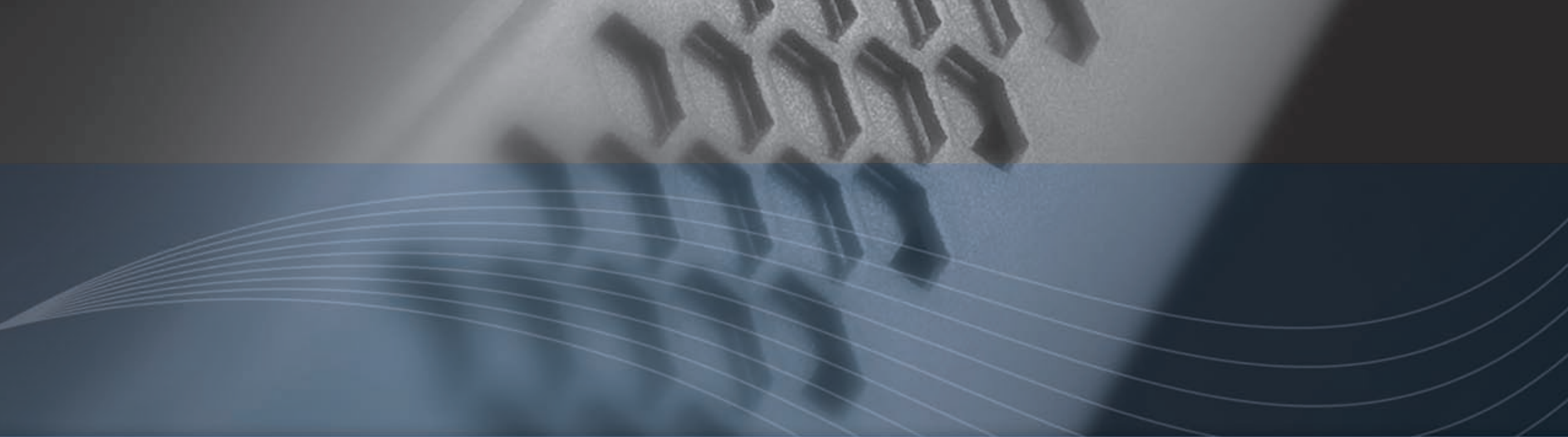

UMA EM5000 Getting Started Guide

SonicWALL® E-CLASS

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SonicWALL UMA EM5000 Getting Started Guide

This *Getting Started Guide* contains installation procedures and configuration guidelines for deploying the SonicWALL Universal Management Appliance EM5000 (SonicWALL UMA EM5000) in your network. The SonicWALL UMA EM5000 runs SonicWALL Global Management System, which is a Web-based application that can configure, manage, and monitor the status of thousands of SonicWALL Internet security appliances and non-SonicWALL appliances from a central location.

The SonicWALL UMA EM5000 provides these benefits:

- Centralized security and network management
- Sophisticated VPN deployment and configuration
- Active device monitoring and alerts
- Intelligent reporting and activity visualization
- Centralized logging and offline management

Note: *For complete documentation, refer to the* ***SonicWALL GMS Administrator's Guide****. This and other documentation are available at: http://www.sonicwall.com/us/Support.html. For the latest SonicWALL UMA EM5000 firmware version downloads and documentation, login to the MySonicWALL website at http://www.mysonicwall.com.*

Document Contents

This document contains the following sections:

1 Before You Begin - page 1

2 Connecting and Initializing the UMA EM5000 - page 9

3 Registering Your Appliance - page 19

4 Configuring the Role of Your Appliance - page 23

5 Using the SonicWALL GMS Management Interface - page 41

6 Managing SonicWALL Appliances - page 49

7 Reporting - page 57

8 Monitoring - page 63

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10 Support and Training Options - page 77

11 Product Safety and Regulatory Information - page 85

Before You Begin 1

In this Section:

This section provides pre-configuration information before setting up your SonicWALL UMA EM5000.

- Checking Package Contents - page 2
- Overview of the SonicWALL UMA EM5000 - page 3
- System Requirements - page 5
- Recording Configuration Information - page 8

Checking Package Contents

Before setting up your SonicWALL UMA EM5000, verify that your package contains the following parts:

1. SonicWALL UMA EM5000
2. Getting Started Guide
3. Crossover Cable
4. Ethernet Cable
5. Standard Power Cord*
6. Front Bezel Keys
7. Rack Mounting Kit (not pictured)

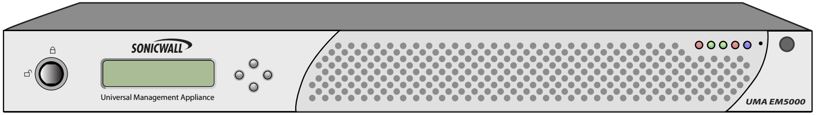
Any Items Missing?

If any items are missing from your package,
please **contact SonicWALL support**.

A listing of the most current support documents are available online at: http://www.sonicwall.com/us/Support.html

*The included power cord is intended for use in North America only.
For European Union (EU) customers, a power cord is not included.

1



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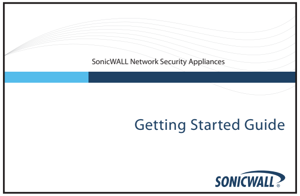

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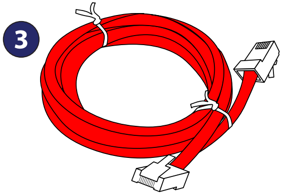

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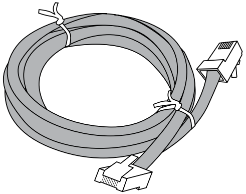

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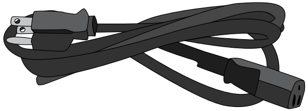

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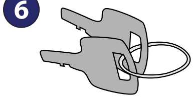


Overview of the SonicWALL UMA EM5000

Front Panel

D-Pad Controls

Provides up, left, right, and down buttons to navigate the LCD menu:

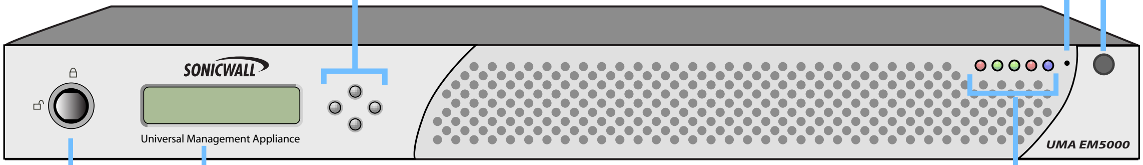
Up/Down: Navigate lists
Left: Cancel changes / return to previous
Right: Accept changes

Power Switch

Allows the SonicWALL appliance to be powered on or off

Reset Button

Reboots the SonicWALL appliance



Front Bezel Release

Allows access to drive bays under the front bezel for addition/replacement of hard disks (requires use of included key)

LCD Display

Provides access to basic system information, settings, and features using the D-Pad controls

LED Indicators

Provides the following system status indications:

ALARM: Thermal or other alert condition*
ETH0/ETH1: Ethernet link (solid), activity (blinking)
HDD: Hard disk activity (blinking)
PWR: The appliance is powered (off/on)

*For a full list of alerts, refer to the SonicWALL LED Alerts technote document.

- Pressing the reset button for several seconds will result in a reboot of the SonicWALL UMA EM5000.
- 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.

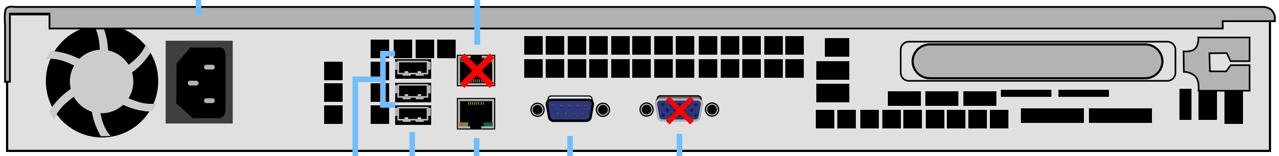
Rear Panel

Ethernet Port 1 ✕

Not authorized for use

Power Supply

Provides power connection using the supplied power cables



USB Ports (2)

For future use

eSATA Port (1)

For future use

Ethernet Port 0 (Management/LAN)

Provides configurable Gigabit-capable Ethernet connection to your local network

✕ VGA Port

Not authorized for use unless explicitly instructed by a SonicWALL technical support representative

Serial Port

Provides access to a command line interface (CLI) for SonicWALL technical support use

System Requirements

The SonicWALL UMA EM5000 comes with a default license to manage 10 nodes. You can purchase additional licenses on MySonicWALL. For more information on licensing additional nodes, visit:
http://www.sonicwall.com/us/Products_Solutions.html

Database Requirements

The SonicWALL UMA EM5000 comes installed with a built-in MySQL 5.0 database and supports the following databases on external systems:

- On external SonicWALL UMA EM5000 appliances:
  - MySQL 5.0
- On Windows Server 2008, Windows Server 2003 (SP1), or Windows Server 2000 (SP4):
  - Microsoft SQL Server 2005 (SP2)
  - Microsoft SQL Server 2000 (SP4)
  - MySQL 5.0 as bundled with SonicWALL Universal Management Suite

Java Requirements

Java Plug-in version 1.5 or higher is required on client machines when accessing the SonicWALL UMA EM5000 or the SonicWALL GMS application. SonicWALL Universal Management Suite (UMS) automatically downloads the Java Plug-in 1.5. SonicWALL UMS services use JRE 1.5.0_06. For Microsoft SQL Server installations, SonicWALL UMS uses Tomcat 5.5.26.

Browser Requirements

The following browser requirements apply to client machines when accessing the SonicWALL UMA EM5000 or the SonicWALL GMS application:

- Microsoft Internet Explorer 6.0 or higher
- Mozilla Firefox 2.0 or higher
- Pop-up blocker disabled

The SonicWALL UMA EM5000 supports SSL 3.0/TLS 1.0 for HTTPS management of SonicWALL appliances, and for direct login to the managed unit from the SonicWALL UMA EM5000. For enhanced security across a managed network in installations that must comply with stringent regulatory compliance and account management controls as found in such standards as PCI, SOX, or HIPAA, the following browsers have SSL 3.0/TLS 1.0 as standard encryption protocols:

- Microsoft Internet Explorer 7.0 or higher
- Mozilla Firefox 2.0 or higher

You can set other browsers to use these protocols in the **Tools** > **Options** page on the **Advanced** or **Encryption** tab.

Note: *On Windows Server 2008, Internet Explorer 7 requires that the URL for the SonicWALL UMA EM5000 is added to your trusted sites before it will display the appliance login page. The **Trusted Sites** list is available in **Tools** > **Internet Options** > **Security**.*

SonicWALL Platform and Firmware Support

SonicWALL Platforms	SonicWALL Firmware Version
Firewall / UTM / VPN	
TZ Series NSA Series PRO Series	SonicOS Enhanced 3.2 or newer SonicOS Standard 3.1or newer
SonicWALL CSM Series	SonicOS CF 2.0 or newer
Secure Remote Access	
SonicWALL SMB SSL-VPN Series	SonicOS SSL-VPN 2.0 or newer
SonicWALL Aventail Series	Aventail 9.0 or newer
Backup and Recovery	
SonicWALL CDP Series	SonicWALL CDP 2.3 or newer

Legacy or older-generation models are not supported, such as, SonicWALL XPRS/XPRS2, SonicWALL SOHO2, SonicWALL Tele2, and SonicWALL PRO-VX.

For the most recent platform support and firmware version information, refer to the latest *SonicWALL UMA EM5000 Getting Started Guide* available at: http://www.sonicwall.com/us/Support.html

Non-SonicWALL Appliance Support

The SonicWALL UMA EM5000 provides monitoring support for non-SonicWALL TCP/IP and SNMP-enabled devices and applications.

Network Requirements

To complete the SonicWALL UMA EM5000 deployment process, the following network requirements must be met:

- Access to the Internet
- A static IP address
- Network connection must be able to accommodate 1 KB/s for each device under management. For example, if the SonicWALL UMA EM5000 is monitoring 100 SonicWALL appliances, the connection must support at least 100 KB/s.

Depending on the configuration of SonicWALL log settings and the amount of traffic handled by each device, the network traffic can vary dramatically. The 1KB/s for each device is a general recommendation. Your installation requirements may vary.

GMS Gateway Recommendations

A GMS gateway is a SonicWALL UTM appliance that allows for secure communication between the SonicWALL UMA EM5000 and managed appliance(s) using VPN tunnels. A GMS gateway is not required in all deployment scenarios, as described in this section.

When deployed, the GMS gateway must be a SonicWALL VPN-based network security appliance running SonicOS Enhanced firmware or another VPN device that is interoperable with SonicWALL VPN. SonicWALL strongly recommends that the GMS gateway be, at minimum, a SonicWALL NSA 2400 network security appliance with SonicOS Enhanced 5.1 or higher firmware.The GMS gateway provides a VPN management tunnel for each managed appliance. The number of management tunnels depends on the number of VPNs supported by the GMS gateway appliance and may be a limiting factor.

There are three SonicWALL appliance management methods with varying GMS gateway requirements. When using HTTPS as the management method, it is optional to have a GMS gateway between each SonicWALL UMA EM5000 agent server and the managed SonicWALL appliance(s). If you select Existing VPN tunnel as the management method, a gateway is optional. If you select Management VPN tunnel, you must have a GMS gateway between the SonicWALL UMA EM5000 agent appliance and the managed SonicWALL appliance(s) to allow each SonicWALL UMA EM5000 agent to securely communicate with its managed appliance(s). The following list provides more detail on SonicWALL appliance management methods and gateway requirements:

- **Management VPN tunnel –** A GMS gateway is required. Each SonicWALL UMA EM5000 agent must have a dedicated gateway. The security association (SA) for this type of VPN tunnel is created when the appliance is configured for SonicWALL GMS management using the Management Tunnel method.
- The SonicWALL UMA EM5000 automatically creates the SA in the gateway. For this configuration, the gateway must be a SonicWALL VPN-based appliance. The gateway can be configured in NAT-Enabled or transparent mode.
- **Existing VPN tunnel –** A GMS gateway is optional. The SonicWALL UMA EM5000 can use VPN tunnels that already exist in the network to communicate with the managed appliance(s). The GMS gateway can be a SonicWALL VPN-based appliance or another VPN device that is interoperable with SonicWALL VPN.
- **HTTPS –** A GMS gateway is optional. The SonicWALL UMA EM5000 can use HTTPS management instead of a VPN tunnel to communicate with the managed appliance(s).

Note: *A management VPN tunnel is only supported for SonicWALL UTM appliances, but is not supported for SonicWALL CDP or SonicWALL SSL-VPN appliances.*

Recording Configuration Information

Before deploying the SonicWALL UMA EM5000, record the following configuration information for your reference.

SMTP Server Address: ______________________	The IP address or host name of your Simple Mail Transfer Protocol (SMTP) server. For example, mail.emailprovider.com.
HTTP Web Server Port: ______________________	The number of your Web server port if customized. The default port is 80.
HTTPS Web Server Port: ______________________	The number of your secure (SSL) Web server port if customized. The default port is 443.
UMA EM5000 Administrator Email: ______________	The email address of a SonicWALL UMA EM5000 administrator who will receive email notifications from the SonicWALL UMA EM5000.
Sender Email Address: ______________________	The email address from which the email notifications will be sent by the SonicWALL UMA EM5000.
GMS Gateway IP: ______________________	The IP address of the GMS gateway between the SonicWALL UMA EM5000 agent and the network. This optional field is only applicable if you have a GMS gateway.
GMS Gateway Password: ______________________	The password for the GMS gateway. This optional field is only applicable if you have a GMS gateway between the SonicWALL UMA EM5000 and the network.
Database Vendor: ______________________	Your database vendor if you are using a SQL Server database.
Database Host IP: ______________________	The IP address of the database host. This is not required when using the bundled MySQL database on this appliance.
Database User:______________________	The MySQL user name for the database administrator. This is not required when using the bundled MySQL database on this appliance.
Database Password:______________________	The MySQL password for the database administrator. This is not required when using the bundled MySQL database on this appliance.

Connecting and Initializing the UMA EM5000 2

In this Section:

This section provides instructions for powering on your SonicWALL UMA EM5000, logging into the appliance management interface, running the Host Configuration Tool, and then connecting the appliance to your local network.

- Powering On Your Appliance - page 10
- Restarting Your Appliance - page 10
- Powering Off Your Appliance - page 10
- Logging into the Appliance Management Interface - page 10
- Using the Host Configuration Tool - page 12
- Connecting the SonicWALL UMA EM5000 to Your Network - page 15
- Configuring a Static IP Address on Your Management Computer - page 17

Powering On Your Appliance

Perform the following steps to turn on your SonicWALL UMA EM5000 appliance:

1. Plug the supplied power cable into the back of the SonicWALL UMA EM5000.
2. Plug the other end of the power cable into an AC socket. The SonicWALL UMA EM5000 automatically powers on and begins the initial boot process.
   The boot process may take several minutes to complete when powering on the SonicWALL UMA EM5000 for the first time.

Restarting Your Appliance

Perform the following steps to restart your SonicWALL UMA EM5000 appliance from the appliance management interface:

1. Navigate to the **System > Restart** page.
2. Click the **Restart** button.
3. In the confirmation dialog box, click **OK**.
   The system will take approximately 3 minutes to restart.

To restart your appliance by using the D-Pad controls on the front panel, see Using the Restart Option - page 76.

Powering Off Your Appliance

To power off your SonicWALL UMA EM5000 appliance, press and then *quickly* release the power button on the upper-right corner of the appliance front bezel.

Tip: *Do **not** hold down the power button to shutdown.*

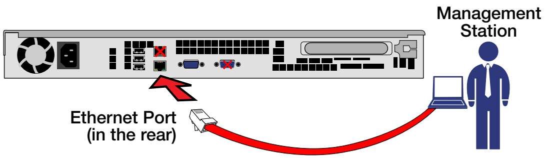
To power off your appliance by using the D-Pad controls on the front panel, see Using the Shutdown Option - page 76.

Logging into the Appliance Management Interface

To connect a management computer to your SonicWALL UMA EM5000 and log in to the appliance management interface for the first time, perform the following steps:

1. Using the supplied cross-over cable and the computer you are using to administer the SonicWALL UMA EM5000, connect the LAN port of the computer to the Ethernet port (eth0) on the back of your SonicWALL UMA EM5000.

2. Set your management computer to have a static IP address on the 192.168.168.0/24 subnet, such as **192.168.168.50**. For help with setting up a static IP address on your computer, refer to Configuring a Static IP Address on Your Management Computer - page 17.



3. Open a Web browser on your management computer.
4. Enter **http://192.168.168.169/appliance/** (the default IP address of the SonicWALL UMA EM5000) in the **Location** or **Address** bar. The SonicWALL UMA EM5000 appliance management login screen displays.

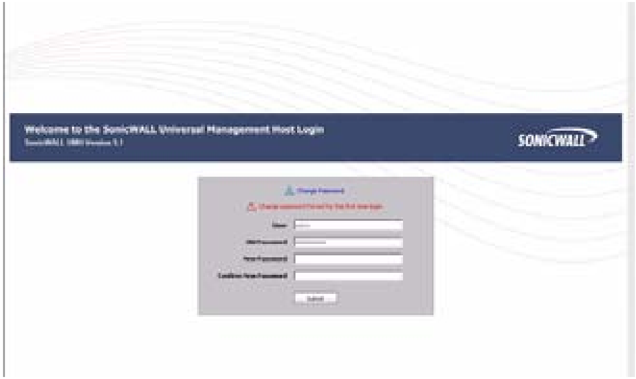
Note: ***One or more*** *security warnings may display while connecting to the appliance management interface. Choose to accept the certificates in order to log in to the SonicWALL UMA EM5000.*

5. Log in to the appliance management interface using the default credentials:
   - User name – **admin**
   - Password – **password**

6. The first time you log in to the appliance, you must change the password. The login page re-displays with the default login credentials prepopulated. Enter a new password for the administrator account in the **New Password** field, and enter it again in the **Confirm New Password** field.

   Click **Submit**.

Note: *The new password must be at least 7 characters.*



Welcome to the SonicWALL Universal Management Host Login

[illegible]

Change Password

[illegible]

Name:

Old Password:

New Password:

Confirm New Password:

The Host Configuration Tool wizard starts automatically. See Using the Host Configuration Tool - page 12.

Using the Host Configuration Tool

The Host Configuration Tool is a wizard that takes you through several basic steps to get your SonicWALL UMA EM5000 configured for your network.

The wizard starts automatically after you log in for the first time and change the admin password. You can cancel the wizard at this time, which leaves the default configuration on the appliance and prevents the wizard from automatically starting again.

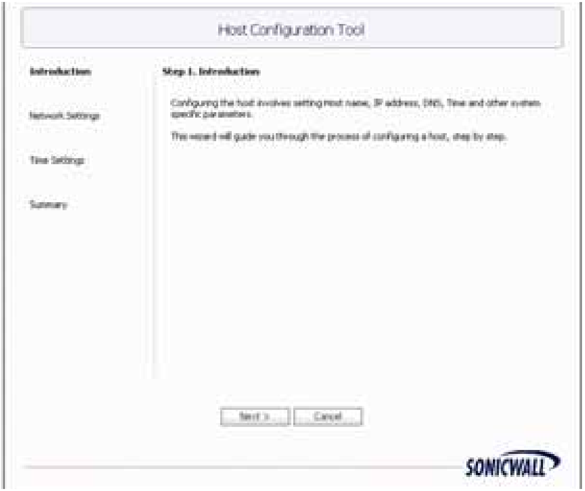
Note: *If you log out of the appliance management interface without actually cancelling the wizard, it will start automatically on your next login.*

You can manually start the wizard at any time by clicking the **Wizards** button at the top-right corner of the page.

To use the Host Configuration Tool, perform the following steps:

1. If the Host Configuration Tool has started automatically, skip to step 2. If you are starting the Host Configuration Tool manually, click the **Wizards** button in the top right corner.

2. In the Introduction screen, click **Next**.

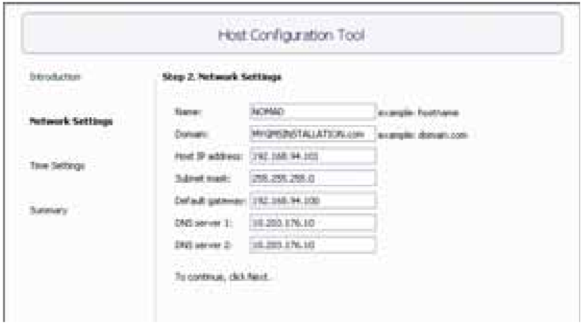


Step 1. Introduction

Configuring the host involves setting Host name, IP address, DNS, Time and other system specific parameters.

