading 'Click Next to install to this folder, or click Change to install to a different folder.' Below this, there is a folder icon and the text 'Install SonicWALL Directory Connector to: C:\Program Files\SonicWALL\DCON\'. To the right of this text is a 'Change...' button. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner.

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- On the Custom Setup page, the installation icon is displayed by default next to the **SonicWALL SSO Agent** feature. Click **Next**.

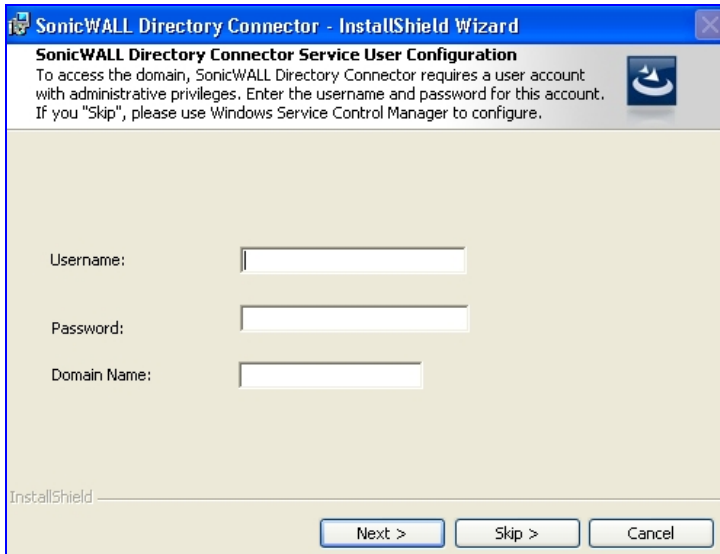


- In the next screen, click **Install** to install Directory Connector. The status bar displays while the SonicWALL SSO Agent installs.

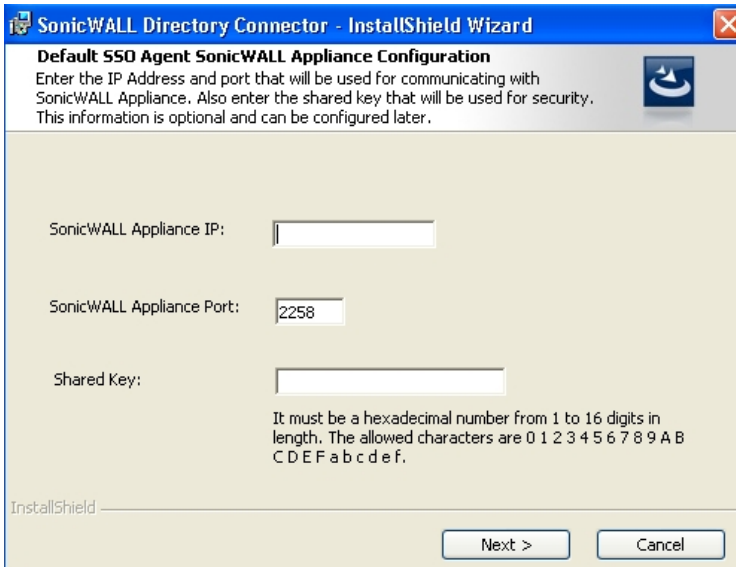


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10. To configure a common service account that the SSO Agent will use to log into a specified Windows domain, enter the username of an account with administrative privileges in the **Username** field, the password for the account in the **Password** field, and the domain name of the account in the **Domain Name** field. Click **Next**.



11. Enter the IP address of your SonicWALL security appliance in the **SonicWALL Appliance IP** field. Type the port number for the same appliance in the **SonicWALL Appliance Port** field. Enter a shared key (a hexadecimal number from 1 to 16 digits in length) in the **Shared Key** field. Click **Next** to continue.



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- When installation is complete, optionally select the **Launch SonicWALL Directory Connector** checkbox to launch the SonicWALL Directory Connector, and then click **Finish**.



