NETSCREEN-25

Installer’s Guide

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• Increase the separation between the equipment
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• Consult the dealer or an experienced radio/TV
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**Manual Organization**

This manual has three chapters and two appendices.

*Chapter 1, “Hardware Description”,* describes the NetScreen-25® device. It explains the functions of the status LEDs, identifies the device interface ports, and details the front and back panels of the device.

*Chapter 2, “Connecting to the Network”,* explains how to connect the NetScreen-25 to the network as a standalone unit.

*Chapter 3, “Initial Configuration”,* explains how to configure the NetScreen-25 with a network using both the command line interface (CLI) and the web user interface (WebUI).

*Appendix A, “Safety Recommendations and Warnings”,* provides general site requirements as well as safety warnings and general cautions when using the NetScreen-25 device.
**General Layout of the NetScreen-25 WebUI**

The Web User Interface (WebUI) contains two main logical sections: the menu column and the central display area.

- The menu column includes four main functional categories: System, Network, Lists, and Monitor, each of which contains further sub-functions represented by tabs in the central display area. During the configuration process, you first must select a main functional category before choosing the various utilities offered within each sub-category.

- The central display area displays the information for each of the categories in the menu column, in either a tabular or graphical format. These pages generally contain links to dialog boxes through links such as **New Policy**, **New Manual Key User**, **New Entry**, **Edit**, and so forth.

![The NetScreen-25 Central Display Area](image)
COMMAND LINE INTERFACE (CLI) SYNTAX

These guidelines apply to all NetScreen commands.

Syntax

- A parameter inside [ ] (square brackets) is optional.
- A parameter inside {} (braces) is required.
- Anything inside < > is a variable.
- If there is more than one choice for a parameter inside [ ] and {}, they are separated by a pipe ( | ). For example, [auth {md5 | sha-1}] means “choose either MD5 or SHA-1 as your authentication method.”
- IP addresses are represented by <a.b.c.d>, and <a.b.c.d>-<w.x.y.z> if a range is being specified.
- A subnet mask is represented by <A.B.C.D>.

Conventions

- To remove a single character, press BACKSPACE or CTRL+H.
- To remove an entire line, press CTRL+U.
- To traverse up to 16 lines forward in the command history buffer, press CTRL+F or the DOWN ARROW key.

Note: To use the arrow keys for navigating among commands in a Telnet session on Windows 95, 98, NT, or 2000: On the Terminal menu, click Preferences…, select the VT100 Arrows check box, and click the OK button.

- To traverse up to 16 lines backward in the command history buffer, press CTRL+B or the UP ARROW key.
- To see the next available keyword or input, and a brief description of usage, type a question mark (?).
- The console times out and the connection is broken if no keyboard activity is detected for 10 minutes.

Items you enter are into the system are in **bold** text.

For further explanation of NetScreen commands and their syntax, refer to the NetScreen CLI Reference Guide, which is included on the product CD.
**RELATED PUBLICATIONS**

These technical publications ship with the NetScreen-25 device:

- NetScreen-25 Installer’s Guide
- NetScreen-25 Getting Started Guide

The following publications are included on the documentation CD:

- NetScreen CLI Reference Guide
- NetScreen WebUI Reference Guide
- NetScreen Concepts & Examples ScreenOS Reference Guide
- NetScreen Message Log Reference Guide

**Note:** To receive important news on product updates, please visit our Web site at www.netscreen.com and register your product.
Hardware Description

This chapter provides illustrations and descriptions of the NetScreen-25 front and back panels.

Figure 1-1 Front Panel of the NetScreen-25

A front view of the NetScreen-25 is shown above. The label on the left side indicates the model name: NetScreen-25.

Figure 1-2 Condition LED Displays

These items are located on the front panel of the NetScreen-25:

- **Power LED**: Glows solid green during normal operation, and red in event of an error.
- **Status-1 LED**: Glows solid green when a boot-up process is underway, and blinks green during normal operation.
- **Status-2 LED**: Reserved for future use.
- **Alarm LED**: Glows red during a critical alarm and glows amber during a major alarm (low memory or high CPU utilization).
• **Session LED**: Glows orange when there is over 90% utilization of sessions, and is dark during normal operation. The NetScreen-25 supports 4,000 concurrent sessions.

• **Compact Flash LED**: Glows a steady green when a card is plugged in with no activity, and flashes green when there is activity. The LED is dark when the card slot is empty.

• **Configuration Reset Pinhole**: When the user resets the device, the NetScreen-25 will boot up using the original factory default configuration. See Figure 1-1 on page 1-1. Any current existing configuration settings will be lost, and the firewall and VPN service rendered inoperative. See “Backup Configuration Settings” on page 3-13 for more information.

⚠️ **Warning**

For complete security, operate the NetScreen-25 in a “locked room” environment.

• **Console Port**: RJ-45 serial console port connector for local configuration and administration. See Figure 1-1 on page 1-1.