This wizard will guide you through the process of configuring a host, step by step.

3. In the Network Settings screen, configure the network settings for the SonicWALL UMA EM5000, and then click **Next**. Enter network settings values for the following fields:
   - **Hostname** – A descriptive name for this appliance
   - **Domain** – In the form of “sonicwall.com”; this domain is not used for authentication
   - **IP Address** – The static IP address for the eth0 interface of the appliance
   - **Subnet Mask** – In the form of “255.255.255.0”
   - **Default Gateway** – The IP address of the network gateway – this is the default gateway and is required for networking purposes. This is not the GMS Gateway explained earlier in this guide.
   - **DNS Server 1** – The IP address of the primary DNS server
   - **DNS Server 2** (Optional) – The IP address of the secondary DNS server



Step 2. Network Settings

Name: NOMAD example: hostname

Domain: MYGMSINSTALLATION.com example: domain.com

Host IP address: 192.168.94.101

Subnet mask: 255.255.255.0

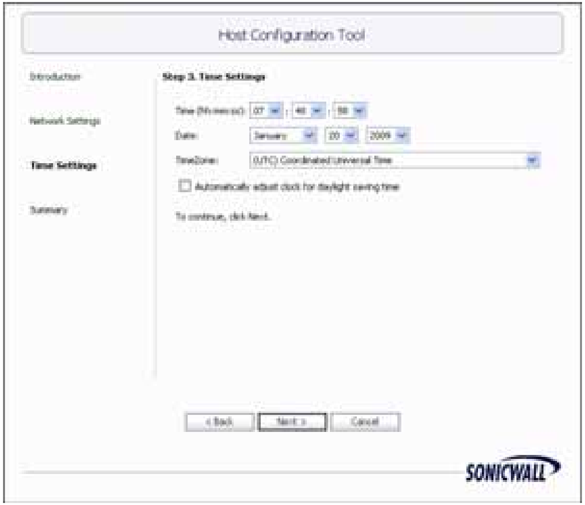
Default gateway: 192.168.94.100

DNS server 1: 10.200.176.10

DNS server 2: 10.205.176.10

To continue, click Next.

4. In the Time Settings screen, select values for the following system settings on the appliance, and click **Next**:
   - **Time (hh:mm:ss)** – Hours, minutes, and seconds of current time
   - **Date** – Month, day, and year of current date
   - **TimeZone** – Select from the drop-down list
   - **Automatically adjust clock for daylight saving time** – Select this checkbox for automatic adjustment between standard time and daylight savings time



Step 3. Time Settings

Time (hh:mm:ss): 07 : 46 : 58

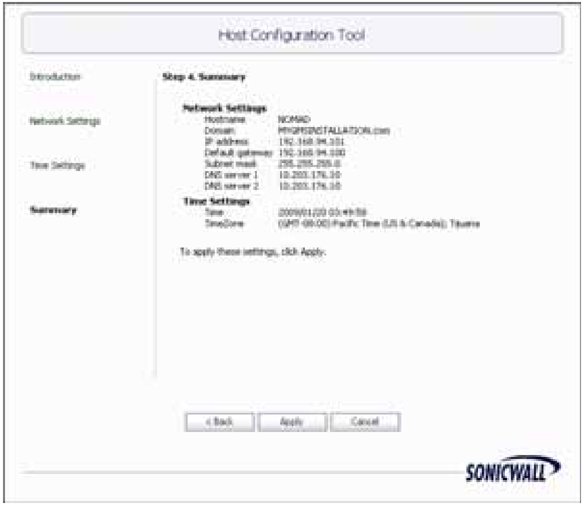
Date: January 20 2009

TimeZone: (UTC) Coordinated Universal Time

□ Automatically adjust clock for daylight saving time

To continue, click Next.

5. In the Summary screen, verify the settings. Click **Back** to make changes on a previous screen, or click **Apply** to accept the settings.



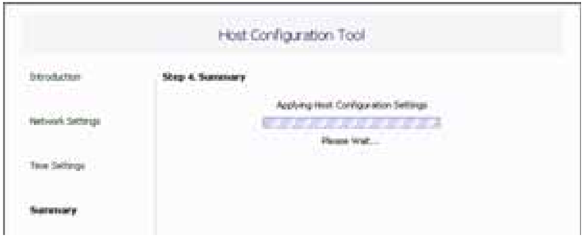
Step 4. Summary

Network Settings
Hostname NOMAD
Domain MYGMSINSTALLATION.com
IP address 192.168.94.101
Default gateway 192.168.94.100
Subnet mask 255.255.255.0
DNS server 1 10.203.176.10
DNS server 2 10.203.176.10

Time Settings
Time 2009/01/20 03:49:58
TimeZone (GMT-08:00) Pacific Time (US & Canada); Tijuana

To apply these settings, click Apply.

6. Wait for the settings to be applied, possibly for a few minutes. The screen displays a progress bar until it finishes, and then displays the status.



Step 4. Summary

Applying Host Configuration Settings

Please Wait...

Note: *If you modified the DNS settings, the services on the appliance will restart when the changes are applied, causing a momentary connectivity loss to the Web server. Your browser will be redirected to the appliance management interface login page.*

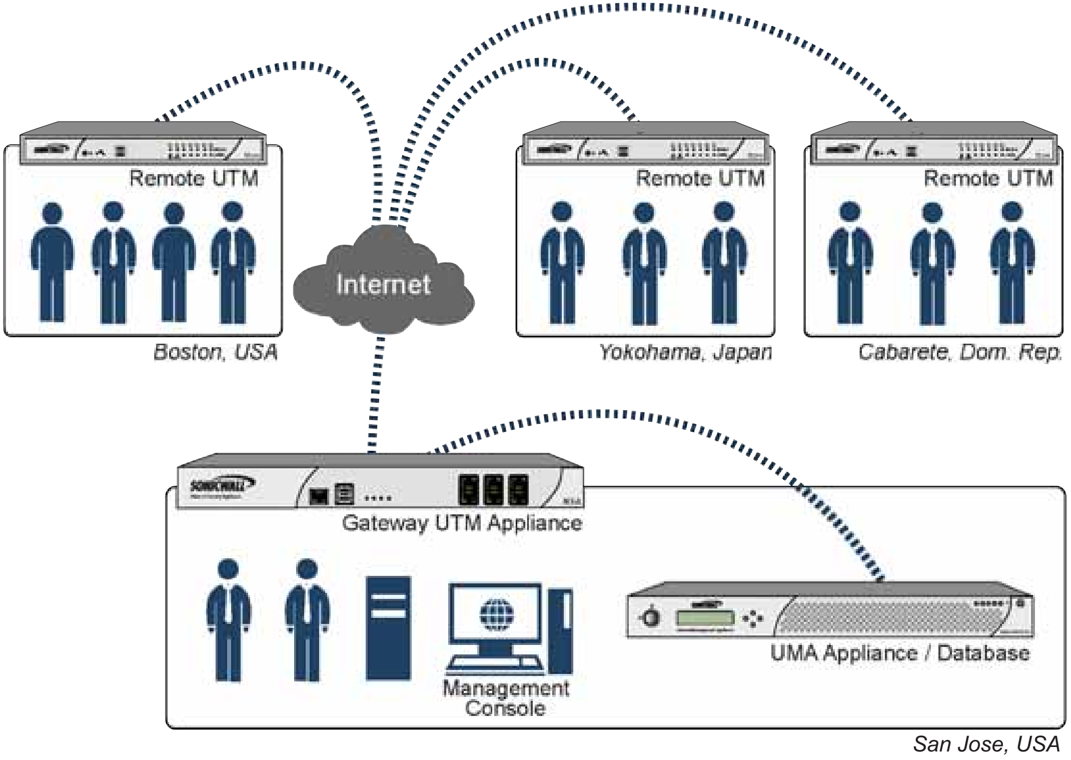
7. If you have modified the appliance IP address, you will lose contact with the appliance when the changes are applied. To connect the appliance to your network and access the appliance management interface from a computer on your LAN, see Connecting the SonicWALL UMA EM5000 to Your Network - page 15.

Connecting the SonicWALL UMA EM5000 to Your Network

To connect the SonicWALL UMA EM5000 to your network and access the appliance management interface from a management computer on your LAN, perform the following steps:

1. If you are using the same management computer that you used for initial configuration, unplug the crossover cable from the management computer and from the SonicWALL UMA EM5000.
2. Plug one end of the provided Ethernet cable (not the crossover cable) into the eth0 port on the back of your SonicWALL UMA EM5000.
3. Plug the other end of the Ethernet cable into an open port on your local network hub or switch.
4. Adjust your management computer to its previous settings prior to assigning it a static IP address on the default appliance subnet.
5. Connect your management computer to your local network.
6. On the management computer, point a browser to the new appliance IP address in the form:
   http://<*IP address*>:<*port*>**/appliance/**
   It is not necessary to provide the port in the URL if you kept the default port.

The following network diagram illustrates how the SonicWALL UMA EM5000 connects to an example network:



Configuring a Static IP Address on Your Management Computer

This section is provided for your reference when preparing to log in for the first time to your SonicWALL UMA EM5000.

Complete the following steps to configure your management computer with a static IP address:

Windows Vista

1. On the Windows **Start** menu, right-click **Network** and select **Properties**.
2. In the **Tasks** menu, click **Manage network connections**. The Network Connections window displays.
3. Right-click on your **Local Area Connection** and select **Properties**.
4. In the list, double-click **Internet Protocol Version 4 (TCP/IP)**.
5. Select **Use the following IP address** and type **192.168.168.50** in the **IP address** field.
6. Type **255.255.255.0** in the **Subnet Mask** field.
7. Click **OK**, and then click **OK** again for the settings to take effect.

Windows XP

1. On the Windows **Start** menu, highlight **Connect To** and then select **Show All Connections**.
2. Open the **Local Area Connection Properties** window.
3. Highlight **Internet Protocol (TCP/IP)**, and then click **Properties**.
4. Select **Use the following IP address** and type **192.168.168.50** in the **IP address** field.
5. Type **255.255.255.0** in the **Subnet Mask** field.
6. Click **OK** for the settings to take effect.

Windows 2000

1. On the Windows **Start** menu, select **Settings**.
2. Open **Network and Dial-up Connections**.
3. Click **Properties**.
4. Highlight **Internet Protocol (TCP/IP)** and click **Properties**.
5. Select **Use the following IP address** and type **192.168.168.50** in the **IP address** field.
6. Type **255.255.255.0** in the **Subnet Mask** field.
7. Click **OK** for the settings to take effect.

Windows NT

1. On the Windows **Start** menu, highlight **Settings**, and then select **Control Panel**.
2. Open **Network**.
3. Double-click **TCP/IP** in the **TCP/IP Properties** window.
4. Select **Specify an IP Address** and type **192.168.168.50** in the **IP address** field.
5. Type **255.255.255.0** in the **Subnet Mask** field.
6. Click **OK**, and then click **OK** again.
7. Restart the computer for changes to take effect.

Registering Your Appliance 3

In this Section:

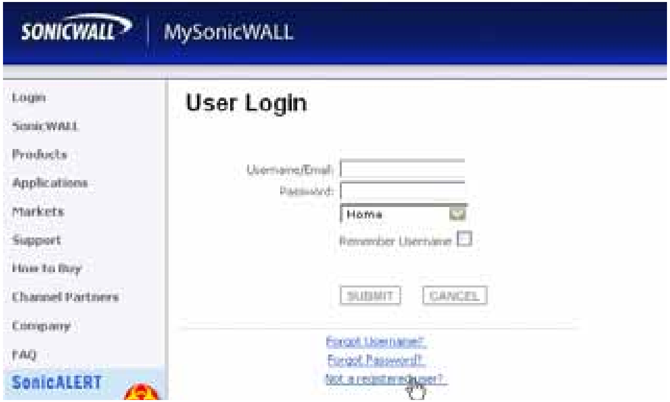
This section provides instructions for registering your SonicWALL UMA EM5000 appliance.

- Creating a MySonicWALL Account - page 20
- Registering Your Appliance - page 20
- Registering as an Associated Component - page 22

Creating a MySonicWALL Account

A MySonicWALL account is required for product registration. If you already have an account, continue to the *Registering Your Appliance* section. Perform the following steps to create a MySonicWALL account:

1. In your browser, navigate to www.mysonicwall.com.
2. In the login screen, click the **Not a registered user?** link.



3. Complete the Registration form and then click **Register**.
4. Verify that the information is correct and click **Submit**.
5. In the screen confirming that your account was created, click **Continue**.
   MySonicWALL registration information is not sold or shared with any other company.

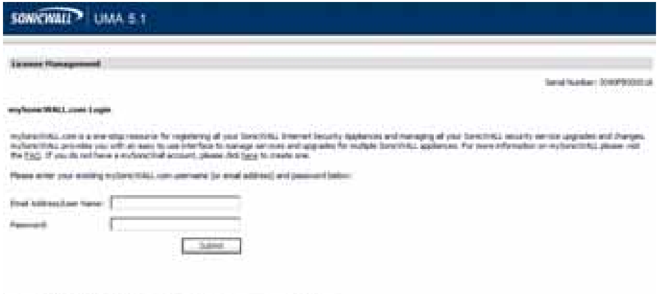
Registering Your Appliance

You must register your SonicWALL UMA EM5000 on MySonicWALL before you can run SonicWALL GMS on it. Registration is performed using the appliance management interface. When registration is completed, SonicWALL GMS will be licensed on your appliance.

When you log in to the SonicWALL UMA EM5000 after running the Host Configuration Tool, the **Register** button is displayed in the top right corner of the page. The registration process requires that the SonicWALL UMA EM5000 have access to the Internet.

To register your SonicWALL UMA EM5000, perform the following steps:

1. In a browser, log in to the appliance management interface and click the **Register** button.
2. In the License Management page, type your MySonicWALL user name and password and click **Submit**.



mySonicWALL.com is a one-stop resource for registering all your SonicWALL Internet Security Appliances and managing all your SonicWALL security service upgrades and changes. mySonicWALL provides you with an easy to use interface to manage services and upgrades for multiple SonicWALL appliances. For more information on mySonicWALL, please visit the FAQ. If you do not have a mySonicWALL account, please click here to create one.

Please enter your existing mySonicWALL.com username (or email address) and password below:

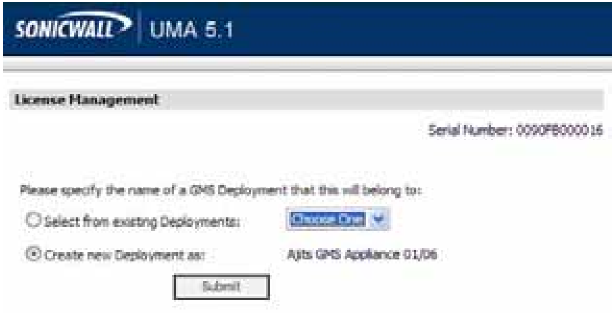
Email Address/User Name:

Password:

3. Type a descriptive name for the appliance into the **Friendly Name** field and then click **Submit**.
The **Serial Number** field is automatically populated.

Note: *If this is the first SonicWALL UMA EM5000 that you have registered, the Friendly Name for this appliance will also be used as the name for the distributed deployment. As you register more UMA EM5000 appliances or instances of SonicWALL GMS on Windows Server systems, you will have the option of adding them to this deployment.*

4. Select the **Create New Deployment as** radio button and then click **Submit**.



License Management

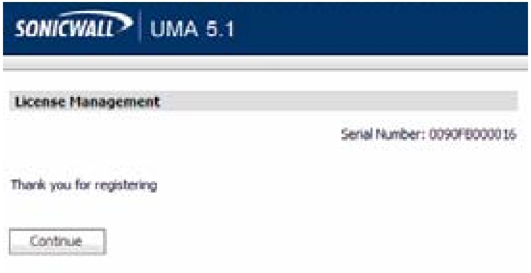
Serial Number: 0090FB000016

Please specify the name of a GMS Deployment that this will belong to:

○ Select from existing Deployments: Choose One

● Create new Deployment as: Ajits GMS Appliance 01/06

5. Click **Continue**.

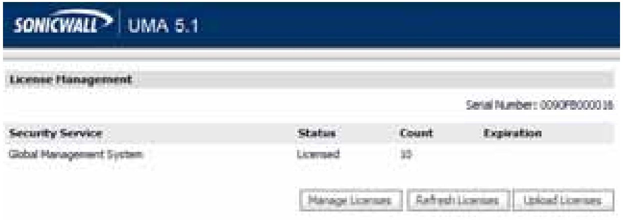


License Management

Serial Number: 0090FB000016

Thank you for registering

6. On the License Summary page, verify that SonicWALL GMS is now licensed on your appliance.



License Management

Serial Number: 0090FB000016

Security Service	Status	Count	Expiration
Global Management System	Licensed	10	

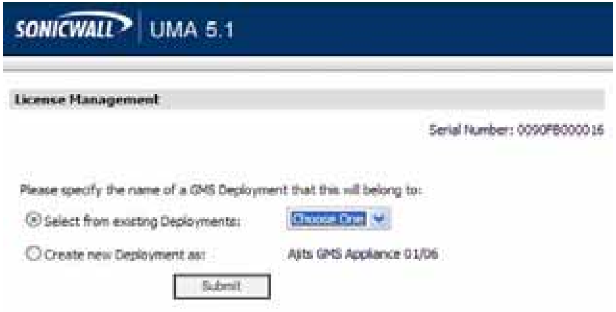
Registering as an Associated Component

When you have a distributed SonicWALL GMS deployment involving more than one appliance or software instance of SonicWALL GMS, you can associate these components on MySonicWALL.

Note: *The default 10-node management license is not automatically increased when additional components are associated with an existing SonicWALL GMS deployment. Contact SonicWALL Technical Support to add the node licenses to the deployment.*

To register a SonicWALL UMA EM5000 as an associated component of an existing SonicWALL GMS deployment, perform the following steps:

1. In a browser, log in to the appliance management interface and click the **Register** button.
2. Enter your MySonicWALL user name and password in the appropriate fields and then click **Submit**.
3. Type a descriptive name for the appliance into the **Friendly Name** field and then click **Submit**.
   The **Serial Number** field is automatically populated.
4. The next registration page prompts you to associate this SonicWALL GMS component with an existing deployment, or create a new GMS deployment instance. Select the **Select from existing Deployments** radio button.



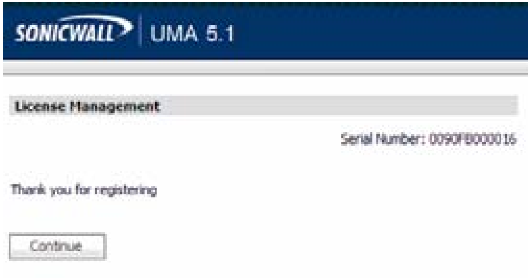
Serial Number: 0090FB000016

Please specify the name of a GMS Deployment that this will belong to:

● Select from existing Deployments: Choose One

○ Create new Deployment as: Ajits GMS Appliance 01/06

5. Select the desired deployment for the association from the drop-down list and then click **Submit**.
6. Click **Continue**.



Serial Number: 0090FB000016

Thank you for registering

Configuring the Role of Your Appliance 4

In this Section:

This section provides information about configuring the role for your SonicWALL UMA EM5000, as well as information about deployment settings and services.

- Overview of SonicWALL UMA EM5000 Roles - page 24
- Using the Role Configuration Tool - page 25
- Manually Configuring the System Role - page 31
- Configuring Deployment Settings - page 38
- Starting and Stopping Host Services - page 39

Overview of SonicWALL UMA EM5000 Roles

The role that you assign to your SonicWALL UMA EM5000 defines the SonicWALL Universal Management Suite services that it will provide. SonicWALL GMS uses these services to perform management, monitoring, and reporting tasks.

Your SonicWALL UMA EM5000 can be deployed in any of the following roles:

- All In One
- Agent
- Console
- Database Only
- Monitor
- Syslog Collector

In the appliance management interface, clicking **Details** in the same row as a role provides a list of the services that run on a system in that role, and information about using the role.

As the number of managed appliances increases, a more distributed deployment provides better performance. To manage large numbers of SonicWALL appliances, you can use several SonicWALL UMA EM5000 appliances operating in different roles in a distributed deployment. You can also use Windows Server machines running SonicWALL GMS in any of the roles.

You can include the MySQL database installation with any role. The All In One or Database Only roles automatically include the MySQL database.

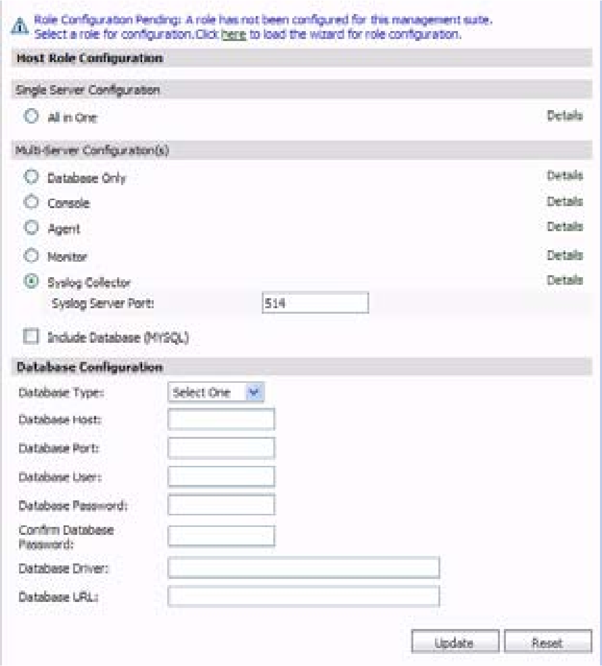
You can scale your deployment to handle more units and more reporting by adding more systems in the Agent role. Agents provide built-in redundancy capability, meaning that if an Agent goes down, other Agents can perform the configuration tasks and other tasks of the Agent that went down.

Note: *When configuring the role for the first appliance in a distributed deployment, you should either include the database or be prepared to provide the IP address of an existing database server.*

You can meet this database objective in one of the following ways:

- By selecting a role that includes the database automatically, such as All In One or Database Only
- By selecting the **Include Database (MYSQL)** checkbox if configuring the appliance with any other role
- By setting up a compatible database on another machine and providing that IP address when prompted

The initial **Deployment** > **Role** page is shown below:



Role Configuration Pending: A role has not been configured for this management suite.
Select a role for configuration. Click here to load the wizard for role configuration.