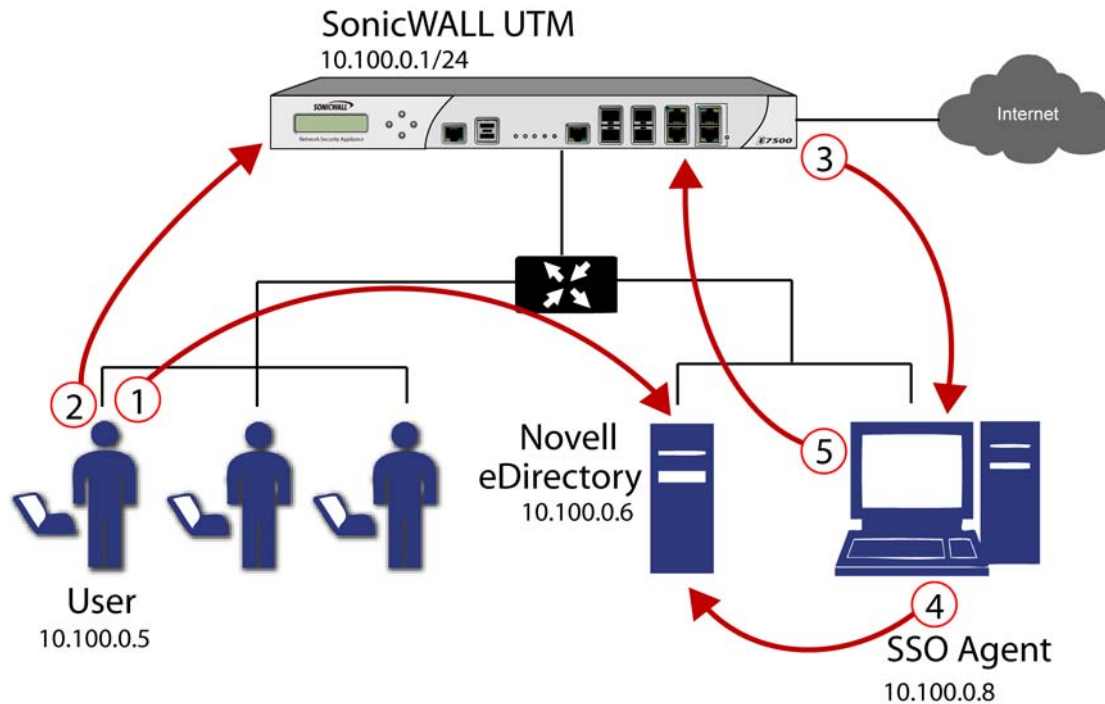
For more information about configuring and using the SonicWALL SSO Agent, see the *SonicOS Administrator's Guide* and the *SonicOS Enhanced Single Sign-On Feature Module*, available on <http://www.sonicwall.com/us/Support.html>.

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About Novell eDirectory Support and the SonicWALL SSO Agent

Novell eDirectory together with the SonicWALL SSO Agent and a SonicWALL UTM appliance running SonicOS Enhanced 5.5 or higher provides a solution for user authentication and the management of access to network resources and online content.

SonicWALL UTM – SSO Agent – Novell eDirectory Solution Architecture



- ① The user logs into the network and authenticates with eDirectory.
- ② The user initiates a request for an Internet resource (such as a Web page, an audio or video stream, or a chat program). The SonicWALL UTM appliance detects the request.
- ③ The SonicWALL appliance queries the SSO Agent.
- ④ The SSO Agent queries the eDirectory server about the user.
- ⑤ The SSO Agent communicates to the SonicWALL UTM the user's content filtering policies, based on the user's individually assigned policies and any policies inherited from groups and from organizational units. The SonicWALL appliance allows, logs, or blocks the user's request, based on the user's content filtering policies.

