

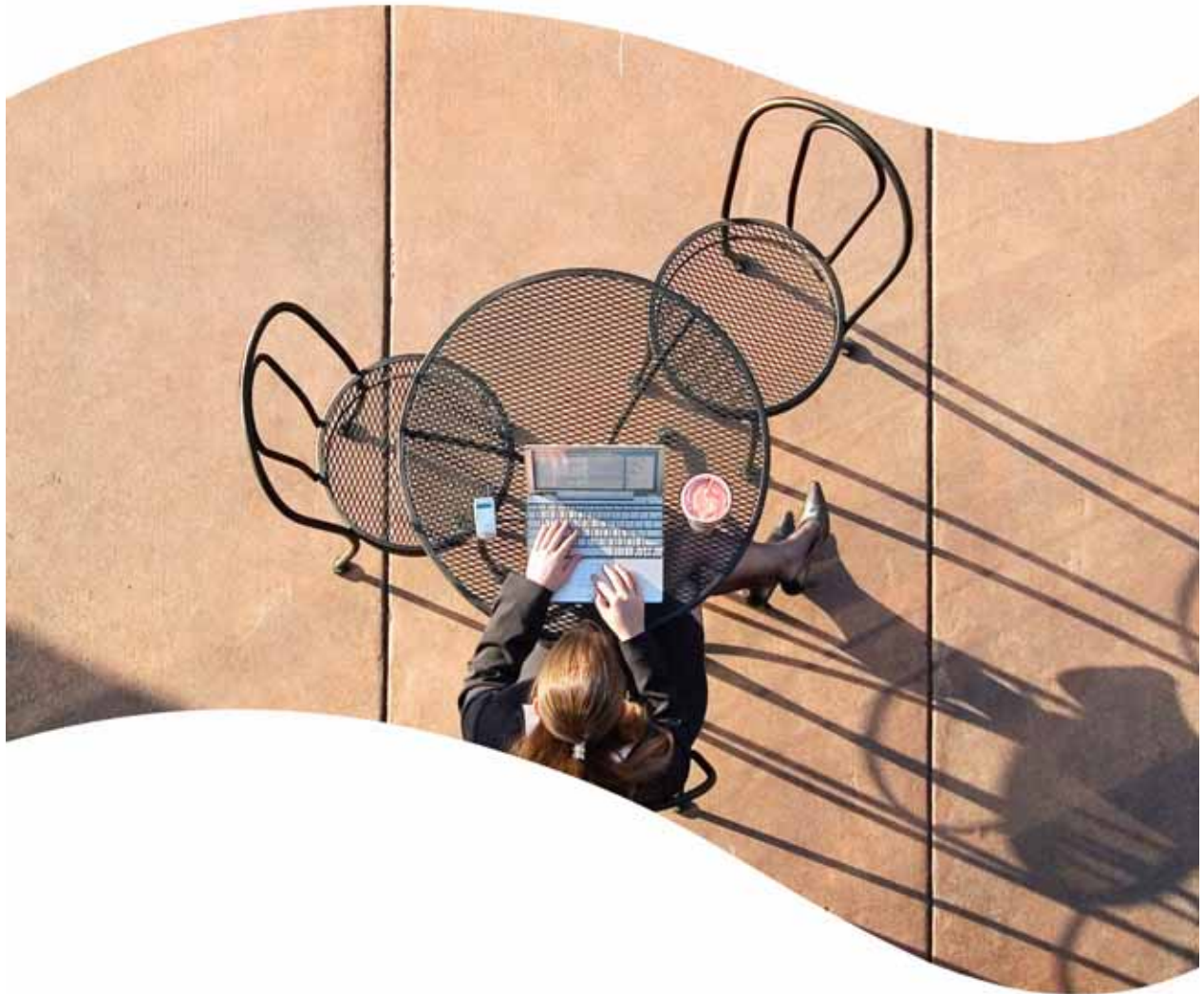
## **Business Continuity Solutions**

BUSINESS CONTINUITY

**SonicWALL CDP Series**

# SonicWALL CDP 5.0 **Agent Tool User's Guide**





## **SonicWALL CDP Agent Tool User's Guide**

Version 5.0

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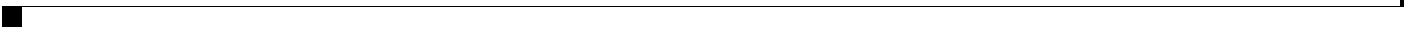
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# Table of Contents

---

Installing the SonicWALL CDP Agent Tool .....	2
Installation Prerequisites .....	2
Configuration Information .....	2
Downloading and Installing the SonicWALL CDP Agent Tool .....	2
Setting up Your SonicWALL CDP Agent .....	5
Logging into the SonicWALL CDP Agent .....	5
Verifying SonicWALL CDP Operation .....	6
Troubleshooting CDP Agent Tool Operation .....	7
SonicWALL CDP Agent Tool Feature Overview .....	8
The Agent Tool Status View .....	8
The Agent Tool Folders View .....	9
The Agent Tool Applications View .....	13
The Agent Tool Search View .....	15
Agent Tool Help Overview .....	18
Managing Server Applications in the Agent Tool .....	19
Microsoft Exchange User Mailbox Backup and Restore .....	19
Microsoft Exchange InfoStore Backup and Restore .....	33
Active Directory Backup and Restore .....	52
SQL Backup and Restore .....	54



# SonicWALL CDP Agent Tool User Guide

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This User's Guide provides installation procedures and configuration guidelines for deploying the SonicWALL Continuous Data Protection (CDP) Agent Tool. The SonicWALL CDP Agent Tool provides user tools for backing up folder and application data.

The SonicWALL CDP appliance backs up data as changes occur and replicates them first locally and then, if configured, to a secure offsite location. This real-time data protection provides the most current file and system backup possible. By combining the advantages of local disk-based backup (fast recovery) with offsite backup\*, the SonicWALL CDP appliance helps protect your network from threats of data loss.

\*Offsite backup is offered as a subscription-based service.

This guide contains the following subsections:

- [“Installing the SonicWALL CDP Agent Tool” section on page 2](#)
  - [“Installation Prerequisites” section on page 2](#)
  - [“Configuration Information” section on page 2](#)
  - [“Downloading and Installing the SonicWALL CDP Agent Tool” section on page 2](#)
  - [“Troubleshooting CDP Agent Tool Operation” section on page 7](#)
- [“Setting up Your SonicWALL CDP Agent” section on page 5](#)
  - [“Logging into the SonicWALL CDP Agent” section on page 5](#)
  - [“Verifying SonicWALL CDP Operation” section on page 6](#)
- [“SonicWALL CDP Agent Tool Feature Overview” section on page 8](#)
  - [“The Agent Tool Status View” section on page 8](#)
  - [“The Agent Tool Folders View” section on page 9](#)
  - [“The Agent Tool Applications View” section on page 13](#)
  - [“The Agent Tool Search View” section on page 15](#)
  - [“Agent Tool Help Overview” section on page 18](#)
- [“Managing Server Applications in the Agent Tool” section on page 19](#)
  - [“Microsoft Exchange User Mailbox Backup and Restore” section on page 19](#)
  - [“Microsoft Exchange InfoStore Backup and Restore” section on page 33](#)
  - [“Active Directory Backup and Restore” section on page 52](#)
  - [“SQL Backup and Restore” section on page 54](#)

# Installing the SonicWALL CDP Agent Tool

This section contains the following subsections:

- “Installation Prerequisites” section on page 2
- “Configuration Information” section on page 2
- “Downloading and Installing the SonicWALL CDP Agent Tool” section on page 2

## Installation Prerequisites

In order to install the SonicWALL CDP Agent Tool, you must have:

- A computer which meets or exceeds the following requirements:
  - Pentium III 450 MHZ Processor
  - 256 MB of RAM
  - 40 MB of free disk space
  - Windows XP, 2000, 2000 Server or 2003 Server
- Administrator privileges on the computer you are installing to
- All applications closed before installing

## Configuration Information

Have your network administrator supply you with the following information needed for SonicWALL CDP Agent setup:

<b>Server Name:</b> _____	The name of the SonicWALL CDP appliance you are connecting to.
<b>Password:</b> _____	The password for your SonicWALL CDP appliance (if applicable).
<b>CDP IP Address:</b> _____	The static IP address for your SonicWALL CDP appliance.

## Downloading and Installing the SonicWALL CDP Agent Tool

Perform the following steps to download and install the SonicWALL CDP Agent Tool on your computer:

### Downloading the Latest SonicWALL CDP Agent Tool Software

1. Open a Web browser on the computer you are using to administer the SonicWALL CDP appliance.
2. Enter <<http://software.sonicwall.com/applications/dataprotect/>> in the **Location** or **Address** bar. The MySonicWALL CDP Software download Web page displays.

3. Click on the download link and choose “Save As” to download the latest version of SonicWALL CDP Software to a location on your hard drive.

## Installing the SonicWALL CDP Agent Tool

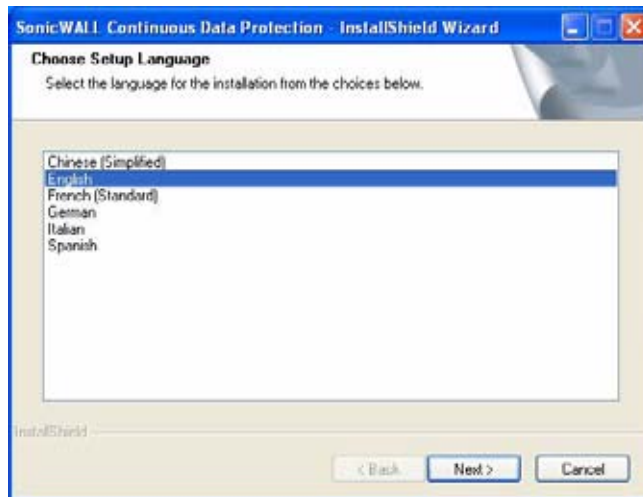
1. Navigate to the folder where your software is downloaded and extract the files.
2. Open the **Setup.exe** file to begin the installation process.



**Note**

If you are running Windows XP SP2 or use a third-party firewall, you may receive a warning during installation of the SonicWALL CDP software. For more information on configuring your firewall to work with SonicWALL CDP, refer to the *SonicWALL CDP Administrator's Guide*.

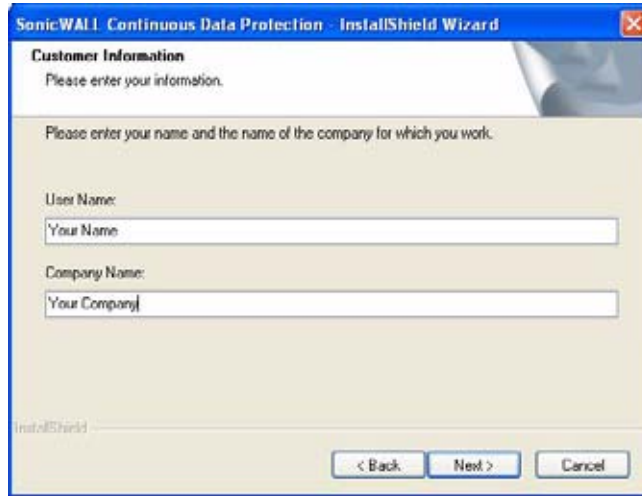
3. Select your preferred language and click **Next**. If you wish to change your language at a later time, you will need to uninstall and re-install the software.



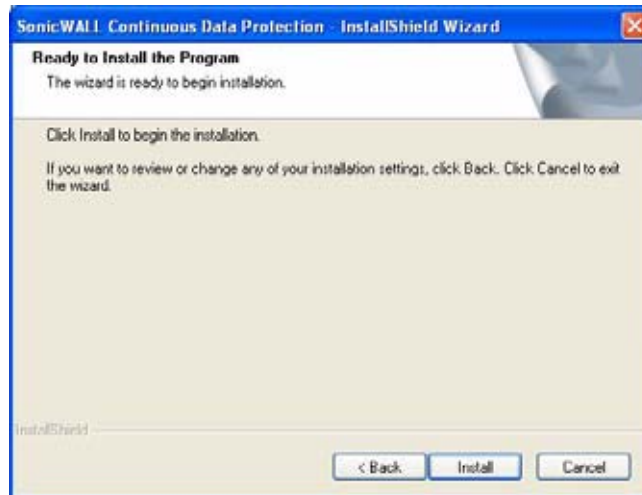
4. If you agree to the terms and conditions, select the **I accept the terms of the license agreement** option and click the **Next** button.



5. Enter a **User Name** and **Company Name** and click the **Next** button to continue.



6. To install the software, click **Install**.



7. Once the software installation is complete, click the **Finish** button.  
You have successfully completed SonicWALL CDP Agent Tool.

# Setting up Your SonicWALL CDP Agent

The following section provides instructions for setting up the CDP Agent Tool. This section contains the following subsections:

- “Logging into the SonicWALL CDP Agent” section on page 5
- “Verifying SonicWALL CDP Operation” section on page 6

## Logging into the SonicWALL CDP Agent

Perform the following steps to login to your SonicWALL CDP Agent for the first time.

1. Launch the SonicWALL CDP Agent Tool from the Windows Start Menu: **Programs > SonicWALL > SonicWALL Continuous Data Protection > SonicWALL Agent Tool.**



### Note

If you are running Windows XP SP2 or use a third-party firewall, you may receive a warning during initial launch of the SonicWALL CDP software. For more information on configuring your firewall to work with SonicWALL CDP, contact your network administrator or refer to the SonicWALL CDP Administrator’s Guide.

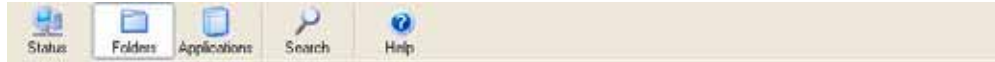
2. Choose the correct CDP Appliance from the list and click the **Connect** button. If you are unsure which CDP appliance to connect to, contact your network administrator before continuing with setup.



## Verifying SonicWALL CDP Operation

The following instructions provide a step by step process for verifying your SonicWALL CDP installation.

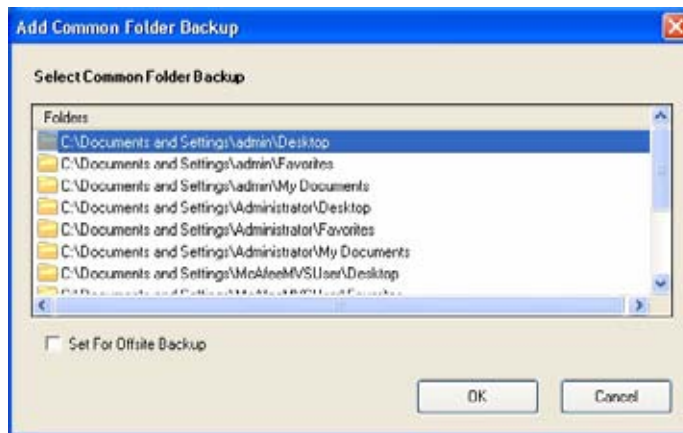
1. If it is not already open, launch the SonicWALL CDP Agent Tool from the Windows Start Menu: **Programs > SonicWALL > SonicWALL Continuous Data Protection > SonicWALL Agent Tool.**
2. In the CDP Agent Tool, click the **Folders** button to enter folders view.



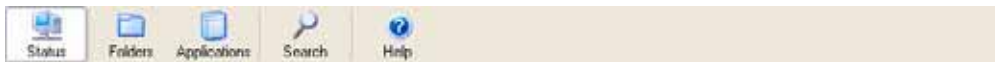
3. At the bottom of the folders view screen, click the **Add Common Folder** link.



4. Select a common folder from the list such as **Desktop** or **My Documents**.
5. If your installation supports offsite backups (an optional service) and you wish to use this feature, select the **Set for Offsite Backup** checkbox.
6. Click the **OK** button to start a backup.



7. Click the **Status** button to return to System Status view.



- To verify your common folder backup, view the File Activity Log. The file activity log displays the files that are currently backed up.

