



## APPENDIX **D**

# Configuring the Switch with the CLI-Based Setup Program

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This appendix provides a CLI-based setup procedure for a standalone switch or a switch stack. Before connecting the switch to a power source, review the safety warnings in [Chapter 2, “Switch Installation.”](#)



### Note

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For detailed installation procedures on rack-mounting your switch, stacking your switches, or connecting to small form-factor pluggable (SFP) or XENPAK modules, see [Chapter 2, “Switch Installation.”](#) For product overview information, see [Chapter 1, “Product Overview.”](#)

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These steps describe how to do a simple installation:

1. [Accessing the CLI, page D-2](#)
2. [Taking Out What You Need, page D-3](#)
3. [Stacking the Switches \(Optional\), page D-4](#)
4. [Connecting to the Console Port, page D-5](#)
5. [Starting the Terminal Emulation Software, page D-6](#)
6. [Connecting to a Power Source, page D-6](#)
7. [Entering the Initial Configuration Information, page D-7](#)

# Accessing the CLI

For an unconfigured switch, you can access the CLI through Express Setup or through the console port.

## Accessing the CLI Through Express Setup

**Note**

Express Setup is supported on switches running Cisco IOS Release 12.1(14)EA1 or later. If you are installing a new switch, see the Cisco IOS release label on the rear panel of the switch to determine the release.

For switches running releases earlier than Cisco IOS Release 12.1(14)EA1, go to the [“Taking Out What You Need” section on page D-3](#).

You can access the CLI on an unconfigured switch by placing the switch in Express Setup mode and then connecting an Ethernet port of the switch to the Ethernet port of your PC or workstation. To put the switch into Express Setup mode, follow the steps described in the *Catalyst 3750 Switch Getting Started Guide* for powering on the switch and using Express Setup.

After the switch is in Express Setup mode, use Telnet to connect to the switch by using the IP address *10.0.0.1*, and enter the **setup** user EXEC command. See these sections in this chapter to then configure the switch by using the CLI:

- [Entering the Initial Configuration Information, page D-7](#)
- [Completing the Setup Program, page D-7](#)

After you have entered the configuration information for the switch, save it to flash memory by using the **write memory** privileged EXEC command.

**Note**

While in Express Setup mode, the IP address 10.0.0.1 remains active on the switch until you enter the **write memory** command. You lose the Telnet connection after entering the **write memory** command.

For more information about using the CLI, see the command reference for this release.

## Accessing the CLI Through the Console Port

You can access the CLI on a configured or unconfigured switch by connecting the console port of the switch to the serial port on your PC or workstation and accessing the switch through a Telnet session.

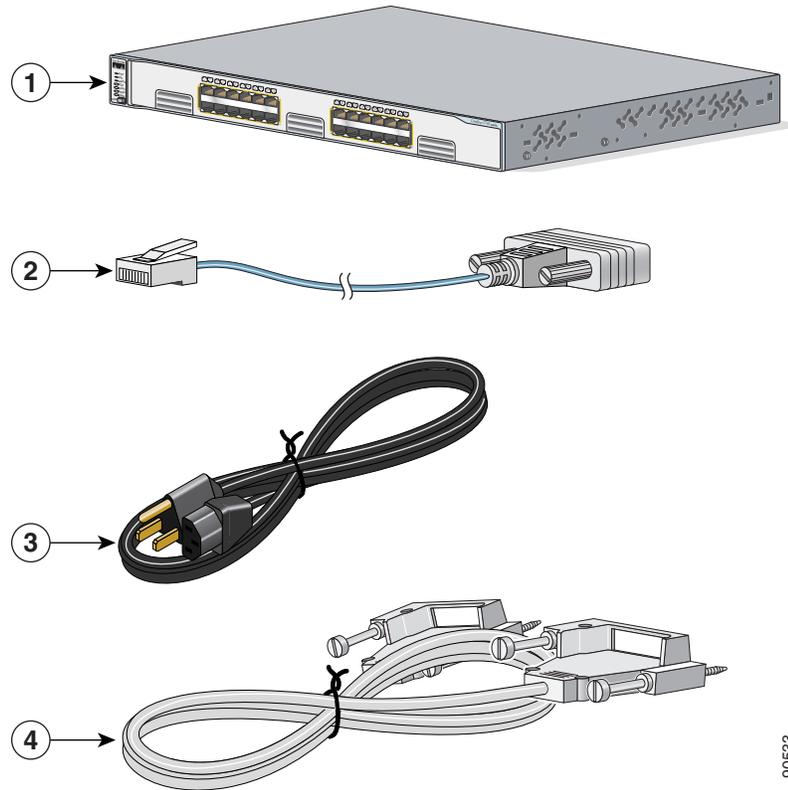
To access the switch through the console port, follow these steps:

- [“Taking Out What You Need” section on page D-3](#).
- [“Connecting to the Console Port” section on page D-5](#)
- [“Starting the Terminal Emulation Software” section on page D-6](#)
- [“Connecting to a Power Source” section on page D-6](#)
- [“Entering the Initial Configuration Information” section on page D-7](#)

# Taking Out What You Need

Remove the items shown in Figure D-1 from the shipping container:

**Figure D-1** The Catalyst 3750 Switch, Adapter Cable, AC Power Cord, and the StackWise Cable



1	Catalyst 3750 switch	3	AC power cord
2	RJ-45-to-DB-9 adapter cable	4	StackWise cable (optional)



**Note**

For a DC switch, you will have a DC power supply terminal block.

You need to provide the Category 5 or later straight-through cables to connect the switch ports to other Ethernet devices.

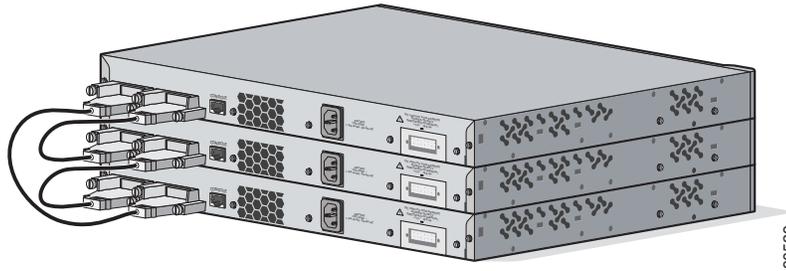
You can use the **mdix auto** interface configuration command in the CLI to enable the automatic medium-dependent interface crossover (auto-MDIX) feature. When the auto-MDIX feature is enabled, the switch detects the required cable type for copper Ethernet connections and configures the interfaces accordingly. Therefore, you can use either a crossover or a straight-through cable for connections to a copper 10/100, 10/100/1000, or 1000BASE-T SFP module port on the switch, regardless of the type of device on the other end of the connection.

The auto-MDIX feature is enabled by default on switches running Cisco IOS Release 12.2(18)SE or later. For releases between Cisco IOS Release 12.1(14)EA1 and 12.2(18)SE, the auto-MDIX feature is disabled by default. For configuration information for this feature, see the switch software configuration guide or the switch command reference.

## Stacking the Switches (Optional)

You can stack up to nine switches by using the StackWise cables and ports to connect the switches (see [Figure D-2](#)). Read the “[Planning the Stack](#)” section on [page 2-8](#) before you stack your switches.

**Figure D-2** Stacking the Switches



**Step 1** Insert one end of the StackWise cable into the StackWise port at the back of a switch. See [Figure D-3](#).



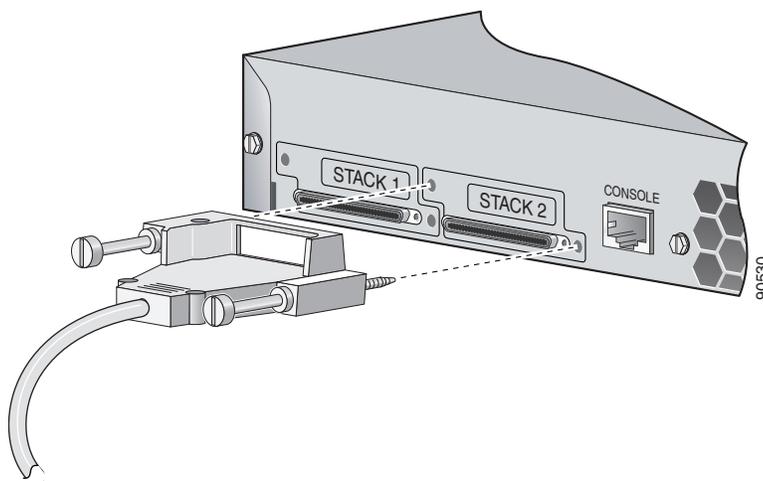
**Note** Always use a Cisco-approved StackWise cable to connect the switches.

**Step 2** Use the window in the StackWise cable to align the connector correctly. Secure the screws tightly.

**Step 3** Insert the other end of the cable into the connector of the other switch, and secure the screws tightly.

See the “[Connecting StackWise Cable to StackWise Ports](#)” section on [page 2-30](#) for detailed installation procedures on how to connect the switches in a stack.

**Figure D-3** Connecting the StackWise Cable to a StackWise Port



# Connecting to the Console Port

You can use the console port to perform the initial configuration. To connect the switch console port to a PC, use the supplied RJ-45-to-DB-9 adapter cable.

