Sentriant AG200 Hardware Installation Guide

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Preface

This preface provides an overview of this guide, describes guide conventions, and lists other publications that might be useful.

About this Guide

This guide describes how to install the Sentriant AG200 appliance in an equipment rack.

Organization of this Guide

This guide includes the following chapters and appendixes:

- About the Sentriant AG200 Appliance on page 7
- Site Preparation and Unpacking on page 11
- Installing the Sentriant AG200 Appliance on page 13
- Startup and Configuration on page 17
- Safety Information on page 29
- Technical Specifications on page 35

Conventions

Table 1 and Table 2 list conventions used in Extreme Networks customer documentation.

Table 1: Notice Icons

Icon	Notice Type	Alerts you to...
	Note	Important information, helpful suggestions, or reference material.
	Caution	Risk of personal injury, system damage, or loss of data.
	Warning	Risk of severe personal injury.

Table 2: Text Conventions

Convention	Description
`Screen displays or entered text`	This typeface represents information as it appears on the screen, command syntax, or text you enter on a command line.
The words "enter" and "type"	When you see the word "enter" in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says "type."
<Key> names	Key names appear in text in one of two ways: • Referenced by their labels, such as "the Return key" or "the Escape key" • Written with angle brackets, such as <Enter> or <Esc> If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press <Ctrl> + <Alt> +< Del>.
Words in italicized type	Italics emphasize a point of information or denote new terms at the place where they are defined in the text.
Bold type	Graphical user interface (GUI) names and control options that appear on the management screen.

Related Publications

For more information about configuring and using the Sentriant AG appliance, refer to the following publications:

- *Sentriant AG Software Installation Guide, Version 5.1*
- *Sentriant AG Software User Guide, Version 5.1*

These guides are available in the following directory on the Sentriant AG appliance:

/usr/local/nac/webapps/ROOT/docs/UsersGuide/

The filenames for the guides are:

- *Sentriant AG Software Installation Guide:* Installationguide.pdf
- *Sentriant AG Software User Guide:* Usersguide.pdf

Access the document directory in either of the following ways:

- Using the console port on the Sentriant AG appliance at any time
- After the Sentriant AG appliance has been configured, using SSH

In addition, documentation for Extreme Networks products is available from the Extreme Networks website at the following location:

http://www.extremenetworks.com/services/documentation

1 About the Sentriant AG200 Appliance

This chapter includes the following sections:

Chassis Overview

The Sentriant AG200 appliance is a compact enclosure that is 1 RU (1.75 inches) high. It fits into a standard 19-inch (48.26 cm) rack. The Sentriant AG appliance provides two 10/100/1000 Ethernet ports, a serial console port, and a USB port. An LCD panel provides access for local system management. Status LEDs provide information about port and system operation.

The Sentriant AG appliance is cooled by three fans. An AC power connector and power switch are located on the back panel.

Front Panel Features

Figure 1 shows the front panel of the Sentriant AG appliance.

Figure 1: Front Panel of the Sentriant AG Appliance
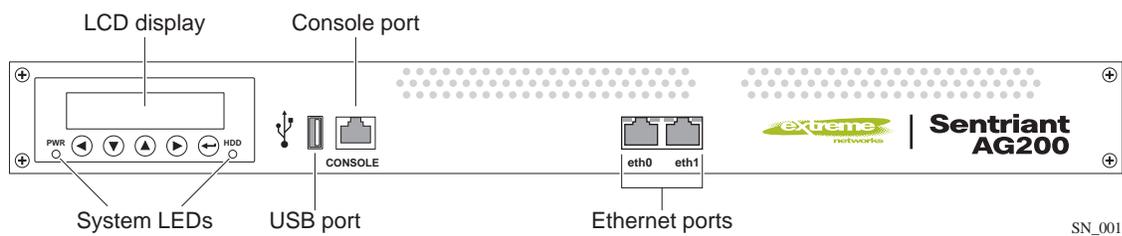
The front panel of the Sentriant AG appliance has the following features:
- LCD panel for local configuration and diagnostics
- USB port for connecting a standard USB drive
- Serial console implemented as an RJ-45 connector
- Two 10/100/1000 Ethernet ports, labeled eth0 and eth1

Back Panel Features

Figure 2 shows the back panel of the Sentriant AG appliance.

Figure 2: Back Panel of the Sentriant AG Appliance
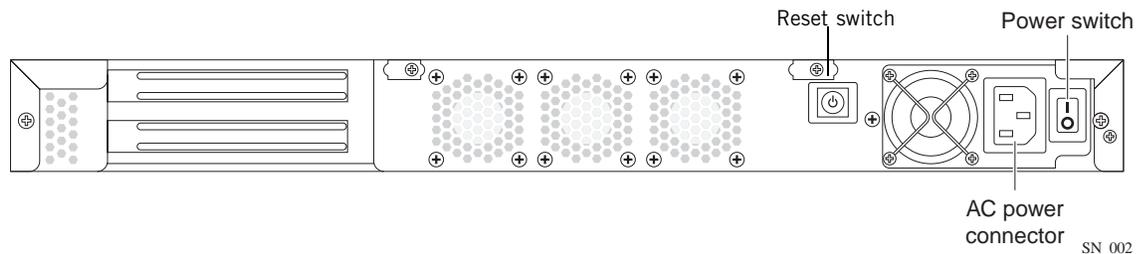
The back panel of the Sentriant AG appliance has the following features:

● AC power input connector
● Power switch
● Reset switch

LED Operation

The LCD panel on the Sentriant AG appliance includes two LEDs labeled Power and HDD. In addition, each Ethernet port has an LED to indicate port activity. Table 3 describes the meanings of these LEDs.

Table 3: LED Meanings

LED Type	Color	State	Meaning
Power	Green	Off	Power is off.
		On	Power is on.
HDD	Amber	Flashing	Disk activity
Activity (On Ethernet port)	Green	Steady	No activity
	Green	Flashing	Activity
Link (On Ethernet port)	Green	On	Link detected
		Off	Link not detected

LCD Panel

The LCD panel on the Sentriant AG appliance provides identifying information for the appliance and information about the basic system health. The information on the panel includes:

- Hostname of the appliance
- IP address of the appliance
- Software version
- Product name
- System uptime

2 Site Preparation and Unpacking

This chapter includes the following sections:

Site Requirements for the Sentriant AG Appliance

The Sentriant AG200 appliance can be rack-mounted in a standard 19-inch rack.

Locate the system away from heat sources and in an area that provides unobstructed air flow to the chassis cooling vents. The chassis intake ambient air temperature should not exceed 95 ºF (35 ºC) or drop below 41ºF (5º C).

CAUTION

Do not place a monitor or other object on top of the system. The mounting brackets and chassis cover are not designed to support additional weight.

Make sure that the voltage and frequency of the power source matches the electrical ratings of the Sentriant AG appliance, and that the building and/or power source provides overload protection.

Operating humidity should be kept between 10% and 95% relative humidity (noncondensing).

In regions that are susceptible to electrical storms, we recommend that you plug your system into a surge suppressor.