Name	Start Date	Time	Size	Complete
SonicWALL_SonicOS_...	01/19/06 01:27:5...	00:00:00	864 KB	In Progr...
SonicWALL_SonicOS_Enha...	01/19/06 01:27:52 PM	00:00:03	22,243 KB	Complete.
SonicWALL_SonicOS_Enha...	01/19/06 01:27:46 PM	00:00:05	29,370 KB	Complete.
SonicWALL_SonicOS_Enha...	01/19/06 01:27:40 PM	00:00:08	36,238 KB	Complete.
SonicWALL_SonicOS_Enha...	01/19/06 01:27:34 PM	00:00:05	31,204 KB	Complete.
SonicWALL_SonicOS_CLI...	01/19/06 01:27:34 PM	00:00:00	521 KB	Complete.
SonicWALL_SOHO_TZW_...	01/19/06 01:27:34 PM	00:00:00	252 KB	Complete.
SonicWALL_SOHO_TZW_T...	01/19/06 01:27:34 PM	00:00:00	113 KB	Complete.
SonicWALL_SOHO_TZW_F...	01/19/06 01:27:34 PM	00:00:00	180 KB	Complete.
SonicWALL_FRD_5060_Ge...	01/19/06 01:27:34 PM	00:00:00	1,112 KB	Complete.
SonicWALL_FRD_5060_FA...	01/19/06 01:27:34 PM	00:00:00	283 KB	Complete.
SonicWALL_FRD_4100_Ge...	01/19/06 01:27:33 PM	00:00:00	1,783 KB	Complete.
SonicWALL_FRD_4060_Ge...	01/19/06 01:27:33 PM	00:00:00	1,969 KB	Complete.
SonicWALL_FRD_3060_Ge...	01/19/06 01:27:32 PM	00:00:00	2,560 KB	Complete.
SonicWALL_FRD_3060_40...	01/19/06 01:27:32 PM	00:00:00	193 KB	Complete.
SonicWALL_FRD_2040_Ge...	01/19/06 01:27:32 PM	00:00:00	2,537 KB	Complete.
SonicWALL_FRD_2040_FA...	01/19/06 01:27:31 PM	00:00:00	247 KB	Complete.
SonicWALL_FRD_1260_Sta...	01/19/06 01:27:31 PM	00:00:00	1,468 KB	Complete.
SonicWALL_FRD_1260_Ge...	01/19/06 01:27:31 PM	00:00:00	1,404 KB	Complete.

**Note**

For more information on configuring your SonicWALL CDP appliance, refer to the *SonicWALL CDP Administrator's Guide*.

Congratulations! You have successfully set up and tested your SonicWALL CDP appliance.

## Troubleshooting CDP Agent Tool Operation

If your CDP Agent Tool doesn't start, verify the following configurations:

- The software must be installed by a user with administrative rights
- The operating system must be upgraded to the latest released service pack
- Add exceptions for the following .exe files for your personal firewall:
  - CDPAgentService.exe
  - Lasso.Client.exe
  - CDPAutoUpdate.exe
- Verify the Data Execution Prevention (DEP) configuration on Windows Server 2003:
  - Under Windows Services, stop the CDPAgentService.exe service
  - Right click My Computer and select **Properties**, then select the **Advanced** tab
  - Under **Performance**, click **Settings**
  - Select the **DEP** tab
  - Add CDPAgentService.exe, CDPAutoUpdate.exe, and Lasso.Client.exe to the list
  - Click **Apply**
  - Start the Agent Service again
- Verify that there is no other content filtering or personal firewall software running

# SonicWALL CDP Agent Tool Feature Overview

The following section provides instructions for using the SonicWALL CDP Agent Tool. This section contains the following subsections:

- “The Agent Tool Status View” section on page 8
- “The Agent Tool Folders View” section on page 9
- “The Agent Tool Applications View” section on page 13
- “The Agent Tool Search View” section on page 15
- “Agent Tool Help Overview” section on page 18

## The Agent Tool Status View

This section contains the following subsections:

- “Changing the Appliance” section on page 9
- “Adding a Folder” section on page 9
- “Adding an Application” section on page 9

The Status view allows you to view current status, change appliances, add folders and add applications.

To view the Status window, click the **Status** button at the top of the Agent Tool interface.

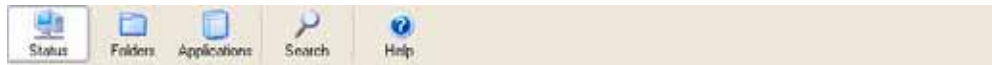
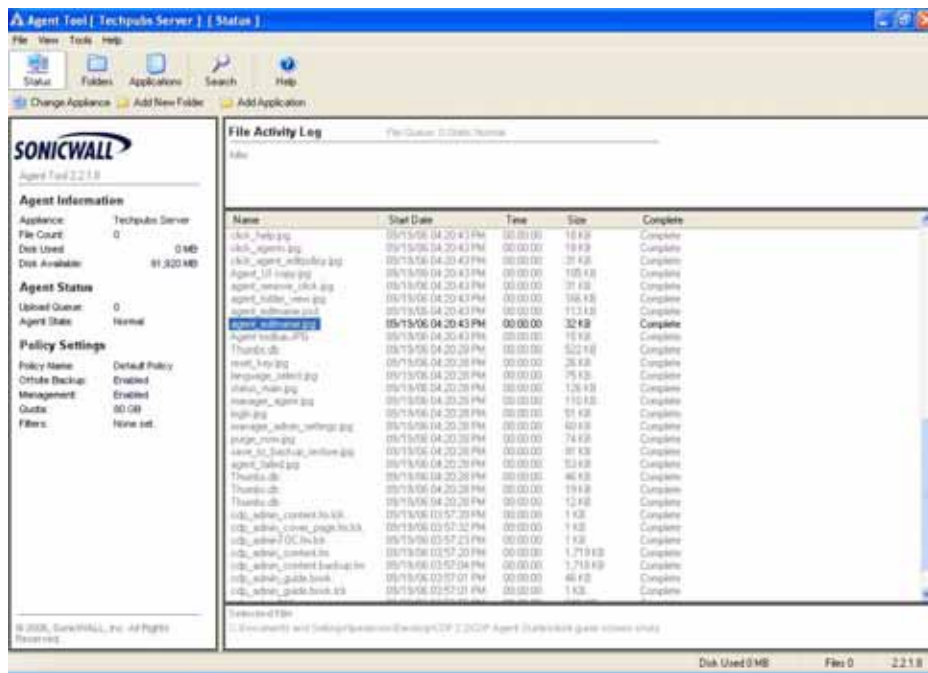


Figure 1 provides an image of the Status window, which displays the File Activity Log.

**Figure 1 Status View**



## Changing the Appliance

1. Click **Change Appliance** at the top of the Agent Tool Status screen.
2. Select the appliance from the **Select SonicWALL CDP Appliance** pop-up window.
3. Click **Connect**.

## Adding a Folder

1. Click **Add New Folder** at the top of the Agent Tool Status window.
2. In the **Browse For Folder** pop-up, find the folder you wish to add, or click **Make New Folder**.
3. Click **OK**.

## Adding an Application

1. Click **Add Application** at the top of the Agent Tool Status window.
2. In the **Add Application To Backup** pop-up, select the application you wish to add.
3. Select the **Set For Offsite Backup** box to backup your application files to the offsite location. This option is only available if your administrator has enabled the optional Offsite Backup service.
4. Click **OK**.

## The Agent Tool Folders View

This section contains the following subsections:

- [“Adding a Common Folder” section on page 10](#)
- [“Backing Up Files Offsite” section on page 11](#)
- [“Removing a Folder” section on page 11](#)
- [“Removing Deleted Items” section on page 11](#)
- [“Removing Old File Versions” section on page 12](#)
- [“Restoring Deleted Folders and Files” section on page 12](#)
- [“Restoring Previous File Versions” section on page 12](#)
- [“Saving to a Location” section on page 12](#)
- [“Viewing Folder Properties” section on page 12](#)

The Folders view allows you to view and edit your backed up folders.

To view the Applications window, click the **Folders** button at the top of the Agent Tool interface.

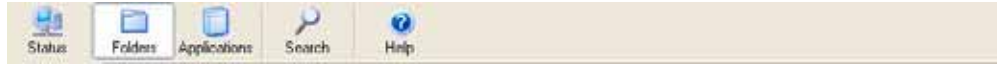
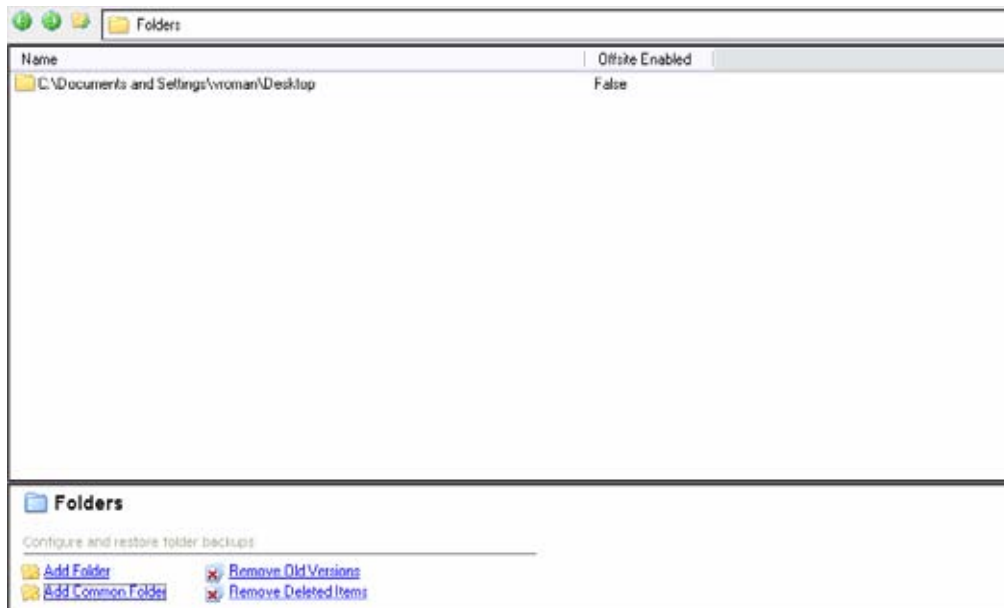


Figure 3 provides an image of the Folders window.

**Figure 2 Agent Tool Folders View**



## Adding a Folder

1. In the **Folders** window at the bottom of the Agent screen, click **Add Folder**.
2. Select the folder you wish to add in the **Browse For Folder** window.
3. Click the **OK** button. Repeat the process to add more folders.

## Adding a Common Folder

1. In the **Folders** window at the bottom of the Agent Tool screen, click **Add Common Folder**.
2. Select the folder you wish to add in the **Add Common Folder Backup** window.
3. Select the **Set for Offsite Backup** checkbox to backup your files to a secure offsite location.
4. Click the **Add** button. Repeat the process to add more folders.



### Note

You must have Offsite Service enabled in order to back up files offsite. Offsite Service is available as an optional subscription-based service. Consult with your network administrator if you are unsure about the availability of this service on your SonicWALL CDP appliance.

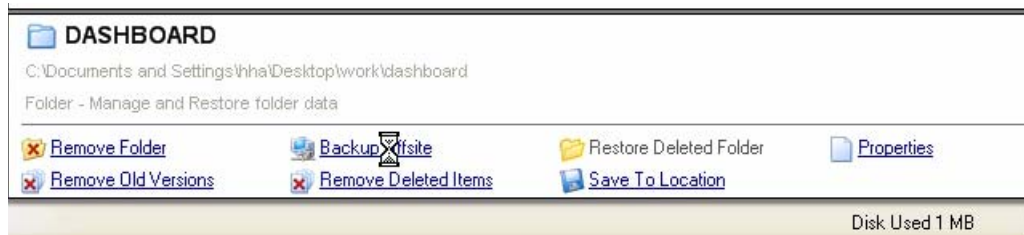
## Backing Up Files Offsite

1. In the **Folders** window, select the folder you wish to backup offsite.
2. At the bottom of the Agent Tool screen, click **Backup Offsite**.
3. Select the **Check for offsite backup** checkbox and click the **Set Status** button.







**Note**

You must have Offsite Service enabled in order to back up files offsite. Offsite Service is available as an optional subscription-based service. Consult with your network administrator if you are unsure about the availability of this service on your SonicWALL CDP appliance.



Files selected for Offsite backup display their status using the following color code:

Offsite Status	
 Gray	Pending transfer; the file or folder is marked for offsite backup, but has not yet been copied.
 Blue	Parent folder marked for backup; this folder along with all subfolders and files will be backed up.
 Orange	Pending update with a newer copy; a version of the file or folder exists offsite, but does not yet contain the latest changes.
 Green	Totally synchronized; the latest version of the file on the CDP has been replicated to the offsite storage.

## Removing a Folder

1. In the **Folders** window, select the folder you wish to remove from backup.
2. At the bottom of the Agent screen, click **Remove Old Versions**. A dialog displays asking if you wish to remove the folder.
3. Click the **Yes** button. A progress window displays while the files are being removed from the SonicWALL CDP appliance.

## Removing Deleted Items

1. In the **Folders** window, select the folder from which you wish to remove deleted items.
2. At the bottom of the Agent screen, click **Remove Deleted Items**. A dialog displays asking if you wish to remove deleted items from the folder.
3. Click the **Yes** button. A progress window displays while the files are being removed from the SonicWALL CDP appliance.

## Removing Old File Versions

1. In the **Folders** window at the bottom of the Agent screen, click **Remove Old Versions**.

**Note**

You can also choose to remove old file versions from specific folders by first clicking the folder in the agent view, and then clicking **Remove Old File Versions**.

2. Click the **Yes** button to remove all old file versions.

## Restoring Deleted Folders and Files

1. In the **Folders** window, select the deleted folder or the file you wish to restore.
2. At the bottom of the Agent screen, click **Restore Deleted Folder** or **Restore Deleted File**. A progress window displays while the file or folder is being restored.

## Restoring Previous File Versions

1. In the **Folders** window, select the file you wish to restore to a previous version.
2. At the bottom of the Agent screen, click **Restore File Version**.
3. Select the version you wish to restore from the list and click the **Restore** button.
4. Select the location to which you wish to restore the file version, and click the **OK** button.

## Saving to a Location

1. In the **Folders** window, select the folder you wish to save.
2. At the bottom of the Agent Tool screen, click **Save to Location**.
3. Choose a location in which to save the folder and click the **OK** button.

## Viewing Folder Properties

1. In the **Folders** window, select the folder for which you wish to view properties.
2. At the bottom of the Agent Tool screen, click **Properties**.

## The Agent Tool Applications View

This section contains the following subsections:

- “Adding a Client Application for Backup” section on page 14
- “Removing a Client Application from Backup” section on page 14
- “Restoring a Client Application” section on page 15
- “Using Server Applications” section on page 15

**Applications**, a function within the Agent Tool, allows the administrator to view client applications and server applications assigned for backup.

To view the Applications window, click the **Applications** button at the top of the Agent Tool interface.

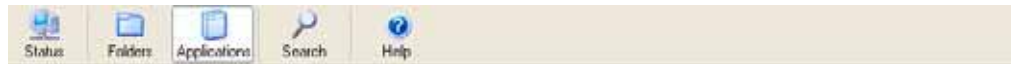
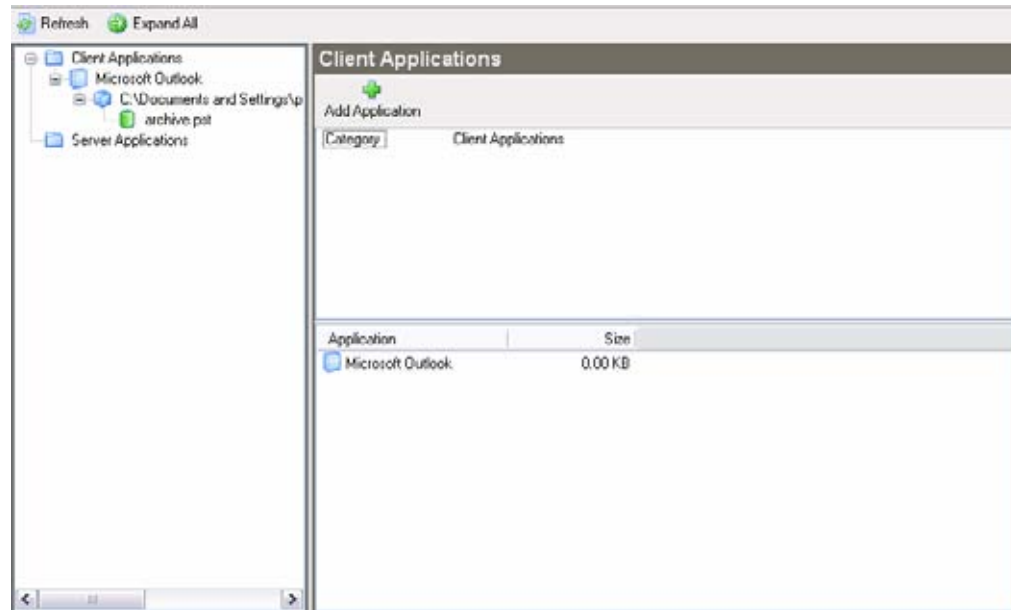


Figure 3 provides an image of the Applications window.

