

SonicWALL CDP 3.0 Box-to-Box Backup and Recovery

Document Scope

This document describes how to implement and manage the CDP Box-to-Box feature.

This document contains the following sections:

- [“CDP Box-to-Box Overview” section on page 1](#)
- [“Setting up CDP Box-to-Box” section on page 6](#)
- [“Using CDP Box-to-Box” section on page 13](#)
- [“Glossary” section on page 22](#)

CDP Box-to-Box Overview

This section provides an introduction to the CDP Box-to-Box feature. This section contains the following subsections:

- [“What is CDP Box-to-Box Backup?” section on page 2](#)
- [“Benefits” section on page 2](#)
- [“How Does CDP Box-to-Box Work?” section on page 3](#)
- [“Platforms” section on page 5](#)

What is CDP Box-to-Box Backup?

The CDP Box-to-Box Backup feature provides a secure, reliable, and confidential method of backing up and recovering data from one or more local CDP appliances to another local or offsite CDP appliance.

In a typical one-to-one configuration of CDP Box-to-Box, one local CDP appliance, or downstream appliance, is used to backup local workstations. A second CDP appliance, or upstream appliance, is deployed locally or at a remote location and is used to backup the downstream CDP appliance.

**Note**

You must purchase an 8x5 or 24x7 support contract and a 1, 3, 5, or 10 node Box-to-Box license for the upstream CDP appliance.

The one-to-one CDP Box-to-Box configuration can be expanded to include multiple downstream CDP appliances that back up to a single local or offsite upstream CDP appliance. The upstream appliance needs to have sufficient Box-to-Box nodes licensed.

**Note**

Multiple downstream CDP appliances can backup to a single upstream CDP appliance. Upstream CDP appliances can also backup local data to the SonicWALL Offsite Portal or to yet another CDP appliance. However, this third appliance cannot send any data offsite.

In the event that a downstream CDP appliance is rendered unusable, the CDP Box-to-Box feature allows you to recover your data, settings and configurations directly from the upstream CDP appliance. If the data on the upstream CDP appliance is not the most recent, choose the option to only download settings and configurations; the local agents will then back up the most recent data to the downstream CDP appliance which will be sent to the upstream CDP appliance. If the upstream CDP appliance is rendered unusable, it can easily be replaced with a new CDP appliance configured with the same IP address as the original upstream CDP appliance.

Benefits

The benefits of the CDP Box-to-Box feature include:

- Secure, confidential data backup and recovery
- Additional protection against data loss
- Easy deployment
- Quick recovery of settings and configurations or complete recovery of data, settings, and configurations.

How Does CDP Box-to-Box Work?

The CDP Box-to-Box feature requires a minimum of two CDP appliances to be deployed in a one-to-one scenario, in which a single upstream CDP appliance is the backup method for a downstream CDP appliance. The upstream CDP appliance can be deployed locally or offsite using a VPN or WAN connection, as illustrated in [Figure 1](#) and [Figure 2](#). The downstream CDP appliance must be configured to backup to the IP address of the upstream CDP appliance, and the upstream CDP appliance must be licensed for Box-to-Box and have at least one node available.

Multiple downstream CDP appliances can be configured to backup to a single local or offsite upstream CDP appliance in a many-to-one configuration. Upstream CDP appliances can also be used as a backup method for local agents, and can back up the local agent data to the SonicWALL offsite portal or to another CDP. Data, settings and configuration backed up from the downstream CDP appliance to the upstream CDP appliance are 256-bit encrypted and compressed, and sent using port 2022. All other features, including alerts, policies, and reports, can be configured on the upstream and downstream CDP appliances. For information about configuring the CDP appliance features, refer to the SonicWALL CDP 3.0 Administrator's Guide.

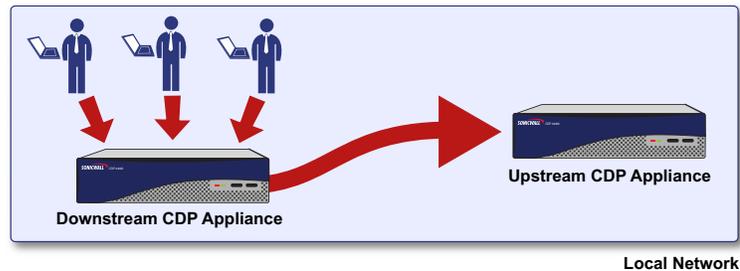
In the event of a disaster, data, settings, and configurations (or just settings and configurations) can be recovered from the upstream CDP appliance to the downstream CDP appliance. If the data on the upstream appliance is outdated, the option to recover only settings and configurations provides the ability to rapidly set up the replacement CDP. The replacement will then recover the latest data directly from its local agents, and then pass this data on to the upstream CDP appliance, thereby reinstating full backup protection.

If the downstream CDP appliance is rendered unusable, it is necessary to obtain a new downstream CDP appliance to replace it. The upstream CDP appliance must be notified of the change and the new box must be configured to backup to it prior to recovering data from the upstream CDP appliance.

Sample Setup Cases

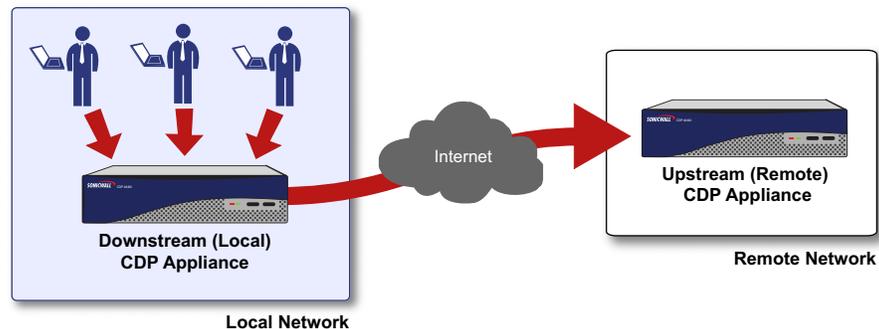
The diagram in [Figure 1](#) provides an example of a one-to-one CDP Box-to-Box deployment. Multiple agents are configured to backup to the downstream CDP appliance (IP address 10.0.0.1). The downstream CDP appliance is configured to backup to the local upstream CDP appliance (IP address 10.0.0.2).

Figure 1 CDP Box-to-Box: One to One Local Configuration



The diagram in [Figure 2](#) provides an example of a one-to-one offsite CDP Box-to-Box deployment. Multiple agents are configured to backup to the downstream CDP appliance (IP address 10.0.0.1). The downstream CDP appliance is configured to backup to the offsite upstream CDP appliance (IP address 10.1.1.2) using a VPN or WAN connection.