Host Role Configuration

Single Server Configuration

○ All in One — Details

Multi-Server Configuration(s)

○ Database Only — Details
○ Console — Details
○ Agent — Details
○ Monitor — Details
● Syslog Collector — Details

Syslog Server Port: 514

□ Include Database (MYSQL)

Database Configuration

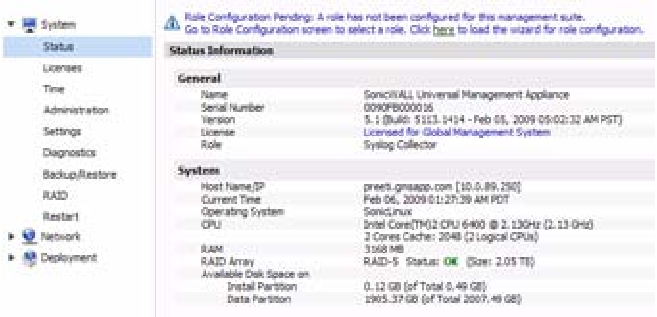
Database Type:	Select One
Database Host:	
Database Port:	
Database User:	
Database Password:	
Confirm Database Password:	
Database Driver:	
Database URL:	

Using the Role Configuration Tool

The Role Configuration Tool is a wizard that guides you through the process of defining the deployment role for your SonicWALL UMA EM5000 appliance. Your system must be registered and licensed for SonicWALL GMS to run the Role Configuration Tool.

There are two ways to access the Role Configuration Tool:

- After the appliance is registered and licensed for SonicWALL GMS, the **System** > **Status** page of the appliance management interface provides a link to the wizard.



Role Configuration Pending: A role has not been configured for this management suite.
Go to Role Configuration screen to select a role. Click here to load the wizard for role configuration.

Status Information

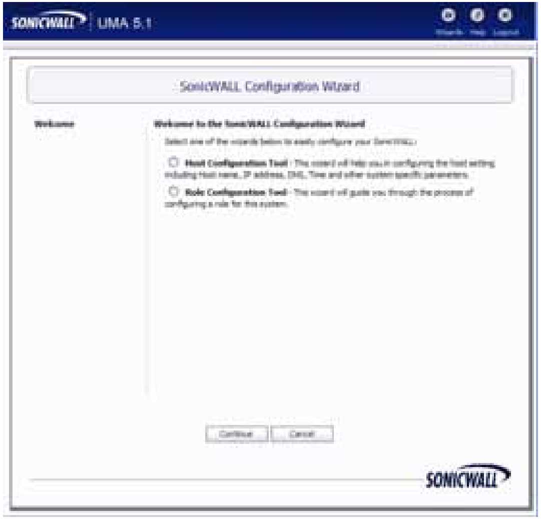
General

Name	SonicWALL Universal Management Appliance
Serial Number	0090FB000016
Version	5.1 (Build: 5113.1414 - Feb 05, 2009 05:02:32 AM PST)
License	Licensed for Global Management System
Role	Syslog Collector

System

Host Name/IP	preeti.gmsapp.com [10.0.89.230]
Current Time	Feb 06, 2009 01:27:39 AM PDT
Operating System	SonicLinux
CPU	Intel Core(TM)2 CPU 6400 @ 2.13GHz (2.13 GHz) 2 Cores Cache: 2048 (2 Logical CPUs)
RAM	3168 MB
RAID Array	RAID-5 Status: OK (Size: 2.05 TB)
Available Disk Space on	
Install Partition	0.12 GB (of Total 0.49 GB)
Data Partition	1905.37 GB (of Total 2007.49 GB)

- The **Wizards** button in the top right corner of the page provides access to the Role Configuration Tool.



SonicWALL Configuration Wizard

Welcome

Welcome to the SonicWALL Configuration Wizard

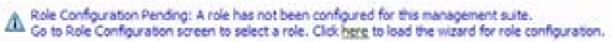
Select one of the wizards below to easily configure your SonicWALL.

○ **Host Configuration Tool** - This wizard will help you in configuring the host setting including Host name, IP address, DNS, Time and other system specific parameters.

○ **Role Configuration Tool** - This wizard will guide you through the process of configuring a role for this system.

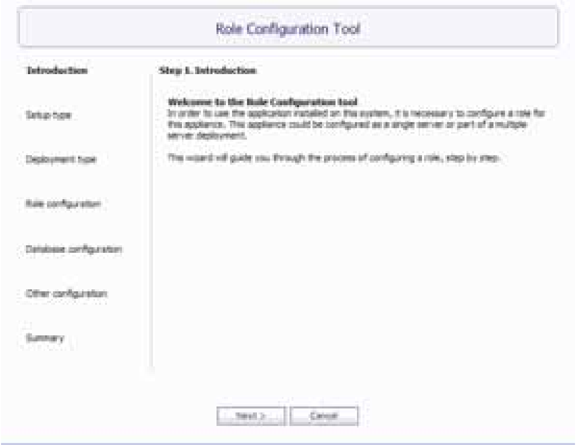
To use the Role Configuration Tool, perform the following steps:

1. Log in to the appliance management interface and navigate to the **System > Status** page.
2. Click the **Click here** link at the top of the page.



Role Configuration Pending: A role has not been configured for this management suite.
Go to Role Configuration screen to select a role. Click here to load the wizard for role configuration.

3. In the Introduction page of the Role Configuration Tool, click **Next**.



Role Configuration Tool

Introduction
Setup type
Deployment type
Role configuration
Database configuration
Other configuration
Summary

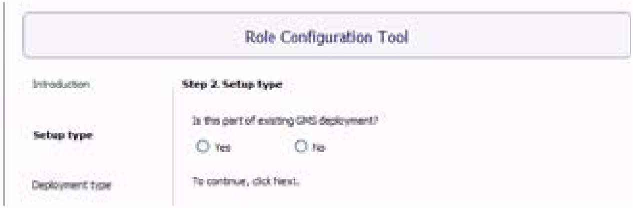
Step 1. Introduction

Welcome to the Role Configuration tool
In order to use the application installed on this system, it is necessary to configure a role for this appliance. This appliance could be configured as a single server or part of a multiple server deployment.

The wizard will guide you through the process of configuring a role, step by step.

4. In the Setup Type page, select **Yes** if you are adding this system to an existing SonicWALL GMS deployment on one or more systems. Selecting Yes indicates to the wizard that there is an existing SonicWALL GMS database on another server. Select **No** if this appliance is part of a new SonicWALL GMS deployment or is the only system in your GMS deployment. Click **Next**.

Note: *If you selected Yes, skip step 5 and proceed to step 6.*


Role Configuration Tool

Introduction

Setup type

Deployment type

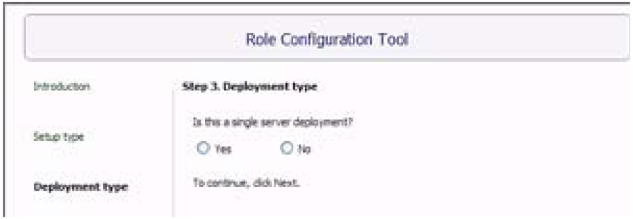
Step 2. Setup type

Is this part of existing GMS deployment?

○ Yes ○ No

To continue, click Next.

5. In the Deployment Type page, select **Yes** if this system will be the only SonicWALL GMS server in the deployment, or select **No** if there will be multiple GMS servers. Click **Next**.


Role Configuration Tool

Introduction

Setup type

Deployment type

Step 3. Deployment type

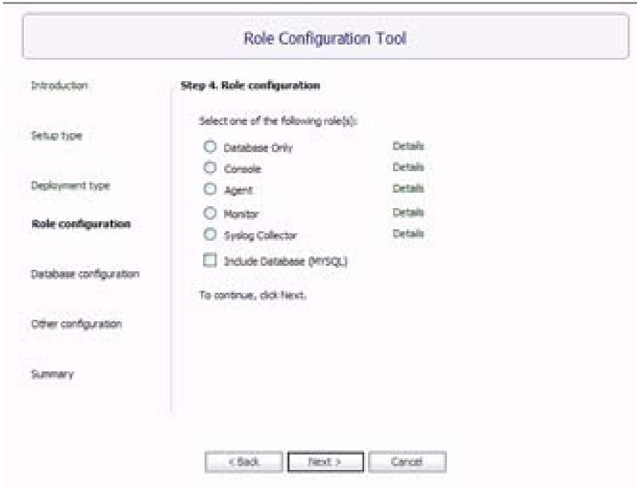
Is this a single server deployment?

○ Yes ○ No

To continue, click Next.

6. In the Role Configuration page, select the desired role for this system and select the **Include Database (MYSQL)** checkbox if you want to configure a SonicWALL GMS database on this system. Click **Next**.

   The list of roles on this page will vary depending on your previous selections such as whether this system is part of an existing SonicWALL GMS deployment and if it is a single-server or part of a multi-server deployment. Neither the Database Only nor the Include Database (MYSQL) options are available if this system is part of an existing deployment.


Role Configuration Tool

Introduction

Setup type

Deployment type

Role configuration

Database configuration

Other configuration

Summary

Step 4. Role configuration

Select one of the following role(s):

○ Database Only Details

○ Console Details

○ Agent Details

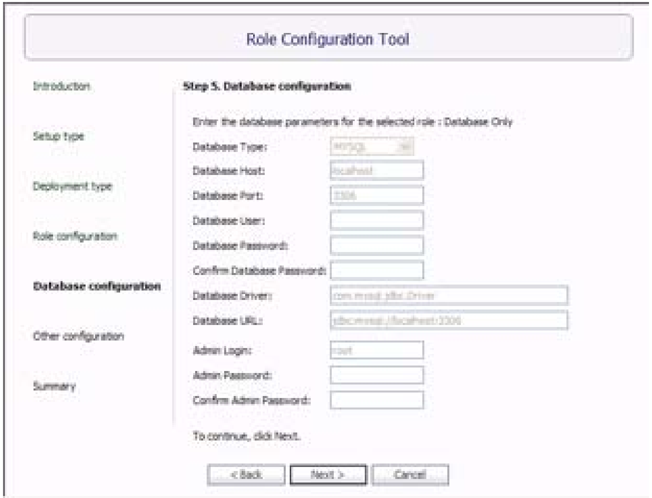
○ Monitor Details

○ Syslog Collector Details

□ Include Database (MYSQL)

To continue, click Next.

7. In the Database Configuration page, enter the database parameters that are required for the selected role. The database fields will vary depending on your previous selections.



Step 5. Database configuration

Enter the database parameters for the selected role : Database Only

Database Type: MYSQL

Database Host: localhost

Database Port: 3306

Database User:

Database Password:

Confirm Database Password:

Database Driver: com.mysql.jdbc.Driver

Database URL: jdbc:mysql://localhost:3306

Admin Login: root

Admin Password:

Confirm Admin Password:

To continue, click Next.

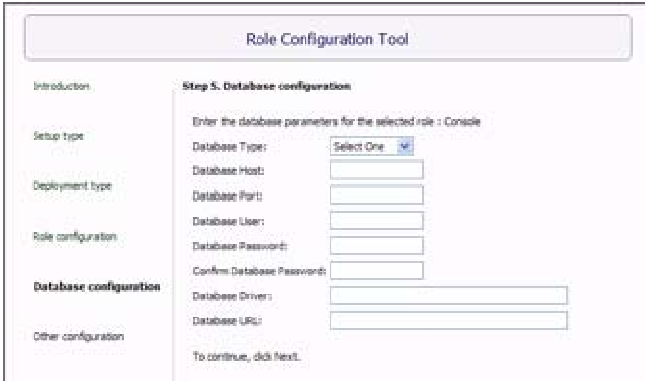
Certain fields will be prepopulated if you made a choice of role that automatically includes the MySQL database or if you chose **Include Database (MYSQL)**.

For a MySQL instance, additional fields are available for configuring the database administrator credentials. The **Administrator Credentials** fields are only displayed and editable in the following circumstances:

- The **Database Type** is **MySQL**
- The **Include Database (MYSQL)** checkbox is selected either manually or automatically for the chosen role
- The **Database Host** field is set to **localhost** and is not editable

When these conditions are met, the administrator password is required to create a regular access user account for the SonicWALL GMS application.

If you selected a role that does not include the MySQL database, you have the option of configuring the use of a SQL Server database in this screen.



Step 5. Database configuration

Enter the database parameters for the selected role : Console

Database Type: Select One

Database Host:

Database Port:

Database User:

Database Password:

Confirm Database Password:

Database Driver:

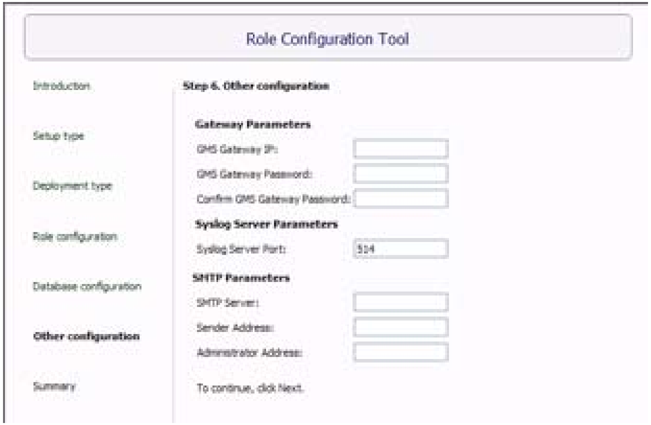
Database URL:

To continue, click Next.

8. When finished entering the database parameters, click **Next**.

9. In the Other Configuration page, the fields vary depending on the selected role, as follows:
   - **Gateway Parameters** – Required for All in One, Console, and Agent roles
   - **Syslog Server Parameters** - Required for All in One, Console, Agent, and Syslog Collector roles
   - **SMTP Parameters** - Required for All in One and Console roles

   Enter the **GMS Gateway IP** address and connection password, if you are using a GMS gateway. Leave these fields empty if you are using HTTP/HTTPS to connect to the managed appliances.



Step 6. Other configuration

Gateway Parameters

GMS Gateway IP:

GMS Gateway Password:

Confirm GMS Gateway Password:

Syslog Server Parameters

Syslog Server Port: 514

SMTP Parameters

SMTP Server:

Sender Address:

Administrator Address:

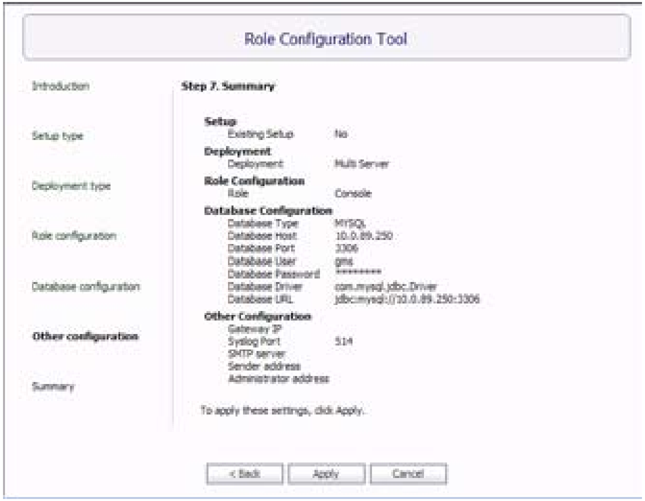
To continue, click Next.

10. In the **Syslog Server Port** field, type in the port used for receiving syslog messages or accept the default of 514.

11. For access to email on this system, including the ability to send email alerts, type the mail server IP address into the **SMTP Server** field and enter valid email addresses for the **Sender Address** and **Administrator Address**.

12. Click **Next**.

13. In the Summary page, verify that all parameters are correct. Click **Back** to make changes on a previous screen, or click **Apply** to accept the settings.

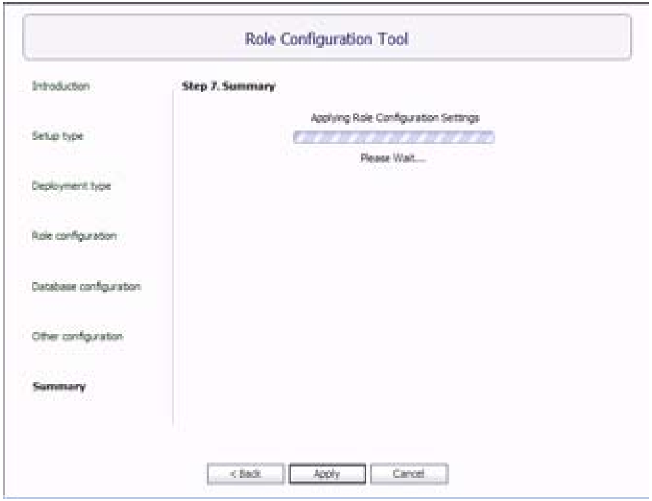


Step 7. Summary

Setup	
Existing Setup	No
Deployment	
Deployment	Multi Server
Role Configuration	
Role	Console
Database Configuration	
Database Type	MYSQL
Database Host	10.0.89.250
Database Port	3306
Database User	gms
Database Password	*********
Database Driver	com.mysql.jdbc.Driver
Database URL	jdbc:mysql://10.0.89.250:3306
Other Configuration	
Gateway IP	
Syslog Port	514
SMTP server	
Sender address	
Administrator address	

To apply these settings, click Apply.

14. Wait for the settings to be applied. The screen displays a progress bar until it finishes, and then displays the status. This phase can take up to 10 minutes, especially if the database was included in the deployment.



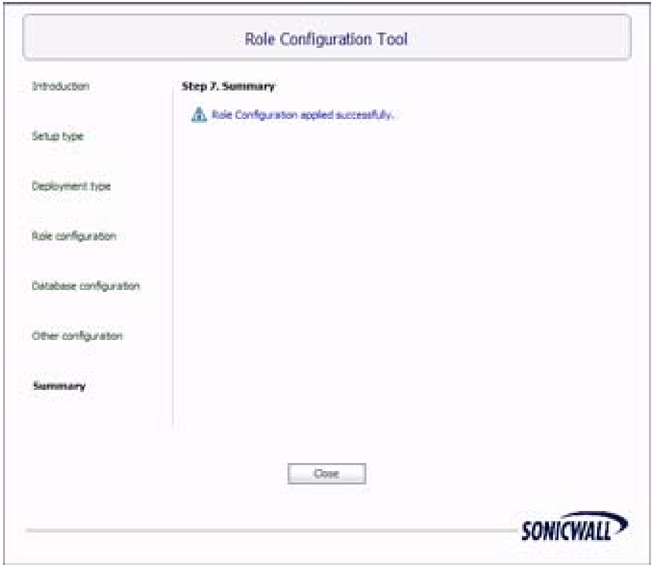
Role Configuration Tool

Step 7. Summary

Applying Role Configuration Settings

Please Wait....

15. Click **Close** to exit the Role Configuration Tool.



Role Configuration Tool

Step 7. Summary

Role Configuration applied successfully.

Manually Configuring the System Role

You can configure the role of the SonicWALL UMA EM5000 appliance without using the Role Configuration Tool.

All role configuration is performed in the appliance management interface, available at the URL:
http://*<IP address>***:***<port>***/appliance/**

Refer to the following sections for instructions on manually configuring the system role:

- Configuring the All In One Role - page 31
- Configuring the Database Only Role - page 32
- Configuring the Console Role - page 33
- Configuring the Agent Role - page 34
- Configuring the Monitor Role - page 35
- Configuring the Syslog Collector Role - page 35
- Configuring Database Settings - page 36
- Configuring Deployment Settings - page 38

Configuring the All In One Role

All In One deployments are ideal for managing a small number of SonicWALL appliances or for test environments. However, SonicWALL recommends that you use a multi-system, distributed deployment in production environments, with the database on a dedicated server and the other services on one or more systems. When only one other system is deployed, the Console role should be assigned to it.

The All In One role provides all nine services utilized by SonicWALL GMS:

- Syslog Collector
- Reports Scheduler
- Update Manager
- Reports Summarizer
- SNMP Manager
- Scheduler
- Monitoring Manager
- Web Server
- Database

To deploy your SonicWALL UMA EM5000 in the All In One role, perform the following steps in the appliance management interface:

1. Navigate to the **Deployment > Role** page. Under **Host Role Configuration**, select the **All In One** radio button.
2. If this SonicWALL UMA EM5000 will connect to managed appliances through a GMS gateway, type the gateway IP address into the **GMS Gateway IP** field.
   To determine if a GMS gateway is required, see the *GMS Gateway Recommendations* section, on page 7.
3. If a GMS gateway will be used, type the password into both the **GMS Gateway Password** and **Confirm GMS Gateway Password** fields.
4. If this SonicWALL UMA EM5000 listens for syslog messages on a non-standard port, type the port number into the **Syslog Server Port** field. The default port is 514.
5. Configure the database settings as described in the *Configuring Database Settings* section, on page 36.
6. Configure the Web port settings as described in the *Configuring Web Port Settings* section, on page 38.
7. To apply your changes, click **Update**. To change the settings on this page back to the defaults, click **Reset**.

Configuring the Database Only Role

The Database Only role is used in a multi-server SonicWALL GMS deployment. In this role, the server is configured to run only the database service. SonicWALL recommends that one of the servers in a multi-server SonicWALL GMS deployment is assigned a Database Only role.

Only the SonicWALL Universal Management Suite Database service runs on a Database Only system.

The MySQL database engine is pre-installed on the SonicWALL UMA EM5000. SonicWALL GMS can also use a MySQL database or a Microsoft SQL Server database installed on a server. Only the MySQL database included in the installer is supported. On the Deployment > Role page in the SonicWALL UMA EM5000 appliance management interface, you can configure your SonicWALL GMS systems to use either a MySQL or a SQL Server database.

To deploy your SonicWALL UMA EM5000 in the Database Only role, perform the steps described in the *Configuring Database Settings* section, on page 36.

Configuring the Console Role

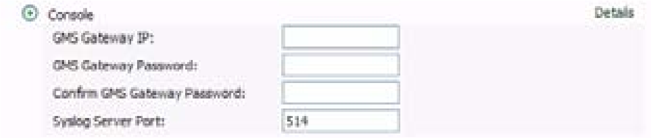
The Console role is used in a multi-server, distributed SonicWALL GMS deployment. In this role, the SonicWALL UMA EM5000 will run all SonicWALL Universal Management Suite services except for the Database service. In this scenario, the Database role is assigned to a separate appliance or server.

In the Console role, the SonicWALL UMA EM5000 behaves as an Agent, and also provides the following functions:

- Provides Web user interface for the SonicWALL GMS application
- Emails Scheduled Reports
- Performs Event Management tasks
- Performs various periodic checks, such as checking for new appliances that can be managed, checking for new firmware versions of managed appliances, and similar functions

To deploy your SonicWALL UMA EM5000 in the Console role, perform the following steps in the appliance management interface:

1. Navigate to the **Deployment > Role** page. Under **Host Role Configuration**, select the **Console** radio button.



● Console

GMS Gateway IP:

GMS Gateway Password:

Confirm GMS Gateway Password:

Syslog Server Port: 514

2. If this SonicWALL UMA EM5000 will connect to managed appliances through a GMS gateway, type the gateway IP address into the **GMS Gateway IP** field.
   To determine if a GMS gateway is required, see the *GMS Gateway Recommendations* section, on page 7.
3. If a GMS gateway will be used, type the password into both the **GMS Gateway Password** and **Confirm GMS Gateway Password** fields.
4. If this SonicWALL UMA EM5000 listens for syslog messages on a non-standard port, type the port number into the **Syslog Server Port** field. The default port is 514.
5. To use a MySQL or Microsoft SQL Server database on another system, do *not* select the **Include Database (MYSQL)** checkbox. To include the MySQL database on this system (not recommended), select this checkbox (for this configuration, select the All In One role instead of the Console role).
6. Configure the database settings as described in the *Configuring Database Settings* section, on page 36.
7. Configure the Web port settings as described in the *Configuring Web Port Settings* section, on page 38.
8. To apply your changes, click **Update**.
   To change the settings on this page back to the defaults, click **Reset**.