**Figure 3** Agent Tool Applications View



Applications allows administrators to view agent and server applications assigned for backup. It provides a list that includes application name, size and most recent backup date. Archives can be restored or removed within Applications.

## Adding a Client Application for Backup

**Step 1** Click the **Applications** button to view the Client Applications window.

**Step 2** Click the **Add Application** button.



**Note** With the exception of Outlook and Outlook Express, only applications that are installed on your local PC will display in the Add Application Backup dialog box.

**Step 3** Select the desired application from the list.

**Step 4** Check the **Set For Offsite Backup** option for the folder to be backed up to the Offsite Service.

**Step 5** Click the **Add** button. Repeat the process to add more applications.

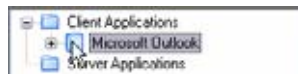


**Note** If the **Add Application** dialog box is empty, there are no more applications installed on the agent to be backed up.

## Removing a Client Application from Backup

**Step 1** Click the **Applications** button to view the Client Applications window.

**Step 2** Select the desired application from the list in the **Agent** window.



**Step 3** Click the **Remove Application** button.



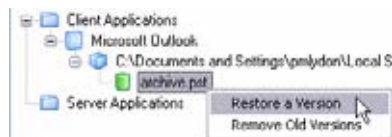
**Step 4** A warning screen displays. Click **Yes** to remove the application.

## Restoring a Client Application

- Step 1** Click the **Applications** button to view the Client Applications window.
- Step 2** Click the **Expand All** button to expand the application lists and show archive files.



- Step 3** **Right-click** on the archive file for the program you want to restore and select **Restore a Version**.



- Step 4** In the **Restore a File Version** window, select the version you wish to restore and click the **Restore** button.
- Step 5** Select a location to restore the file to and click the **OK** button.

## Using Server Applications

Server applications, including Microsoft Exchange, Active Directory, and SQL can be configured for backup or recovery using the SonicWALL CDP Agent Tool.

Refer to the following sections for information about backing up and restoring server applications:

- [“Microsoft Exchange User Mailbox Backup and Restore”](#) section on page 19
- [“Microsoft Exchange InfoStore Backup and Restore”](#) section on page 33
- [“Active Directory Backup and Restore”](#) section on page 52
- [“SQL Backup and Restore”](#) section on page 54

## The Agent Tool Search View

This section contains the following subsections:

- [“Searching for Files”](#) section on page 16
- [“Searching Within Server Applications”](#) section on page 17
- [“Searching Within Client Applications”](#) section on page 17

**Search**, a function within the Agent Tool, provides the administrator with the ability to search for data stored on the SonicWALL CDP appliance.

To view the Search window, click the **Search** button at the top of the Agent Tool interface.

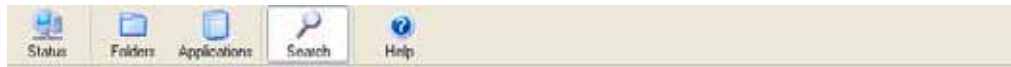
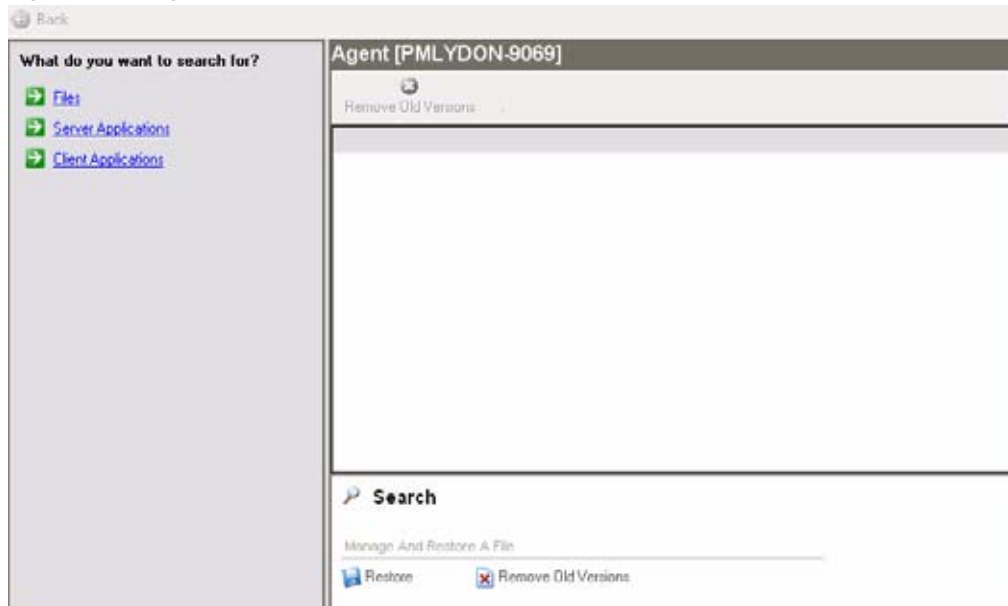


Figure 4 provides an image of the Search window

**Figure 4** Agent Tool Search View



## Searching for Files

**Step 1** In the **Search** view, select **Files** from the left-hand window.



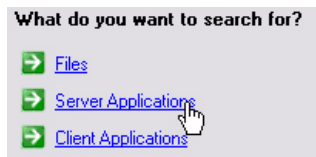
- Step 2** Select the folder you want to search from the **Folder** drop-down menu, or select **Search All Folders**.
- Step 3** Enter a search string in the **All or part of the file name** field.
- Step 4** To search a specific date or date-range, select a last modified date from the pre-defined time ranges in the **When was it modified** drop-down menu, or specify your own dates in the drop down menus below.
- Step 5** To search for a specific file size or file size-range, select a size from the **What size is it** drop-down menu, or specify your own size or size-range below.
- Step 6** Select a value from the **How many backup versions should exist** drop-down menu and enter a number.
- Step 7** To search only for folders marked for Offsite Service backup, select **Yes** from the **Marked for offsite backup** menu.

- Step 8** If searching for folders marked for offsite backup, choose to search only for folders which currently exist at the Offsite Service by selecting **Yes** from the **Exists offsite** drop-down menu.
- Step 9** Click the **Search** button to start your search.

## Searching Within Server Applications

---

- Step 1** In the **Search** view, select **Server Applications** form the left-hand window.

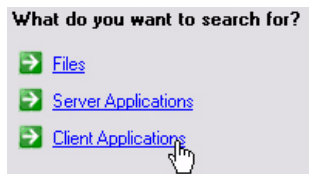


- Step 2** Select an application to search from the **Application** drop-down menu.
- Step 3** Click the **Search** button to start your search.

## Searching Within Client Applications

---

- Step 1** In the **Search** view, select **Client Applications** form the left-hand window.



- Step 2** Select an application to search from the **Application** drop-down menu.
- Step 3** Click the **Search** button to start your search.

## Agent Tool Help Overview

**Help**, a function within the Agent Tool, redirects users to online SonicWALL CDP help content. To view the help content, click the **Help** button in the Agent Tool toolbar.

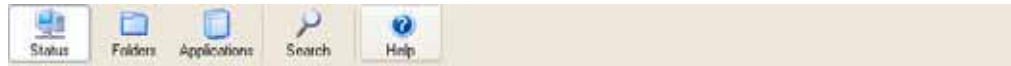


Figure 5 provides the Agent Tool view of help content.

**Figure 5** Help



# Managing Server Applications in the Agent Tool



**Note**

The SonicWALL CDP appliance must be specially licensed for server applications.

The following sections describe procedures for backing up and restoring server applications:

- [“Microsoft Exchange User Mailbox Backup and Restore” section on page 19](#)
- [“Microsoft Exchange InfoStore Backup and Restore” section on page 33](#)
- [“Active Directory Backup and Restore” section on page 52](#)
- [“SQL Backup and Restore” section on page 54](#)

## Microsoft Exchange User Mailbox Backup and Restore

This section describes how to configure and use the Microsoft Exchange User Mailbox Backup and Restore server application in SonicWALL CDP 5.0.

SonicWALL CDP Microsoft Exchange User Mailbox Backup and Restore is a feature that allows you to backup and restore an individual user mailbox on your Microsoft Exchange server. The user mailbox is backed up onto your SonicWALL CDP appliance. You can use this feature by adding the Microsoft Exchange - User Mailbox application to the SonicWALL CDP Agent Tool. From the Agent Tool, you can use the User Mailbox application to configure the backup schedule for one or more user mailboxes, the login credentials for the Exchange server, the parameters for offsite backup, and to restore individual user mailboxes to the Exchange server.

The SonicWALL CDP Microsoft Exchange User Mailbox Backup and Restore feature provides the functionality and flexibility that you need to backup and restore specific user mailboxes, rather than backing up the entire Exchange database. The User Mailbox Backup and Restore feature includes the following capabilities:

- Convenient interface for adding user mailboxes to or deleting them from the backup process
- Ability to set the backup schedule for a group of mailboxes or for individual user mailboxes
- Secure login using credentials to Microsoft Exchange server
- Optional automatic backup of user mailboxes to an offsite location
- Retention of multiple backups for each user mailbox

See the following sections:

- [“Platforms that Support User Mailbox Backup and Restore” section on page 20](#)
- [“How Does User Mailbox Backup and Restore Work?” section on page 20](#)
- [“Installation Prerequisites” section on page 21](#)
- [“Adding the User Mailbox Application to the Agent Tool” section on page 23](#)
- [“Adding User Mailboxes for Backup” section on page 25](#)
- [“Scheduling Backups for User Mailboxes” section on page 26](#)
- [“Configuring Access to the Exchange Server” section on page 27](#)
- [“Configuring Offsite Backup of User Mailboxes” section on page 29](#)
- [“Restoring User Mailboxes” section on page 29](#)

- “Removing User Mailboxes from the Backup Schedule” section on page 31
- “Removing the User Mailbox Application” section on page 32
- “Verifying User Mailbox Backup Activity” section on page 32

## Platforms that Support User Mailbox Backup and Restore

The SonicWALL CDP Microsoft Exchange User Mailbox Backup and Restore feature is supported on the following platforms:

- SonicWALL CDP 110
- SonicWALL CDP 210
- SonicWALL CDP 5040
- SonicWALL CDP 6080



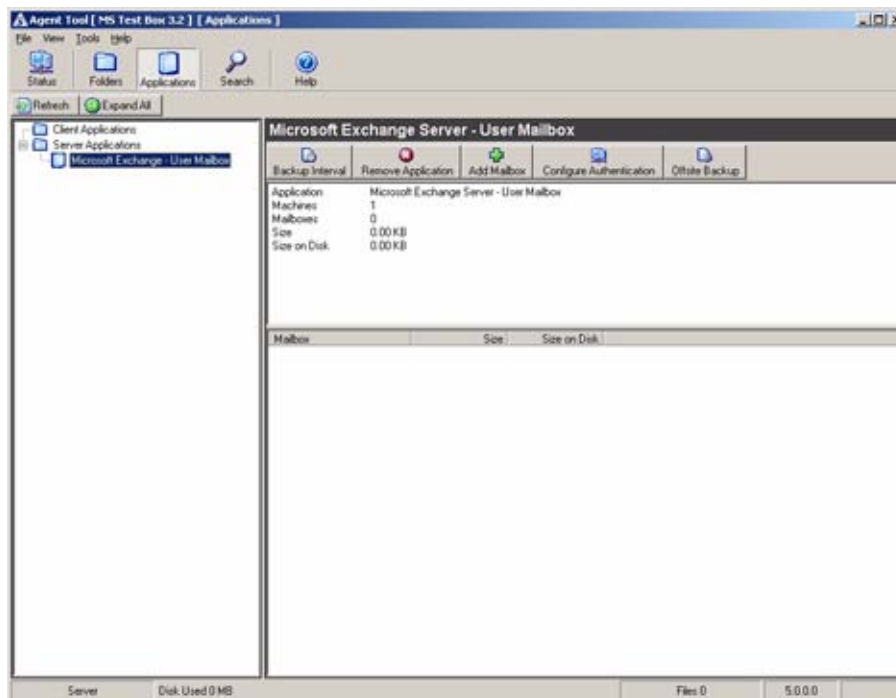
**Note**

The SonicWALL CDP appliance must be specially licensed for server applications.

For related information, see “Installation Prerequisites” on page 21.

## How Does User Mailbox Backup and Restore Work?

The SonicWALL CDP Microsoft Exchange User Mailbox Backup and Restore feature is implemented as a server application that is added to the SonicWALL CDP Agent Tool. To use the feature, add the **Microsoft Exchange - User Mailbox** (User Mailbox) application to the SonicWALL CDP Agent Tool from within the Agent Tool user interface. You can then select the application in the left pane of the Agent Tool and access the application controls in the right pane.



The User Mailbox application allows you to add or delete individual user mailboxes for backup, set backup schedules, restore specific backups of individual mailboxes, enter credentials for accessing the Exchange server, and configure offsite backup. You can view log entries in the SonicWALL CDP Agent Tool on the **Status** tab to verify that backups are successful.

## Installation Prerequisites

This section lists the necessary prerequisites for successful operation of the SonicWALL CDP Agent Tool with the Microsoft Exchange User Mailbox Backup and Restore feature.

### Proper Configuration of Exchange Admin User on Agent

Follow the instructions below to allow mailbox access for proper user mailbox backup/restore in Microsoft Exchange 2003(32bit) and Microsoft Exchange 2007(64bit). On your Agent system, make the Exchange admin user a member of the “Administrators” group, and login to the Exchange system as the Exchange admin user.

See the following subsections for specific instructions:

- [Configuration on a 32-bit Machine, page 21](#)
- [Configuration on a 64-bit Machine, page 22](#)

See the following Microsoft Knowledge Base articles for more information:

<http://support.microsoft.com/kb/556045>

<http://support.microsoft.com/kb/821897>

#### Configuration on a 32-bit Machine

To configure the Exchange admin user on a 32-bit machine (MS Windows SBS 2003 and MS Exchange 2003), perform the following steps:

- 
- Step 1** Create a user in ‘Active Directory User and Computer’ in the Domain Controller (DC) computer (such as **cdpAdmin**).
  - Step 2** Add this user (cdpAdmin) to the group ‘Backup Operator’.
  - Step 3** On the Exchange server, launch the Exchange system manager console and navigate to **Servers**.
  - Step 4** Expand **Servers**, right-click on the server name and then click **Properties**.
  - Step 5** In the **Security** tab, add this user to **Administrator group or user**.
  - Step 6** Make sure this user has **Full control** permissions.
  - Step 7** Logout of the MS Exchange server machine and then log back in as the **cdpAdmin** user.
  - Step 8** Open SonicWALL CDP Agent Tool, select the **Application** tab, and add **MS Exchange – User Mailbox**.
  - Step 9** Click the **Configure Authentication** button. Enter the user credentials in the authentication dialog box:
    - User: Domain\user (yourDomain\cdpAdmin)
    - Password: password for user cdpAdmin

### Configuration on a 64-bit Machine

To configure the Exchange admin user on a 64-bit machine: (MS Windows 2003/2008 and MS Exchange 2007), perform the following steps:

- Step 1** Create a user in ‘Active Directory User and Computer’ in the Domain Controller (DC) computer (such as **cdpAdmin**).
- Step 2** Add this user (**cdpAdmin**) to the group ‘Backup Operator’.
- Step 3** On the MS Exchange machine, access the Microsoft Exchange Shell by going to **Start > Programs > Microsoft Exchange Server 2007 > Exchange Management Shell**.
- Step 4** To set the **Exchange View Only Administrator** role, type the command in the following format:

```
add-exchangeadministrator <service_account_name> -role ViewOnlyAdmin
```

An example of this command is:

```
add-exchangeadministrator cdpAdmin -role ViewOnlyAdmin
```

- Step 5** To set the Send As, Receive As, and Administer Information Store permissions, type the following command:

```
get-mailboxserver <server_name> | add-adpermission -user <service_account_name>
-accessrights GenericRead, GenericWrite -extendedrights Send-As, Receive-As,
ms-Exch-Store-Admin
```

Where:

- **<server\_name>** is the Microsoft Exchange2007 server name
- **<service\_account\_name>** is the user account created in step 1 (**cdpAdmin**)

An example of this command is:

```
get-mailboxserver win2k3ee | add-adpermission -user cdpAdmin -accessrights GenericRead,
GenericWrite -extendedrights Send-As, Receive-As, ms-Exch-Store-Admin
```

- Step 6** On the MS Exchange server machine, to give login access to the **cdpAdmin** user, navigate to **Computer Management > Local Users and Groups**, right-click on **Users** and select **New User** , and then add **cdpAdmin**.
- Step 7** Logout of the MS Exchange server machine and then log back in as the **cdpAdmin** user.
- Step 8** Open the SonicWALL CDP Agent Tool and configure authentication for **MS Exchange – User Mailbox** with the following credentials:

User: Domain\user (yourDomain\cdpAdmin)

Password: password for user cdpAdmin

### ExOLEDB / ADO / CDO Requirements

SonicWALL CDP uses **ExOLEDB** to access Microsoft Exchange. The **Exchange OLE DB Provider** should be installed along with Microsoft Exchange, and must be accessible by SonicWALL CDP Enterprise Manager and Agent Tool.