  **Note**: For cabling guidelines and instructions, see Chapter 2, “Connecting to the Network”.

• **Modem Port**: RJ-45 serial console port connector for local configuration and administration. See Figure 1-1 on page 1-1.

• **Compact Flash Card Slot**: The NetScreen-25 supports SanDisk CompactFlash™ cards with a variety of memory capacities. NetScreen has tested 96MB and 512MB cards. The NetScreen device automatically detects the presence of a flash card and records the event log to it.

  The CompactFlash™ card is used for storage of system images, configuration files, keys and logs shown in Figure 1-1 on page 1-1.

⚠️ **Warning**

The insertion and removal of the CompactFlash card must be performed when the unit is powered off and disconnected from all power sources.
- **Ethernet Interface:**

  Trust Port: Port 1
  Untrust Port: Port 2
  DMZ Port: Port 3
  Reserved Port: Port 4

  Each Ethernet port is a 10/100 Auto Sensing Interface. The port has two link lights, or LEDs, shown in Figure 1-3. The left LED indicates network traffic activity and the right LED indicates if the link is up (connected to an active device).

![Ethernet LEDs](image)

**Figure 1-3** Ethernet LEDs

The back panel of the NetScreen-25 is shown in Figure 1-4.

![Back Panel of the NetScreen-25](image)

**Figure 1-4** Back Panel of the NetScreen-25

**Note:** Certain export restrictions apply to international customers. Check with your sales representative.
• **Power Outlet**: Use the outlet to connect power to the NetScreen-25 with the supplied power cable.

**AC Power Supply**: Input Voltage: 90 to -264 VAC  
Input Frequency: 47 to -63Hz

• **On/Off Switch**: Turns the power to the NetScreen-25 on or off.

⚠️ **Caution**  
Make sure you have read the Appendix A, “Safety Recommendations and Warnings”, before you begin installation.

**NetScreen-25 Fuse Installation and Replacement**

1. To replace a failed fuse on the NetScreen-25 it is necessary to take the device off-line, turn the power switch off and disconnect the power cable.
2. Using a screwdriver, separate the lid of the external fuse cover from the surface of the power outlet, as shown in **Figure 1-5**.

![Figure 1-5 Screwdriver Applied to NetScreen-25 Power Panel](image)

3. Manually remove the fuse assembly from the NetScreen-25.
4. To replace, enter the new fuse into the opening and slide in until the fuse clicks into place. The replacement fuse must be a 2.5 amp slow-blow fuse rated for 250 volts.

![NetScreen-25 Fuse](image)

**Figure 1-6** NetScreen-25 Fuse

5. Replace the power cable and turn the device power switch on.

**Connection Pin Assignments**

The below table displays the RJ-45 to DB-9 adapter connection definitions. Both the console and the modem ports on the NetScreen-25 must use this configuration in order to employ a standard UART port.

**Table 1-1** DB9 to RJ45 connections

<table>
<thead>
<tr>
<th>DB9</th>
<th>Signal</th>
<th>Abbr.</th>
<th>DTE</th>
<th>DCE</th>
<th>RJ 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Data Carrier Detect</td>
<td>DCD</td>
<td>In</td>
<td>Out</td>
<td>NC</td>
</tr>
<tr>
<td>2</td>
<td>Received Data</td>
<td>RD</td>
<td>In</td>
<td>Out</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Transmitted Data</td>
<td>TD</td>
<td>Out</td>
<td>In</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Data Terminal Ready</td>
<td>DTR</td>
<td>Out</td>
<td>In</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Signal Ground</td>
<td>SGND</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Data Set Ready</td>
<td>DSR</td>
<td>In</td>
<td>Out</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Request To Send</td>
<td>RTS</td>
<td>Out</td>
<td>In</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>Clear To Send</td>
<td>CTS</td>
<td>In</td>
<td>Out</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Ring Indicator</td>
<td>RI</td>
<td>In</td>
<td>Out</td>
<td>NC</td>
</tr>
</tbody>
</table>
Connecting to the Network

Follow the instructions in this chapter to connect the NetScreen-25 device to the network and to configure the software for the first time. For further configuration options, see the NetScreen Concepts & Examples ScreenOS Reference Guide on the product CD.

⚠️ Caution Make sure you have read Appendix A, Safety Recommendations and Warnings, before you begin this chapter.

This chapter contains the following sections:

- “Gathering the Necessary Tools” on page 2-1.

GATHERING THE NECESSARY TOOLS

The chassis can be placed on a table top or mounted in a standard 19-inch equipment rack. Table top installation requires no tools. Rack mounting requires a Phillips-head screwdriver, the rack mount bracket kit, and four screws to match the rack. Mounting brackets and screws are provided in the NetScreen-25 product package.