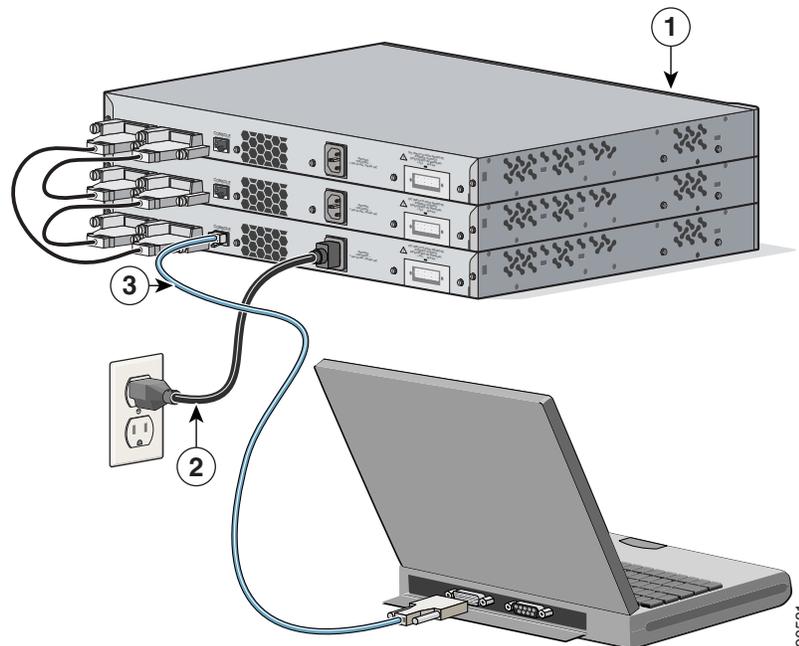

**Note**

If you have stacked your switches, connect to the console port of one of the switches in the stack. The initial configuration for the entire stack can be performed on any switch in the stack.

Follow these steps to connect the PC or terminal to the switch:

- Step 1** Using the supplied RJ-45-to-DB-9 adapter cable, insert the RJ-45 connector into the console port on the rear of a switch, as shown in [Figure D-4](#).
- Step 2** Attach the DB-9 female DTE of the adapter cable to a PC serial port, or attach an appropriate adapter to the terminal.

**Figure D-4** Connecting a Switch to a PC



<b>1</b>	Catalyst 3750 switches	<b>3</b>	RJ-45-to-DB-9 adapter cable
<b>2</b>	Power cord		

## Starting the Terminal Emulation Software

Before you power on the switch, start the terminal emulation session so that you can see the output display from the power-on self-test (POST).

The terminal-emulation software—frequently a PC application such as Hyperterminal or ProcommPlus—makes communication between the switch and your PC or terminal possible.

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- Step 1** Start the terminal-emulation program if you are using a PC or terminal.
- Step 2** Start a terminal-emulation session.
- Step 3** Configure the baud rate and character format of the PC or terminal to match these console port default characteristics:
- 9600 baud
  - 8 data bits
  - 1 stop bit
  - No parity
  - None (flow control)
- 

## Connecting to a Power Source

Follow these steps to connect to a power source:

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- Step 1** Connect one end of the supplied AC power cord to the power connector on a switch rear panel. See [Figure D-4](#).
- Step 2** Connect the other end of the power cable to a grounded AC outlet.
- Step 3** (Optional) If you have a stack, power on all the switches in the stack.



**Note** If you have stacked your switches, see the “[Powering Considerations](#)” section on [page 2-8](#) for more information.

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**Note** If you are connecting the switch to a Cisco redundant power system (RPS), see the documentation that shipped with your RPS.

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As the switch powers on, it begins the power-on self-test (POST), a series of tests that runs automatically to ensure that the switch functions properly. POST lasts approximately 1 minute.

When the switch begins POST, the System, the RPS, the Master, the Status, the Duplex, the Speed, and the Stack LEDs turn green. (On the Power over Ethernet [PoE] switches, the PoE LED also turns green as POST begins.) The System LED flashes green, and the other LEDs remain continuous green.

When POST completes successfully, the System LED remains green. The RPS LED remains green for some time and then returns to its operating status. The other LEDs turn off and return to their operating status.

**Note**

POST failures are usually fatal. Call Cisco Systems if your switch does not pass POST.

After you have powered all the switches in the stack, a switch is elected as the stack master. The master LED is green on the stack master switch.

If you started the terminal emulation program before you powered on your switch, the PC or terminal displays the bootloader sequence. You need to press **Enter** to display the setup program prompt.