The ADO (ActiveX Data Objects) and CDO (Collaboration Data Objects) APIs are also required by this feature. These are application programming interfaces provided by Microsoft that allow applications to access data stores in a uniform manner. These APIs are included with the Microsoft Exchange installation.

## Microsoft Exchange Versions Supported

The following versions of Microsoft Exchange are supported:

- Exchange 2000
- Exchange 2003
- Exchange 2007 (Service Pack 1)

## Windows Server Versions Supported

Microsoft Exchange runs on the following versions of Windows Server:

- Windows Server 2000 (Service Pack 4)
- Windows Server 2003 32-bit
- Windows Server 2003 64-bit
- Windows Server 2008

## Windows Server / Exchange Compatibility

The following table indicates the versions of Exchange Server that are supported on each version of Windows Server:

Windows Server / Exchange Version Compatibility	Windows Server 2000 (Service Pack 4)	Windows Server 2003 32-bit	Windows Server 2003 64-bit	Windows Server 2008
Exchange 2000	Supported			
Exchange 2003	Supported - Requires Windows Server Service Pack 4	Supported		
Exchange 2007 (Service Pack 1)			Supported	Supported



### Note

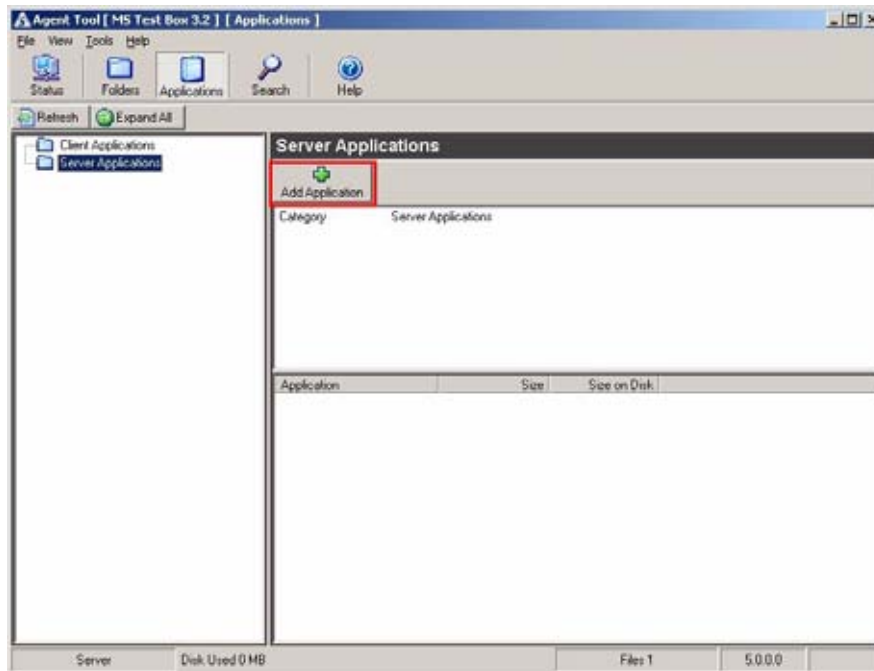
Refer to the latest SonicWALL CDP Release Notes, available on [www.sonicwall.com](http://www.sonicwall.com), for the location of the full support matrix and compatibility information.

## Adding the User Mailbox Application to the Agent Tool

Before you can use the Microsoft Exchange User Mailbox Backup and Restore feature, you need to add the **Microsoft Exchange - User Mailbox** application to the SonicWALL CDP Agent Tool.

- 
- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab at the top of the window.
- Step 2** In the left pane, select **Server Applications**.

**Step 3** In the right pane, click the **Add Application** button.



**Step 4** In the **Add Application Backup** dialog box, select **Microsoft Exchange Server - User Mailbox**.



**Step 5** Optionally select the **Set for Offsite Backup** checkbox to backup the User Mailbox application data offsite. You can change this setting at any time after adding the User Mailbox application. For information about configuring offsite backup, see [“Configuring Offsite Backup of User Mailboxes” on page 29](#).

**Step 6** Click **OK**.

After the User Mailbox application is added, you can access it on the **Applications** tab.

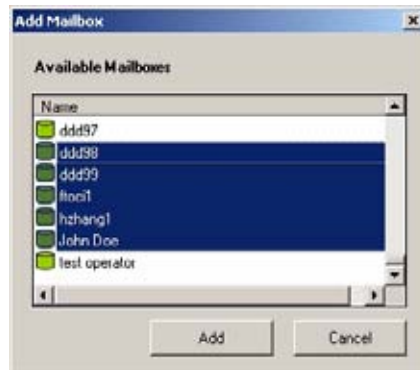
## Adding User Mailboxes for Backup

This section describes how to add individual user mailboxes for backup.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane, expand **Server Applications** and select **Microsoft Exchange - User Mailbox**.
- Step 3** In the right pane, click the **Add Mailbox** button.



- Step 4** In the **Add Mailbox** dialog box, select one or more mailboxes to backup.



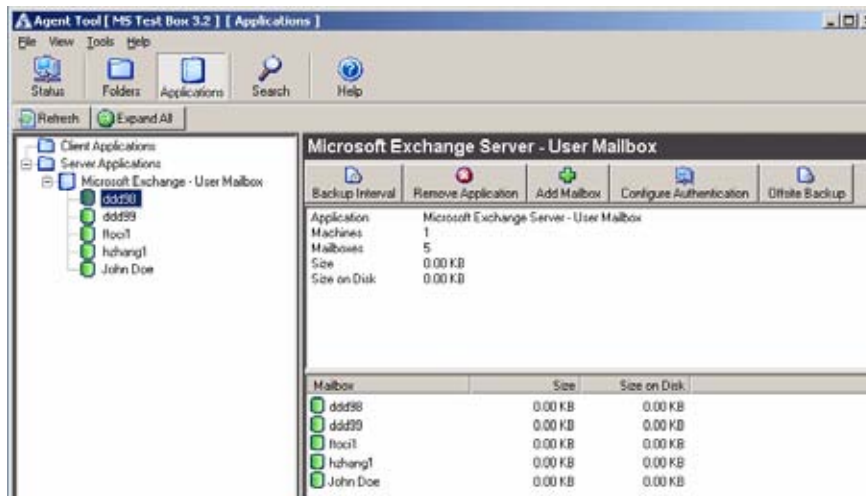
- Step 5** Click **Add**.

The selected mailboxes appear in the bottom pane of the User Mailbox application page.

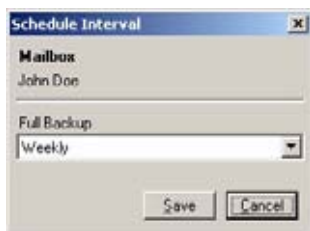
## Scheduling Backups for User Mailboxes

This section describes how to configure the backup schedule for user mailboxes.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane select one or more user mailboxes for which you want to schedule backups. To schedule backups for all mailboxes, select **Microsoft Exchange - User Mailbox**.
- Step 3** In the right pane, click the **Backup Interval** button.



- Step 4** In the **Schedule Interval** dialog box, select one of the following backup intervals from the drop-down list:
  - Monthly – The backup occurs once a month.
  - Biweekly – The backup occurs every two weeks.
  - Weekly – The backup occurs every week.
  - Daily – The backup occurs every day at approximately the same time.



- Step 5** Click **Save**.  
The first backup occurs immediately.
- Step 6** To view the backup status in the User Mailbox application window, select a user mailbox or **Microsoft Exchange - User Mailbox** in the left pane and then click the **Refresh** button.

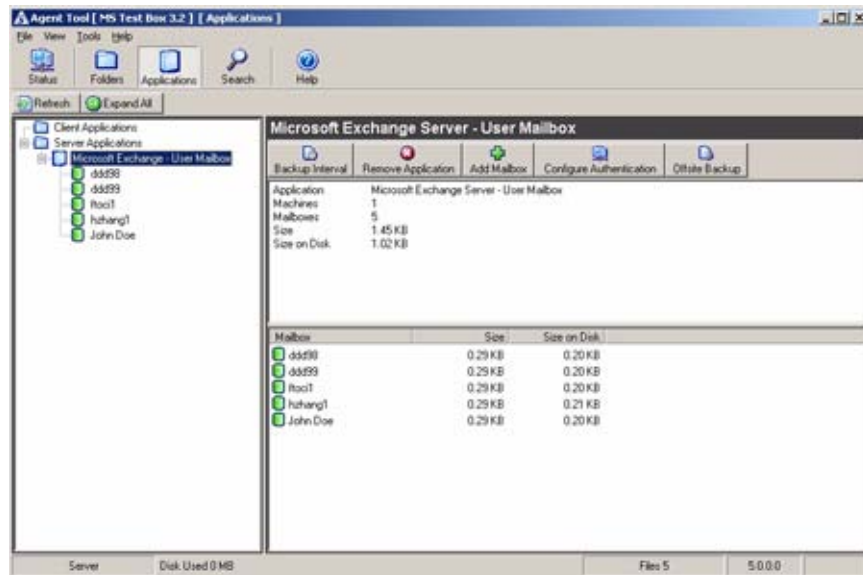


**Note** The window does not refresh automatically after the backup occurs.

If a single mailbox was selected, the bottom pane of the User Mailbox application window displays the backup dates and the amount of disk space used for the selected mailbox.



If **Microsoft Exchange - User Mailbox** was selected, backup data is displayed for all mailboxes. At the application level, one row is displayed for each user mailbox and the **Size** fields indicate the total size of all existing backups for that mailbox.



## Configuring Access to the Exchange Server

This section describes how to configure access between the SonicWALL CDP appliance and the Exchange server where the user mailboxes reside. You can use the default **Use Trusted Connection** setting, which allows access to the Exchange server without providing credentials. Or, you can provide the user name and password credentials for accessing the Exchange server. In either case, you can test the connection between the SonicWALL CDP appliance and the Exchange server.



**Note**

If the **Use Trusted Connection** setting is selected, the actual backup process uses the local SYSTEM account to access the Microsoft Exchange database.

## Configuring Login Credentials for the Exchange Server

Before configuring the User Mailbox application to use credentials when accessing the Exchange server, you must first configure the credentials on the Exchange server. The user name must have appropriate privileges to access user mailbox data on the Exchange server. For more information about configuring users and access privileges on Microsoft Exchange, see the Microsoft knowledge base articles at:

<http://support.microsoft.com/kb/821897>

<http://support.microsoft.com/kb/556045>

To configure a user name and password for SonicWALL CDP to use when accessing the Exchange server, perform the following steps:

- 
- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
  - Step 2** In the left pane under **Server Applications**, select **Microsoft Exchange - User Mailbox**.
  - Step 3** In the right pane, click the **Configure Authentication** button.
  - Step 4** In the **Authentication** dialog box, to configure the access credentials for the Exchange server, clear the **Use Trusted Connection** checkbox. The **User Name** and **Password** fields become active.



- Step 5** Type the user name into the **User Name** field.  
This account must have privileges for accessing user mailbox data on the Exchange server (see [KB821897](#)).
- Step 6** Type the password into the **Password** field.
- Step 7** To test the connection between the User Mailbox application and the Exchange server, click the **Test Connection** button.
- Step 8** To save this configuration, click **Save**.

## Configuring Access to the Exchange Server Without Credentials

You can choose to access the Exchange server without using login credentials.



**Note**

In this case, you are using the current user privileges to access Microsoft Exchange and Active Directory. Actual backups will be executed using the local SYSTEM account.

To configure trusted access without the need for login credentials when SonicWALL CDP accesses the Exchange server, perform the following steps:

- 
- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
  - Step 2** In the left pane under **Server Applications**, select **Microsoft Exchange - User Mailbox**.
  - Step 3** In the right pane, click the **Configure Authentication** button.
  - Step 4** In the **Authentication** dialog box, select the **Use Trusted Connection** checkbox.
  - Step 5** To test the connection between the User Mailbox application and the Exchange server, click the **Test Connection** button.
  - Step 6** To save this configuration, click **Save**.

## Configuring Offsite Backup of User Mailboxes

This section describes how to configure the User Mailbox application to backup user mailboxes to an offsite SonicWALL CDP appliance. Offsite backup settings must already be configured in SonicWALL CDP Enterprise Manager, and the offsite appliance must be available. For instructions and information, see the *SonicWALL CDP Administrator's Guide*.

- 
- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
  - Step 2** In the left pane under **Server Applications**, select **Microsoft Exchange - User Mailbox**.
  - Step 3** In the right pane, click the **Offsite Backup** button.
  - Step 4** In the **Offsite Status** dialog box, select the **Check for offsite backup** checkbox.



- Step 5** Click **Set Status**.

## Restoring User Mailboxes

This section describes how to restore an individual user mailbox backup to the Exchange server. During the restore process, the backed up data is **first copied to a temporary location** and then copied to the Exchange server.



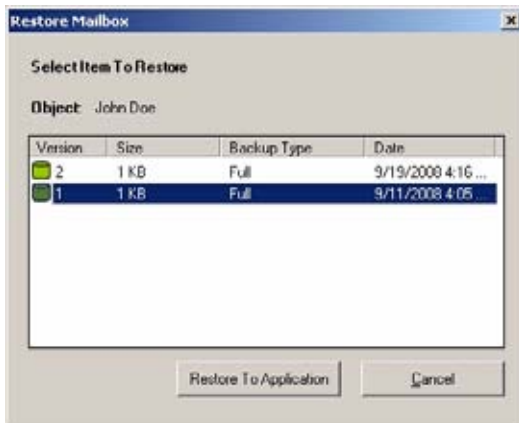
**Note** The current account must have privileges to access the Exchange server. See [KB821897](#).

- 
- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
  - Step 2** In the left pane under **Microsoft Exchange - User Mailbox**, select the user mailbox that you want to restore.

**Step 3** In the right pane, click the **Restore Mailbox** button.



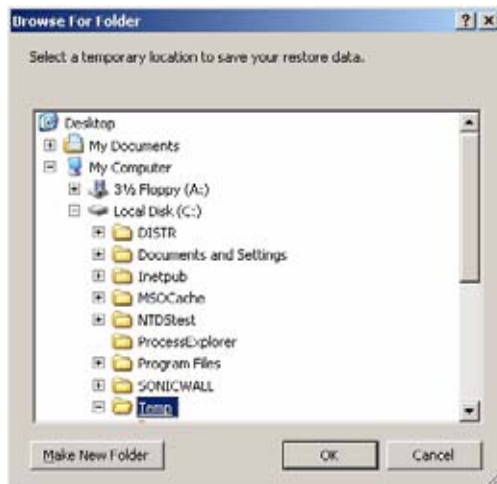
**Step 4** In the **Restore Mailbox** dialog box, select the backup that you want to restore.