Note: The rack mount screws included in the product package may not fit your rack. In this case, it is necessary that you supply screws to match the particular rack thread size.
CONNECTING THE NetScreen-25 AS A SINGLE SECURITY APPLIANCE

Note when configuring multiple NetScreen-25 devices, each NetScreen-25 may be in default mode and will have a default IP address of 192.168.1.1. Putting two or more NetScreen-25 devices on the same subnet in default mode will cause IP address conflicts. To avoid this problem, install and configure each NetScreen-25 device separately before connecting them to the network.

To set up the NetScreen-25 network connections, follow these steps:

1. Install the NetScreen-25 in a rack (optional) or on a level surface.
2. Make sure that the power connection to the NetScreen-25 is turned off; that is, that “O” is pressed.
3. Connect the power cable provided in the product package from the NetScreen-25 power outlet to the power supply.
4. Connect the NetScreen-25 to the network as shown in one of the examples beginning on page 2-3. See Table 2-2 for further information concerning the NetScreen-25 cabling requirements.

   **Trusted Port** (Interface 1): Connect the NetScreen-25 using a twisted pair cable with RJ 45 connectors. The trusted port is a Data Circuit-terminating Equipment (DCE) port.

   **DMZ Port** (Interface 2): Connect the NetScreen-25 using a twisted pair cable with RJ 45 connectors. The DMZ port is also a DCE port.

   **Untrusted Port** (Interface 3): Connect the NetScreen-25 using a twisted pair cable with RJ 45 connectors. The untrusted port is a data terminal equipment (DCE) port.

5. Turn on the NetScreen-25 and any other network devices that you had turned off.
6. The NetScreen-25 will take approximately 30 seconds to boot up.
7. If all cables are connected correctly, the link light for each connection glows.

---

1. Check your router, hub, or computer documentation to determine if you must reconfigure the device or if you must switch off the power supply when connecting new equipment to the LAN.
The NetScreen-25 has three operational ports and one port reserved for future applications.

**Table 2-2** Port and Interface Detail

<table>
<thead>
<tr>
<th>Port</th>
<th>Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trust</td>
</tr>
<tr>
<td>2</td>
<td>DMZ</td>
</tr>
<tr>
<td>3</td>
<td>Untrust</td>
</tr>
<tr>
<td>4</td>
<td>Reserved for future use</td>
</tr>
</tbody>
</table>
To use the DMZ, connect a cable from the DMZ port on the NetScreen-25 to the switch linking the machines in the DMZ to the DMZ interface. See Figure 2-8 for an example of this configuration.

![Diagram showing network configuration](image)

**Figure 2-8** Sample Configuration Using DMZ Port

<table>
<thead>
<tr>
<th>Connection</th>
<th>Cable Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTE to DTE</td>
<td>crossover</td>
</tr>
<tr>
<td>DTE to DCE</td>
<td>straight-through</td>
</tr>
<tr>
<td>DCE to DCE</td>
<td>crossover</td>
</tr>
</tbody>
</table>

*All 10/100 auto sensing ethernet interfaces are DCE.*

If all cables are connected correctly, the link light for each connection glows.
Serial Cable Access

Included with the NetScreen-25 is a RJ-45 to DB-9 serial cable for command line access purposes. Connect the RJ-45 cable to the console port located in the front of the NetScreen-25 chassis. Connect the DB-9 interface to your PC. See Figure 1-1 on page 1-1.

External Modem Access

Included with the NetScreen-25 is an out-of-band management port for use with an external modem. Connect the RJ-45 cable to the modem port located in the front of the NetScreen-25 chassis. Connect the DB-9/DB-25 serial console cable to your external modem. (The interface will depend on the modem.) See Figure 1-1 on page 1-1.

The modem will then be plugged into an analog telephone line using an RJ-11 interface. Consult your modem manual for proper operation.
Initial Configuration

The NetScreen-25 device supports three operational modes: Transparent mode, NAT (Network Address Translation) mode, and Route mode.

Transparent Mode

In Transparent mode, the NetScreen device inspects packets traversing the firewall without modifying any of the source or destination information in the IP packet header. Because it does not translate addresses, the IP addresses on the protected network must be valid, routable addresses on the Untrusted network\(^1\), which might be the Internet. In Transparent mode, the IP addresses for the Trusted and Untrusted interfaces are set at 0.0.0.0, making the presence of the NetScreen device invisible, or “transparent,” to users. The NetScreen device acts as a Layer 2 bridge.

Network Address Translation (NAT) Mode

When in NAT mode, the NetScreen device translates two components in the header of an outgoing IP packet traversing the firewall from the Trusted side: its source IP address and source port number. The NetScreen device replaces the source IP address of the host that sent the packet with the IP address of the Untrusted port\(^2\) of the NetScreen device. Also, it replaces the source port number with a random port number generated by the NetScreen device.

Route Mode

In Route mode, the NetScreen device routes traffic between different interfaces without performing NAT; that is, the source address and port number in the IP packet header remain unchanged as it traverses the NetScreen device. Unlike NAT mode, the hosts on the Trusted side must have public IP addresses, and no Mapped and Virtual IP addresses must be established to allow sessions initiated on the Untrusted side to reach hosts on the Trusted side. Unlike Transparent mode, the Trusted and Untrusted interfaces are on different subnets.