Figure 2 CDP Box-to-Box: One to One Offsite Configuration



Warning

An upstream appliance can not be backed up on a downstream appliance.

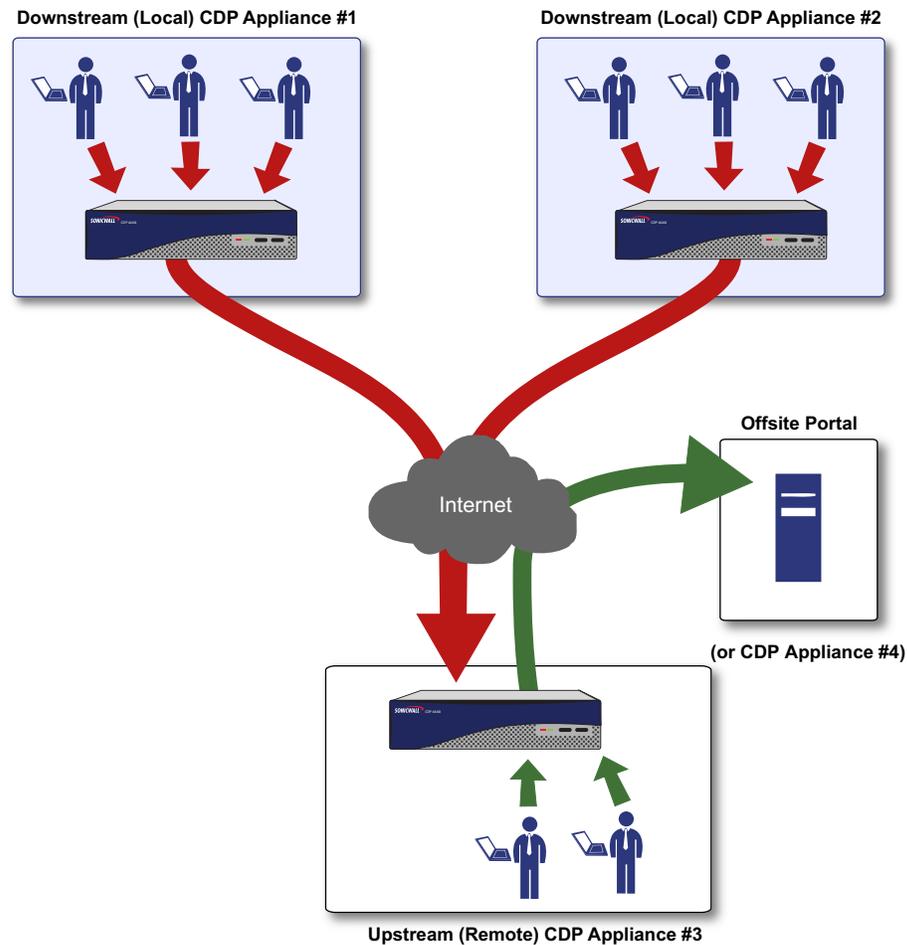
Figure 3 provides an example of a many-to-one CDP Box-to-Box deployment with multiple CDP appliances (IP addresses 10.0.0.1 and 10.0.0.3) configured to backup to a single upstream CDP appliance (IP address 10.1.1.2). The upstream CDP appliance can be used to backup local clients and backup this data either to the offsite portal or to a final CDP.



Note

Only data being backed up by the upstream CDP's local clients will be sent to the offsite portal. If the data is sent to another CDP, this final CDP can not send any data offsite.

Figure 3 CDP Box-to-Box: Many to One Configuration; Single Destination Backup



Platforms

The CDP Box-to-Box feature is available on SonicWALL CDP 1440i, 2440i, 3440i and 4440i appliances running 3.0 or higher firmware.

Setting up CDP Box-to-Box

This section contains the following subsections:

- [“Administrator Prerequisites” section on page 6](#)
- [“Administrator Configuration Tasks” section on page 6](#)

Administrator Prerequisites

The following deployment prerequisites are required to use the CDP Box-to-Box feature:

- Two or more CDP appliances running 3.0 or higher firmware
- 8x5 or 24x7 support contract for the upstream CDP Appliance
- Box-to-Box license for the upstream CDP appliance to accept downstream CDP appliance connections
- IP address or Fully Qualified Domain Name for the Upstream CDP Appliance
- In the case of an offsite Upstream Appliance, port 2022 must be open to receive incoming traffic within firewall rules.

**Note**

You must purchase an 8x5 or 24x7 support contract and a 1, 3, 5, or 10 node Box-to-Box license for the upstream CDP appliance.

Administrator Configuration Tasks

To configure the CDP Box-to-Box feature, the upstream CDP appliance must be licensed with a support contract and a sufficient Box-to-Box license. The downstream CDP appliance must be configured to back up to the upstream CDP appliance. If both appliances are properly configured, they will link and backup will begin immediately. The downstream CDP appliance quota can then be configured.

After the initial Box-to-Box configuration, data, settings, and configurations can be recovered from the upstream CDP appliance.

**Note**

Your SonicWALL CDP appliances must be registered before they can be deployed for Box-to-Box. For information about registering SonicWALL CDP appliances, refer to the SonicWALL CDP 3.0 Administrator's Guide.

This section contains the following subsections:

- [“Purchasing Licenses and Support” section on page 7](#)
- [“Configuring the Downstream CDP Appliance” section on page 9](#)
- [“Configuring the Upstream CDP Appliance Quota” section on page 11](#)

Purchasing Licenses and Support

You must purchase an 8x5 or 24x7 support contract and a 1, 3, 5, or 10 node Box-to-Box license for the upstream CDP appliance. This can be done directly through mysonicwall.com or through your reseller.

To configure the upstream CDP appliance to accept backup data from the downstream CDP appliance, perform the following steps:



Note Your CDP appliances must be registered with mysonicwall.com before use. Refer to the SonicWALL CDP 3.0 Getting Started Guide for further information on registering your appliances.

Step 1 Open a Web browser on the computer you are using to manage the SonicWALL CDP appliance.

Step 2 Enter <http://www.mysonicwall.com> in the **location** or **address** field.

The **mySonicWALL.com login** page is displayed.

Step 3 Enter your mySonicWALL.com account **username** and **password** in the appropriate fields and click the **submit** button.

Step 4 Navigate to **My Products** in the left-hand navigation bar



Step 5 Select the CDP appliance you wish to use as the Upstream backup.

Step 6 Register for a Dynamic Support license.