**Step 5** Click **Restore To Application**.

The **Browse For Folder** dialog box appears.

- Step 6** In the **Browse For Folder** dialog box, do one of the following to select a temporary location:
- Select an existing folder to store the temporary copy of the user mailbox data
  - Click **Make New Folder** to create a new folder for the temporary data



- Step 7** Click **OK**.

The application displays a progress bar as the backed up data is copied to the temporary folder and then to the user's mailbox on the Exchange Server. When the restore process is complete, the progress bar dialog box closes and the **Restore Completed** dialog box is displayed.

- Step 8** Click **OK** in the **Restore Completed** dialog box.



**Note** After the data is restored to the Exchange server, you may need to synchronize your local mail client (Outlook) in order to see restored emails.

## Removing User Mailboxes from the Backup Schedule

This section describes how to remove a user mailbox from the list of mailboxes scheduled for backup.



**Note** Removing a user mailbox also removes all existing backups of that mailbox.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane under **Microsoft Exchange - User Mailbox**, select the user mailbox that you want to remove from the backup schedule.
- Step 3** In the right pane, click the **Remove Mailbox** button.
- Step 4** Click **Yes** in the confirmation dialog box.

## Removing the User Mailbox Application

This section describes how to remove the User Mailbox application from the SonicWALL CDP Agent Tool.



**Note**

Removing the User Mailbox application also removes all existing mailbox backups.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane, select **Microsoft Exchange - User Mailbox**.
- Step 3** In the right pane, click the **Remove Application** button.
- Step 4** Click **Yes** in the confirmation dialog box.



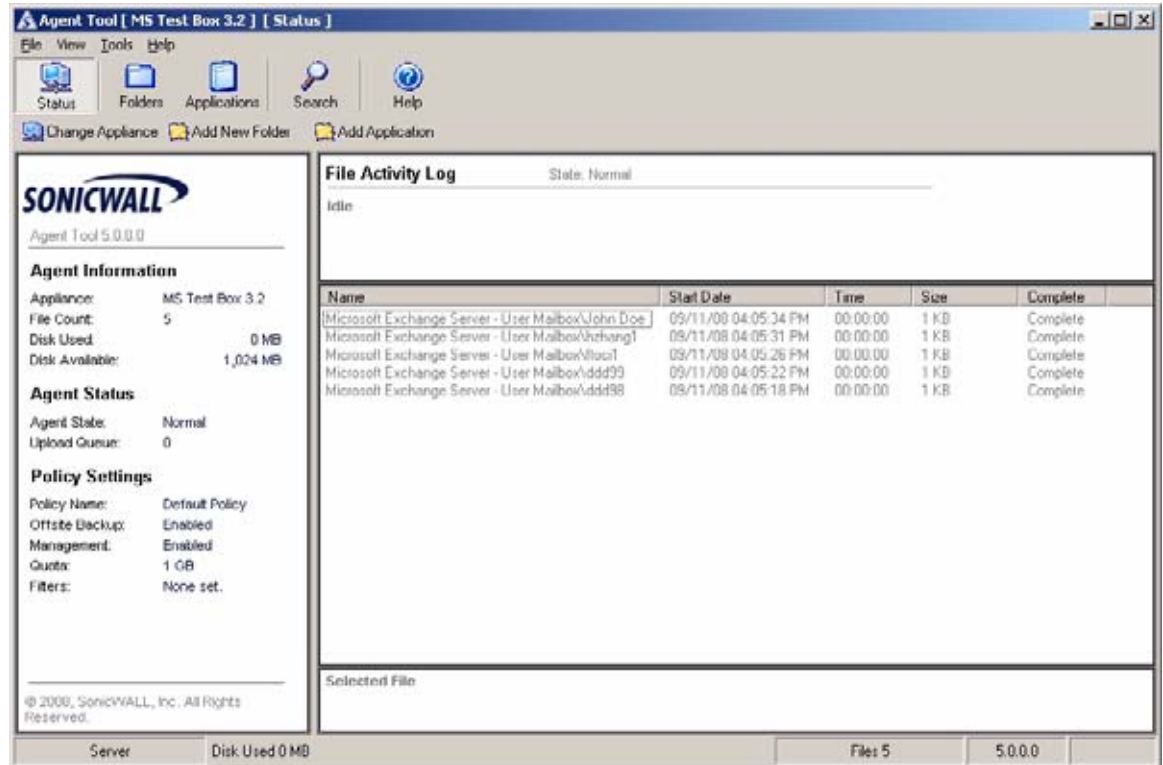
## Verifying User Mailbox Backup Activity

This section describes how to tell if your user mailbox backups are working correctly. You can view log entries showing the backups in the **Status** page of the SonicWALL CDP Agent Tool.

You should see log entries showing backups right after adding one or more user mailboxes to the backup schedule, and then after each scheduled backup.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Status** tab at the top of the window.
- Step 2** View the log entries in the bottom right pane.

Each related entry contains the application name in the **Name** column.



## Microsoft Exchange InfoStore Backup and Restore

This section describes how to configure and use the Microsoft Exchange InfoStore Backup and Restore server application in SonicWALL CDP 5.0. SonicWALL CDP Microsoft Exchange InfoStore Backup and Restore is a feature that allows you to backup and restore a Microsoft Exchange Storage Group. The InfoStore is backed up onto your SonicWALL CDP appliance. You can use this feature by adding the Microsoft Exchange Server - InfoStore application to the SonicWALL CDP Agent Tool. From the Agent Tool, you can use the InfoStore application to configure the backup schedule, the parameters for offsite backup and to restore the Microsoft Exchange Storage Group back to your machine.



**Note**

The SonicWALL CDP appliance must be licensed for server applications.

The SonicWALL CDP Microsoft Exchange InfoStore Backup and Restore feature provides the functionality and flexibility that you need to backup and restore a Microsoft Exchange Storage Group. The InfoStore Backup and Restore feature includes the following capabilities:

- Convenient interface for adding InfoStore to or removing it from the backup process
- Ability to set and manage the backup schedule
- Optional automatic backup to an offsite location
- Retention of multiple backup versions

See the following sections for information about InfoStore:

- [“Supported Platforms for InfoStore”](#) on page 34
- [“How Does InfoStore Backup and Restore Work?”](#) on page 35
- [“Installation Prerequisites for the InfoStore Server Application”](#) on page 35
- [“Adding the InfoStore Application to the Agent Tool”](#) on page 37
- [“Configuring Storage Group Backup”](#) on page 38
- [“Offsite Backup of Storage Group”](#) on page 42
- [“Restoring a Storage Group”](#) on page 43
- [“Removing Storage Group from the Backup Schedule”](#) on page 49
- [“Removing the InfoStore Application”](#) on page 49
- [“Verifying InfoStore Backup Activity”](#) on page 50
- [“Manually Obtaining EsEbcli2.dll For 64-bit Machine”](#) on page 50

## Supported Platforms for InfoStore

The SonicWALL CDP Microsoft Exchange InfoStore Backup and Restore feature is supported on the following platforms:

- SonicWALL CDP 110
- SonicWALL CDP 210
- SonicWALL CDP 5040
- SonicWALL CDP 6080



**Note**

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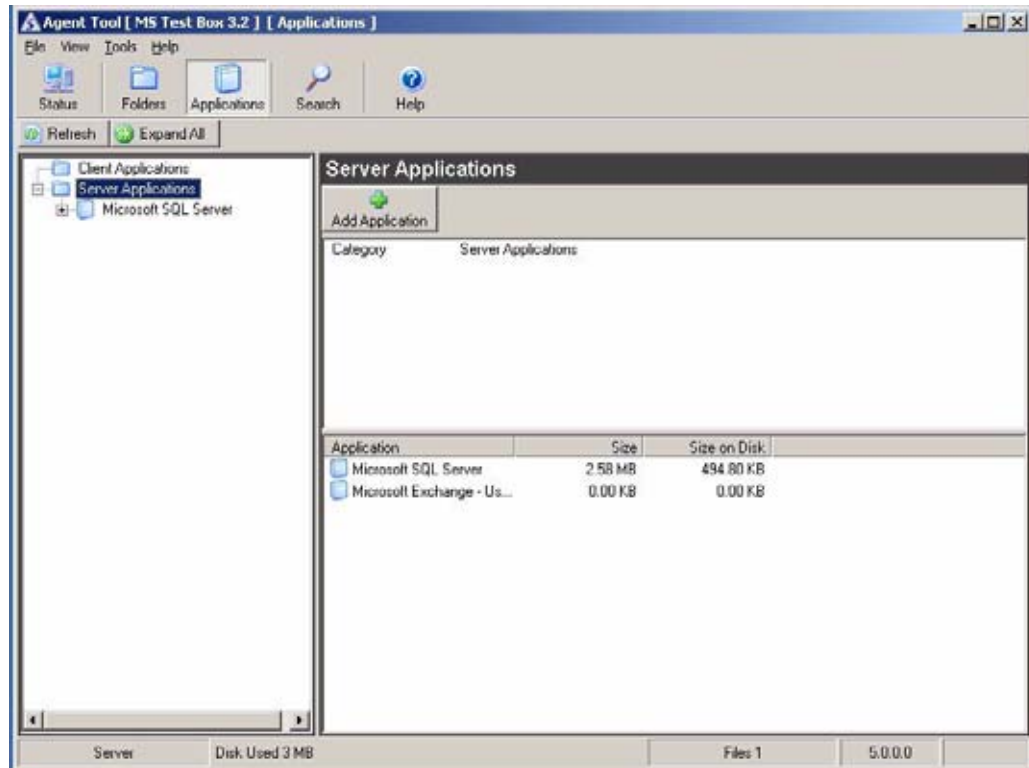
SonicWALL CDP models 110 and 210 do not support Server Application licenses, but this limitation is not enforced. Even though Server Applications are not licensed, you can still use this feature.

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For related information, see [“Installation Prerequisites for the InfoStore Server Application”](#) on page 35.

## How Does InfoStore Backup and Restore Work?

The SonicWALL CDP Microsoft Exchange InfoStore Backup and Restore feature is implemented as a server application that is added to the SonicWALL CDP Agent Tool. To use the feature, add the **Microsoft Exchange Server - InfoStore** application to the SonicWALL CDP Agent Tool from within the Agent Tool user interface. You can then select the application in the left pane of the Agent Tool and access the application controls in the right pane.



The InfoStore application allows you to add or remove individual Microsoft Exchange Storage Groups for backup, set backup schedules, restore specific backups of Exchange Storage Groups, and configure offsite backup. You can view log entries in the SonicWALL CDP Agent Tool under the **Status** tab to verify that backups were successful.

## Installation Prerequisites for the InfoStore Server Application

This section lists the necessary prerequisites for successful installation and operation of the Microsoft Exchange InfoStore server application on the SonicWALL CDP Agent Tool.

### Turn Off Circular Logging

Circular logging allows the Exchange server to overwrite transaction log files after the data that the log files contain has been committed to the database. However, if circular logging is enabled, you can recover Exchange server data only up until the last full backup. Additionally, incremental or differential backups will no longer be allowed. For more information, see the following:

- <http://support.microsoft.com/kb/314605>
- <http://technet.microsoft.com/en-us/library/bb331968.aspx>



**Note** SonicWALL recommends that the circular logging feature in MS Exchange be turned off for all platforms when the SonicWALL CDP Agent is installed.

The procedure for turning off circular logging applies to the following system configuration:

- 32-bit machine: (MS Windows SBS 2003 and MS Exchange 2003)
- 64-bit machine: (MS Windows SBS 2008 and MS Exchange 2007)

To turn off circular logging, perform the following steps:

- 
- Step 1** Start the Exchange Management Console.
  - Step 2** In the console tree, expand **Server Configuration**, and then click **Mailbox**.
  - Step 3** In the work pane, right-click the storage group for which you want to disable circular logging, and then click **Properties**. The <Storage Group Name> Properties dialog box appears.
  - Step 4** Clear the **Enable circular logging** check box.
  - Step 5** Click **OK**.
  - Step 6** To make your changes to the circular logging settings effective, restart the Microsoft Exchange Information Store service, or dismount and then mount all of the databases in the storage group.

## ESE Backup Client DLL/ CDOEXM Requirements

SonicWALL CDP uses the Exchange Backup and Restore API to access Microsoft Exchange. The Microsoft ESE Backup Client DLL (EsEbCli2.dll) should be installed along with Microsoft Exchange, and must be accessible by SonicWALL CDP Enterprise Manager and Agent Tool. The Collaboration Data Objects for Exchange Management (CDOEXM) APIs are also used to automate the restore procedure, but not required by this feature.

You can copy the EsEbCli2.dll file from your Microsoft installation disk, or download it from Microsoft, or copy it manually from another location into the Sonicwall Continuous Data Protection folder where the client was installed. The default program installation folder location is:

C:\Program Files\SonicWALL\SonicWALL Continuous Data Protection



**Note** The ESE Backup Client DLL (EsEbCli2.dll) is installed by default under the 32-bit installation. On 64-bit machines you need to manually obtain the EsEbCli2.dll. For more information, see [“Manually Obtaining EsEbcli2.dll For 64-bit Machine”](#) on page 50.

## Supported Microsoft Exchange and Server Versions

### Microsoft Exchange Versions Supported

The following versions of Microsoft Exchange are supported:

- Exchange 2000
- Exchange 2003
- Exchange 2007 (Service Pack 1)

### Windows Server Versions Supported

Microsoft Exchange Server runs on the following versions of Windows Server:

- Windows Server 2000 (Service Pack 4)
- Windows Server 2003 32-bit
- Windows Server 2003 64-bit
- Windows Server 2008

### Windows Server / Exchange Compatibility

The following table indicates the versions of Exchange that are supported on each version of Windows Server:

Windows Server / Exchange Version Compatibility	Windows Server 2000 (Service Pack 4)	Windows Server 2003 32-bit	Windows Server 2003 64-bit	Windows Server 2008
Exchange 2000	Supported			
Exchange 2003	Supported - Requires Windows Server Service Pack 4	Supported		
Exchange 2007 (Service Pack 1)			Supported	Supported



**Note**

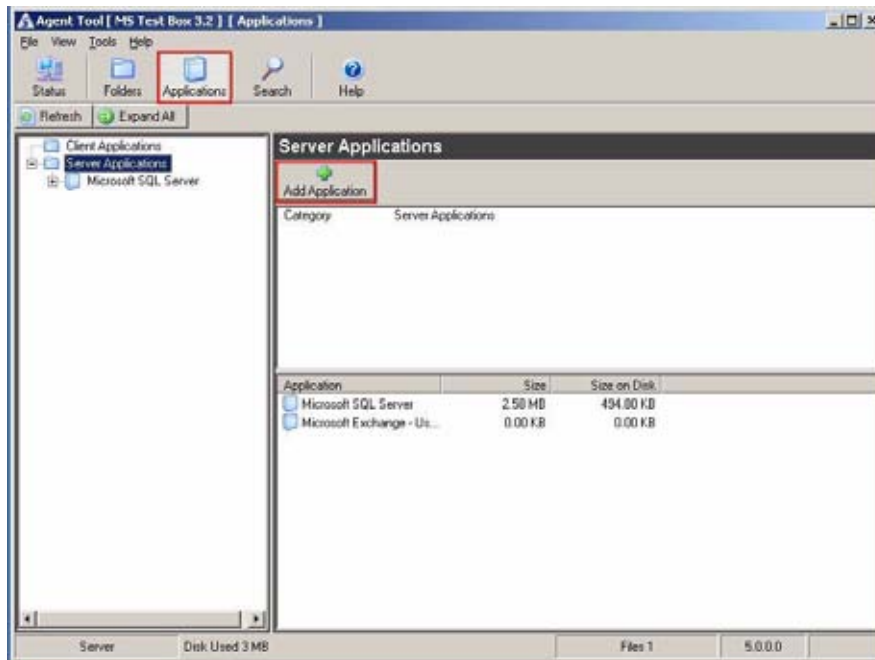
Refer to the latest SonicWALL CDP Release Notes, available on [www.sonicwall.com](http://www.sonicwall.com), for the location of the full support matrix and compatibility information.