1. If the router on the Untrusted side performs NAT, then the addresses on the Trusted side can be private IP addresses.

2. If the outbound traffic is destined for the DMZ, then the source IP address is translated to that of the DMZ port.
This section shows you how to configure your NetScreen-25 in Transparent mode and allow internal users to access the Internet while denying internal access from the Internet. You do this by setting the System IP address and creating an access policy that permits outgoing traffic. Incoming traffic is denied by default; therefore, no incoming access policy must be set expressly to deny it.

**Note:** For instructions on configuring the NetScreen-25 for NAT or Route mode, see the NetScreen Concepts and Examples ScreenOS Reference Guide.

There are two methods for configuring the NetScreen-25 for the first time: via the Web user interface (WebUI) and via the command line interface (CLI).

**Table 3-4 “Administration Requirements”** lists the workstation requirements for each method.

**Table 3-4 Administration Requirements**

<table>
<thead>
<tr>
<th>Configuration Method</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WebUI</strong></td>
<td>Netscape® Communicator® V4.5 or greater, or Microsoft® Internet Explorer V5 Web browser. &lt;br&gt;TCP/IP network connection to the NetScreen-25. &lt;br&gt;SSL requires that a certificate be loaded into the NetScreen-25. See the NetScreen Concepts and Examples ScreenOS Reference Guide for further information.</td>
</tr>
<tr>
<td><strong>CLI</strong></td>
<td>Via the console port, using Hilgraeve® Hyperterminal® or a VT100 terminal emulator on the administrator’s workstation and an RS-232 Console cable &lt;br&gt;Via Telnet, using a VT100 terminal emulator and a TCP/IP network connection to the NetScreen device. &lt;br&gt;SSH requires that a key be generated in the NetScreen-25. See the NetScreen Concepts and Examples ScreenOS Reference Guide for further information.</td>
</tr>
</tbody>
</table>

The installation procedure using a Web browser is explained first, followed by the CLI procedures using the console port and Telnet.
To perform the initial configuration through the WebUI, change the IP address of the management workstation to the same subnet as the NetScreen-25 default system IP address. You can then log on through a Web browser and reset the system IP address.

The following sections detail the procedures for administration of the NetScreen-25 device from the administrator’s workstation.

**Note:** The NetScreen-25 ships from the factory with the IP address set to 192.168.1.1.

Refer to Table 3-4 for administration requirements. For further information regarding levels of administration, see the NetScreen Concepts and Examples ScreenOS Guide.

**Making a Connection**

Before you begin, be sure you connected the NetScreen-25 hardware to the network as outlined in Chapter 2, “Connecting to the Network”.

**Logging On and Setting the System IP Address**

For remote administration of the NetScreen device over a network connection, you must reconfigure the system IP to be in a reachable subnet. To change this to an address on the same subnet as the other network devices to which the NetScreen-25 is connected, perform the following procedure:

1. Record the IP address and subnet mask of your workstation; you must re-enter them later in this process.
2. Change the IP address of the workstation to 192.168.1.2 and the netmask to 255.255.255.0. (You may have to restart the workstation to enable the changes to take effect.) The workstation is now part of the same subnet as the default IP address of the NetScreen-25.
3. Start your Web browser.
4. In the URL field of the browser, enter the IP address of the NetScreen-25: http://192.168.1.1.

The Enter Network Password dialog box appears, as shown in Figure 3-9.
5. In the dialog box, type **netscreen** for both the Username and Password, and then click **OK**.

**Note:** The username and Password are case-sensitive. After configuring the NetScreen device for the first time, change the default Username and Password as described in “Changing the Administrator Login Name and Password” on page 3-18.

For a first-time configuration, you are directed to a special setup page as shown in **Figure 3-10**.

**Figure 3-10** Initial IP Address Configuration
6. Enter the IP address and netmask for administration of the NetScreen-25, and then click **OK**.

   **Note:** Check the *Synchronize system clock with this client* checkbox to synchronize the NetScreen-25 clock with the clock in the administrator’s workstation.

   The IP address must be a valid and available IP address on your local network and the subnet mask must be an appropriate value for your local network.

   The Configuring in Progress screen appears, as shown in *Figure 3-11*.

   ![Configuring in Progress Screen](image)

   *Figure 3-11* Configuring in Progress Screen

7. Set your administration workstation IP address and netmask to the values you recorded in step 1. Depending on the operating system, you might have to restart your workstation.

   After the IP configuration is complete, you must again log on.

8. In the URL field of the browser, enter the new IP address for the NetScreen device.

   The Enter Network Password dialog box re-appears.

9. In the dialog box, type **netscreen** for both the Username and Password, and then click **OK**. (Remember that the Username and Password are case-sensitive.)

