CHAPTER 2

Logging In to the Sensor

Note All IPS platforms allow ten concurrent log in sessions.

This chapter explains how to log in to the sensor. It contains the following sections:

Supported User Roles

You can log in with the following user privileges:

- Administrator
- Operator
- Viewer
- Service

  The service role does not have direct access to the CLI. Service account users are logged directly into a bash shell. Use this account for support and troubleshooting purposes only. Unauthorized modifications are not supported and will require the sensor to be reimaged to guarantee proper operation. You can create only one user with the service role.

  When you log in to the service account, you receive the following warning:

```
******************************** WARNING ************************************
UNAUTHORIZED ACCESS TO THIS NETWORK DEVICE IS PROHIBITED.
This account is intended to be used for support and troubleshooting purposes only.
Unauthorized modifications are not supported and will require this device to be
re-imaged to guarantee proper operation.
*****************************************************************************
```

Note The service role is a special role that allows you to bypass the CLI if needed. Only a user with administrator privileges can edit the service account.

For More Information

For the procedure for creating the service account, see Creating the Service Account, page 4-14.

Logging In to the Appliance

You can log in to the appliance from a console port.

Note You must initialize the appliance (run the **setup** command) from the console. After networking is configured, SSH and Telnet are available.

To log in to the appliance, follow these steps:

Step 1 Connect a console port to the sensor to log in to the appliance.

Step 2 Enter your username and password at the login prompt:

Note The default username and password are both **cisco**. You are prompted to change them the first time you log in to the appliance.You must first enter the UNIX password, which is **cisco**. Then you must enter the new password twice.

```
login: cisco
Password:
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export, distribute or use encryption. Importers, exporters, distributors and
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ips-4240#
```

For More Information

- For the procedure for connecting an appliance to a terminal server, see Connecting an Appliance to a Terminal Server, page 2-3.
- For the procedure for using the **setup** command to initialize the appliance, see Basic Sensor Setup, page 3-3.

Connecting an Appliance to a Terminal Server

A terminal server is a router with multiple, low speed, asynchronous ports that are connected to other serial devices. You can use terminal servers to remotely manage network equipment, including appliances.

To set up a Cisco terminal server with RJ-45 or hydra cable assembly connections, follow these steps:

Step 1 Connect to a terminal server using one of the following methods:

- For terminal servers with RJ-45 connections, connect a 180 rollover cable from the console port on the appliance to a port on the terminal server.
- For hydra cable assemblies, connect a straight-through patch cable from the console port on the appliance to a port on the terminal server.

Step 2 Configure the line and port on the terminal server.

In enable mode, enter the following configuration, where # is the line number of the port to be configured:

```
config t
line #
login
transport input all
stopbits 1
flowcontrol hardware
speed 9600
exit
exit
wr mem
```

Step 3 Be sure to properly close a terminal session to avoid unauthorized access to the appliance.

If a terminal session is not stopped properly, that is, if it does not receive an exit(0) signal from the application that initiated the session, the terminal session can remain open. When terminal sessions are not stopped properly, authentication is not performed on the next session that is opened on the serial port.

Caution Always exit your session and return to a login prompt before terminating the application used to establish the connection.

Caution If a connection is dropped or terminated by accident, you should reestablish the connection and exit normally to prevent unauthorized access to the appliance.

Logging In to AIM-IPS

This section describes how to use the **session** command to log in to AIM-IPS, and contains the following topics:

AIM-IPS and the session Command

Because AIM-IPS does not have an external console port, console access to AIM-IPS is enabled when you issue the **service-module ids-sensor** *slot*/*port* **session** command on the router, or when you initiate a Telnet connection into the router with the slot number corresponding to the AIM-IPS port number. The lack of an external console port means that the initial bootup configuration is possible only through the router.

When you issue the **service-module ids-sensor** *slot*/*port* **session** command, you create a console session with AIM-IPS, in which you can issue any IPS configuration commands. After completing work in the session and exiting the IPS CLI, you are returned to the Cisco IOS CLI.

The **session** command starts a reverse Telnet connection using the IP address of the IDS-Sensor interface. The IDS-Sensor interface is an interface between AIM-IPS and the router. You must assign an IP address to the IDS-Sensor interface before invoking the **session** command. Assigning a routable IP address can make the IDS-Sensor interface itself vulnerable to attacks, because AIM-IPS is visible on the network through that routable IP address, meaning you can communicate with AIM-IPS outside the router. To counter this vulnerability, assign an unnumbered IP address to the IDS-Sensor interface. Then the AIM-IPS IP address is only used locally between the router and AIM-IPS, and is isolated for the purposes of sessioning in to AIM-IPS.

Note Before you install your application software or reimage the module, opening a session brings up the bootloader. After you install the software, opening a session brings up the application.

