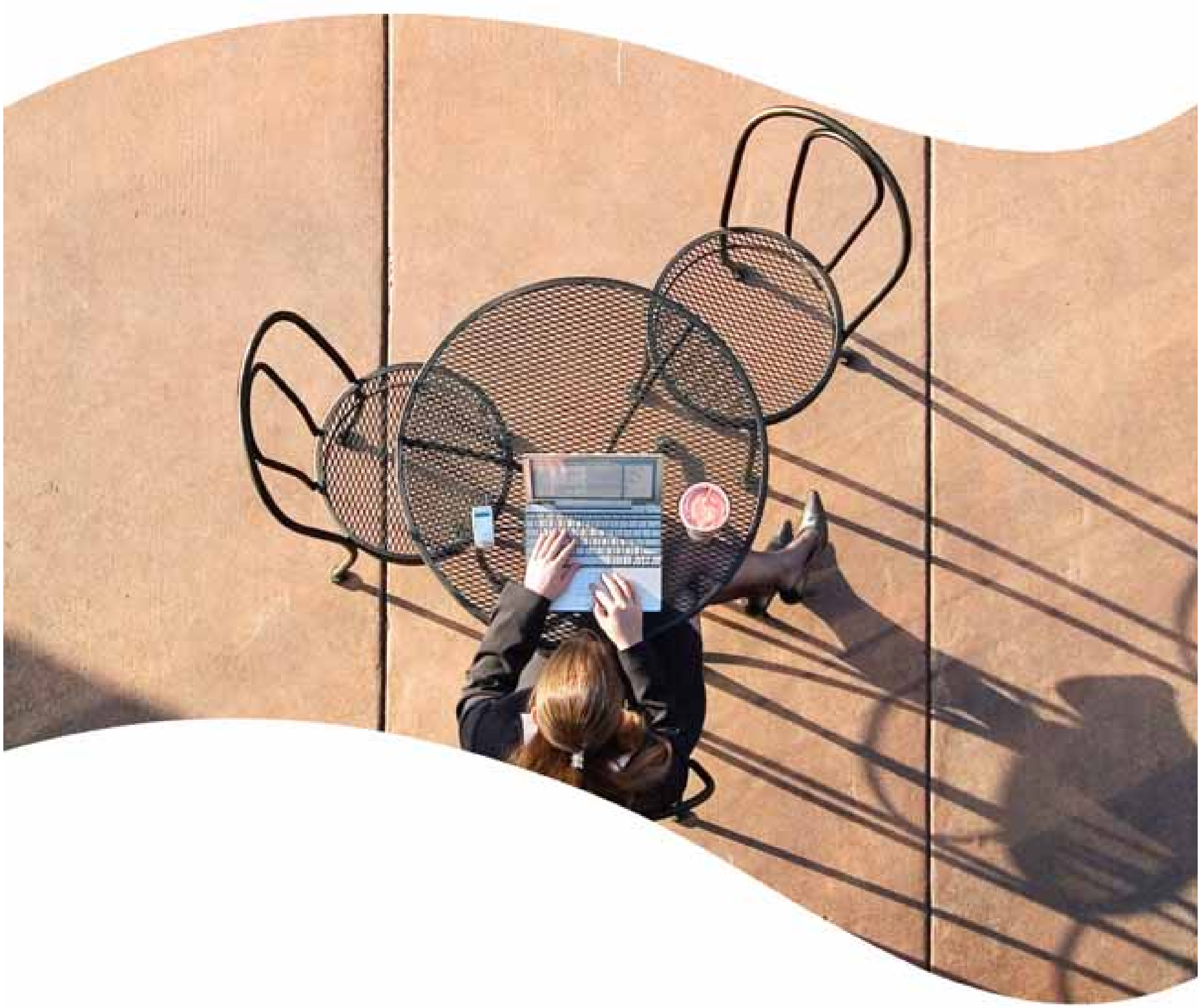
SonicWALL CDP Series Appliances

SonicWALL CDP 2.1 Administrator's Guide

SONICWALL



SonicWALL CDP 2.1 Administrator's Guide

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Guide Conventions

The following Conventions used in this guide are as follows:

Convention	Use
Bold	Highlights items you can select on the SonicWALL security appliance management interface.
Italic	Highlights a value to enter into a field. For example, "type *192.168.168.168* in the **IP Address** field."
Menu Item > Menu Item	Indicates a multiple step Management Interface menu choice. For example, **Security Services > Content Filter** means select **Security Services**, then select **Content Filter**.

Icons Used in this Manual

These special messages refer to noteworthy information, and include a symbol for quick identification:

Alert: Important information that cautions about features affecting device performance, security features, or causing potential problems with your SonicWALL.

Tip: Useful information about security features and configurations on your SonicWALL.

Note: Important information on a feature that requires callout for special attention.

Cross Reference: Provides a pointer to related information in the Administrator's Guide or other resources.

SonicWALL Technical Support

For timely resolution of technical support questions, visit SonicWALL on the Internet at *<http://www.sonicwall.com/support/support.html>*. Web-based resources are available to help you resolve most technical issues or contact SonicWALL Technical Support.

To contact SonicWALL telephone support, see the telephone numbers listed below:

North America Telephone Support

U.S./Canada - 888.777.1476 or +1 408.752.7819

International Telephone Support

Australia - + 1800.35.1642

Austria - + 43(0)820.400.105

EMEA - +31(0)411.617.810

France - + 33(0)1.4933.7414

Germany - + 49(0)1805.0800.22

Hong Kong - + 1.800.93.0997

India - + 8026556828

Italy - +39.02.7541.9803

Japan - + 81(0)3.5460.5356

New Zealand - + 0800.446489

Singapore - + 800.110.1441

Spain - + 34(0)9137.53035

Switzerland - +41.1.308.3.977

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More Information on SonicWALL Products

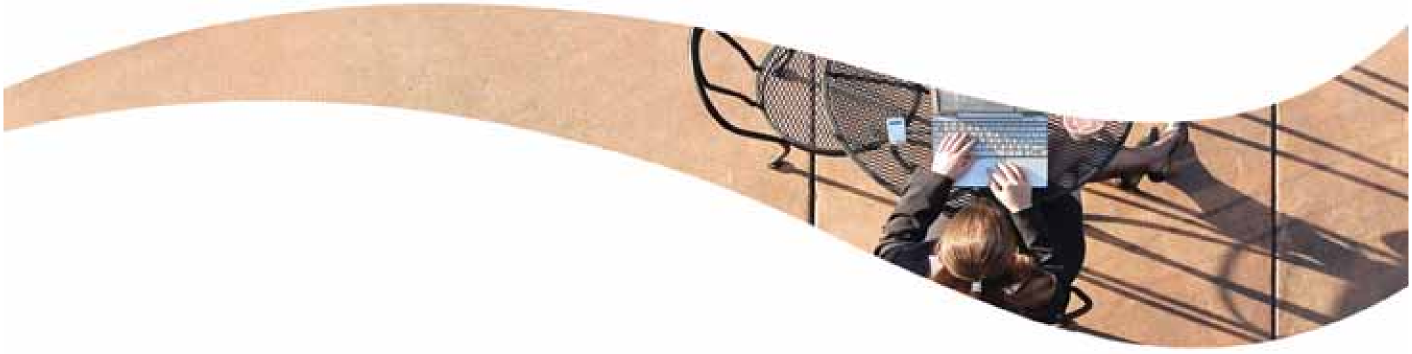
Contact SonicWALL, Inc. for information about SonicWALL products and services at:

Web:	http://www.sonicwall.com
E-mail:	sales@sonicwall.com
Phone:	(408) 745-9600
Fax:	(408) 745-9300

Current Documentation

Check the SonicWALL documentation Web site for that latest versions of this manual and all other SonicWALL product documentation.

http://www.sonicwall.com/support/documentation.html



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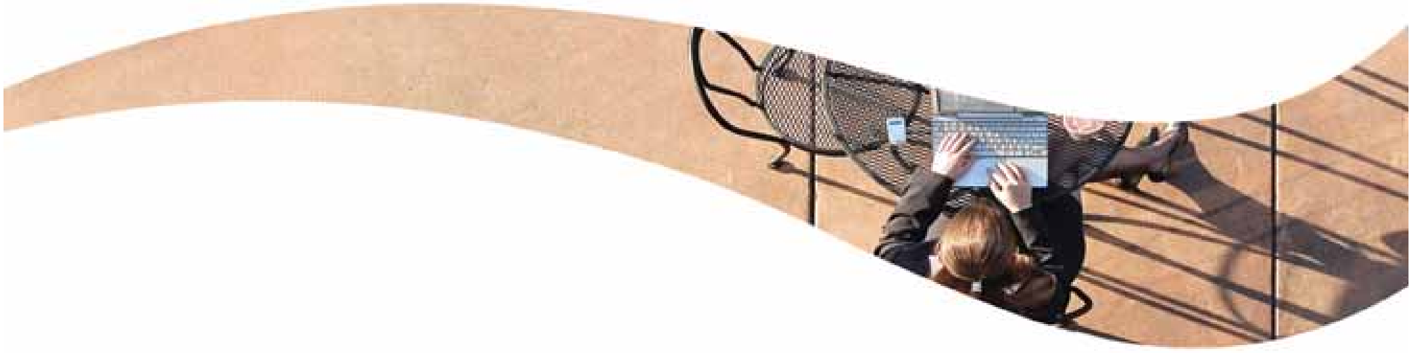


About this Guide

The SonicWALL CDP Administrator's Guide provides network administrators with an introduction to SonicWALL CDP (continuous data protection), including a high-level overview of SonicWALL CDP, a description of deployment restrictions, hardware and software components, configuration examples and basic troubleshooting.

The SonicWALL CDP Administrator's Guide contains the following sections:

SonicWALL CDP Overview

Protect your network using SonicWALL CDP (continuous data protection), a secure backup solution that runs continuously, archiving file and application data from assigned agents (servers, laptops or PCs intended for backup using SonicWALL CDP).

SonicWALL CDP replicates data in real time, capturing new, changed and deleted information. By storing multiple versions of each file and application revision, SonicWALL CDP can recall data from nearly any point in time.

In the event of local disaster, data can be recovered from the secure SonicWALL CDP Offsite Service. For more routine data recovery needs, the SonicWALL CDP appliance provides instant, onsite data recall. SonicWALL CDP works even when users are on remote laptops connected by IPsec or SSL-VPN connections.

This section contains the following subsections, which provide an introduction to the SonicWALL CDP features and benefits:

- "What Is SonicWALL CDP?" section on page 3
- "Why Use SonicWALL CDP?" section on page 4
- "How Does SonicWALL CDP Work?" section on page 6
  - "How the SonicWALL CDP Firmware User Interface Works" section on page 7
  - "How the SonicWALL CDP Appliance Works" section on page 8
  - "How the SonicWALL CDP Agent Service and Agent Tool Work" section on page 8
  - "How the SonicWALL CDP Enterprise Manager Works" section on page 9
  - "How SonicWALL CDP Bare Metal Recovery Works" section on page 9
  - "How the SonicWALL CDP Offsite Service Works" section on page 10

What Is SonicWALL CDP?

SonicWALL CDP protects your network from data loss. SonicWALL CDP is a disk-based data backup and recovery system that provides protection for assigned agents, regularly preserving the latest file versions and database revisions locally, and if configured, storing full folder and full database revisions to the secure Offsite Service.

Backups are performed regularly by SonicWALL CDP, ensuring that new versions of files or application revisions are continuously updated. In addition, older versions of each file are stored, allowing recovery from multiple points in time.

SonicWALL CDP comprises the following components: The SonicWALL CDP firmware user interface, appliance, Offsite Service, Enterprise Manager, Agent Tool, Agent Service, and Bare Metal Recovery.

Each SonicWALL CDP component is described below.

- **SonicWALL CDP Firmware User Interface**—The SonicWALL CDP firmware user interface is a Web browser-based interface that allows the SonicWALL CDP administrator to configure the SonicWALL CDP appliance firmware. For detailed SonicWALL CDP firmware user interface specifications, refer to the "How the SonicWALL CDP Firmware User Interface Works" section on page 7 and "Firmware User Interface" section on page 20.
- **SonicWALL CDP Appliance—**The SonicWALL CDP appliance is a dedicated disk backup appliance that collects data blocks from agents for storage and for secure transmission to the Offsite Service (if configured). For detailed SonicWALL CDP appliance specifications, refer to the "How the SonicWALL CDP Appliance Works" section on page 8 and the "Supported Platforms" section on page 13.
- **SonicWALL CDP Offsite Service**—The SonicWALL CDP Offsite Service is a subscription service that provides protection against local disaster. Full file revisions from the SonicWALL CDP appliance are securely transmitted to the Offsite Service and stored for emergency recovery. For detailed SonicWALL CDP Offsite Service specifications, refer to the "How the SonicWALL CDP Offsite Service Works" section on page 10 and the "Offsite Service" section on page 18.
- **SonicWALL CDP Enterprise Manager—**The SonicWALL CDP Enterprise Manager software is installed by the CDP administrator and used to manage appliance and agent options. Enterprise Manager is the master control panel to set policies for agents connected to a SonicWALL CDP appliance. For detailed SonicWALL CDP Enterprise Manager specifications, refer to the "How the SonicWALL CDP Enterprise Manager Works" section on page 9 and the "Enterprise Manager" section on page 22.
- **SonicWALL CDP Agent Tool**—The SonicWALL CDP Agent Tool software is installed on every agent (server, laptop or PC intended to be backed up on the SonicWALL CDP appliance), and provides a user interface with options to view backup status and recover lost data. User access to the Agent Tool is configured by the CDP administrator using the Enterprise Manager. For detailed SonicWALL CDP Agent Tool specifications, refer to the "How the SonicWALL CDP Agent Service and Agent Tool Work" section on page 8 and the "Agent Tool" section on page 35.

- **SonicWALL CDP Agent Service**—The SonicWALL CDP Agent Service software is installed automatically with the SonicWALL Agent Tool. By running continuously in the background of each agent, the Agent Service enables backup of folders and application revisions as it performs handshaking with the appliance, transmits data, and listens for Windows Event Notifications. For detailed SonicWALL CDP Agent Service specifications, refer to the "How the SonicWALL CDP Agent Service and Agent Tool Work" section on page 8 and the "Agent Tool" section on page 35.
- **SonicWALL CDP Bare Metal Recovery**—The SonicWALL CDP Bare Metal Recovery software provides the administrator with the option to create a hard disk image backup. A hard disk image backup is a copy of information stored on a disk, including the operating system, programs, documents and settings. For detailed SonicWALL CDP Bare Metal Recovery specifications, refer to the "How SonicWALL CDP Bare Metal Recovery Works" section on page 9.

Why Use SonicWALL CDP?

SonicWALL CDP is a complete and reliable data protection solution that eliminates exposure to threats of data loss, using the same security technology implemented by major financial and government institutions.

Specifically developed for the business and remote office network, SonicWALL CDP is employed in network environments with business requirements that necessitate continuous data backup. SonicWALL CDP also provides real-time, continuous data protection for laptops and remote agents connected by IPsec or SSL-VPN.

By running seamlessly, SonicWALL CDP captures the most recent file and application revisions, maintaining multiple versions of each backed up file. SonicWALL CDP stores backed up data on a local SonicWALL CDP appliance for instant recovery, and if configured, to the secure SonicWALL CDP Offsite Service for protection against local disaster.

You control SonicWALL CDP, specifying which agents will use the appliance, selecting files and applications for automatic backup, and applying custom filters for non mission-critical file types.

SonicWALL CDP provides the following key features:

- **Continuous Data Protection—**SonicWALL CDP replicates data in real time, capturing new, changed and deleted information. SonicWALL CDP works even when users are on laptops or other remote connections using IPsec or SSL-VPN.
- **Offsite Service**—SonicWALL CDP Offsite Service protects businesses against power surges, theft, server crashes and other disasters by backing up full files and full database revisions to a secure data center. SonicWALL CDP monitors and recognizes Internet usage patterns so that it completes backups only when network usage is at its lowest.
- **Instant Recovery—**Because SonicWALL CDP utilizes an onsite appliance for data storage, agents have instant access to old file versions and can recover data at any time. And, agents have the ability to restore their own data without help from an IT administrator.
- **Multiple File Versions**—SonicWALL CDP saves multiple versions of every file, not just the latest version. Therefore, any user on the network can instantly retrieve a previous version of a document, even after they have saved over it. SonicWALL CDP allows recovery of data from multiple points in time.
- **Security**—Transmission of data to the SonicWALL CDP Offsite Service is secured by the same 256-bit AES (advanced encryption standard) and SSL (secure socket layer) encryption technologies implemented by major financial institutions and government agencies. SonicWALL CDP also utilizes public-key encryption and digital certificates as an additional layer of protection.

- **Intelligent Applications**—SonicWALL CDP integrates a collection of intelligent software applications. One such application is a backup reporting tool, which provides constant visual data backup verification. The tool places a highlighted SonicWALL stamp on each protected file so the user knows that the SonicWALL CDP is working.
- **Application Support—**SonicWALL CDP supports most business applications. Supported agent applications include Outlook and Outlook Express, and supported server applications include Microsoft Exchange, Active Directory and SQL Server.
- **RAID Support**—The SonicWALL CDP 3440i and 4440i appliances support RAID (redundant array of independent disks), providing additional failover protection in the event of a disk failure. The SonicWALL CDP 3440i includes RAID 1, data mirroring from one drive onto another. The SonicWALL CDP 4440i includes RAID 5, block-level data striping with distributed parity across the drive set.s

How Does SonicWALL CDP Work?

SonicWALL CDP includes the following major components: the SonicWALL CDP firmware user interface, appliance, Agent Tool, Agent Service, Enterprise Manager, Bare Metal Recovery and Offsite Service. Each element of the SonicWALL CDP works synchronously to ensure that data is protected continuously, in real time.

This section provides an overview of the SonicWALL CDP components. This section contains the following subsections:

- "How the SonicWALL CDP Firmware User Interface Works" section on page 7
- "How the SonicWALL CDP Appliance Works" section on page 8
- "How the SonicWALL CDP Agent Service and Agent Tool Work" section on page 8
- "How the SonicWALL CDP Enterprise Manager Works" section on page 9
- "How SonicWALL CDP Bare Metal Recovery Works" section on page 9
- "How the SonicWALL CDP Offsite Service Works" section on page 10

How the SonicWALL CDP Firmware User Interface Works

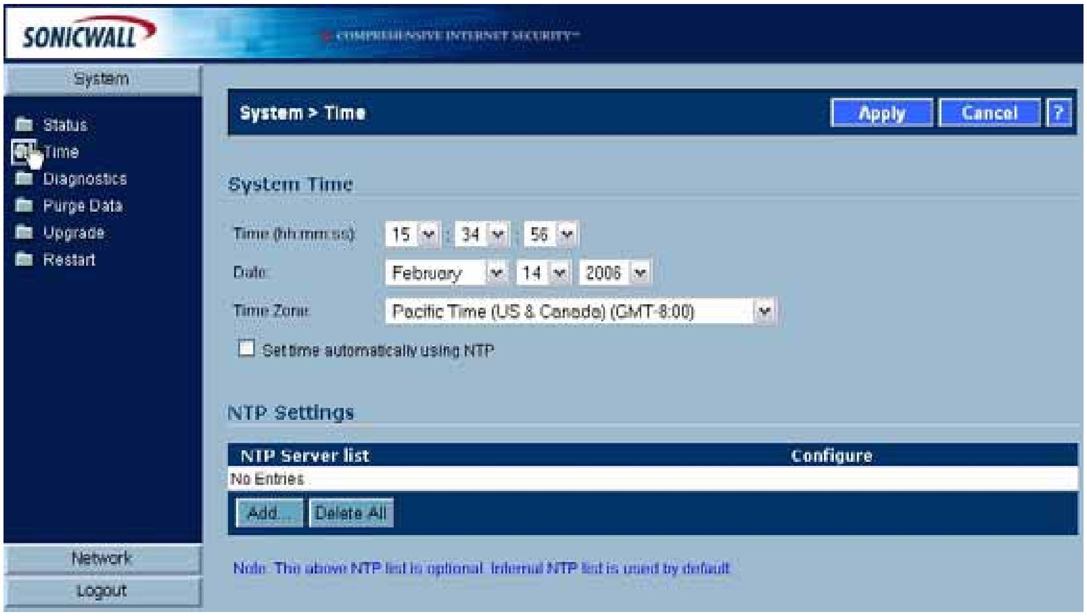
The operating system inside the SonicWALL CDP appliance is called firmware. The **firmware user interface** is a Web browser-based interface that allows the SonicWALL CDP administrator to configure the SonicWALL CDP appliance firmware.

The firmware user interface provides the administrator the ability to register the appliance, view and configure system and network settings, and purge data from the appliance.

After initial set up of your SonicWALL CDP appliance using the firmware user interface, which includes setting a static IP and user name and password, you will be prompted to register your appliance using the Enterprise Manager.

Figure 1 provides the system time view within the firmware user interface.

Figure 1 SonicWALL CDP Firmware User Interface



System Time

Time (hh:mm:ss): 15 : 34 : 56

Date: February 14 2006

Time Zone: Pacific Time (US & Canada) (GMT-8:00)

□ Set time automatically using NTP

NTP Settings

NTP Server list	Configure
No Entries	

Note: The above NTP list is optional. Internal NTP list is used by default.

For more information about the SonicWALL CDP firmware user interface, refer to the "Firmware User Interface" section on page 20.

For more information about registration and initial setup of your SonicWALL CDP system, refer to the *SonicWALL CDP 1440i/2440i Getting Started Guide* or the *SonicWALL CDP 3440i/4440i Getting Started Guid*e.

How the SonicWALL CDP Appliance Works

The **SonicWALL CDP appliance** performs three main tasks: Data processing, data storage, and if configured, data transmission to the Offsite Service.

The appliance receives data blocks from the Agent Service and compares them to existing blocks in order to discover new or changed information. The appliance stores the new or changed data blocks, and if configured, securely transmits them to the Offsite Service.

The appliance is connected using a standard CAT5 or higher Ethernet cable to your local area network (LAN). The SonicWALL CDP appliance requires configuration of a static IP address in order to communicate with your network, and a client must be connected to the same LAN as the appliance to complete initial installation and to run the Enterprise Manager software. An appliance can be connected manually by typing in its IP address or can be added through auto discovery.

The SonicWALL CDP appliance communicates with the Enterprise Manager, Agent Service and, if configured, to the Offsite Service. The appliance communicates with the SonicWALL CDP Offsite Service for registration and storage using HTTPS (TCP 443), providing enhanced security and greater levels of compatibility with network perimeter devices. As a result, your network must be configured to allow HTTPS (TCP 443) communication.

To ensure that the appliance performs at its peak, it will automatically alert the administrator if it is close to reaching capacity. If the appliance is busy, or if an agent has become disconnected from the network, the agent will continue to attempt communication until a successful backup has been completed. For more information about the SonicWALL CDP appliance, refer to the "SonicWALL CDP Hardware" section on page 12.

How the SonicWALL CDP Agent Service and Agent Tool Work

The **SonicWALL CDP Agent Tool** and **Agent Service** are installed at the same time. The Agent Service runs continuously and in the background as a service, allowing backups of folders and application revisions.

The Agent Tool is a user interface that allows users to control agent backup to and recovery from the CDP appliance. User access to the Agent Tool is configured by the CDP administrator using the Enterprise Manager. Users can manage backup options and restore files and application revisions from the appliance using the Agent Tool.

The Agent Service does the handshaking with the appliance, transmits data to the appliance, and listens for Windows Event Notifications to discover when data has been written to a local disk, triggering the agent to backup the change to the SonicWALL CDP. The Agent Service performs discovery by sending a UDP broadcast to port 10001, and any appliances connected to the local broadcast domain will respond and can be selected for use. It is also possible to manually connect to a different broadcast domain by specifying an appliance's IP address and leaving the port blank. When changes have been made, the Agent Service transmits 4 KB to 64 KB data blocks (compressed if necessary) to the appliance for backup. For more information about the SonicWALL CDP Agent Tool, refer to the "Agent Tool" section on page 35.

How the SonicWALL CDP Enterprise Manager Works

The **SonicWALL CDP Enterprise Manager** is used by the SonicWALL CDP administrator for configuration, to obtain logs and reports, set alarms and recover data. Enterprise Manager performs discovery by sending a UDP broadcast to port 10001, and any appliances connected to the local broadcast domain will respond and can be selected for use. It is also possible to manually connect to a different broadcast domain by specifying an appliance's IP address and leaving the port blank. Administrators control the flow of data from the Agent Tool(s) to the appliance(s) using Enterprise Manager to set default policies for agents, specifying a maximum backup allotment, filtering to omit specific file types, and designating common folders (Desktop, Favorites and My Documents) and applications to be automatically backed up across agents. For more information on the SonicWALL CDP Enterprise Manager, refer to the "Enterprise Manager" section on page 22.