   The Access Policies pages appear, with the Outgoing Access Policies page displayed as shown in *Figure 3-12 on page 3-6*. You are now logged on to the NetScreen-25.
The NetScreen-25 has a Trusted interface, an Untrusted interface, a DMZ interface and a fourth interface reserved for future use. These are physical interfaces used for channeling network user traffic.

To configure the NetScreen-25 device for Network Address Translation (NAT) mode or Route mode, you must configure the Trusted, Untrusted, and DMZ (if used) interfaces.

If you want to configure the NetScreen device for Transparent mode, you do not have to define IP addresses for the Trusted, Untrusted, and DMZ interfaces. Initial configuration is complete.

The Trusted interface leads to the network (usually the intranet or corporate network) protected by the NetScreen device. The Untrusted interface leads to the network (usually the Internet) against which the NetScreen device defends. The DMZ interface leads to a protected network to which access from the Untrusted side is typically granted.

Figure 3-12 Access Policies Page
**Trusted Interface Configuration**

1. Click the **Interface** button in the menu column.

The Interface pages appear, with the Trusted Interface page displayed.

2. Click **Edit** to open the Trusted Interface Configuration dialog box.

![Trusted Interface Configuration](image)

**Figure 3-13** Trusted Interface Configuration

3. Enter the following, and then click **Save**:
   - **IP Address**: Type an IP address for the Trusted interface.
   - **Netmask**: Type an appropriate netmask.
   - **Default Gateway**: Type the IP address of the router (if there is one) that exists between the Trusted network and the NetScreen-25.
Untrusted Interface Configuration

1. Click the Untrusted tab, and then click **Edit** to open the Untrusted Interface Configuration dialog box.

![Figure 3-14 Untrusted Interface Configuration](image)

If the untrusted IP address on the NetScreen-25 is dynamically assigned by an ISP, leave the IP address and netmask fields empty and select DHCP. If the ISP is using Point-to-Point Protocol over Ethernet, select PPPoE and enter the name and password.

2. For the Untrusted Interface Configuration, select one of the following and click **Save and Reset**:
   - **Obtain IP using PPPoE**, and enter the following:
     - User Name: Enter the appropriate user name.
     - Password: Enter the appropriate user password.
- **Obtain IP using DHCP.**
- **Static IP**, and enter the following:
  - IP Address: Enter the Untrusted IP address.
  - Netmask: Enter the netmask IP address.
  - Default Gateway: Enter the IP address of the external router.

**DMZ Interface Configuration**

1. If you plan to use the DMZ interface to add another security domain, click the DMZ tab, and then click **Edit** to open the DMZ Interface Configuration dialog box.

![Figure 3-15 DMZ Interface Configuration](image)

2. Enter the following, and then click **Save and Reset**:
   - IP Address: Type an IP address within the same subnet as the DMZ network.
   - Netmask: Type an appropriate netmask.
   - Default Gateway: Type the IP address of the router (if there is one) that exists between the DMZ network and the NetScreen-25.
Allowing Outbound Traffic

The NetScreen-25 ships with no configured Access Policies. You need to create access policies to permit specified kinds of traffic in the direction(s) you want. (You can also create access policies to deny and tunnel traffic.)

1. On the Outgoing Access Policies page, click the New Policy link in the lower left corner of the page.

The Policy Configuration dialog box appears, as shown in Figure 3-16.

![NetScreen-25 Policy Configuration Dialog Box](image)

**Figure 3-16** Outbound Policy Configuration Dialog Box

Set an access policy that allows all inside hosts to access the Internet. Set the options as follows:

- **Source Address**: Inside Any (Inside Any is a predefined address for all hosts on the Trusted network.)
- **Destination Address**: Outside Any (Outside Any is a predefined address for all locations on the Untrusted network, usually the Internet.)
- **Service**: Any (Any is a predefined value for any IP service.)
- **Action**: Permit (Allows the traffic defined by the access policy to traverse the firewall.)
- Leave the rest of the options at their default values, and click the **OK** button.

The Outgoing Access Policies page now has one access policy that permits any inside traffic to pass through the firewall and access the Internet.

**Note**: For further information and examples on other configuration options, please refer to the NetScreen Concepts & Examples ScreenOS Reference Guide.

### Changing the Administrator Login Name and Password

To change the default administrator login and password via the WebUI:

1. Select the **Admin** button in the menu column to view the **Admin** page
2. Select the Local Administrator Name field, and click **Edit** under the **Options** menu.

The Admin User Configuration dialog box appears, as in **Figure 3-17**.

**Figure 3-17** Admin User Configuration Menu
3. Type a new admin login name.

   **Note:** The login name and password must be alphanumeric, and are case-sensitive.

4. Type the old password (initially netscreen) in the Old Password field. You must enter the old password to change to the new password.

5. Type the new password in the New Password field and the Confirm New Password field.

6. Record the new administrator login name and password in a secure manner.

   **Warning** Make sure that you remember your password! If you forget it, you must reset the device to the factory settings to regain access to the device. (See “Asset Recovery” on page 3-19.)