Caution If you session to the module and perform large console transfers, character traffic may be lost unless the host console interface speed is set to 115200/bps or higher. Use the **show running config** command to check that the speed is set to 115200/bps.

For More Information

For the procedure for configuring an unnumbered IP address interface for AIM-IPS, see Using an Unnumbered IP Address Interface, page 17-5.

Sessioning In to AIM-IPS

Because AIM-IPS does not have an external console port, console access to AIM-IPS is enabled when you issue the **service-module ids-sensor** *slot*/*port* **session** command on the router, or when you initiate a Telnet connection into the router with the slot number corresponding to the AIM-IPS port number. The lack of an external console port means that the initial bootup configuration is possible only through the router.

When you issue the **service-module ids-sensor** *slot/port* **session** command, you create a console session with AIM-IPS, in which you can issue any IPS configuration commands. After completing work in the session and exiting the IPS CLI, you are returned to the Cisco IOS CLI.

The **session** command starts a reverse Telnet connection using the IP address of the IDS-Sensor interface. The IDS-Sensor interface is an interface between AIM-IPS and the router. You must assign an IP address to the IDS-Sensor interface before invoking the **session** command. Assigning a routable IP address can make the IDS-Sensor interface itself vulnerable to attacks, because AIM-IPS is visible on the network through that routable IP address, meaning you can communicate with AIM-IPS outside the router. To counter this vulnerability, assign an unnumbered IP address to the IDS-Sensor interface. Then the AIM-IPS IP address is only used locally between the router and AIM-IPS, and is isolated for the purposes of sessioning in to AIM-IPS.

Note Before you install your application software or reimage the module, opening a session brings up the bootloader. After you install the software, opening a session brings up the application.

Caution If you session to the module and perform large console transfers, character traffic may be lost unless the host console interface speed is set to 115200/bps or higher. Use the **show running config** command to check that the speed is set to 115200/bps.

For More Information

For the procedure for using the **setup** command to initialize AIM-IPS, see Advanced Setup for AIM-IPS, page 3-12.

Logging In to AIP-SSM

You log in to AIP-SSM from the ASA 5500 series adaptive security appliance.

Note You must initialize AIP-SSM (run the **setup** command) from the ASA 5500 series adaptive security appliance. After networking is configured, SSH and Telnet are available.

To session in to AIP-SSM from the ASA 5500 series adaptive security appliance, follow these steps:

Step 1 Log in to the ASA 5500 series adaptive security appliance.

Note If the ASA 5500 series adaptive security appliance is operating in multi-mode, use the **change system** command to get to the system level prompt before continuing.

Step 2 Session to AIP-SSM:

```
asa# session 1
Opening command session with slot 1.
Connected to slot 1. Escape character sequence is 'CTRL-^X'.
```

You have 60 seconds to log in before the session times out.

Step 3 Enter your username and password at the login prompt:

Note The default username and password are both **cisco**. You are prompted to change them the first time you log in to AIP-SSM. You must first enter the UNIX password, which is **cisco**. Then you must enter the new password twice.

```
login: cisco
Password:
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aip-ssm#
```

Step 4 To escape from a session and return to the ASA 5500 series adaptive security appliance prompt, do one of the following:

- Enter **exit**.
- Press **CTRL-Shift-6-x** (represented as **CTRL^X**).

For More Information

For the procedure for using the **setup** command to initialize AIP-SSM, see Advanced Setup for AIP-SSM, page 3-15.

Logging In to IDSM-2

You log in to IDSM-2 from the switch.

Note You must initialize IDSM-2 (run the **setup** command) from the switch. After networking is configured, SSH and Telnet are available.

To session in to IDSM-2, follow these steps:

Step 1 Session to IDSM-2 from the switch:

- For Catalyst Software:

```
console> (enable) session slot_number
```

- For Cisco IOS software:

```
router# session slot_number processor 1
```

Step 2 Enter your username and password at the login prompt:

Note The default username and password are both **cisco**. You are prompted to change them the first time you log in to IDSM-2.You must first enter the UNIX password, which is **cisco**. Then you must enter the new password twice.

```
login: cisco
Password:
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idsm-2#
```

For More Information

For the procedure for using the **setup** command to initialize IDSM-2, see Advanced Setup for IDSM-2, page 3-20.

Logging In to NME-IPS

This section describes how to use the **session** command to log in to NME-IPS, and contains the following topics:

NME-IPS and the session Command

Because NME-IPS does not have an external console port, console access to NME-IPS is enabled when you issue the **service-module ids-sensor** *slot*/*port* **session** command on the router, or when you initiate a Telnet connection into the router with the slot number corresponding to the NME-IPS port number. The lack of an external console port means that the initial bootup configuration is possible only through the router.