How SonicWALL CDP Bare Metal Recovery Works

The SonicWALL CDP Bare Metal Recovery software creates a disk image of information stored on a disk, including the operating system, programs and documents, and settings.

Disk imaging includes images of disk partitions and zero track with master boot record (MBR). Disk partitions include files and folders (independent of their attributes), boot record, FAT (file allocation table) and root.

SonicWALL CDP Bare Metal Recovery disk image creation is automatic, which means files and folders do not have to be earmarked for backup. To ensure that the backup and recovery processes are streamlined, Bare Metal Recovery disk images only store hard disk parts that contain data.

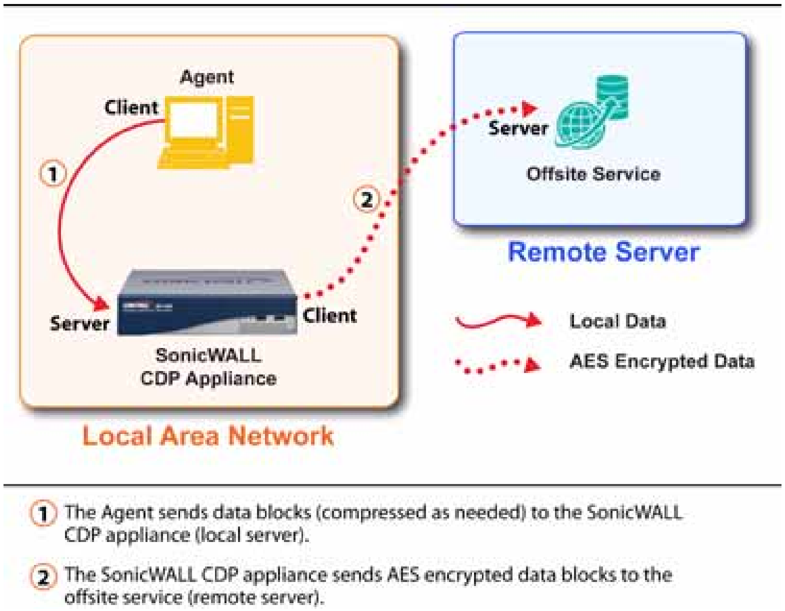
Bare Metal Recovery disk images can be created on local hard disks, CD-R/RW, DVD+R/RW, DVD-RW, or removable media such as Firewire (IEEE-1394) and USB (1.0, 1.1, and 2.0) devices. Lost data from the disk image can be retrieved at any time. Additionally, the disk image can be accessed as a virtual drive for browsing and extracting files.

For more information on Bare Metal Recovery, refer to the *Bare Metal Recovery and Local Archiving - Workstation User's Guide*.

How the SonicWALL CDP Offsite Service Works

The **SonicWALL CDP Offsite Service** is a secure server that stores backed up data for protection against local disaster. Compressed data blocks of full file and full database revisions are sent from the appliance using 256-bit AES (advanced encryption standard) encryption. Offsite Service communication will occur with SSL/TLS transport layer encryption, and AES application layer encryption. Stored data can only be accessed with the AES 256-bit encryption key, available only to the network administrator. Refer to Figure 2 for the Offsite Service data backup flow. For more information about the SonicWALL CDP Offsite Service, refer to the "Offsite Service" section on page 18.

Figure 2 Offsite Service Data Backup Flow



1 The Agent sends data blocks (compressed as needed) to the SonicWALL CDP appliance (local server).

2 The SonicWALL CDP appliance sends AES encrypted data blocks to the offsite service (remote server).

Deployment Restrictions

This section provides deployment considerations for your agents (client or server) and network requirements. Table 1 lists the minimum system and network requirements.

Table 1 SonicWALL CDP Deployment Restrictions

Minimum Agent Requirements	• Pentium III Processor • 450 MHZ with at least 256 MB of RAM • 40 MB of free disk space • Windows XP (Home and Professional), Windows Server 2003, Windows 2000 Professional
Minimum Server Requirements	• Intel Celeron 2.0GHZ Process • 256 MB DDR • Windows XP (Home and Professional), Windows Server 2003, Windows 2000 (Professional and Server)
Network Requirements	• High speed Internet connection (Serial, DSL, Cable, T1) • Router or hub with wired Ethernet port

SonicWALL CDP Hardware

SonicWALL CDP includes the following hardware:

- **SonicWall CDP Appliance**—SonicWALL CDP appliances vary in storage size and agent support capacity. For individual product specifications, refer to SonicWALL CDP appliance subsections:
  - "Supported Platforms" section on page 13
  - "SonicWALL CDP 1440i" section on page 14
  - "SonicWALL CDP 2440i" section on page 15
  - "SonicWALL CDP 3440i" section on page 16
  - "SonicWALL CDP 4440i" section on page 17
- **Offsite Service**—The SonicWALL CDP Offsite Service is a subscription service that backs up data offsite for disaster protection and recovery. For a list of Offsite Service key features, refer to the "Offsite Service" section on page 18.

Supported Platforms

The SonicWALL CDP appliance is a dedicated disk backup appliance that collects data blocks from agents for storage and for secure transmission to the Offsite Service storage location (if configured). The SonicWALL CDP series has four appliance models that range in capacity, agent support and additional features. For instructions on restoring files using the SonicWALL CDP Appliance, refer to "Recovering Your Data Using SonicWALL CDP" section on page 75. The SonicWALL CDP appliances provide the following platforms differentiated by hard disk capacity and the recommended amount of agents. Table 2 provides a summary of features by platform for comparison.

Table 2 SonicWALL CDP Platform Comparison

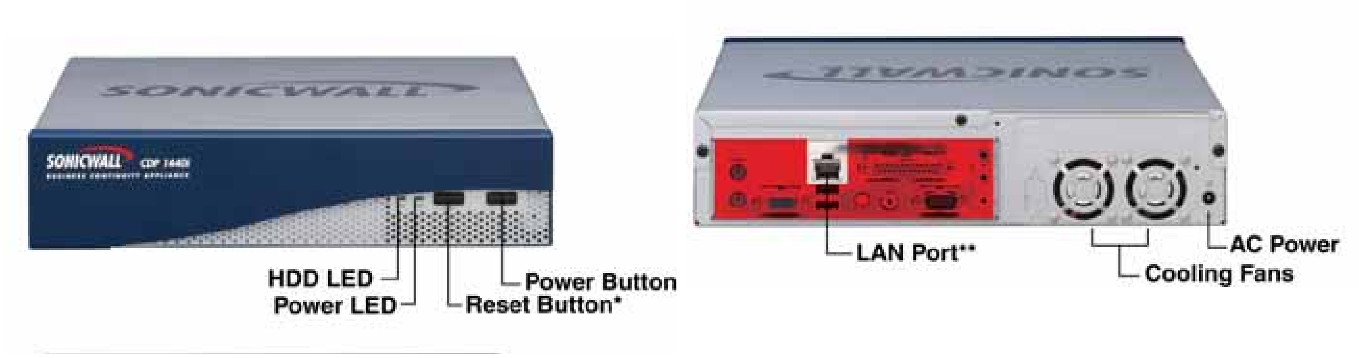
Feature	1440i	2440i	3440i	4440i
Recommended number of supported agents	15	30	75	Unlimited
Hard disk capacity	160GB	250 GB	400GB	650GB
Number of supported servers	3	5	Unlimited	Unlimited
Ethernet	1x10/100 Base-T Ethernet	1x10/100 Base-T Ethernet	10/100/1000 GIG LAN	10/100/1000 GIG LAN
Chassis model	Mini	Mini	1U	2U
RAID support	Not supported	Not supported	RAID 1	RAID 5
Encryption	AES 256-bit	AES 256-bit	AES 256-bit	AES 256-bit
Continuous Data Protection	Included	Included	Included	Included
File Versioning	Included	Included	Included	Included
Central Administration	Included	Included	Included	Included
Desktop, Laptop and Server Backup	Included	Included	Included	Included
Remote Administration	Included	Included	Included	Included
Open Files Backup	Included	Included	Included	Included
Policy Based Backup	Included	Included	Included	Included
Active Directory Backup	Not included	Included	Included	Included
SQL Server Support	Not included	Included	Included	Included
MS Exchange Support	Not included	Included	Included	Included

SonicWALL CDP 1440i

The SonicWALL CDP 1440i is a disk-based backup and recovery appliance that offers real-time end-to-end data protection for small businesses. It includes unique features such as instant data recovery and central administration. The CDP 1449 supports servers, PCs and laptops of small business networks up to 15 agents, 160 GB capacity and AES 256-bit encryption on offsite data security.

Figure 3 provides a front and back bezel photograph of the SonicWALL CDP 1440i appliance.

Figure 3 SonicWALL CDP 1440i



* Pressing the reset button for several seconds will result in a reboot of the SonicWALL CDP appliance.

**Do not plug devices into any ports (other than those indicated) unless explicitly instructed to do so by a SonicWALL technical support representative. Doing so may void your warranty.

The SonicWALL CDP appliance front and back bezel components are described in the following table:

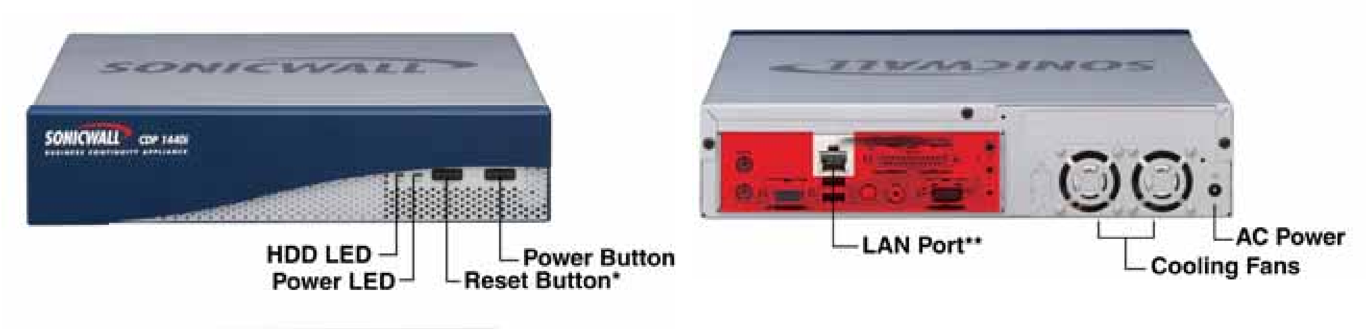
Feature	Description
HDD LED **(Hard Disk Drive)**	Indicates data transfer to and from the hard disk.
Power LED	Indicates the SonicWALL CDP appliance is powered on.
Reset Button	Allows reboot of the SonicWALL CDP appliance.
Power Button	Allows the SonicWALL CDP appliance to power on (one press) or power off (10-second press).
Cooling Fan	Allows optimal air circulation.
AC Power	Allows the SonicWALL CDP appliance to connect to AC power using the supplied power cable.
LAN Port	Allows the SonicWALL CDP appliance to connect to your local area network.

SonicWALL CDP 2440i

The SonicWALL CDP 2440i is ideal for small businesses and remote offices. Featuring a 250 GB compressed capacity along with standard throughput and AES 256-bit encryption for offsite data security, it provides continuous real-time data protection for servers, laptops and PCs. Differentiating this solution from many of its competitors is its seamless support of most small business database and applications such as SQL Server and Microsoft Exchange without the need to integrate additional software packages.

Figure 4 provides a front and back bezel photograph of the SonicWALL CDP 2440i appliance.

Figure 4 SonicWALL CDP 2440i



* Pressing the reset button for several seconds will result in a reboot of the SonicWALL CDP appliance.

**Do not plug devices into any ports (other than those indicated) unless explicitly instructed to do so by a SonicWALL technical support representative. Doing so may void your warranty

The SonicWALL CDP appliance front and back bezel components are described in the following table:

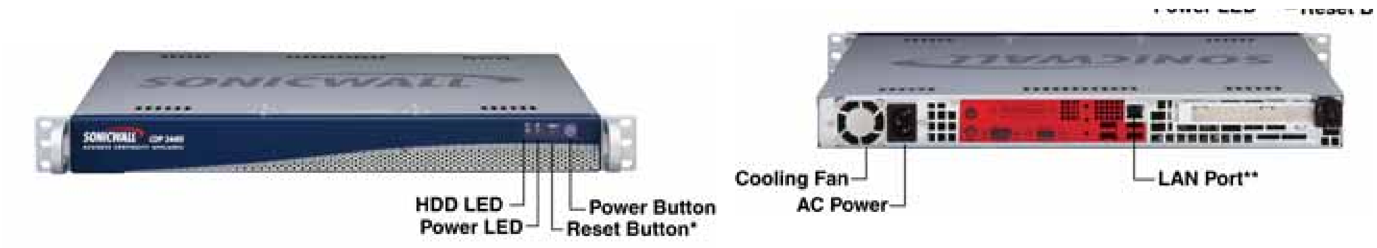
Feature	Description
HDD LED (Hard Disk Drive)	Indicates data transfer to and from the hard disk.
Power LED	Indicates the SonicWALL CDP appliance is powered on.
Reset Button	Allows reboot of the SonicWALL CDP appliance.
Power Button	Allows the SonicWALL CDP appliance to power on (one press) or power off (10-second press).
Cooling Fan	Allows optimal air circulation.
AC Power	Allows the SonicWALL CDP appliance to connect to AC power using the supplied power cable.
LAN Port	Allows the SonicWALL CDP appliance to connect to your local area network.

SonicWALL CDP 3440i

The SonicWALL CDP 3440i offers enterprise level data backup protection for small-to-medium businesses and remote offices. The high-performance 1U rack-mountable solution is optimized for up to 75 users and unlimited servers. offering 400GB compressed capacity with RAID 1 along with accelerated throughput and AES 256-bit encryption for offsite data security, it provides continuous real-time data protection for servers, laptops and PCs using policy-based backup, central administration and open file backup. It supports most small business databases and applications such as Microsoft Exchange, SQL Server, Quickbooks, PeachTree, Great Plains, and more.

Figure 5 provides a front and back bezel photograph of the SonicWALL CDP 3440i appliance.

Figure 5 SonicWALL CDP 3440i



* Pressing the reset button for several seconds will result in a reboot of the SonicWALL CDP appliance.

**Do not plug devices into any ports (other than those indicated) unless explicitly instructed to do so by a SonicWALL technical support representative. Doing so may void your warranty.

The SonicWALL CDP appliance front and back bezel components are described in the following table:

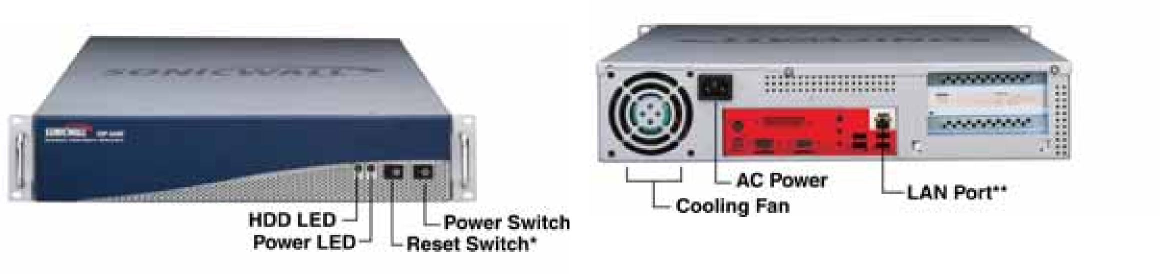
Feature	Description
HDD LED **(Hard Disk Drive)**	Indicates data transfer to and from the hard disk.
Power LED	Indicates the SonicWALL CDP appliance is powered on.
Reset Button	Allows reboot of the SonicWALL CDP appliance.
Power Button	Allows the SonicWALL CDP appliance to power on (one press) or power off (10-second press).
Cooling Fan	Allows optimal air circulation.
AC Power	Allows the SonicWALL CDP appliance to connect to AC power using the supplied power cable.
LAN Port	Allows the SonicWALL CDP appliance to connect to your local area network.

SonicWALL CDP 4440i

The SonicWALL CDP 4440i is a robust 2U rack-mountable backup and recovery solution for branch offices and mid-size organizations. Offering a 650 GB compressed capacity with RAID 5 along with accelerated throughput and AES 256-bit encryption on offsite data security as well as the features of the CDP 34440i, it provides continuous real-time data protection for unlimited servers, laptops PCs, databases and business applications. IT administrators benefit from central management and file-level visibility into every agent machine connected to the SonicWALL CDP appliance, enabling enforcement of consistent backup policies and control features available to individual end users.

Figure 6 provides a front and back bezel photograph of the SonicWALL CDP 4440i appliance.

Figure 6 SonicWALL CDP 4400i.



* Pressing the reset button for several seconds will result in a reboot of the SonicWALL CDP appliance.

**Do not plug devices into any ports (other than those indicated) unless explicitly instructed to do so by a SonicWALL technical support representative. Doing so may void your warranty

The SonicWALL CDP appliance front and back bezel components are described in the following table:

Feature	Description
HDD LED (Hard Disk Drive)	Indicates data transfer to and from the hard disk.
Power LED	Indicates the SonicWALL CDP appliance is powered on.
Reset Button	Allows reboot of the SonicWALL CDP appliance.
Power Button	Allows the SonicWALL CDP appliance to power on (one press) or power off (10-second press).
Cooling Fan	Allows optimal air circulation.
AC Power	Allows the SonicWALL CDP appliance to connect to AC power using the supplied power cable.
LAN Port	Allows the SonicWALL CDP appliance to connect to your local area network.

Offsite Service

Note The SonicWALL CDP Offsite Service is offered as a subscription-based service.

The SonicWALL CDP Offsite Service is a subscription-based service that offers secure offsite backup and recovery, protecting your data from local disaster, including theft, power surges and server crashes.

Data transmitted and stored securely at the Offsite Service is available for retrieval when onsite data has been destroyed or the onsite appliance has been rendered inoperable, enabling an enterprise to be up and running quickly after a disaster event.

Compressed full-database and full-file (with latest revision) data blocks are encrypted and transmitted from the SonicWALL CDP appliance to the Offsite Service. The SonicWALL CDP administrator can recover the data from the Offsite Service using an encryption key, in the event that a local SonicWALL CDP recovery is not viable

Because data backed up using SonicWALL CDP Offsite Service is protected by AES 256-bit encryption, it can only be recovered using an AES 256-bit encryption key. Data stored using the Offsite Service is fully secure, as it cannot be decrypted without the key, even by SonicWALL technical support engineers.

For information about subscribing to the Offsite Service, contact SonicWALL Technical Support.

Configuration Examples

For configuration examples of the SonicWALL CDP Offsite Service, refer to the "Recovering Your Data Using SonicWALL CDP" section on page 75.

SonicWALL CDP Software

This section provides information about SonicWALL CDP Software. SonicWALL CDP includes the following software components:

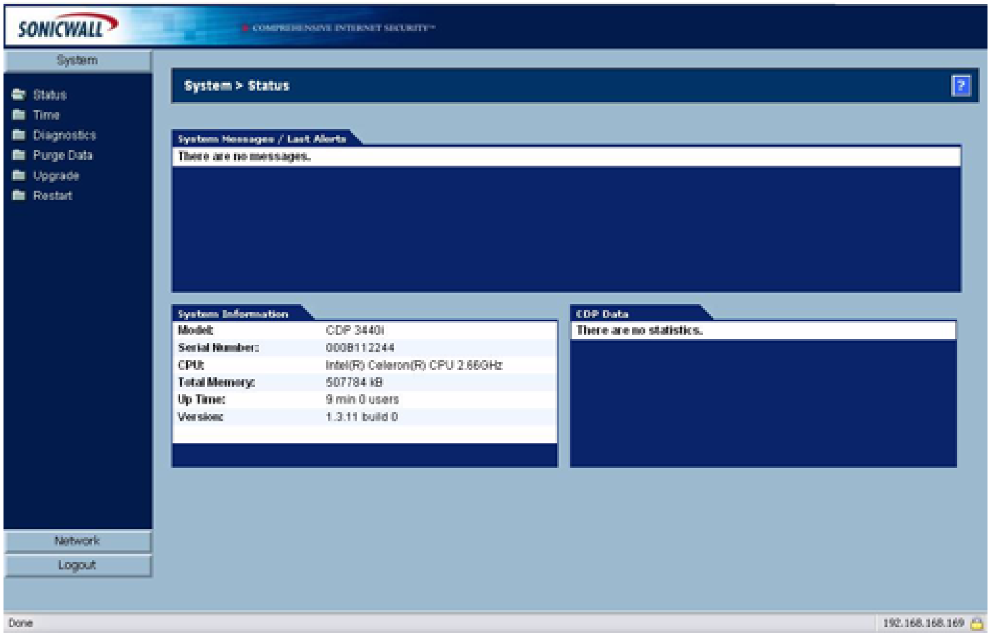
- **Firmware User Interface**—The firmware user interface is a Web browser-based administrative tool that provides initial system setting configuration for the SonicWALL CDP appliance. The firmware user interface also provides system diagnostics and allows for a full purge of data from the appliance. For a list of firmware user interface key features, refer to the "Firmware User Interface" section on page 20.
- **Enterprise Manager**—The Enterprise Manager is software used by SonicWALL CDP administrator to control the appliance and connected agents. For a list of Enterprise Manager key features, refer to the "Enterprise Manager" section on page 23.
- **Agent Tool**—The Agent Tool is software installed on agents intended to be continuously backed up by the SonicWALL CDP appliance. The Agent Tool is the interface that allows users to control backing up to and restoring from the appliance. For a list of Agent Tool key features, refer to the "Agent Tool" section on page 35.
- **Agent Service**—Agent Service is software that creates folder and application revision backups. The Agent Service is the workhorse of the SonicWALL CDP system, is installed automatically with the Agent Tool, and runs in the background of the agent, controlling communication with the SonicWALL CDP appliance.
- **Bare Metal Recovery**—Bare Metal Recovery is software that creates a disk image backup. A disk image backup includes a backup of operating systems, applications and configuration files, software updates, personal settings and other data. For more information on Bare Metal Recovery, refer to the *Bare Metal Recovery and Local Archiving - Workstation User's Guide*.

Firmware User Interface

The operating system inside the SonicWALL appliance is called firmware. The firmware user interface is a Web browser-based interface that allows the SonicWALL CDP administrator to configure the SonicWALL CDP appliance firmware.

The firmware user interface provides the administrator the ability to register the appliance, view and configure system and network settings, and purge data from the appliance. Figure 7 provides the Web browser display of the firmware user interface.

Figure 7 Firmware User Interface



System Messages / Last Alerts

There are no messages.

System Information

Model:	CDP 3440i
Serial Number:	0008112244
CPU:	Intel(R) Celeron(R) CPU 2.66GHz
Total Memory:	507784 kB
Up Time:	9 min 0 users
Version:	1.3.11 build 0

CDP Data

There are no statistics.

The firmware user interface provides the System controls outlined in Table 3, accessible from the tab column on the left side of the user interface.

Table 3 Firmware User Interface System Controls

System Control	Description
Status	**Status** provides a display of system messages, alerts, system information and CDP data. System information includes the appliance model number and serial number, CPU description, total memory, up time (including time and number of users), and version.
Time	**Time** provides the administrator the ability to set the system time and add or delete NTP servers.
Diagnostics	**Diagnostics** provides the administrator with a view of system processes, CPU information, memory utilization, network information and storage statistics.
Purge Data	**Purge Data** provides the administrator the ability to purge all agent information and backed up files on the appliance.
Upgrade	**Upgrade** provides the administrator the ability to upgrade the system.
Restart	**Restart** provides the administrator the ability to restart the system.

The firmware user interface provides the Network controls outlined in Table 4, accessible from the tab column on the left side of the user interface.

Table 4 Firmware User Interface Network Controls

Network Control	Description
Settings	**Settings** provides the administrator with configuration options, including IP address, subnet mask, default gateway IP address and interface, and hostname and domain.
Name Servers	**Name Servers** provides the administrator with configuration options for name servers and search suffixes.

