AVAYA

Avaya Solution & Interoperability Test Lab

Application Notes for Configuring a SonicWALL Continuous Data Protection (CDP) backup solution with Avaya VoiceMail Pro - Issue 1.0

Abstract

These Application Notes describe a sample configuration for the SonicWALL Continuous Data Protection (CDP) backup solution with Avaya VoiceMail Pro.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe a sample configuration of the SonicWALL Continuous Data Protection (CDP) backup solution with Avaya VoiceMail Pro. Compliance testing emphasis was placed on validating the SonicWALL CDP backup solutions capability of backing up and restoring voicemail messages as well as the Avaya VoiceMail Pro configuration files. The SonicWALL CDP series has four models of varying drive capacities, CDP 100 = 500GB, CDP 210 = 1TB, CDP 5040 = 2.25TB and the CDP 6080 = 4.5TB. Being that all of the models have identical software and features, only the CDP 100 was tested and will be shown in this document.

1.1. Interoperability Compliance Testing

This document describes the interoperability compliance testing for the SonicWALL CDP Backup solution with Avaya VoiceMail Pro.

Compliance testing included the following:

- Installation of CDP Server
- Installation of CDP Agent Tool.
- Backups
- Restore
- Serviceability

The general test approach included installing and configuration of the CDP server and client software as well as backups and restores.

1.2. Support

Technical Support: http://www.sonicwall.com/us/Support.html

2. Reference Configuration

The configuration in **Figure 1** shows an Avaya Telephony Infrastructure using Avaya IP Office and Avaya VoiceMail Pro integrating a SonicWALL CDP Backup solution.

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2.1. Corporate Headquarters

The Corporate Headquarters consisted of one SonicWall CDP 110, one router, one Avaya IP Office IP500, two Avaya IP Telephones, one Avaya digital phone, one PC running Avaya IP Office Manager, Avaya IP Office VoiceMail Pro and SonicWall CDP Backup Client.
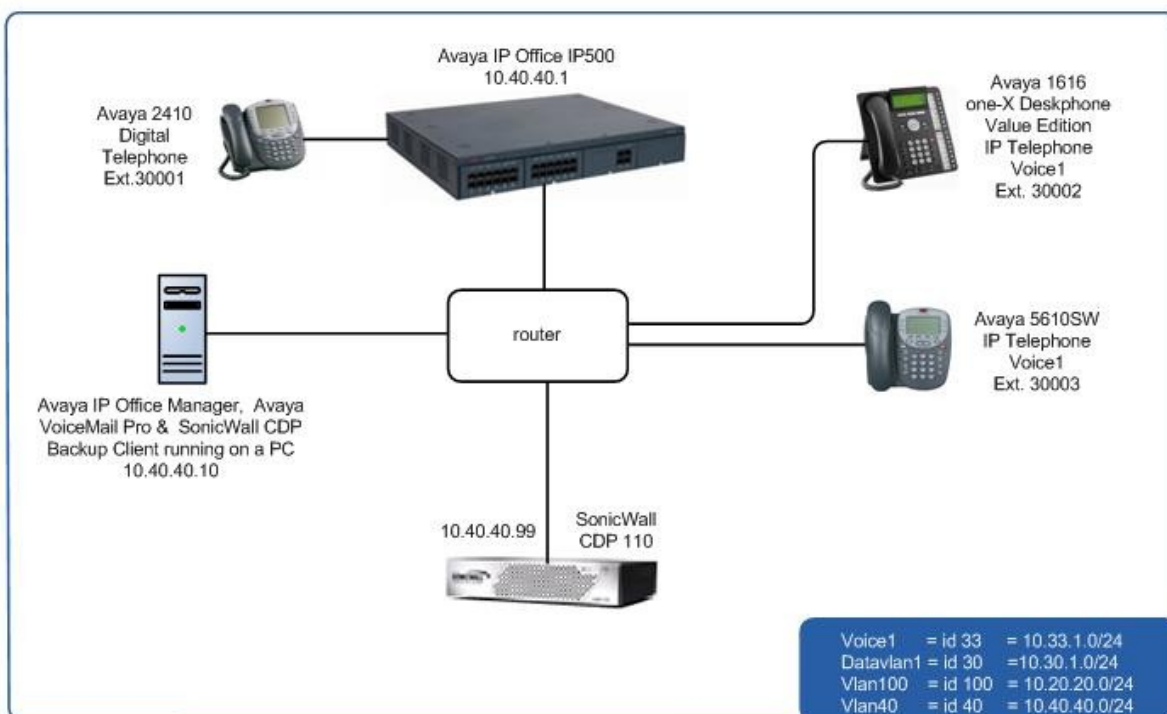
Figure 1: Sample Network Configuration