Rack Ventilation Requirements

- Make sure that there is a minimum of 3 inches of airspace at the back of the chassis.
- Open-type racks should meet the manufacturer's recommended ventilation requirements.
- Enclosed-type racks should have a louvered front and back with a fan to dissipate heat generated by equipment mounted in the rack.
- If you are installing the Sentriant AG appliance in enclosed racks with top-mounted ventilation fans, make sure that there is adequate ventilation for the racks. Heat generated by equipment mounted in the bottom of the rack can be drawn up into equipment mounted in the top of the rack.
- Chassis intake ambient air temperature should not exceed 95º F (35º C).

Unpacking the Sentriant AG Appliance

When you unpack the Sentriant AG appliance, verify that you have received the following items:

- Extreme Networks Sentriant AG appliance
- Two rack-mounting brackets
- Eight Phillips screws (two extras) for attaching the rack-mounting brackets to the unit
- AC power cord for use in North America
- DB-9-to-RJ-45 serial cable for connecting the serial console port
- *Sentriant AG200 Hardware Quick Start Guide*
- Registration card

3 | Installing the Sentriant AG200 Appliance

This chapter includes the following sections:

Overview

The Sentriant AG200 appliance fits into a standard 19-inch (48.26 cm) rack.

Before you install the Sentriant AG appliance, carefully read the information in Appendix A, "Safety Information."

Required Tools and Equipment

You need the following items to install the Sentriant AG appliance:
- Mounting hardware provided with the Sentriant appliance
  - Two rack-mount brackets
  - Eight bracket-mounting screws
- Phillips screwdriver for attaching rack-mount brackets
- Rack mounting hardware appropriate to your equipment rack
- Screwdriver appropriate for the mounting hardware used with your equipment rack

NOTE

Rack-mounting hardware is not included with the Sentriant AG appliance. Use mounting screws appropriate to your equipment rack.

Attaching the Rack-Mount Brackets

To attach the rack-mount brackets:

1 Place a rack-mount bracket along one side of the Sentriant AG appliance and align it with the mounting holes in the chassis (see Figure 3).

2 Insert and tighten the provided Phillips screws to secure the bracket to the Sentriant AG appliance.

3 Repeat these steps to attach the other bracket to the opposite side of the Sentriant AG appliance.

Figure 3: Attaching Rack-Mount Brackets

SN_003
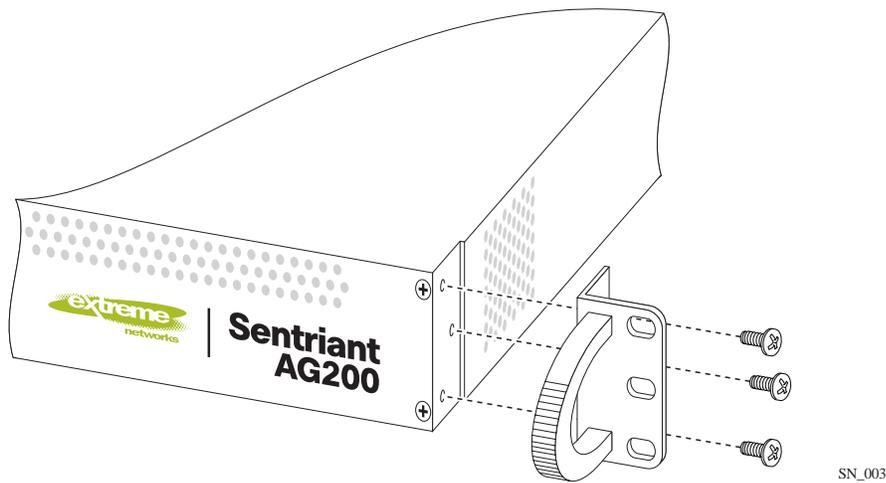
Installing the Sentriant AG Appliance in a Rack

To install the Sentriant AG appliance in a rack:

1 Determine the mounting location for the Sentriant AG appliance.

2 Slide the Sentriant AG appliance into the rack and secure the mounting brackets to both front posts using screws appropriate to the rack.

Figure 4: Installing the Sentriant AG Appliance in a Rack

SN_004
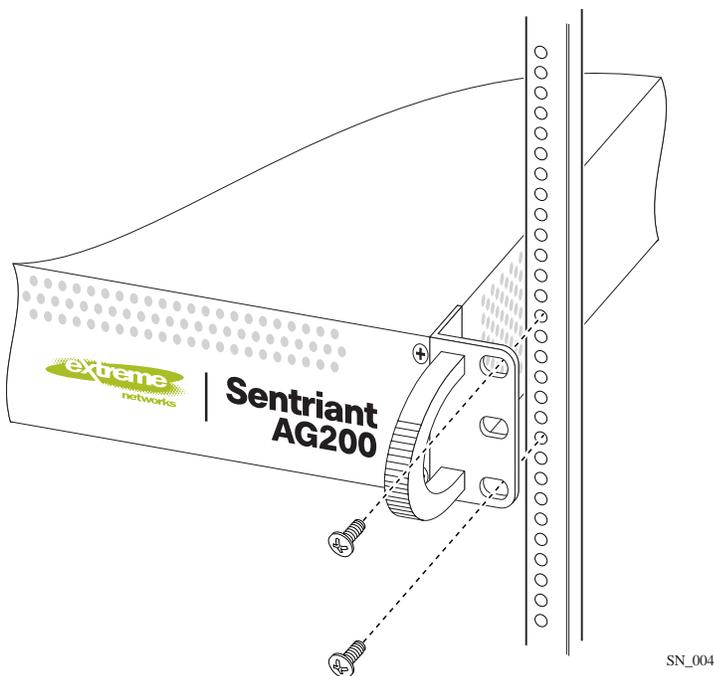
Connecting Power

Connect the AC power cable from the power connector on the back of the Sentriant AG appliance to an active power outlet.

To power on the Sentriant AG appliance, press the power switch to the On position.

When the server has completed the boot process, the LCD panel displays the following information:

- Hostname of the appliance
- IP address of the appliance
- Software version
- Product name
- System uptime

If a terminal is attached to the console port, a system prompt is displayed.

Connecting Cables

The details of connecting the Ethernet ports vary depending on the type of deployment. Deployment types using the Sentriant AG appliance include inline, DHCP, and 802.1X deployments. For details about the deployment options for the Sentriant AG appliance, refer to chapter 2 of the *Sentriant AG Software Installation Guide*.

To connect the Ethernet ports, use Category 5 or better cable terminated in an RJ-45 connector.

Connect the port labeled eth0 to the corporate LAN (the internal network side).

Connect the port labeled eth1 to a switch or to a VPN or DHCP server (the Internet or endpoint side).

To connect the Console port to a PC or terminal server, use the provided DB-9-to-RJ-45 serial cable. For more details, see "Connecting to the Console Port" on page 17.

4 Startup and Configuration

The Sentriant AG200 appliance is shipped with the latest software installed. You must connect to the server using the console port on the front panel to configure the Sentriant AG appliance for your network with the correct IP address, default gateway, DNS server, and other settings.

This chapter includes the following sections:

Connecting to the Console Port

Use the provided DB-9 to RJ-45 serial cable to connect the console port to a workstation running software with console capability.

The console port has the following settings:
- 38400 baud
- 8 data bits
- 1 stop bit
- No parity

Log in the first time using the following default values:
- User name: root
- Password: sentriantag

When you log in the first time, the system will prompt you to change the default password. You must change the password before you continue with the initial setup.

Using Console Menus

The initial setup process uses a series of console menus. To use the console menus:

1 Use the arrow keys to select a menu item to change.

2 When an item is highlighted, press [Tab] to select **Edit** and then press [Enter].

3 Type the information for the selected item and press [Enter].

  You can select and edit other items from the menu.