7. Leave the other fields at their default entries, and select the **Apply** button. The changes require the NetScreen-25 to reset, which it automatically does at this point. **Figure 3-18** shows the system message that appears.

8. Click the **Yes** button to confirm your command to reset the system. The next time you log in, use the new login name and Password.

**Testing the Configuration**

Use a Web browser to access an external Web site (for example, www.netscreen.com). The browser should be able to locate the site and access the available Web pages.
If the browser cannot access the Web site, check the following:

- Link lights on the NetScreen-25, workstations, hubs, and the router are glowing.
- The workstation IP and Netmask have the correct settings.
- The workstation gateway points to the router.
- The workstation has a valid DNS entry.

Backup Configuration Settings

Through the WebUI, you can download the configuration settings of the NetScreen-25 to any local directory as a backup precaution.

Download Configuration:

1. Click **Admin** in the menu column, click the **Settings** tab, and then click the **Save Current Configuration** option, as shown in **Figure 3-19**.

![Figure 3-19 Administration Settings Menu](image-url)
The Download File dialog box appears, as shown in Figure 3-20 on page 3-14.

![File Download Dialog Box](image)

**Figure 3-20** File Download Dialog Box

3. Click **Save** and browse to the location where you want to keep the configuration file.

**Note:** For further information regarding uploading and downloading of configuration settings, see the NetScreen Concepts & Examples ScreenOS Reference Guide.
CONFIGURING VIA THE CLI

The following section provides information on how to configure the device using the command line interface (CLI). For more information regarding command syntax, see “Command Line Interface (CLI) Syntax” on page ix.

Making a Connection

You can access the NetScreen-25 either by connecting directly via a console (or serial) cable to the NetScreen-25 console port, or you can create a network connection via Telnet. Connection instructions are offered for both methods.

Connecting via the Console Port

Obtain direct access to the NetScreen device you want to configure and these items before you start:

- An RJ-45 to RS-232 female serial cable (provided).
- Hilgreave Hyperterminal software on the management workstation or, if you are using a different operating system, a VT100 terminal emulator.

Follow these steps to connect the NetScreen device to the workstation:

1. Connect the serial cable from the management workstation to the console port on the NetScreen-25. See Figure 1-1 “Front Panel of the NetScreen-25” on page 1-1.
2. Start the terminal emulator on the workstation.
3. To create a new connection, type a name, select an icon, and then click OK. The Connect To dialog box appears.
4. Select the serial port to which the serial cable is connected to the workstation (usually COM1 or COM2), and click OK. The COM1 (or COM2) Properties dialog box appears.
5. Configure the port settings as follows, and then click **OK**:
   - serial communications 9600 bps
   - 8 bit
   - no parity
   - 1 stop bit
   - no flow control

6. Press the **ENTER** key to see the login prompt.

### Connecting via Telnet

Telnet operates over TCP/IP networks, and it allows you to configure the device remotely using the CLI.

To use Telnet to manage NetScreen devices the following are required:

- Telnet software on the administrative workstation
- An Ethernet connection to the NetScreen device

Before you begin, be sure you connected the NetScreen device hardware to the network as outlined in “Connecting the NetScreen-25 as a Single Security Appliance” on page 2-2.

1. Establish a Telnet connection to the NetScreen device.
2. For Host name, type: 192.168.1.1, the NetScreen-25 default IP address. If the NetScreen-25’s IP address has been changed, use the new IP address.

   **Note:** The Terminal type for Telnet sessions must be vt100. Click on **Connect**, and on the drop-down menu select **Remote System**. In the dialog box, select **vt100** from the Term Type menu.

For more specific information, see the NetScreen CLI Reference Guide and the NetScreen Concepts and Examples ScreenOS Reference Guide.
Logging On and Setting the System IP Address

To log on, enter the default administrator login name and Password.

1. At the login prompt, enter netscreen.
2. At the Password prompt, enter netscreen.

**Note:** The Username and Password are case-sensitive.

The NetScreen-25 ships from the factory with a default IP address of 192.168.1.1. To administer the NetScreen device over a network connection, you must change this IP address. To change this to an address on the same subnet as the other network devices to which the NetScreen-25 is connected, enter the following command, substituting your system IP address for <a.b.c.d>:

```
ns-> set admin sys-ip <a.b.c.d>
```

**Note:** For more information regarding command syntax, see “Command Line Interface (CLI) Syntax” on page ix and the NetScreen CLI Reference Guide.

Setting Interface Addresses

The NetScreen-25 ships with all its interface addresses and netmasks set as 0.0.0.0. If you want to operate the NetScreen-25 in Transparent mode, leave the trusted and untrusted interface addresses as they are.

