CHAPTER 2

Installing Cisco NAC Guest Server

This chapter contains the following sections:
- Connecting the Cisco NAC Guest Server
- Command Line Configuration
- Re-Imaging the Appliance

Connecting the Cisco NAC Guest Server

The Cisco NAC Guest Server runs on the following Cisco NAC Appliance hardware platform and comes preloaded with the Guest Server system image.
- NAC-3315
- NAC-3310

**Note**
Next generation Cisco NAC Appliance platform (NAC-3315) supports fresh installation of only Release 2.0.2 and later.

**Note**
The support for NAC-3310 has been dropped from NAC Guest Server Release 2.0.5.

**Note**
Releases 1.x.x can be installed only on Cisco NAC Appliance platform, NAC-3310.

When you receive the Guest Server, perform the initial configuration described in Command Line Configuration, page 2-4. If you need to perform CD installation to re-image the appliance, refer to Re-Imaging the Appliance, page 2-8 for instructions.

To perform initial configuration, you need to connect to your appliance and access its command line, as described below.

**Step 1**
You can access the Cisco NAC Guest Server command line in one of the following methods:

a. Connect a monitor and keyboard directly to the machine via the keyboard/video monitor connectors on the back panel of the machine as shown in Figure 2-2 for NAC-3310 and Figure 2-4 for NAC-3315.
b. Connect a null modem serial cable from a workstation (PC/laptop) to the serial port on the appliance. Open a serial connection on the workstation using terminal emulation software (such as HyperTerminal or SecureCRT) with settings set to 9600 baud, 8 data bits, no parity, 1 stop bit, no flow control.

**Step 2** Connect a straight-through Category 5 Ethernet cable to the eth0 (NIC1) 10/100/1000 Ethernet port on the back panel of the appliance and to your local area network.

**Step 3** Connect the AC power cord to the back panel of the appliance and to a grounded AC outlet, and power on the appliance as shown in Figure 2-1 for NAC-3310 and Figure 2-3 for NAC-3315.

**Step 4** Proceed to the instructions in Command Line Configuration, page 2-4.

**Figure 2-1  Cisco NAC Guest Server Front Panel (NAC-3310)**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hard disk drive (HDD) bay</td>
</tr>
<tr>
<td>2</td>
<td>CD-ROM/DVD drive</td>
</tr>
<tr>
<td>3</td>
<td>UID (Unit identification) button with LED indicator (blue)</td>
</tr>
<tr>
<td>4</td>
<td>System health LED indicator (amber)</td>
</tr>
<tr>
<td>5</td>
<td>Activity/link status LED indicators for NIC 1 (eth0) and NIC2 (eth1) (green)</td>
</tr>
<tr>
<td>6</td>
<td>HDD activity LED indicator (green)</td>
</tr>
<tr>
<td>7</td>
<td>Power button with LED indicator (bicolor: green/amber)</td>
</tr>
<tr>
<td>8</td>
<td>Thumbscrews for the front bezel</td>
</tr>
<tr>
<td>9</td>
<td>Front USB ports</td>
</tr>
</tbody>
</table>

**Figure 2-2  Cisco NAC Guest Server Rear Panel (NAC-3310)**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ventilation holes</td>
</tr>
<tr>
<td>2</td>
<td>Thumbscrew for the top cover</td>
</tr>
<tr>
<td>3</td>
<td>Thumbscrews for the PCI riser board assembly</td>
</tr>
<tr>
<td>4</td>
<td>UID button with LED indicator (blue)</td>
</tr>
<tr>
<td>5</td>
<td>Rear USB ports (black)</td>
</tr>
<tr>
<td>6</td>
<td>Video port (blue)</td>
</tr>
</tbody>
</table>
## Connecting the Cisco NAC Guest Server

The three LAN ports each have their own LED indicators for activity/link status and network speed.

### Figure 2-3  Cisco NAC Guest Server Front Panel (NAC-3315)

| 1 | Front USB port 1 |
| 2 | Front USB port 2 |
| 3 | Hard disk drive (HDD) bay 0 |
| 4 | Hard disk drive (HDD) bay 2 |
| 5 | CD-ROM/DVD drive |

### Figure 2-4  Cisco NAC Guest Server Rear Panel (NAC-3315)

| 1 | Power supply cable socket |
| 2 | NIC 3 (eth2) add-on card |
| 3 | NIC 4 (eth3) add-on card |
| 4 | Serial port |
| 5 | Video port |
| 6 | NIC 2 (eth1) GbE interface |
| 7 | NIC 1 (eth0) GbE interface |
| 8 | Rear USB port 4 |
| 9 | Rear USB port 3 |
| 10 | Console port |
Command Line Configuration

To configure the Cisco NAC Guest Server appliance, perform the following steps:

- Configure IP Address and Default Gateway, page 2-5 so that the appliance can be accessed on the network.
- Change Root Password, page 2-7.

Initial Log In

When logging in for the first time after initial installation, or after re-imaging the appliance, you need to set up a password for the root user.

Step 1  Connect to the command line interface using either keyboard and monitor connection to the appliance, or serial console connection.

Step 2  Login as the root user. The login user name for the console is root as shown in Figure 2-5.

*Figure 2-5  Login as Root*

```
Cisco NAC Guest Server 2.0.0
get-gsm2-acce login: root
You are required to change your password immediately (root enforced)
New UNIX password: 
```

Step 3  Change the password at the root prompt. Type a password and then confirm the password by re-entering it at the prompt, as shown in Figure 2-6.