DESKTOP & SERVER SOFTWARE

Service Name	Info	Status	Options	
Bare Metal Recovery/Local Archiving - Workstation	»		Buy Now	Enter Key
SonicWALL Box to Box Backup	»	-	Buy Now	Enter Key
Bare Metal Recovery/Local Archiving - Server	»		Buy Now	Enter Key

SUPPORT SERVICES

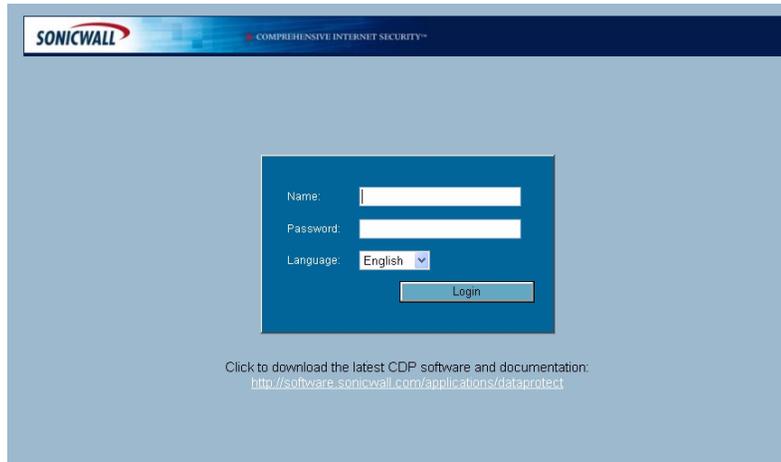
Service Name	Info	Status	Options	
Dynamic Support 8x5	»	Expiry: 07 Dec 2006	Buy Now	Enter Key
Dynamic Support 24x7	»	-	Buy Now	Enter Key
Software and Firmware Updates	»	Expiry: 07 Dec 2006	Buy Now	Enter Key
Extended Warranty	»	Expiry: 08 Sep 2007		

Step 7 Register for a Box-to-Box Node Support license.

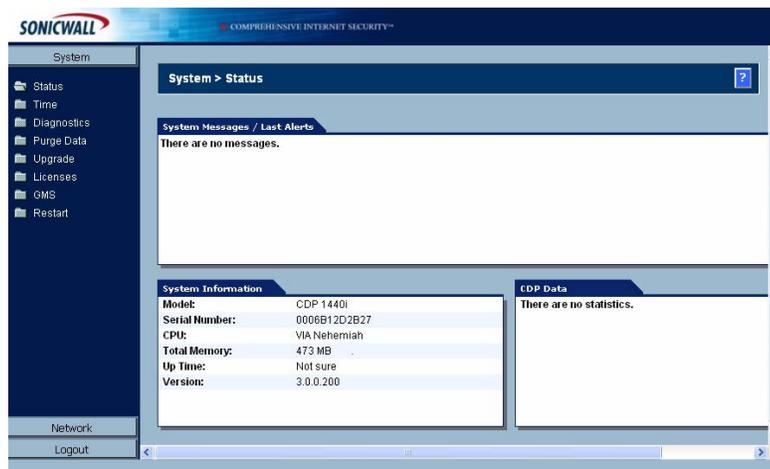


Note Box-to-Box Node licenses do not expire. You may add additional Node Licenses by purchasing them from the mysonicwall.com website.

Step 8 Login to your upstream CDP appliance's web management interface.



Step 9 Navigate to the **Licenses** page in the left-hand navigation bar.



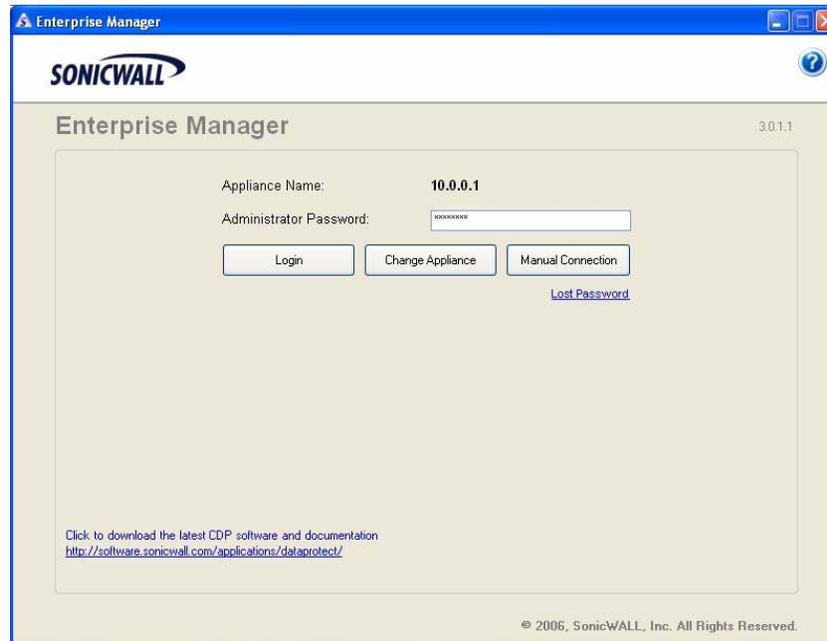
Step 10 Click the **Refresh** button to have the CDP appliance update its license.

The appliance should now show the correct number of nodes licensed and is ready to backup a downstream CDP appliance.

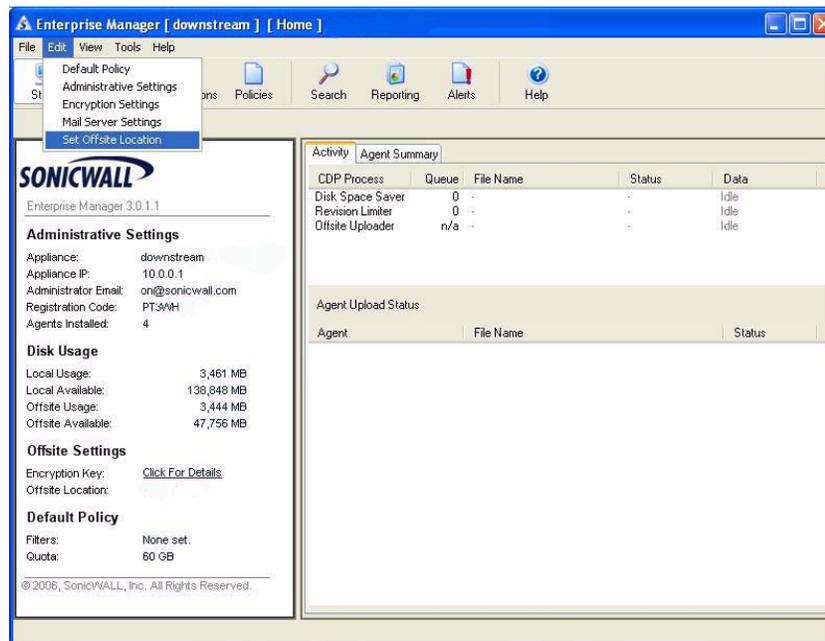
Configuring the Downstream CDP Appliance

To configure the downstream CDP appliance to back up to the upstream CDP appliance, perform the following steps:

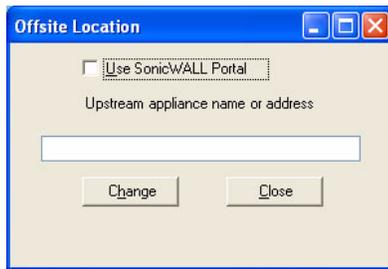
- Step 1** Login to the downstream CDP appliance using the Enterprise Manager.