## Adding the InfoStore Application to the Agent Tool

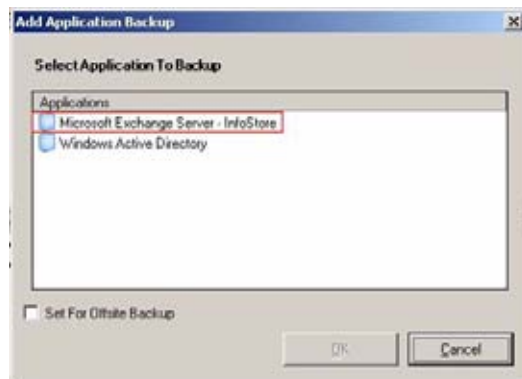
Before you can use the Microsoft Exchange InfoStore Backup and Restore feature, you need to add the **Microsoft Exchange Server - InfoStore** application to the SonicWALL CDP Agent Tool. Once the **Microsoft Exchange Server - InfoStore** application is configured, it can be used to add a Microsoft Exchange Storage Group for backup.

- 
- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab at the top of the window.
  - Step 2** In the left pane, select **Server Applications**.

**Step 3** In the right pane, click the **Add Application** button.



**Step 4** In the **Add Application Backup** dialog box, select **Microsoft Exchange Server - InfoStore**.



**Step 5** Optionally select the **Set for Offsite Backup** checkbox to backup the InfoStore application data offsite. You can change this setting at any time after adding the InfoStore application. For information about configuring offsite backup, see [“Offsite Backup of Storage Group” on page 42](#).

**Step 6** Click **OK**.

After the InfoStore application is added, you can access it on the **Applications** tab.

## Configuring Storage Group Backup

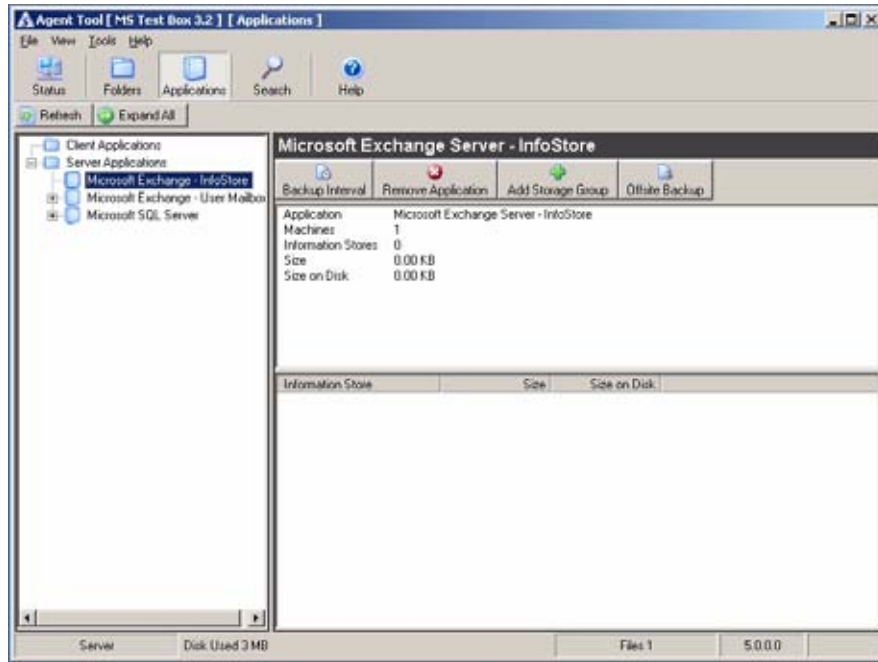
This section contains the following subsections:

- [“Adding Storage Group for Backup” section on page 39](#)
- [“Scheduling Backups” section on page 40](#)

### Adding Storage Group for Backup

Once the **Microsoft Exchange Server - InfoStore** application is configured, it can be used to add a Microsoft Exchange Server for backup. To avoid confusion between the **Microsoft Exchange Server - InfoStore** application and the actual Microsoft Exchange Server that requires a backup, the latter is referred to as **Storage Group** under the CDP Agent Tool Graphic User Interface.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane, expand **Server Applications** and select **Microsoft Exchange - InfoStore**.
- Step 3** In the right pane, click the **Add Storage Group** button.



- Step 4** In the **Add Storage Group** dialog box, select the Storage Group to backup.



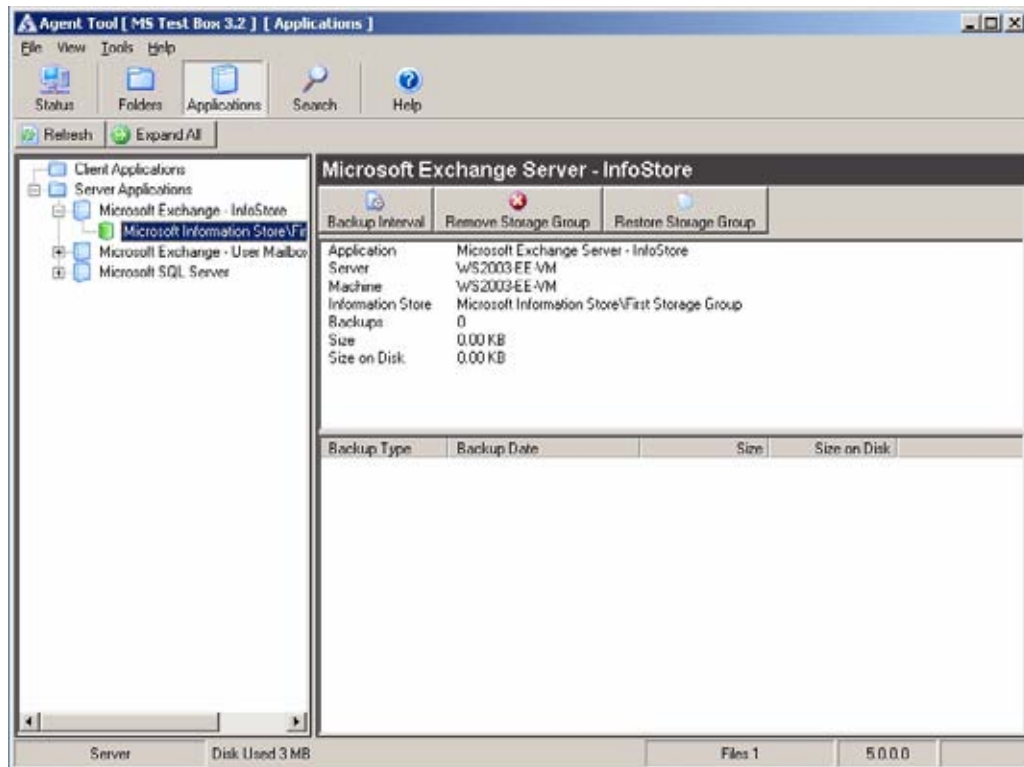
- Step 5** Click **Add**.

The selected storage group appear in the bottom pane of the InfoStore application page.

## Scheduling Backups

This section describes how to configure the backup schedule for InfoStore.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane select one or more Storage Groups for which you want to schedule backups. To schedule backups for all groups, select **Microsoft Exchange - InfoStore**.
- Step 3** In the right pane, click the **Backup Interval** button.



**Step 4** In the **Schedule Interval** dialog box, select one of the following backup intervals from the **Full Backup** drop-down list:

- Monthly – The backup occurs once a month.
- Biweekly – The backup occurs every two weeks.
- Weekly – The backup occurs every week.
- Daily – The backup occurs every day at approximately the same time.



**Step 5** Click **Save**.

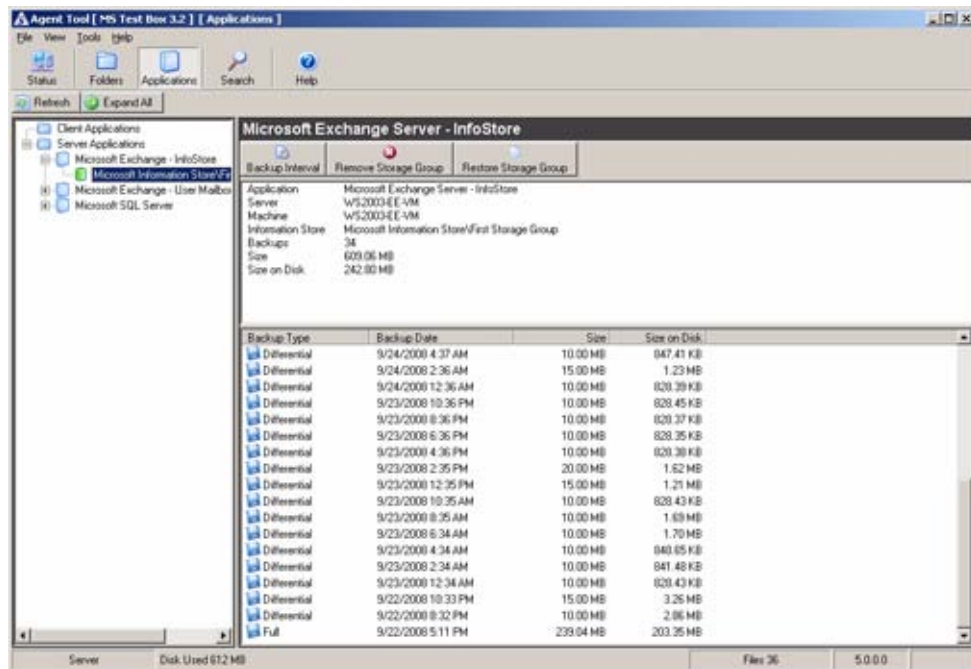
The first backup occurs immediately.

**Step 6** To view the backup status in the InfoStore application window, select a storage group or **Microsoft Exchange - InfoStore** in the left pane and then click the **Refresh** button.

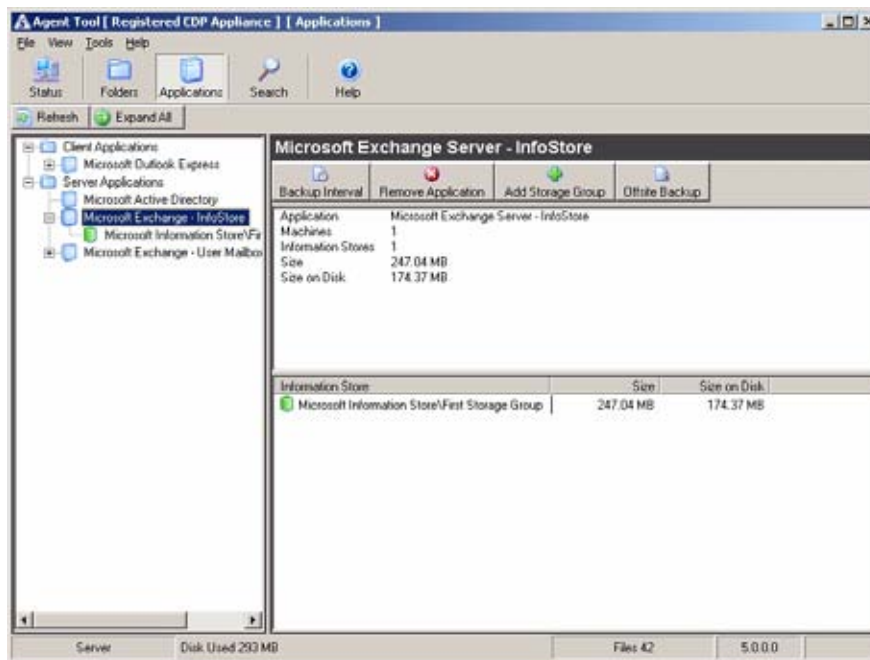


**Note** The window does not refresh automatically after the backup occurs.

If a single group was selected, the bottom pane of the InfoStore application window displays the backup dates and the amount of disk space used for the selected group.



If **Microsoft Exchange - InfoStore** was selected, backup data is displayed for all storage groups. At the application level, one row is displayed for each storage group and the **Size** fields indicate the total size of all existing backups for that group.



## Offsite Backup of Storage Group

The SonicWALL CDP Offsite Data Backup Service is an optional offsite backup and recovery solution that stores data in a secure data center, and can be purchased for an additional fee. This section describes the basics of the offsite backup. For more information, see the SonicWALL CDP Offsite Data Backup Service data sheet at: <[http://www.sonicwall.com/downloads/DS\\_CDP\\_Offsite\\_US\\_060507.pdf](http://www.sonicwall.com/downloads/DS_CDP_Offsite_US_060507.pdf)>

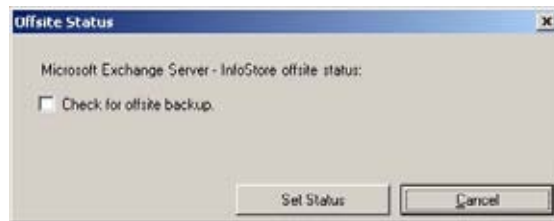
## Offsite Backup Quota

The SonicWALL CDP Offsite Data Backup provides different services, ranging from 5 to 100 GB of quota. You need to make sure that the total size of all of your backups does not exceed quota limit. If quota is exceeded the consequent backup will fail, the **Quota Exceeded Error** message will be displayed, and the status for the last backup will changes to **Quota Exceeded**. You will receive an E-mail notification informing you of the failed backup attempt. You can free up your storage space by removing some of the old backups or by purchasing additional quota. For more information, see the *SonicWALL CDP Administrator's Guide*.

## Configuring Offsite Backup of Storage Group

This section describes how to configure the InfoStore application to backup Storage Groups to an offsite SonicWALL CDP appliance. Offsite backup settings must already be configured in SonicWALL CDP Enterprise Manager, and the offsite appliance must be available. For instructions and information, see the *SonicWALL CDP Administrator's Guide*.

- 
- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane under **Server Applications**, select **Microsoft Exchange - InfoStore**.
- Step 3** In the right pane, click the **Offsite Backup** button.
- Step 4** In the **Offsite Status** dialog box, select the **Check for offsite backup** checkbox.



- Step 5** Click **Set Status**.

## Restoring a Storage Group

This section describes how to restore an individual Storage Group. You can restore the Storage Group in two ways:

- Restore to Application - Copies the data directly to the Exchange database
- Restore to Disk - Copies the data to a folder on the local disk, then another CDP tool is used to copy it to the Exchange database

During the restore process, the backed up data is first copied to a temporary location and then copied to the Exchange server Storage Group directory. It is recommended to dismount all the databases within the Storage Group and backup and remove all existing files from the Storage Group directory. See [Microsoft Exchange Disaster Recovery Operations Guide - KB867704](#).