3. Equipment and Software Validated

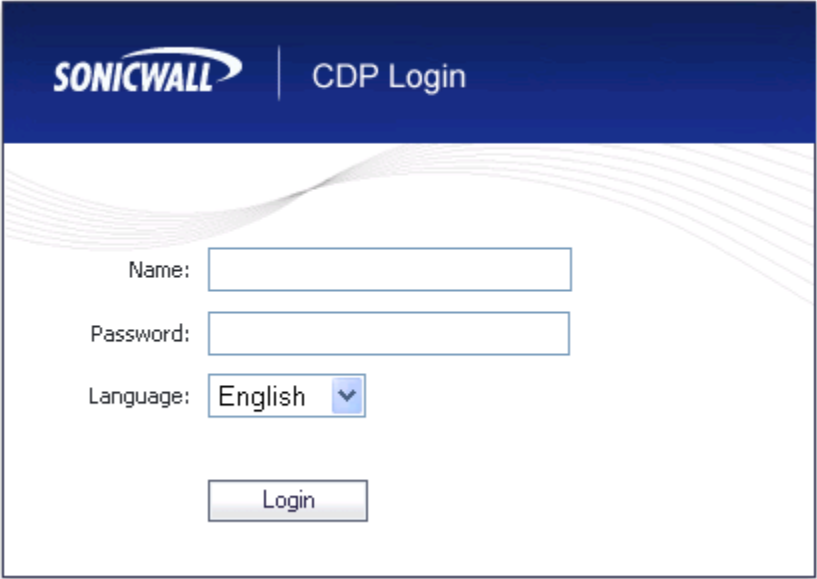The following equipment and software were used for the sample configuration provided:

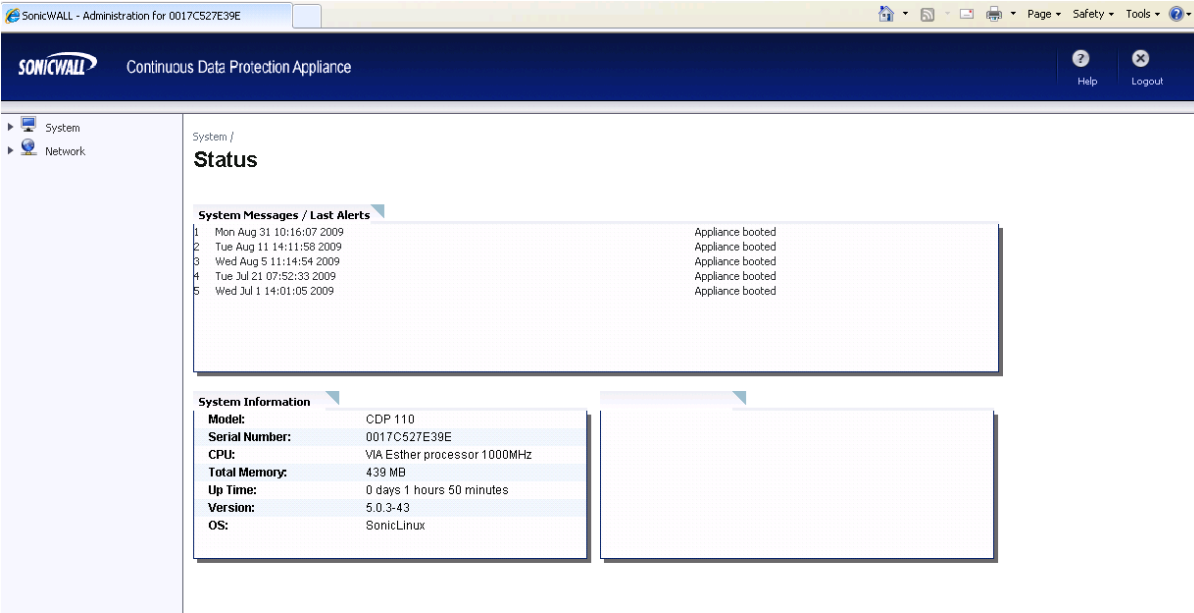| Equipment	Software/Firmware
Avaya PBX Products	
Avaya IP Office IP500	4.2 (17)
Avaya IP Office Manager (running on HP Proliant Server)	6.2 (17)
Avaya Messaging (Voice Mail) Products	
Avaya VoiceMail Pro	4.2 (30)
Avaya Telephony Sets	
Avaya 1600 Series IP Telephones	Avaya one-X Deskphone Value Edition 1.020
Avaya 5600 Series IP Telephones	8.016
Avaya 2410 Digital Telephone	5.0
SonicWALL Products	
SonicWall CDP 110	5.0.3-43
SonicWall CDP backup client	5.0.0.3
MS Products	
PC	Microsoft Windows 2003 Server (Running Avaya IP Office Manager, Avaya VoiceMail Pro and SonicWall CDP backup client.