4 When you have finished editing items, select **OK**.

  A message is displayed asking if you want to save the changes.

5   Select **Yes** to save the changes or **No** to discard the changes.

A confirmation message is displayed for either action. If you save the changes, you must reboot the system for the changes to take effect.

To perform the initial setup process, see the next section.

Performing the Initial Setup

After you have changed the default password, perform the initial setup. The initial setup includes the following tasks:

● Configure network settings (see the next section, "Configuring Network Settings.")

● Set the time, date, and time zone (see "Setting the Time, Date, and Time Zone" on page 19.

● Set the operation mode (personality) of the Sentriant AG appliance (see "Setting the Operation Mode of the Server" on page 22).

You can configure each of these and save the changes before you reboot the system to activate all the changes at one time.

At the system prompt, enter the following command:

```
Sentriant AG200(sentriantAG):~ #cosetup
```

The main configuration menu is displayed.

```
+--------------------------------------------------------------------+
| Please select an option below                                      |
| +----------------------------------------------------------------+ |
| |                  Configure Network Settings -->                | |
| |                  Adjust time, date, timezone -->               | |
| |                  Set personality of Sentriant AG -->           | |
| |                  Change your console password -->              | |
| |                                                                | |
| |                                                                | |
| |                                                                | |
| |                                                                | |
| |                                                                | |
| |                                                                | |
| |                                                                | |
| |                                                                | |
| +----------------------------------------------------------------+ |
|                                                                    |
|                                                                    |
|          <   OK   >                      <Cancel>                  |
+--------------------------------------------------------------------+
```

Configuring Network Settings

To configure network settings:

1   Highlight **Configure Network Settings** and select **OK**.

2   Press [Enter].

The network settings menu is displayed.

```
+-------------------------------------------------+
| Network device: DEVICE=eth0                     |
| (HWADDR=00:AA:11:22:34:EE)                      |
+-------------------------------------------------+
|   +--------------+  +--------------------------+ |
|   |IP Address    |  |192.168.1.100           | |
|   +--------------+  +--------------------------+ |
|                                                 |
|   |Netmask       |  +--------------------------+ |
|                     |255.255.255.0           | |
|                     +--------------------------+ |
|   |Default Gatewa|  +--------------------------+ |
|                     |192.168.1.1             | |
|                     +--------------------------+ |
|   |Hostname      |  +--------------------------+ |
|                     |sentriantAG.localhost.loca| |
|                     +--------------------------+ |
|   |DNS Server    |  +--------------------------+ |
|                     |192.168.1.254           | |
|                     +--------------------------+ |
|                                                 |
|   +-----------------------------------------+   |
+-------------------------------------------------+
|      <   OK   >      < Edit >      <Cancel>      |
+-------------------------------------------------+
```

3 Edit the IP address, Netmask, Default Gateway, Hostname, and DNS Server fields.

4 Select **OK** and save the changes.

Setting the Time, Date, and Time Zone

To set the time, date, and time zone:

1 From the main configuration menu, highlight **Adjust time, date, timezone**, and select **OK**.

2 Press [Enter].

The main time and date configuration menu is displayed.

```
+-------------------------------------------------------------+
| Please select an option below                               |
| +---------------------------------------------------------+ |
| |            Change your timezone                         | |
| |            Change the date and time                     | |
| |            Change or edit the NTP server list           | |
| |                                                         | |
| |                                                         | |
| |                                                         | |
| |                                                         | |
| |                                                         | |
| |                                                         | |
| |                                                         | |
| +---------------------------------------------------------+ |
|                                                             |
|       <   OK   >                    <Cancel>                |
+-------------------------------------------------------------+
```
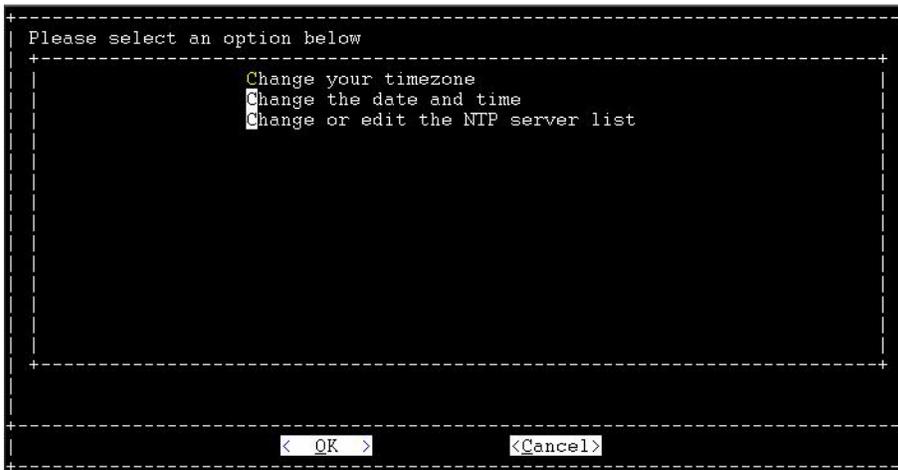
3 To set the date and time:

    a Highlight **Change the date and time** and press [Enter].

```
              Month              Year
              +---------------++----------------+
              |March          ||2008            |
              +---------------++----------------+
              +------^(-)--------------------+
              |  Sun Mon Tue Wed Thu Fri Sat |
              |   9                        1 |
              |  10    2   3   4   5   6   7   8 |
              |  11    9  10  11  12  13  14  15 |
              |  12   16  17  18  19  20  21  22 |
              |  13   23  24  25  26  27  28  29 |
              |  14   30  31                 |
              +------v(+)--------------------+
              +------------------------------------+
              |  <   OK  >            <Cancel>     |
              +------------------------------------+
```
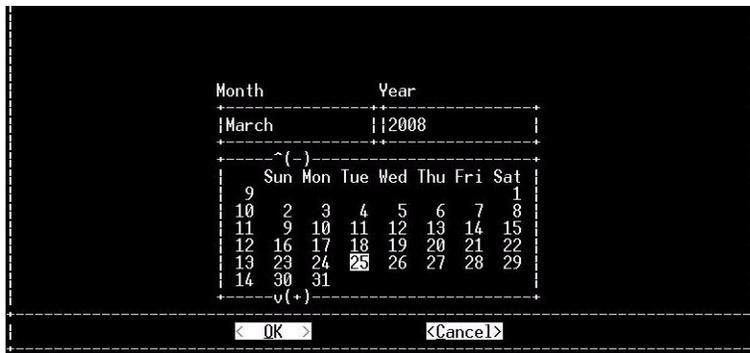
b Change the date and select **OK**.

```
+--------------------------------------------------+
| Please set the time                              |
|                    +--+ +--+ +--+                |
|                    |11|:|13|:|33|                |
|                    +--+ +--+ +--+                |
|--------------------------------------------------|
|      <   OK  >            <Cancel>               |
+--------------------------------------------------+
```

c Change the time and select **OK**.

```
+------------------------------------+
| Save time/date changes?            |
|                                    |
|                                    |
|                                    |
|                                    |
|   <  Yes >     <  No   >           |
+------------------------------------+
```