Configuring the Agent Role

The Agent role can be used in a distributed deployment of SonicWALL GMS. The primary functions of this role include the following:

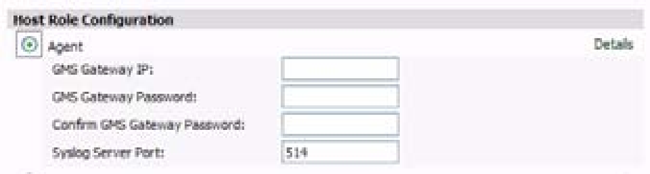
- Manages units by acquiring them, pushing configuration tasks to the units and tracking their up/down status
- Performs monitoring based on ICMP probes, TCP probes, and SNMP OID retrievals
- Collects and stores syslog messages
- Performs report summarization

The following SonicWALL Universal Management Suite services run on an Agent system:

- Syslog Collector
- Reports Summarizer
- SNMP Manager
- Scheduler
- Monitoring Manager

To deploy your SonicWALL UMA EM5000 in the Agent role, perform the following steps in the appliance management interface:

1. Navigate to the **Deployment > Role** page. Under **Host Role Configuration**, select the **Agent** radio button.



Host Role Configuration

● Agent

GMS Gateway IP:

GMS Gateway Password:

Confirm GMS Gateway Password:

Syslog Server Port: 514

2. If this SonicWALL UMA EM5000 will connect to managed appliances through a GMS gateway, type the gateway IP address into the **GMS Gateway IP** field.
   To determine if a GMS gateway is required, see the *GMS Gateway Recommendations* section, on page 7.
3. If a GMS gateway will be used, type the password into both the **GMS Gateway Password** and **Confirm GMS Gateway Password** fields.
4. If this SonicWALL UMA EM5000 listens for syslog messages on a non-standard port, type the port number into the **Syslog Server Port** field. The default port is 514.
5. To include the MySQL database on this system, select the **Include Database (MYSQL)** checkbox. To use a MySQL or Microsoft SQL Server database on another system, do not select this checkbox.
6. Configure the database settings as described in the *Configuring Database Settings* section, on page 36.
7. Configure the Web port settings as described in the *Configuring Web Port Settings* section, on page 38.
8. To apply your changes, click **Update**.
   To change the settings on this page back to the defaults, click **Reset**.

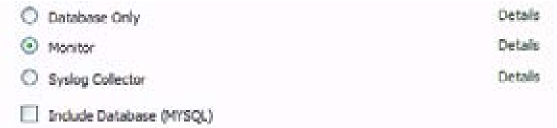
Configuring the Monitor Role

The Monitor role is used to dedicate the SonicWALL UMA EM5000 to monitoring appliances and applications in a multi-server SonicWALL GMS deployment. The monitoring is based on ICMP probes, TCP probes, and SNMP OID retrievals.

Only the SonicWALL Universal Management Suite Monitoring Manager service runs on a Monitor system.

To deploy your SonicWALL UMA EM5000 in the Monitor role, perform the following steps in the appliance management interface:

1. Navigate to the **Deployment > Role** page. Under **Host Role Configuration**, select the **Monitor** radio button.



○ Database Only Details
● Monitor Details
○ Syslog Collector Details
□ Include Database (MYSQL)

2. To include the MySQL database on this system, select the **Include Database (MYSQL)** checkbox. To use a MySQL or Microsoft SQL Server database on another system, do not select this checkbox.
3. Configure the database settings as described in the *Configuring Database Settings* section, on page 36.
4. Configure the Web port settings as described in the *Configuring Web Port Settings* section, on page 38.
5. To apply your changes, click **Update**.
   To change the settings on this page back to the defaults, click **Reset**.

Configuring the Syslog Collector Role

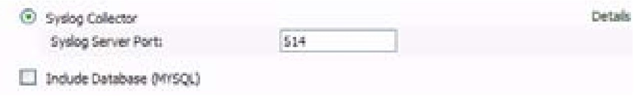
The Syslog Collector role can be assigned to a SonicWALL UMA EM5000 in a multi-server deployment of SonicWALL GMS. In this role, the SonicWALL UMA EM5000 is dedicated to collecting syslog messages on the configured port (by default, port 514). The syslog messages are stored in the SonicWALL UMA EM5000 file system.

The syslog messages are used by the Reports Summarizer service running on another SonicWALL GMS server or SonicWALL UMA EM5000 in the distributed deployment. The folder where the Syslog Collector service stores the syslog messages must be accessible by the server running the Reports Summarizer service.

Only the SonicWALL Universal Management Suite Syslog Collector service runs on a Syslog Collector system.

To deploy your SonicWALL UMA EM5000 in the Syslog Collector role, perform the following steps in the appliance management interface:

1. Navigate to the **Deployment > Role** page. Under **Host Role Configuration**, select the **Syslog Collector** radio button.



● Syslog Collector

Syslog Server Port: 514

□ Include Database (MYSQL)

2. If this SonicWALL UMA EM5000 listens for syslog messages on a non-standard port, type the port number into the **Syslog Server Port** field. The default port is 514.
3. To include the MySQL database on this system, select the **Include Database (MYSQL)** checkbox. To use a MySQL or Microsoft SQL Server database on another system, do not select this checkbox.
4. Configure the database settings as described in the *Configuring Database Settings* section, on page 36.
5. Configure the Web port settings as described in the *Configuring Web Port Settings* section, on page 38.
6. To apply your changes, click **Update**.
   To change the settings on this page back to the defaults, click **Reset**.

Configuring Database Settings

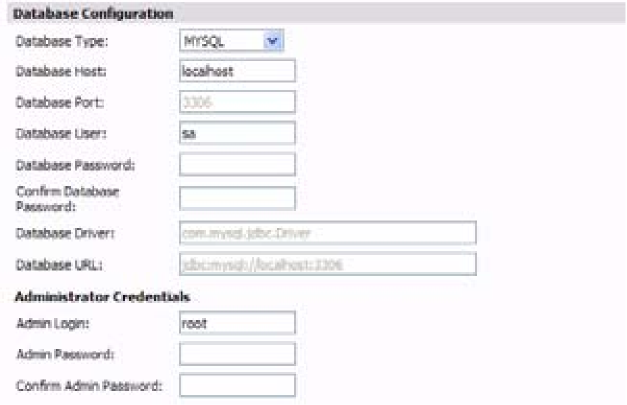
Database settings configuration is largely the same for any role when you choose to include the database on that appliance. For roles that automatically include the default MySQL database, such as All In One or Database Only, the Database Type, Database Host, and Database Port fields are not editable. This is also the case for any role when the **Include Database (MYSQL)** checkbox is selected. The Administrator Credentials fields are displayed only if the role has been defined to include the installation of the MySQL database. These are not available when a SQL Server database is selected.

This section describes the options for configuring the database settings for either the MySQL database or the Microsoft SQL Server database. The SonicWALL UMA EM5000 can run the MySQL database, but SonicWALL GMS can also use either a MySQL or a SQL Server database running on a Windows Server machine in a multi-system deployment.

Note: *If this appliance will connect to a SQL Server system with a non-default instance name, then the entries will be different than described in this section. Refer to the **SonicWALL GMS Administrator's Guide** for configuration instructions.*

To configure the database settings for any role, perform the following steps in the appliance management interface:

1. Navigate to the **Deployment > Role** page and select the role for this appliance.
2. To run the MySQL database on this SonicWALL UMA EM5000, select the **Include Database (MYSQL)** checkbox. To use a MySQL or Microsoft SQL Server database on another system, do not select this checkbox.
3. Under **Database Configuration**, if **Include Database (MYSQL)** was not selected in the previous step, select either **MYSQL** or **SQL Server** from the **Database Type** drop-down list. This field is not editable if you previously selected **Include Database (MYSQL)** or if the selected role is All In One or Database Only.



Database Configuration

Database Type: MYSQL

Database Host: localhost

Database Port: 3306

Database User: sa

Database Password:

Confirm Database Password:

Database Driver: com.mysql.jdbc.Driver

Database URL: jdbc:mysql://localhost:3306

Administrator Credentials

Admin Login: root

Admin Password:

Confirm Admin Password:

4. In the **Database Host** field, type in the IP address of the database server or accept the default, **localhost**, if this SonicWALL UMA EM5000 includes the database. This field is not editable if you previously selected **Include Database (MYSQL)** or if the selected role is All In One or Database Only.
5. To use a different user name when SonicWALL GMS accesses the database, type the user name into the **Database User** field. The default user name is “sa”.
6. Type the password that SonicWALL GMS will use to access the database into both the **Database Password** and **Confirm Database Password** fields.
7. Under **Administrator Credentials**, type the password for the administrator (root) account into both the **Admin Password** and **Confirm Admin Password** fields.

   Note that the **Administrator Credentials** fields are only displayed and editable in the following circumstances:

   - The **Database Type** is **MySQL**
   - The **Include Database (MYSQL)** checkbox is selected either manually or automatically for the chosen role
   - The **Database Host** field is set to **localhost** and is not editable

   When these conditions are met, the administrator password is required to create a regular access user account for the SonicWALL GMS application.

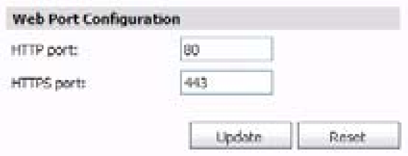
Configuring Deployment Settings

This section describes the settings available on the **Deployment > Settings** page of the appliance management interface.

Configuring Web Port Settings

To change the Web port settings, perform the following steps:

1. On the **Deployment > Settings** page under **Web Port Configuration**, to use a different port for HTTP access to the SonicWALL UMA EM5000, type the port number into the **HTTP Port** field. The default port is 80.



Web Port Configuration

HTTP port: 80

HTTPS port: 443

2. To use a different port for HTTPS access to the SonicWALL UMA EM5000, type the port number into the **HTTPS Port** field. The default port is 443.
3. Click **Update** to apply the Web port settings.

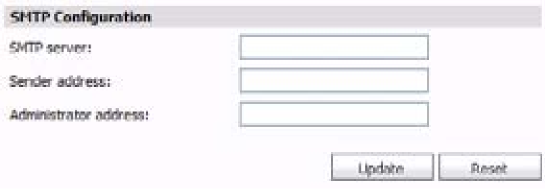
Note: *Changing the Web port settings will cause the appliance to restart.*

4. After the appliance restarts, use the new port to access the appliance management interface. For example:
   - If you changed the HTTP port to 8080, use the URL: **http://***<IP Address>***:8080/appliance/**
   - If you changed the HTTPS port to 4430, use the URL: **http://***<IP Address>***:4430/appliance/**

Configuring SMTP Settings

The SMTP settings are used for sending email alerts to the SonicWALL UMA EM5000 administrator. To configure the SMTP settings, perform the following steps:

1. On the **Deployment > Settings** page under **SMTP Configuration**, enter the IP address of the SMTP server into the **SMTP server** field.



SMTP Configuration

SMTP server:

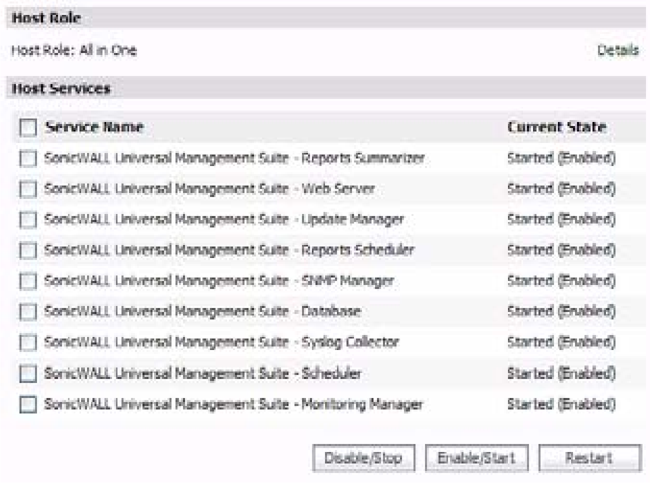
Sender address:

Administrator address:

2. In the **Sender address** field, enter the email address that will appear as the 'From' address when email alerts are sent to the administrator.
3. In the **Administrator address** field, enter a valid email address for the administrator who will receive email alerts.
4. Click **Update** to apply the SMTP settings.

Starting and Stopping Host Services

You can stop, start, or restart any of the SonicWALL UMS services on the **Deployment > Services** page of the appliance management interface. The page displays different services depending on the role of the appliance. The image below shows all nine services running on an All In One system:



Host Role

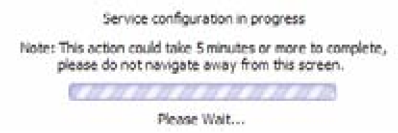
Host Role: All in One — Details

Host Services

□ Service Name	Current State
□ SonicWALL Universal Management Suite - Reports Summarizer	Started (Enabled)
□ SonicWALL Universal Management Suite - Web Server	Started (Enabled)
□ SonicWALL Universal Management Suite - Update Manager	Started (Enabled)
□ SonicWALL Universal Management Suite - Reports Scheduler	Started (Enabled)
□ SonicWALL Universal Management Suite - SNMP Manager	Started (Enabled)
□ SonicWALL Universal Management Suite - Database	Started (Enabled)
□ SonicWALL Universal Management Suite - Syslog Collector	Started (Enabled)
□ SonicWALL Universal Management Suite - Scheduler	Started (Enabled)
□ SonicWALL Universal Management Suite - Monitoring Manager	Started (Enabled)

To change the current state of a service, perform the following steps:

1. On the **Deployment > Services** page, select the checkbox next to the service whose state you want to change and then do one of the following:
   - To stop the service, click the **Disable/Stop** button.
   - To start a stopped service, click the **Enable/Start** button.
   - To restart the service, click the **Restart** button. This option stops and then starts the service.
2. A progress bar is displayed. Wait for the desired action to complete before navigating away from the page.

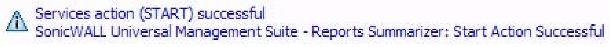


Service configuration in progress

Note: This action could take 5 minutes or more to complete, please do not navigate away from this screen.

Please Wait...

The status of the action is displayed at the top of the page.



Services action (START) successful
SonicWALL Universal Management Suite - Reports Summarizer: Start Action Successful

Using the SonicWALL GMS Management Interface 5

In this Section:

This section provides information about the SonicWALL GMS management interface. The SonicWALL GMS application runs on the SonicWALL UMA EM5000.

- Accessing the Correct Management Interface - page 42
- SonicWALL GMS Management Interface Introduction - page 43
- SonicWALL GMS Login Screen - page 44
- SonicWALL GMS Navigation Tabs - page 44
- Left Pane Overview - page 45
- Center Pane Overview - page 45
- Right Pane Overview - page 46
- Description of Managed Appliance States - page 46

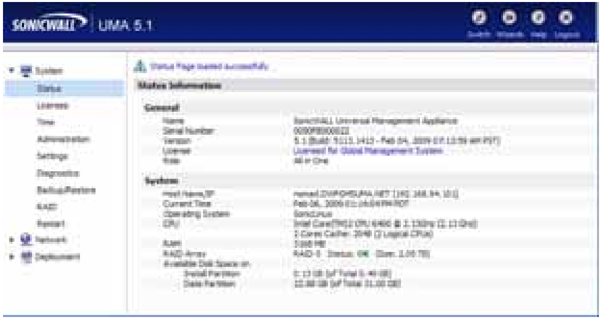
Accessing the Correct Management Interface

The SonicWALL UMA EM5000 comes installed with two separate management interfaces:

- **SonicWALL UMA Appliance Management Interface** – Used for system management of the appliance, including registration and licensing, setting the admin password, creating backups, restarting the appliance, configuring network settings, selecting the deployment role, and configuring other system settings.

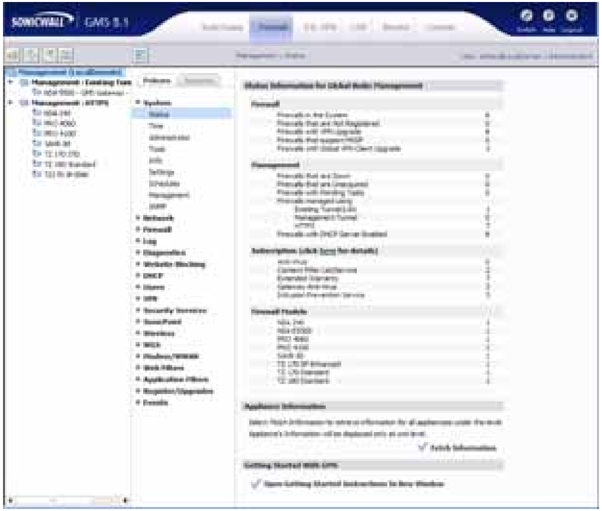
  Access the appliance management interface with the URL: **http://***<IP address>*:*<port>***/appliance/**

  If you are using the standard HTTP port, 80, it is not necessary to append the port number to the IP address.



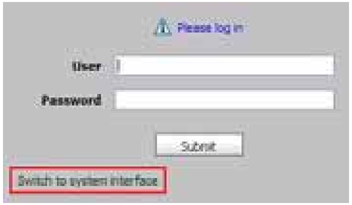
- **SonicWALL GMS Management Interface** – Used to access the SonicWALL GMS application that runs on the SonicWALL UMA EM5000. This interface is used to configure GMS management of SonicWALL appliances, including creating policies, viewing reports, and monitoring networks, and for configuring GMS administrative settings. The GMS management interface is only available on appliances deployed in a role that runs the Web Server service, such as the All In One or Console roles.

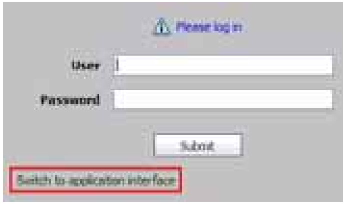
  Access the GMS management interface with the URL: **http://***<IP address>*:*<port>***/sgms/**



Switching Between Management Interfaces

On appliances deployed in the All In One or Console role, you can easily switch between the appliance management interface and the SonicWALL GMS management interface. The login page of each interface provides a link to the login page of the other interface.





When logged in to either interface, you can switch to the login page of the other interface by clicking the **Switch** button in the top right corner of the page.

SonicWALL GMS Management Interface Introduction

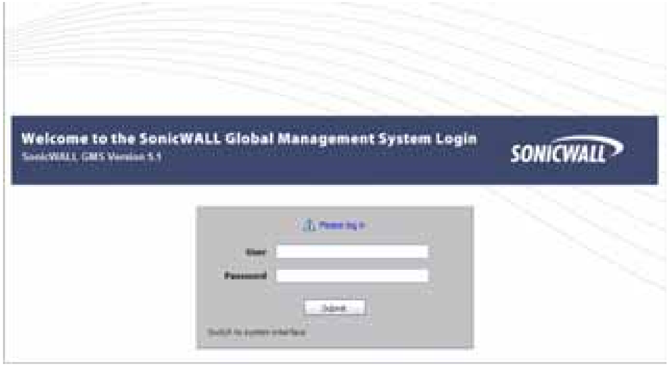
SonicWALL GMS is a Web-based application that runs on the SonicWALL UMA EM5000. SonicWALL GMS is used for configuring, managing, monitoring and gathering reports from thousands of SonicWALL Internet security appliances and non-SonicWALL appliances, as well as for configuring SonicWALL GMS administrative settings. This section provides an introduction to the main elements of the SonicWALL GMS management interface.

Access the SonicWALL GMS management interface with the URL:
http://*<IP address>*:*<port>*/**sgms**/

Note: *The SonicWALL GMS management interface is separate from the appliance management interface used to configure appliance settings, and can have different login credentials. See* Logging into the Appliance Management Interface - *page 10.*

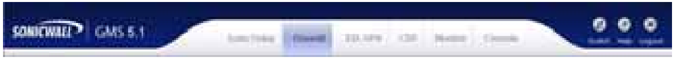
SonicWALL GMS Login Screen

The SonicWALL GMS management interface login screen allows you to securely login to SonicWALL GMS using your User ID and Password. After you have registered your SonicWALL UMA EM5000 and it is licensed for SonicWALL GMS, the SonicWALL GMS login screen is the first screen that displays each time you access the SonicWALL GMS management interface using a Web browser on your management computer.


Welcome to the SonicWALL Global Management System Login
SonicWALL GMS Version 5.1
SONICWALL
Please log in
User
Password
Submit
Switch to system interface

SonicWALL GMS Navigation Tabs

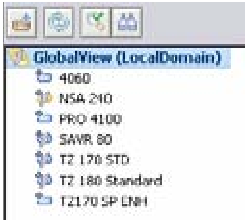
The SonicWALL GMS management interface navigation tabs are located at the top of the management interface.



The six navigation tabs are **SonicToday, Firewall**, **SSL-VPN**, **CDP**, **Monitor**, and **Console**.

The **Monitor** tab provides real-time monitoring at the global, group or appliance level. The **Console** tab provides tools to customize options found in the other SonicWALL GMS tabs and to manage SonicWALL GMS settings and settings that affect the environment globally.

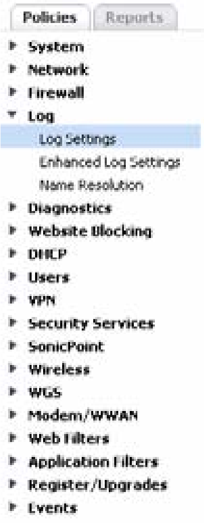
Left Pane Overview



The left pane of the SonicWALL GMS management interface provides a tree control that displays the current view and a list of managed appliances within the current tab. The left pane is only displayed for the three appliance tabs: **Firewalls**, **SSL-VPNs** and **CDPs**. The current category and view are indicated by a blue highlighting. The left pane tree control provides the ability to switch between views and displays the current state of each appliance under management. A single box in the tree control indicates a node at appliance or unit level. Two boxes in the tree control indicates a node at a group level. A global node at the top of the tree control is indicated by a three-box icon. The color of these icons provides useful status information. For detailed information about appliance states, refer to Description of Managed Appliance States - page 46.