4. Configure Avaya IP Office & Avaya VoiceMail Pro

- No SonicWALL CDP specific configuration is required on Avaya IP Office or Avaya VoiceMail Pro to support this solution.

- It is assumed that Avaya IP Office and Avaya VoiceMail Pro are already configured. Consult the Avaya IP Office and Avaya VoiceMail Pro documentation **Section 8 [1]** for additional configuration details.
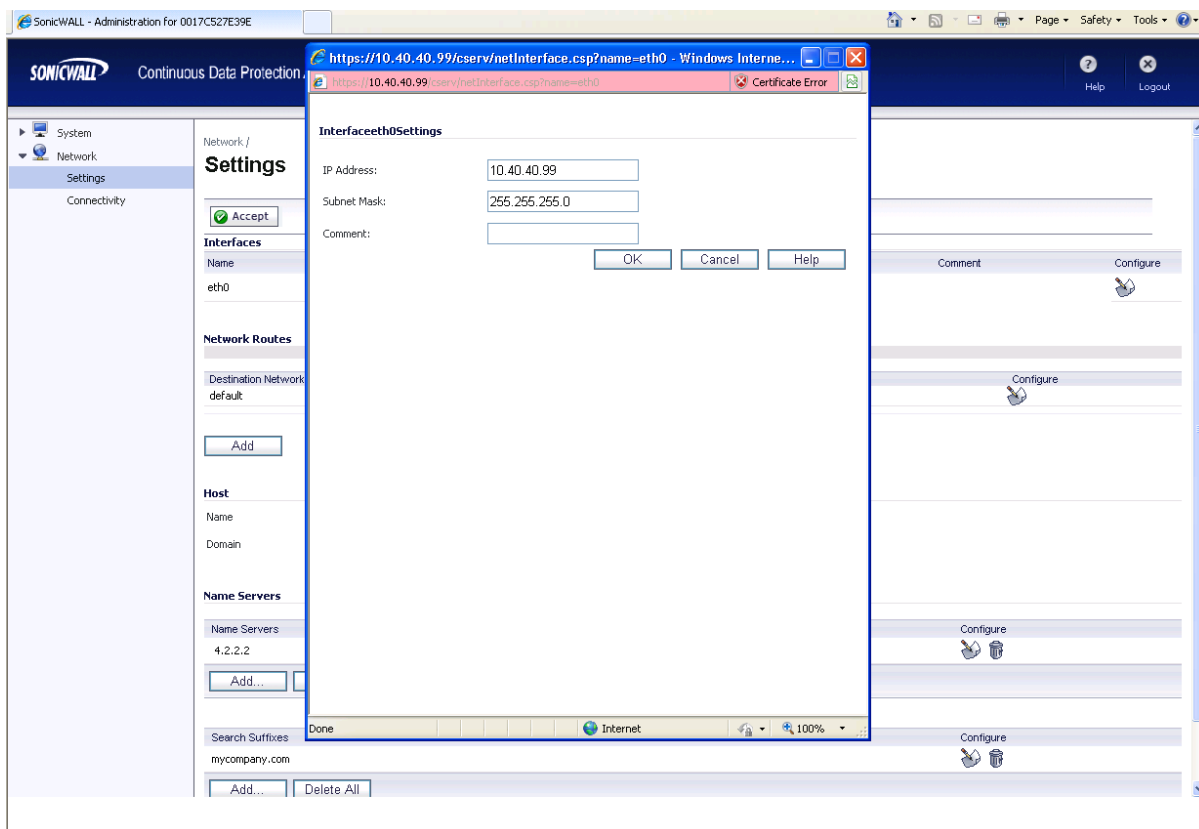
4.1. Configure SonicWALL CDP 110 Configuration