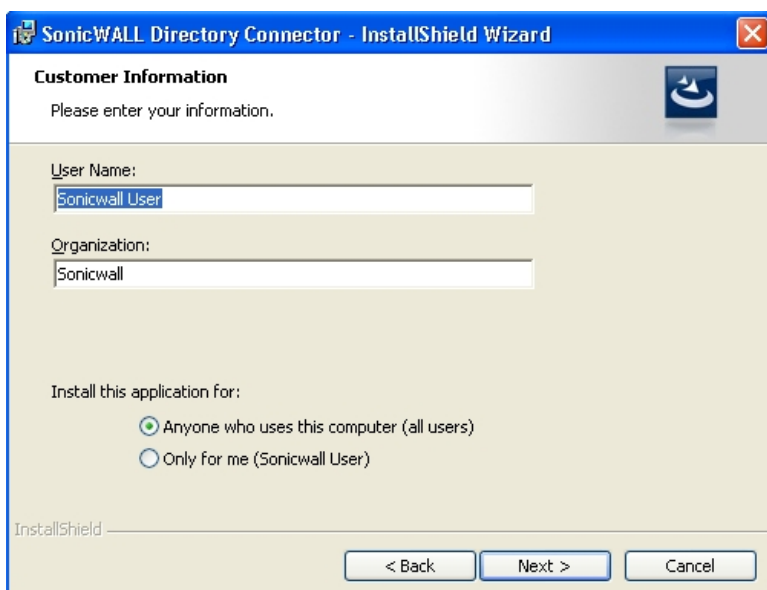
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Installing the SonicWALL SSO Agent with Novell eDirectory Support

Install the SSO Agent on a host on your network that has access to the Novell eDirectory server and all client workstations. It does not need to run on a machine with Novell Client installed.

To install the SSO Agent with Novell eDirectory Support, perform the following steps:

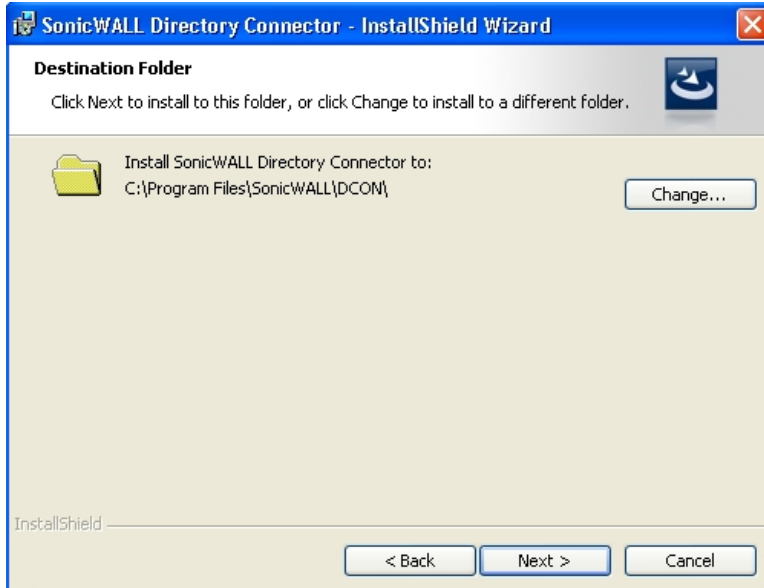
1. Download one of the following installation programs, depending on your computer:
 - **SonicWALL Directory Connector (32-bit) 3.2.2.exe**
 - **SonicWALL Directory Connector (64-bit) 3.2.2.exe**You can find these on <http://www.mysonicwall.com> under Directory Services Connector.
2. Double-click the installation program to begin installation.
3. If prompted, install the Microsoft .NET framework.
4. In the Welcome screen, click **Next** to continue the installation.
5. In the License Agreement screen, accept the terms of the license agreement, and then click **Next**.
6. In the Customer Information screen, enter your username and the name of the company that owns the workstation where you are installing the SSO Agent, select the application use privileges, and then click **Next**.