Note: *If there is only one appliance visible in the Left Pane, then the Left Pane will automatically collapse to present a larger screen for the rest of the management interface.*

Center Pane Overview

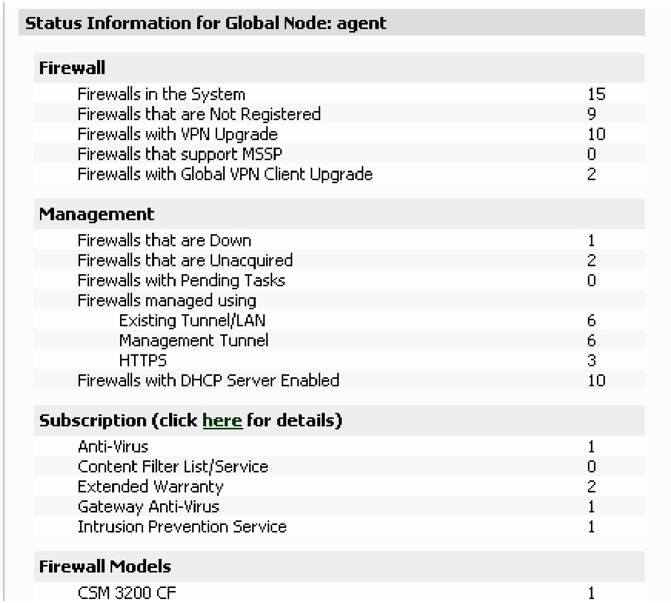


The center pane displays for the three appliance tabs: **Firewalls**, **SSL-VPNs** and **CDPs**. A navigational tree control that provides access to the configuration options available based on navigational tab and left pane selections. At the top of the Center pane there are two sub-tabs, **Policies** and **Reports**. The **Policies** sub-tab provides policy configuration options for managed appliances. The **Reports** sub-tab provides reporting on the global, group, or appliance level, and is only available for **Firewalls** and **SSL-VPNs**.

The current selection in the center pane is indicated by the highlighted item. For example, the figure to the left displays the current selection **Log** > **Log Settings**. The center pane options change based on the navigational tab and left pane selections, and selections in the center pane modify the display in the right pane. For example, the figure in the next section illustrates the contents of the right pane when the global view is selected in the left pane and **System > Status** is selected on the **Policies** tab in the center pane.

Right Pane Overview

The right pane displays the available status or tasks based on the current selection of navigational tab, left pane and center pane options. Configurations performed in the right pane modify global, group or appliance settings. For example, the right pane image below displays the status and tasks available for the **Policies** navigation tab, left pane selection **GlobalView**, and center pane selection **System > Status**.



Status Information for Global Node: agent

Firewall	
Firewalls in the System	15
Firewalls that are Not Registered	9
Firewalls with VPN Upgrade	10
Firewalls that support MSSP	0
Firewalls with Global VPN Client Upgrade	2
Management	
Firewalls that are Down	1
Firewalls that are Unacquired	2
Firewalls with Pending Tasks	0
Firewalls managed using	
Existing Tunnel/LAN	6
Management Tunnel	6
HTTPS	3
Firewalls with DHCP Server Enabled	10
Subscription (click here for details)	
Anti-Virus	1
Content Filter List/Service	0
Extended Warranty	2
Gateway Anti-Virus	1
Intrusion Prevention Service	1
Firewall Models	
CSM 3200 CF	1

Description of Managed Appliance States

This section describes the meaning of icons that appear next to managed appliances listed in the left pane of the SonicWALL GMS management interface.

Appliance Status	Description
▭	One blue box indicates that the appliance is operating normally. The appliance is accessible from SonicWALL GMS, and no tasks are pending or scheduled.
▭▭	Two blue boxes indicate that appliances in a group are operating normally. All appliances in the group are accessible from SonicWALL GMS and no tasks are pending or scheduled.
▭▭▭	Three blue boxes indicate that all appliances in the global group of this type (Firewall/SSL-VPN/CDP) are operating normally. All appliances of this type are accessible from SonicWALL GMS and no tasks are pending or scheduled.
⚡▭	One blue box with a lightning flash indicates that one or more tasks are pending or running on the appliance.
⚡▭▭	Two blue boxes with a lightning flash indicate that tasks are currently pending or running on one or more appliances within the group.

🟦🟦🕒	Two blue boxes with a clock indicate that tasks are currently scheduled to execute at a future time on one or more appliances within the group.
🟦🕒	One blue box with a clock indicates that one or more tasks are scheduled on the appliance.
🟨	One yellow box indicates that the appliance has been added to SonicWALL GMS management (provisioned), but not yet acquired.
🟨🟨	Two yellow boxes indicate that one or more appliances in the group have been added to SonicWALL GMS management, but not acquired.
🟨🟨🟨	Three yellow boxes indicate that one or more of the global group of appliances of this type (Firewall/ SSL-VPN/CDP) have been added to SonicWALL GMS management, but not acquired.
🟨⚡	One yellow box with a lightning flash indicates that one or more tasks are pending on the provisioned appliance.
🟨🟨⚡	Two yellow boxes with a lightning flash indicates that tasks are pending on one or more provisioned appliances within the group.
🟥	One red box indicates that the appliance is no longer sending heartbeats to SonicWALL GMS.
🟥🟥	Two red boxes indicate that one or more appliance in the group is no longer sending heartbeats to SonicWALL GMS.
🟥🟥🟥	Three red boxes indicate that one or more of the global group of appliances of this type (Firewall/ SSL-VPN/CDP) is no longer sending heartbeats to SonicWALL GMS.
🟥🟥⚡	Two red boxes with a lightning flash indicate that one or more appliance in the group is no longer sending heartbeats to SonicWALL GMS and has one or more tasks pending.
🟥⚡	One red box with a lightning flash indicates that the appliance is no longer sending heartbeats to SonicWALL GMS and has one or more tasks pending.

Managing SonicWALL Appliances 6

In this Section:

SonicWALL appliances must be running supported firmware to be managed using SonicWALL GMS. For information about configuring other SonicWALL appliances for management, see the *SonicWALL GMS Administrator's Guide*. This section provides instructions for the following example configurations:

- Configuring a SonicWALL NSA 2400 for Management - page 50
- Configuring a SonicWALL SSL-VPN 2000 for Management - page 54

Configuring a SonicWALL NSA 2400 for Management

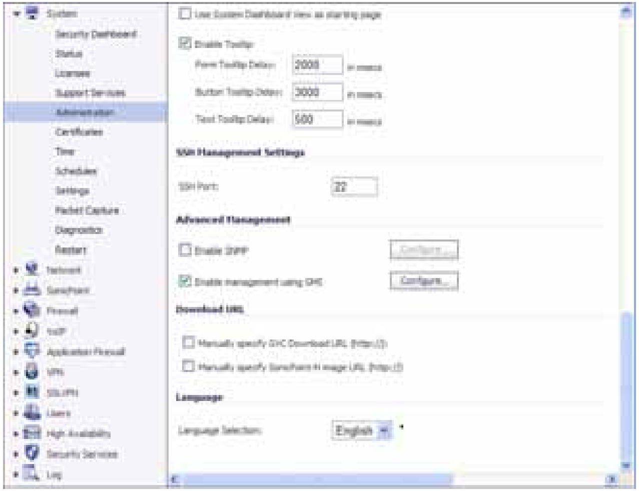
The SonicWALL gateway security (firewall) appliance under management by SonicWALL GMS must be running SonicOS Standard or Enhanced 2.0 or later. To configure a SonicWALL appliance for SonicWALL GMS management, perform the following steps:

- Configuring a SonicWALL NSA 2400 - page 50
- Adding a SonicWALL NSA 2400 to SonicWALL GMS - page 53

Configuring a SonicWALL NSA 2400

To configure a SonicWALL NSA 2400 for SonicWALL GMS management, perform the following steps:

1. Log in to your SonicWALL NSA 2400. Navigate to **System > Administration**. and scroll down to the **Advanced Management** section.



□ Use System Dashboard view as starting page

☑ Enable Tooltip

Form Tooltip Delay: 2000 in msecs

Button Tooltip Delay: 3000 in msecs

Text Tooltip Delay: 500 in msecs

SSH Management Settings

SSH Port: 22

Advanced Management

□ Enable SNMP

☑ Enable management using GMS

Download URL

□ Manually specify GVC Download URL (http://)

□ Manually specify SonicPoint-N image URL (http://)

Language

Language Selection: English *

2. Select the **Enable management using GMS** checkbox. Click **Configure**.

3. Type the SonicWALL UMA EM5000 host name or IP address in the **GMS Host Name or IP Address** field.

4. Type the SonicWALL GMS syslog server port in the **GMS Syslog Server Port** field. The default port is 514.
5. Leave the box next to **Send Heartbeat Status Messages Only** unchecked, unless you don't want to receive reports for this managed appliance.
6. If your SonicWALL UMA EM5000 appliance is directly accessible from the SonicWALL NSA 2400 appliance, leave the checkbox next to **GMS behind a NAT Device** unchecked. If your SonicWALL UMA EM5000 appliance is not directly accessible from the SonicWALL NSA 2400 appliance, select the **GMS behind NAT Device** checkbox and type the WAN IP address of the gateway device in the **NAT Device IP Address** field. Refer to the *SonicWALL GMS Administrator's Guide* for detailed information on configuring your SonicWALL UMA EM5000 behind a NAT device.

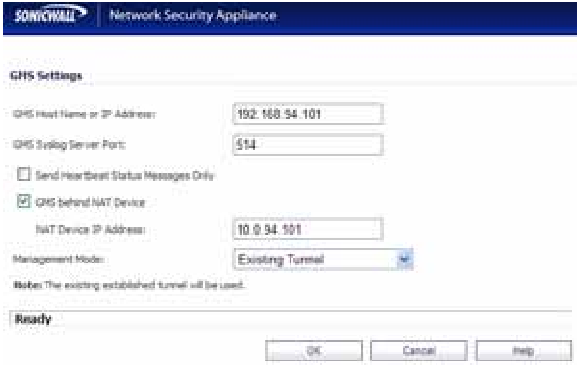
Tip: *If your gateway controller is running in transparent mode, the WAN IP is the same as the LAN IP.*

7. From the **Management Mode** drop-down box, select one of the following methods of management: **IPSEC Management Tunnel**, **Existing Tunnel**, or **HTTPS**. For information on selecting a management method, refer to GMS Gateway Recommendations - page 7.

    - If the SonicWALL appliance will be managed through a VPN management tunnel (default), select **IPSEC Management Tunnel**. The **Inbound/Outbound SPI**, **Encryption Algorithms**, **Encryption Key,** and **Authentication Key** fields will appear, and each will be populated. Alternatively, you can create your own keys. The Encryption Key must be 16 characters long, and the Authentication Key must be 32 characters long.

Note: *Record your Encryption Key and Authentication Key. You will need both keys when you add your appliance for management using SonicWALL GMS.*

- If the SonicWALL appliance will be managed through an existing tunnel or is on the same network as the SonicWALL UMA EM5000 appliance, select **Existing Tunnel**. Verify that a tunnel has been created between the SonicWALL UMA EM5000 subnet and the appliance.



GMS Settings

GMS Host Name or IP Address: 192.168.94.101

GMS Syslog Server Port: 514

□ Send Heartbeat Status Messages Only

☑ GMS behind NAT Device

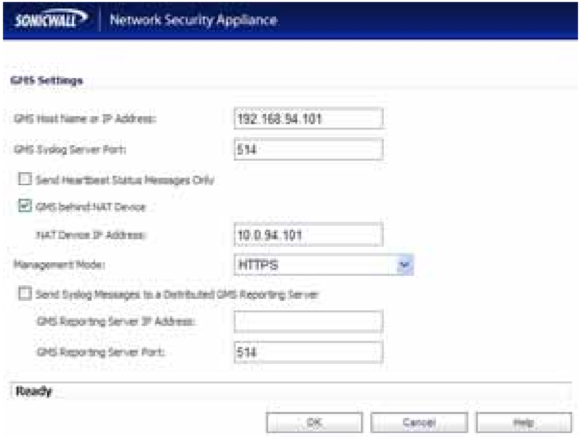
NAT Device IP Address: 10.0.94.101

Management Mode: Existing Tunnel

Note: The existing established tunnel will be used.

Ready

- If the SonicWALL appliance will be managed using HTTPS, select **HTTPS**. If the SonicWALL UMA EM5000 appliance role includes the GMS Reporting service, do not select the **Send Syslog Messages to a Distributed GMS Reporting Server** checkbox. If you have a distributed SonicWALL GMS deployment with a different Reporting server, select the **Send Syslog Messages to a Distributed GMS Reporting Server** checkbox and type the IP address and port of the Reporting server into the respective fields.



GMS Settings

GMS Host Name or IP Address: 192.168.94.101

GMS Syslog Server Port: 514

□ Send Heartbeat Status Messages Only

☑ GMS behind NAT Device

NAT Device IP Address: 10.0.94.101

Management Mode: HTTPS

□ Send Syslog Messages to a Distributed GMS Reporting Server

GMS Reporting Server IP Address:

GMS Reporting Server Port: 514

Ready

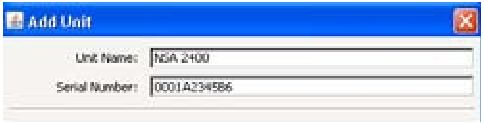
Note: *If HTTPS management mode is specified, ensure that the SonicWALL UMA EM5000 can receive syslog data from the managed appliance by allowing traffic over port 514, or a custom port if you specified one, to pass through the firewall in front of the SonicWALL UMA EM5000.*

8. When you are finished, click **OK**.

Adding a SonicWALL NSA 2400 to SonicWALL GMS

To add your appliance to SonicWALL GMS, perform the following steps:

1. Log in to the SonicWALL GMS management interface.
2. Expand the SonicWALL GMS tree and select the group to which you will add the SonicWALL appliance. Then, right-click the group and select **Add Unit** from the pop-up menu. To add the appliance independently from any group, right-click an open area in the left pane and select **Add Unit**. The Add Unit dialog box appears.



Unit Name: NSA 2400

Serial Number: 0001A234586

3. Enter a descriptive name for the managed appliance in the **Unit Name** field.
4. Enter the managed appliance serial number in the **Serial Number** field. The serial number can be found in the appliance management interface under **System > Status**.
5. To specify the IP address of the SonicWALL NSA appliance, select the **Specify manually** radio button for **Managed Address**, and type the IP address into the field.
6. Enter the managed appliance administrator login name in the **Login Name** field. The default is **admin**.
7. Enter the managed appliance administrator password in the **Password** field.
8. Select the radio button next to the management mode that is the same as the mode you selected in the SonicWALL NSA 2400 management interface in Configuring a SonicWALL NSA 2400 - page 50: Select **Using Existing Tunnel or LAN**, **Using Management VPN Tunnel**, or **Using HTTPS.**
   - If you choose **Using Existing Tunnel or LAN**, the HTTP port will be populated with the default value, 80.
   - If you choose **Using Management VPN Tunnel**, the HTTP port will be populated with the default value, 80. Provide the SA encryption key and SA authentication key in the **SA Encryption Key** and **SA Authentication Key** fields. These fields must exactly match the values in the SonicWALL NSA 2400 configuration.
   - If you choose **Using HTTPS**, the **HTTPS Port** field is populated with the default value, 443.
9. If a different SonicWALL UMA EM5000 appliance or host server will be the Agent for managing the SonicWALL NSA appliance, select the IP address of that system from the **Agent IP Address** drop-down list.
10. If your deployment includes a Standby Agent, select its IP address from the **Standby Agent IP** drop-down list.
11. To add this SonicWALL NSA appliance to SonicWALL GMS monitoring, select the **Add this unit to Net Monitor** checkbox.
12. Click **OK**. It may take up to a minute for the data to load.

The new SonicWALL appliance displays in the left pane of the SonicWALL GMS interface as a yellow icon, which means the unit has not been acquired by SonicWALL GMS. After the appliance has been acquired, the icon will either turn red, indicating that the appliance status is down, or blue, indicating that the appliance status is up. You can view the status of the acquisition process in the **System > Status** screen of the managed appliance available in the center pane of the SonicWALL GMS management interface. You will need to refresh the screen by clicking the **Status** link in the center pane. For detailed managed appliance icon descriptions, refer to the table in the *Description of Managed Appliance States* section, on page 46.

It may take up to five minutes for SonicWALL GMS to establish a management VPN tunnel, set up an HTTPS connection, or use the existing site-to-site VPN tunnel to access the managed appliance and acquire it for management. For SonicWALL GMS appliance acquisition troubleshooting, refer to the *SonicWALL GMS Administrator's Guide.*

When the appliance has been acquired, the configuration settings will be displayed at the unit level, and the settings will be saved to the database.

Your SonicWALL NSA 2400 is now ready for management using SonicWALL GMS.

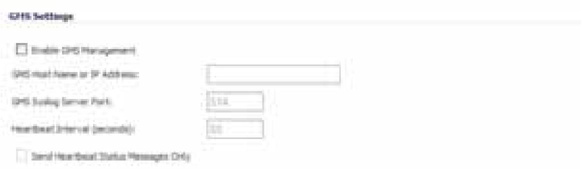
Configuring a SonicWALL SSL-VPN 2000 for Management

SonicWALL SSL-VPN 2000 appliances must be running SonicOS SSL-VPN 2.0 or higher. To configure a SonicWALL SSL-VPN 2000 for SonicWALL GMS management, perform the following tasks:

- Configuring a SonicWALL SSL-VPN 2000 - page 54
- Adding a SonicWALL SSL-VPN 2000 to SonicWALL GMS - page 55

Configuring a SonicWALL SSL-VPN 2000

1. Log in to your SonicWALL SSL-VPN 2000.
2. Navigate to **System > Administration**.
3. Under GMS settings, select the **Enable GMS Management** checkbox.



GMS Settings

□ Enable GMS Management

GMS Host Name or IP Address:

GMS Syslog Server Port: 514

Heartbeat Interval (seconds): [illegible]

□ Send Heartbeat Status Messages Only

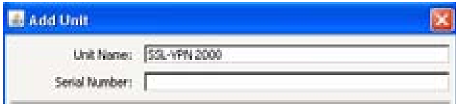
4. Type the SonicWALL UMA EM5000 host name or IP address in the **GMS Host Name or IP Address** field.
5. Type the SonicWALL GMS syslog server port in the **Syslog Server Port** field. The default port is 514.

6. Enter the desired interval for sending heartbeats to the SonicWALL GMS server, in seconds, in the **Heartbeat Interval (seconds)** field. The maximum heartbeat interval is 86400 (24 hours).
7. Click **Accept**.

Adding a SonicWALL SSL-VPN 2000 to SonicWALL GMS

To add your appliance to the SonicWALL GMS system, perform the following steps:

1. Log in to the SonicWALL GMS management interface.
2. Click the **SSL-VPN** tab at the top of the management interface.
3. Expand the SonicWALL GMS tree and select the group to which you will add the SonicWALL appliance. Then, right-click the group and select **Add Unit** from the pop-up menu. To add the appliance independently from any group, right-click an open area in the left pane and select **Add Unit**. The Add Unit dialog box appears.



Unit Name: SSL-VPN 2000

Serial Number:

4. Enter a descriptive name for the SonicWALL SSL-VPN appliance in the **Unit Name** field.
5. Enter the SonicWALL SSL-VPN appliance serial number in the **Serial Number** field. The serial number can be found in the SonicWALL SSL-VPN management interface under **System > Status**.
6. To specify the IP address of the SonicWALL SSL-VPN appliance, select the **Specify manually** radio button for **Managed Address**, and type the IP address into the field.
7. Enter the SonicWALL SSL-VPN appliance administrator login name in the **Login Name** field.
8. Enter the appliance administrator password in the **Password** field.
9. The radio button next to **Using HTTPS** is automatically selected.
10. If the SonicWALL UMA EM5000 uses a custom HTTPS port number, type it into the **HTTPS Port** field.
11. If a different SonicWALL UMA EM5000 appliance or host server will be the Agent for managing the SonicWALL SSL-VPN, type the IP address of that system into the **Agent IP Address** field.
12. If your deployment includes a Standby Agent, type its IP address into the **Standby Agent IP** field.
13. To add this SonicWALL SSL-VPN appliance to SonicWALL GMS monitoring, select the **Add this unit to Net Monitor** checkbox.
14. Click **OK**.

    It may take up to a minute for the data to load.

The new SonicWALL SSL-VPN appliance displays in the left pane of the SonicWALL GMS interface as a yellow icon, which means the unit has not been acquired by SonicWALL GMS. After the appliance has been acquired, the icon will either turn red, indicating that the appliance status is down, or blue, indicating that the appliance status is up. You can view the status of the acquisition process in the **System > Status** screen of the managed appliance available in the center pane of the SonicWALL GMS management interface. You will need to refresh the screen by clicking the **Status** link in the center pane. For detailed appliance icon descriptions, refer to the table in the *Description of Managed Appliance States* section, on page 46.

It may take up to five minutes for SonicWALL GMS to establish an HTTPS connection and acquire the appliance for management. For SonicWALL GMS appliance acquisition troubleshooting, refer to the *SonicWALL GMS Administrator's Guide.*

Your SonicWALL SSL-VPN appliance is now ready for management using SonicWALL GMS.

Reporting 7

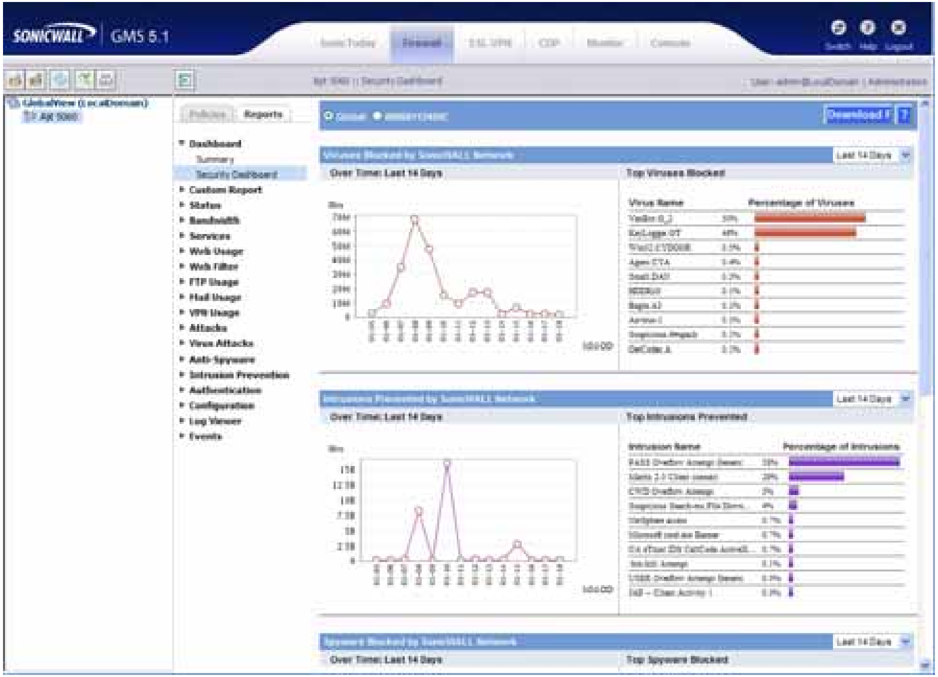
In This Section:

This section contains information about SonicWALL Universal Management reporting.