- Step 2** From the **Edit** menu, select **Set Offsite Location**.



- Step 3** Uncheck the box next to **Use SonicWALL Portal**. Type the IP address or the FQDN (Fully Qualified Domain Name) of the upstream CDP appliance in the field under **Upstream appliance name or address**.



Note It is important that the upstream and downstream appliances have different IP addresses. Refer to the SonicWALL CDP 3.0 Getting Started Guide for further information on configuring an appliance's IP address and domain name.

- Step 4** Click **Change**.
- Step 5** An alert displays. Click **Yes** to replace the existing appliance data with offsite data, or click **No** to purge the offsite data and leave the existing appliance data.

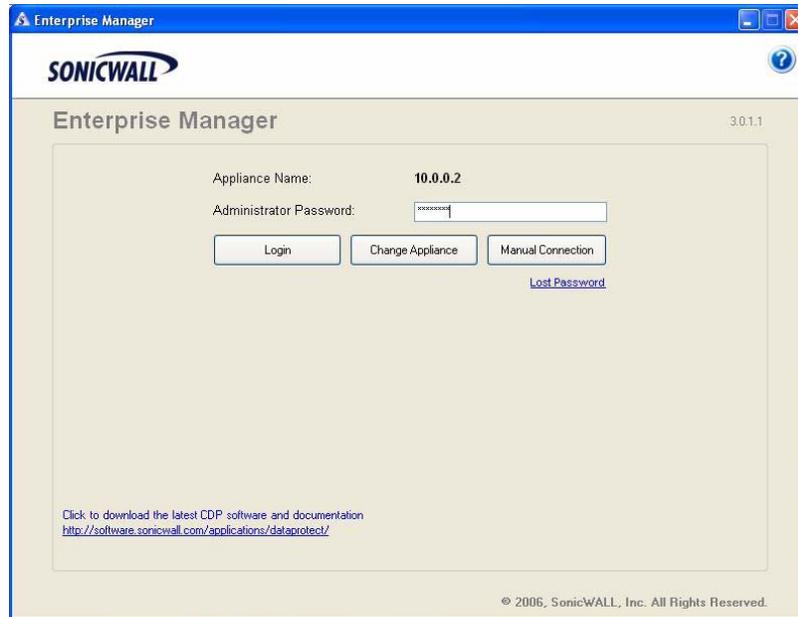


Configuring the Upstream CDP Appliance Quota

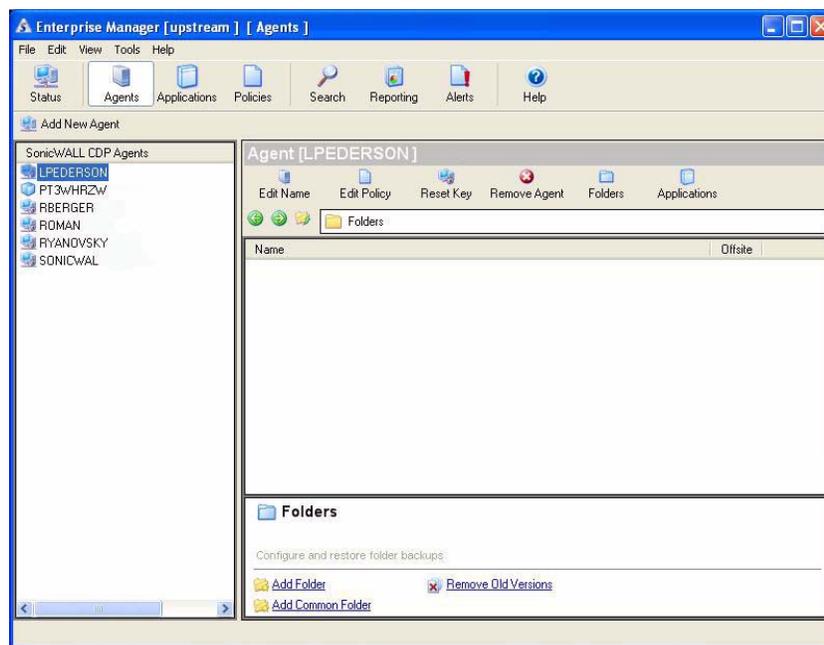
The quota is the maximum amount of data that can be backed up. For information about editing the default policy quota or creating a custom policy with a custom quota, refer to the “Managing the Default Policy” section of the SonicWALL CDP 3.0 Enterprise Manager Administrator’s Guide.

To apply a quota, the amount of data the upstream CDP appliance will accept from the downstream CDP appliance, perform the following steps:

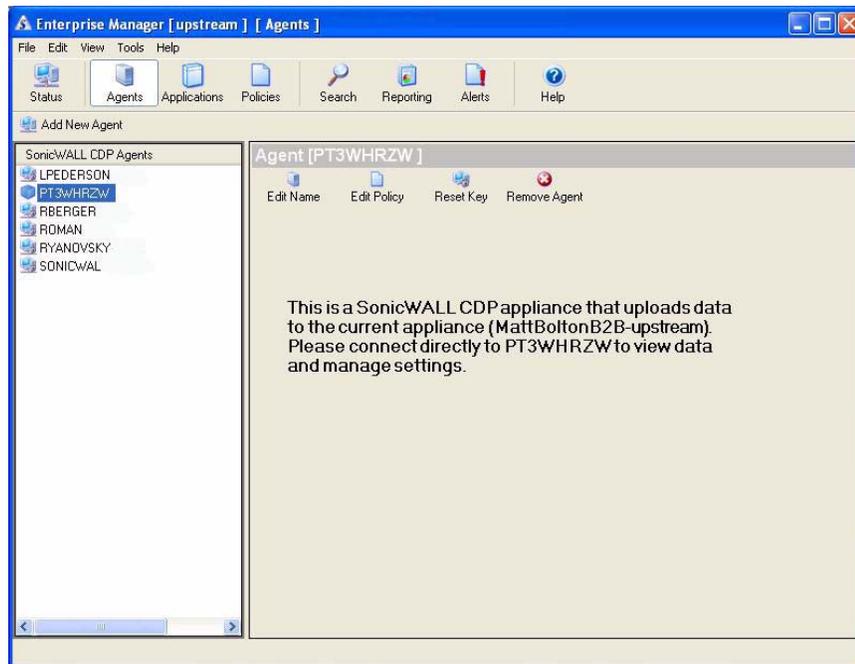
- Step 1** Login to the upstream CDP appliance using the Enterprise Manager.