4 Confirm the change and save the changes.

5 Select **OK** to return to the time/date/timezone menu.

6 To change the time zone:

    a Highlight **Change your timezone** and select **OK**. Press [Enter].

```
+----------------------------------------------------------------+
| Please select your timezone from the list below               |
| +----------------------^(-)------------------------------------+ |
| |              ( ) 431  Pacific/Wallis                        | |
| |              ( ) 432  Pacific/Yap                           | |
| |              ( ) 433  US/Alaska                             | |
| |              ( ) 434  US/Aleutian                           | |
| |              ( ) 435  US/Arizona                            | |
| |              ( ) 436  US/Central                            | |
| |              ( ) 437  US/East-Indiana                       | |
| |              ( ) 438  US/Eastern                            | |
| |              ( ) 439  US/Hawaii                             | |
| |              ( ) 440  US/Indiana-Starke                     | |
| |              ( ) 441  US/Michigan                           | |
| |              ( ) 442  US/Mountain                           | |
| |              (*) 443  US/Pacific                            | |
| |              ( ) 444  US/Pacific-New                        | |
| +----------------------v(+)------------------------------------+ |
|                                                                | |
|----------------------------------------------------------------| |
|       <   OK  >              <Cancel>                          | |
+----------------------------------------------------------------+
```
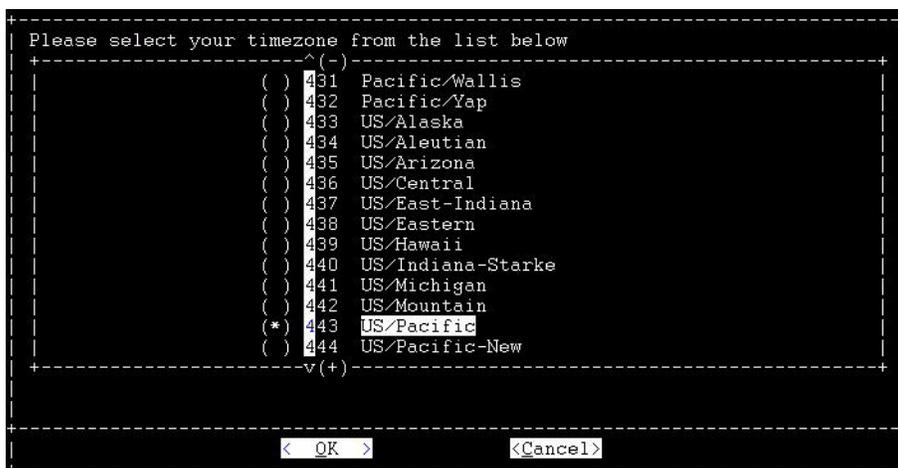
b Scroll down to highlight the appropriate timezone and press [Enter] to select the highlighted timezone. Then tab to **OK** and press [Enter].

```
+-------------------------+
| Select timezone US/Pacific |
| for this system?        |
|                         |
|                         |
|                         |
+-------------------------+
|    < Yes >    < No   >  |
+-------------------------+
```
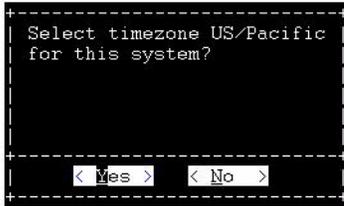
c Confirm the change and save the changes.

d Select **OK** to return to the time/date/timezone menu.

7 To change the NTP server:

a Highlight **Change or edit the NTP server list** and select **OK**. Press [Enter].

A comma-separated list of NTP server names is displayed.

```
+----------------------------------------+
| Please edit the NTP server(s)          |
| +------------------------------------+ |
| |.pool.ntp.org,1.pool.ntp.org,2.pool.ntp.org_| |
| +------------------------------------+ |
|                                        |
|      <  OK  >      <Cancel>            |
+----------------------------------------+
```

b Change or edit the server names and select **OK**. Press [Enter].

```
+-------------------------+
| Use this list of servers? |
| 0.pool.ntp.org          |
|                         |
|                         |
|                         |
+-------------------------+
|    < Yes >    < No   >  |
+-------------------------+
```

c Select **Yes** to accept the list of servers.

```
+-------------------------+
| The server list has been |
| saved, and the NTP daemon |
| has been restarted to pick |
| up the changes          |
|                         |
+-------------------------+
|         <  OK  >        |
+-------------------------+
```
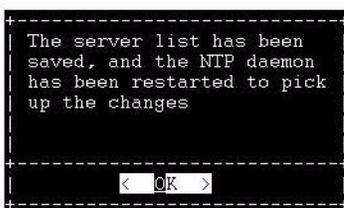
d Select **OK** to return to the main menu.

Setting the Operation Mode of the Server

To set the operation mode (personality) of the server:

1 From the main menu, highlight **Set personality of the Sentriant AG**.

A warning message is displayed.

```
+------------------------------------------+
| ***WARNING: Changing the personality is not |
| reversible, and will cause ALL DATA to be |
| lost. Are you sure you wish to continue? |
|                                          |
|                                          |
+------------------------------------------+
|        < Yes >          < No  >          |
+------------------------------------------+
```
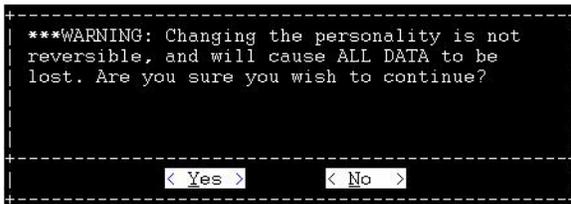
2 Select **Yes** to display the personality selection menu.

```
+---------------------------------------------+
| Select the new personality for SentriantAG  |
| (Current personality: both)                 |
| +-----------------------------------------+ |
| |    ( ) ms      Management Server        | |
| |    ( ) es      Enforcement Server       | |
| |    (*) both    Combination Server       | |
| |                                         | |
| |                                         | |
| |                                         | |
| |                                         | |
| +-----------------------------------------+ |
+---------------------------------------------+
|        <   OK   >        <Cancel>           |
+---------------------------------------------+
```
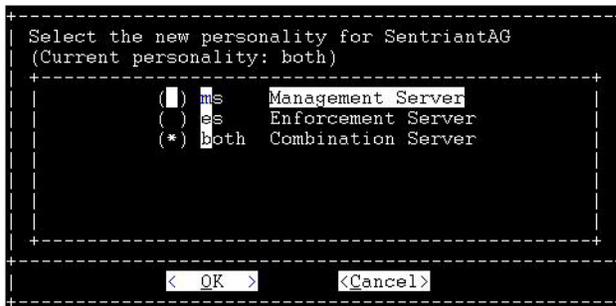
3 Highlight the appropriate server type (Management Server, Enforcement Server, or Combination Server) and press the space bar.

A confirmation dialog box is displayed.

```
+-----------------------------+
| Change system personality   |
| to both?                    |
|                             |
|                             |
|                             |
+-----------------------------+
|   < Yes >      < No   >      |
+-----------------------------+
```
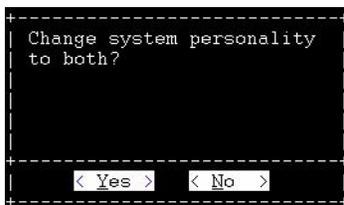
4 If the displayed server type is correct, select **Yes**. The screen indicates that services restart immediately; then the main menu is displayed.