To set the interface addresses, enter the following commands, where <a.b.c.d> are the interface IP addresses and <A.B.C.D> is the netmask:

1. `ns-> set interface trust ip <a.b.c.d> <A.B.C.D>
2. ns-> set interface untrust ip <a.b.c.d> <A.B.C.D>
3. ns-> save

Allowing Outbound Traffic

By default, the NetScreen-25 does not allow inbound or outbound traffic. Create an outgoing access policy to permit outbound traffic to traverse the firewall. Enter the following command:

```
ns-> set policy outgoing “inside any” “outside any” any permit
```
Changing the Administrator Login Name and Password

Because all NetScreen units are shipped with the same default name and password, it is highly recommended that you change the default admin login name and password.

⚠️ Caution

The information in this guide has been widely published, and failure to change the defaults can expose your system to attack.

1. Enter the following commands:

   ns-> set admin name <name>
   ns-> set admin password <password>
   ns-> save

2. Record the new Administration name and Password in a secure manner.

⚠️ Warning

Make sure that you remember your Password! If you forget it, you must reset the device to the factory settings to regain access to the device. (See “Asset Recovery” on page 3-19.)

To configure the NetScreen device for Transparent mode, no IP addresses for the Trusted, Untrusted and DMZ interfaces must be defined. Initial configuration is complete.

To configure the NetScreen-25 device for Network Address Translation (NAT) mode or Route mode, see the NetScreen Concepts & Examples ScreenOS Reference Guide.

Testing the Configuration

From a workstation on the Trusted side of the NetScreen-25, use a Web browser to access an external Web site (for example, www.netscreen.com). The browser should be able to locate the site and access the available Web pages.

If the browser cannot access the Web site, check the following:

- The power, status, and link lights on NetScreen-25 are illuminated.
- The LEDs on the host, hubs, and router(s) are illuminated.
- The administrator’s workstation IP address and netmask are correct.
- The workstation gateway points to the external router.
- The workstation has a valid Domain Name Service (DNS) entry.
**ASSET RECOVERY**

To restore the NetScreen-25's original factory default configuration, the user resets the device by pressing the configuration reset pinhole.

⚠️ **Warning**  
Resetting the device will delete **all** existing configuration settings, and the firewall and VPN service will be rendered inoperative.

![NetScreen-25 with Configuration Reset Pinhole](image1)

**Figure 3-21** NetScreen-25 with Configuration Reset Pinhole  
Two pushes of the pinhole are required for the configuration and hardware reset, with a short delay between the two pushes.

![NetScreen-25 Configuration Reset LEDs](image2)

**Figure 3-22** NetScreen-25 Configuration Reset LEDs
To reset the NetScreen-25 device to its factory settings:

1. Push the reset hole for between four and six seconds.

   If the hardware reset switch is sensed, a serial console message states that the “Configuration Erasure Process has been initiated.” A SNMP/SYSLOG alert is sent. The status LED blinks amber once every second.

2. Wait for one-half second to two seconds.

   After the first push is accepted, the power LED turns blinking green; this is to state that the unit is now waiting for the second push. The serial console message now reads, “Waiting for 2nd confirmation”.

3. Push the reset hole again for four to six seconds.

   The power LED now blinks red for at least five seconds.

4. The device resets to its original factory settings.

   When the device resets, the Status LED will turn amber for one-half second and then return to its normal mode of operation. The serial console message states, “Configuration Erase sequence accepted, unit reset”. Alerts, SNMP, SYSLOG, and Reset Log messages are generated.

   **Note:** During a reset, there is no guarantee that the final SNMP alert sent to the receiver before the reset will be received.

5. The device now reboots.

   If the complete sequence was not followed, the reset process cancels without any configuration change. The serial console message states, “Configuration Erasure Process aborted”. The status LED returns to blinking green. If the unit did not reset, an SNMP Alert will be sent, confirming the failure.

   **Note:** After successfully resetting and reconfiguring the NetScreen-25, it is strongly advised to backup the new configuration setting, as shown in “Backup Configuration Settings” on page 3-13.

   **Note:** For safety against lost passwords, it is advised that a new configuration is backed up which contains the NetScreen default password. This will ensure a quick recovery of a lost configuration. It is important to place a user-created password on the system as soon as possible.
Safety Recommendations and Warnings

Before supplying power to the NetScreen-25, follow these safety guidelines:

- Look carefully for possible hazards in the work area, such as moist floors, ungrounded power extension cables, and missing safety grounds.
- Locate the emergency power-off switch for the area where you are working.

Do not perform any action that creates a potential hazard to people or makes the equipment unsafe. To allow adequate air circulation and to avoid the devices tipping over, do not stack or balance the equipment on other devices. Make sure the installation is securely in place.

**SAFETY WARNINGS**

Make sure that you adhere to the following set of safety warnings.

**Installation Warning**

⚠️ Caution

Read the cabling instructions before connecting the NetScreen-25 to its power source.

**Power Disconnection Warning**

⚠️ Warning

Before working on a device that has an On/Off switch, turn OFF the power and unplug the power cord.