- Step 2** Click the **Agents** tab.



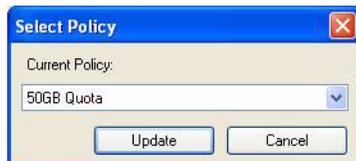
Step 3 In the left pane, under the **SonicWALL CDP Agents** list, select the downstream CDP appliance.



Step 4 Click the **Edit Policy** tab in the right pane.



Step 5 From the **Current Policy** drop down menu, select the **Default Policy**, or, if you have configured one, a custom policy.



Step 6 Click **Update**.

Using CDP Box-to-Box

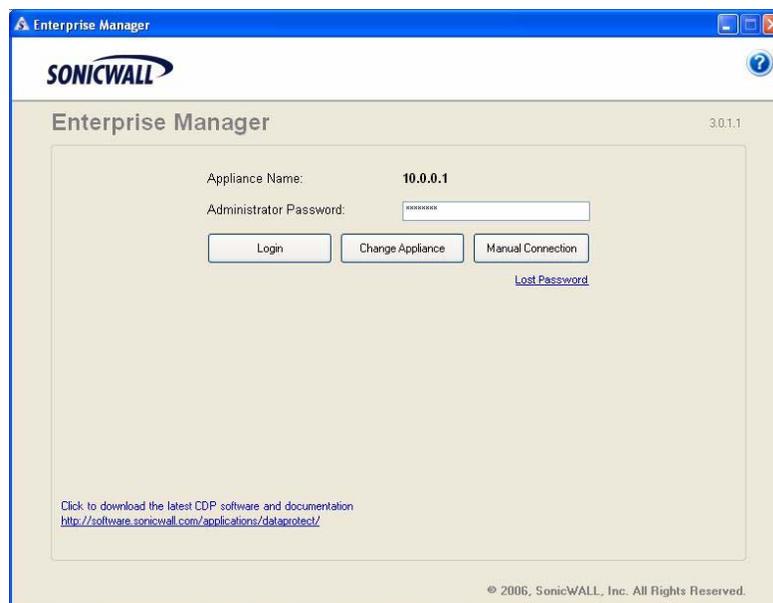
This section covers disconnecting CDPs from a Box-to-Box backup, and using the Box-to-Box connection to recover data in case of a downstream CDP failure. This section contains the following subsections:

- “License Management” section on page 13
- “Recovering Data From the Upstream CDP Appliance” section on page 16
- “CDP Box-to-Box Best Practices” section on page 21

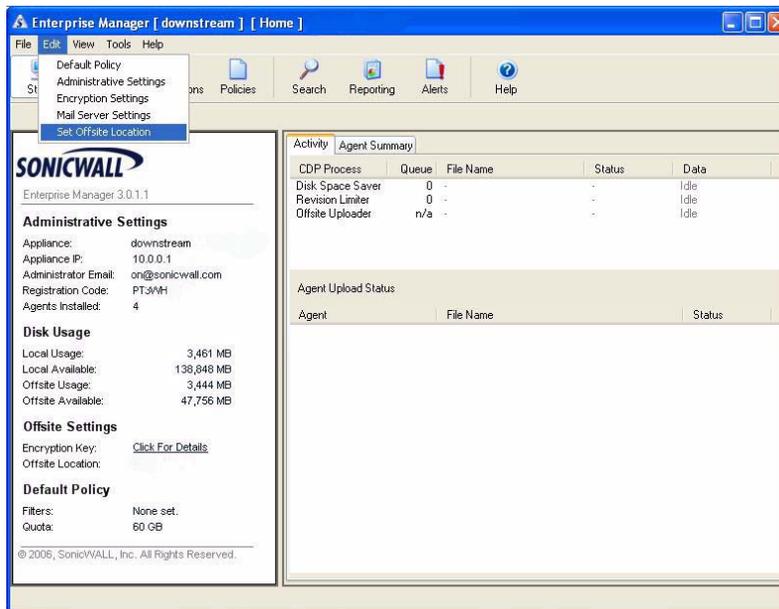
License Management

To remove a downstream CDP and free up an upstream node, perform the following steps:

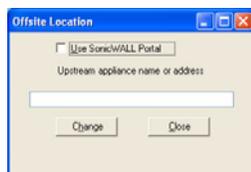
- Step 1** Login to the downstream CDP appliance using the Enterprise Manager.



Step 2 From the **Edit** menu, select **Set Offsite Location**.



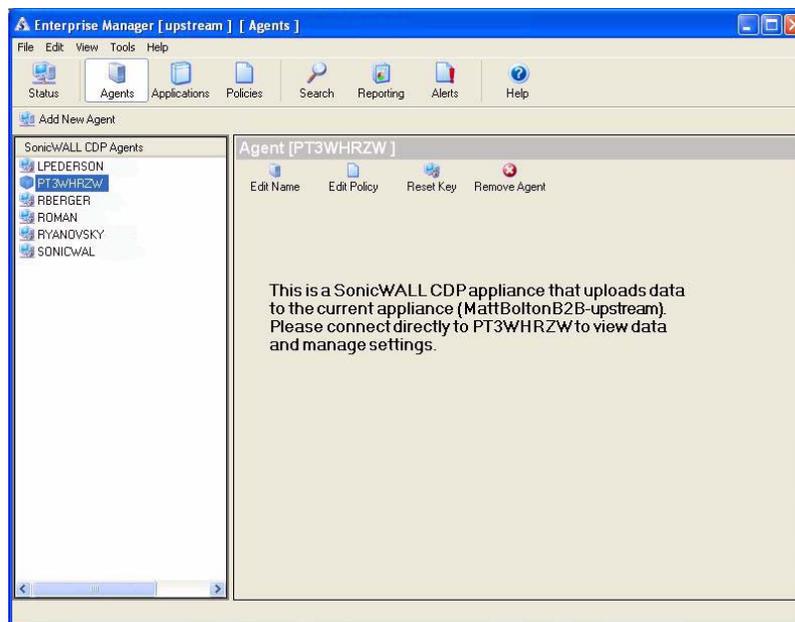
Step 3 Check the box next to **Use SonicWALL Portal**.