If the displayed server type is not correct, select **No**. The system returns to the previous menu.

After you select a server type as the mode of operation, you must configure specific parameters for each type of operation. For instructions on configuring these parameters, refer to Chapter 3, "System Configuration," in the *Sentriant AG Software User's Guide.*

Initial Configuration

> 🛈 **NOTE**
>
> *If endpoints are already attached to a switch when you install Sentriant AG, you must log in to each switch and send the NAC revalidate command before the endpoint can be tested and routed properly.*

To configure the Sentriant AG appliance:

1 Log in to a different computer with browser software installed. The following browsers are supported for this release:

- Windows: IE 6.0 or later, Mozilla Firefox v1.5 or later, Mozilla v1.7
- Linux: Mozilla Firefox v1.5 or later, Mozilla v1.7
- Mac OS X: Mozilla Firefox v1.5 or later

2 Using https://, point your browser to the IP address or host name of the Sentriant AG appliance (for example, https://10.0.64.25).

3 You might be prompted with a security alert because Sentriant AG uses a secure communication connection (SSL) (Figure 5). Click **Yes**. The **Accept license agreement** window opens (Figure 6).

Figure 5: Security Alert Window

Figure 6: Accept License Agreement Window
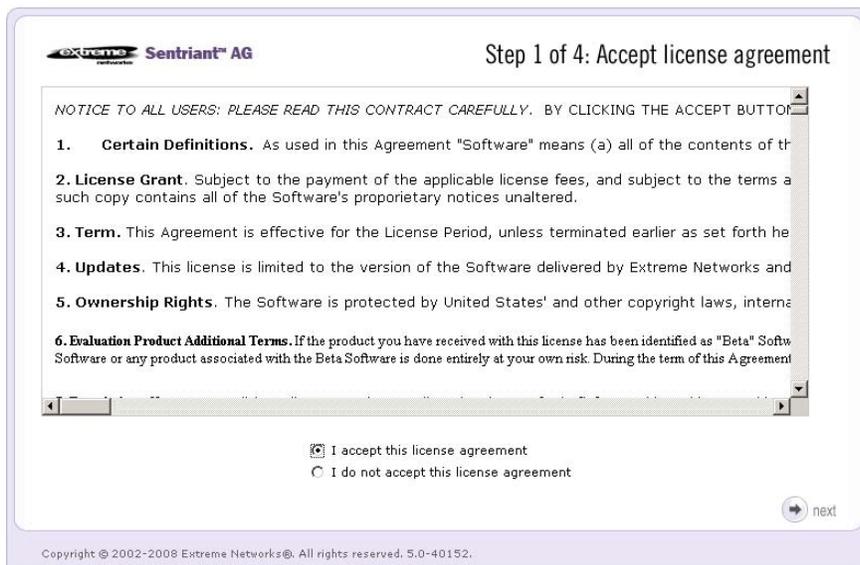
4 Respond to the Accept license agreement window in one of the following ways:

   ● If you do not wish to accept the license agreement, select **I do not accept this license agreement**.
   or

   ● Read the Sentriant AG End-User License Agreement and select **I Accept this license agreement**.

5 Click **Next**. The **Enter management server settings** window opens.

Figure 7: Enter Management Server Settings Window

6 The **Date and time** area is pre-populated with values entered during the initial installation process. Change any of the following as necessary:

   ● **Region**—Select a region from the drop-down list.

   ● **Time zone**—Select a time zone from the drop-down list.

   ● **NTP servers**—Enter one or more Network Time Protocol (NTP) servers (for example, time.nist.gov), separated by commas. The NTP allows Sentriant AG to synchronize its date and time with other endpoints on your network.

7 The **Network settings** area is pre-populated with values entered during the initial installation process. Change any of the following as necessary:

   ● **Host name**—Enter a fully qualified domain name (FQDN) (for example, crocus.mycompany.com).

   ● **DNS IP address**—Enter one or more DNS resolver IP addresses, separated by commas, semicolons, or spaces (for example, 10.0.16.100,10.0.1.1).

8 If you use a proxy server, select **Use a proxy server for Internet connections**. (Connecting to the Internet is necessary for updating tests, validating license keys, and sending support packages.) Configure the following parameters for the proxy server:

- **Proxy server IP address**: IP address of the server that will act as the proxy for Internet connections.

- **Proxy server port**: Port used for connecting to the proxy server (for example, 8080).

- **Proxy server is authenticated**: Select this parameter if your proxy server is authenticated, and enter the following:

  - Authentication method: Scheme used to authenticate credentials on the proxy server from the drop-down list. Select **Basic**, **Digest**, or **Negotiable**.

    For more information about authentication methods, refer to the *Sentriant AG Software Installation Guide.*

  - **User name**: ID of a user account on the proxy server

  - **Password**: Password of the user account having the ID specified in **User ID**

  - **Re-enter password**: The same password, entered a second time to help confirm accuracy

9 Click **Next**. The **Enter license key** window opens

Figure 8: Enter License Key Window

10 In the **License key** field, copy and paste your Sentriant AG license key, which was emailed to you as a text file. Click **Next**. The **Create administrator account** window opens.

Figure 9: Create Administrator Account Window

NOTE

An internet connection is required to register and activate the license. The license key is registered to the server after the activation is complete and cannot be moved to another machine without first contacting Technical Assistance Center (TAC).

⚠ **CAUTION**

If you use a proxy server, your license key will not validate from this window unless you have performed step 8 on page 25.

11 Enter a **User name** and **Password** for the initial Sentriant AG administrator account. (This is not the same as the server's root account that you created in during installation.)

We suggest the password be at least eight characters with a mix of numbers and letters.

Click **Finish**.

The Sentriant AG home window opens.

Figure 10: Sentriant AG Home Window
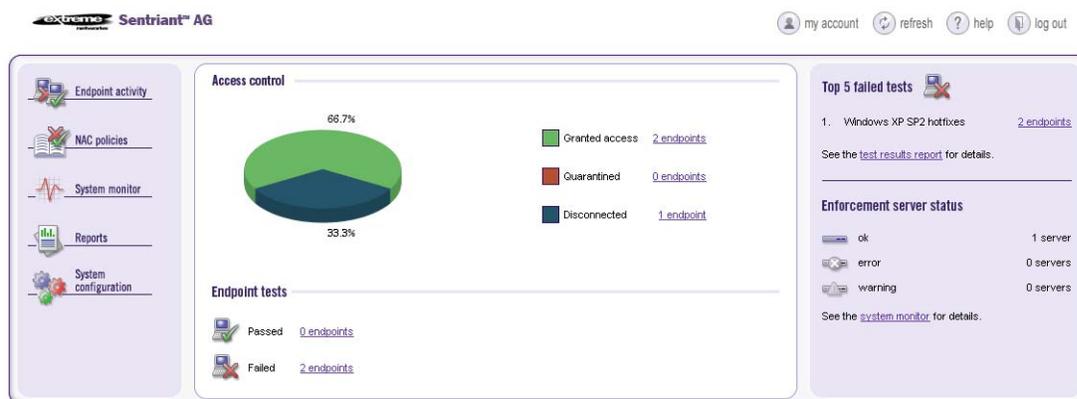
For information about additional configuration tasks, refer to the *Sentriant AG Software Installation Guide* and the *Sentriant AG Software User Guide*.