**Note** The current account must have privileges to access the Exchange server. See [KB867704](#) and [KB824126](#)

### Restoring to Application

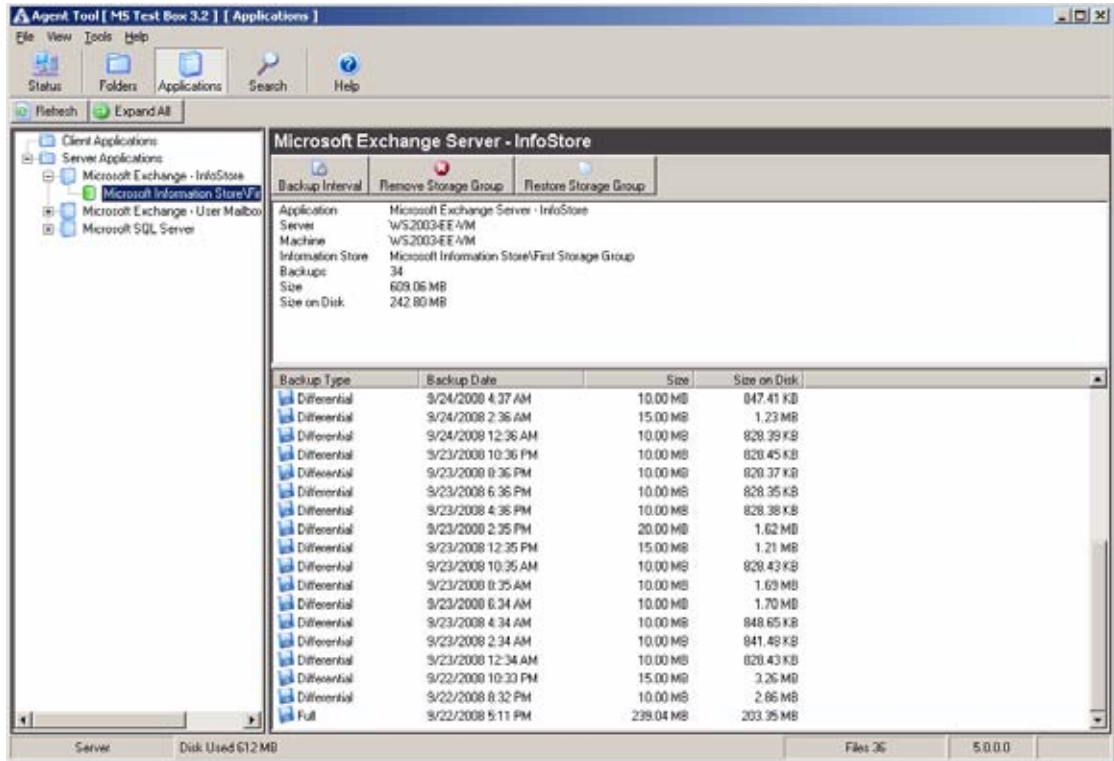
To restore a Storage Group using Restore to Application, perform the following steps:



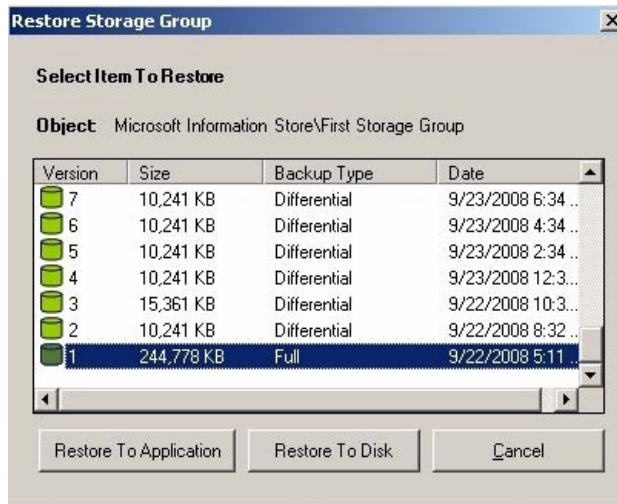
**Note** Exchange 2007 users need to dismount the database before the restore, and mount it after the restore.

- 
- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane under **Microsoft Exchange - InfoStore**, select the group that you want to restore.

**Step 3** In the right pane, click the **Restore Storage Group** button.

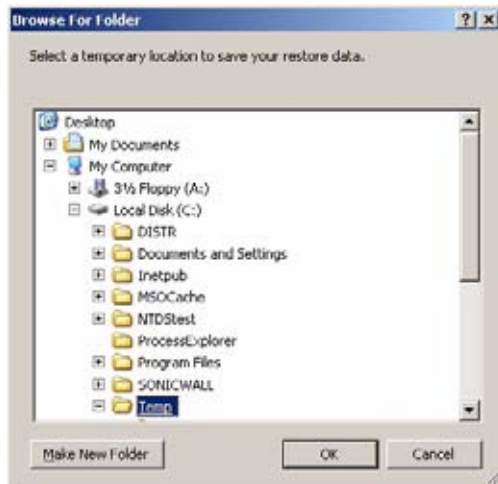


**Step 4** In the **Restore Storage Group** dialog box, select the backup that you want to restore.



**Step 5** Click **Restore To Application**.  
The **Browse For Folder** dialog box appears.

- Step 6** In the **Browse For Folder** dialog box, do one of the following to select a temporary location:
- Select an existing folder to store the temporary copy of the InfoStore data
  - Click **Make New Folder** to create a new folder for the temporary data



- Step 7** Click **OK**.

The application displays a progress bar as the backed up data is copied to the temporary folder and then to the Exchange Server folder. When the restore process is complete, the progress bar dialog box closes and the **Restore Completed** dialog box is displayed.

- Step 8** Click **OK** in the **Restore Completed** dialog box.



## Restoring to Disk

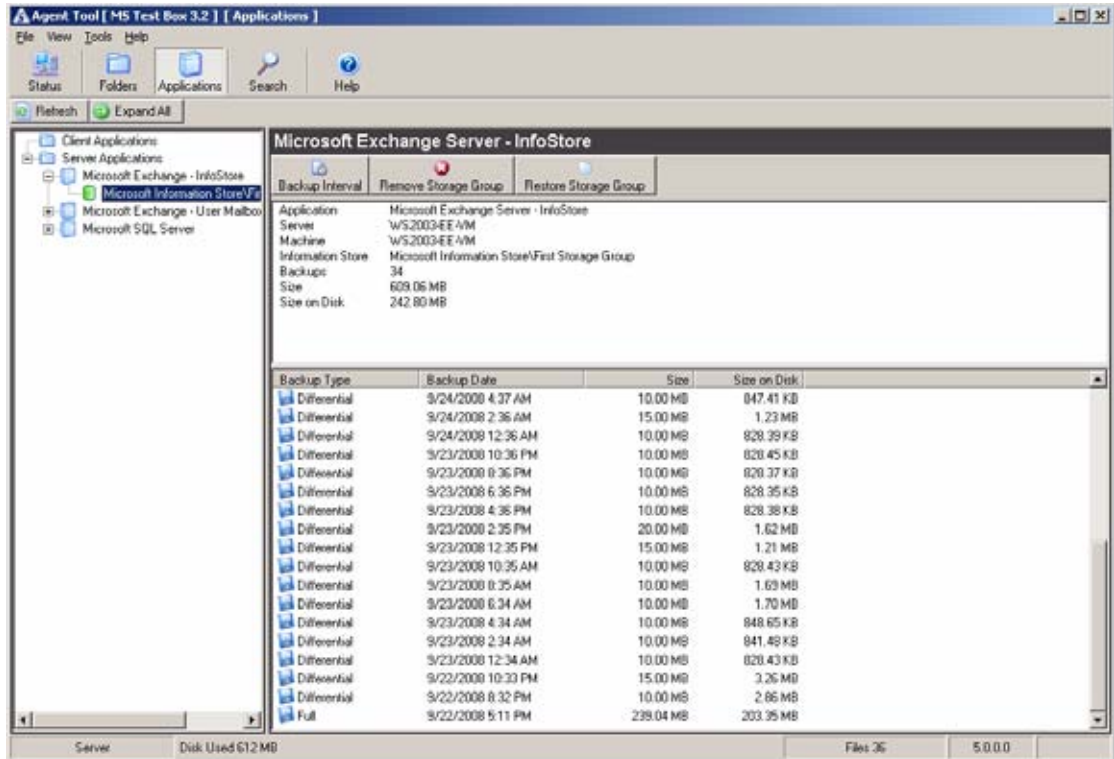
To restore a Storage Group using Restore to Disk, perform the following steps:



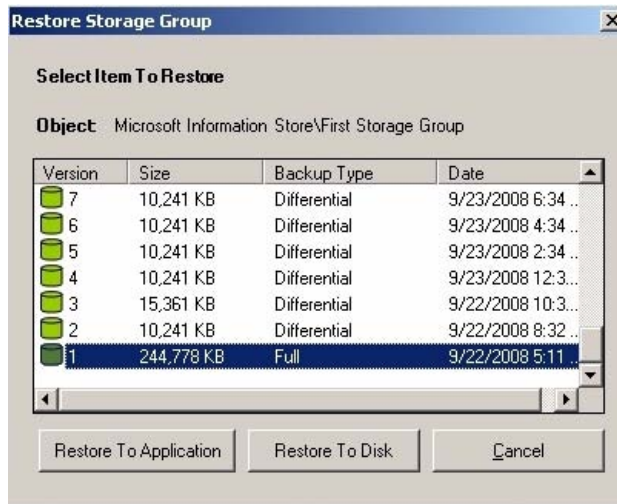
**Note** Exchange 2007 users need to dismount the database before the restore, and mount it after the restore.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane under **Microsoft Exchange - InfoStore**, select the group that you want to restore.

**Step 3** In the right pane, click the **Restore Storage Group** button.



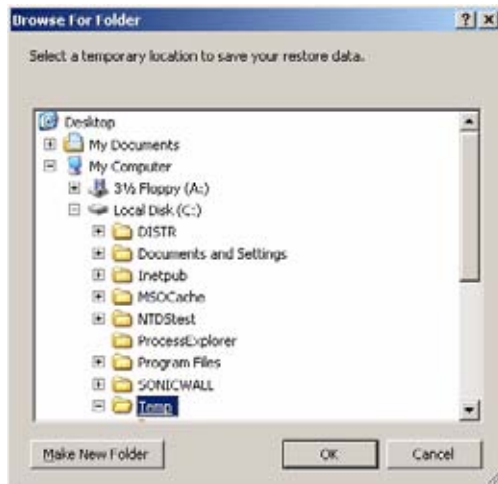
**Step 4** In the **Restore Storage Group** dialog box, select the backup that you want to restore.



**Step 5** Click **Restore To Disk**.

The **Browse For Folder** dialog box appears.

- Step 6** In the **Browse For Folder** dialog box, do one of the following to select a location on your local system:
- Select an existing folder to store the copy of the InfoStore data
  - Click **Make New Folder** to create a new folder for the data



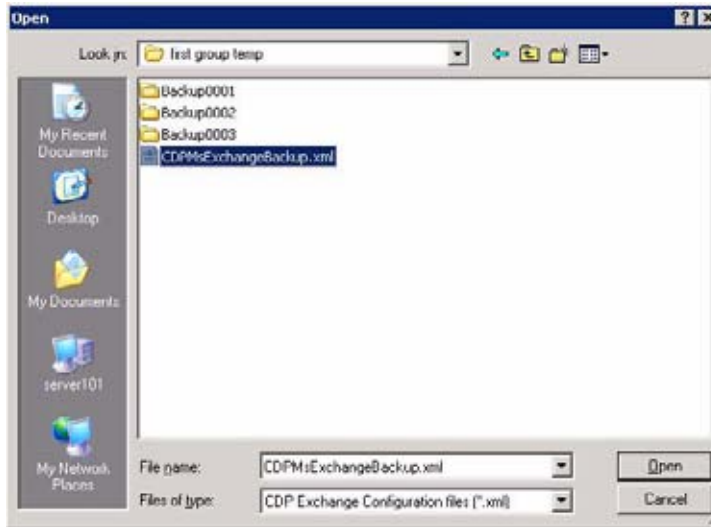
**Step 7** Click **OK**.

**Step 8** Launch the CDP Backup and Restore Tool by double-clicking **MsExchangeRestore.exe** in the SonicWALL CDP installation folder. You can also launch the tool from the Windows Start menu.

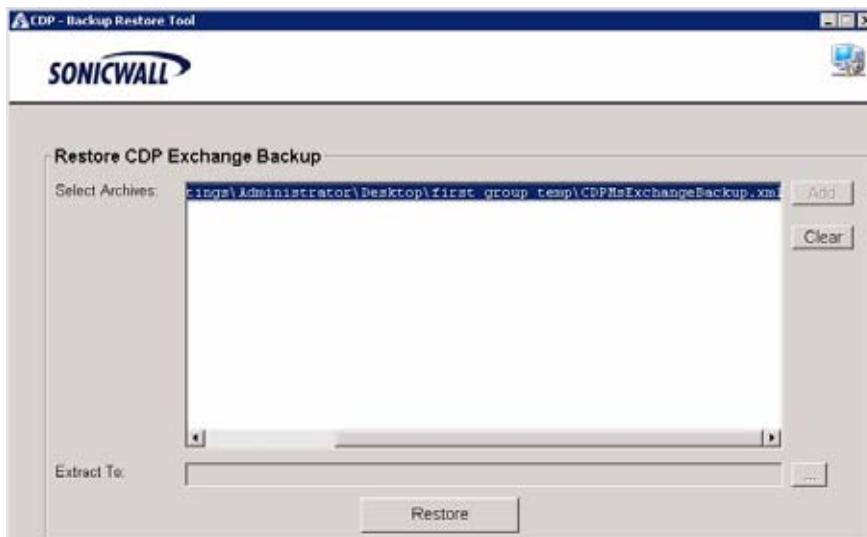


**Step 9** Click the **Add** button. The Open dialog box appears.

**Step 10** In the Open dialog box, browse to the local folder where the backup is located, select the XML file **CDPMsExchangeBackup.xml**, and click **Open**.



**Step 11** In the CDP Backup and Restore Tool main window, click the entry in the **Select Archive** field to select it, and then click **Restore**.



**Step 12** Wait for the restore process to finish. When finished, a dialog box will indicate the status. Click **OK**.



## Removing Storage Group from the Backup Schedule

This section describes how to remove a storage group from the list of groups scheduled for backup.



### Note

Removing a storage group also removes all existing backups of that storage group.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane under **Microsoft Exchange - InfoStore**, select the storage group that you want to remove from the backup schedule.
- Step 3** In the right pane, click the **Remove Storage Group** button.
- Step 4** Click **Yes** in the confirmation dialog box.



## Removing the InfoStore Application

This section describes how to remove the InfoStore application from the SonicWALL CDP Agent Tool.



### Note

Removing the InfoStore application also removes all existing storage group backups.

- Step 1** In the SonicWALL CDP Agent Tool, click the **Applications** tab.
- Step 2** In the left pane, select **Microsoft Exchange - Info Store**.
- Step 3** In the right pane, click the **Remove Application** button.
- Step 4** Click **Yes** in the confirmation dialog box.



## Verifying InfoStore Backup Activity

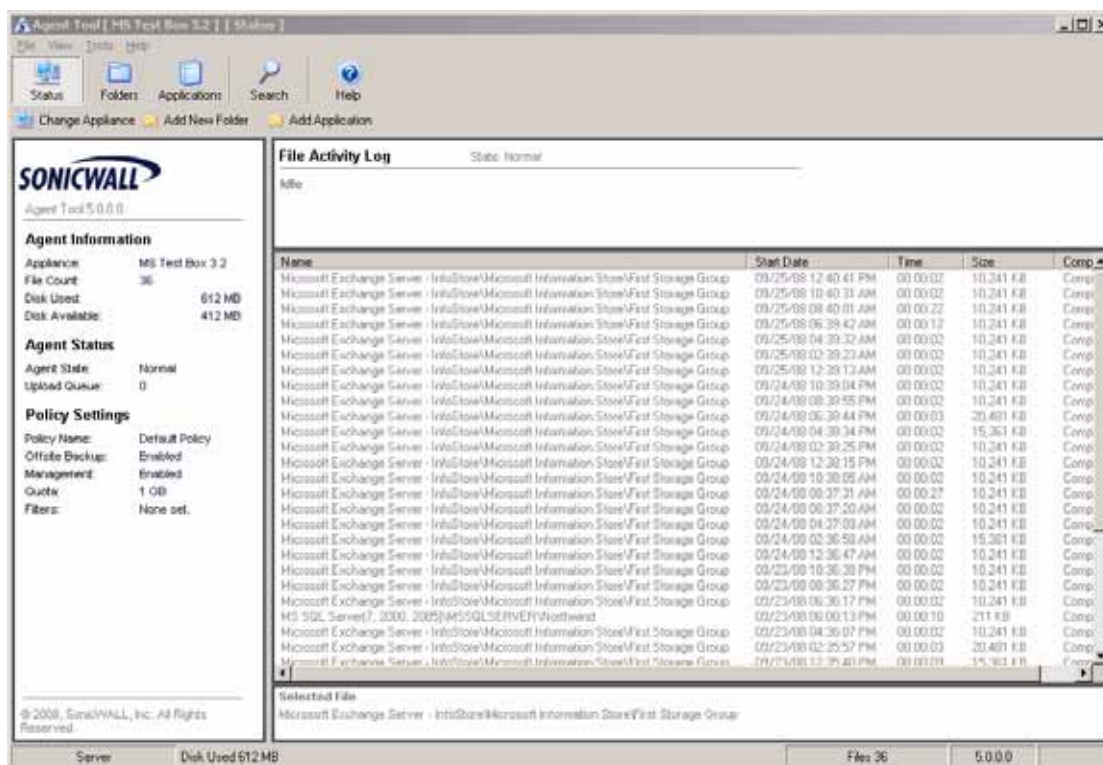
This section describes how to tell if your Microsoft Exchange backups are working correctly. You can view log entries showing the backups in the **Status** page of the SonicWALL CDP Agent Tool.