Configuration Examples

For configuration examples of the firmware user interface settings, refer to:

- "Initial Configuration of SonicWALL CDP Using Firmware User Interface" section on page 38
- "Editing Enterprise Manager Administrative Settings" section on page 42
- "Purging Data from the SonicWALL CDP Appliance" section on page 82

Enterprise Manager

The SonicWALL CDP Enterprise Manager is installed by a network administrator and used to control and monitor the SonicWALL CDP appliance(s) and to administer agent access. Enterprise Manager is the master control panel to set policies for agents connected to a SonicWALL CDP appliance. This section provides information about the SonicWALL CDP Enterprise Manager software features.

This section includes the following subsections, organized to follow the features available in the toolbar of the Enterprise Manager user interface:

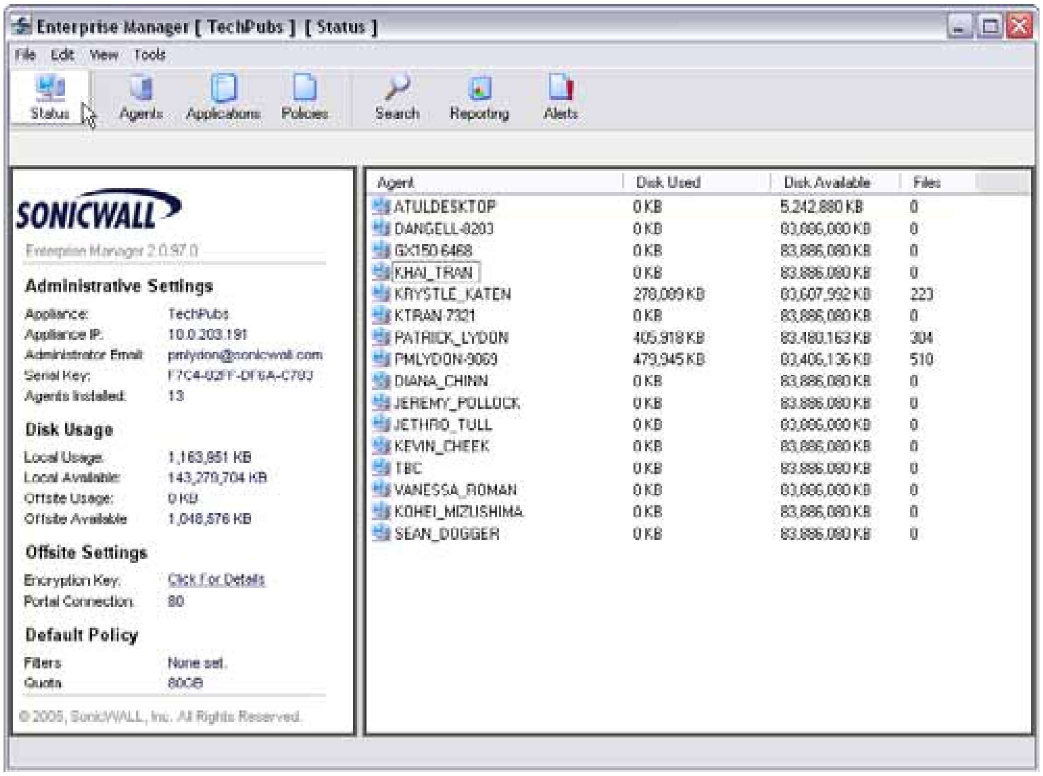
- “Enterprise Manager Layout” section on page 23
- “Status Overview” section on page 25
- “Agents Overview” section on page 27
- “Applications Overview” section on page 28
- “Policies Overview” section on page 29
- “Search Overview” section on page 31
- “Reporting Overview” section on page 32
- “Alerts Overview” section on page 34

Enterprise Manager Layout

This section provides a brief overview of the Enterprise Manager software. Enterprise Manager is used by the SonicWALL CDP administrator to control agents and appliances.

The Enterprise Manager user interface is depicted in Figure 8.

Figure 8 Enterprise Manager



Administrative Settings

Appliance:	TechPubs
Appliance IP:	10.0.203.191
Administrator Email:	pmlydon@sonicwall.com
Serial Key:	F7C4-82FF-DF6A-C783
Agents Installed:	13

Disk Usage

Local Usage:	1,163,951 KB
Local Available:	143,279,704 KB
Offsite Usage:	0 KB
Offsite Available:	1,048,576 KB

Offsite Settings

Encryption Key:	Click For Details
Portal Connection:	80

Default Policy

Filters:	None set.
Quota:	80GB

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Agent	Disk Used	Disk Available	Files
ATULDESKTOP	0 KB	5,242,880 KB	0
DANGELL-8203	0 KB	83,886,080 KB	0
GX150-6468	0 KB	83,886,080 KB	0
KHAI_TRAN	0 KB	83,886,080 KB	0
KRYSTLE_KATEN	278,009 KB	83,607,992 KB	223
KTRAN-7321	0 KB	83,886,080 KB	0
PATRICK_LYDON	405,918 KB	83,480,163 KB	304
PMLYDON-9069	479,945 KB	83,406,136 KB	510
DIANA_CHINN	0 KB	83,886,080 KB	0
JEREMY_POLLOCK	0 KB	83,886,080 KB	0
JETHRO_TULL	0 KB	83,886,080 KB	0
KEVIN_CHEEK	0 KB	83,886,080 KB	0
TBC	0 KB	83,886,080 KB	0
VANESSA_ROMAN	0 KB	83,886,080 KB	0
KOHEI_MIZUSHIMA	0 KB	83,886,080 KB	0
SEAN_DOGGER	0 KB	83,886,080 KB	0

Table 5 provides a list of Enterprise Manager features, accessible using the toolbar at the top of the user interface.

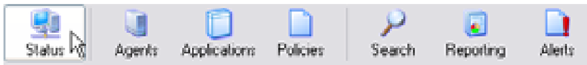
Table 5 Enterprise Manager Features

Setting	Description
Status	**Status** provides the administrator with summary of the SonicWALL CDP Appliance, including disk usage, settings, and default policies for agents. For more information on Status, refer to the "Status Overview" section on page 25.
Agents	**Agents** allows the administrator to control agent functionality, including adding, editing and removing agents and agent applications. For more information on Agents, refer to the "Agents Overview" section on page 27 and "Managing Agents in Enterprise Manager" section on page 46.
Applications	**Applications** allows the administrator to view filtered file types and predefined and common applications, for example, MS Outlook. For more information on Applications, refer to the "Applications Overview" section on page 28.
Policies	**Policies** allows the administrator to establish individual agent policies, default policies and common backup policies that propagate across all agents connected to the SonicWALL CDP Appliance. For more information on Policies, refer to the "Policies Overview" section on page 29 and "Managing Policies in Enterprise Manager" section on page 60.
Search	**Search** provides the administrator with the ability to search for files or applications backed up on the appliance. For more information on Search, refer to the "Search Overview" section on page 31 and "Performing Searches in Enterprise Manager" section on page 70.
Reporting	**Reporting** provides key reports for the administrator to manage SonicWALL CDP. Reporting includes the following reports: Executive Summary, CDP Agent Summary, Disk Space by File Type, Disk Space by Agent, Policy Summary, Agents by Policy, Server Application Backup, Agent Application Backup and Offsite Status. For more information on Reporting, refer to the "Reporting Overview" section on page 32 and "Generating Reports in Enterprise Manager" section on page 73.
Alerts	**Alerts** provides the administrator with an overview of warning messages that are sent when the SonicWALL CDP appliance reaches predefined capacity thresholds. For more information on Alerts, refer to the "Alerts Overview" section on page 34.

Status Overview

Status, a function within Enterprise Manager, provides a system summary for the SonicWALL CDP appliance and basic usage statistics for all attached agents.

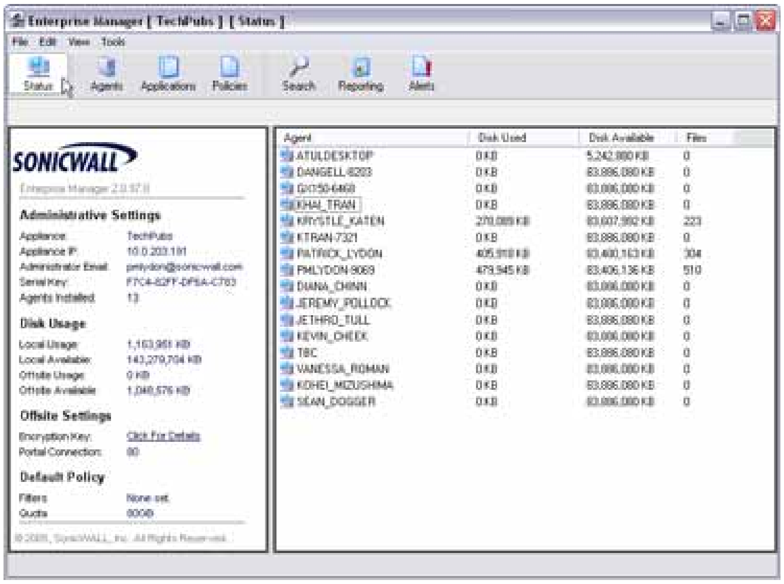
To enter the Status window, click the **Status** button at the top of the Enterprise Manager interface.



The Status window allows the administrator to view the general status of the appliance and its configured agents. To the left is the Administrative Settings, which provides basic information about the appliance, disk usage, offsite settings and default policy. The right side of the Status window displays agents connected to the Enterprise Manager, space used, space available, and number of files backed up.

Figure 9 provides the Enterprise Manager view of the Status user interface.

Figure 9 Status



Administrative Settings

Appliance:	TechPubs
Appliance IP:	10.0.203.181
Administrator Email:	pmlydon@sonicwall.com
Serial Key:	F7C4-82FF-DF5A-C783
Agents Installed:	13

Disk Usage

Local Usage:	1,163,961 KB
Local Available:	143,279,704 KB
Offsite Usage:	0 KB
Offsite Available:	1,048,576 KB

Offsite Settings

Encryption Key:	Click For Details
Portal Connection:	80

Default Policy

Filters:	None set.
Quota:	0000

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Agent	Disk Used	Disk Available	Files
ATULDESKTOP	0 KB	5,242,880 KB	0
DANGELL-8203	0 KB	83,886,080 KB	0
GX150-6468	0 KB	83,886,080 KB	0
KHAI_TRAN	0 KB	83,886,080 KB	0
KRYSTLE_KATEN	270,089 KB	83,607,992 KB	223
KTRAN-7321	0 KB	83,886,080 KB	0
PATRICK_LYDON	405,918 KB	83,480,163 KB	304
PMLYDON-9069	479,945 KB	83,406,136 KB	510
DIANA_CHINN	0 KB	83,886,080 KB	0
JEREMY_POLLOCK	0 KB	83,886,080 KB	0
JETHRO_TULL	0 KB	83,886,080 KB	0
KEVIN_CHEEK	0 KB	83,886,080 KB	0
TBC	0 KB	83,886,080 KB	0
VANESSA_ROMAN	0 KB	83,886,080 KB	0
KOHEI_MIZUSHIMA	0 KB	83,886,080 KB	0
SEAN_DOGGER	0 KB	83,886,080 KB	0

The following tables provide a description of the fields in the Status window.

Table 6 Administrative Settings

Field	Description
Appliance	Displays the name of the current SonicWALL CDP appliance.
Appliance IP	Displays the IP address of the current SonicWALL CDP appliance.
Administrator Email	Displays the email address of the current administrator to this SonicWALL CDP appliance.
Serial Key	Displays the serial key for the current SonicWALL CDP appliance.
Agents Installed	Displays the number of agents currently assigned to the SonicWALL CDP appliance.

Table 7 Disk Usage

Field	Description
Local Usage	Displays the amount of local disk space currently being used, in Kilobytes.
Local Available	Displays the amount of local disk space available, in Kilobytes.
Offsite Usage	Displays the amount of offsite (remote) disk space available, in Kilobytes.
Offsite Available	Displays the amount of offsite (remote) disk space available, in Kilobytes.

Table 8 Offsite Settings

Field	Description
Encryption Key	Displays the key needed by administrator to decrypt data stored at the Offsite service. It is essential to save the Encryption Key in a secure area, such as a safe or a bank, because data stored at the Offsite Service cannot be restored without it.

⚠ **Caution** Data from the Offsite Service cannot be recovered without the encryption key, even by SonicWALL technical support engineers. It is advised that you store your encryption key in a secure location such as a safe or bank. Your encryption key may be viewed by selecting Edit > Encryption Settings in the top menu bar

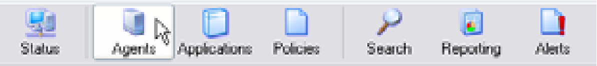
Table 9 Default Policy

Field	Description
Filters	Displays the current filters in use by the SonicWALL CDP appliance
Quota	Displays the current disk space quota for the SonicWALL CDP appliance.

Agents Overview

Agents, a function within Enterprise Manager, provides administrators the ability to configure SonicWALL agents assigned to a SonicWALL CDP appliance.

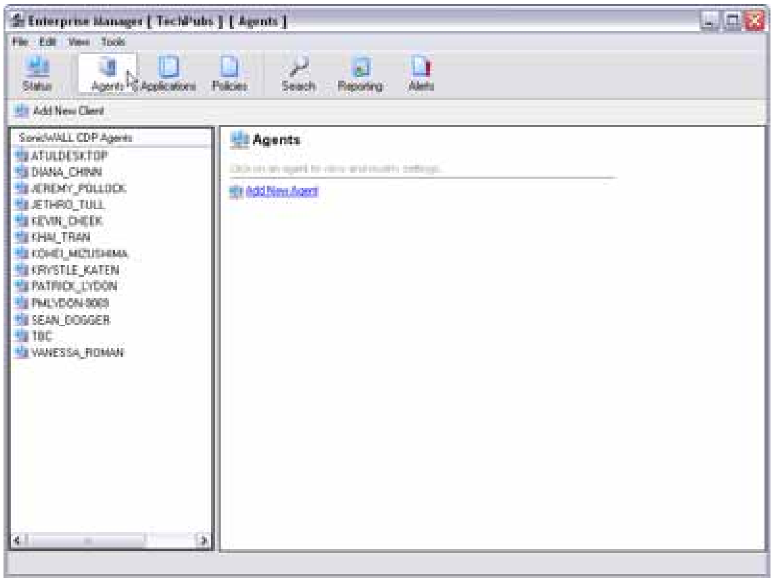
To view the Agent window, click the **Agents** button at the top of the Enterprise Manager interface.



The Agents function provides configuration options for agents assigned to the appliance, including a display of the agents currently backing up. Agents allows the administrator to add, edit agents, and configure agent applications and agent folders for backup.

Figure 10 provides the Enterprise Manager view of Agents user interface.

Figure 10 Agents



SonicWALL CDP Agents

- ATULDESKTOP
- DIANA_CHINN
- JEREMY_POLLOCK
- JETHRO_TULL
- KEVIN_CHEEK
- KHAI_TRAN
- KOHEI_MIZUSHIMA
- KRYSTLE_KATEN
- PATRICK_LYDON
- PMLYDON-9003
- SEAN_DOGGER
- TBC
- VANESSA_ROMAN

Agents

Click on an agent to view and modify settings.

Add New Agent

Configuration Examples

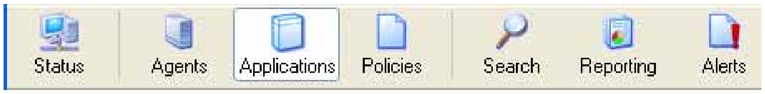
For configuration examples of Agent settings, refer to "Managing Agents in Enterprise Manager" section on page 46.

Applications Overview

Applications, a function within Enterprise Manager, allows the administrator to view agent applications and server applications assigned for backup.

Note SonicWALL CDP supports agent applications including Outlook and Outlook Express, and server applications including Microsoft Exchange, Active Directory and SQL Server.

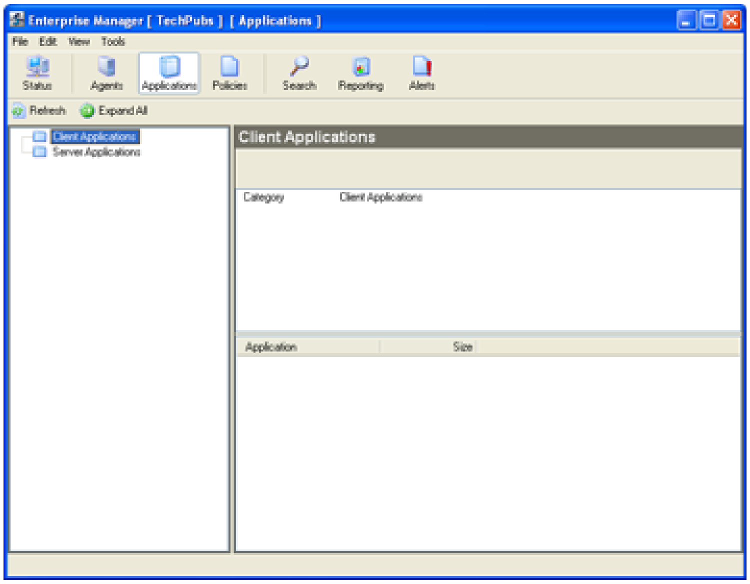
To view the Applications window, click the **Applications** button at the top of the Enterprise Manager interface.



The Applications function 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.

Figure 11 provides the Enterprise Manager view of Applications user interface.

Figure 11 Applications

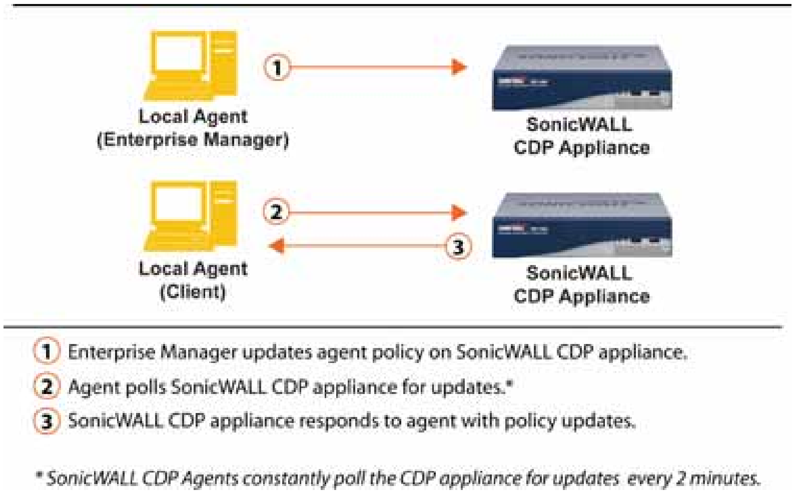


Policies Overview

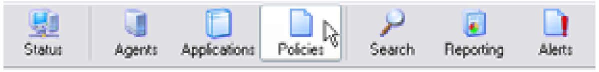
Policies, a function within the Enterprise Manager, allows the administrator to establish common backup policies that propagate across agents connected to a SonicWALL CDP Appliance or for individual agents.

Figure 12 illustrates multiple agents communicating to the SonicWALL CDP Appliance for policy updates.

Figure 12 Multiple Agent Policy Management


1
Local Agent
(Enterprise Manager)
SonicWALL
CDP Appliance
2
3
Local Agent
(Client)
SonicWALL
CDP Appliance
1 Enterprise Manager updates agent policy on SonicWALL CDP appliance.
2 Agent polls SonicWALL CDP appliance for updates.*
3 SonicWALL CDP appliance responds to agent with policy updates.
* SonicWALL CDP Agents constantly poll the CDP appliance for updates every 2 minutes.

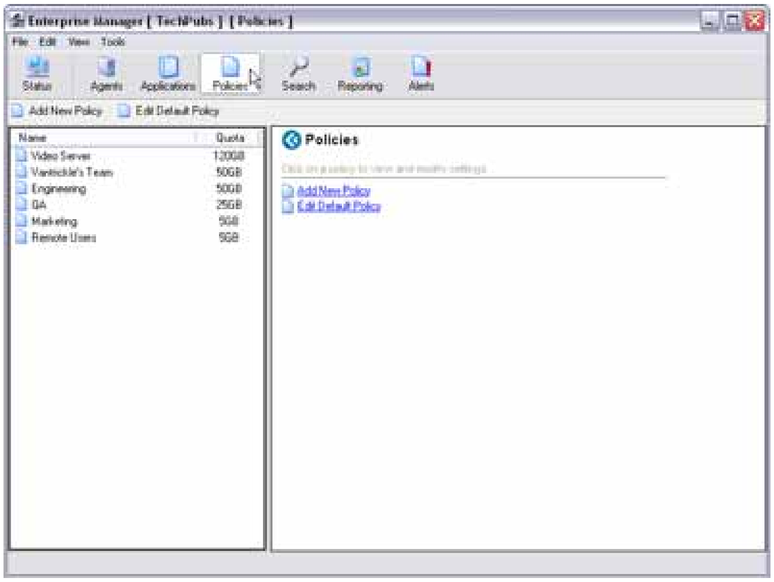
To view the Policies window, click the **Policies** button at the top of the Enterprise Manager interface.



The Policies function provides the administrator with the ability to define and assign default policies to individual agents or to groups of agents. Policies may be added, edited or removed from the Policies window. The Policies window displays policies by name and has options for adding or editing default policies.

Figure 13 displays the Enterprise Manager view of the Policies user interface.

Figure 13 Policies



Name	Quota
Video Server	120GB
Vanhickle's Team	50GB
Engineering	50GB
QA	25GB
Marketing	5GB
Remote Users	5GB

Click on a policy to view and modify settings.

Note SonicWALL CDP has a default policy that initiates at installation. This policy has a filter set to exclude **.tmp** files from backup.

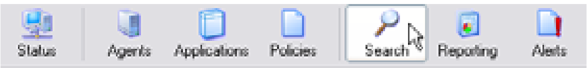
Configuration Examples

For configuration examples of Policies settings, refer to "Managing Policies in Enterprise Manager" section on page 60.

Search Overview

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

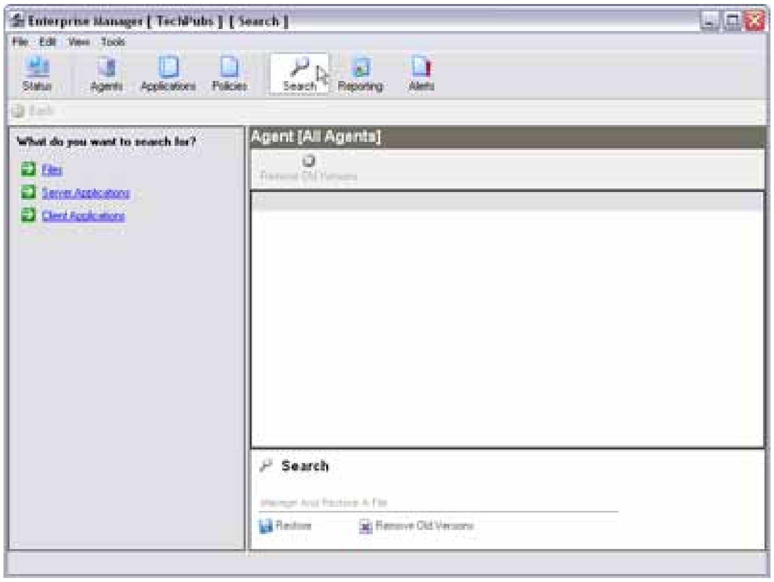
To view the Search window, click the **Search** button at the top of the Enterprise Manager interface.



The Search window allows the administrator to search for specific files, search within server applications (SQL, Microsoft Exchange and Active Directory) and search within agent applications (Outlook and Outlook Express).

Figure 14 provides the Enterprise Manager view of the Search user interface.

Figure 14 Search



Configuration Examples

For configuration examples of Search settings, refer to "Performing Searches in Enterprise Manager" section on page 70.

Reporting Overview

Reporting, a function within Enterprise Manager, provides the administrator with key reports on usage and server status. Summary statistics are listed in detail in Table 10 on page 33.

To view the Reporting window, click the **Reporting** button in the Enterprise Manager toolbar.