Step 4 Click **Change**.

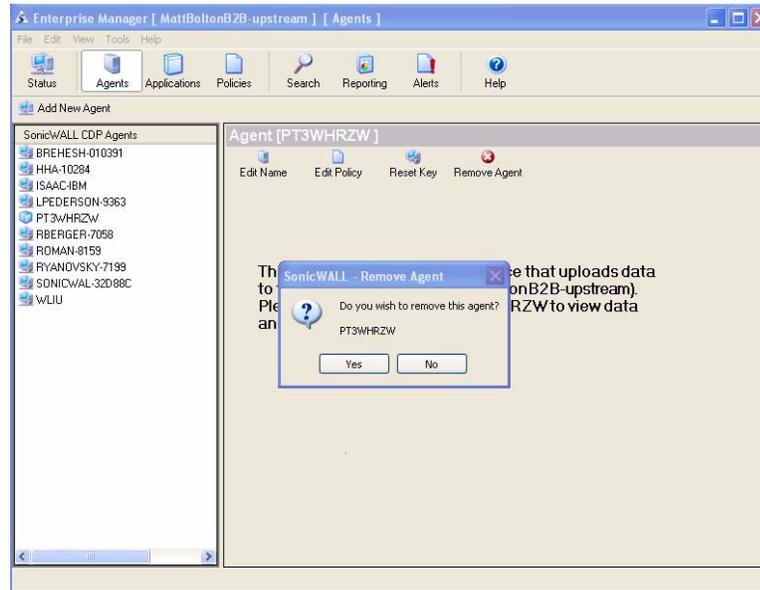
Step 5 Login to the upstream CDP appliance using the Enterprise Manager

Step 6 Navigate to the **Agent** tab and select the unwanted downstream CDP.



Step 7 Click **Remove Agent**.

Step 8 An alert displays. Click **Yes**.



Removing a downstream CDP will delete all the relevant backup data from the upstream CDP appliance.

Recovering Data From the Upstream CDP Appliance

If the downstream CDP is no longer accessible, a new CDP can take its place and recover data from the upstream appliance. Required information before you begin:

- Old CDP's registration code (to identify the original CDP)
- Old CDP's encryption key
- New CDP's registration code

To recover data from the upstream CDP appliance, you must first configure the upstream appliance to allow the new downstream appliance access to the old appliance's data. Then the new appliance must be setup to connect to the upstream CPD appliance.


Note

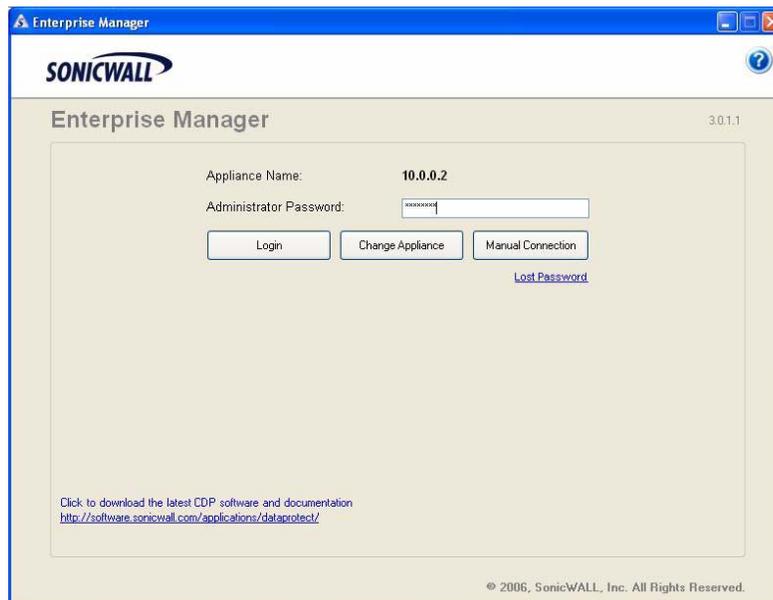
The data on the downstream appliance will be replaced with the data from the upstream appliance. The data restore process cannot be canceled once it has started.


Note

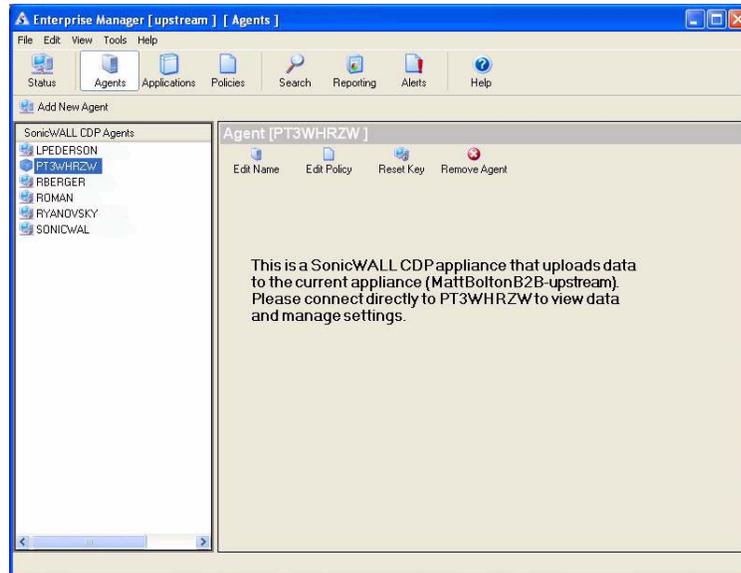
Local data will not be able to backup until the restore process has been completed.

To update the upstream appliance, perform the following steps:

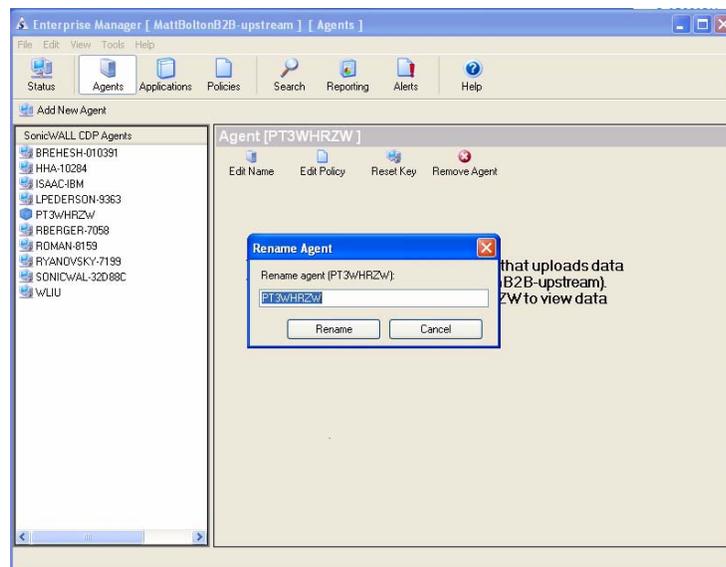
- Step 1** Login to the upstream CDP appliance using the Enterprise Manager.