- Overview of SonicWALL GMS Reporting - page 58
- Using the SonicWALL GMS Summarize Now Feature - page 61

Overview of SonicWALL GMS Reporting

SonicWALL GMS reporting complements SonicWALL GMS monitoring and other SonicWALL Internet security offerings by providing detailed and comprehensive reports of network activity. SonicWALL GMS reporting allows you to review network access, enhance security, and anticipate future bandwidth needs. SonicWALL GMS reporting is available for appliances on the **Firewall** and **SSL-VPN** tabs, using the **Reports** tab in the center pane of the SonicWALL GMS management interface.



The SonicWALL GMS reporting feature receives its information from the stream of syslog data sent by each SonicWALL appliance, processes the data, and stores it. SonicWALL GMS Reporting can be enabled or disabled. The SonicWALL GMS reporting module provides the following information:

- Custom reports on Internet activity
- Bandwidth use by IP address and service
- Inappropriate Web usage
- Detailed reports of attacks
- System and network errors
- VPN events and problems
- Web usage
- Firewall event logs

The SonicWALL GMS reporting feature provides the following configurable reports:

Dashboard	A high-level activity summary of bandwidth, uptime, intrusions, attacks, and alerts for managed SonicWALL UTM appliances.
Custom Report	Granular details from raw syslog data using your customized filtering. Can provide date and time down to the second of all Internet activity passing through a monitored SonicWALL security appliance.
Status	The number of hours that managed SonicWALL appliances were online and functional during the time period.
Bandwidth	The amount of data transferred through selected managed appliances, including the cost of consumed network bandwidth per 100 MB transferred.
Services*	The amount of data transmitted through the selected appliance by each service protocol. *Services reporting is only available at the unit level.
Web Usage	Web bandwidth usage per appliance over time, top Web bandwidth users, most visited sites, and amount of time consumed browsing the Internet through the selected appliances.
Web Filter	The number of attempts that users made to access blocked Web sites through the selected appliances, the users that most frequently attempt to access blocked sites, and the most popular blocked sites.

FTP Usage	The amount of FTP usage that occurs through the selected appliances.
Mail Usage	The amount of mail usage that occurs through the selected SonicWALL appliances.
VPN Usage	The amount of VPN usage that occurs through the selected SonicWALL appliances.
Attacks	The number of attacks that were directed at or through the selected appliances, including denial of service attacks, intrusions, probes, and other malicious activity directed at the appliance or computers on the LAN or DMZ.
Virus Attacks	The number of virus attacks that were directed at or through the selected appliances. The selected appliances must be licensed for SonicWALL Gateway Anti-Virus.

Anti-Spyware	The number of spyware attacks that were directed at or through the selected appliances. The selected appliances must be licensed for SonicWALL Anti-Spyware.
Intrusion Prevention	The number of attempted intrusions that were directed at or through the selected appliances. The selected appliances must be licensed for SonicWALL Intrusion Prevention Service.
Authentication*	The successful and failed login attempts for users and administrators. *Authentication reports are available at the unit level.

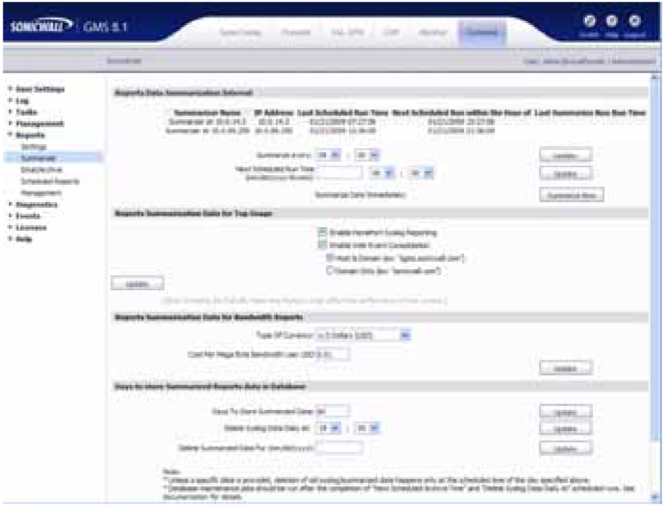
Using the SonicWALL GMS Summarize Now Feature

The Summarize Now feature allows the administrator to force the summarizer to process all data received since the last summarization. This can be done in order to display report data that has not yet been processed.

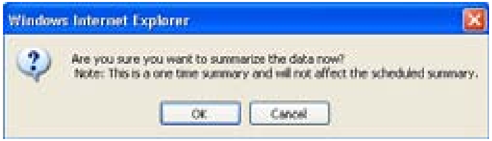
The SonicWALL GMS Summarize Now feature is located in the **Console** tab under **Reports > Summarizer**. The SonicWALL GMS Summarizer creates summary reports by default every 8 hours. Summary reports can be configured by the administrator to occur every 1 to every 24 hours. For more information about the Summarizer feature of SonicWALL GMS, refer to the *SonicWALL GMS Administrator's Guide.*

To use the Summarize Now feature, perform the following steps:

1. Click the **Console** tab at the top of the screen.
2. In the left pane, navigate to **Reports > Summarizer** and click **Summarize Now**.



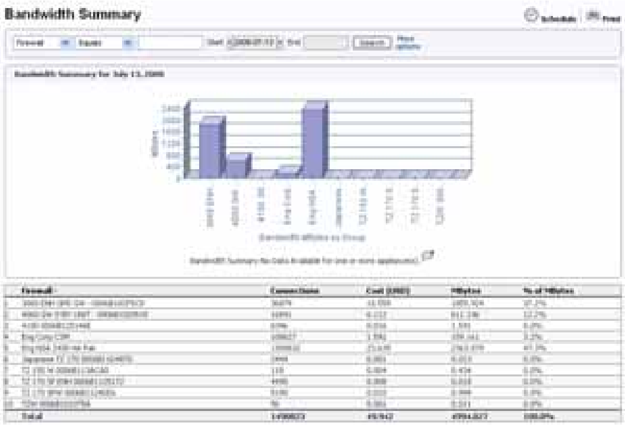
3. You will see a pop-up window verifying that you want to summarize the data now. Summarizing data using Summarize Now is a one-time action and will not affect the scheduled summary. Click **OK** to continue.


Windows Internet Explorer

Are you sure you want to summarize the data now?
Note: This is a one time summary and will not affect the scheduled summary.

4. Navigate to **Log > View Logs**. Search for the message **Report Data Summarized** to verify that the Summarize Now action has completed.
5. When Summarize Now has completed, navigate to the **Firewall** or **SSL-VPN** tab at the top of the screen. In the left-most pane, click **GlobalView** or click a managed appliance.
6. Click the **Reports** tab in the center pane.

Alert: *You may see incomplete data if you view the Summary section of a selected report before the Summarize Now process is complete. Wait for the **Report Data Summarized** message to be displayed in **Log > View Logs**.*



Bandwidth Summary

	Firewall	Connections	Cost (USD)	MBytes	% of MBytes
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Total	[illegible]	[illegible]	[illegible]	100.0%

7. In the center pane, click a report to expand it, then click the **Summary** option underneath it. For example, click **Bandwidth**, then click **Summary** to review the summarized bandwidth usage data. Navigate to the Summary section of other reports in the center pane to see other summarized data.

Monitoring 8

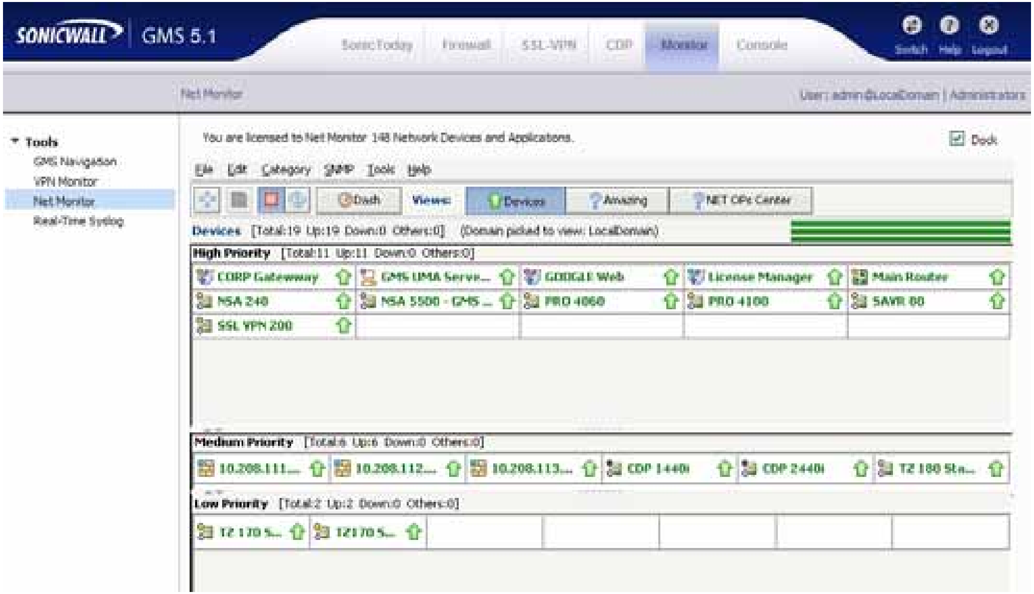
In this Section:

This section contains information about SonicWALL Universal Management monitoring.

- Overview of SonicWALL GMS Monitoring - page 64
- Monitoring a SonicWALL NSA 2400 Using SNMP - page 65
- Monitoring an FTP Server Using Ping - page 71

Overview of SonicWALL GMS Monitoring

The SonicWALL GMS monitoring feature is used for real-time monitoring of SonicWALL appliances, VPN tunnels, network devices, and syslog information. Monitoring critical network events and activity, such as security threats, inappropriate Web use, and bandwidth levels, is an essential component of network security. SonicWALL GMS can monitor WAN traffic using physical and logical monitoring, enabling it to detect physical issues, for example, if a link is unplugged or disconnected, and higher level traffic, for example, upstream connectivity interruptions. The SonicWALL GMS monitoring feature is accessible using the **Monitor** tab at the top of the management interface.



You are licensed to Net Monitor 148 Network Devices and Applications.

Devices [Total:19 Up:19 Down:0 Others:0] (Domain picked to view: LocalDomain)

High Priority [Total:11 Up:11 Down:0 Others:0]

Medium Priority [Total:6 Up:6 Down:0 Others:0]

Low Priority [Total:2 Up:2 Down:0 Others:0]

The SonicWALL monitoring feature provides the following configurable monitors:

GMS Navigation	Provides a detailed, graphical map of the SonicWALL GMS security management deployment, including the GMS database, GMS console, GMS agents, remotely managed SonicWALL appliances and the primary and back-up management tunnels.
VPN Monitor	Provides a graphical view of the interconnected VPN tunnels within an organization, and displays VPN tunnel up and down status.
Net Monitor	Provides TCP/IP device status and provides SNMP-based detailed statistics.
Real-Time Syslog	Provides real-time syslog data monitoring.

Monitoring a SonicWALL NSA 2400 Using SNMP

SonicWALL GMS can monitor Simple Network Management Protocol (SNMP)-capable SonicWALL and non-SonicWALL devices.

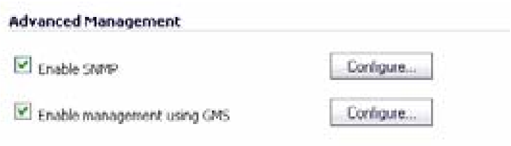
To monitor a SonicWALL NSA 2400 using SNMP, perform the following steps:

1. Add the appliance to SonicWALL GMS management by following the procedure in Configuring a SonicWALL NSA 2400 for Management - page 50.
2. Perform the steps described in Enabling SNMP on the Target Appliance - page 66.
3. Perform the steps described in Enabling SNMP Monitoring in SonicWALL GMS - page 67.

Note: *SNMP must be able to reach the target appliance. For detailed information about monitoring appliances with SNMP, refer to the* ***SonicWALL GMS Administrator's Guide****.*

Enabling SNMP on the Target Appliance

1. Log in to the SonicWALL NSA 2400.
2. Navigate to **System > Administration** and select the **Enable SNMP** checkbox.



Advanced Management

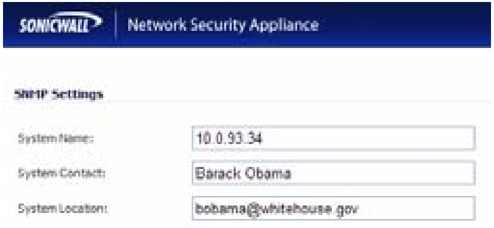
☑ Enable SNMP

☑ Enable management using GMS

SNMP is now configured.

Note: *If a SonicWALL appliance is already under SonicWALL GMS management, you can select the **Enable SNMP** checkbox and not provide the host information in the SNMP Settings page displayed by clicking* **Configure**.

3. To configure custom SNMP settings, click the **Configure** button next to **Enable SNMP**. Custom settings are optional. To use the default settings, do not click **Configure**.



SNMP Settings

System Name: 10.0.93.34

System Contact: Barack Obama

System Location: bobama@whitehouse.gov

4. Type the host name of the SonicWALL security appliance in the **System Name** field
5. Type the network administrator’s name in the **System Contact** field.
6. Type an email address, telephone number, or pager number in the **System Location** field.
7. Type a name for a group or community of administrators who can view SNMP data in the **Get Community Name** field.
8. Click **OK**. It is not necessary to fill in the **Host** fields when SonicWALL GMS management is enabled.

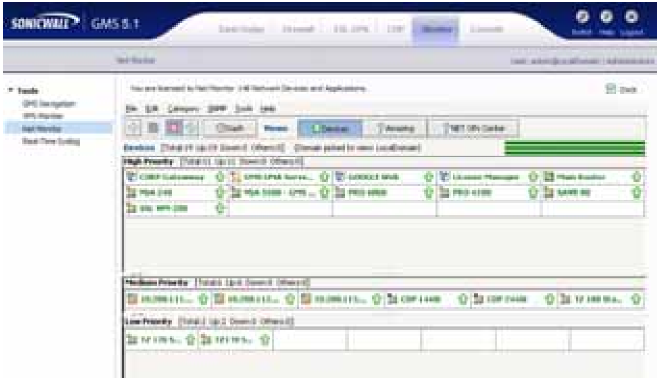
Note: *For information about advanced SNMP configuration, including SNMP trap settings, refer to the **SonicWALL GMS Administrator’s Guide**.*

Enabling SNMP Monitoring in SonicWALL GMS

Tip: *You can also add appliances to Net Monitor when you add the appliance by clicking the checkbox next to **Add this unit to Net Monitor**. Alternatively, if an appliance is already added to SonicWALL GMS, you can right click the appliance and select **Add to Net Monitor.***

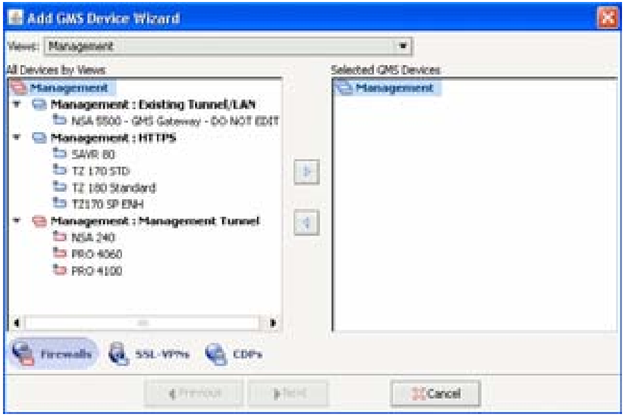
To add an appliance that will use SNMP monitoring in SonicWALL GMS, perform the following steps:

1. Log in to the SonicWALL GMS management interface.
2. Click the **Monitor** tab at the top of the page and navigate to **Tools > Net Monitor**.

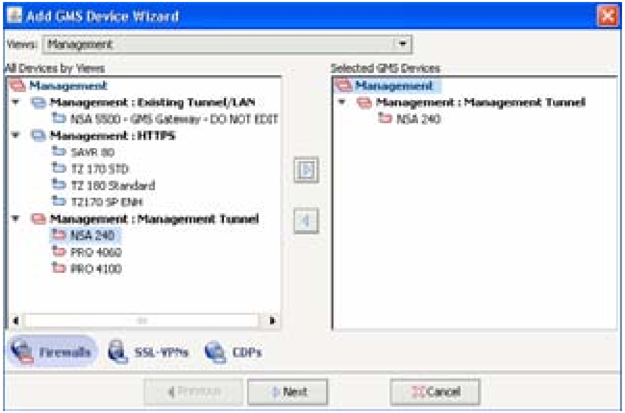


3. Click the **Add** button and select **Add GMS Device**.

   The **Add GMS Device Wizard** displays.



4. In the **All Devices by Views** column, select the Sonicwall appliance and click the right arrow to add the device to the **Selected GMS Devices** column.



Views: Management

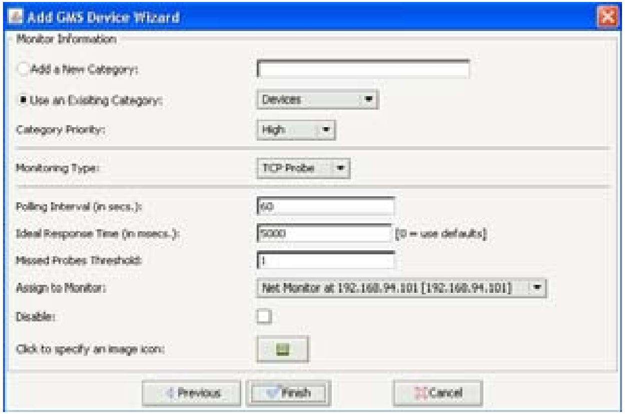
All Devices by Views

- Management
  - Management : Existing Tunnel/LAN
    - NSA 5500 - GMS Gateway - DO NOT EDIT
  - Management : HTTPS
    - SAVR 80
    - TZ 170 STD
    - TZ 180 Standard
    - TZ170 SP ENH
  - Management : Management Tunnel
    - NSA 240
    - PRO 4060
    - PRO 4100

Selected GMS Devices

- Management
  - Management : Management Tunnel
    - NSA 240

5. Click **Next**. The **Add GMS Device Wizard Monitor Information** page displays.



Monitor Information

○ Add a New Category:

● Use an Existing Category: Devices

Category Priority: High

Monitoring Type: TCP Probe

Polling Interval (in secs.): 60

Ideal Response Time (in msecs.): 5000 [0 = use defaults]

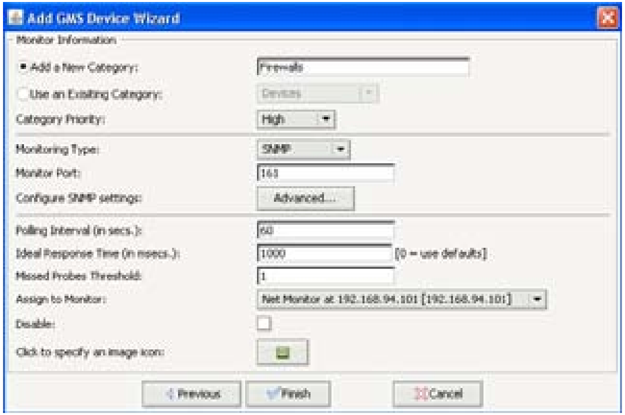
Missed Probes Threshold: 1

Assign to Monitor: Net Monitor at 192.168.94.101 [192.168.94.101]

Disable: □

Click to specify an image icon:

6. Select the **Add a New Category** radio button and type in a category name, for example, **Firewalls**.



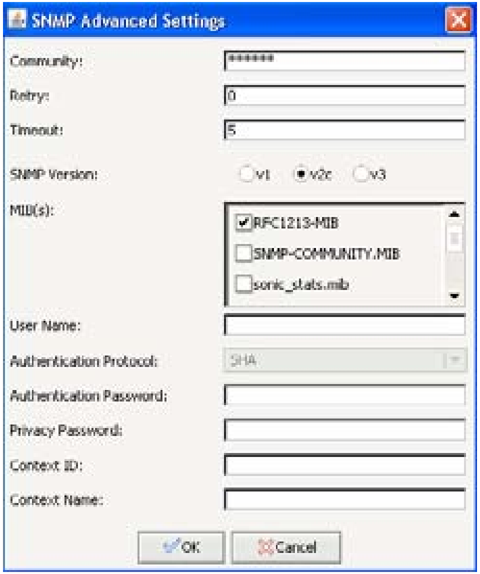
Monitor Information

● Add a New Category: Firewalls
○ Use an Existing Category: Devices
Category Priority: High
Monitoring Type: SNMP
Monitor Port: 161
Configure SNMP settings: Advanced...
Polling Interval (in secs.): 60
Ideal Response Time (in msecs.): 1000 [0 = use defaults]
Missed Probes Threshold: 1
Assign to Monitor: Net Monitor at 192.168.94.101 [192.168.94.101]
Disable: □
Click to specify an image icon:

7. Select the priority of the SonicWALL appliance(s) from the **Category Priority** list box, either **High**, **Medium**, or **Low**.

8. From the **Monitoring Type** drop-down, select **SNMP**. Enter a **Monitor Port**. The default monitor port is 161.

9. Click the **Advanced** button to configure the following SNMP fields:



Community: ******
Retry: 0
Timeout: 5
SNMP Version: ○ v1 ● v2c ○ v3
MIB(s): ☑ RFC1213-MIB
□ SNMP-COMMUNITY.MIB
□ sonic_stats.mib
User Name:
Authentication Protocol: SHA
Authentication Password:
Privacy Password:
Context ID:
Context Name:

Community	Enter the community name.
Retry	Enter the time to retry, in seconds.
Timeout	Enter the timeout length, in seconds.

SNMP Version	Select the version of SNMP to be used, either v1, v2c, or v3.
MIB(s)	Select the MIB(s) you wish to use for polling information.
User Name	Enter a user name (for SNMP v3 only).
Authentication Protocol	Select an authentication protocol form the pull-down menu, either SHA or MD5 (SNMP v3 only).
Authentication Password	Enter an authentication password (SNMP v3 only).
Privacy Password	Enter a privacy password (SNMP v3 only).
Context ID	Enter a context ID (SNMP v3 only).
Context Name	Enter a context name (SNMP v3 only).