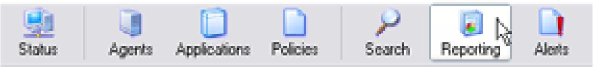
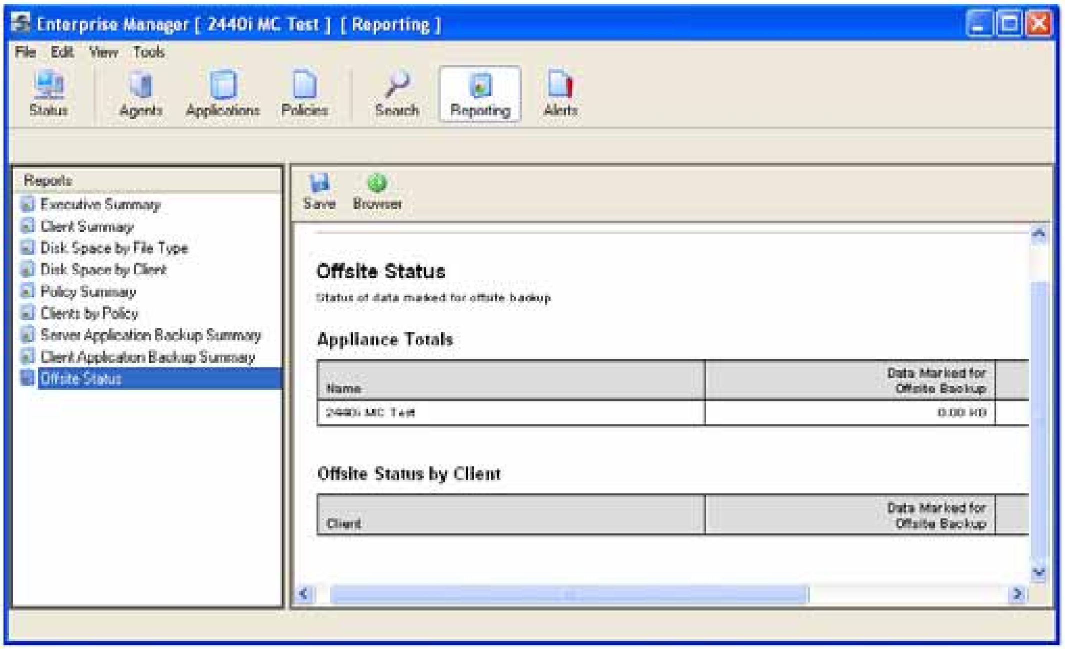


Figure 15 provides the Enterprise Manager view of the Reporting user interface.

Figure 15 Reporting



Reports
- Executive Summary
- Client Summary
- Disk Space by File Type
- Disk Space by Client
- Policy Summary
- Clients by Policy
- Server Application Backup Summary
- Client Application Backup Summary
- Offsite Status

Offsite Status

Status of data marked for offsite backup

Appliance Totals

Name	Data Marked for Offsite Backup
2440i MC Test	0.00 KB

Offsite Status by Client

Client	Data Marked for Offsite Backup

The Reporting window allows the administrator to generate the reports listed in Table 10.

Table 10 Report Types

Report Type	Description
Executive Summary	**Executive Summary** provides a general overview, including Appliance Information, Agent Summary and Top 10 (file types by disk space used).
Agent Summary	**Agent Summary** provides a summary of agent usage, including file size, size on disk with revisions, server application size and policy name.
Disk Space by File Type	**Disk Space by File Type** provides a summary of disk space usage, both by file size and number of files, sorted by file extension.
Disk Space by Agent	**Disk Space by Agent** provides a summary of disk space usage by agent, including size on disk, percent of total, number of files and number of revisions.
Policy Summary	**Policy Summary** provides a summary of policy usage by policy, including agents assigned to a policy, and backups (including from the desktop, My Documents and Favorites).
Agents by Policy	**Agents by Policy** provides a summary of agents sorted by default policy.
Server Application Backup	**Server Application Backup** provides a summary of server applications selected for backup, including instance, database name, backup size and number of revisions.
Agent Application Backup	**Agent Application Backup** provides a summary of agent applications selected for backup, sorted by agent and including path name, application name, and file size.
Offsite Status	**Offsite Status** provides a summary of data backed up to the Offsite Service, sorted both by appliance and agent. This report includes size of data marked for offsite backup and size of data currently backed up to the Offsite Service.

Configuration Examples

For configuration examples of Reports settings, refer to "Generating Reports in Enterprise Manager" section on page 73.

Alerts Overview

Alerts, a function within Enterprise Manager, allows the administrator to view a list of alerts that display before the appliance hits predefined capacity thresholds.

To view the Alerts window, click the **Alerts** button in the Enterprise Manager toolbar.

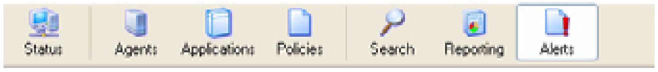
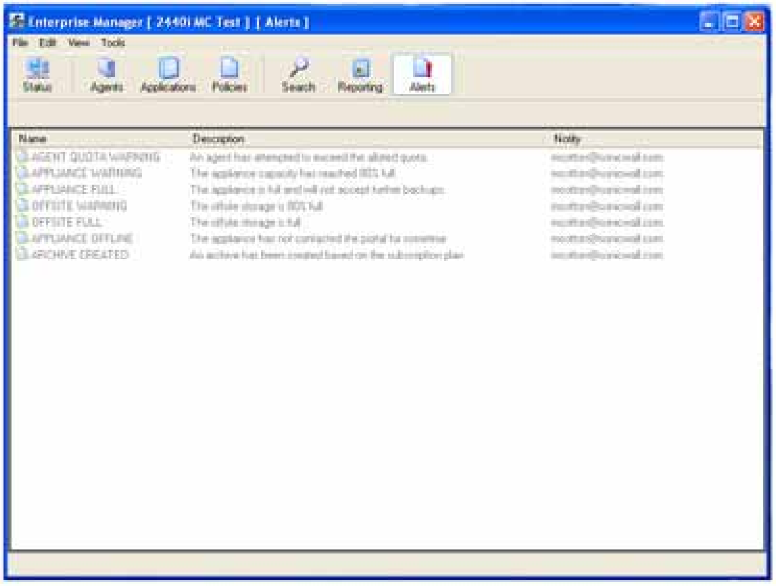


Figure 16 provides the Enterprise Manager view of the Alerts user interface.

Figure 16 Alerts



Name	Description	Notify
AGENT QUOTA WARNING	An agent has attempted to exceed the alloted quota	mcotton@sonicwall.com
APPLIANCE WARNING	The appliance capacity has reached 80% full	mcotton@sonicwall.com
APPLIANCE FULL	The appliance is full and will not accept further backups	mcotton@sonicwall.com
OFFSITE WARNING	The offsite storage is 80% full	mcotton@sonicwall.com
OFFSITE FULL	The offsite storage is full	mcotton@sonicwall.com
APPLIANCE OFFLINE	The appliance has not contacted the portal for sometime	mcotton@sonicwall.com
ARCHIVE CREATED	An archive has been created based on the subscription plan	mcotton@sonicwall.com

The Alerts function allows the administrator to view alerts for the events listed in Table 11.

Table 11 Alert Events

Alert Event	Description
Agent Quota Warning	**Agent Quota Warning** alerts you when an agent has attempted to exceed the allotted quota.
Appliance Warning	**Appliance Warning** alerts you when the appliance has reached a pre-set capacity threshold. The Appliance Warning default is 80%.
Appliance Full	**Appliance Full** alerts you when the appliance is full and will not accept further backups.
Offsite Warning	**Offsite Warning** alerts you when the Offsite Service has reached a pre-set capacity threshold. The Offsite Warning default is 80%.
Appliance Offline	**Appliance Offline** alerts you when the appliance has not contacted the Offsite Service for a set period of time, and appears to be offline.
Archive Created	**Archive Created** alerts you when an archive has been created, based on your subscription plan.

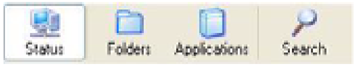
Agent Tool

The SonicWALL CDP Agent Tool is software installed on every agent (server, laptop or PC intended to be backed up on the SonicWALL CDP Appliance).

The Agent Tool is a user interface that allows users of agents to set files and applications for backup (if so configured by the administrator in the Enterprise Manager) and to recover backed up files. The SonicWALL Agent Service is installed at automatically with the Agent Tool and runs in the background, communicating with the CDP appliance.

By default, the Agent Tool includes four controls: Status, Folders, Applications, and Search. These controls are displayed in Figure 17, which depicts the Agent Tool toolbar.

Figure 17 Agent Tool Toolbar



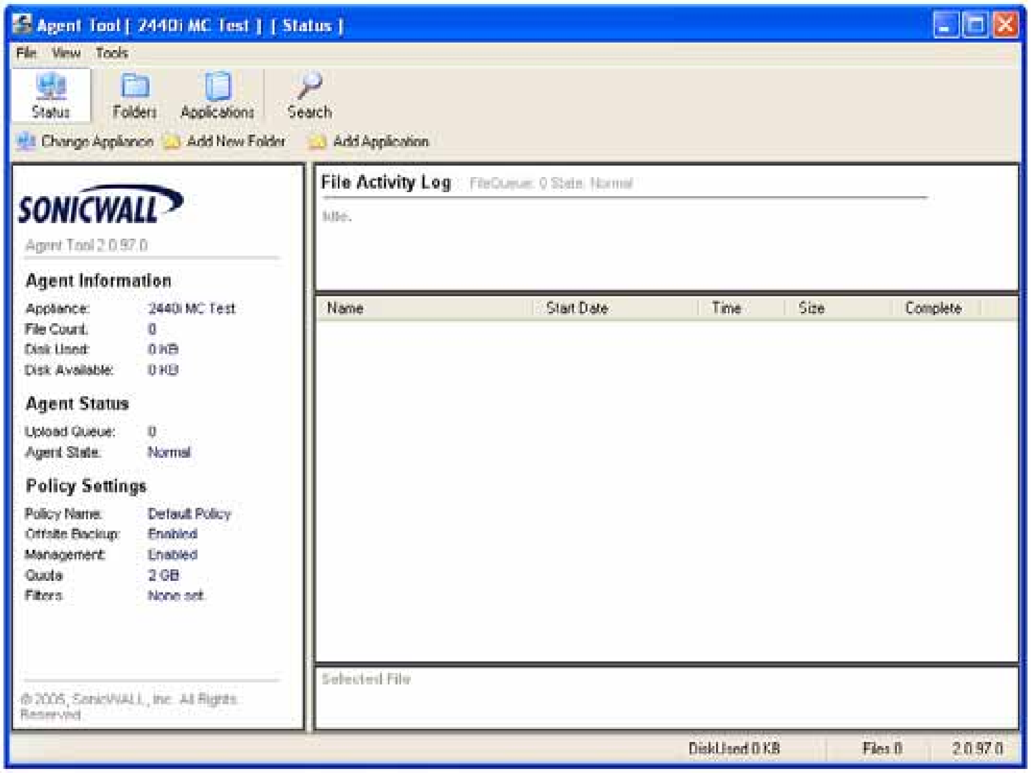
Agent access to these controls is granted and administered by the administrator using the Enterprise Manager. Table 12 provides an overview of the four default Agent Tool controls:

Table 12 Agent Tool Default Controls

Default Control	Description
Status	**Status**, a function within the Agent Tool, provides the user with a general overview, including agent information, agent status and policy settings.
Folders	**Folders**, a function within the Agent Tool, provides the user with a list of folders being backed up and folder Offsite Service status.The Folders function also provides the ability to add folders, add common folders and remove old file versions.
Applications	**Applications**, a function within the Agent Tool, provides the user with the backup status of agent and server applications and with the option to add applications for backup.
Search	**Search**, a function within the Agent Tool, provides the user with the ability to search for files, server applications and agent applications. The Search function also provides the option to restore files and remove old file versions.

Figure 18 provides the Agent Tool view of the user interface.

Figure 18 Agent Tool Interface



Agent Tool 2.0.97.0

Agent Information

Appliance: 2440i MC Test
File Count: 0
Disk Used: 0 KB
Disk Available: 0 KB

Agent Status

Upload Queue: 0
Agent State: Normal

Policy Settings

Policy Name: Default Policy
Offsite Backup: Enabled
Management: Enabled
Quota: 2 GB
Filters: None set.

© 2005, SonicWALL, Inc. All Rights Reserved.

File Activity Log FileQueue: 0 State: Normal

Idle.

DiskUsed 0 KB Files 0 2.0.97.0

Note For more information on using the SonicWALL CDP Agent Tool, refer to the *SonicWALL CDP Agent Tool User's Guide*.

Configuration Task List

This section provides a configuration task list for your SonicWALL CDP appliance using the Enterprise Manager and the firmware user interface.

This section includes the following subsections:

- "Initial Configuration of SonicWALL CDP Using Firmware User Interface" section on page 38
- "Editing Enterprise Manager Administrative Settings" section on page 42
- "Changing the SonicWALL CDP Appliance" section on page 43
- "Encryption Key Management" section on page 44
- "Checking for Firmware Updates" section on page 45
- "Checking for Software Updates" section on page 45
- "Managing Agents in Enterprise Manager" section on page 46
- "Managing Policies in Enterprise Manager" section on page 60
- "Performing Searches in Enterprise Manager" section on page 70
- "Generating Reports in Enterprise Manager" section on page 73
- "Recovering Your Data Using SonicWALL CDP" section on page 75
- "Configuring SonicWALL CDP Agent and Enterprise Manager to Work with Software Firewalls" section on page 84

Initial Configuration of SonicWALL CDP Using Firmware User Interface

To prepare your SonicWALL CDP for first use, it is necessary to add a name server, configure a static IP address and set the local time zone for the SonicWALL CDP appliance using the firmware user interface. The SonicWALL CDP appliance requires at least one valid name server and the correct time zone settings and a static IP address on your local subnet in order to communicate with your network.

For more information on registration and initial setup of SonicWALL CDP, refer to the *SonicWALL CDP 1440i/2440i Getting Started Guide* or the *SonicWALL CDP 3440i/4440i Getting Started Guide*.

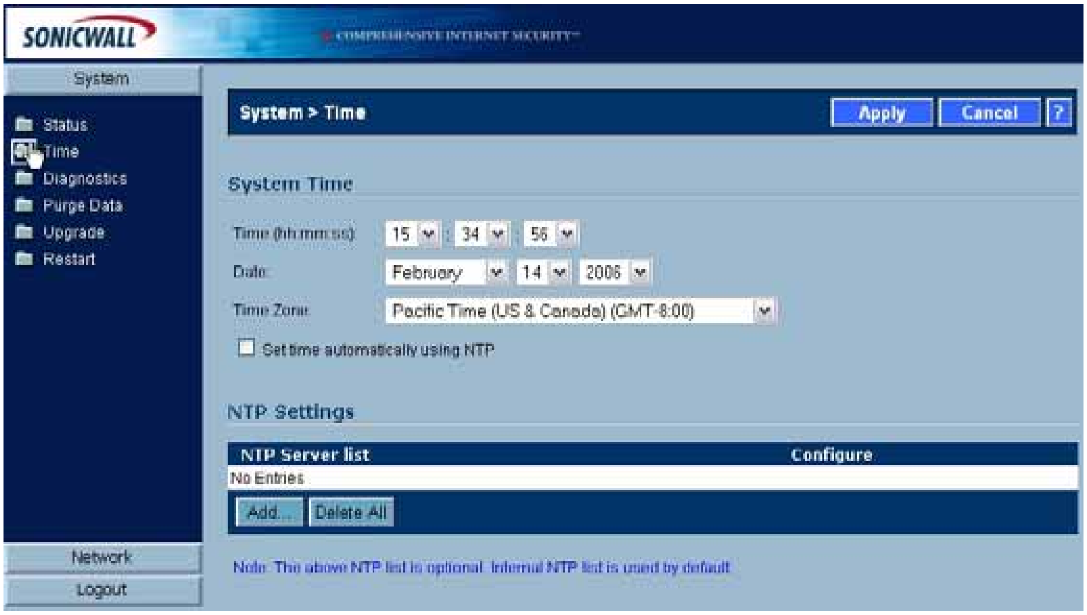
This section contains the following subsections:

- "Configuring Local Time Zone Using Firmware User Interface" section on page 38
- "Configuring a Static IP Address Using Firmware User Interface" section on page 39
- "Configuring Default Gateway" section on page 40
- "Configuring Domain Name Server (DNS) Address" section on page 41

Configuring Local Time Zone Using Firmware User Interface

To configure local time zone settings and a local time zone on your SonicWALL CDP appliance, perform the following steps:

Step 1 Navigate to **System** > **Time** in the left-hand navigation menu.



System > Time

System Time

Time (hh:mm:ss): 15 : 34 : 56

Date: February 14 2006

Time Zone: Pacific Time (US & Canada) (GMT-8:00)

□ Set time automatically using NTP

NTP Settings

NTP Server list	Configure
No Entries	

Note: The above NTP list is optional. Internal NTP list is used by default.

Step 2 Complete the fields as described in the table below:

Field	Description
Time (hh:mm:ss)	Select the time (hours:minutes:seconds) from the drop-down menus in. The time is in 24 hour format.
Date	Select the date (month, day, year) from the drop-down menus.
Time Zone	Select your local time zone form the drop down menu.
Set time automatically using NTP	Check this box to allow the time to set automatically using the default NTP server.
NTP Server	Click the **Add** button to add your own NTP server. If you do not add your own NTP server, an internal list of servers will be used by default.

Step 3 Click the **Apply** button to save changes.

Step 4 Click the **Logout** button in the left-hand navigation menu.

Configuring a Static IP Address Using Firmware User Interface

Note Once the IP address of your SonicWALL CDP appliance is changed, you will not be able to access the appliance without this address. Before continuing, make a not of the chosen IP address for your SonicWALL CDP appliance.

To configure a static IP address for your SonicWALL CDP appliance, perform the following steps:

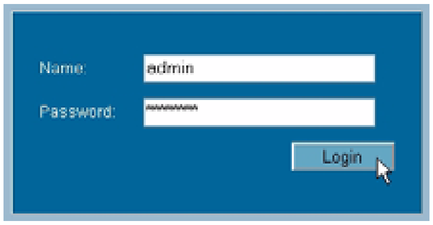
Step 1 Using the supplied crossover cable and the computer you are using to administer the SonicWALL CDP appliance, connect the LAN port the computer to the LAN port on the back of your SonicWALL CDP appliance.

Step 2 Set the computer you use to manage the SonicWALL CDP appliance to have a static IP address of **192.168.168.50** (or another available IP address on the 192.168.0/24 subnet). For help with setting up a static IP address on your computer, refer to the *SonicWALL CDP 1440i/2440i Getting Started Guide* or the *SonicWALL CDP 3440i/4440i Getting Started Guide*.

Step 3 Open a Web browser on the computer you are using to administer the SonicWALL CDP appliance.

Step 4 Enter **http://192.168.168.169** (the default IP address of the SonicWALL CDP appliance) in the **Location** or **Address** bar. The SonicWALL CDP Static IP Management login screen displays.

Step 5 Enter “admin” in the **User Name** field and “password” in the **Password** field, and click the **Login** button.

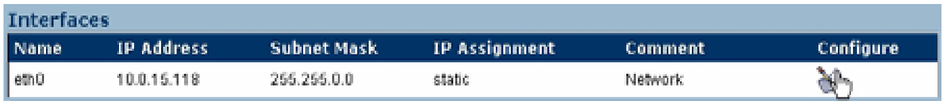


Name: admin

Password: ********

Step 6 Navigate to **Network** > **Settings** in the left-hand navigation menu.

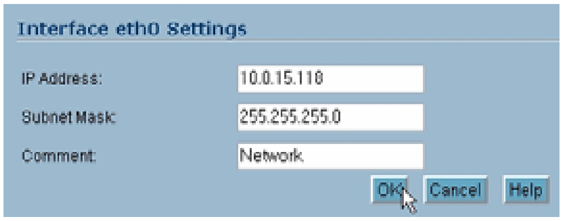
Step 7 Click the **Configure** icon in the Interfaces table.



Interfaces

Name	IP Address	Subnet Mask	IP Assignment	Comment	Configure
eth0	10.0.15.118	255.255.0.0	static	Network	

Step 8 In the **IP Address** field, enter an unused static IP address that is within the range of your local subnet and click the **OK** button.



Interface eth0 Settings

IP Address: 10.0.15.118

Subnet Mask: 255.255.255.0

Comment: Network

Step 9 Press the **Submit** button to submit the IP address change.

Step 10 Disconnect your management computer from the CDP. Your SonicWALL CDP appliance is now set to communicate with your network using a static IP address.

For more information on initial setup of your SonicWALL CDP appliance, refer to the *SonicWALL CDP 1440i/2440i Getting Started Guide* or the *SonicWALL CDP 3440i/4440i Getting Started Guide*.

Configuring Default Gateway

Step 1 Navigate to **Network** > **Settings** in the left-hand navigation menu.

Step 2 Scroll to the **Default Gateway** section and enter the IP address of your gateway device in the **IP Address** field.

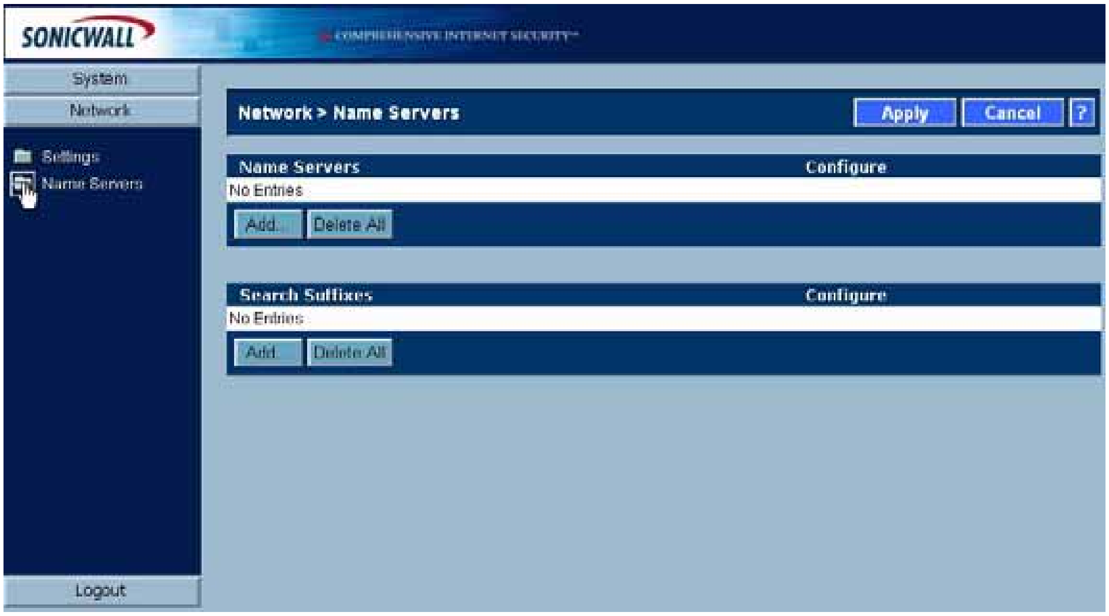
Step 3 Click the **Apply** button at the top of the screen to save your settings

Configuring Domain Name Server (DNS) Address

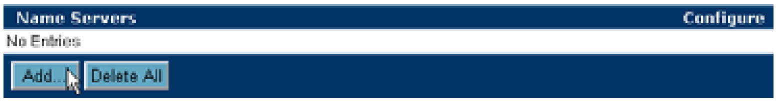
At least one valid name server must be configured for the SonicWALL CDP appliance to communicate with the portal, registration and time servers. The name server is configured within the firmware user interface.

To configure a name server, perform the following steps:

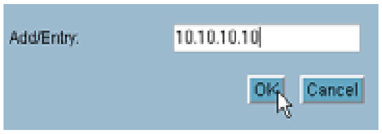
Step 1 Navigate to **Network** > **Name Servers** in the left-hand navigation menu.



Step 2 Click **Add**... button under Name Servers.



Step 3 In the **Add/Entry** field, enter a single domain name server and click the **OK** button. Repeat steps 2 and 3 to add additional DNS entries.


Add/Entry: 10.10.10.10

Click the **Apply** button at the top of the screen to save your settings.

Editing Enterprise Manager Administrative Settings

Edit Administrative Settings is located in the Enterprise Manager. This function allows the administrator to edit the SonicWALL CDP appliance name and edit the user information for the appliance administrator.

To edit your Enterprise Manager administrative settings, perform the following steps:

Step 1 Select **Edit** > **Administrator Settings** in the top menu bar.

Step 2 Fill in the fields as described in Table 13.