Enabling LAN Bypass

If the Sentriant AG appliance loses power or has a major hardware failure, the LAN bypass feature prevents loss of network traffic. By default, LAN bypass is disabled. This section describes how to enable LAN bypass.

⚠ **CAUTION**

In certain network topologies, loops can occur when LAN bypass is active. Only enable LAN bypass if the Sentriant AG appliance is installed in an inline or DHCP inline deployment

To enable LAN bypass:

1 Connect a terminal or terminal emulator to the serial console port.

2 While the unit is powering on, press [Delete] or [Tab] to enter the BIOS.

3 Use the arrow keys to highlight **Integrated Peripherals**, and press [Enter}.

```
GtkTerm                                                                    ─□×
File Configuration Control signals View                                       Help
                    Phoenix - AwardBIOS CMOS Setup Utility
+===================================+===================================+
|                                   |                                   |
|   * Standard CMOS Features        |      Load Fail-Safe Defaults       |
|                                   |                                   |
|   * Advanced BIOS Features        |      Load Optimized Defaults       |
|                                   |                                   |
|   * Advanced Chipset Features      |      Set Supervisor Password       |
|                                   |                                   |
|   * Integrated Peripherals        |      Set User Password             |
|                                   |                                   |
|   * Power Management Setup         |      Save & Exit Setup             |
|                                   |                                   |
|   * PnP/PCI Configurations         |      Exit Without Saving           |
|                                   |                                   |
|   * PC Health Status              |                                   |
|                                   |                                   |
|-----------------------------------+-----------------------------------|
| Esc : Quit                              ^ V > <    : Select Item       |
| F10 : Save & Exit Setup                                                |
|------------------------------------------------------------------------|
|                                                                        |
|                  Onboard IO, IRQ, DMA Assignment...            ▯        |
+========================================================================+
/dev/ttyS0 : 38400,8,N,1                                    DTR RTS CTS CD DSR RI
```

4 Select **Onboard Devices**.

```
GtkTerm                                                                    ─□×
File Configuration Control signals View                                       Help
                    Phoenix - AwardBIOS CMOS Setup Utility
                          Integrated Peripherals
+==================================================+=====================+
|   * OnChip IDE Device          [Press Enter]     |      Item Help       |
|   * Onboard Device             [Press Enter]     |---------------------|
|   * SuperIO Device             [Press Enter]     |  Menu Level   *      |
|     Watch Dog Timer Select     [Disabled]        |                     |
|   * USB Device Setting         [Press Enter]     |                     |
|                                                  |                     |
|                                                  |                     |
|                                                  |                     |
|                                                  |                     |
|                                                  |                     |
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|                                                  |                     |
|                                                  |                     |
|                                                  |                     |
|                                                  |                     |
|                                                  |                     |
|                                                  |                ▯    |
+==================================================+=====================+
     F5: Previous Values    F6: Fail-Safe Defaults   F7: Optimized Defaults
/dev/ttyS0 : 38400,8,N,1                                    DTR RTS CTS CD DSR RI
```

5 Select **Lan 1/2 power on bypass** and select **Enabled**.

Select **PWR On/Off Lan Bypass Ctrl** and select **Enabled**.

```
┌─                                       GtkTerm                              ─□X─
 File  Configuration  Control signals  View                                    Help
                   Phoenix - AwardBIOS CMOS Setup Utility
                              Onboard Device
 +=====================================================+=======================+
 |    LAN1/2 PWR On Bypass Ctrl [Disabled]             |      Item Help        |
 |    LAN3/4 PWR On Bypass Ctrl [Disabled]             |-----------------------|
 |    LAN5/6 PWR On Bypass Ctrl [Disabled]             |  Menu Level    *      |
 |    PWR On/Off Lan Bypass Ctrl[Enabled]             |                       |
 |                  +===================================+                     |
 |                  | PWR On/Off Lan Bypass Ctrl        |                   | |
 |                  |-----------------------------------|                     |
 |                  | Enabled  ..... [v]                |                     |
 |                  | Disabled ..... [ ]                |                     |
 |                  |                                   |                     |
 |                  |                                   |                     |
 |                  |                                   |                     |
 |                  |                                   |                     |
 |                  |                                   |                     |
 |                  |                                   |                     |
 |                  |-----------------------------------|                     |
 |                  |  ^V:Move ENTER:Accept ESC:Abort   |                     |
 |                  +===================================+                     |
 |                                                      |                     |
 +=====================================================+=======================+
     F5: Previous Values     F6: Fail-Safe Defaults    F7: Optimized Defaults
 /dev/ttyS0 : 38400,8,N,1                                  DTR RTS CTS CD DSR RI
```

6 Press [Esc] twice to return to the main menu.

7 Select **Save and Exit Setup** and press [y]

```
┌─                                       GtkTerm                              ─□X─
 File  Configuration  Control signals  View                                    Help
                   Phoenix - AwardBIOS CMOS Setup Utility
 +=====================================+=================================+
 |                                     |                                 |
 |  * Standard CMOS Features           |     Load Fail-Safe Defaults      |
 |                                     |                                 |
 |  * Advanced BIOS Features           |     Load Optimized Defaults      |
 |                                     |                                 |
 |  * Advanced Chipset Features        |     Set Supervisor Password      |
 |                                     |                                 |
 |  * Integrated Peripherals           |     Set User Password            |
 |                                     |                                 |
 |  * Power Management  +------------------------------------+Setup       |
 |                      |                                    |            |
 |  * PnP/PCI Configura| SAVE to CMOS and EXIT (Y/N)? Y     | Saving     |
 |                      |                                    |            |
 |  * PC Health Status  +------------------------------------+            |
 |                                     |                                 |
 |------------------------------------+---------------------------------|
 | Esc : Quit                           ^ V > <    : Select Item         |
 | F10 : Save & Exit Setup                                               |
 |----------------------------------------------------------------------|
 |                                                                      |
 |                    Save Data to CMOS                                 |
 +======================================================================+
 /dev/ttyS0 : 38400,8,N,1                                  DTR RTS CTS CD DSR RI
```

A   Safety Information

⚡ WARNING!

Read the following safety information thoroughly before installing Extreme Networks products. Failure to follow this safety information can lead to personal injury or damage to the equipment.

Only trained service personnel should perform service to Extreme Networks equipment and their components. Trained service personnel have read all related installation manuals, have the technical training and experience necessary to be aware of the hazards to which they are exposed in performing a task, and are aware of measures to minimize the danger to themselves or other persons.

Considerations Before Installing

Consider the following items before installing equipment.

- The system is designed to operate in a typical environmentally controlled Telco environment. Choose an indoor area that has the following characteristics:
  - Temperature- and humidity-controlled, such that the maximum ambient room temperature shall not exceed 95ºF (35ºC)
  - Clean and free from airborne materials that can conduct electricity (other than normal room dust)
  - Well ventilated and away from sources of heat including direct sunlight
  - Away from sources of vibration or physical shock
  - Isolated from strong electromagnetic fields produced by electrical devices
  - Secured, enclosed, and restricted-access, ensuring that only trained and qualified service personnel have access to the equipment
- Establish at least 3 inches clearance on all sides for effective ventilation. Do not obstruct the air intake vent on the front, side, or rear ventilation grills. Locate the system away from heat sources.