Step 2 Navigate to the **Agents** tab and select the old CDP that is being replaced.



Step 3 Click the **Edit Name** button.



Step 4 Replace the old CDP's registration code with the new one and click **Rename**.

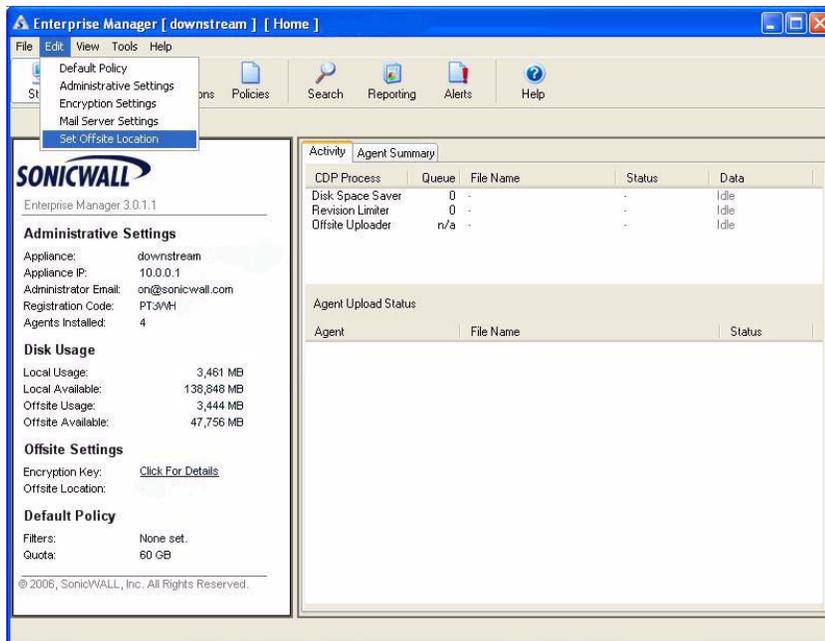
Step 5 Click the **Reset Key** button.



You must now configure the new downstream appliance to backup to the upstream CDP appliance. Follow the directions in “[Configuring the Downstream CDP Appliance](#)” section on page 9 before recovering data from the upstream CDP appliance.

Step 6 Login to the downstream CDP appliance using the Enterprise Manager.

Step 7 From the **Edit** menu, select **Set Offsite Location**.



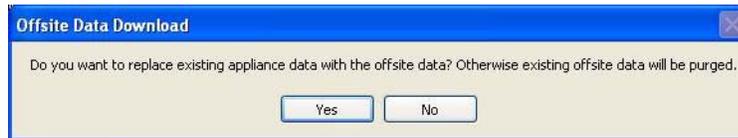
Step 8 Uncheck the box next to **Use SonicWALL Portal**. Type the IP address or the FQDN (Fully Qualified Domain Name) of the upstream CDP appliance in the field under **Upstream appliance name or address**.



Note It is important that the upstream and downstream appliances have different IP addresses. Refer to the SonicWALL CDP 3.0 Getting Started Guide for further information on configuring an appliance's IP address and domain name.

Step 9 Click **Change**.

- Step 10** An alert displays. Click **Yes** to replace the existing appliance data with offsite data, or click **No** to purge the offsite data and leave the existing appliance data.

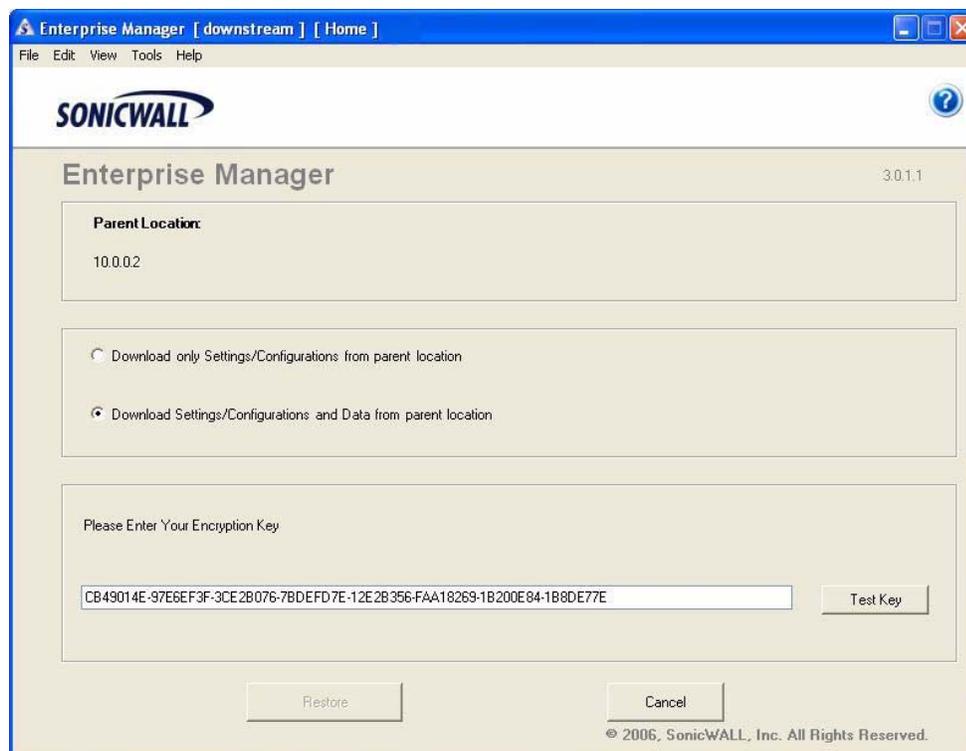


- Step 11** To restore settings and configurations only, select the radio button next to **Download only Settings/Configurations from parent location**. To restore data, settings, and configurations, select the radio button next to **Download Settings/Configurations and Data from parent location**.



Note

Once the old appliance's settings and configurations are downloaded, the new appliance will begin backing up the local agents immediately. It may not be necessary to download the old data from the upstream appliance.

