



## Using the Setup Configuration Tool

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The "Using Configuration Tools" chapter of the *Cisco IOS Configuration Fundamentals Configuration Guide* introduces the AutoInstall and Setup tools, used to assist in setting up the initial configuration of a Cisco product.

The AutoInstall facility has no unique commands. Its functionality is built on other Cisco IOS commands. Therefore, this chapter deals only with the **setup** command, used to enter setup mode.

The **setup** command facility is an interactive facility that allows you to perform first-time configuration and other basic configuration procedures on all routers. The facility prompts you to enter basic information needed to start a router functioning quickly and uneventfully.

Although the **setup** command facility is a quick way to set up a router, you can also use it after first-time startup to perform basic configuration changes. The command in this chapter focuses on using **setup** after first-time startup.

Refer to the hardware specific documentation that came with your platform for details on how to use **setup** mode for first-time startup.

# setup

To enter the **setup** command facility, use the **setup** privileged EXEC command.

**setup**

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**Syntax Description** This command has no arguments or keywords.

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**Command Modes** Privileged EXEC

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Command History	Release	Modification
	11.1	This command was introduced.

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**Usage Guidelines** Use the **setup** command facility to make major enhancements to your configurations. For example, you might want to use **setup** to add a protocol suite, to make major addressing scheme changes, or to configure a newly installed interface. While you can use the command parser to make these major changes, the **setup** command facility provides you with a high-level view of the configuration and guides you through the configuration change process.

Additionally, if you are not familiar with Cisco products and the command parser, the **setup** command facility is a particularly valuable tool because it asks you the questions required to make configuration changes.



**Note**

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If you use **setup** to modify a configuration because you have added or modified the hardware, be sure to verify the physical connections using the **show version** command. Also, verify the logical port assignments using the **show running-config** command to ensure that you configure the correct port. Refer to your platform's hardware publications for details on physical and logical port assignments.

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Whenever you use the **setup** command facility, be sure that you have the following information:

- Interfaces the router has
- Protocols the router is routing
- Whether the router is to perform bridging
- Network addresses for the protocols being configured
- Password strategy for your environment

When you enter the **setup** command facility after first-time startup, an interactive dialog called the System Configuration Dialog appears on the system console screen. The System Configuration Dialog guides you through the configuration process. It prompts you first for global parameters and then for interface parameters. The values shown in brackets next to each prompt are the default values last set using either the **setup** command facility or the **configure** command.

**Note**

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The prompts and the order in which they appear on the screen vary depending on the platform and the interfaces installed in the device.

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You must run through the entire System Configuration Dialog until you come to the item that you intend to change. To accept default settings for items that you do not want to change, press the Return key.

To return to the privileged EXEC prompt without making changes and without running through the entire System Configuration Dialog, press **Ctrl-C**.

The facility also provides help text for each prompt. To access help text, press the question mark (?) key at a prompt.

When you complete your changes, the **setup** command facility shows you the configuration command script that was created during the **setup** session. It also asks you if you want to use this configuration. If you answer Yes, the configuration is saved to NVRAM. If you answer No, the configuration is not saved and the process begins again. There is no default for this prompt; you must answer either Yes or No.

The Cisco IOS software automatically puts you in the streamlined **setup** command facility when your router is accidentally or intentionally rebooted (or you are attempting to load a system image from a network server) after any of the following circumstances:

- You issued an **erase startup-config erase nvram:** command, thereby deleting the startup configuration file.
- You have bit 6 (ignore NVRAM configuration) set in the configuration register.
- Your startup configuration has been corrupted.
- You configured the router to boot from a network server (the last four bits of the configuration register are not equal to 0 or 1) and there is no Flash or no valid image in Flash.
- You configured the router to boot the RXBOOT image.

The streamlined **setup** command facility permits your router to load a system image from a network server when there are problems with the startup configuration.