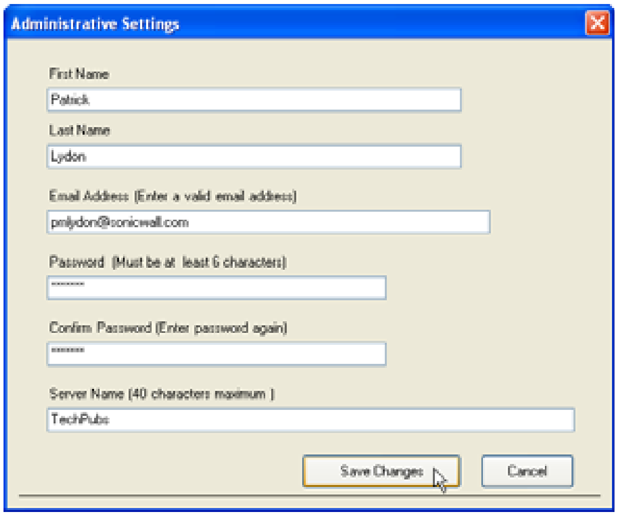
Table 13 Administrator Settings

Field	Description
First Name	Enter your first name into the **First Name** field.
Last Name	Enter your last name into the **Last Name** field.
Email Address	Enter the administrator email address into the **Email Address** field.
Password	Create a password in the **Password** field.
Confirm Password	Re-enter your password in the **Password** field.
Server Name	Enter your server name in the **Server Name** field.

Step 3 Click the **Save Changes** button.

Figure 19 provides the Enterprise Manager view of the Administrator Settings dialog window.

Figure 19 Administrator Settings Dialog Window



Administrative Settings

First Name
Patrick

Last Name
Lydon

Email Address (Enter a valid email address)
pmlydon@sonicwall.com

Password (Must be at least 6 characters)
****

Confirm Password (Enter password again)
****

Server Name (40 characters maximum)
TechPubs

Changing the SonicWALL CDP Appliance

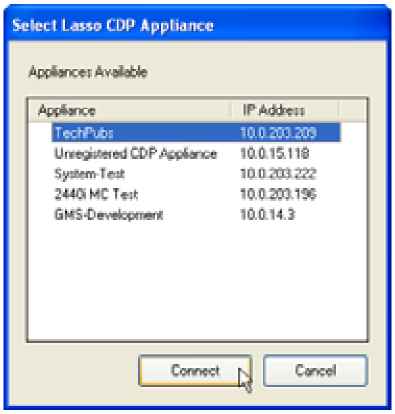
The Change SonicWALL CDP Appliance feature allows the administrator to change appliances in a multiple-appliance deployment scenario.

Note If you want to connect to an appliance that is not on the local broadcast domain, you must exit and re-launch the Enterprise Manager, then select “Manual Connection” to specify the IP address of the target SonicWALL CDP appliance.

To change your SonicWALL CDP appliance, perform the following steps:

Step 1 Select **Tools** > **Change Appliance** in the top menu bar.

Step 2 Select the desired appliance and click the **Connect** button to change to that appliance.



Appliance	IP Address
TechPubs	10.0.203.209
Unregistered CDP Appliance	10.0.15.118
System-Test	10.0.203.222
2440i MC Test	10.0.203.196
GMS-Development	10.0.14.3

Encryption Key Management

The Encryption management feature allows the administrator to enable AES 256-bit encryption to protect data securely transmitted to the Offsite Service. The administrator may also view the encryption key using Encryption Key Management. For information on resetting the encryption key, refer to the “Resetting the Encryption Key” section on page 44.

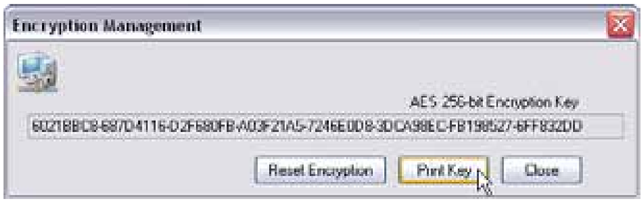
Note Print the encryption key and store it in a secure location, such as a bank or vault. Data stored at the Offsite Service cannot be recovered without the encryption key, even by SonicWALL technical support engineers.

To manage your encryption key, perform the following steps:

Step 1 Select **Edit** > **Encryption Settings** in the top menu bar.

Step 2 Click the **Enable Encryption** button to enable security on the SonicWALL CDP appliance.

Step 3 To save the key locally, click the **Print Key** button and select a location to save the key.



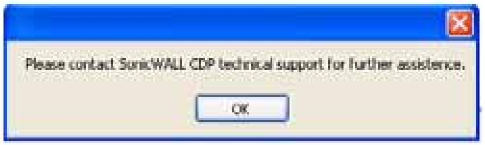
AES 256-bit Encryption Key: 6021BBC8-687D4116-D2F680FB-A03F21A5-7246E0D8-3DCA98EC-FB198527-6FF832DD

Step 4 Click the **Close** button when you are finished.

Resetting the Encryption Key

The encryption key cannot be reset.

When you click on **Reset Encryption** button, a message displays directing you to contact technical support.



Please contact SonicWALL CDP technical support for further assistence.

Contact SonicWALL Technical Support for more information.

Checking for Firmware Updates

The SonicWALL CDP automatically searches for and installs firmware updates at startup, and again every six hours. If SonicWALL releases a new firmware version or update, it will be automatically located and installed.

The Update feature allows the administrator to manually check for and download the latest SonicWALL CDP firmware updates.

To manually check for new firmware updates, perform the following steps:

Step 1 Select **Tools > Check for Updates** in the top menu bar.

Step 2 Click the **Yes** button at the prompt to search for and download firmware updates.

Step 3 SonicWALL CDP will automatically update if there are new updates.

Checking for Software Updates

The SonicWALL CDP e automatically searches for and installs software updates at startup, and again every six hours. If SonicWALL releases a new software version or update, it will be automatically located and installed.

The Update feature allows the administrator to manually check for and download the latest SonicWALL CDP software updates.

To manually check for new software updates, perform the following steps:

Step 1 Select **Tools > Check for Updates** in the top menu bar.

Step 2 Click the **Yes** button at the prompt to search for and download software updates.

Step 3 SonicWALL CDP appliance is automatically updated if there are new updates.

Managing Agents in Enterprise Manager

This section provides a configuration list specific to the Agent tab in Enterprise Manager. This section includes the following subsections:

- "Adding a New Agent" section on page 46
- "Editing an Agent's Name" section on page 47
- "Editing an Agent's Policy" section on page 47
- "Removing an Agent" section on page 48
- "Managing Agent Folders" section on page 49
  - "Adding a Folder" section on page 50
  - "Adding a Common Folder" section on page 50
  - "Viewing, Restoring and Removing Old File Versions" section on page 51
  - "Backing Up Files to the Offsite Service" section on page 52
  - "Retrieving Folders to a Location" section on page 52
  - "Viewing Folder Properties" section on page 52
- "Configuring Agent Application Backup" section on page 53
  - "Adding an Application for Backup" section on page 55
  - "Removing an Application from Backup" section on page 56
  - "Backing up Active Directory" section on page 57
  - "Backing up Microsoft Exchange" section on page 57
  - "Restoring an Application" section on page 59

Adding a New Agent

The Add New Agent feature within the Enterprise Manager allows the administrator to add agents to SonicWALL CDP. Follow the tasks in this section to add a new agent whenever you have a new server, laptop or PC that you would like to backup using SonicWALL CDP.

Adding an agent is a two-step process: It is necessary to add the agent to the Enterprise Manager, and to install the Agent Tool software on the agent computer.

If you do not install the Agent Tool software onto the agent, it will not appear in the Enterprise Manager at the next startup.

This set of instructions provides the instructions for adding an agent using the Add New Agent feature in the Enterprise Manager. For instructions on installing the Agent Tool, refer to the *Agent Tool User's Guide*.

To add a new agent, perform the following steps:

Step 1 At the top of the window, click the **Agents** button to view the Agent Management window.

Step 2 On the Agents page, click the **Add New Agent** button to open the Add Agent dialog.

Step 3 Enter the name of the agent you want to add in the **Enter an Agent Name** field.

Step 4 Click the **Add** button to add the new agent.

Step 5 Install the **Agent Tool** on the added computer, if it is not already installed.

Editing an Agent's Name

The Edit Name function allows the administrator to change an inoperable agent's name in the Enterprise Manager. SonicWALL CDP recognizes agents by agent name, which is the same as Computer Name.

In order to recover backed up data from an agent that has been rendered inoperable, it is necessary to change the name of that agent in Enterprise Manager to match the name of a new agent. The new name must be the same as the Computer Name of the new agent.

Editing an inoperable agent's name to match a new agent allows Enterprise Manager to recognize the new agent and associate backed up data from the inoperable agent with the newly assigned agent.

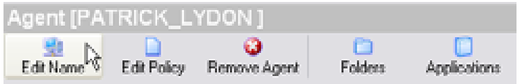
Note The Edit Name function should only be used to recover data from disabled agents. An alternate solution is to configure the new agent with the same Computer Name as the disabled agent. To change the Computer Name, right click **My Computer** and select **Properties**. Click the **Computer Name** tab and select **Change**, then type in the Computer Name of your previous computer.

To edit an agent's name, perform the following steps:

Step 1 At the top of the window, click the **Agents** button to view the Agent Management window.

Step 2 Select an agent from the **SonicWALL CDP Agents** list in the left hand navigation bar.

Step 3 On the Agents page, click the **Edit Name** button to open the Rename Agent dialog.



Step 4 Enter the desired name in the **Rename To** field.

Step 5 Click the **Rename** button to change the agent name.

Editing an Agent's Policy

The Edit Policy view is within the Agent view in the Enterprise Manager.

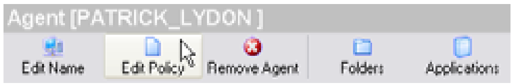
Editing an agent's policy allows the administrator to assign an agent to a new policy. If an agent is moved from a default policy to a custom policy, the data previously backed up will remain on the appliance. However, if the agent is moved from a custom policy to a different custom policy, the data previously backed up will be purged from the appliance.

To edit an agent's policy, perform the following steps:

Step 1 At the top of the window, click the **Agents** button to view the Agent Management window.

Step 2 Select an agent from the **SonicWALL CDP Agents** list in the left hand navigation bar.

Step 3 Click the **Edit Policy** button in the Agent window.



Step 4 Select a policy from the **Current Policy** list and click the **Update** button to apply changes.

Removing an Agent

The Remove Agent view is within the Agents view in the Enterprise Manager. Removing an agent allows the administrator to remove the rights of an agent to connect to the SonicWALL CDP. If an agent is removed and tries to connect, the agent will be blocked from connecting or backing up to the SonicWALL CDP.

Removing an agent requires the following two steps:

- Removing the agent using the Enterprise Manager.
- Uninstalling the Agent Tool from the agent.

If a user uninstalls the Agent Tool from an agent, or removes the agent from the network, the agent settings will not be changed and previously backed up data will remain on the appliance. Similarly, if an administrator removes an agent, and the Agent Tool remains on the agent, the agent will reappear in the Enterprise Manager at the next startup.

If you do not uninstall the Agent Tool software from the agent computer, the agent will reappear in the Enterprise Manager at the next startup.

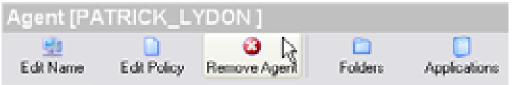
Note If you remove an agent from the agents list in the Enterprise Manager, any data associated with the agent will be purged from the appliance.

To remove an agent, perform the following steps:

Step 1 At the top of the window, click the **Agents** button to view the Agent Management window.

Step 2 In the **SonicWALL CPDP Agents** list in the left-hand window, select the agent you want to remove.

Step 3 In the Agents page, click the **Remove Agent** button.



Step 4 A warning screen appears. Click the **Yes** button to remove the agent from the SonicWALL CDP appliance.

Step 5 Uninstall the **Agent Tool** software from the agent computer, if you have not already done so.

Managing Agent Folders

The Folders view is within the Agent view in the Enterprise Manager. The Folders view allows the administrator to administer agent folders for backup.

This section contains the following subsections:

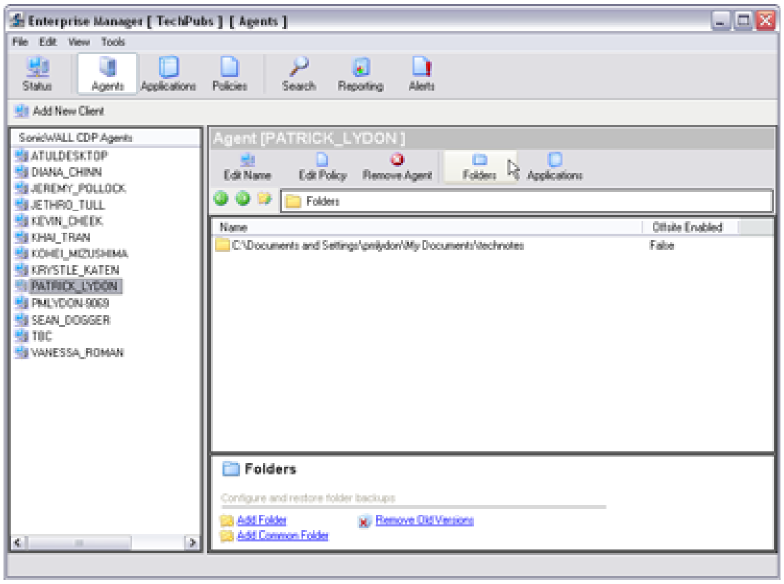
- "Adding a Folder" section on page 50
- "Adding a Common Folder" section on page 50
- "Viewing, Restoring and Removing Old File Versions" section on page 51
- "Backing Up Files to the Offsite Service" section on page 52
- "Retrieving Folders to a Location" section on page 52
- "Viewing Folder Properties" section on page 52

To manage agent folders within the **Folders** view, perform the following steps:

Step 1 At the top of the window, click the **Agents** button to view the Agent Management window.

Step 2 Select the Agent you want to view from the **SonicWALL CDP Agents** list.

Step 3 Click the **Folders** icon in the Agent window to display the **Folders** view.



Name	Offsite Enabled
C:\Documents and Settings\pmlydon\My Documents\technotes	False

Adding a Folder

Adding a folder allows the administrator to add folders to be automatically backed up from agents.

If a folder is selected for backup that does not exist on the agent, it will not be backed up.

To add an agent folder for backup, perform the following steps:

Step 1 In the **Agent** window, select the Agent you want to view from the **SonicWALL CDP Agents** list.

Step 2 Click the **Folders** button to view Folders View.

Step 3 In the **Folders** window at the bottom of the Agent screen, click **Add Folder**.

Step 4 Enter the folder you want to add (**<drive_letter>:\<folder>**\).

Step 5 Click the **Save** button. Repeat the process to add more folders.

Adding a Common Folder

Adding a common folder allows the administrator to select common folders (Desktop, Favorites and My Documents) to be backed up across agents in a selected policy.

To add a common folder, perform the following steps:

Step 1 In the **Agent** view, select the Agent you want to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Folders** button to view Folders View.

Step 3 In the **Folders** window at the bottom of the Agent screen, click **Add Common Folder**.

Step 4 Choose the folder you want to add (folders may only be added one at a time).

Step 5 Check the **Set For Offsite Backup** option if you want for this folder to be backed up to the Offsite Service.

Step 6 Click the **Add** button. Repeat the process to add more folders.

Viewing, Restoring and Removing Old File Versions

Multiple versions of each file are archived using SonicWALL CDP. You can view, restore and remove old file versions of a single file. If a newer version of a file gets damaged, it is possible to restore an older version. Because SonicWALL CDP has the option to store unlimited versions of each file, for space considerations it may be necessary to remove outdated versions periodically.

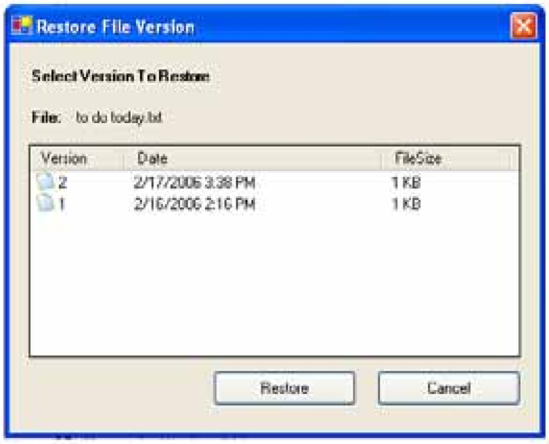
To check for old file versions, perform the following steps:

Step 1 In the **Agent** view, select the Agent you want to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Folders** button to view Folders View.

Step 3 In the **Folders** window at the bottom of the Agent screen, click **Restore Old Versions.**

Step 4 The **Restore File Version** will appear, displaying the older versions of the selected file.



Restore File Version

Select Version To Restore

File: to do today.txt

Version	Date	FileSize
2	2/17/2006 3:38 PM	1 KB
1	2/16/2006 2:16 PM	1 KB

To restore an old file version, perform the following steps:

Step 1 In the **Agent** view, select the Agent you want to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Folders** button to view Folders View.

Step 3 In the **Folders** window at the bottom of the Agent screen, click **Restore Old Versions.**

Step 4 The **Restore File Version** will appear, displaying the older versions of the selected file.

To remove old file versions, perform the following steps:

Step 1 In the **Agent** view, select the Agent you want to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Folders** button to view Folders View.

Step 3 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**.

Step 4 Click the **Yes** button to remove all old file versions.

Backing Up Files to the Offsite Service

Backup Offsite provides the administrator the ability to select files for backup to the Offsite Service, where they are stored securely and can be recovered in the event of a disaster that renders local data destroyed or otherwise unrecoverable.

Note Backup Offsite will only work if you have a subscription for backup to the Offsite Service.

To backup files to the Offsite Service, perform the following steps:

Step 1 In the **Agent** view, select the Agent you want to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Folders** button to view Folders View.

Step 3 Select the folder you want to backup to the Offsite Service.

Step 4 In the **Folders** window at the bottom of the Agent screen, click **Backup Offsite**.

Step 5 Select the **Check for offsite backup** checkbox and click the **Set Status** button.

Retrieving Folders to a Location

Administrators have the ability to retrieve saved folders and save them to a specified location.

To retrieve saved folders and save them to a specified location, perform the following steps:

Step 1 In the **Agent** view, select the Agent you want to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Folders** button to view Folders view.

Step 3 Select the folder you want to save.

Step 4 In the **Folders** window at the bottom of the Agent screen, click **Save to Location**.

Step 5 Choose a location to save the folder and click the **OK** button.

Viewing Folder Properties

Viewing the folder properties provides the administrator with a summary of agent folders, including total folder size and the number of files it contains.

To view folder properties, perform the following steps:

Step 1 In the **Agent** view, select the Agent you want to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Folders** button to view Folders view.

Step 3 Select the folder you want to view properties for.

Step 4 In the **Folders** window at the bottom of the Agent screen, click **Properties**.

Configuring Agent Application Backup

The Applications view is within the Agent view in the Enterprise Manager, and allows the administrator to add, remove, or restore applications for revision backup.

Applications that can be configured for revision backup using SonicWALL CDP include agent applications Outlook and Outlook Express and server applications Microsoft Exchange, Active Directory and SQL Server.

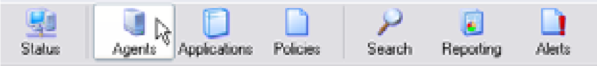
Note Active Directory, Microsoft Exchange and SQL Server can only be configured for backup or recovery using the Agent Tool. Refer to the "Backing up Active Directory" section on page 57 and the "Backing up Microsoft Exchange" section on page 57.

This section includes the following subsections:

- "Adding an Application for Backup" section on page 55
- "Removing an Application from Backup" section on page 56
- "Adding Server Applications for Backup" section on page 56
  - "Backing up Active Directory" section on page 57
  - "Backing up Microsoft Exchange" section on page 57
  - "Backing up Microsoft SQL" section on page 58
- "Restoring an Application" section on page 59

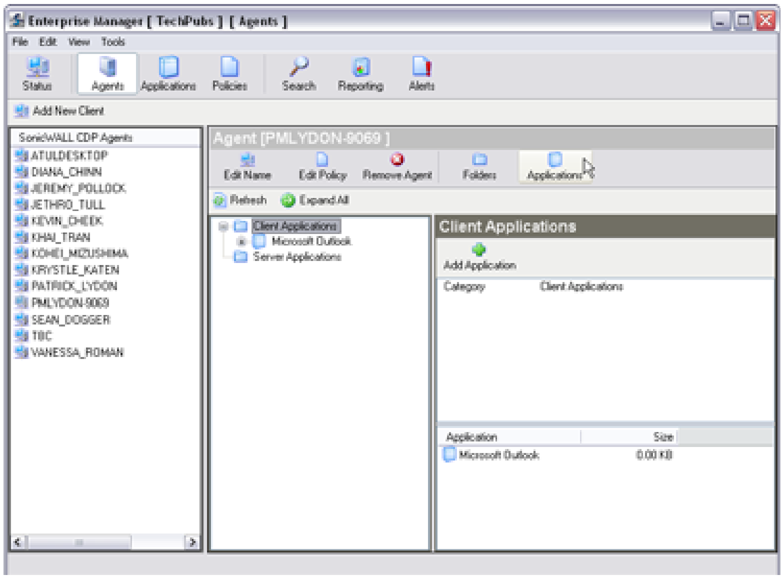
To navigate to the **Applications** view for agents, perform the following steps:

Step 1 Click the **Agents** button in the Enterprise Manager toolbar.



Step 2 Select the agent you want to view from the **SonicWALL CDP Agents** list in the left-hand navigation toolbar.

Step 3 Click the **Applications** icon in the agent window.



SonicWALL CDP Agents
ATULDESKTOP
DIANA_CHINN
JEREMY_POLLOCK
JETHRO_TULL
KEVIN_CHEEK
KHAI_TRAN
KOHEI_MIZUSHIMA
KRYSTLE_KATEN
PATRICK_LYDON
PMLYDON-9069
SEAN_DOGGER
TBC
VANESSA_ROMAN

Category: Client Applications

Application	Size
Microsoft Outlook	0.00 KB

Adding an Application for Backup

Adding an application allows the administrator to add applications for backup. Applications that can be configured for revision backup using SonicWALL CDP include:

- Agent applications, including Outlook and Outlook Express.
- Server applications, including Microsoft Exchange, Active Directory and SQL Server.

To add an application for backup, perform the following steps:

Step 1 In the **Agent** view, select the Agent you want to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Applications** button to view Agent window.

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

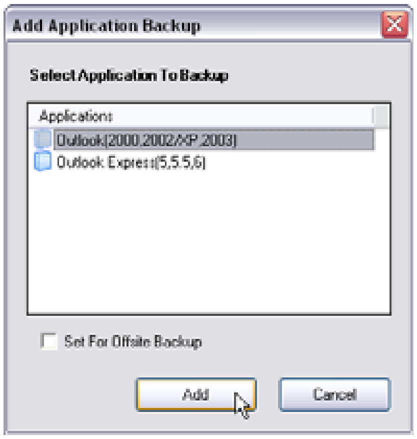
Note With the exception of Outlook and Outlook Express, only applications that are installed on your local PC will appear in the Add Application Backup dialog box.

Step 4 Select the desired application from the list.

Step 5 Check the **Set For Offsite Backup** option for the folder to be backed up to the Offsite Service.

Step 6 Click the **Add** button. Repeat the process to add more applications.

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



Outlook(2000,2002/XP,2003)
Outlook Express(5,5.5,6)
□ Set For Offsite Backup

Removing an Application from Backup

Removing an application from backup allows the administrator to remove previously selected applications from the backup process.

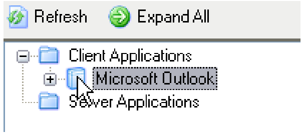
Applications that can be configured for revision backup using SonicWALL CDP include agent applications Outlook and Outlook Express and server applications Microsoft Exchange, Active Directory and SQL Server.

To remove an application from backup, perform the following steps:

Step 1 In the **Agent** view, select the Agent you wish to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Applications** button to view Applications View.

Step 3 Select the desired application from the list in the **Agent** window.



Step 4 Click the **Remove Application** button.

Step 5 A warning screen appears. Click **Yes** to remove the application.

Adding Server Applications for Backup

Server applications, including SQL, Microsoft Exchange and Active Directory, cannot be configured for backup or recovery using Enterprise Manager.