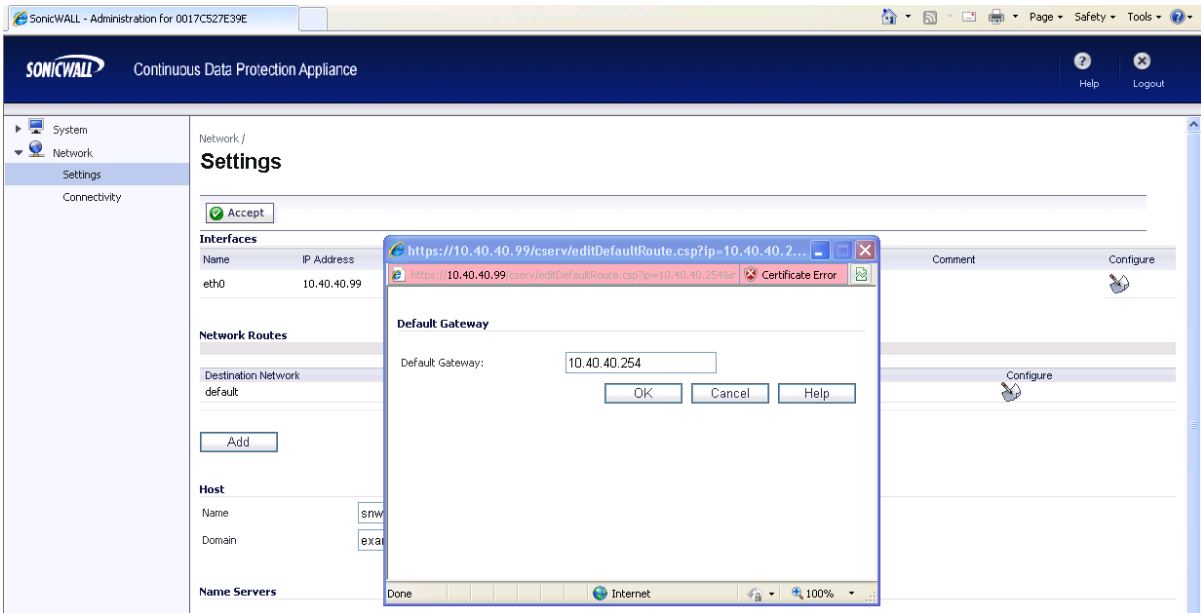| Step	Description
1.	Register the SonicWALL CDP with SonicWALL, Consult the SonicWALL CDP documentation **Section 8 [6]** for details.

Step	Description
2.	Configure the SonicWALL CDP using the built-in web-based **Management Tool.**

- Using the supplied crossover cable and the computer you are using to administer the SonicWALL CDP appliance, connect the LAN port of computer to the LAN port on the back of your SonicWALL CDP appliance.

- Set the computer IP address used to manage the SonicWALL CDP appliance to have a static IP address of **192.168.168.50**.

- Open a Web browser on the computer you are using to administer the SonicWALL CDP appliance. Enter **http://192.168.168.169** (the default IP address of the SonicWALL CDP appliance) in the **Location** or **Address** bar. The SonicWALL CDP Web management login screen displays.