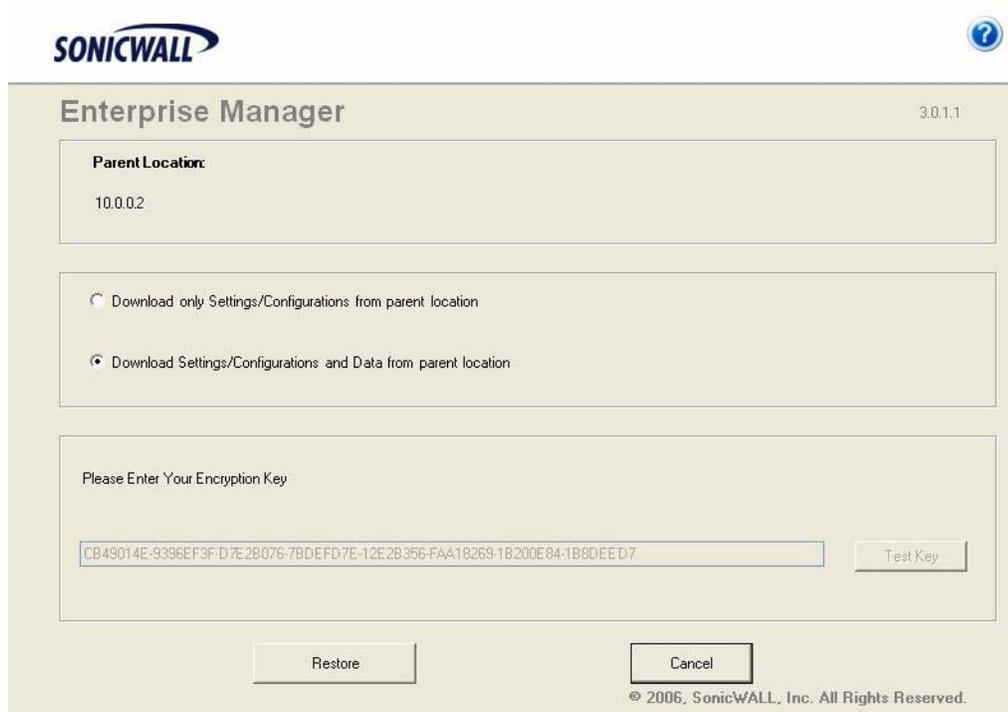


- Step 12** If the **Please Enter Your Encryption Key** field is not populated, enter your encryption key. This is the key of the old appliance.

- Step 13** Click **Test Key**. If the key is correct, a success message will display. Click **OK**.



Step 14 Click **Restore**.



Step 15 A warning message displays. Click **Yes** to continue.



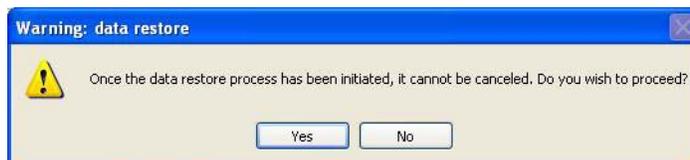
Note The data on the downstream appliance will be replaced with the data from the upstream appliance.



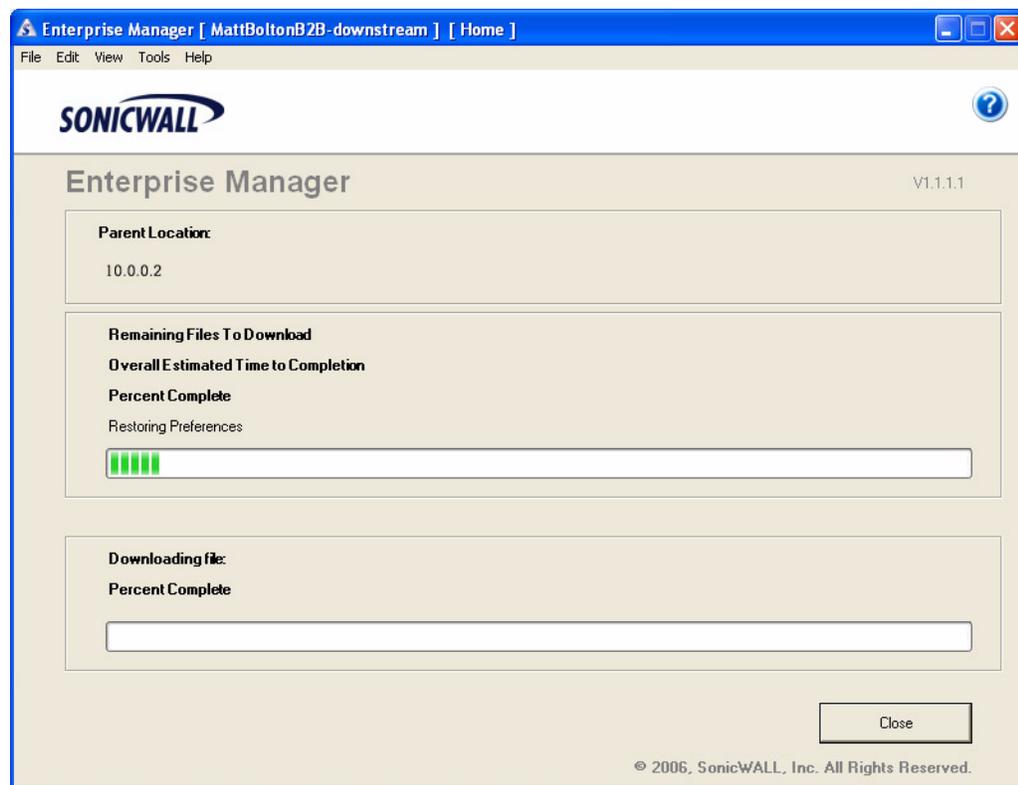
Step 16 A second warning message displays. Click **Yes** to continue.



Note The data restore process cannot be canceled once it has started.



The restore progress displays. Click **Close** to close the progress page.



Congratulations, you have completed a Box-to-Box restore and recovery.

CDP Box-to-Box Best Practices

For best performance, SonicWALL recommends you follow these practices:

- Seed data to a second local CDP when dealing with large data sets.
- Consider having a dedicated internet connection for many-to-one backup scenarios.
- Separate out data being uploaded: Do not seed all machines at once. Do not seed all files from a single large machine at one time.
- No circular references of data. An upstream appliance can not backup to one of its downstream appliances.

Glossary

Downstream CDP appliance: A local CDP appliance on your LAN.

Upstream CDP appliance: An offsite CDP appliance on your WAN that is used for secure backup and recovery.

Document Version History

Version Number	Date	Notes
1	5/7/2007	This document was created.
2	5/25/2007	Incorporated feedback from Rory Berger
3	6/20/2007	Incorporated feedback from Matt Bolton
4		