The following subsections refer to tasks using the Agent Tool:

- "Backing up Active Directory" section on page 57
- "Backing up Microsoft Exchange" section on page 57
- "Backing up Microsoft SQL" section on page 58

Backing up Active Directory

Backing up Active Directory using SonicWALL CDP allows users to store and retrieve Active Directory revisions from agent machines.

Note Active Directory cannot be added from the Enterprise Manager. Active Directory can be added using the Agent Tool.

To add Active Directory 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.

Backing up Microsoft Exchange

Backing up Microsoft Exchange using SonicWALL CDP allows users to store and retrieve Microsoft Exchange revisions from an agent machine. Microsoft Exchange backup cannot be configured using the Enterprise Manager.

Note Microsoft Exchange can only be added using the Agent Tool.

To backup Microsoft Exchange using the Agent Tool, perform the following steps:

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

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

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

- Backup Offsite - Send data to the Offsite Service.
- Remove Server Application - Stop backing up Exchange.

Backing up Microsoft SQL

Backing up Microsoft SQL using SonicWALL CDP allows users to store and retrieve Microsoft SQL revisions from an agent machine. Microsoft SQL backup cannot be configured using the Enterprise Manager.

Note Microsoft SQL can only be added using the Agent Tool.

To backup Microsoft SQL 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 an Application

Restoring an application allows the administrator to restore an application revision to an agent's computer.

Applications that can be configured for revision backup using SonicWALL CDP include agent applications Outlook and Outlook Express and server applications Microsoft Exchange, Active Directory and SQL Server.

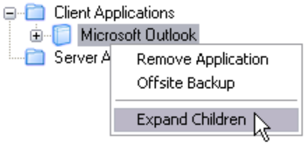
For specific details on recovering data from server applications, refer to "Recovering data from Active Directory" section on page 78, "Recovering data from Microsoft Exchange" section on page 78, and "Recovering data from Microsoft SQL Server" section on page 79.

To restore an old version of an application, perform the following steps:

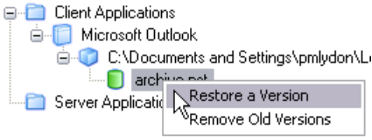
Step 1 In the **Agent** view, select the Agent you wish to administer from the **SonicWALL CDP Agents** list.

Step 2 Click the **Applications** button to view Applications View.

Step 3 **Right-click** on the desired application from the list in the **Agent** window and select **Expand Children**.



Step 4 **Right-click** on the archive file and select **Restore a Version**.



Note When using the Enterprise Manager to restore an agent folder, restore will take place locally (on the Enterprise Manager machine) by default.

Managing Policies in Enterprise Manager

This section provides a configuration list specific to Policies in the Enterprise Manager. There are two kinds of policies, default and custom. Agents are assigned to the default policy unless they are moved to a custom policy. This section includes the following subsections:

- "Managing the Default Policy" section on page 60
- "Adding a New Policy" section on page 62
- "Applying a Policy" section on page 65
- "Editing a Policy" section on page 66
- "Removing a Policy" section on page 70

Managing the Default Policy

The default policy is automatically assigned to agents using SonicWALL CDP. Whenever an agent is added to SonicWALL CDP or removed from a custom policy, the agent will be added to the default policy. It is recommended that the default policy backup quota be set to zero, so that agents must be assigned to a custom policy before they can begin the backup process.

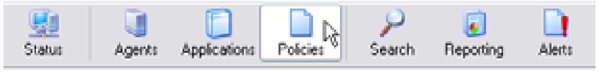
Note If an agent is switched from the default policy to a custom policy, the data previously backed up will remain on the appliance. However, if the agent is moved from a custom policy to a different custom policy, the data previously backed up will be purged from the appliance.

To customize policies for agents, refer to the following subsections:

- "Adding a New Policy" section on page 62
- "Applying a Policy" section on page 65
- "Editing a Policy" section on page 66
- "Removing a Policy" section on page 70

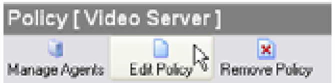
To manage the default policy, perform the following steps:

Step 1 At the top of the window, click the **Policies** button.



Step 2 Select the **Default Policy** from the policies list in the left hand window.

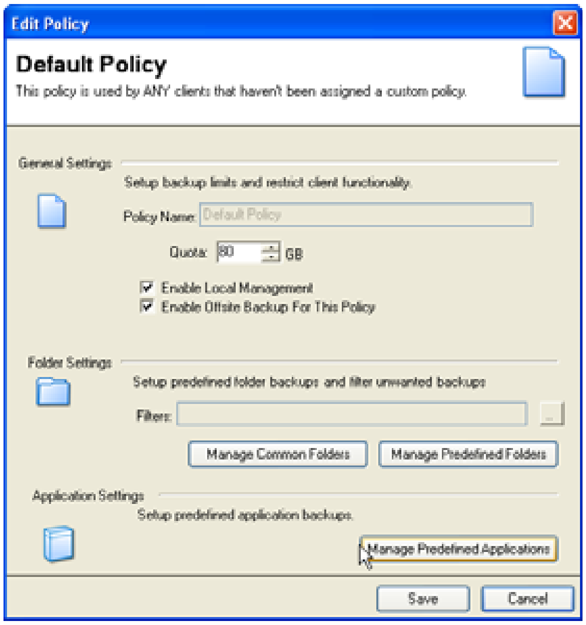
Step 3 Click the **Edit Policy** button in the Policy window.



The Edit Policy dialog appears for the default policy. Figure 20 provides the Enterprise Manager view of the Edit Policy dialog for the default policy.

Note You can also edit the default policy by clicking the **Policies** button and then selecting **Edit Default Policy** from the Policies main page.

Figure 20 Edit Policy Dialog, Default Policy



Default Policy

This policy is used by ANY clients that haven't been assigned a custom policy.

General Settings

Setup backup limits and restrict client functionality.

Policy Name: Default Policy

Quota: 80 GB

☑ Enable Local Management

☑ Enable Offsite Backup For This Policy

Folder Settings

Setup predefined folder backups and filter unwanted backups

Filters:

Application Settings

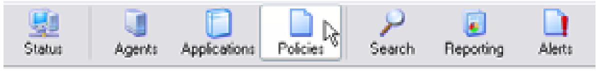
Setup predefined application backups.

Adding a New Policy

Adding a new policy allows the administrator to add custom policies that can be assigned to agents in lieu of the default policy.

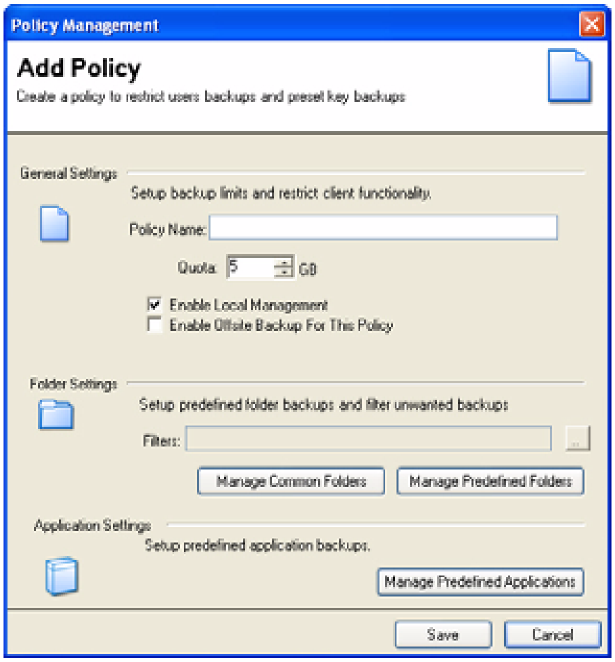
To add a new policy, perform the following steps:

Step 1 At the top of the window, click the **Policies** button.



Step 2 On the Policies page, click **Add New Policy**. The Policy Management dialog appears. Figure 21 provides the Enterprise Manager view of the Policy Management dialog window.

Figure 21 Policy Management Dialog



Policy Management

Add Policy

Create a policy to restrict users backups and preset key backups

General Settings

Setup backup limits and restrict client functionality.

Policy Name:

Quota: 5 GB

☑ Enable Local Management

☐ Enable Offsite Backup For This Policy

Folder Settings

Setup predefined folder backups and filter unwanted backups

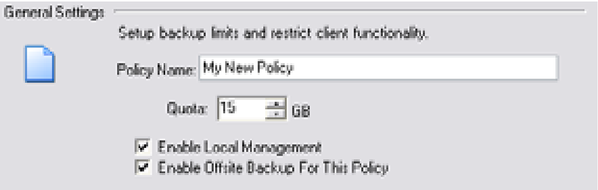
Filters:

Application Settings

Setup predefined application backups.

Step 3 Edit General Settings for the policy as follows:

Editing General Settings



General Settings

Setup backup limits and restrict client functionality.

Policy Name: My New Policy

Quota: 15 GB

☑ Enable Local Management
☑ Enable Offsite Backup For This Policy

1. Enter a friendly name for this policy in the **Policy Name** Field.
2. Enter a maximum backup quota (in Gigabytes) for this policy in the **Quota** field.

Note A maximum backup quota must be less than the capacity of your SonicWALL CDP appliance. Though you cannot oversubscribe an agent, you will receive an alert when the appliance has reached 80% capacity, and you may wish to recalculate the maximum agent policies.

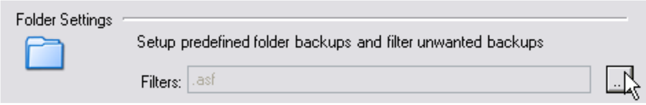
3. Check the **Enable Local Management** option to give agents the ability to manage their policy locally.
4. Check the **Enable Offsite Backup For This Policy** option to allow secure backups to the Offsite Service.

Filtering File Extensions

This feature allows you to filter out (exclude) any file extensions form being backed up once the policy is applied to an agent. Only **.tmp** files are filtered by default.

Note File extensions may be specified with or without a period. For example, **mp3** and **.mp3** will both filter **mp3** files.

1. Click the button to the right of the **Filters** field.

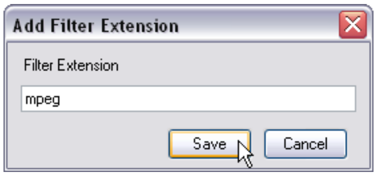


Folder Settings

Setup predefined folder backups and filter unwanted backups

Filters: .asf

2. Click the **Add** button. The **Add Filter Extension** dialog appears.
3. Enter the file extension you wish to filter (for example: **mp3** or **.mp3**) in the **Filter Extension** field and click the **Save** button.



Add Filter Extension

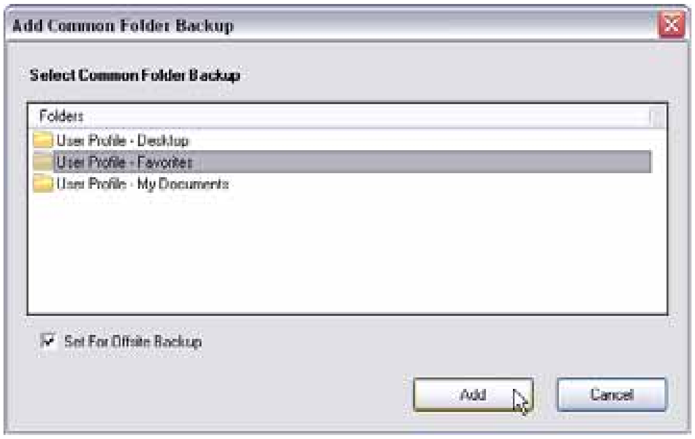
Filter Extension: mpeg

4. To add another file extension, click the **Add** button again. Otherwise, click the **Apply Changes** button to add this file extension to the exclusion list.

Managing Common Folders

This feature allows the administrator to edit common folders (desktop, favorites, my documents) defined for backup.

1. Click the **Manage Common Folders** button. The **Common Folder Management** dialog appears.
2. Click the **Add** button to display the **Common Folder Backup** dialog.

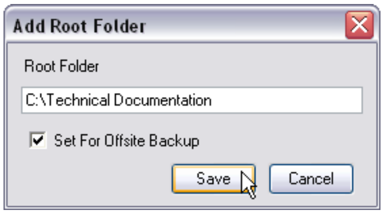


3. Choose the folder you want to add (folders may only be added one at a time).
4. Check the **Set For Offsite Backup** option if you want for this folder to be backed up to the Offsite Service.
5. Click the **Add** button. Repeat the process to add more folders.
6. Click the **Apply Changes** button to add these folders to the backup policy.

Managing Predefined Folders

This feature allows you to define a folder or set of folders for backup once the policy is applied to an agent. The folder(s) will be backed up on agents to which this policy is applied.

1. Click the **Manage Predefined Folders** button. The **Root Folder Management** dialog appears.
2. Click the **Add** button to display the **Root Folder** dialog.



Root Folder: C:\Technical Documentation

☑ Set For Offsite Backup

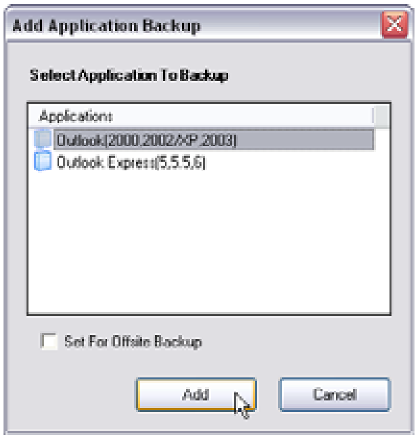
3. Enter the folder you want to add (**<drive_letter>:\<folder>**).
4. Check the **Set For Offsite Backup** option if you want for this folder to be backed up to the Offsite Service.

5. Click the **Save** button. Repeat the process to add more folders.
6. Click the **Apply Changes** button to add these folders to the backup policy.

Managing Predefined Applications

This feature allows you to define applications for revision backup once the policy is applied to an agent. The application revisions will be backed up for agents to which this policy is applied.

1. Click the **Manage Predefined Applications** button. The **Application Management** dialog appears.
2. Click the **Add** button to display a list of applications.



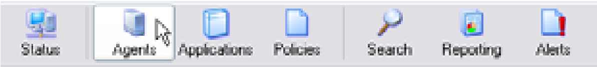
3. Choose the application you want to add (applications may only be added one at a time).
4. Check the **Set For Offsite Backup** option if you want for this folder to be backed up to the Offsite Service.
5. Click the **Add** button. Repeat the process to add more folders.
6. Click the **Apply Changes** button to add these folders to the backup policy.

Applying a Policy

Once a policy has been created, it can be assigned to any SonicWALL CDP agent(s).

To apply a policy to an agent, perform the following steps:

Step 1 At the top of the window, click the **Agents** button.



The Agents window appears.

Step 2 Select an Agent from the **SonicWALL CDP Agents** list.

Step 3 Click the **Edit Policy** button in the Agent window.

Step 4 Select a policy from the **Current Policy** list and click the **Update** button to apply changes.

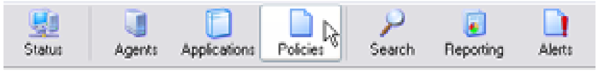
Editing a Policy

Editing a policy allows the administrator to change general settings including backup quota, local management and Offsite Service backup. It also allows folder filtering and management of folder and applications for a given policy.

If an agent has already backed up data and then is assigned to a lower-capacity quota, the data previously backed up will remain on the appliance. For example, if an agent has 20GB stored on the appliance and is re-assigned to a 5BG policy, the data previously backed up with the larger quota will remain on the box. However, future backups will only allow 5GB.

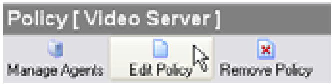
To edit a policy, perform the following steps:

Step 1 At the top of the window, click the **Policies** button.



Step 2 Select a policy to edit from the policies list in the left -hand window.

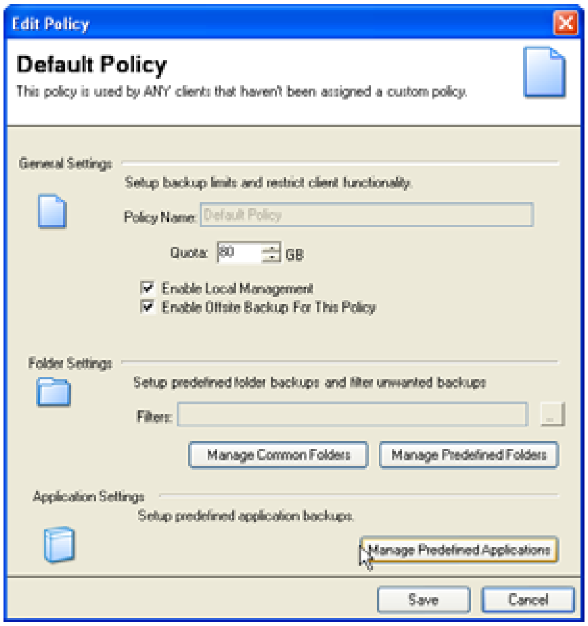
Step 3 Click the **Edit Policy** button in the Policy window.



The Policy Management dialog appears. Figure 22 provides the Enterprise Manager view of the Edit Policy dialog window.

Note You can also edit the default policy by clicking the **Policies** button and then selecting **Edit Default Policy** from the Policies main page.

Figure 22 Edit Policy Dialog



Edit Policy

Default Policy

This policy is used by ANY clients that haven't been assigned a custom policy.

General Settings

Setup backup limits and restrict client functionality.

Policy Name: Default Policy

Quota: 80 GB

☑ Enable Local Management

☑ Enable Offsite Backup For This Policy

Folder Settings

Setup predefined folder backups and filter unwanted backups

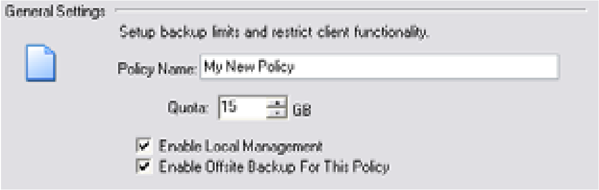
Filters:

Application Settings

Setup predefined application backups.

Step 4 Edit General Settings for the policy as follows:

Editing General Settings



General Settings

Setup backup limits and restrict client functionality.

Policy Name: My New Policy

Quota: 15 GB

☑ Enable Local Management

☑ Enable Offsite Backup For This Policy

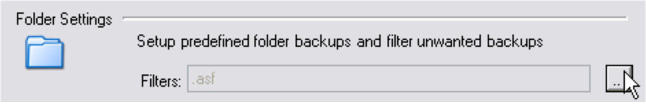
1. Enter a friendly name for this policy in the **Policy Name** Field.
2. Enter a maximum backup quota (in Gigabytes) for this policy in the **Quota** field. This is only limited by the maximum capacity of your appliance. You cannot oversubscribe agents and you will receive an alert when your appliance has reached 80% capacity.
3. Check the **Enable Local Management** option to give agents the ability to manage their policy locally. (If **Enable Local Management** is unchecked, agents under the policy will be restrained from all management activity and will only be able to restore data from the appliance.)
4. Check the **Enable Offsite Backup For This Policy** option to allow secure backups to the Offsite Service.

Filtering File Extensions

This feature allows you to filter out (exclude) file extensions form being backed up once the policy is applied to an agent.

Note File extensions may be specified with or without a period. For example, **mp3** and **.mp3** will both filter **mp3** files.

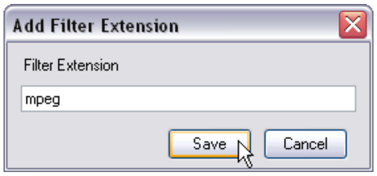
1. Click the button to the right of the **Filters** field.



Setup predefined folder backups and filter unwanted backups

Filters: .asf

2. Click the **Add** button. The **Add Filter Extension** dialog appears.
3. Enter the file extension you want to filter (for example, **mp3** or **.mp3**) in the **Filter Extension** field and click the **Save** button.



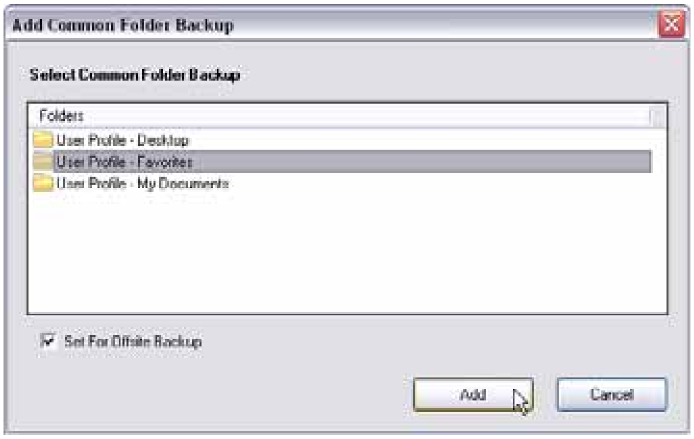
Filter Extension: mpeg

4. To add another file extension, click the **Add** button again. Otherwise, click the **Apply Changes** button to add this file extension to the exclusion list.

Managing Common Folders

This feature allows the administrator to edit common folders (Desktop, Favorites and My Documents) set for backup.

1. Click the **Manage Common Folders** button. The **Common Folder Management** dialog appears.
2. Click the **Add** button to display the **Common Folder Backup** dialog.



Select Common Folder Backup

Folders
- User Profile - Desktop
- User Profile - Favorites
- User Profile - My Documents

☑ Set For Offsite Backup

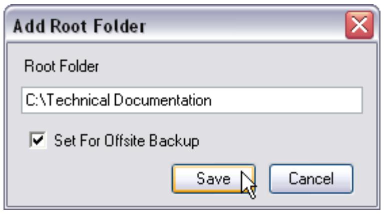
3. Choose the folder you want to add (folders may only be added one at a time).

4. Check the **Set For Offsite Backup** option if you want for this folder to be backed up to the Offsite Service.
5. Click the **Add** button. Repeat the process to add more folders.
6. Click the **Apply Changes** button to add these folders to the backup policy.

Managing Predefined Folders

This feature allows you to define a folder or set of folders for backup once the policy is applied to an agent. The folder(s) will be backed up on agents to which this policy is applied.

1. Click the **Manage Predefined Folders** button. The **Root Folder Management** dialog appears.
2. Click the **Add** button to display the **Root Folder** dialog.



Root Folder: C:\Technical Documentation

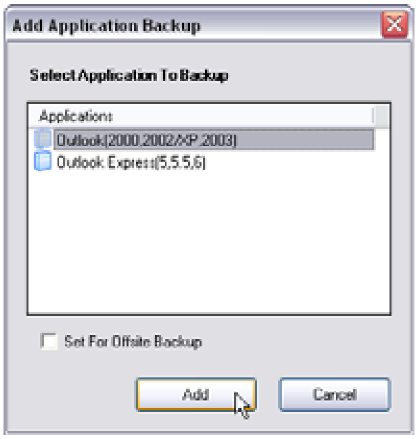
☑ Set For Offsite Backup

3. Enter the folder you want to add (**<drive_letter>:\<folder>**).
4. Check the **Set For Offsite Backup** option if you want for this folder to be backed up to the Offsite Service.
5. Click the **Save** button. Repeat the process to add more folders.
6. Click the **Apply Changes** button to add these folders to the backup policy.

Managing Predefined Applications

This feature allows administrators to define common applications for revision backup once the policy is applied to an agent. The application revisions will be backed up on agents to which this policy is applied.

1. Click the **Manage Predefined Applications** button. The **Application Management** dialog appears.
2. Click the **Add** button to display a list of applications.



Outlook(2000,2002/XP,2003)

Outlook Express(5,5.5,6)

□ Set For Offsite Backup

3. Choose the application you want to add (applications may only be added one at a time).

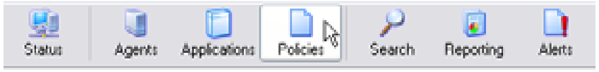
4. Check the **Set For Offsite Backup** option if you want for this folder to be backed up to the Offsite Service.
5. Click the **Add** button. Repeat the process to add more folders.
6. Click the Apply Changes button to add these folders to the backup policy.

Removing a Policy

Removing a policy allows the administrator to remove previously defined policies. Agents assigned to policies that are removed will be covered under the default policy. If the default policy has a lower quota than the previous policy, the data not covered under the policy will be purged. If the default policy includes different files for backup, the files from the previous policy will be purged.

To remove a policy, perform the following steps:

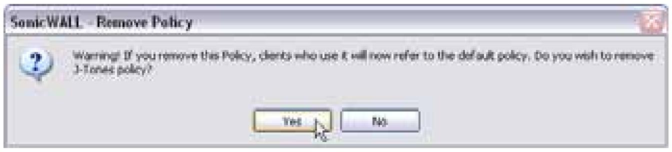
Step 1 At the top of the window, click the **Policies** button.