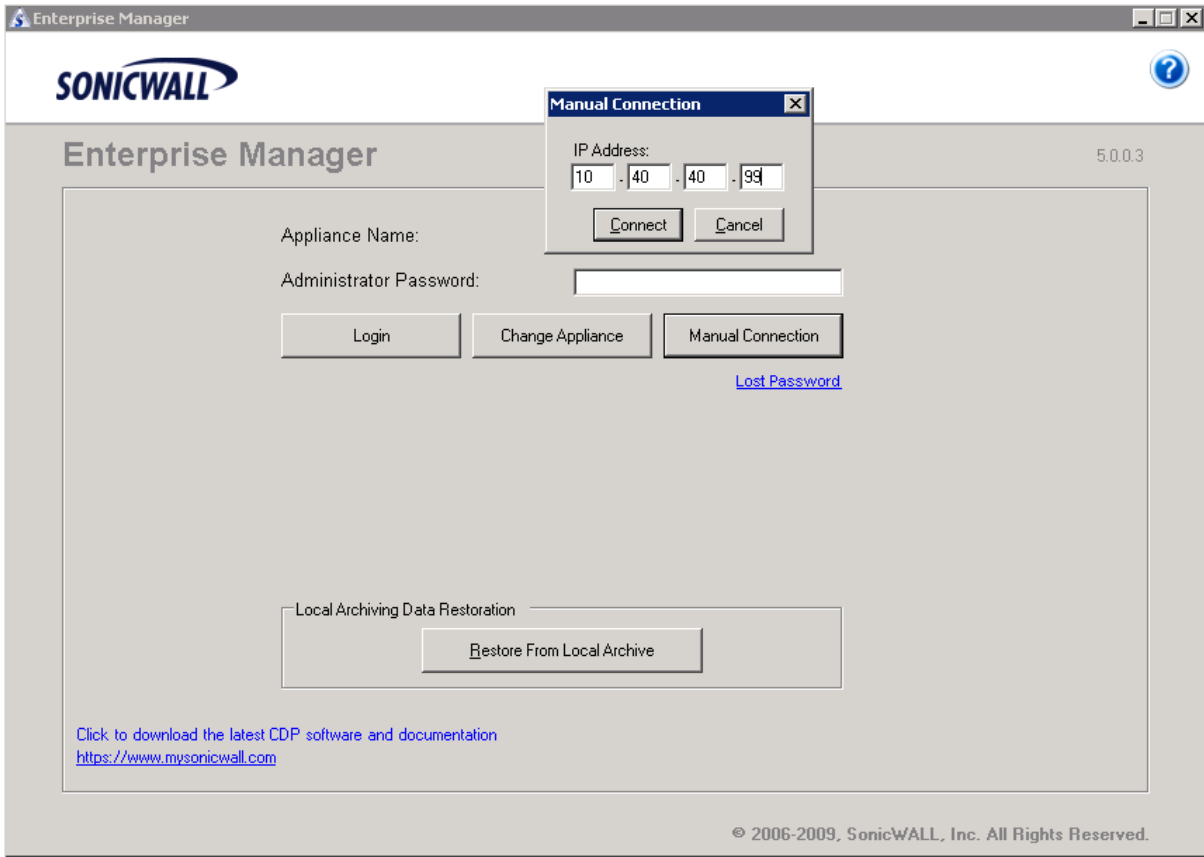| Step	Description
3.	The SonicWALL CDP window appears. The following steps refer to the Configuration Tree which is in the left pane of the window.

| Step	Description
4.	Configure the LAN port IP Address. From the Configuration Tree, click **Network** → **Settings**, under **Interfaces**, click the **Configure** icon for **eth0**. The **Interfaceeth0Settings** dialog box will appear. Change the **IP Address** and **Subnet Mask** to reflect **Figure 1** settings. Click **OK** to continue.

| Step	Description
5.	Add the default gateway for the LAN. From the Configuration Tree, click **Network →** **Settings**, under **Network Routes**, click the **Configure** icon for **Default**. The **Default Gateway** dialog box will appear. Change **Default Gateway, 10.40.40.254 was used for compliance testing**. Click **OK** tab. Click the Accept tab to continue.

4.2. Configure SonicWALL CDP Client

1.	Install the SonicWALL CDP Client software on the PC running Avaya VoiceMail Pro. Consult the SonicWALL CDP Client documentation **Section 8 [6]** for details.
2.	This Step is used to establish a connection from the **SonicWALL CDP Client** and the **SonicWALL CDP** 110 Appliance. Log into the Avaya VoiceMail Pro PC and select **Start → Programs → SonicWALL → SonicWALL Continuous Data Protection → SonicWALL CDP Enterprise Manager.** Click the **Manual Connection,** enter the **IP Address** of the SonicWall CDP 110 as shown in **Figure 1,** click **Connect.** Enter the **Administrator Password** and click **Login.** The **Enterprise Manager window** will appear (not shown). This step is now complete**,** click the **X** box to kill the window.