*Note*  Cisco recommends using a strong password that is not based on a dictionary word, has a minimum of 6 characters, and contains at least 5 different characters.
Configure IP Address and Default Gateway

To allow the appliance to be accessed on the network, you need to configure the IP address and default gateway for the first interface on the appliance (eth0 or NIC1). To configure these details, perform the following steps.

Step 1
Using either a keyboard and monitor connection to the appliance, or serial console connection, authenticate to the command line interface, as shown in Figure 2-7. The user name for the console is root and the password is the one you configured as described in Initial Log In, page 2-4.

Step 2
To configure the network settings, type the command `system-config-network` and press <Enter>. The Select A Device menu appears as shown in Figure 2-8.
Step 3  Select the eth0 interface from the list using the up and down arrow keys and press <Enter>.

Step 4  You can now enter all the correct network settings for the appliance as shown in Figure 2-9.

Type the following information:

- **Static IP**—The IP Address that you want to assign to the Cisco NAC Guest Server.
- **Netmask**—The corresponding subnet mask.
- **Default gateway IP**—The default gateway for the network.

You can use the Tab key, Arrow keys or <Enter> to move between fields. When finished, move to the OK button and press <Enter>.

Step 5  Exit the system-config-network by selecting Quit from the Select A Device as shown in Figure 2-10.
Step 6  At the command line, either reboot the appliance by typing `reboot` and pressing `<Enter>`, or follow the instructions to Change Root Password, page 2-7 before entering `reboot`.

**Change Root Password**

**Note**  Cisco recommends using a strong password that is not based on a dictionary word, has a minimum of 6 characters, and contains at least 5 different characters.

**Step 1**  From the command line, enter the command `passwd` and press `<Enter>`.

**Step 2**  Enter the new password and press `<Enter>`.

**Step 3**  Repeat the password and press `<Enter>`.

**Next Steps**

Continue to Chapter 3, “System Setup” to access and configure the admin console.
Re-Imaging the Appliance

When the Cisco NAC Guest Server is shipped, a default version of the system image is already preloaded on the unit, so imaging is not required. If you need to re-image the appliance to factory defaults, you can download the system image ISO from Cisco Secure Software Downloads on Cisco.com and burn this ISO file to a blank CD-ROM. Once you have the system image on a bootable CD, you can perform the following steps to install the system image onto the appliance.

Once you have the system image on a bootable CD, you can perform the following steps to install the system image onto the appliance. Refer to the latest version of the *Release Notes for Cisco NAC Guest Server, Release 2.0.5* for additional details.

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**Caution**

Imaging the appliance deletes all data on the appliance. There is no method of recovery of data from the Guest Server after imaging has started. Make sure to backup any data that you need before starting this process.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td>Download the ISO image file from the Cisco NAC Guest Server download page. Log in with your Cisco.com user credentials to the Cisco Software Download Site at <a href="http://www.cisco.com/cisco/web/download/index.html">http://www.cisco.com/cisco/web/download/index.html</a> and navigate to Security &gt; Network Admission Control &gt; Cisco NAC Guest Server &gt; Cisco NAC Guest Server 2.0.</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>Burn this ISO file to a blank CD-ROM to create a bootable disk.</td>
</tr>
</tbody>
</table>
| **Step 3** | Decide whether to perform the installation using a keyboard and monitor connection or over a serial console.  
   a. Connect either a keyboard and monitor to the back of the unit, or  
   b. Attach a null modem cable to the serial port on the back of the appliance. From the computer to which the serial cable is attached, run a terminal emulation program with settings set to: 9600 baud, 8 data bits, no parity, 1 stop bit, no flow control. |
| **Step 4** | Once you have connected to the appliance, insert the bootable CD into the CD-ROM drive of the appliance. |
| **Step 5** | Power on the appliance. If the appliance is already started, switch it off and then switch it on again. |
| **Step 6** | The appliance should now boot from the CD-ROM drive and the initial install is displayed as shown in Figure 2-11. |

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**Caution**

If your Cisco NAC Guest Server does not read the software on the CD ROM drive and instead attempts to boot from the hard disk, you need to change the appliance settings to boot from CD ROM as described in *Configuring Boot Settings on NAC-3310 / NAC-3315 Based Appliances, page 2-11*.
Step 7  At the Initial Installation, run the installation according to the method you are connected to the appliance:

- If directly connected using a keyboard and monitor, type `install` and press `<Enter>`. 
- If you are using a serial connection, type `installserial` at the boot prompt, then press `<Enter>.

Step 8  The system image is automatically installed on the hard disk as shown in Figure 2-12.

Step 9  When the install image is successfully transferred, the system reboots automatically as shown in Figure 2-13.
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Re-Imaging the Appliance

Figure 2-13  Appliance Reboots

Step 10  The CD-ROM automatically ejects from the appliance.

Note  Remove the CD and store it safely so that the appliance does not accidentally reboot from it at a later time.

Step 11  The Cisco NAC Guest Server appliance boots and runs the final setup of the image automatically. The imaging process is complete when the login is displayed as shown in Figure 2-14.

Figure 2-14  Imaging Complete

Step 12  Continue to the instructions in Initial Log In, page 2-4 to complete the installation.
Configuring Boot Settings on NAC-3310 / NAC-3315 Based Appliances

If your appliance does not read the software on the CD ROM drive, and instead attempts to boot from the hard disk, use the following steps to configure the appliance to boot from CD ROM before attempting to re-image or upgrade the Cisco NAC Guest Server from CD.

**Step 1** Press the F10 key while the system is booting.

**Step 2** Go to the Boot menu as shown in Figure 2-15.

**Step 3** Change the setting to boot from CD by selecting CD-ROM Drive from the menu and pressing the plus (+) key as shown in Figure 2-16.
Step 4  Press the **F10** key to Save and Exit.