10. Press the **OK** button to save the SNMP advanced settings.
11. Specify how often, in seconds, the appliance will be tested in the **Polling interval (in secs.)** field. The default polling interval is 60 seconds.
12. Specify the ideal response time of the appliance, in milliseconds, in the **Ideal Response Time (in msecs.)** field. The default ideal response time is 1,000 msecs.

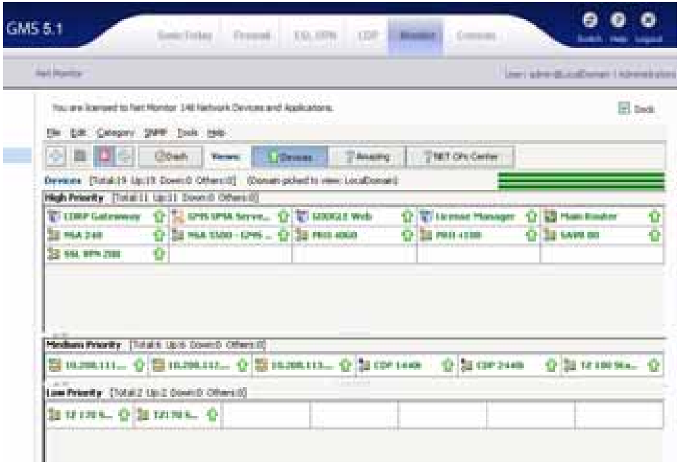
Note: *Appliances that take between 1 and 1.5 times the ideal response time will be labeled **slow**, and appliances that take between 1.5 and 2 times the ideal response time will be labeled **very slow**.*

13. Specify the number of missed probes allowed in the **Missed Probes Threshold** field. The default number of missed probes allowed is 1.
14. Select the agent that will perform the monitoring from the **Assign to Monitor** drop-down menu.
15. Do not check the **Disable** checkbox unless you want to disable monitoring for this appliance.
16. To optionally change the icon image that will represent the appliance, click the button next to **Click to specify an image icon** and choose an image. Click **OK**.
17. Click **Finish**.
18. When your appliance has been added, a confirmation pop-up will display. Click **OK**.
19. Click the button of the category you created, for example, **Firewalls**. Your appliance will appear under the priority level you assigned to the appliance.

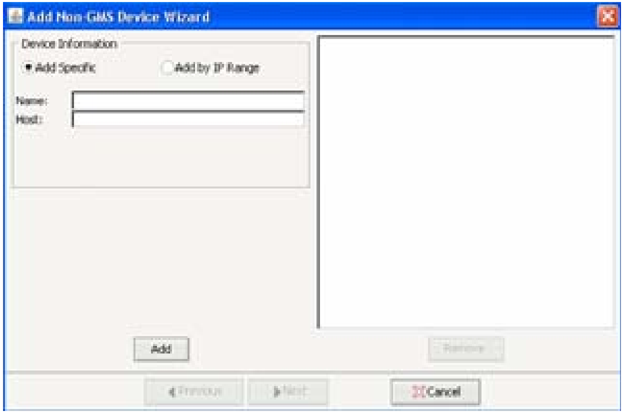
Monitoring an FTP Server Using Ping

To monitor an FTP server using Ping, add the appliance to SonicWALL GMS, then perform the following tasks:

1. Click the **Monitor** tab at the top of the screen.
2. In the center pane, navigate to **Tools > Net Monitor**.

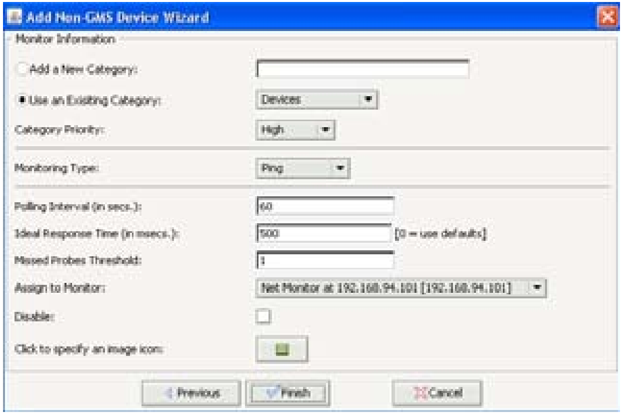

GMS 5.1
Monitor
Net Monitor
You are licensed to Net Monitor 148 Network Devices and Applications.
File Edit Category SNMP Tools Help
Devices
Mapping
High Priority
Medium Priority
Low Priority

3. Click the **Add** button and select **Add Non-GMS Device**. The **Add Non-GMS Device Wizard** displays.



4. Select the radio button next to **Add Specific** to add by the FTP server using its name and host.
5. Type the FTP server name in the **Name** field and the FTP server IP address or host name in the **Host** field. Click **Add**.
6. Highlight the device in the right-hand window.

7. Click **Next**. The **Add Non-GMS Device Wizard Monitor Information** page displays.



Add Non-GMS Device Wizard

Monitor Information

○ Add a New Category:

● Use an Existing Category: Devices

Category Priority: High

Monitoring Type: Ping

Polling Interval (in secs.): 60

Ideal Response Time (in msecs.): 500 [0 = use defaults]

Missed Probes Threshold: 1

Assign to Monitor: Net Monitor at 192.168.94.101 [192.168.94.101]

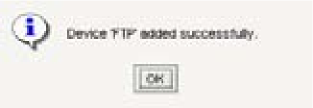
Disable: □

Click to specify an image icon:

8. Select the radio button next to **Add a New Category** and type in a category name, for example, **FTP**.
9. Select the priority of the FTP server from the **Category Priority** list box, either **High**, **Medium**, or **Low**.
10. From the **Monitoring Type** drop-down, select **Ping**.
11. Specify how often, in seconds, the FTP server will be tested in the **Polling interval (in secs.)** field. The default polling interval is 60 seconds.
12. Specify the ideal response time of the FTP server, in milliseconds, in the **Ideal Response Time (in msecs.)** field. The default ideal response time is 500 msecs.

Note: *Appliances that take between 1 and 1.5 times the ideal response time will be labeled **slow**, and appliances that take between 1.5 and 2 times the ideal response time will be labeled **very slow**.*

13. Specify the number of missed probes allowed in the **Missed Probes Threshold** field. The default number of missed probes allowed is 1.
14. Select the agent that will perform the monitoring from the **Assign to Monitor** drop-down menu.
15. Do not check the **Disable** checkbox unless you want to disable monitoring for this appliance.
16. To optionally change the icon image that will represent the FTP server, click the button next to **Click to specify an image icon** and choose an image. Click **OK**.
17. Click **Finish**.
18. When your appliance has been added, a confirmation pop-up will display. Click **OK**.



Device 'FTP' added successfully.

19. Click the button of the category you created, for example, **FTP**. Your appliance will appear under the priority level you assigned to the appliance.

Front Panel LCD Controls 9

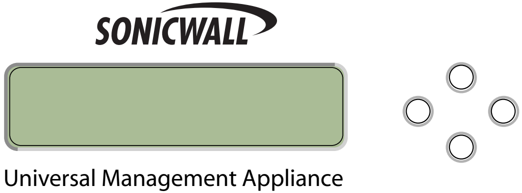
In this Section:

This section provides information about using the LCD controls on the front panel of the SonicWALL UMA EM5000.

- Front Panel Control Features - page 74
- Using the Main Menu - page 74
- About the Status Menu - page 75
- Using the Configure Menu - page 75
- Using the Restart Option - page 76
- Using the Shutdown Option - page 76

Front Panel Control Features

The SonicWALL UMA EM5000 appliance is equipped with a front panel interface that allows an administrator to customize certain aspects of the appliance or simply monitor its status without having to log into it through a separate terminal.



By default, the LCD display cycles through the Status values in screen-saver mode. The display returns to screen-saver mode after 6 seconds of no activity on the 4-way D-pad or after pressing the **Left** button from the Main Menu.

Using the Main Menu

Upon booting, the LCD display will initially show the Main Menu. The menu is made up of four options:

	Contains basic status values including system resources, connections, and port configuration values.
	Allows configuration of basic LAN port settings. Requires system pin for access, default: **76642**.
	Allows the appliance to be restarted.
	Allows the appliance to be shut down and powered off.

The Status and Configure options are menus that contain multiple selections. The Restart and Shutdown options provide confirmation screens when selected.

Use the **Up** and **Down** buttons to navigate to the option or menu that you wish to enter. Click the **Right** button to select the option or enter the menu and view its selections.

About the Status Menu

The Status menu allows you to view specific aspects of the appliance. The LCD cycles through the Status list by default when no other menu is in use. You can also navigate the list using the **Up** and **Down** buttons. Status values in the list include the following:

- Appliance name
- Software version
- Date
- Time
- Uptime
- Management URL
- Interface eth0 IP (default LAN)
- Interface eth0 subnet mask

Using the Configure Menu

The Configure menu allows you to configure specific aspects of the appliance. When the Configure menu is selected, the LCD will display a PIN request.

Note: *The Default PIN is **76642**. This number spells SONIC on a phone keypad.*

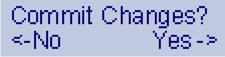
All numbers are entered using the 4 buttons on the D-pad.

To enter the PIN, use the buttons as follows:

1. Select the desired number using the **Up** and **Down** buttons. Digits increase incrementally from 0 to 9.
2. To move to the next digit field, press the **Right** button.
3. To move back to a previous digit field, press the **Left** button.
4. When you are finished entering the PIN, press the **Right** button to confirm your PIN and enter the Configure Menu.

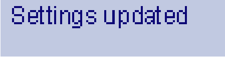
The appliance allows the user to navigate in and out of the Configure menu without having to re-enter the PIN. However, once the appliance enters screen-saver mode, whether from the 6 second time out or from pressing the **Left** button while in the Main Menu, the PIN number must be re-entered to access the Configure menu.

After entering a new value for a setting in the Configure menu, you are asked if you want to commit changes. Using the 4-way D-pad, press the **Right** button for yes or the **Left** button for no.



```
Commit Changes?
<-No      Yes->
```

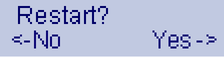
If you choose yes, the screen notifies you that the settings are updated.



```
Settings updated
```

Using the Restart Option

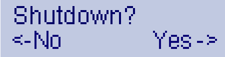
When you select **Restart** from the Main Menu, you are asked to confirm the appliance restart. Press the **Right** button for yes or the **Left** button for no.



```
 Restart?
<-No        Yes->
```

Using the Shutdown Option

When you select **Shutdown** from the Main Menu, you are asked to confirm the appliance shutdown. Press the **Right** button for yes or the **Left** button for no.



```
Shutdown?
<-No        Yes->
```

Support and Training Options 10

In this Section:

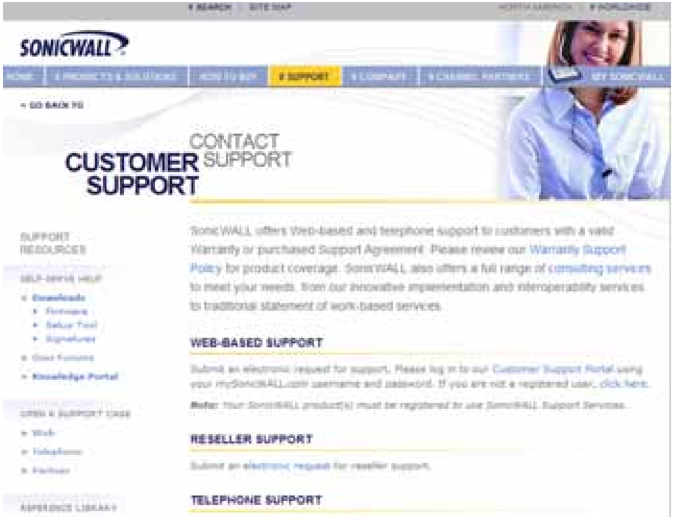
This section provides SonicWALL support and training information.

- Customer Support - page 78
- Knowledge Portal - page 78
- SonicWALL Live Product Demos - page 79
- User Forums - page 80
- Training - page 81
- Related Technical Documentation - page 82
- SonicWALL Secure Wireless Network Integrated Solutions Guide - page 83

Customer Support

SonicWALL offers Web-based and telephone support to customers who have a valid Warranty or who purchased a Support Contract. Please review our Warranty Support Policy for product coverage. SonicWALL also offers a full range of consulting services to meet your needs, from our innovative implementation services to traditional statement of work-based services.

For further information, visit:
http://www.sonicwall.com/us/support/contact.html



SonicWALL offers Web-based and telephone support to customers with a valid Warranty or purchased Support Agreement. Please review our Warranty Support Policy for product coverage. SonicWALL also offers a full range of consulting services to meet your needs, from our innovative implementation and interoperability services to traditional statement of work-based services.

WEB-BASED SUPPORT

Submit an electronic request for support. Please log in to our Customer Support Portal using your mySonicWALL.com username and password. If you are not a registered user, click here.

Note: Your SonicWALL product(s) must be registered to use SonicWALL Support Services.

RESELLER SUPPORT

Submit an electronic request for reseller support.

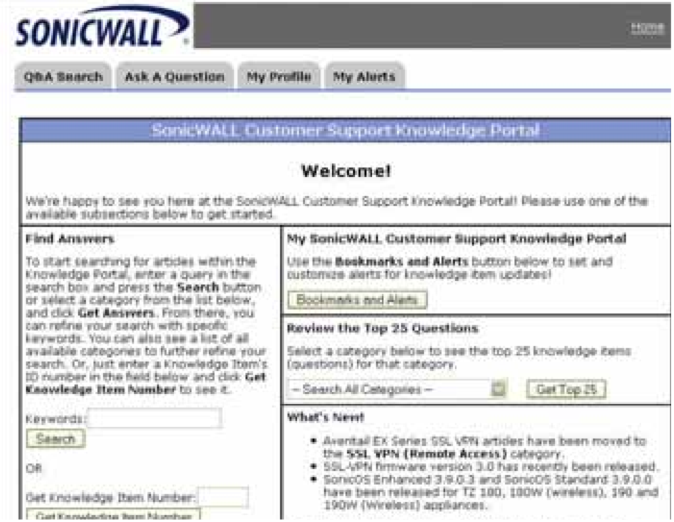
TELEPHONE SUPPORT

Knowledge Portal

The Knowledge Portal allows users to search for SonicWALL documents based on the following types of search tools:

- Browse
- Search for keywords
- Full-text search

For further information, navigate to the **Support** > **Knowledge Portal** page at:
http://www.mysonicwall.com/



SonicWALL Customer Support Knowledge Portal

Welcome!

We're happy to see you here at the SonicWALL Customer Support Knowledge Portal! Please use one of the available subsections below to get started.

Find Answers

To start searching for articles within the Knowledge Portal, enter a query in the search box and press the **Search** button or select a category from the list below, and click **Get Answers**. From there, you can refine your search with specific keywords. You can also see a list of all available categories to further refine your search. Or, just enter a Knowledge Item's ID number in the field below and click **Get Knowledge Item Number** to see it.

Keywords:

OR

Get Knowledge Item Number:

My SonicWALL Customer Support Knowledge Portal

Use the **Bookmarks and Alerts** button below to set and customize alerts for knowledge item updates!

Review the Top 25 Questions

Select a category below to see the top 25 knowledge items (questions) for that category.

-- Search All Categories --

What's New!

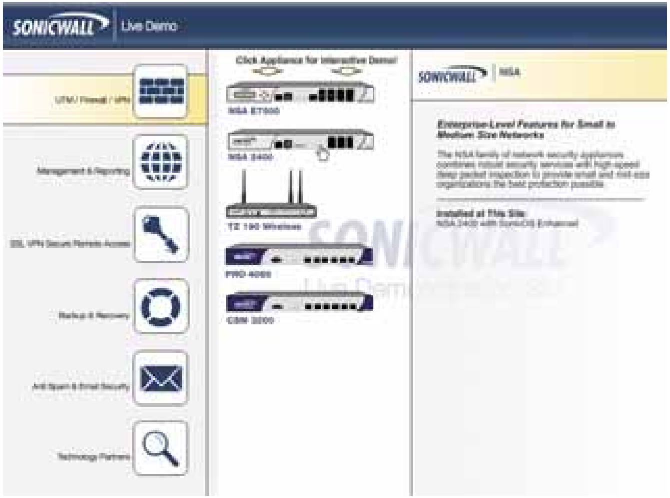
- Aventail EX Series SSL VPN articles have been moved to the **SSL VPN (Remote Access)** category.
- SSL-VPN firmware version 3.0 has recently been released.
- SonicOS Enhanced 3.9.0.3 and SonicOS Standard 3.9.0.0 have been released for TZ 100, 100W (wireless), 190 and 190W (Wireless) appliances.

SonicWALL Live Product Demos

The SonicWALL Live Demo Site provides free test drives of SonicWALL security products and services through interactive live product installations:

- SonicWALL GMS and ViewPoint
- Unified Threat Management Platform
- Secure Cellular Wireless
- Continuous Data Protection
- SSL VPN Secure Remote Access
- Content Filtering
- Secure Wireless Solutions
- Email Security

For further information, visit:
http://livedemo.sonicwall.com/



Enterprise-Level Features for Small to Medium Size Networks

The NSA family of network security appliances combines robust security services with high-speed deep packet inspection to provide small and mid-size organizations the best protection possible.

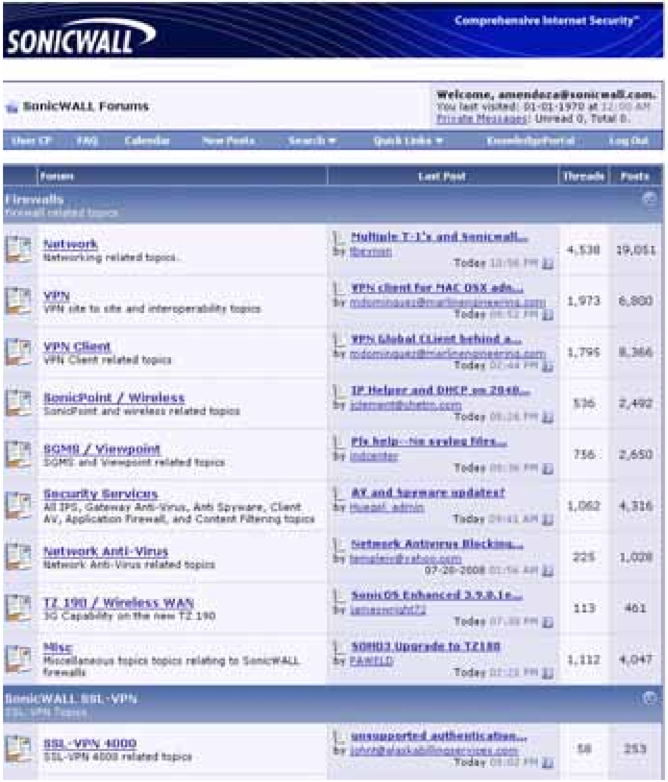
Installed at This Site:
NSA 2400 with SonicOS Enhanced

User Forums

The SonicWALL User Forums is a resource that provides users the ability to communicate and discuss a variety of security and appliance subject matters. In this forum, the following categories are available for users:

- Content Security Manager topics
- Continuous Data Protection topics
- Email Security topics
- Firewall topics
- Network Anti-Virus topics
- Security Services and Content Filtering topics
- SonicWALL GMS and Viewpoint topics
- SonicPoint and Wireless topics
- SSL VPN topics
- SonicWALL TZ 210 / Wireless WAN - 3G Capability topics
- VPN Client topics
- VPN site-to-site and interoperability topics

For further information, visit:
https://forum.sonicwall.com/



SonicWALL Forums

Welcome, amendoza@sonicwall.com.
You last visited: 01-01-1970 at 12:00 AM
Private Messages: Unread 0, Total 0.

Forum	Last Post	Threads	Posts
Firewalls Firewall related topics			
Network Networking related topics.	Multiple T-1's and Sonicwall... by Bexman Today 12:56 PM	4,538	19,051
VPN VPN site to site and interoperability topics	VPN client for MAC OSX adv... by rodominguez@marlinengineering.com Today 06:52 PM	1,973	6,800
VPN Client VPN Client related topics	VPN Global CLient behind a... by rodominguez@marlinengineering.com Today 02:44 PM	1,795	8,366
SonicPoint / Wireless SonicPoint and wireless related topics	IP Helper and DHCP on 2040... by jclement@shetn.com Today 05:26 PM	536	2,492
SGMS / Viewpoint SGMS and Viewpoint related topics	Pls help--No syslog files... by indcenter Today 05:36 PM	756	2,650
Security Services All IPS, Gateway Anti-Virus, Anti Spyware, Client AV, Application Firewall, and Content Filtering topics	AV and Spyware updates! by Hugall_admin Today 09:41 AM	1,062	4,316
Network Anti-Virus Network Anti-Virus related topics	Network Antivirus Blocking... by templem@yahoo.com 07-20-2008 01:56 AM	225	1,028
TZ 190 / Wireless WAN 3G Capability on the new TZ 190	SonicOS Enhanced 3.9.0.1e... by jamesenright72 Today 07:38 PM	113	461
Misc Miscellaneous topics topics relating to SonicWALL firewalls	SOHO3 Upgrade to TZ180 by FAWFLD Today 02:21 PM	1,112	4,047
SonicWALL SSL-VPN SSL-VPN Topics			
SSL-VPN 4000 SSL-VPN 4000 related topics	unsupported authentication... by john@alaskabillingservices.com Today 05:02 PM	58	253

Training

SonicWALL offers an extensive sales and technical training curriculum for Network Administrators, Security Experts and SonicWALL Medallion Partners who need to enhance their knowledge and maximize their investment in SonicWALL Products and Security Applications. SonicWALL Training provides the following resources for its customers:

- E-Training
- Instructor-Led Training
- Custom Training
- Technical Certification
- Authorized Training Partners

For further information, visit:
http://www.sonicwall.com/us/training.html

SonicWALL offers an extensive technical training curriculum for Network Administrators, Security Experts and SonicWALL Medallion Partners who need to enhance their knowledge and maximize their investment in SonicWALL Products and Security Applications.