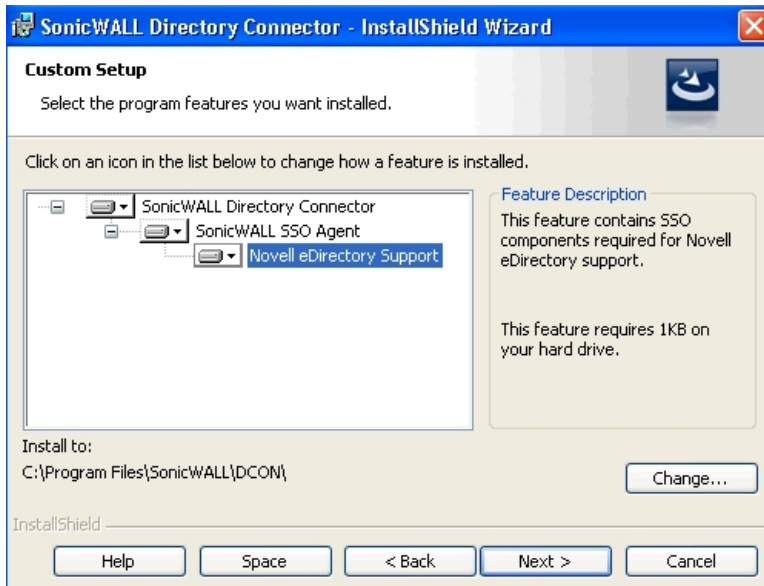
The screenshot shows the 'Customer Information' screen of the 'SonicWALL Directory Connector - InstallShield Wizard'. The window title is 'SonicWALL Directory Connector - InstallShield Wizard'. The main heading is 'Customer Information' with a sub-heading 'Please enter your information.' Below this, there are two text input fields: 'User Name:' with the value 'Sonicwall User' and 'Organization:' with the value 'Sonicwall'. Underneath, there is a section 'Install this application for:' with two radio button options: 'Anyone who uses this computer (all users)' (which is selected) and 'Only for me (Sonicwall User)'. At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner of the dialog box.

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7. Select the destination folder. To use the default folder, C:\Program Files\SonicWALL\DCON, click **Next**. To specify a custom location, click **Change**, select the folder, and click **Next**.



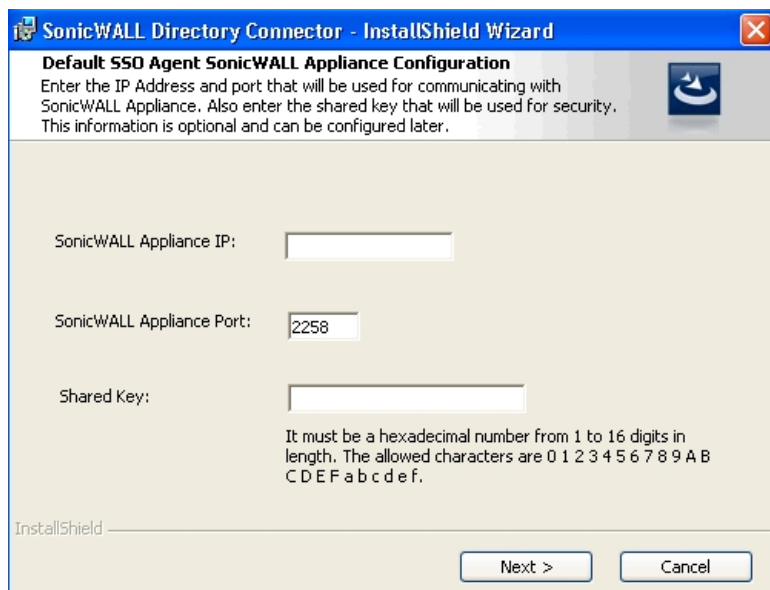
8. On the Custom Setup page, select the **Novell eDirectory Support** feature for installation. Click **Next**.



9. In the Ready to Install the Program screen, click **Install**.

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10. In the Default SSO Agent SonicWALL Appliance Configuration screen, enter the SonicWALL UTM information and then click **Next**:
- **SonicWALL Appliance IP** – Type in the SonicWALL UTM appliance IP address.
 - **SonicWALL Appliance Port** – Type in the port used by the SSO Agent to communicate with the SonicWALL UTM appliance. The default port is 2258.
 - **Shared Key** – Type in a hexadecimal number of up to 16 characters to use as the key for encrypting messages between the SSO Agent and the SonicWALL UTM appliance. You must also enter the same key when configuring the appliance to use SonicWALL SSO.



The screenshot shows a window titled "SonicWALL Directory Connector - InstallShield Wizard". The main heading is "Default SSO Agent SonicWALL Appliance Configuration". Below the heading, there is a sub-heading and a paragraph: "Enter the IP Address and port that will be used for communicating with SonicWALL Appliance. Also enter the shared key that will be used for security. This information is optional and can be configured later." There is a SonicWALL logo icon to the right of this text. Below the text, there are three input fields: "SonicWALL Appliance IP:" with an empty text box, "SonicWALL Appliance Port:" with a text box containing "2258", and "Shared Key:" with an empty text box. Below the "Shared Key:" field, there is a note: "It must be a hexadecimal number from 1 to 16 digits in length. The allowed characters are 0 1 2 3 4 5 6 7 8 9 A B C D E F a b c d e f." At the bottom of the window, there are two buttons: "Next >" and "Cancel". The "InstallShield" logo is visible in the bottom left corner of the window.