Power Safety

When you connect the system to power:

- Plug power supplies only into properly grounded electrical outlets to help prevent electrical shock and comply with international safety standards.
- Make sure the voltage and frequency of your power outlet match the system electrical ratings for the equipment. The building and/or power source must provide overload protection.
- Use only power cords that are certified for use within the country of use. Do not attempt to modify AC power cords.
- Use a surge suppressor, line conditioner, or uninterruptible power supply to protect the system from momentary increases or decreases in electrical power.

⚡ **WARNING!**

Provided with this product is a detachable power supply cord with IEC320 style terminations for use in the US. Before making the connection, make sure the voltage rating of the product equals or exceeds the voltage and amperage rating of the power source. For 120-volt applications, use only a UL-listed detachable power cord with a NEMA configuration 5-15P type (parallel blades) plug cap. For 240-volt applications use only a UL-listed detachable power supply cord with a NEMA configuration 6O15P type (tandem blades) plug cap.

Maintenance Safety

When you perform maintenance procedures on Extreme Networks equipment, follow these recommendations:

● Use only original accessories and/or components approved for use with this system. Failure to follow these instructions may damage the equipment or violate required safety and EMC regulations.

● The chassis cover should be removed only by Extreme Networks personnel. There are no customer serviceable components in this system. Repairs to the system must be performed by an Extreme Networks factory service technician.

● The power button on the system may not turn off all system AC power. To remove AC power from the system, you must unplug the AC power cord from the wall outlet or power supply. The power cord is the disconnect device to the main AC power source.

● Disconnect all power cords before working near power supplies, unless otherwise instructed by a maintenance procedure.

● When you work with modular accessories, put on an ESD-preventive wrist strap to reduce the risk of electronic damage to the equipment. Connect the other end of the strap to an appropriate grounding point on the equipment rack. Leave the ESD-preventive wrist strap permanently attached to the equipment rack so that it is always available when you need to handle ESD-sensitive components.

● Install all cables in a manner that avoids strain. Use tie wraps or other strain relief devices.

● When the system is powered on, be extremely careful when measuring high voltages or when servicing cards, panels or boards.

General Safety Precautions

Follow these guidelines:

● Do not try to lift objects that you think are too heavy for you.

● When you are installing equipment in a rack, load heavier devices in the lower half of the rack first to avoid making the rack top-heavy.

● Do not place a monitor or other objects on top of the equipment. The chassis cover is not designed to support weight.

● Only use tools and equipment that are in perfect condition. Do not use equipment with visible damage.

● Route cables in a manner that prevents possible damage to the cables and avoids causing accidents, such as tripping.

Battery Replacement and Disposal

The lithium battery in this equipment is not user-replaceable. It must be replaced by qualified Extreme Service personnel only.

Contact your Extreme Service personnel for product replacement. Do not attempt to replace the battery. If these instructions are disregarded and replacement of these batteries is attempted, the following guidelines must be followed to avoid danger of explosion:

● Replace with the same or equivalent battery type as recommended by the battery manufacturer.

● Dispose of the battery in accordance with the battery manufacturer's recommendation.

Sicherheitshinweise

⚡ WARNUNG!

Vor der Installation der Produkte von Extreme Networks sind die nachfolgenden Sicherheitshinweise aufmerksam zu lesen. Die Nichtbeachtung dieser Sicherheitshinweise kann zu Verletzungen oder Schäden an der Ausrüstung führen.

Installation, Wartung und Ausbau eines Switch, einer Grundplatte oder einer seiner Komponenten dürfen nur von geschultem und qualifiziertem Servicepersonal durchgeführt werden! Geschulte und qualifizierte Servicetechniker verfügen über die erforderliche technische Ausbildung und Erfahrung, um mögliche Gefahren bei der Durchführung von Servicearbeiten zu erkennen und Maßnahmen zur Minimierung der Gefahr für sich bzw. andere zu treffen.

Hinweise zur Installation

⚡ WARNUNG!

Beachten Sie vor der Installation der Ausrüstung folgende Punkte.

Stellen Sie sicher, dass die nachfolgend aufgeführten Bedingungen erfüllt sind:

- Das System ist für den Einsatz in einer typischen Umgebung gemäß Telco-Vorgaben vorgesehen. Wählen Sie einen Aufstellort mit den folgenden Eigenschaften:
  - Innenbereich mit Temperatur- und Feuchtigkeitsregelung, wobei die maximale Raumtemperatur 40°C (104°F) nicht überschreiten darf.
  - Sauber und frei von elektrisch aufladbaren Teilchen in der Luft.
  - Ausreichende Belüftung und Abstand zu Wärmequellen, einschließlich direktem Sonnenlicht
  - Ausreichender Abstand zu Quellen, die Erschütterungen oder Schläge/Stöße hervorrufen können
  - Isolierung von starken elektromagnetischen Feldern, wie sie durch Elektrogeräte erzeugt werden
  - Sicherer, abgeschlossener Arbeitsbereich mit beschränktem Zugang, sodass nur geschultes und qualifiziertes Servicepersonal Zugriff auf das Gerät hat
  - In für elektrische Stürme anfälligen Gebieten wird empfohlen, das System an einen Spannungsstoßunterdrücker anzuschließen.
- Auf allen Seiten für mindestens 7,5 cm (3") Abstand sorgen, um eine ausreichende Belüftung zu gewährleisten. Die Lufteinlassöffnung an den vorderen, seitlichen und hinteren Entlüftungsgittern nicht blockieren. Das System nicht in der Nähe von Wärmequellen aufstellen.
- Die Ausrüstung im unteren Teil des Gestells installieren, um zu vermeiden, dass der obere Teil des Gestells zu schwer wird.

Warnhinweise

- Das System an vorschriftsmäßig geerdete Steckdosen anschließen, um die Gefahr elektrischer Schläge zu vermeiden. Die Steckdose muss in der Nähe der Anlage installiert und leicht zugänglich sein, um eine schnelle Trennung vom Netz zu ermöglichen.

- Sicherstellen, dass Spannung und Frequenz der Steckdose den elektrischen Nenndaten des Systems entsprechen. Das Gebäude bzw. die Stromquelle muss mit einem Überlastschutz ausgestattet sein.

- Nur Stromkabel verwenden, die für den Einsatz in dem jeweiligen Land zugelassen sind. Wechselstromkabel dürfen nicht manipuliert werden. Stromkabel bei Anzeichen von Beschädigungen unverzüglich austauschen.

- Einen Spannungsstoßunterdrücker, einen Netzfilter oder eine unterbrechungsfreie Stromversorgung verwenden, um das System vor einer vorübergehenden Zu- oder Abnahme der elektrischen Leistung zu schützen.

Wartungssicherheit

- Nur für den Einsatz mit diesem System zugelassene Originalzubehörteile bzw. Komponenten verwenden. Die Nichtbeachtung dieser Anweisungen kann zu Schäden an der Ausrüstung oder sogar zu einem Verstoß gegen die erforderlichen Sicherheitsbestimmungen und EMV-Vorschriften führen.

- Die Abdeckung der Grundplatte darf nur durch Personal von Extreme Networks entfernt werden. Das System enthält keine vom Kunden zu wartenden Komponenten. Reparaturen am System sind von einem Extreme Networks Servicetechniker durchzuführen.

- Der An-/Aus-Schalter des Systems unterbricht nicht die Wechselstromversorgung zum System. Zur Unterbrechung der Wechselstromversorgung zum System muss das Wechselstromkabel aus der Wandsteckdose oder der Stromquelle gezogen werden. Das Stromkabel dient zur Trennung von der Netz-/Wechselstromversorgung.