3.	On the PC, select **Start → Programs → SonicWALL → SonicWALL Continuous Data Protection → SonicWALL CDP Agent Tool** to launch the **Agent Tool**. The **Agent Tool** will appear, click **Folders** to continue.
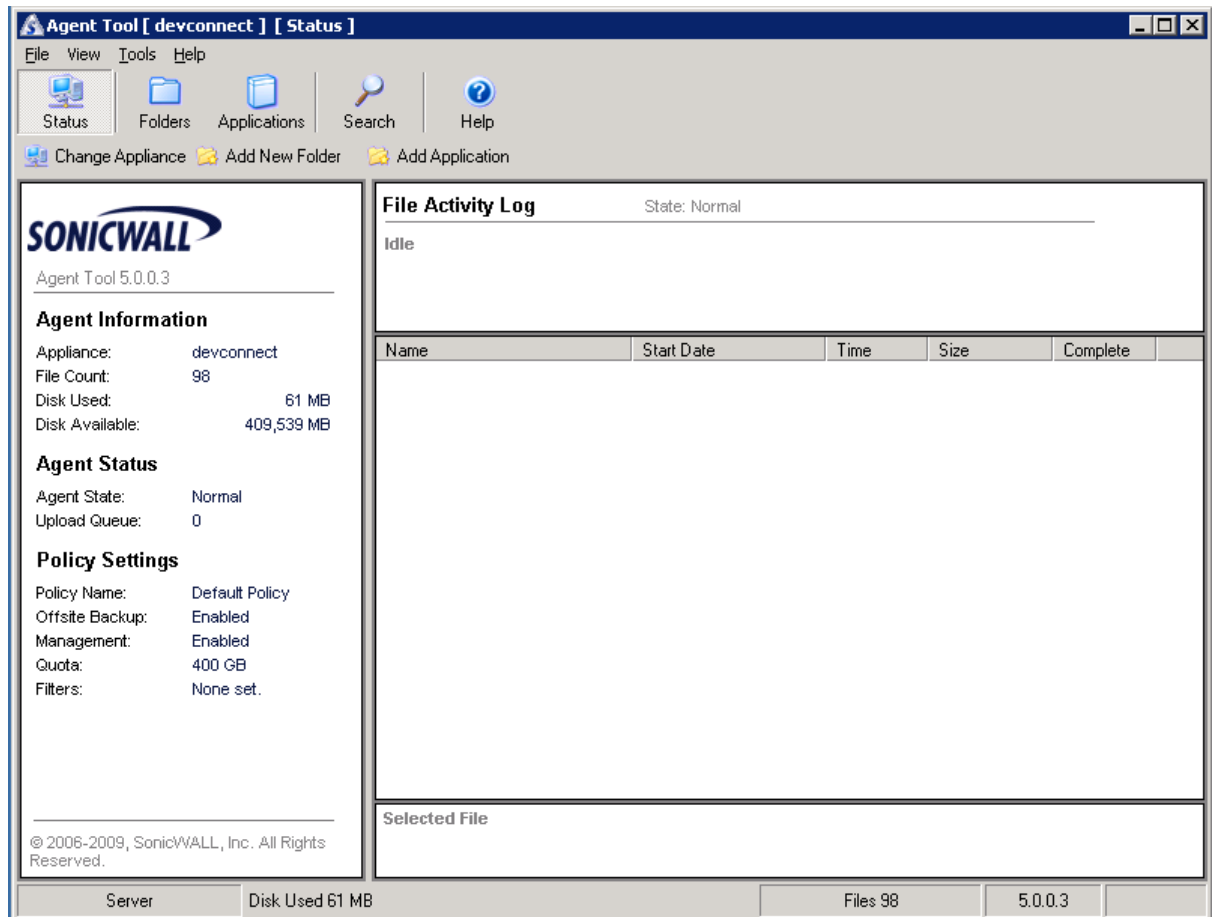
4.3. Configure SonicWALL CDP Client Backup