You should see log entries showing backups right after adding one or more storage groups to the backup schedule, and then after each scheduled backup.

**Step 1** In the SonicWALL CDP Agent Tool, click the **Status** tab at the top of the window.

**Step 2** View the log entries in the bottom right pane.

Each related entry contains the application name in the **Name** column.



## Manually Obtaining EsEbcli2.dll For 64-bit Machine

The SonicWALL CDP MS Exchange InfoStore Backup and Restore feature uses the Exchange Backup and Restore API. The API is implemented by the Dynamically Linked Library (DLL) file: EsEbcli2.dll. This DLL is installed by default on all 32-bit installations. On 64-bit installation, you must obtain EsEbcli2.dll manually.

EsEbcli2.dll can be obtained from the following sources:

- Microsoft Exchange Server 2007 Installation CD
- Microsoft Download Center

## Obtaining EsEbcli2.dll from the Microsoft Exchange Server 2007 Installation CD

This section describes how to manually obtain the EsEbcli2.dll from your Microsoft Exchange Server 2007 Installation CD.

- 
- Step 1** Navigate to setup\i386\exchange\bin folder of the Exchange 2007 installation CD
  - Step 2** Locate the EsEbcli2.dll file, right-click it and select **Copy** from the pop up menu.
  - Step 3** Navigate to C:\Program Files(x86)\SonicWALL\SonicWALL Continuous Data Protection\ folder on your machine.
  - Step 4** Right-click inside the folder and select **Paste** from the pop up menu.
  - Step 5** Restart the CDP Agent Tool and the SonicWALL CDP Agent Service.
- The Microsoft Exchange Server - InfoStore application should function properly.

## Obtaining EsEbcli2.dll from the Microsoft Download Center

This section describes how to manually obtain the EsEbcli2.dll from the Microsoft Exchange Server 2007 Service Pack 1, available at the Microsoft Download Center.

- 
- Step 1** Navigate to Microsoft Download Center at <<http://www.microsoft.com/downloads>>.
  - Step 2** Type in “E2K7SP1EN32.exe” in the search window and select **Go**.
  - Step 3** List of results will appear. Select the **Exchange Server 2007 Service Pack 1** page.
  - Step 4** Scroll down to the bottom of the page and select the **Download** button next to E2K7SP1EN32.exe file. Make sure to download the 32-bit version, the 64-bit version does not include the missing DLL file.
  - Step 5** Extract the E2K7SP1EN32.exe file, making sure to note down the extraction folder.
  - Step 6** Navigate to the extraction folder from step 3 and to the following path <setup\serverroles\common\path> inside the folder.
  - Step 7** Locate EsEbcli2.dll file, right-click it and select **Copy** from the pop up menu.
  - Step 8** Navigate to C:\Program Files(x86)\SonicWALL\SonicWALL Continuous Data Protection\ folder.
  - Step 9** Right-click inside the folder and select **Paste** from the pop up menu.
  - Step 10** Restart the CDP Agent Tool and the SonicWALL CDP Agent Service.
- The Microsoft Exchange Server - InfoStore application should function properly.

## Active Directory Backup and Restore

This section provides brief instructions for backing up and restoring Active Directory. For more information, see the *SonicWALL CDP Administrator's Guide*.

### Backing Up Active Directory

To add Active Directory for backup using the Agent Tool, perform the following steps:

---

**Step 1** Open the **SonicWALL Agent Tool** on the Domain Controller.

**Step 2** Go to **Applications** and add **Active Directory**.

The following options are available to edit for Active Directory using the Agent Tool:

- Configure Authentication - (Trusted Connection or manually specify username/password).
- Configure Backup Interval - (Default or custom).
- Backup Offsite - Send data to the Offsite Service.
- Remove Server Application - Stop backing up Active Directory.

### Restoring Active Directory

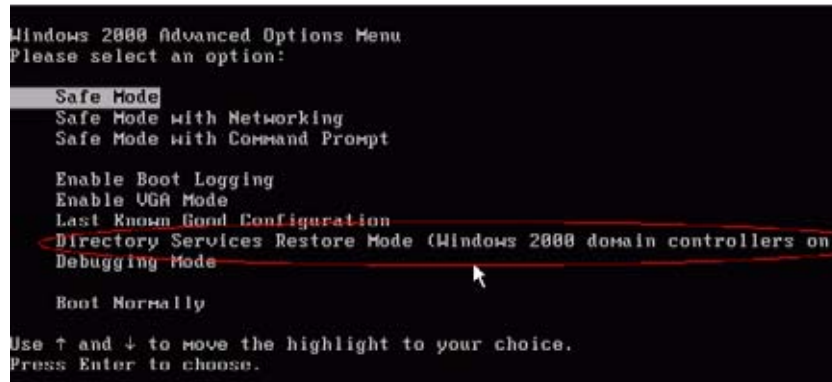
You cannot restore Active Directory in normal Windows mode. This is because the service is already active. Boot your computer by pressing F5 or F8 after POST/BIOS and before Windows splash-screen, depending on hardware specs of the server, and select the Directory Services Recovery Mode (DSRM). Once in safe mode, you can restore the Active Directory as an application. This is because in safe mode the Active Directory is disabled.

This procedure applies to a single-server Active Directory and is intended for disaster recovery. Restoring Active Directory will cause the loss of any changes to AD since the date of the backup that is being restored.

SonicWALL recommends the use of redundant Active Directory domain controllers. In the case of mirrored Active Directory domain controllers, you can optionally restore a small part of the database rather than the entire database (for example, because some people were deleted by mistake by the administrator or a script/program), keeping the remainder of the database up to date. In this case, the administrator selects the old data that needs to be pushed on top of the latest data during replication, after the server is rebooted out of Recovery Mode.

To restore Active Directory using the Agent Tool, perform the following steps:

- Step 1** Restart the Domain Controller in Directory Services Restore Mode.



- Step 2** Login as Restore Mode Administrator.
- Step 3** Open the **SonicWALL Agent Tool**.
- Step 4** Click **Applications** in the Agent Tool toolbar.
- Step 5** In the left -hand navigation toolbar, expand the **Server Applications** tree.
- Step 6** Highlight **Microsoft Active Directory**.
- Step 7** In the right -hand portion of the window, highlight one of the backup versions and click **Restore Active Directory**.



**Note** The option to restore Active Directory content using the **Restore Active Directory** button is only available if there is data to restore. If there is no data to restore, the **Restore Active Directory** button will not be displayed.

- Step 8** In the window that displays, select the version you would like to restore. You may want to use the backup type (full, differential) or date of the backup to determine which version to restore.
- Step 9** Click **Restore to Application**.
- Step 10** Select a folder to temporarily store the recovered data and click **OK**.
- Step 11** After restoration is complete, restart the Domain Controller in normal mode to complete Active Directory restoration.

## SQL Backup and Restore

This section provides brief instructions for backing up and restoring a Microsoft SQL server. For more information, see the *SonicWALL CDP Administrator's Guide*.

### Backup Up SQL

To add Microsoft SQL for backup using the Agent Tool, perform the following steps:

**Step 1** Open the **SonicWALL Agent Tool** on the SQL server

**Step 2** Go to **Applications** and add **Microsoft SQL**.

The following options are available to edit for SQL using the Agent Tool:

- Backup Interval - Default or custom.
- Remove SQL Server Instance - Stop backing up a SQL Server instance.
- Restore Database - Restore a backed up database version.
- Remove Database - Stop backing up the database.

### Restoring SQL

Recovery of data from Microsoft SQL using SonicWALL CDP allows users to retrieve Microsoft SQL revisions from an agent machine previously configured to backup that data. Microsoft SQL recovery can be made directly to the SQL database.

Restoring the database can be done in two ways. The database can be either restored to disk or to application. When restoring the database to disk, the database is downloaded as a set of files from the CDP Appliance. Restoring to application, on the other hand, applies the database directly to the same SQL server.



**Note**

Microsoft SQL data can be restored using the Enterprise Manager and the Agent Tool. SQL restore using the Enterprise manager can restore to disk any SQL database, even for servers on different agents than the Enterprise Manager. See the *SonicWALL CDP Administrator's Guide*.

If an SQL database system fails, the first step is to recover all databases and transaction log files from the server. These databases contain the latest information, up to the point of failure. Next, the SQL system should be brought up on the same server or a different server. Having spare hardware will speed up database recovery.

Each recovered database should be run through a data consistency check (using "DBCC CHECKDB") because it is possible that these are corrupted databases and may have been the reason for failure. If the databases are corrupted, these could either be fixed, which normally includes data loss, or the latest backed up database (from CDP) could be used instead. If the backed up databases consist of a full, a differential, and several logs, these have to be applied in order and a database consistency check should be run at each step.

See the following sections:

- ["Recovering SQL" section on page 55](#)
- ["Restoring SQL to Application" section on page 55](#)
- ["Restoring SQL To Disk" section on page 56](#)

## Recovering SQL

The Agent Tool displays a useful log in the Status page showing each database being backed up. If Local Management is disabled for the Agent's policy, then the Agent Tool will not be able to perform backup and restore operations.

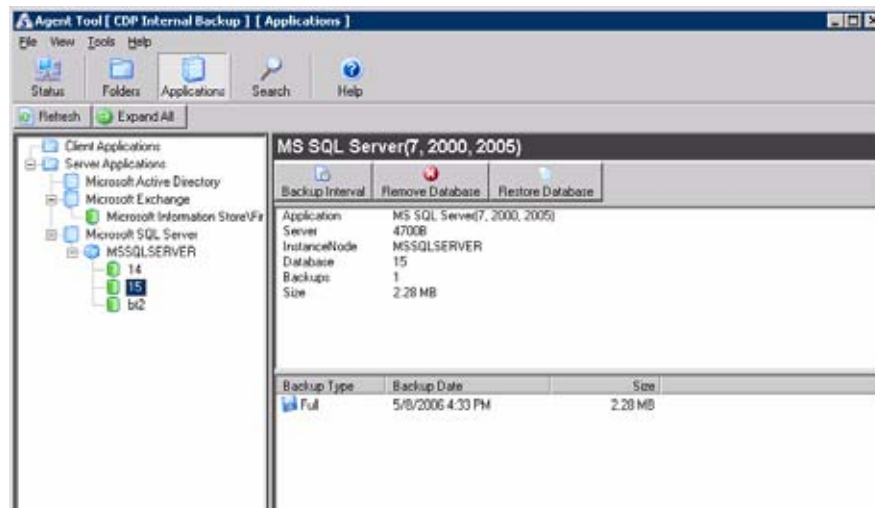
To restore a Microsoft SQL database using the Agent Tool, perform the following steps:

- Step 1** Click **Applications** in the Agent Tool toolbar.
- Step 2** In the left-hand navigation toolbar, expand the **Server Applications** tree.
- Step 3** Expand the **Microsoft SQL** tree and select the database you want to restore.
- Step 4** In the right-hand portion of the window, highlight one of the backup versions and click **Restore Database**.
- Step 5** In the window that displays, select the version you would like to restore. You may want to use the backup type (full, differential) or date of the backup to determine which version to restore.
- Step 6** Click **Restore to Application** to restore the revision directly to the application, or click **Restore to Disk** to restore the revision to disk.
- Step 7** To restore to disk, select the location to restore the files and click **OK**.
- Step 8** To restore to the application, select a location to restore the files temporarily and click **OK**.
- Step 9** Select a SQL Server instance and click **Add**.

## Restoring SQL to Application

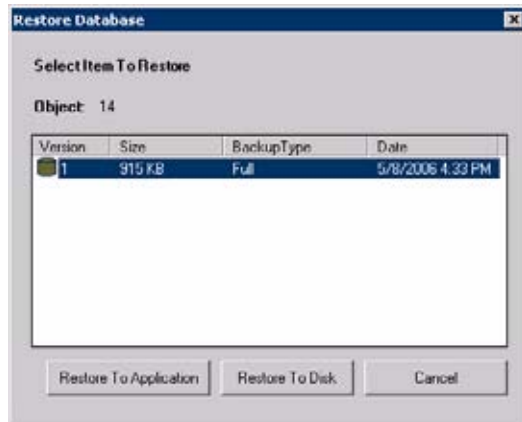
This section describes the procedure for restoring to the application using the Agent Tool.

- Step 1** Ensure that the destination database (restore-to database) has the same name as database backed up. You can rename the original and create a new database with the same name, or overwrite the current database.
- Step 2** Close SQL Enterprise Manager.
- Step 3** Launch CDP Agent Tool, then go to **Applications**.
- Step 4** Navigate to **Server Applications > Microsoft SQL Server > SQL Instance**, and select the database you wish to restore.



**Step 5** Click **Restore Database**.

**Step 6** Select the **Log**, **Differential**, or **Full** based on the date/time-stamp that you want to restore from, then click **Restore to Application**.



**Step 7** Select a temporary location to download data from the CDP Appliance before importing into SQL itself (can be local or network location). Please note that this location must have sufficient free disk space to store each Log, Differential, and Full being restored. To be sure you have enough free space, roughly count each Log and Differential that exists below the version you are restoring back to the last Full (CDP will restore/replay each of these logs/differentials in order of oldest to newest automatically).

## Restoring SQL To Disk

**Step 1** Launch CDP Agent Tool, go to **Applications**.

**Step 2** Navigate to **Server Applications > Microsoft SQL Server > SQL Instance**, select the database you want to restore.

**Step 3** Click **Restore Database**.

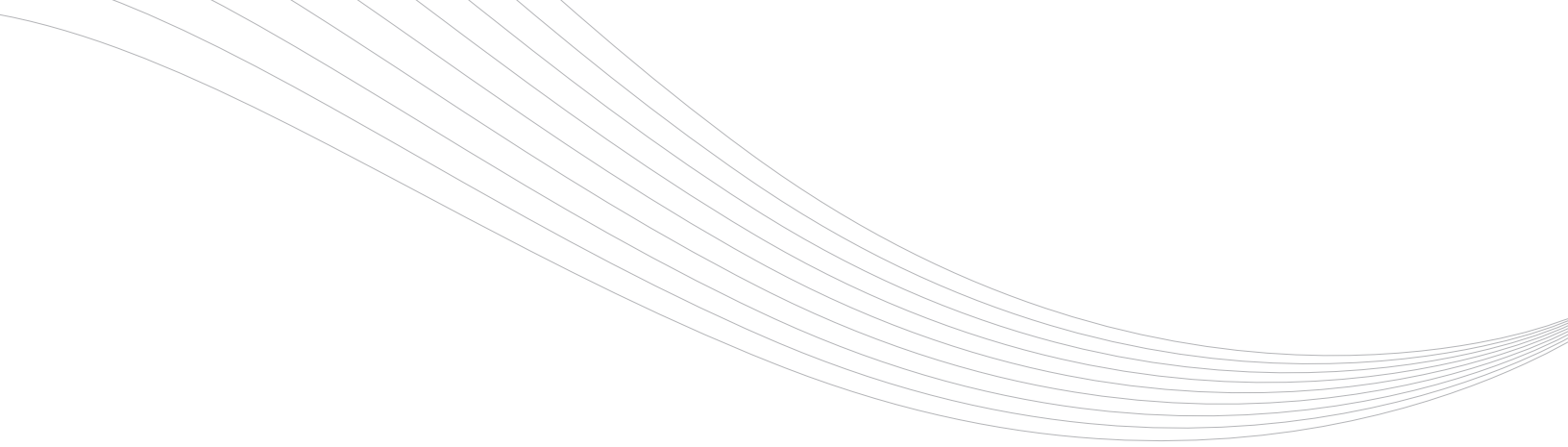
**Step 4** Select the version (date/time-stamp) to restore.

**Step 5** Click **Restore to Disk** and select location on file system to restore database files.

Files will be restored using the following naming convention/syntax:

MSSQL\_MSSQLSERVER\_DBNAME\_full.bak  
 MSSQL\_MSSQLSERVER\_DBNAME\_Log1.bak  
 MSSQL\_MSSQLSERVER\_DBNAME\_Log2.bak  
 MSSQL\_MSSQLSERVER\_DBNAME\_Diff1.bak  
 MSSQL\_MSSQLSERVER\_DBNAME\_Diff2.bak

You can then import these files into a different database, or even onto a different database server.



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