- Vor der Aufnahme von Arbeiten in der Nähe von Stromquellen alle Stromkabel abziehen, sofern nicht im Rahmen eines Wartungsverfahrens anders vorgegeben.

- Schutz elektrostatisch gefährdeter Bauelemente (EGB): Zum Schutz elektrostatisch gefährdeter Bauelemente (EGB) grundsätzlich vor der Aufnahme von Arbeiten an Leiterplatten oder Modulen ein Armband anlegen. Leiterplatten nur in antistatischer Verpackung transportieren. Vor der Aufnahme von Arbeiten an Leiterplatten diese immer auf einer geerdeten Fläche ablegen.

- Alle Kabel so verlegen, dass übermäßige Belastungen vermieden werden. Kabelbinder oder Zugentlastungsklemmen verwenden.

Allgemeine Sicherheitsmaßnahmen:

Folgende Richtlinien sind unbedingt zu befolgen:

- Keine Gegenstände heben, die möglicherweise zu schwer sind.

- Bei der Messung hoher Spannungen und der Wartung von Karten, Konsolen oder Leiterplatten bei eingeschaltetem System extreme Vorsicht walten lassen.

- Keinen Monitor oder andere Gegenstände auf die Anlage stellen. Die Abdeckung der Grundplatte ist nicht darauf ausgelegt, Gewicht zu tragen.

- Nur Werkzeuge und Ausrüstung verwenden, die sich in einwandfreiem Zustand befinden. Keine Ausrüstung verwenden, die sichtbare Beschädigungen aufweist.

● Verlegen von Kabeln: Kabel so verlegen, dass keine Schäden entstehen oder Unfälle, z. B. durch Stolpern, verursacht werden können.

● Bei einer Installation in einem Gestell darauf achten, dass schwere Geräte unten im Gestell eingebaut werden, um Gefahren durch Umkippen zu vermeiden.

Austauschen und Entsorgen von Batterien

● Austauschen der Lithium-Batterie: Die Batterie kann nicht vom Anwender ausgetauscht werden. Die Batterien dürfen nur durch eine identische oder eine gleichwertige, vom Hersteller empfohlene Batterie ersetzt werden. Hierbei ist vorsichtig vorzugehen, da bei einem unsachgemäßen Austausch der Lithium-Batterie Explosionsgefahr besteht.

B Technical Specifications

provides technical specifications for the Sentriant AG200 appliance.

Table 4: Sentriant AG Appliance Technical Specifications

Physical Specifications

Chassis dimensions	Height: 1.7 inches (4.3 cm) Width: 17 inches (43.2 cm) Depth: 17.3 inches (43.9 cm)
Weight	21 lb (9.5 kg)

Power Input

Voltage ranging	90-254 V AC
Nominal voltage range:	100-240 V AC
Line frequency range	47-63 Hz
Maximum input current	2.4A @ 100 V AC 1.2A @ 200 V AC

Power Cord

	North America power supply cord provided with equipment.
	Power supply cords used outside the US require country-specific certifications as required by country standards.
Input socket	IEC 60320 C13
Wire size	0.75 mm^2 (18 AWG) copper stranded
Maximum length	10 ft (3.05 m)

Safety Standards

North American Safety of ITE	ULus Listed Device UL 60950-1:2003 1st Edition
	cUL to CSA C22.2 No.60950-1-03 1st Edition
European Safety of ITE	73/23/EEC Low Voltage Directive (LVD)
	EN60950-1:2001+A11
	TUV-R GS Mark
	DEMKO
International Safety of ITE	IEC 60950-1:2001 1st Edition with all applicable country deviations
	ANATEL, Safety Resolution 238 (Brazil)
	NOM/NYCE (Mexico)

EMI/EMC Standards

North American EMC for ITE	FCC 47 CFR Part 15, Subpart B, Class A
	ICES-003, Class A

Table 4: Sentriant AG Appliance Technical Specifications (Continued)

European EMC for ITE	89/336/EEC EMC Directive
	EN 55022:1998 A2:2003 Class A
	EN55024:1998 A2:2003 includes IEC/EN61000-2,3,4,5,6,11
	EN61000-3-2:2000 Class A (Harmonics)
	EN61000-3-3:1995 A1:2001 (Flicker)
	ETSI/EN 300 386:v1.3.3, 2005-04 (EMC Telecommunications)
International EMC for ITE	CISPR22:1998 with A1 and A2 (Emissions)
	CISPR24:1998 (Immunity)
	IEC/EN 61000-4-2 Electrostatic Discharge, 8 kV Contact, 15 kV Air, Critieria A
	IEC/EN 61000-4-3 Radiated Immunity, 10 V/m, Criteria A
	IEC/EN 61000-4-4 Transient Burst, 1kV, Criteria A
	IEC/EN 61000-4-5 Surge, 2 kV L-L, 4 kV L-G, Level 4, Criteria A
	IEC/EN 61000-4-6 Conducted Immunity, 0.15–80 MHz, 10 V/m, mod. RMS, Criteria A
	IEC/EN 61000-4-8 Magnetic Susceptibility, Criteria A
	IEC/EN 61000-4-11 Power Dips & Interruptions, >30%,25 periods, Criteria C
Country-specific	VCCI Class A (Japan Emissions)
	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**
	ACMA, CISPR22:2006 or AS/NZS 3548 (Australia/New Zealand)
	BSMI, CNS 13438:1997, Class A (-Taiwan)
	警告使用者：　這是丁類的資訊產品，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。
	ANATEL, EMC Resolution 237 (Brazil)
	MIC Mark by RLL (South Korea)

Environmental Specifications

Environmental Standards	EN/ETSI 300 019-2-1 v2.1.2 (2000–09) - Class 1.2 Storage
	EN/ETSI 300 019-2-2 v2.1.2 (1999–09) - Class 2.3 Public Transportation
	EN/ETSI 300 019-2-3 v2.1.2 (2003–04) - Class 3.1e Stationary Use
	EN/ETSI 300 753 (1997-10) - Acoustic Noise
Green Compliance Standards	RoHS 6 compliant
	China RoHs compliant
	WEEE compliant
Operating conditions	Operating temperature range: 0 C to +40 C (32° F to 104° F)
	Operating humidity: 10 – 90% relative humidity
	Operating altitude: 0 – 3000 meters (10,000 ft)
	Operating shock*: 30 m/s^2 (3g), 11 ms
	Operational random vibration*: 5 – 500 Hz @ 1.5G$_{rms}$
	Acoustic noise: < 5.5 bels A sound power per ISO 7779 < 45.0 dBA declared sound pressure

Table 4: Sentriant AG Appliance Technical Specifications (Continued)

Storage and transportation conditions (packaged)	Temperature*: –40º C to +70º C (–40º F to 158º F)
	Relative humidity*: 10–93% RH
	Shock*: 180 m/s^2 (18g), 6ms600 shocks (package < 50 kg)
	Random vibration*: 5–20 Hz @ 1.0 ASD w/–3 dB/oct. from 20–200 Hz
	Sinusoidal vibration: 5–62 Hz @ Velocity 5 mm/s, 62–500 Hz @ .2G
	Drop*: 42.4

* Short-term test condition. Not for extended use under this condition.

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