|	
1.	Configure the backup folder. From the **Folders** section of the Agent Tool window, click **Add Folder**. Browse for the **VoiceMail Pro** folder, highlight **VoiceMail Pro** and click **OK** to continue. Consult the SonicWALL CDP Client documentation **Section 8 [6]** for more details.
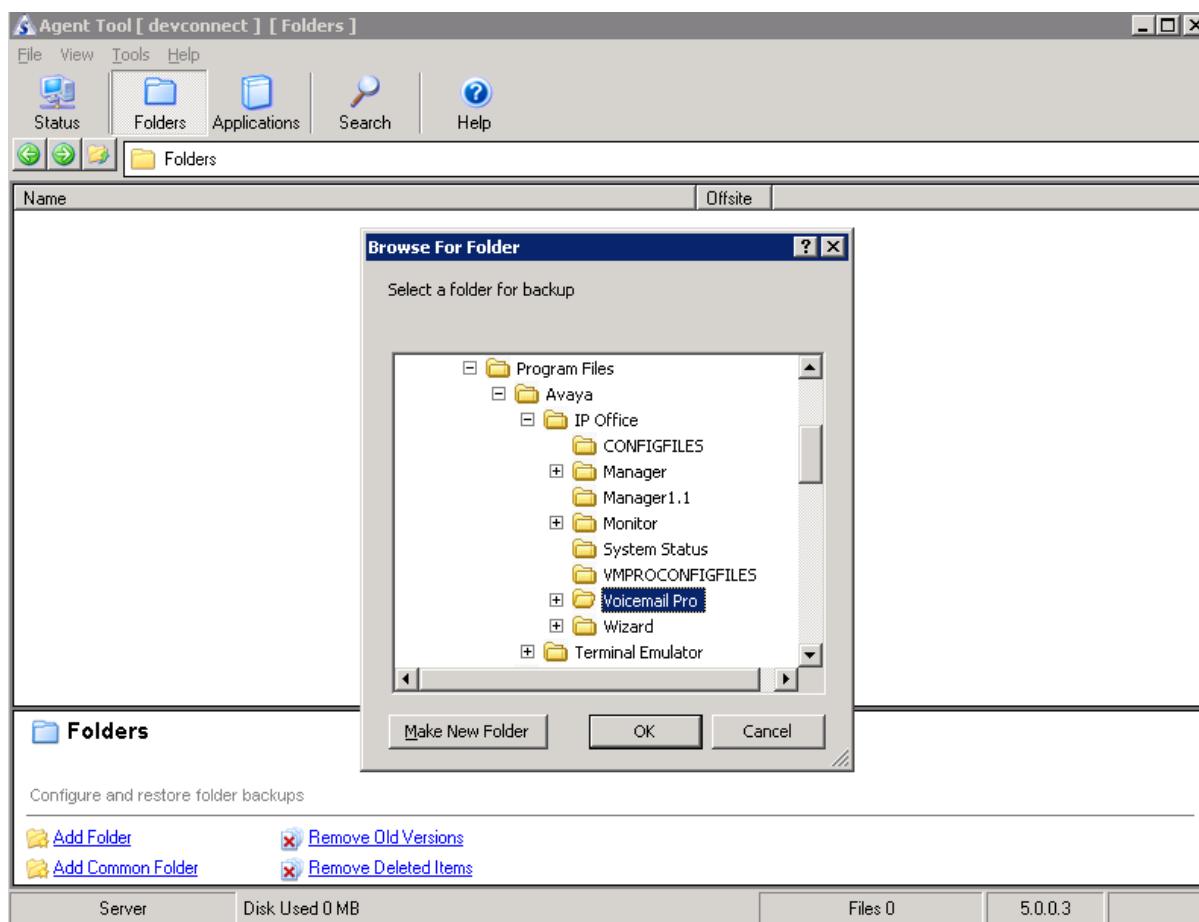
4.4. Configure SonicWALL CDP Client Restore

Restores can be done for the entire VoiceMail Pro directory in case of a disk failure or individual mailbox and voicemail messages. The scenario for the following example is to restore an individual voicemail message. Refer to the SonicWALL CDP Client documentation **Section 8 [6]** for more details of restoring directories.

*Note:

- **Restored files and folders for the VoiceMail Pro directory or individual user accounts must be restored to a NEW location and then moved into place. System crash may occur if the files are restored directly.**

- **Restored individual voicemail messages are not to be restored directly to the original location and are NOT to be moved back into the original location, System crash may occur if this is done.**