Step 2 Select the policy you want to remove from the policies list in the left -hand window.

Step 3 Click the **Remove Policy** button in the Policy window.

Step 4 A Warning Screen will appear. Click the **Yes** button to remove the policy.



SonicWALL - Remove Policy

Warning! If you remove this Policy, clients who use it will now refer to the default policy. Do you wish to remove 3-Tones policy?

Performing Searches in Enterprise Manager

This section provides a configuration list specific to the Agent in the Enterprise Manager. This section includes the following subsections:

- "Searching for Files" section on page 71
- "Searching Within Server Applications" section on page 72
- "Searching Within Agent Applications" section on page 72

Searching for Files

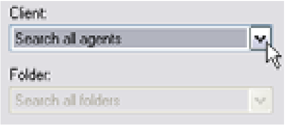
This allows the administrator to search for files marked for backup.

To search for files, perform the following steps:

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

Step 2 Select the agent you want to search from the **Agent** drop-down menu, or select **Search All Agents**.

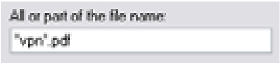
Step 3 Select the folder you want to search from the **Folder** drop-down menu, or select **Search All Folders**.



Client: Search all agents

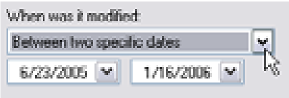
Folder: Search all folders

Step 4 Enter a search string in the **All or part of the file name** field.



All or part of the file name: *vpn*.pdf

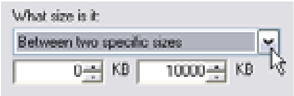
Step 5 To search a specific date or date-range, select a last modified date from the pre-defined time ranges in the **When was it modified** drop-down menu, or specify your own dates in the drop down menus below.



When was it modified: Between two specific dates

6/23/2005 1/16/2006

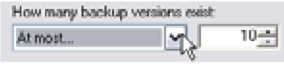
Step 6 To search for a specific file size or file size-range, select a size from the **What size is it** drop-down menu, or specify your own size or size-range below.



What size is it: Between two specific sizes

0 KB 10000 KB

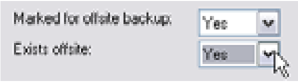
Step 7 Select a value from the **How many backup versions should exist** drop-down menu and enter a number.



How many backup versions exist: At most... 10

Step 8 To search only for folders marked for Offsite Service backup, select **Yes** from the **Marked for offsite backup** menu.

Step 9 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.



Marked for offsite backup: Yes

Exists offsite: Yes

Step 10 Click the **Search** button to start your search.

Searching Within Server Applications

This allows the administrator to search within server applications, including Active Directory, Microsoft Exchange and SQL Server.

To search within server applications, perform the following steps:

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 Select the agent you want to search from the **Agent** drop-down menu.

Step 4 Select an instance from the **Instance** menu.

Step 5 Select an object to search for form the **Object** menu.

Step 6 Click the **Search** button to start your search.

Searching Within Agent Applications

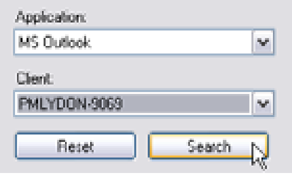
This allows the administrator to search within agent applications, including Outlook and Outlook Express.

To search within agent applications, perform the following steps:

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

Step 2 Select an application to search from the **Application** drop-down menu.

Step 3 Select the agent you want to search from the **Agent** drop-down menu or select **Search all agents.**



Application: MS Outlook

Client: PMLYDON-9069

Step 4 Click the **Search** button to start your search.

Generating Reports in Enterprise Manager

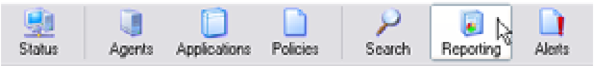
This section provides a configuration list specific to the Reporting view in the Enterprise Manager. For more information on generating an agent report using the Enterprise Manager, refer to the "Generating CDP Agent Reports" section on page 73.

Generating CDP Agent Reports

The administrator can generate reports using the Enterprise Manager that provide agent and backup statistics.

To generate reports, perform the following steps:

Step 1 At the top of the window, click the **Reporting** button.



Step 2 In the **Reports** list in the left -hand window, **double-click** the report you want to run (refer to Table 14 for report type descriptions).

Step 3 When the report is complete, you can save the report in HTML format by clicking the **Save** button and selecting a location to save.

Step 4 If you want to view the report in your browser without saving, click the **Browser** button.

Table 14 Report Types

Report Type	Description
Executive Summary	**Executive Summary** provides a general overview, including Appliance Information, Agent Summary and Top 10 (file types by disk space used).
Agent Summary	**Agent Summary** provides a summary of agent usage, including file size, size on disk with revisions, server application size and policy name.
Disk Space by File Type	**Disk Space by File Type** provides a summary of disk space usage, both by file size and number of files, sorted by file extension.
Disk Space by Agent	**Disk Space by Agent** provides a summary of disk space usage by agent, including size on disk, percent of total, number of files and number of revisions.
Policy Summary	**Policy Summary** provides a summary of policy usage by policy, including agents assigned to a policy, and backups (including from the desktop, My Documents and Favorites).
Agents by Policy	**Agents by Policy** provides a summary of agents sorted by default policy.
Server Application Backup	**Server Application Backup** provides a summary of server applications selected for backup, including instance, database name, backup size and number of revisions.
Agent Application Backup	**Agent Application Backup** provides a summary of agent applications selected for backup, sorted by agent and including path name, application name and file size.
Offsite Status	**Offsite Status** provides a summary of data backed up to the Offsite Service, sorted both by appliance and agent. This report includes size of data marked for offsite backup and size of data currently backed up at the Offsite Service.

Recovering Your Data Using SonicWALL CDP

When using SonicWALL CDP, if an agent should experience an event that results in data loss, you will be able to recover any data that you had defined for backup. In the event of agent data loss, data can be recovered directly from the SonicWALL CDP appliance. In the event of a disaster that has rendered local data corrupted or destroyed, data can be recovered from the Offsite Service.

This section contains the following two subsections:

- "File Recovery Using the SonicWALL CDP Agent Tool" section on page 76
- "Server Application Recovery Using the SonicWALL CDP Agent Tool" section on page 77
  - "Recovering data from Active Directory" section on page 78
  - "Recovering data from Microsoft Exchange" section on page 78
  - "Recovering data from Microsoft SQL Server" section on page 79
- "Disaster Recovery Using the Offsite Service" section on page 80
  - "Encryption Key Management" section on page 81
  - "Purging Data from the SonicWALL CDP Appliance" section on page 82
- "Recovery when RAID Fails" section on page 83
  - "If One Disk Fails While Using the SonicWALL CDP 3440i Appliance" section on page 83
  - "If Two Disks Fail While Using SonicWALL CDP 3440i" section on page 83
  - "If One Disk Fails While Using SonicWALL CDP 4440i" section on page 83
  - "If Two Disks Fail While Using SonicWALL CDP 4440i" section on page 83

File Recovery Using the SonicWALL CDP Agent Tool

SonicWALL CDP allows you to recover lost data directly from the appliance. Recovery can be performed to replace a folder that has been deleted, or to restore a previous version of a folder that has been changed or otherwise damaged. Recovery can be performed on any agent and recovered files are restored directly from the appliance.

If necessary, before restoring a file, first follow the prescribed restore procedures of the system which may include the re-installation of the operating system, applications or replacement of hardware.

To recover data using the SonicWALL CDP appliance, perform the following steps:

Step 1 Once the system is operable again, reinstall the SonicWALL CDP Agent software on the affected computer using the software provided by SonicWALL. Be sure to enter the same user name and company that you entered during your initial installation for the reinstall.

Note To recover data stored by an agent that is no longer operable, it is necessary to configure a new agent with the same Computer Name as the disabled agent. To change your Computer Name, right click **My Computer** and select **Properties**. Click the **Computer Name** tab and select **Change**, then type in the Computer Name of your previous computer.

Step 2 Launch the **SonicWALL CDP Agent** software.

Step 3 Click the **Folders** button to enter Folders View.

Step 4 Select the folder you want to restore.

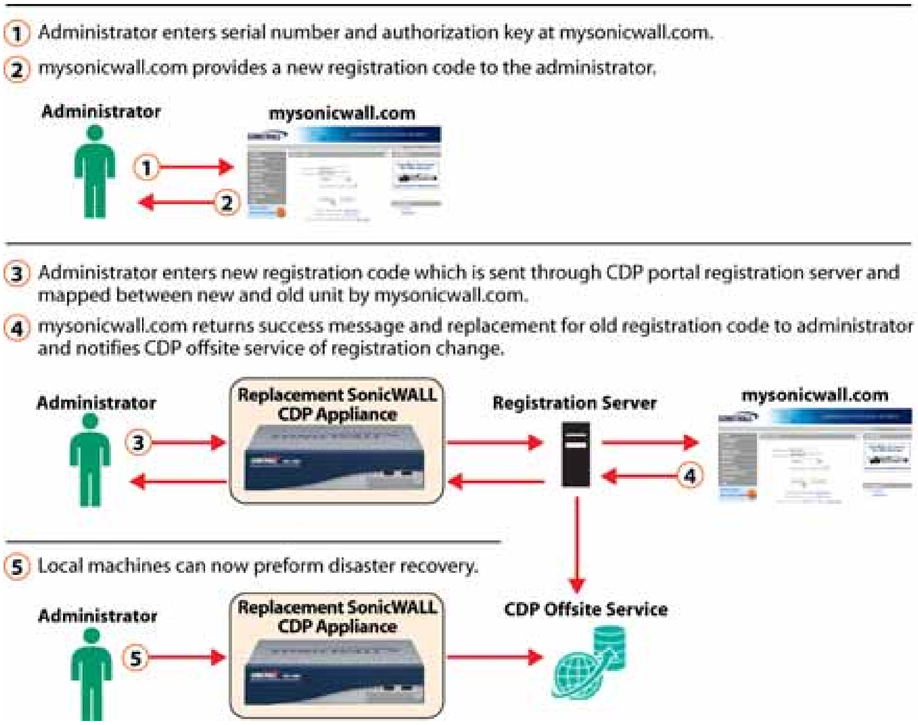
Step 5 In the **Folders** window at the bottom of the Agent screen, click **Save to Location**.

Step 6 Choose a location to save the folder and click the **OK** button.

Step 7 Repeat the process to restore additional folders to your computer.

Figure 23 displays the process for registering a new appliance.

Figure 23 Registering a New Appliance



1 Administrator enters serial number and authorization key at mysonicwall.com.

2 mysonicwall.com provides a new registration code to the administrator.

3 Administrator enters new registration code which is sent through CDP portal registration server and mapped between new and old unit by mysonicwall.com.

4 mysonicwall.com returns success message and replacement for old registration code to administrator and notifies CDP offsite service of registration change.

5 Local machines can now preform disaster recovery.

Server Application Recovery Using the SonicWALL CDP Agent Tool

Server applications include SQL, Microsoft Exchange and Active Directory. Revisions to server applications can be recovered using the Agent Tool.

This section contains the following subsections:

- "Recovering data from Active Directory" section on page 78
- "Recovering data from Microsoft Exchange" section on page 78
- "Recovering data from Microsoft SQL Server" section on page 79

Recovering data from Active Directory

Recovery from Active Directory using SonicWALL CDP allows users to retrieve Active Directory revisions from agent machines.

Note Active Directory cannot be restored from the Enterprise Manager. Active Directory can be restored using the Agent Tool.

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

Step 1 Open the **SonicWALL Agent Tool**.

Step 2 Click **Applications** in the Agent Tool toolbar.

Step 3 In the left -hand navigation toolbar, expand the **Server Applications** tree.

Step 4 Highlight **Microsoft Active Directory**.

Step 5 In the right -hand portion of the window, highlight one of the backup versions and click **Restore Active Directory**.

Step 6 In the window that appears, 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 7 Click **Restore to Application**.

Step 8 Select a folder to temporarily store the recovered data and click **OK**.

Recovering data from Microsoft Exchange

Backing up Microsoft Exchange using SonicWALL CDP allows users to store and retrieve Microsoft Exchange revisions from an agent machine. Microsoft Exchange backup cannot be configured using the Enterprise Manager.

Note Microsoft Exchange can only be restored using the Agent Tool.

To backup Microsoft Exchange using the Agent Tool, perform the following steps:

Step 9 Click **Applications** in the Agent Tool toolbar.

Step 10 In the left -hand navigation toolbar, expand the **Server Applications** tree.

Step 11 Expand the **Microsoft Exchange** tree and select the information store you want to restore.

Step 12 In the right -hand portion of the window, highlight one of the backup versions and click **Restore Storage Group**.

Step 13 In the window that appears, 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 14 Click **Restore to Application**.

Step 15 Select a folder for temporary storage and click **OK.**

Recovering data from Microsoft SQL Server

Restoring Microsoft SQL using SonicWALL CDP allows users to retrieve Microsoft SQL revisions from an agent. Microsoft SQL recovery cannot be performed using the Enterprise Manager.

Note Microsoft SQL restore an only be performed using the Agent Tool.

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 appears, 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**.

Disaster Recovery Using the Offsite Service

SonicWALL CDP Offsite Service is a subscription service that allows the administrator to perform a disaster recovery when local data have been rendered unrecoverable. Data can only be recovered from the Offsite Service in the event that a disaster renders local data corrupted, destroyed or otherwise unrecoverable.

Note Data cannot be recovered from the Offsite Service without the Encryption Key, even by SonicWALL technical support engineers. It is advised that you store your encryption key in a secure location, such as a safe or bank. Your encryption key may be viewed by selecting Edit > Encryption Settings in the top menu bar. For more information, refer to the "Encryption Key Management" section on page 81.

To recover data from the Offsite Service, perform the following steps:

Step 1 Locate your encryption key, which should be stored in a safe location, such as a vault or bank.

Step 2 Verify that your SonicWALL CDP appliance is under warranty or extended warranty. If it is not under warranty, it will be necessary to purchase a replacement SonicWALL CDP appliance with enough storage to contain the data recovered from the Offsite Service. Contact your SonicWALL Technical Support representative for your replacement appliance.

Step 3 Configure the replacement SonicWALL CDP appliance to match the settings of the original appliance.

Step 4 Replace the encryption key of the replacement appliance with the encryption key of the original appliance.

Step 5 When the replacement appliance is properly configured with the encryption key from the original appliance, it will automatically recover data from the Offsite Service.

Encryption Key Management

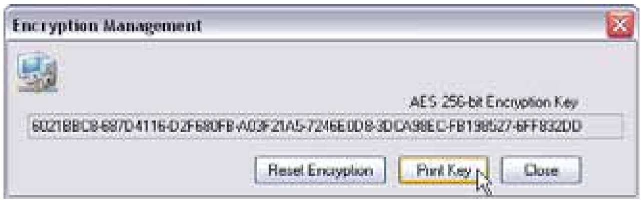
Encryption management allows you to view your encryption key. You may need to view your encryption key if you have not already printed or written it down and stored it in a secure location.

To view your encryption key, perform the following steps:

Step 1 Select **Edit > Encryption Settings** in the top menu bar.

Step 2 Click the **Enable Encryption** button to enable security on the SonicWALL CDP appliance.

Step 3 To save the key locally, click the **Print Key** button and select a location to save the key.



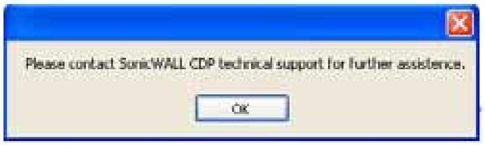
AES 256-bit Encryption Key
6021BBC8-687D4116-D2F680FB-A03F21A5-7246E0D8-3DCA98EC-FB198527-6FF832DD

Step 4 When you are finished, click the **Close** button.

Reset Encryption Key

The encryption key cannot be reset.

When you click on **Reset Encryption** button, a message displays directing you to contact technical support.



Please contact SonicWALL CDP technical support for further assistence.

Contact SonicWALL Technical Support for more information.

Purging Data from the SonicWALL CDP Appliance

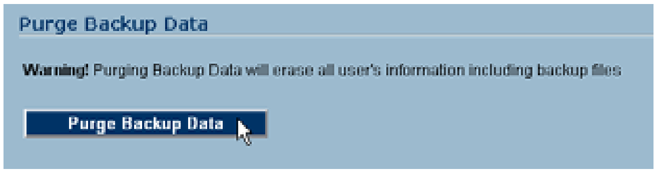
Purge Data is a function within the firmware user interface. In the event that your appliance is damaged and needs to be returned to SonicWALL, you may want to purge its contents, including stored data and agent information.

Caution Purge data erases all agent information, including backup files.

To purge data from the SonicWALL CDP appliance, perform the following steps:

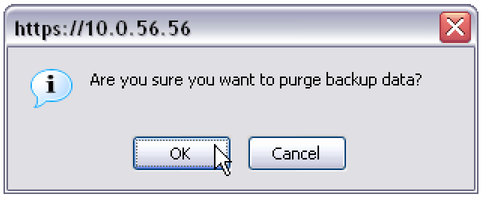
Step 1 Navigate to **System** > **Purge Data.**

Step 2 Click **Purge Backup Data**.



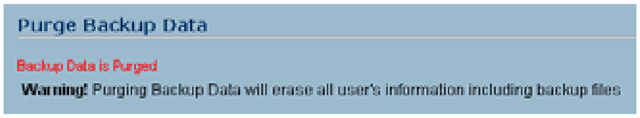
Warning! Purging Backup Data will erase all user's information including backup files

Step 3 Click **OK** in the **Warning** screen that displays.



Are you sure you want to purge backup data?

Step 4 A confirmation message will appear upon completion of data purge.



Backup Data is Purged

Warning! Purging Backup Data will erase all user's information including backup files

Recovery when RAID Fails

If you are using the SonicWALL CDP 3440i and 4440i appliances, your data will be protected by the additional failover protection of a RAID system in the event that a drive goes down.

SonicWALL CDP 3440i has RAID 1, which involves two disks, with data mirroring from one disk onto another.

SonicWALL CDP 4440i has RAID 5, which involves three or more disks, with block-level data striping with distributed parity across the drive set.

This section contains the following subsections:

- "If One Disk Fails While Using the SonicWALL CDP 3440i Appliance" section on page 83
- "If Two Disks Fail While Using SonicWALL CDP 3440i" section on page 83
- "If One Disk Fails While Using SonicWALL CDP 4440i" section on page 83
- "If Two Disks Fail While Using SonicWALL CDP 4440i" section on page 83

If One Disk Fails While Using the SonicWALL CDP 3440i Appliance

If one disk fails while using the SonicWALL CDP 3440i:

- Contact SonicWALL Technical Support. Though your system will remain operational, it is necessary to correct the disk failure.

If Two Disks Fail While Using SonicWALL CDP 3440i

If two disks fail while using the SonicWALL CDP 3440i:

- Contact SonicWALL Technical Support. Your system will no longer be operational.

If One Disk Fails While Using SonicWALL CDP 4440i

If one disk fails while using the SonicWALL CDP 4440i:

- Contact SonicWALL Technical Support. Though your system will remain operational, it is necessary to correct the disk failure.

If Two Disks Fail While Using SonicWALL CDP 4440i

If two disks fail while using the SonicWALL CDP 4440i:

- Contact SonicWALL Technical Support. Your system will no longer be operational.

Configuring SonicWALL CDP Agent and Enterprise Manager to Work with Software Firewalls

Most software firewalls detect SonicWALL CDP Enterprise Manager and Agent Tool during installation and prompt for permission to open the appropriate ports. If you have a firewall installed you will need to configure it before using the SonicWALL CDP Agent or SonicWALL CDP Enterprise Manager.

This section contains the following subsections:

- "Configuring SonicWALL CDP Agent and Enterprise Manager to Work with a Windows XP SP2 Firewall" section on page 85
- "Configuring SonicWALL CDP Agent and Enterprise Manager to Work with a McAfee Personal Firewall" section on page 85
- "Configuring SonicWALL CDP Agent and Enterprise Manager to Work with a Norton Personal Firewall" section on page 87
- "Configuring SonicWALL CDP Agent and Enterprise Manager to Work with a Zone Alarm Firewall" section on page 90

Configuring SonicWALL CDP Agent and Enterprise Manager to Work with a Windows XP SP2 Firewall

Windows XP SP2 installs and activates a firewall by default. If you applied Service Pack 2 after installing the SonicWALL CDP Agent software, you may need to add **CDPAgent.exe** and **SonicWALL.Agent.exe** to Windows XP Internet Connection Firewall settings before the backup service can start again. Microsoft has excellent instructions on how to do this here:

http://www.microsoft.com/windowsxp/using/security/internet/sp2_wfexceptions.mspx

To enable or disable Windows XP Internet Connection Firewall, perform the following steps:

Step 1 Open the Network Connections control panel in **Start > Control Panel**.

Step 2 In the left window under **Network Tasks,** click the LAN or high-speed Internet connection that you are using.

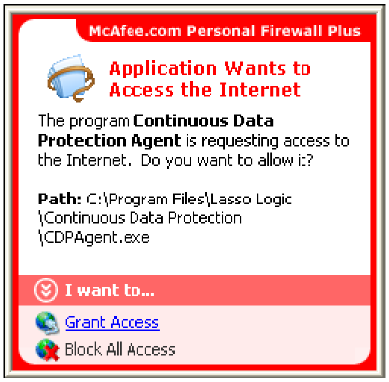
Step 3 Click **Change Windows Firewall Settings**. In this menu you can simply select **Off**, then click **OK**.

Configuring SonicWALL CDP Agent and Enterprise Manager to Work with a McAfee Personal Firewall

Note If you are using Windows XP SP2, make sure you have configured XP's firewall first, using the instructions above.

If you are using a McAfee firewall product you will likely see warnings when starting the SonicWALL CDP Agent such as the following. In both cases, select **Grant Access**. Figure 24 provides the McAfee Firewall configuration.

Figure 24 Configuring McAfee Firewall



McAfee.com Personal Firewall Plus

Application Wants to Access the Internet

The program **Continuous Data Protection Agent** is requesting access to the Internet. Do you want to allow it?

Path: C:\Program Files\Lasso Logic \Continuous Data Protection \CDPAgent.exe

To manually add CDPAgent.exe and SonicWALL.Agent.exe to the Allowed Applications list, perform the following steps:

Step 1 Open **McAfee Personal Firewall**.

Step 2 Select **Internet Applications List**.

Step 3 Choose **New Allowed Application**.

Step 4 Navigate to **Program Files** > **SonicWALL** > **Continuous Data Protection** > **SonicWALL.Agent.exe**.

Step 5 Click **Open** to select the **SonicWALL.Agent.exe** file.

Step 6 Choose **New Allowed Application**.

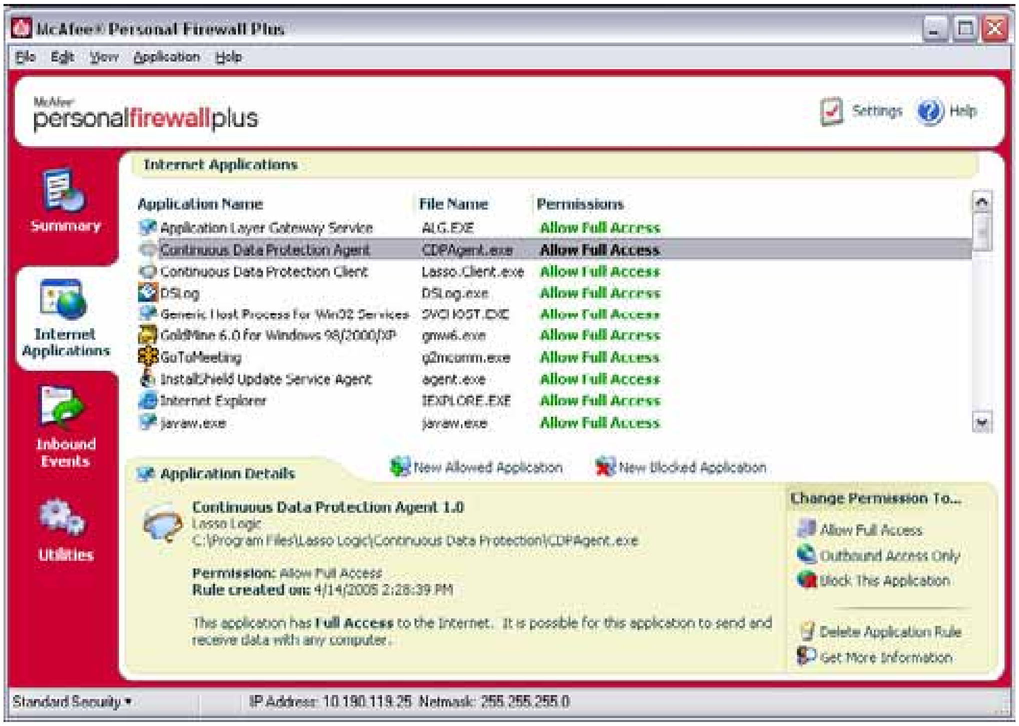
Step 7 Navigate to **Program Files** > **SonicWALL** > **Continuous Data Protection** > **CDPAgent.exe**.