The streamlined **setup** command facility differs from the standard **setup** command facility because the streamlined facility does not ask you to configure global router parameters. You are prompted only to configure interface parameters, which permit your router to boot.

The streamlined **setup** command facility is available only if your router is running from ROM monitor and has RXBOOT ROMs installed. The following routers can have this type of ROM installed:

- Cisco 2500 running the IGS-RXBOOT image
- Cisco 3000 running the IGS-RXBOOT image
- Cisco 4000 running the XX-RXBOOT image
- Other routers running the RXBOOT image

**Examples**

The following example displays the **setup** command facility to configure interface serial 0 and to add ARAP and IP/IPX PPP support on the asynchronous interfaces:

```
Router# setup

--- System Configuration Dialog ---

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 '['].

Continue with configuration dialog? [yes]:

First, would you like to see the current interface summary? [yes]:

Interface          IP-Address      OK? Method      Status                Protocol
Ethernet0          172.16.72.2    YES manual        up                    up
Serial0            unassigned     YES not set        administratively down down
Serial1            172.16.72.2    YES not set        up                    up

Configuring global parameters:

Enter host name [Router]:

The enable secret is a one-way cryptographic secret used
instead of the enable password when it exists.

Enter enable secret [<Use current secret>]:

The enable password is used when there is no enable secret
and when using older software and some boot images.

Enter enable password [ww]:
Enter virtual terminal password [ww]:
Configure SNMP Network Management? [yes]:
  Community string [public]:
Configure DECnet? [no]:
Configure AppleTalk? [yes]:
  Multizone networks? [no]: yes
Configure IPX? [yes]:
Configure IP? [yes]:
  Configure IGRP routing? [yes]:
    Your IGRP autonomous system number [15]:
Configure Async lines? [yes]:
  Async line speed [9600]: 57600
  Configure for HW flow control? [yes]:
  Configure for modems? [yes/no]: yes
    Configure for default chat script? [yes]: no
  Configure for Dial-in IP SLIP/PPP access? [no]: yes
    Configure for Dynamic IP addresses? [yes]: no
    Configure Default IP addresses? [no]: yes
    Configure for TCP Header Compression? [yes]: no
  Configure for routing updates on async links? [no]:
  Configure for Async IPX? [yes]:
  Configure for Appletalk Remote Access? [yes]:
    AppleTalk Network for ARAP clients [1]: 20
    Zone name for ARAP clients [ARA Dialins]:

Configuring interface parameters:

Configuring interface Ethernet0:
  Is this interface in use? [yes]:
  Configure IP on this interface? [yes]:
```

```
IP address for this interface [172.16.72.2]:
Number of bits in subnet field [8]:
Class B network is 172.16.0.0, 8 subnet bits; mask is /24
Configure AppleTalk on this interface? [yes]:
Extended AppleTalk network? [yes]:
AppleTalk starting cable range [1]:
AppleTalk ending cable range [1]:
AppleTalk zone name [Sales]:
AppleTalk additional zone name:
Configure IPX on this interface? [yes]:
IPX network number [1]:

Configuring interface Serial0:
Is this interface in use? [no]: yes
Configure IP on this interface? [no]: yes
Configure IP unnumbered on this interface? [no]: yes
Assign to which interface [Ethernet0]:
Configure AppleTalk on this interface? [no]: yes
Extended AppleTalk network? [yes]:
AppleTalk starting cable range [2]: 3
AppleTalk ending cable range [3]: 3
AppleTalk zone name [myzone]: ZZ Serial
AppleTalk additional zone name:
Configure IPX on this interface? [no]: yes
IPX network number [2]: 3

Configuring interface Serial1:
Is this interface in use? [yes]:
Configure IP on this interface? [yes]:
Configure IP unnumbered on this interface? [yes]:
Assign to which interface [Ethernet0]:
Configure AppleTalk on this interface? [yes]:
Extended AppleTalk network? [yes]:
AppleTalk starting cable range [2]:
AppleTalk ending cable range [2]:
AppleTalk zone name [ZZ Serial]:
AppleTalk additional zone name:
Configure IPX on this interface? [yes]:
IPX network number [2]:

Configuring interface Async1:
IPX network number [4]:
Default client IP address for this interface [none]: 172.16.72.4
Configuring interface Async2:
IPX network number [5]:
Default client IP address for this interface [172.16.72.5]:
Configuring interface Async3:
IPX network number [6]:
Default client IP address for this interface [172.16.72.6]:
Configuring interface Async4:
IPX network number [7]:
Default client IP address for this interface [172.16.72.7]:
Configuring interface Async5:
IPX network number [8]:
Default client IP address for this interface [172.16.72.8]:
Configuring interface Async6:
IPX network number [9]:
Default client IP address for this interface [172.16.72.9]:
Configuring interface Async7:
IPX network number [A]:
Default client IP address for this interface [172.16.72.10]:
Configuring interface Async8:
IPX network number [B]:
Default client IP address for this interface [172.16.72.11]:
Configuring interface Async9:
```

```

    IPX network number [C]:
    Default client IP address for this interface [172.16.72.12]:
Configuring interface Async10:
    IPX network number [D]:
    Default client IP address for this interface [172.16.72.13]:
Configuring interface Async11:
    IPX network number [E]:
    Default client IP address for this interface [172.16.72.14]:
Configuring interface Async12:
    IPX network number [F]:
    Default client IP address for this interface [172.16.72.15]:
Configuring interface Async13:
    IPX network number [10]:
    Default client IP address for this interface [172.16.72.16]:
Configuring interface Async14:
    IPX network number [11]:
    Default client IP address for this interface [172.16.72.17]:
Configuring interface Async15:
    IPX network number [12]:
    Default client IP address for this interface [172.16.72.18]:
Configuring interface Async16:
    IPX network number [13]:
    Default client IP address for this interface [172.16.72.19]:

```

The following configuration command script was created:

```

hostname Router
enable secret 5 $1$krIg$emfYm/1OwHVspDuS8Gy0K1
enable password ww
line vty 0 4
password ww
snmp-server community public
!
no decnet routing
appletalk routing
ipx routing
ip routing
!
line 1 16
speed 57600
flowcontrol hardware
modem inout
!
arap network 20 ARA Dialins
line 1 16
arap enable
autoselect
!
! Turn off IPX to prevent network conflicts.
interface Ethernet0
no ipx network
interface Serial0
no ipx network
interface Serial1
no ipx network
!
interface Ethernet0
ip address 172.16.72.2 255.255.255.0
appletalk cable-range 1-1 1.204
appletalk zone Sales
ipx network 1
no mop enabled
!
interface Serial0

```

```
no shutdown
no ip address
ip unnumbered Ethernet0
appletalk cable-range 3-3
appletalk zone ZZ Serial
ipx network 3
no mop enabled
!
interface Serial1
no ip address
ip unnumbered Ethernet0
appletalk cable-range 2-2 2.2
appletalk zone ZZ Serial
ipx network 2
no mop enabled
!
Interface Async1
ipx network 4
ip unnumbered Ethernet0
peer default ip address 172.16.72.4
async mode interactive
!
Interface Async2
ipx network 5
ip unnumbered Ethernet0
peer default ip address 172.16.72.5
async mode interactive
!
Interface Async3
ipx network 6
ip unnumbered Ethernet0
peer default ip address 172.16.72.6
async mode interactive
!
Interface Async4
ipx network 7
ip unnumbered Ethernet0
peer default ip address 172.16.72.7
async mode interactive
async dynamic address
!
Interface Async5
ipx network 8
ip unnumbered Ethernet0
peer default ip address 172.16.72.8
async mode interactive
!
Interface Async6
ipx network 9
ip unnumbered Ethernet0
peer default ip address 172.16.72.9
async mode interactive
!
Interface Async7
ipx network A
ip unnumbered Ethernet0
peer default ip address 172.16.72.10
async mode interactive
!
Interface Async8
ipx network B
ip unnumbered Ethernet0
peer default ip address 172.16.72.11
async mode interactive
```

```
!  
Interface Async9  
ipx network C  
ip unnumbered Ethernet0  
peer default ip address 172.16.72.12  
async mode interactive  
!  
Interface Async10  
ipx network D  
ip unnumbered Ethernet0  
peer default ip address 172.16.72.13  
async mode interactive  
!  
Interface Async11  
ipx network E  
ip unnumbered Ethernet0  
peer default ip address 172.16.72.14  
async mode interactive  
!  
Interface Async12  
ipx network F  
ip unnumbered Ethernet0  
peer default ip address 172.16.72.15  
async mode interactive  
!  
Interface Async13  
ipx network 10  
ip unnumbered Ethernet0  
peer default ip address 172.16.72.16  
async mode interactive  
!  
Interface Async14  
ipx network 11  
ip unnumbered Ethernet0  
peer default ip address 172.16.72.17  
async mode interactive  
!  
Interface Async15  
ipx network 12  
ip unnumbered Ethernet0  
peer default ip address 172.16.72.18  
async mode interactive  
!  
Interface Async16  
ipx network 13  
ip unnumbered Ethernet0  
peer default ip address 172.16.72.19  
async mode interactive  
!  
router igrp 15  
network 172.16.0.0  
!  
end  
  
Use this configuration? [yes/no]: yes  
  
Building configuration...  
  
Use the enabled mode 'configure' command to modify this configuration.  
  
Router#
```

The following example shows a router entering the streamlined **setup** command facility:

```
--- System Configuration Dialog ---

Default settings are in square brackets '['].

Configuring interface IP parameters for netbooting:
```

**Note**

The message “Configuring interface IP parameters for netbooting” only appears if you are booting over a network server and your configuration has insufficient IP information.

The streamlined **setup** command facility continues by prompting you for interface parameters for each installed interface. The facility asks if an interface is in use. If so, the facility then prompts you to provide an IP address and subnet mask bits for the interface. Enter the subnet mask bits as a decimal value, such as 5. Continuing with the streamlined **setup** command facility example, the following output shows the portion of the facility that prompts for interface parameters. In the example, the facility is prompting for Ethernet 0 interface parameters and serial 0 interface parameters.

```
Configuring interface Ethernet0:
  Is this interface in use? [yes]:
  Configure IP on this interface? [yes]:
    IP address for this interface: 192.195.78.50
    Number of bits in subnet field [0]: 5
    Class C network is 192.195.78.0, 5 subnet bits; mask is 255.255.255.248

Configuring interface Serial0:
  Is this interface in use? [yes]:
  Configure IP on this interface? [yes]:
    IP address for this interface: 192.195.78.34
    Number of bits in subnet field [5]:
    Class C network is 192.195.78.0, 5 subnet bits; mask is 255.255.255.248
```

The configuration information you provide on this screen is *temporary* and exists only so that you can proceed with booting your system. When you reload the system, your original configuration is left intact. If your startup configuration is corrupted, enter the **setup** command facility, and configure the basic parameters. Then issue the **copy running-config startup-config** or **copy system:running-config nvram:startup-config** command to write this configuration to NVRAM (copies the running configuration file to the startup configuration file).

**Related Commands**

Command	Description
<b>erase nvram:</b>	Erases a file system.
<b>show running-config</b>	Displays (shows) the configuration file named "running-config". Command alias for the <b>more system:running-config</b> command.
<b>show startup-config</b>	Displays the configuration file named "startup-config". Command alias for the <b>more system:startup-config</b> command.
<b>show version</b>	Displays the configuration of the system hardware, the software version, the names and sources of configuration files, and the boot images.