## Entering the Initial Configuration Information

To set up the switch, you need to complete the setup program, which runs automatically after the switch is powered up. You must assign an IP address and other configuration information necessary for the switch to communicate with the local routers and the Internet. This information is also required if you plan to use the Network Assistant to configure and manage the switch.

### IP Settings

You will need this information from your network administrator before you complete the setup program:

- Switch IP address
- Subnet mask (IP netmask)
- Default gateway (router)
- Enable secret password
- Enable password
- Telnet password

### Completing the Setup Program

**Note**

If your switches are stacked and there are multiple console connections to individual switches in the stack, the initial setup dialog appears in the first console where the user presses **Enter**.

Follow these steps to complete the setup program and to create an initial configuration for the switch:

**Step 1** Enter **Yes** at the following two prompts.

```
Would you like to enter the initial configuration dialog? [yes/no]: yes
```

```
At any point you may enter a question mark '?' for help.  
Use ctrl-c to abort configuration dialog at any prompt.  
Default settings are in square brackets '['].
```

Basic management setup configures only enough connectivity for management of the system, extended setup will ask you to configure each interface on the system.

Would you like to enter basic management setup? [yes/no]: **yes**

**Step 2** Enter a host name for the switch, and press **Return**.

On a command switch, the host name is limited to 28 characters; on a member switch to 31 characters. Do not use *-n*, where *n* is a number, as the last character in a host name for any switch.

Enter host name [Switch]: *host\_name*

**Step 3** Enter an enable secret password, and press **Return**.

The password can be from 1 to 25 alphanumeric characters, can start with a number, is case sensitive, allows spaces, but ignores leading spaces. The secret password is encrypted and the enable password is in plain text.

Enter enable secret: *secret\_password*

**Step 4** Enter an enable password, and press **Return**.

Enter enable password: *enable\_password*

**Step 5** Enter a virtual terminal (Telnet) password, and press **Return**.

The password can be from 1 to 25 alphanumeric characters, is case sensitive, allows spaces, but ignores leading spaces.

Enter virtual terminal password: *terminal-password*

**Step 6** (Optional) Configure Simple Network Management Protocol (SNMP) by responding to the prompts. You can also configure SNMP later through the CLI, the device manager, or the Network Assistant application. To configure SNMP later type **no**.

Configure SNMP Network Management? [no]: **no**

**Step 7** Enter the interface name (physical interface or VLAN name) of the interface that connects to the management network, and press **Return**. For this release, always use **vlan1** as that interface.

Enter interface name used to connect to the management network from the above interface summary: **vlan1**

**Step 8** Configure the interface by entering the switch IP address and subnet mask and pressing **Return**. The IP address and subnet masks shown below are examples.

```
Configuring interface vlan1:
Configure IP on this interface? [yes]: yes
IP address for this interface: 10.4.120.106
Subnet mask for this interface [255.0.0.0]: 255.0.0.0
```

**Step 9** Enter **Y** to configure the switch as the cluster command switch. Enter **N** to configure it as a member switch or as a standalone switch.

If you enter **N**, the switch appears as a candidate switch in the Network Assistant GUI. You can configure the switch as a command switch later through the CLI, the device manager, or the Network Assistant application. To configure it later, enter **no**.

Would you like to enable as a cluster command switch? [yes/no]: **no**

You have now completed the initial configuration of the switch and the switch displays its initial configuration. This is an example of output that appears:

The following configuration command script was created:

```
hostname switch1
enable secret 5 $1$U1q8$D1A/OiaEbl90WcBPd9cOn1
enable password enable_password
line vty 0 15
password terminal_password
no snmp-server
!
no ip routing

!
interface Vlan1
no shutdown
ip address 10.4.120.106 255.0.0.0
!
interface FastEthernet1/0/1
!
interface FastEthernet1/0/2

interface FastEthernet1/0/3
!
...<output abbreviated>
!

interface GigabitEthernet2/0/28
!
end
```

**Step 10** These choices are displayed:

```
[0] Go to the IOS command prompt without saving this config.
[1] Return back to the setup without saving this config.
[2] Save this configuration to nvram and exit.
```

If you want to save the configuration and use it the next time the switch reboots, save it in nonvolatile RAM (NVRAM) by selecting option 2.

```
Enter your selection [2]:2
```

Make your selection, and press **Return**.

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After you complete the setup program, the switch can run the default configuration that you created. If you want to change this configuration or want to perform other management tasks, use one of these tools:

- Command-line interface (CLI)
- Network Assistant (for one or more switches)

To use the CLI, enter commands at the *Switch>* prompt through the console port by using a terminal program or through the network by using telnet. For configuration information, see the switch software configuration guide or the switch command reference.

To use the Network Assistant, see the *Getting Started with Cisco Network Assistant* guide on Cisco.com.

■ Entering the Initial Configuration Information