Step 8 Click **Open** to select the **CDPAgent.exe** file.

Step 9 Close McAfee Personal Firewall.

When properly configured, McAfee program control should look like Internet Applications view provided in Figure 25.

Figure 25 McAfee Program Control



Internet Applications

Application Name	File Name	Permissions
Application Layer Gateway Service	ALG.EXE	Allow Full Access
Continuous Data Protection Agent	CDPAgent.exe	Allow Full Access
Continuous Data Protection Client	Lasso.Client.exe	Allow Full Access
DSLog	DSLog.exe	Allow Full Access
Generic Host Process for Win32 Services	SVCHOST.EXE	Allow Full Access
GoldMine 6.0 for Windows 98/2000/XP	gmw6.exe	Allow Full Access
GoToMeeting	g2mcomm.exe	Allow Full Access
InstallShield Update Service Agent	agent.exe	Allow Full Access
Internet Explorer	IEXPLORE.EXE	Allow Full Access
javaw.exe	javaw.exe	Allow Full Access

Application Details

Continuous Data Protection Agent 1.0
Lasso Logic
C:\Program Files\Lasso Logic\Continuous Data Protection\CDPAgent.exe

Permission: Allow Full Access
Rule created on: 4/14/2005 2:28:39 PM

This application has **Full Access** to the Internet. It is possible for this application to send and receive data with any computer.

Change Permission To...
Allow Full Access
Outbound Access Only
Block This Application
Delete Application Rule
Get More Information

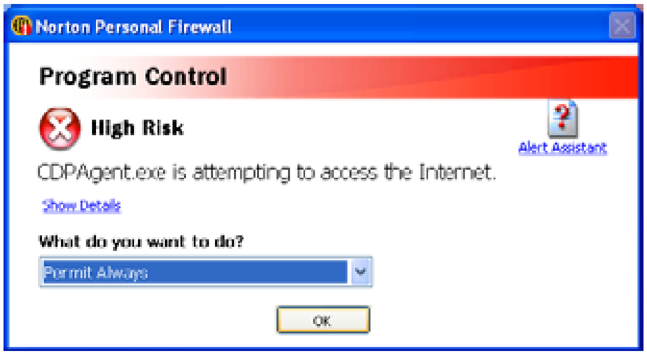
IP Address: 10.190.119.25 Netmask: 255.255.255.0

Configuring SonicWALL CDP Agent and Enterprise Manager to Work with a Norton Personal Firewall

Note If you are using Windows XP SP2, make sure you have opened ports or disabled XP's firewall first, using the instructions above.

If you are using a Norton Internet Security and Norton Personal Firewall product you will likely see warnings when starting the agent such as illustrated in Figure 26. In both cases select **Permit Always**.

Figure 26 Norton Personal Firewall


Norton Personal Firewall

Program Control

High Risk

CDPAgent.exe is attempting to access the Internet.

What do you want to do?

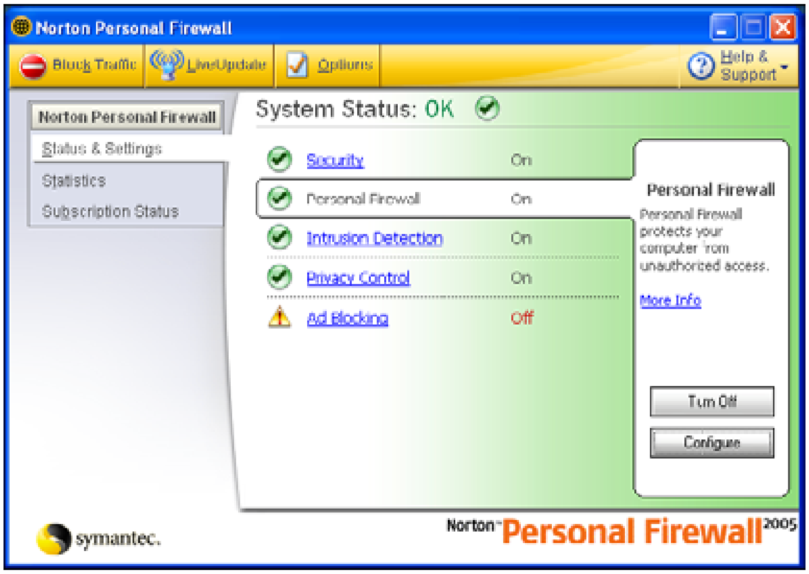
Permit Always

To manually configure Norton Internet Security and Norton Personal Firewall, perform the following steps:

Step 1 Open Norton Internet Security (a new window will appear).

Step 2 Double-click **Personal Firewall**, (or click once to select **Personal Firewall**, then click the **Configure** button to the right), as illustrated in Figure 27.

Figure 27 Norton Personal Firewall



System Status: OK

Security	On
Personal Firewall	On
Intrusion Detection	On
Privacy Control	On
Ad Blocking	Off

Personal Firewall

Personal Firewall protects your computer from unauthorized access.

Step 3 Click the **Program Control** tab.

Step 4 Click the **Add** button.

Step 5 Navigate to **Program Files** > **SonicWALL** > **Continuous Data Protection** > **SonicWALL.Agent.exe**.

Step 6 Click the **Open** button.

Step 7 The window should now display "**Internet Access Permit All**" next to **SonicWALL.Agent.exe**.

Step 8 Click the **Program Control** tab again.

Step 9 Click the **Add** button.

Step 10 Navigate to **Program Files** > **SonicWALL** > **Continuous Data Protection** > **CDPAgent.exe**.

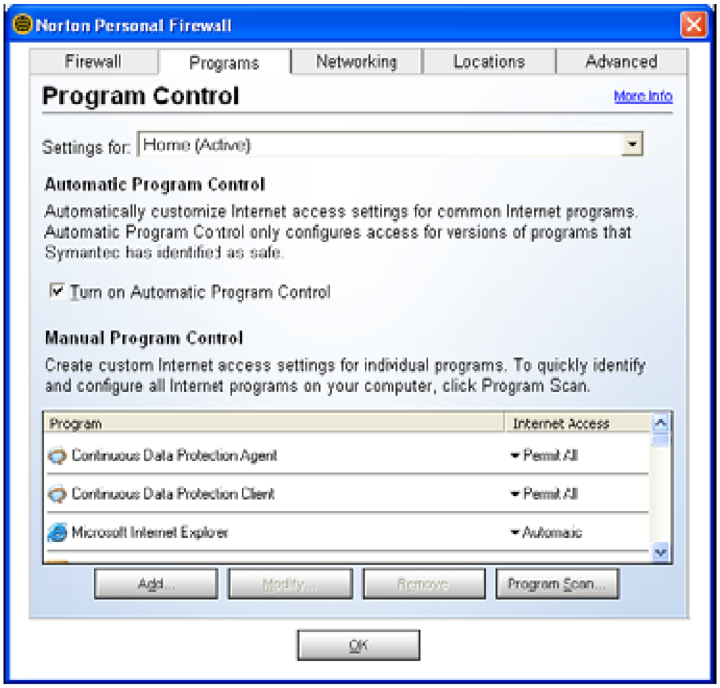
Step 11 Click the **Open** button.

Step 12 The window should now display "**Internet Access Permit All**" next to **CDPAgent.exe**.

Step 13 Click the **OK** button.

Figure 28 provides the Programs view within the Norton Personal Firewall program control.

Figure 28 Norton Personal Firewall: Program Control



Program Control

Settings for: Home (Active)

Automatic Program Control

Automatically customize Internet access settings for common Internet programs. Automatic Program Control only configures access for versions of programs that Symantec has identified as safe.

☑ Turn on Automatic Program Control

Manual Program Control

Create custom Internet access settings for individual programs. To quickly identify and configure all Internet programs on your computer, click Program Scan.

Program	Internet Access
Continuous Data Protection Agent	Permit All
Continuous Data Protection Client	Permit All
Microsoft Internet Explorer	Automatic

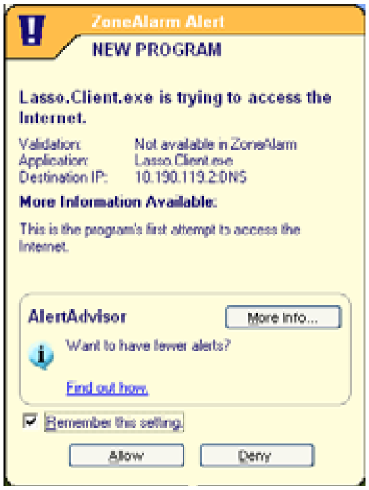
This adds **SonicWALL.Agent.exe** and **CDPAgent.exe**, which should enable you to backup your files. You may need to restart your computer for these changes to take effect.

For online support using Norton Internet Security or Norton Personal Firewall, visit the Symantec Web site: http://www.symantec.com/techsupp/.

Configuring SonicWALL CDP Agent and Enterprise Manager to Work with a Zone Alarm Firewall

If you have Zone Alarm installed you will likely see the following warnings immediately after installing the SonicWALL CDP Agent and attempting to use the CDP service. Figure 29 provides an example of the Zone Alarm Alert.

Figure 29 Zone Alarm Alert



Lasso.Client.exe is trying to access the Internet.

Validation: Not available in ZoneAlarm
Application: Lasso.Client.exe
Destination IP: 10.190.119.2:DNS

More Information Available:

This is the program's first attempt to access the Internet.

Want to have fewer alerts?

☑ Remember this setting.

Zone Alarm personal firewall must be configured to grant server rights to **SonicWALL.Agent.exe** and **CDPAgent.exe**. By default, Zone Alarm will block applications from connecting to other computers and acting as servers. If you have checked the "**Remember this setting**" box when receiving the initial warnings, then you will not receive additional ones.

To manually configure Zone Alarm, perform the following steps:

Step 1 Open **Zone Alarm** and select **Program Control**.

Step 2 Next, click the **Program Wizard** button to set the correct permissions for SonicWALL.Agent.exe.

Step 3 In the **Program Wizard** window, select the **Advanced** option to manually set server permissions for SonicWALL.Agent.exe then click the **Next** button to open the **Secure Programs** window. Click the **Add** button.

Step 4 Navigate to **Program Files** > **SonicWALL** > **Continuous Data Protection** > **SonicWALL.Agent.exe**. Click the **Open** button.

Step 5 In the **Secure Programs** window, set **SonicWALL.Agent.exe** with both **access** and **server** rights, then click the **Finish** button.

Step 6 Select **Program Control** again.

Step 7 Click the **Program Wizard** button to set the correct permissions for CDPAgent.exe.

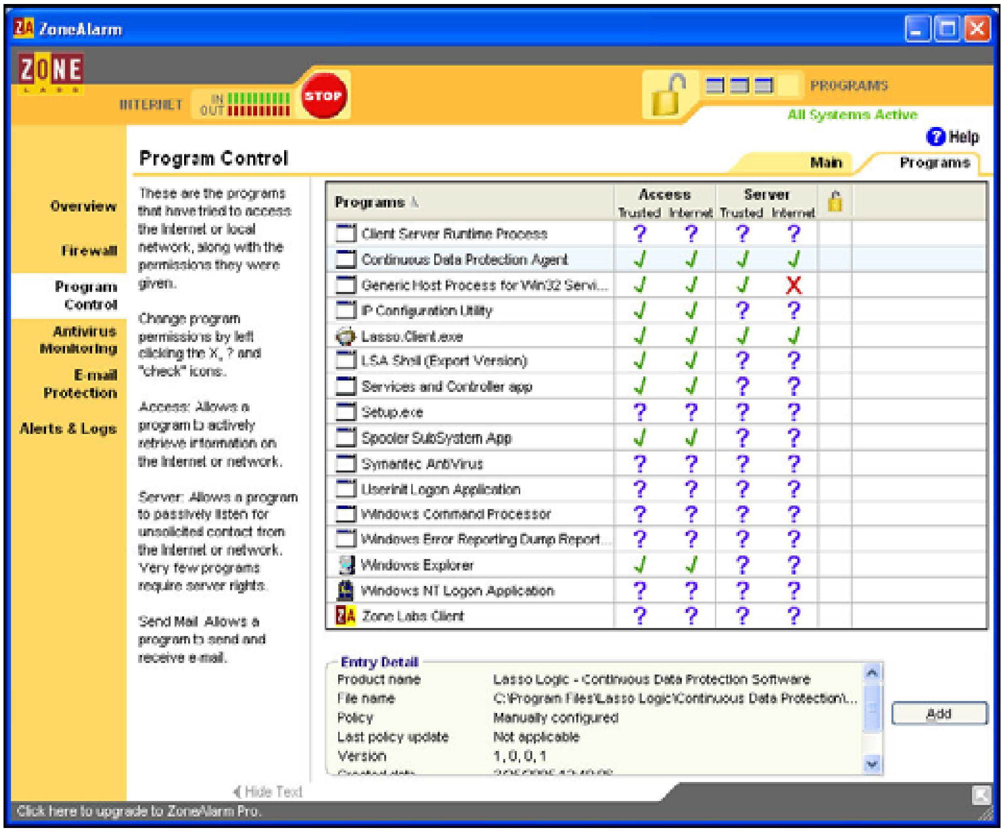
Step 8 In the **Program Wizard** window, select the **Advanced** option to manually set server permissions for CDPAgent.exe then click the **Next** button to open the **Secure Programs** window. Click the **Add** button.

Step 9 Navigate to **Program Files** > **SonicWALL** > **Continuous Data Protection** > **CDPAgent.exe**. Click the **Open** button.

Step 10 In the **Secure Programs** window, set **CDPAgent.exe** with both access and server rights, then click the **Finish** button.

When properly configured, ZoneAlarm program control should look like the ZoneAlarm Program Control displayed in Figure 30.

Figure 30 ZoneAlarm: Program Control



Program Control

These are the programs that have tried to access the Internet or local network, along with the permissions they were given.

Change program permissions by left clicking the X, ? and "check" icons.

Access: Allows a program to actively retrieve information on the Internet or network.

Server: Allows a program to passively listen for unsolicited contact from the Internet or network. Very few programs require server rights.

Send Mail: Allows a program to send and receive e-mail.

Programs	Access		Server	
	Trusted	Internet	Trusted	Internet
Client Server Runtime Process	?	?	?	?
Continuous Data Protection Agent	✓	✓	✓	✓
Generic Host Process for Win32 Servi...	✓	✓	✓	✗
IP Configuration Utility	✓	✓	?	?
Lasso.Client.exe	✓	✓	✓	✓
LSA Shell (Export Version)	✓	✓	?	?
Services and Controller app	✓	✓	?	?
Setup.exe	?	?	?	?
Spooler SubSystem App	✓	✓	?	?
Symantec AntiVirus	?	?	?	?
Userinit Logon Application	?	?	?	?
Windows Command Processor	?	?	?	?
Windows Error Reporting Dump Report...	?	?	?	?
Windows Explorer	✓	✓	?	?
Windows NT Logon Application	?	?	?	?
Zone Labs Client	?	?	?	?

Entry Detail

Product name	Lasso Logic - Continuous Data Protection Software
File name	C:\Program Files\Lasso Logic\Continuous Data Protection\...
Policy	Manually configured
Last policy update	Not applicable
Version	1, 0, 0, 1

This adds **SonicWALL.Agent.exe** and **CDPAgent.exe**, which enable you to backup your files. For online support using Zone Alarm, visit the Zone Labs Web site: http://www.zonelabs.com/support/.

Troubleshooting SonicWALL CDP

This section contains troubleshooting information for the SonicWALL CDP. This section contains the following subsections:

- "SonicWALL CDP Appliance Troubleshooting" section on page 92
- "SonicWALL CDP Software Troubleshooting" section on page 92
- "Backup and Recovery Troubleshooting" section on page 93

SonicWALL CDP Appliance Troubleshooting

This section contains troubleshooting that relates to the SonicWALL CDP appliance.

Symptom: Cannot connect to CDP Appliance

- Verify that your workstation/server has network level connectivity to the CDP appliance by attempting to ping the CDP appliance at its configured address.
- If you are on a separate subnet, you many enter the appliance IP address manually
  - Select **CDP Manual Connection**
  - Type in the CDP appliance IP address.
- Ensure that an agent firewall is not blocking the CDP Agent Tool from connecting to the SonicWall CDP appliance.
  - Enable firewall exceptions for Lasso.Client.exe, CDPAutoUpdate.exe and CDPAgent.exe.

SonicWALL CDP Software Troubleshooting

This section contains troubleshooting that relates to the SonicWALL CDP software.

Symptom: Agent will not update

- Updates to the agent and appliance are downloaded and installed automatically in a process that is transparent to the user.
  - If there is no new update available during a manual update, no update will be made.
- Verify the current version of your product by navigating to the to the System tab in the SonicWALL CDP Agent Tool.

Symptom: Cannot open Enterprise Manager.

- Verify that CDP Agent Tool is not running.
  - The Enterprise Manager and the Agent Tool cannot be open simultaneously on the same PC.

Backup and Recovery Troubleshooting

This section contains troubleshooting that relates to the SonicWALL CDP backup and recovery process.

Symptom: Initial backup seems slow

- Because SonicWall CDP performs file compression and intelligent file management, the initial backup of files and folders may take some time depending on folder volume and size.
  - For example, if you are trying to backup 100,000 files averaging 200 KB, it could take up to 24 hours to complete.

Symptom: Files do not appear to be backing up

- Verify that SonicWALL CDP has access to the folders that you are trying to backup.
  - Verify that SonicWALL CDP Agent Tool is started in the services tab.
  - By default, SonicWall CDP uses the System account to access to the folders that are selected for backup.
  - The System account will need to be added to the security settings of any directory that you want to backup.

Technical Frequently Asked Questions

This section contains a list of technical FAQs documented by SonicWALL technical support engineers to address common deployment questions. Table 15 lists the technical FAQs in this section.

Table 15 Technical FAQs

FAQ
"Q: How do I backup mapped drives?" section on page 94
"Q: How do I back up SQL database in mixed mode?" section on page 94

Q: How do I backup mapped drives?

A: SonicWall CDP cannot backup mapped drives. Agent Tool software must be installed on the computer where the data for backup resides. If you want to backup data stored on a server that has a mapped drive, you will still need to have the CDP Agent Tool software installed and configured on the server.

Q: How do I back up SQL database in mixed mode?

A: To back up the SQL data base in mixed mode, the SQL server must be configured for mixed mode authentication. In addition, the SQL account must be part of SQL system administrators, and must have DBO access to the master database and all other application databases that are marked for backup. These settings can be configured using SQL Enterprise Manager.

To configure the SQL server for mixed mode authentication, perform the following steps:

Step 1 Launch **SQL Server Enterprise Manager**.

Step 2 Right click on the SQL server instance and choose **Properties**. This will launch the SQL server properties screen.

Step 3 Click the **Security** tab.

Step 4 Select SQL Server and Windows

To set the SQL account as part of SQL system administrators, perform the following steps:

Step 1 Expand **Security** tab under SQL server instance.

Step 2 Click on **Logins**.

Step 3 Highlight the SQL account on the right side of the screen and double click.

Step 4 Click the **Server Roles** tab.

Step 5 Select **System Administrators**.

To verify that the SQL account has DBO access to master database and all other application databases that are marked for backup, perform the following steps:

Step 1 Expand security tab under SQL server instance.

Step 2 Click on **Logins**.

Step 3 Highlight the SQL account on the right side of the screen and double click.

Step 4 Click the **Database** tab.

Step 5 Verify that the account has **db_owner** selected for all databases intended for backup.

Glossary

Active Directory: A centralized directory service system produced by Microsoft that automates network management of user data, security and resources, and enables interoperation with other directories. Active Directory is designed especially for distributed networking environments.

Advanced Encryption Standard (AES): A recent U.S. government encryption standard designed as the replacement for the aging Data Encryption Standard (DES).

agent: A server, laptop or PC to be backed up using SonicWALL CDP.

Agent Service: A SonicWALL CDP software installed automatically on agents with Agent Tool software. Agent Service communicates with the SonicWALL CDP appliance.

Agent Tool: A SonicWALL CDP software installed on agents. Agent Tool is a user interface for users of SonicWALL CDP agents that allows data backup and recovery configuration, as administered by the SonicWALL CDP Enterprise Manager.

Domain Name System/Service (DNS): An Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they're easier to remember. The internet however, is really based on IP addresses. Every time you use a domain, therefore, a DNS service must translate the name into the corresponding IP addresses.

Dynamic Host Configuration Protocol (DHCP): A Protocol for assigning dynamic IP addresses to devices on a network. With dynamic addressing, a device can have a different IP address every time it connects to the network. In some systems, the device's IP address can even change while it is still connected. DHCP also supports a mix of static and dynamic IP addresses.

Dynamic addressing simplifies network administration because the software keeps track of IP addresses rather than requiring an administrator to manage the task. This means that a new computer can be added to a network without the hassle of manually assigning it a unique IP address. Many Internet Service Providers (ISPs) use dynamic IP addressing for dial-up users.

Enterprise Manager: A SonicWALL CDP software installed on the SonicWALL CDP administrator's computer.

File Allocation Table (FAT): A table that the operating system uses to locate files on a disk. Due to fragmentation a file may be divided into many sections that are scattered around the disk. The FAT keeps track of all the pieces.

hardware failover: The capability of a mission-critical device, such as a SonicWALL security gateway, to automatically failover to a backup device in the event of a hardware failure on the primary unit.

Hyper Text Transfer Protocol (HTTP): The underlying protocol used by the World Wide Web. HTTP defines how messages are formatted and transmitted, and what actions Web servers and browsers should take in response to various commands.

IP address (Internet Protocol): An Identifier for a computer device on a TCP/IP network. Networks using the TCP/IP protocol route message based on the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address.

Local Area Network (LAN): A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance using telephone lines and radio waves. A systems of LANs connected in this way is called a wide-area network (WAN).

Master Boot Record (MBR): A small program that is executed when a computer boots up. Typically, the MBR resides on the first sector of the hard disk. The program begins the boot process by looking up the partition table to determine which partition to use for booting. It then transfers program control to the boot sector of that partition, which continues the boot process.

policy: A set of rules administered from the SonicWALL CDP Enterprise Manager. Policies are assigned directly to agents and define backup rights, quota, and other SonicWALL CDP capabilities.

quota: The maximum size of data a SonicWALL CDP agent can back up to the Enterprise Manager.

Redundant Array of Independent Disks (RAID): A failover method used to protect against data loss in the event of disk failure.

static IP address: An IP address that is unique and unchanging. Unlike dynamic IP addresses, a static IP address remains the same when you make a new Internet connection.

User Datagram Protocol (UDP): A connectionless protocol that sends and receive datagrams over an internet protocol (IP) network.

Universal Serial Bus (USB): An external bus standard that supports data transfer rates of 12Mbps. A single USB port can be used to connect up to 127 peripheral devices, such as mice, modems, and keyboard. USB also supports Plug-and-Play installation and hot plugging.

Related Documents

This section contains related documentation specific to SonicWALL CDP solutions.

User Guides

This section contains URLs to online documentation for SonicWALL user's guides.

- *SonicWALL CDP Agent Tool 2.1 User's Guide*
  http://www.sonicwall.com/support/pdfs/SonicWALL_CDP_Agent_Tool_2.1_Users_Guide.pdf
- *SonicWALL CDP 1440i/2440i Getting Started Guide*
  http://www.sonicwall.com/support/pdfs/SonicWALL_CDP_1440i_2440i_Getting_Started_Guide.pdf
- *SonicWALL CDP 3440i/4440i Getting Started Guide*
  http://www.sonicwall.com/support/pdfs/SonicWALL_CDP_3440i_4440i_Getting_Started_Guide.pdf

TechNotes

This section contains URLs to online documentation for SonicWALL TechNote application notes.

- *SonicWALL CDP*
  TBD
- *SonicWALL CDP*
  TBD

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Index

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