When you issue the **service-module ids-sensor** *slot*/*port* **session** command, you create a console session with NME-IPS, in which you can issue any IPS configuration commands. After completing work in the session and exiting the IPS CLI, you are returned to the Cisco IOS CLI.

The **session** command starts a reverse Telnet connection using the IP address of the IDS-Sensor interface. The IDS-Sensor interface is an interface between NME-IPS and the router. You must assign an IP address to the IDS-Sensor interface before invoking the **session** command. Assigning a routable IP address can make the IDS-Sensor interface itself vulnerable to attacks, because NME-IPS is visible on the network through that routable IP address, meaning you can communicate with NME-IPS outside the router. To counter this vulnerability, assign an unnumbered IP address to the IDS-Sensor interface. Then the NME-IPS IP address is only used locally between the router and NME-IPS, and is isolated for the purposes of sessioning in to NME-IPS.

Note Before you install your application software or reimage the module, opening a session brings up the bootloader. After you install the software, opening a session brings up the application.

Caution If you session to the module and perform large console transfers, character traffic may be lost unless the host console interface speed is set to 115200/bps or higher. Use the **show running config** command to check that the speed is set to 115200/bps.

For More Information

For the procedure for configuring the monitoring interface for NME-IPS, see Setting Up Interfaces on NME-IPS and the Router, page 20-4.

Sessioning In to NME-IPS

Note You must initialize NME-IPS (run the **setup** command) from the router. After networking is configured, SSH and Telnet are available.

Use the **service-module ids-sensor** *slot*/*port* **session** command to establish a session from NME-IPS to the module. Press **Ctrl-Shift-6**, then **x**, to return a session prompt to a router prompt, that is, to go from the NME-IPS prompt back to the router prompt. Press **Enter** on a blank line to go back to the session prompt, which is also the router prompt. You should only suspend a session to the router if you will be returning to the session after executing router commands. If you do not plan on returning to the NME-IPS session, you should close the session rather than suspend it.

When you close a session, you are logged completely out of the NME-IPS CLI and a new session connection requires a username and password to log in. A suspended session leaves you logged in to the CLI. When you connect with the **session** command, you can go back to the same CLI without having to provide your username and password.

Note Telnet clients vary. In some cases, you may have to press **Ctrl-6 + x**. The control character is specified as ^^, Ctrl-^, or ASCII value 30 (hex 1E).

Caution If you use the **disconnect** command to leave the session, the session remains running. The open session can be exploited by someone wanting to take advantage of a connection that is still in place.

To open and close sessions to NME-IPS, follow these steps:

Step 1 Log in to the router.

Step 2 Check the status of NME-IPS to make sure it is running:

```
router# service-module ids-sensor 1/0 status
Service Module is Cisco IDS-Sensor1/0
Service Module supports session via TTY line 130
Service Module is in Steady state
Service Module heartbeat-reset is disabled
Getting status from the Service Module, please wait..

Cisco Systems Intrusion Prevention System Network Module
  Software version:  6.1(1)E2
  Model:             NME-IPS
  Memory:            443508 KB
  Mgmt IP addr:      10.89.148.195
  Mgmt web ports:    443
  Mgmt TLS enabled:  true


router#
```

Step 3 Open a session from the router to NME-IPS:

```
router# service-module ids-sensor 1/0 session
Trying 10.89.148.195, 2322 ... Open
```

Step 4 Exit, or suspend and close the module session.

- `sensor# exit`

Note If you are in submodes of the IPS CLI, you must exit all submodes. Enter **`exit`** until the sensor login prompt appears.

Caution Failing to close a session properly makes it possible for others to exploit a connection that is still in place. Remember to enter **exit** at the `router#` prompt to close the Cisco IOS session completely.

- To suspend and close the session to NME-IPS, press **Ctrl-Shift** and press **6**. Release all keys, and then press **x**.

Note When you are finished with a session, you need to return to the router to establish the association between a session (the IPS application) and the router interfaces you want to monitor.

Step 5 Disconnect from the router:

```
router# disconnect
```

Step 6 Press **Enter** to confirm the disconnection:

```
router# Closing connection to 10.89.148.196 [confirm] <Enter>
```

For More Information

For the procedure for using the **setup** command to initialize NME-IPS, see Advanced Setup for NME-IPS, page 3-24.

Logging In to the Sensor

Note After you have initialized the sensor using the **setup** command and enabled Telnet, you can use SSH or Telnet to log in to the sensor.

To log in to the sensor, follow these steps:

Step 1 To log in to the sensor over the network using SSH or Telnet:

```
ssh sensor_ip_address
telnet sensor_ip_address
```

Step 2 Enter your username and password at the login prompt:

```
login: ******
Password: ******
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```

```
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sensor#
```