**No User-Serviceable Parts Warning**

⚠️ Warning

The NetScreen-25 contains no user-serviceable parts and is housed in a tamper-proof enclosure. Therefore, the chassis should never be opened under any circumstances. Doing so will also void the warranty.
Appendix A: Safety Recommendations and Warnings

Circuit Breaker (15A) Warning

⚠️ Caution  The NetScreen-25 relies on the building’s installation for short-circuit (over-current) protection. Ensure that a fuse or circuit breaker no larger than 120 VAC, 15A U.S. (240 VAC, 10A international) is used on the phase conductor (all current-carrying conductors).

SELV Circuit Warning

⚠️ Warning  The Ethernet 10BaseT, 100BaseT, serial, console, and auxiliary ports contain safety extra-low voltage (SELV) circuits. Do not connect the NetScreen-25 to a telephone line or any Telco line (e.g., T-1, T-3, RJ-48 lines).

Lightning Activity Warning

⚠️ Danger  Do not work on the device, specifically, connecting or disconnecting cables during periods of lightning activity, as the unit can function as a conduit.

Lithium Battery Warning

⚠️ Warning  There is a danger of explosion if the battery is incorrectly replaced. The chassis should never be opened under any circumstances. Doing so will also void the warranty. Return the device to the manufacturer for battery replacement.

Product Disposal Warning

⚠️ Warning  Ultimate disposal of this product should be handled according to all national laws and regulations.
GENERAL SITE REQUIREMENTS

For the safe installation and operation of your NetScreen device, ensure that your site is properly prepared before beginning the hardware installation.

- Check the power at your site to ensure that you are receiving “clean” power (free of spikes and noise). Install a power conditioner if necessary.
- The NetScreen device is intended for use in a normal office environment. For more extreme conditions, verify that temperature, humidity, and power conditions meet the specifications indicated below.

<table>
<thead>
<tr>
<th>Item</th>
<th>Operating Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>32-122°F, 0-50°C: for storage</td>
</tr>
<tr>
<td></td>
<td>50-104°F, 10-40°C: for operation</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>5-90%, non-condensing: for storage</td>
</tr>
<tr>
<td></td>
<td>10-90%, non-condensing: for operation</td>
</tr>
<tr>
<td>Nominal voltage</td>
<td>120 +/-15%, 220 +/-15%</td>
</tr>
<tr>
<td>Voltage range</td>
<td>90 to -264 VAC Auto Sensing</td>
</tr>
<tr>
<td>Input frequency</td>
<td>47 to -63 Hz</td>
</tr>
<tr>
<td>AC input current</td>
<td>1A (120VAC), 0.5A (220VAC)</td>
</tr>
<tr>
<td>Altitude</td>
<td>0-12,000 feet, 0-3,660 meters</td>
</tr>
</tbody>
</table>

Onsite Precautions

You can place the NetScreen-25 on a desktop or mounted in a rack. The location of the chassis and the layout of your equipment rack or wiring room are extremely important for proper system operation. Equipment placed too close together will cause inadequate ventilation, besides rendering areas of the device inaccessible for system maintenance during any system malfunctions and shutdowns.
When planning your site layout and equipment locations, follow the precautions described below to help avoid equipment failures and reduce the possibility of environmentally caused shutdowns. If you are experiencing shutdowns or unusually high errors with your existing equipment, these precautions may help you isolate the cause of the failures and prevent future problems.

- Electrical equipment generates heat. Natural air temperature might not be sufficient to cool equipment to acceptable operating temperatures without an additional circulation system. Ensure that the room in which you operate your system has adequate air circulation.
- Do not work alone if potentially hazardous conditions exist.
- Never assume that the power supply has been disconnected from a circuit. Always check.

Look carefully for possible hazards in your work area, such as moist floors, ungrounded power extension cables, frayed power cords, and missing safety grounds.

**Equipment Rack Mounting Guidelines**

The following information will help you plan an acceptable equipment rack configuration.

- Enclosed racks must have adequate ventilation. Ensure that the rack is not overly congested because each unit generates heat. An enclosed rack should have louvered sides and a fan to provide cooling air.
- When mounting a chassis in an open rack, ensure that the rack frame does not block the intake or the exhaust ports. If the chassis is installed on slides, check the position of the chassis when it is seated all the way into the rack.
- In an enclosed rack with a ventilation fan in the top, excessive heat generated by equipment near the bottom of the rack can be drawn upward and into the intake ports of the equipment above it in the rack. Ensure that you provide adequate ventilation for equipment at the bottom of the rack.
- Baffles can help to isolate exhaust air from intake air, which also helps to draw cooling air through the chassis. The best placement of the baffles depends on the airflow patterns in the rack, which can be found by experimenting with different arrangements.
BSMI Labeling Requirement

The Bureau of Standards Metrology and Inspection (BSMI) is an agency of the government of China (Taiwan), which requires the following label on technological equipment:

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。
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