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11. In the Novell eDirectory Admin User Configuration screen, enter the information for the Novell eDirectory server, and then click **Next**:
 - **Server IP Address** – eDirectory Server IP Address
 - **Server Port** – eDirectory Server Port (389 by default)
 - **Login Username** – Login username for the administrator account to access the eDirectory server
 - **Password** – Password for the administrator account to access the eDirectory server
 - **Context** – eDirectory context in which the administrator account for the eDirectory server resides

These same settings can be modified after installation by right-clicking on **eDirectory** in the Directory Connector Configuration Tool.

SonicWALL Directory Connector - InstallShield Wizard

Novell eDirectory Admin User Configuration

To access the Novell eDirectory, SonicWALL NDConnector requires a user account with administrative privileges. Enter the eDirectory connection information.

Server IP Address: 172.16.0.43

Server Port: 389

Login Username: Admin

Password: *****

Context: o=sonicwall

InstallShield

< Back Next > Skip > Cancel

12. When installation is complete, optionally select the **Launch SonicWALL Directory Connector** checkbox to launch the SonicWALL Directory Connector, and then click **Finish**.

For more information about configuring and using SonicWALL SSO with Novell eDirectory support, see the *SonicOS Enhanced 5.6 Single Sign-On Feature Module* and the *SonicOS Enhanced 5.6 Administrator's Guide*, available on <http://www.sonicwall.com/us/Support.html>.

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Related Technical Documentation

SonicWALL user guides and reference documentation is available at the SonicWALL Technical Documentation Online Library: <http://www.sonicwall.com/us/Support.html>

For basic and advanced deployment examples, refer to SonicOS Guides and SonicOS Technotes.

The screenshot shows the SonicWALL Support Documentation website. The header includes the SonicWALL logo and navigation tabs: HOME, PRODUCTS, SOLUTIONS, HOW TO BUY, SUPPORT (highlighted), TRAINING & EVENTS, COMPANY, and PARTNERS. A sidebar on the left contains a 'Give Us Your Feedback' button and a 'Support Resources' section with links for Downloads, User Forums, Knowledge Base, and Technical Tutorials. The main content area features a 'Documentation by Product' dropdown menu, a 'Recent Product Guides' table, and a 'Recent Technical Notes' table.

Documentation by Product

Select a product to view its available documentation...

Recent Product Guides [more Product Guides >>](#)

#	Date	Description
1	06 Apr 2010	SonicOS Enhanced 5.7 Administrator's Guide
2	01 Apr 2010	SonicOS Enhanced 5.7 Switching Feature Module for the NSA 2400MX
3	01 Apr 2010	SonicWALL NSA 2400MX Getting Started Guide
4	26 Mar 2010	SonicWALL Email Security 7.2 Virtual Appliance Getting Started Guide
5	12 Mar 2010	SonicWALL CDP 5.1 MS Exchange InfoStore Backup and Restore Feature Module

Recent Technical Notes [more Technical Notes >>](#)

#	Date	Description
1	08 Mar 2010	Enabling Server Virtualization and Data Center Optimization with Enterprise Security Solutions from SonicWALL
2	07 Jan 2010	SonicWALL GMS Web Services
3	05 Jan 2010	SonicWALL CDP 5.1 MacOS Agent for CDP
4	05 Jan 2010	CDP Series Deployment Best Practices
5	05 Jan 2010	SonicWALL CDP 5.1 Linux Agent Users Guide
6	04 Jan 2010	Using a SonicWALL NSA as a WLAN Controller
7	04 Dec 2009	SonicOS Standard to Enhanced Settings Converter
8	26 Oct 2009	Deploying SSL VPN Behind a Microsoft ISA Server
9	23 Oct 2009	How to Route All Traffic through a SonicWALL with Draytek
10	22 Jul 2009	GMS Licensing for Windows and UMA EM5000
11	02 Jul 2009	Leveraging LDAP Groups/ Users with SonicWALL UTM Appliance

Last updated: 4/23/2010