1.	The scenario for the restore is as follows, the owner of extension 30020 deleted a voicemail message and requested it be restored. Click **Folders**, browse through the restore folder and highlight the file being restored, in this case it's a wav file, click the **Restore File Version** link, select which version (not shown) of the file to be restored and click Restore. The **Browse for folder** window will appear, select where to restore the file to **(*)** and select **OK**.
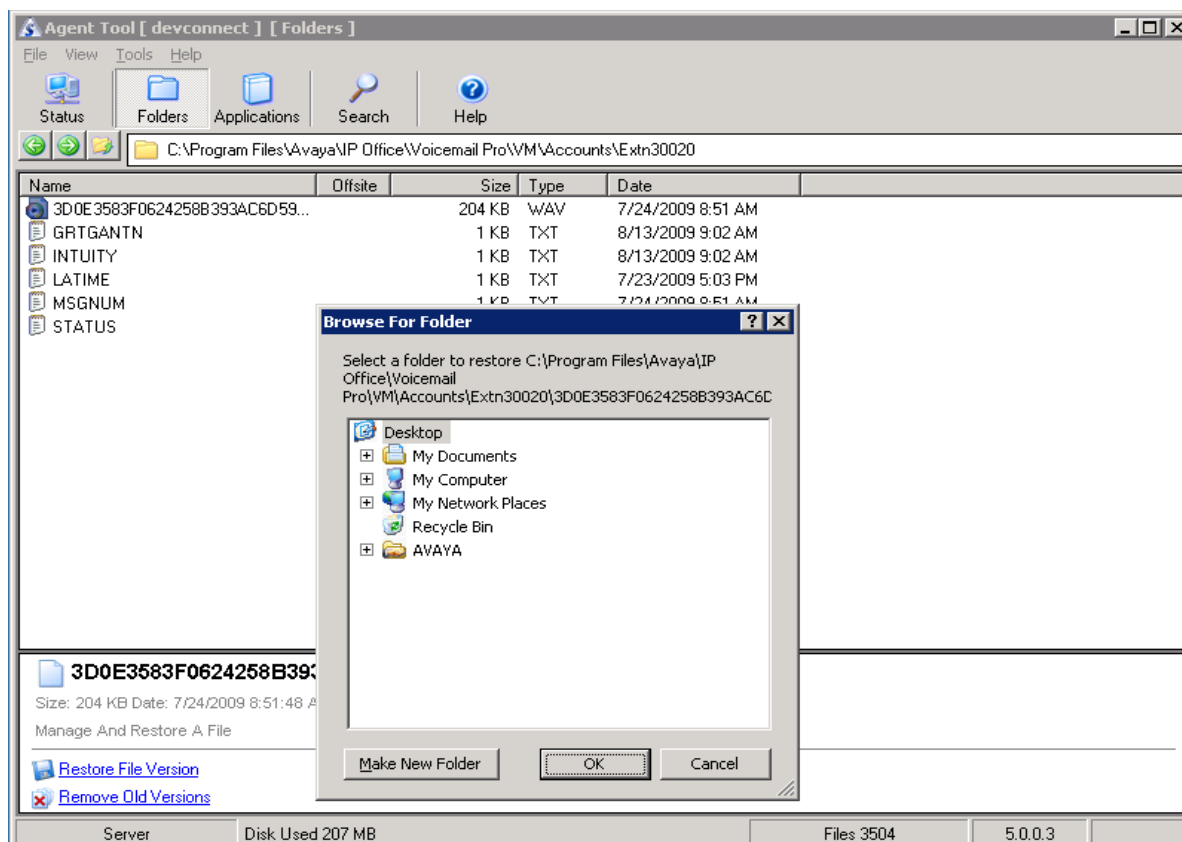
5. General Test Approach and Test Results

5.1. Test Approach

All test cases were performed manually. The general test approach entailed verifying the following list:

- Installation of CDP Server
- Installation of CDP Agent Tool.
- Backups
- Restores
- Serviceability

5.2. Test Results

The SonicWALL Continuous Data Protection (CDP) backup solution with Avaya VoiceMail Pro passed all test cases as described in Section 5.1.

6. Verification Steps

This section provides the steps for verifying The SonicWALL Continuous Data Protection (CDP) backup solution with Avaya VoiceMail Pro, the verification steps include

- Installation of CDP Server
- Installed the CDP Agent Tool on the PC that is running Avaya VoiceMail Pro.
- Backed up the Avaya VoiceMail Pro directory structure.
- Restored:
    1. Restored Avaya VoiceMail Pro directory structure
    2. Restored individual voicemail message
- Serviceability test included power cycling the SonicWall CDP 110 appliance and make sure it recovered

7. Conclusion

These Application Notes describe the configuration steps required for integrating the SonicWALL Continuous Data Protection backup solution with Avaya VoiceMail Pro. For the configuration described in these Application Notes, the SonicWALL Continuous Data Protection solution was responsible for backing up and restoration of file/folders on Avaya VoiceMail Pro.

8. Additional References

The documents referenced below were used for additional support and configuration information.

This section references the Avaya documentation relevant to these Application Notes. The following Avaya product documentation is available at http://support.avaya.com

[1] *Avaya IP Office 4.2 Installation Manual,* Document Number 15-601042
[2] *Avaya IP Office 4.2 Embedded Voicemail User Guide,* Document Number 15-601067
[3] *Avaya IP Office 4.2 Phone Manager User Guide,* Document Number 15-600988
[4] *Avaya IP Office 4.2 Manager 6.2,* Document # 16-601443
[5] *Deskphone Value Edition 1600 Series IP Telephones Installation and Maintenance Guide,* Document # 16-601443

The SonicWALL product documentation can be found at

[6] http://www.sonicwall.com/us/support/6832.html

9. Change History

Issue	Date	Reason
1.0	9/25/09	Initial issue

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