COURSES & MATERIALS »

SonicWALL provides instructor-led courses and technical eLearning modules designed to supply you with extensive technology foundations, in-depth SonicWALL-specific knowledge, in addition to online practice and an array of supplemental resources to enhance learning. more info »

CERTIFICATION PROGRAMS »

SonicWALL's Technical Certification programs give you confidence and improve your performance, and will immediately identify you as an expert in your field. Demonstrating your capabilities through certification will give you a key advantage whether you are a SonicWALL Medallion Partner, a Network Administrator or a Security Specialist. more info »

CLASS SCHEDULES »

SonicWALL instructor-led classroom training is designed to build upon the knowledge and concepts put forth in the Technical e*Training courses. SonicWALL instructor-led classroom training is offered through SonicWALL Authorized Training Partners. If you are interested in attending SonicWALL instructor-led training, please contact a SonicWALL Authorized Training Partner. more info »

AUTHORIZED TRAINING PARTNERS »

SonicWALL Authorized Training Partners (ATPs) deliver a variety of educational programs to meet the many learning methods that each individual prefers. more info »

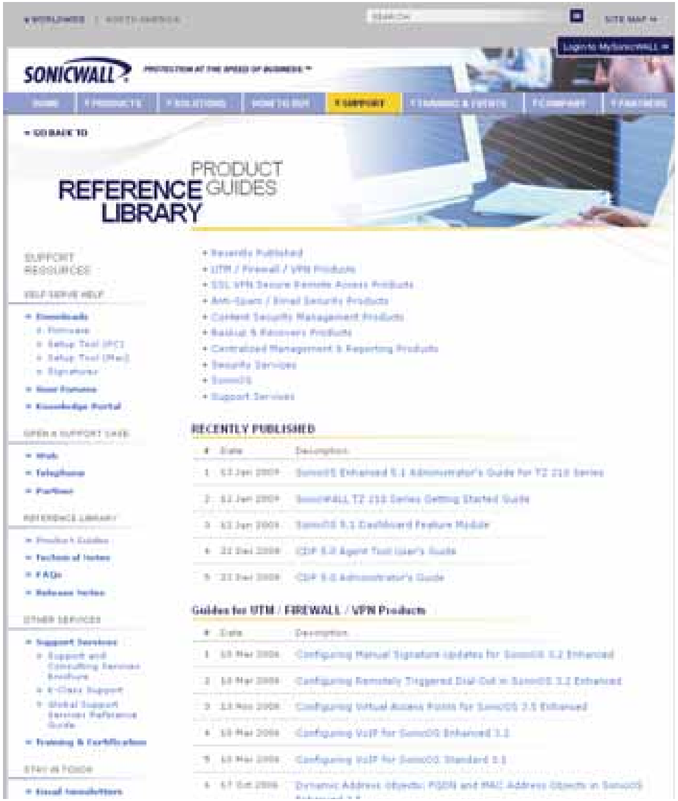
Related Technical Documentation

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

The SonicWALL Universal Management Appliance documentation set includes the following reference guides:

- *SonicWALL UMA EM5000 Getting Started Guide*
- *SonicWALL GMS Release Notes*
- *SonicWALL GMS Administrator’s Guide*
- Stand-alone SonicWALL GMS feature module guides:
  - *SonicToday*
  - *Custom Reports*
  - *Enhanced User Management*
  - *Third Party Authentication*
  - *Installing MySQL*
  - *Granular Event Management*
  - *SonicOS SSL-VPN Reporting & Enhancements*
  - *SonicWALL CDP Appliance Management*
  - *SonicWALL SMB SSL-VPN Appliance Management*
  - *SonicWALL Aventail EX-Series Appliance Management*

For more advanced deployment examples or interoperability solutions, refer to SonicWALL deployment technotes.



- Recently Published
- UTM / Firewall / VPN Products
- SSL VPN Secure Remote Access Products
- Anti-Spam / Email Security Products
- Content Security Management Products
- Backup & Recovery Products
- Centralized Management & Reporting Products
- Security Services
- SonicOS
- Support Services

RECENTLY PUBLISHED

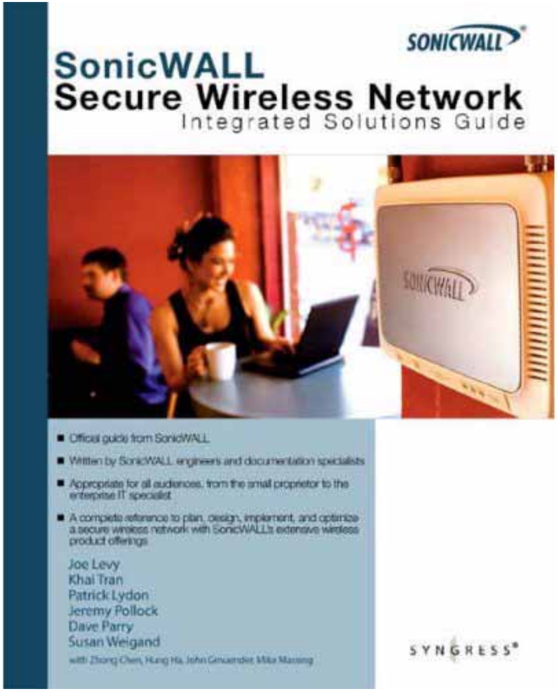
#	Date	Description
1	13 Jan 2009	SonicOS Enhanced 5.1 Administrator's Guide for TZ 210 Series
2	12 Jan 2009	SonicWALL TZ 210 Series Getting Started Guide
3	12 Jan 2009	SonicOS 5.1 Dashboard Feature Module
4	22 Dec 2008	CDP 5.0 Agent Tool User's Guide
5	22 Dec 2008	CDP 5.0 Administrator's Guide

Guides for UTM / FIREWALL / VPN Products

#	Date	Description
1	10 Mar 2006	Configuring Manual Signature Updates for SonicOS 3.2 Enhanced
2	10 Mar 2006	Configuring Remotely Triggered Dial-Out in SonicOS 3.2 Enhanced
3	13 Nov 2006	Configuring Virtual Access Points for SonicOS 3.5 Enhanced
4	10 Mar 2006	Configuring VoIP for SonicOS Enhanced 3.2
5	10 Mar 2006	Configuring VoIP for SonicOS Standard 3.1
6	17 Oct 2006	Dynamic Address Objects: FQDN and MAC Address Objects in SonicOS Enhanced 3.5

SonicWALL Secure Wireless Network Integrated Solutions Guide

The Official Guide to SonicWALL's market-leading wireless networking and security devices.



SONICWALL

SonicWALL
Secure Wireless Network
Integrated Solutions Guide

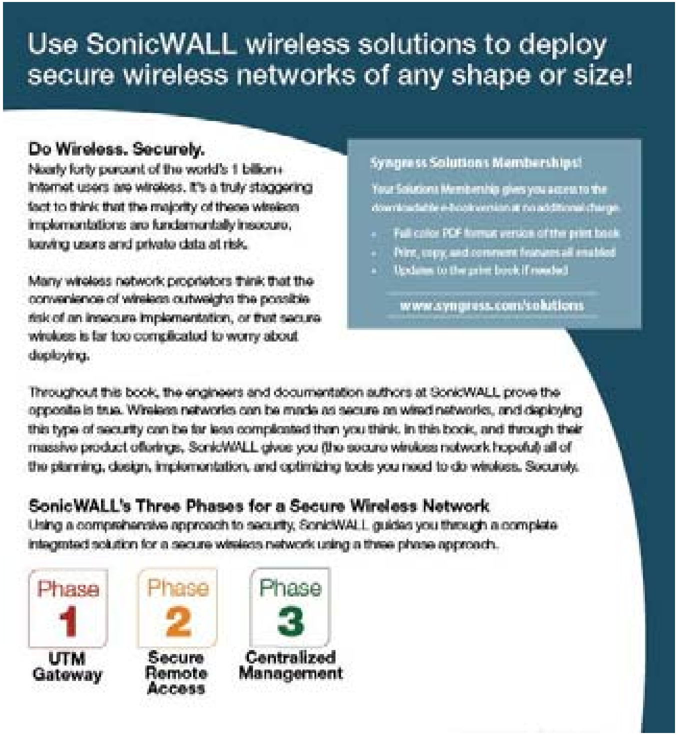
- Official guide from SonicWALL
- Written by SonicWALL engineers and documentation specialists
- Appropriate for all audiences, from the small proprietor to the enterprise IT specialist
- A complete reference to plan, design, implement, and optimize a secure wireless network with SonicWALL's extensive wireless product offerings

Joe Levy
Khai Tran
Patrick Lydon
Jeremy Pollock
Dave Parry
Susan Weigand

with Zhong Chen, Hung Ha, John Gmuender, Mike Massing

SYNGRESS®

This 512 page book is available in hardcopy. Order the book directly from Elsevier Publishing at: http://www.sonicwall.com/us/products/resources/11427.html



Use SonicWALL wireless solutions to deploy secure wireless networks of any shape or size!

Do Wireless. Securely.
Nearly forty percent of the world's 1 billion+ Internet users are wireless. It's a truly staggering fact to think that the majority of these wireless implementations are fundamentally insecure, leaving users and private data at risk.

Many wireless network proprietors think that the convenience of wireless outweighs the possible risk of an insecure implementation, or that secure wireless is far too complicated to worry about deploying.

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Throughout this book, the engineers and documentation authors at SonicWALL prove the opposite is true. Wireless networks can be made as secure as wired networks, and deploying this type of security can be far less complicated than you think. In this book, and through their massive product offerings, SonicWALL gives you (the secure wireless network hopeful) all of the planning, design, implementation, and optimizing tools you need to do wireless. Securely.

SonicWALL's Three Phases for a Secure Wireless Network
Using a comprehensive approach to security, SonicWALL guides you through a complete integrated solution for a secure wireless network using a three phase approach.

Product Safety and Regulatory Information 11

In this Section:

This section provides safety, regulatory, trademark, and copyright information.

- Mounting the SonicWALL UMA EM5000 - page 86
- Montage-Anweisungen auf Deutsch - page 86
- Replacing a Single Hard Drive - page 87
- Safety and Regulatory Information - page 89
- FCC Part 15 Class A Notice - page 90
- Lithium Battery Warning - page 92
- Gesetzlich und Sicherheits Anweisungen auf Deutsch - page 92
- Copyright Notice - page 93
- Trademarks - page 93

Mounting the SonicWALL UMA EM5000

When mounting your SonicWALL UMA EM5000:

- Use the mounting hardware recommended by the rack manufacturer and ensure that the rack is adequate for the application.
- Four mounting screws, compatible with the rack design, must be used and hand tightened to ensure secure installation. Choose a mounting location where all four mounting holes line up with those of the mounting bars of the 19-inch rack mount cabinet.
- Mount in a location away from direct sunlight and sources of heat. A maximum ambient temperature of 104º F (40º C) is recommended.
- Route cables away from power lines, fluorescent lighting fixtures, and sources of noise such as radios, transmitters, and broadband amplifiers.
- The included power cord is intended for use in North America only. For European Union (EU) customers, a power cord is not included.
- Ensure that no water or excessive moisture can enter the unit.
- Allow unrestricted airflow around the unit and through the vents on the side of the unit. A minimum of 1 inch (25.44mm) clearance is recommended.
- If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum recommended ambient temperature shown above.
- Mount the SonicWALL appliances evenly in the rack in order to prevent a hazardous condition caused by uneven mechanical loading.
- Consideration must be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits might have on overcorrect protection and supply wiring. Appropriate consideration of equipment nameplate ratings must be used when addressing this concern.
- Reliable grounding of rack-mounted equipment must be maintained. Particular attention must be given to power supply connections other than direct connections to the branch circuits, such as power strips.
- The power cord must be removed to disconnect power.

Montage-Anweisungen auf Deutsch

Weitere Hinweise zur Montage der Modell:

- Vergewissern Sie sich, dass das Rack für dieses Gerät geeignet ist und verwenden Sie das vom Rack-Hersteller empfohlene Montagezubehör.
- Verwenden Sie für eine sichere Montage vier passende Befestigungsschrauben, und ziehen Sie diese mit der Hand an.
- Wählen Sie für die Montage einen Ort, der keinem direkten Sonnenlicht ausgesetzt ist und sich nicht in der Nähe von Wärmequellen befindet. Die Umgebungstemperatur darf nicht mehr als 40 °C betragen.
- Achten Sie darauf, das sich die Netzwerkkabel nicht in der unmittelbaren Nähe von Stromleitungen, Leuchtstoffröhren und Störquellen wie Funksendern oder Breitbandverstärkern befinden.
- Das beigefügte Netzkabel ist nur für den Gebrauch in Nordamerikas Vorgesehen. Für Kunden in der Europaïschen Union (EU) ist ein Netzkabel nicht im Lieferumfang enthalten.
- Stellen Sie sicher, dass das Gerät vor Wasser und hoher Luftfeuchtigkeit geschützt ist.
- Stellen Sie sicher, dass die Luft um das Gerät herum zirkulieren kann und die Lüftungsschlitze an der Seite des Gehäuses frei sind. Hier ist ein Belüftungsabstand von mindestens 26 mm einzuhalten.
- Wenn das Gerät in einem geschlossenen 19"-Gehäuse oder mit mehreren anderen Geräten eingesetzt ist, wird die Temperatur in der Gehäuse höher sein als die Umgebungstemperatur. Achten Sie daraf, daß die Umgebungstemperatur nicht mehr als 40° C beträgt.
- Bringen Sie die SonicWALL waagerecht im Rack an, um mögliche Gefahren durch ungleiche mechanische Belastung zu vermeiden.
- Prüfen Sie den Anschluss des Geräts an die Stromversorgung, damit der Überstromschutz sowie die elektrische Leitung nicht von einer eventuellen Überlastung der Stromversorgung beeinflusst werden. Prüfen Sie dabei sorgfältig die Angaben auf dem Aufkleber des Geräts.
- Vergewissern Sie sich, dass das Gerät sicher im Rack befestigt ist. Insbesondere muss auf nicht direkte Anschlüsse an Stromquellen geachtet werden wie z. B. bei Verwendung von Mehrfachsteckdosen.
- Das Netzanschlusskabel muss entfernt werden, um Energie zu trennen.

Replacing a Single Hard Drive

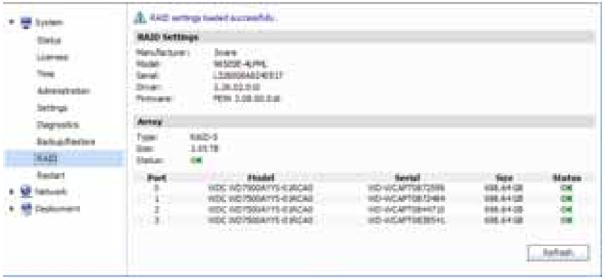
You can order a replacement hard drive from SonicWALL for your SonicWALL UMA EM5000. The 750GB replacement hard drive can be inserted into any drive slot on your SonicWALL UMA EM5000. You can insert the drive while the appliance is powered on.

The front bezel on the SonicWALL UMA EM5000 covers the drive slots. The bezel can be unlocked with the front bezel security key supplied with the appliance.

Removing the Defective Hard Drive

To remove the defective drive from the SonicWALL UMA EM5000, perform the following steps:

1. On your SonicWALL UMA EM5000, use the front bezel key to unlock the front bezel, then remove the front bezel to expose the hard drive array.
2. In the appliance Web interface, navigate to the **System > RAID** page.



RAID settings loaded successfully.

RAID Settings

Manufacturer: 3ware
Model: 9650SE-4LPML
Serial: L320[illegible]
Driver: 2.26.02.010
Firmware: FE9X 3.08.00.016

Array

Type: RAID-5
Size: 2.05 TB
Status: OK

Port	Model	Serial	Size	Status
0	WDC WD7500AYYS-01RCA0	WD-WCAPT0[illegible]	698.64 GB	OK
1	WDC WD7500AYYS-01RCA0	WD-WCAPT0[illegible]	698.64 GB	OK
2	WDC WD7500AYYS-01RCA0	WD-WCAPT0[illegible]	698.64 GB	OK
3	WDC WD7500AYYS-01RCA0	WD-WCAPT0[illegible]	698.64 GB	OK

The defective drive is indicated by a drive status box displaying a status such as:

- UNKNOWN
- NOT SUPPORTED
- NOT PRESENT

You might see a different status than those listed, depending on the condition of the drive as interpreted by the RAID controller.

3. On the appliance, press the square button on the right side of the defective drive to pop out the drive handle.

Warning: *Be careful to remove only the defective drive from the drive array while the appliance is powered on. Removing more than one drive from an active array will cause loss of data.*

4. Grasp the drive handle and pull the drive straight out to remove it from the slot.
5. Click **Refresh** on the System > RAID page and confirm that the status of the correct (defective) drive is the only change. The status should be NOT PRESENT.

If you removed the wrong drive, reinsert it and allow the RAID controller to rebuild the array before proceeding.

See Inserting the Replacement Drive into the SonicWALL UMA EM5000 - page 88.

Inserting the Replacement Drive into the SonicWALL UMA EM5000

Warning: *Do not insert anything other than the SonicWALL approved hard drive into the SonicWALL UMA EM5000.*

To view the hard drive array and insert the replacement drive into the SonicWALL UMA EM5000, perform the following steps:

1. Remove the hard drive and the drive number stickers from the replacement drive shipping carton.
2. Depending on which drive you are replacing, apply the appropriate sticker to the drive handle. While holding the drive with the label side up, place the sticker near the edge of the handle next to the square button.
3. In the appliance Web interface, navigate to the **System > RAID** page.
4. Pop open the drive handle on the new hard drive by pressing the square button.
5. Insert the drive into the empty slot, label side up with the handle sticking out.
6. Press the drive firmly into place to seat the connectors, and then close the handle.
7. Click **Refresh** on the **System > RAID** page. You will see the drive slot status change to **DEGRADED**, and the **Array Status** change to **REBUILD-PAUSED**.

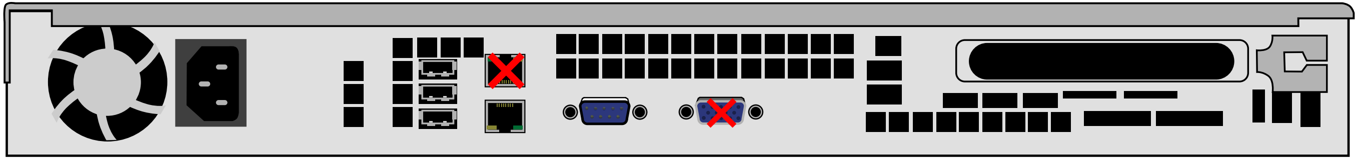
   The **DEGRADED** drive status indicates that the RAID controller senses that data is missing from the drive. The **Array Status** will change to **REBUILDING** within a few minutes.
8. You may continue to use your SonicWALL UMA EM5000 while the RAID controller rebuilds the array with the new drive. The rebuilding process requires at least three hours. When finished rebuilding, the status for both the drive and the array changes to **OK** on the System > RAID page.
9. Re-install the front bezel, being sure to properly line up the LCD connectors. The best practice is to align and seat the right side of the bezel (as you are facing the front of the SonicWALL UMA EM5000), then view the connectors from above as you carefully press the left side of the bezel into place.
10. Lock the bezel with the front bezel security key.

Safety and Regulatory Information

Regulatory Model/Type	Product Name
1RK19-066	UMA EM5000

Unauthorized Ports

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.



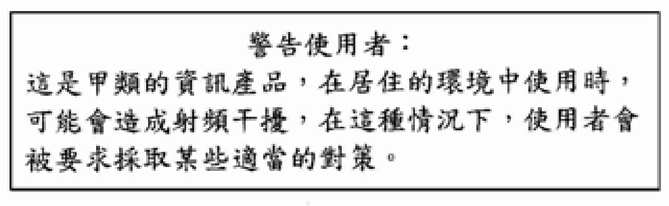
FCC Part 15 Class A Notice

This equipment was tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. And if not installed and used in accordance with the instruction manual, the device may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user is required to correct the interference at his own expense.

Notice About Modifying Equipment

Caution: *Modifying this equipment or using this equipment for purposes not shown in this manual without the written consent of SonicWALL, Inc. could void the user’s authority to operate this equipment.*

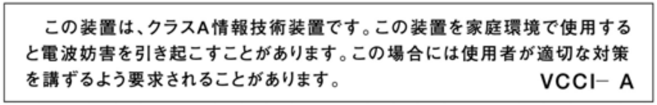
BMSI Statement



警告使用者：

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

VCCI Statement



この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI– A

Canadian Radio Frequency Emissions Statement

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CISPR 22 (EN 55022) Class A

Complies with EN 55022 Class A and CISPR22 Class A. This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Declaration of Conformity

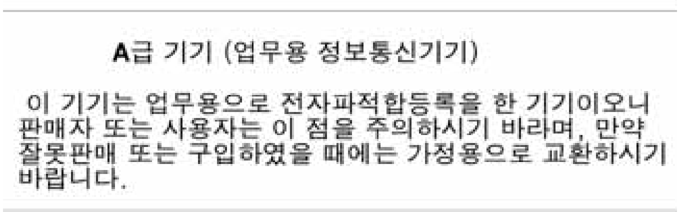
Application of council Directive	2004/108/EC (EMC) and 2006/95/EC (LVD)
Standards to which conformity is declared	EN 55022 (2006) Class A EN 55024 (1998) +A2 EN 61000-3-2 (2006) EN 61000-3-3 (1995) + A2 EN 60950-1 (2001) +A11

National Deviations: AR, AT, AU, BE, CA, CH, CN, CZ, DE, DK, FI, FR, GB, GR, HU, IL, IN, IT, JP, KE, KR, MY, NL, NO, PL, SE, SG, SI, SK, US

Regulatory Information for Korea

All products with country code “” (blank) and “A” are made in the USA.All products with country code “B” are made in China.

All products with country code “C” or “D” are made in Taiwan R.O.C.



A급 기기 (업무용 정보통신기기)

이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며, 만약 잘못판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

Lithium Battery Warning

The Lithium Battery used in the SonicWALL Internet security appliance may not be replaced by the user. The SonicWALL must be returned to a SonicWALL authorized service center for replacement with the same or equivalent type recommended by the manufacturer. If, for any reason, the battery or SonicWALL Internet security appliance must be disposed of, do so following the battery manufacturer's instructions.

Cable Connections

All Ethernet cables are designed for intra-building connection to other equipment. Do not connect these ports directly to communication wiring or other wiring that exits the building where the SonicWALL is located.

Gesetzlich und Sicherheits Anweisungen auf Deutsch

Hinweis zur Lithiumbatterie

Die in der Internet Security appliance von SonicWALL verwendete Lithiumbatterie darf nicht vom Benutzer ausgetauscht werden. Zum Austauschen der Batterie muss die SonicWALL in ein von SonicWALL autorisiertes Service-Center gebracht werden. Dort wird die Batterie durch denselben oder entsprechenden, vom Hersteller empfohlenen Batterietyp ersetzt. Beachten Sie bei einer Entsorgung der Batterie oder der SonicWALL Internet Security appliance die diesbezüglichen Anweisungen des Herstellers.

Kabelverbindungen

Alle Ethernet-Kabel eignen sich für die Verbindung von Geräten in Innenräumen. Schließen Sie an die Anschlüsse der SonicWALL keine Kabel an, die aus dem Gebäude herausgeführt werden, in dem sich das Gerät befindet.

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SonicWALL, Inc.

1143 Borregas Avenue
Sunnyvale CA 94089-1306

T +1 408.745.9600
F +1 408.745.9300

www.sonicwall.com

PN 232-001638-50
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