## 2

Basic Configuration

This chapter describes how to perform basic configuration of your Cisco Voice Gateway 200 (VG200) using the initial configuration dialog and the Cisco IOS command line interface (CLI). Basic configuration includes setting the host name and password and enabling the Fast Ethernet interface. This chapter includes the following sections:

Cisco VG200 Port Numbering

Each individual network interface on a Cisco VG200 gateway is identified by a slot number and a unit number. The Cisco VG200 gateway chassis contains one slot in which you can install a network module. This is always slot 1.

Figure 2-1   Cisco VG200 Analog Ports
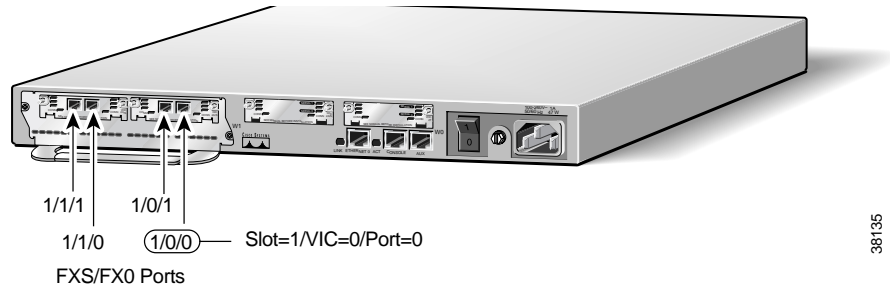
Slot 1 contains the voice network module, which can support analog or digital connections to the Public Switched Telephone Network (PSTN), and which can hold one or two voice interface cards (VIC). Each VIC, in turn, can provide one or two ports. During configuration, you refer to each voice port by its numeric order, starting with zero. Note that the physical ports on a Cisco VG200 gateway are numbered from right to left, with 1/0/0 identifying the right port on the right VIC, while 1/1/1 is the left port on the left VIC. The following table lists the identifiers for each port that can be configured on the Cisco VG200.

Interface type	Port numbers (from right to left)
Analog Voice/Fax (FXS, FX0, E&M)	1/0/0, 1/0/1, 1/1/0, 1/1/1
BRI Voice/Fax	1/0/0, 1/1/0
E1/T1 Voice Trunk	1/0, 1/1
Channelized E1/T1 ISDN PRI	1/0, 1/1

Voice/Fax Network Modules and Interface Cards

The analog voice network module and voice interface cards available at this time for the Cisco VG200 are as follows:

- NM1V One-Slot Voice/Fax Network Module
- NM2V Two-Slot Voice/Fax Network Module
- VIC-1FXS One-Port Voice/Fax Interface Card—FXS
- VIC-2FXS Two-Port Voice/Fax Interface Card—FXS

- VIC-1FXO One-Port Voice/Fax Interface Card—FXO

- VIC-2FXO One-Port Voice/Fax Interface Card—FXO

- VIC-1E/M One-Port Voice/Fax Interface Card—E&M

- VIC-2E/M Two-Port Voice/Fax Interface Card—E&M

- VIC-1BRI-S/T-TE One-Port BRI Voice/Fax Interface Card

- VIC-2BRI-S/T-TE Two-Port BRI Voice/Fax Interface Card

Digital T1/E1 Voice Trunk Modules and Interface Cards

The T1/E1 voice trunk modules and voice interface cards available at this time for the Cisco VG200 are as follows:

- VWIC-1MFT-T1 One-Port RJ-48 Multiflex Trunk—T1

- VWIC-2MFT-T1 Two-Port RJ-48 Multiflex Trunk—T1

- VWIC-2MFT-T1-D1 Two-Port RJ-48 Multiflex Trunk—T1 with Drop & Insert support

- VWIC-1MFT-E1 One-Port RJ-48 Multiflex Trunk—E1

- VWIC-2MFT-E1 Two-Port RJ-48 Multiflex Trunk—E1

- VWIC-2MFT-E1-D1 Two-Port RJ-48 Multiflex Trunk—E1 with Drop & Insert support

- NM-HDV-1T1-24 Single-Port 24-Channel T1 Voice/Fax Network Module

- NM-HDV-1T1-24E Single-Port 24-Enhanced Channel T1 Voice/Fax Network Module

- NM-HDV-2T1-48 Single-Port 48-Channel T1 Voice/Fax Network Module

- NM-HDV-1E1-30 Single-Port 30-Channel E1 Voice/Fax Network Module

- NM-HDV-1E1-30E Single-Port 30-Enhanced Channel E1 Voice/Fax Network Module

- NM-HDV-2E1-60 Single-Port 60-Channel E1 Voice/Fax Network Module

Channelized E1/T1 ISDN PRI Network Modules

The T1/E1 channelized T1 ISDN PRI network modules available at this time for the Cisco VG200 are as follows:

- NM-1CT1 1-Port Channelized T1/ISDN PRI Network Module
- NM-1CT1-CSU 1-Port Channelized T1/ISDN PRI CSU Network Module
- NM-2CT1 2-Port Channelized T1/ISDN PRI Network Module
- NM-2CT1-CSU 2-Port Channelized T1/ISDN PRI CSU Network Module
- NM-1CE1B 1-Port Channelized E1/ISDN PRI Balanced Network Module
- NM-1CE1U 1-Port Channelized E1/ISDN PRI Unbalanced Network Module
- NM-2CE1B 2-Port Channelized E1/ISDN PRI Balanced Network Module
- NM-2CE1U 2-Port Channelized E1/ISDN PRI Unbalanced Network Module

Basic Configuration with the Initial Configuration Dialog

The initial configuration dialog provides prompts to help you configure basic information about your Cisco VG200 gateway. The following sections describe the way to use the intial configuration dialog to configure the following information:

- Host name
- Passwords
- Ethernet interface configuration

The initial configuration dialog displays these prompts in your PC terminal emulation program window. Before running the initial configuration dialog, configure your PC terminal emulation program for 9600 baud, 8 data bits, no parity, and 1 stop bit.

You can also complete the following configuration steps by entering the appropriate command-line interface(CLI) commands, as described in the "Basic Configuration with the Cisco IOS CLI" section on page 2-16. Perform the following steps to complete basic configuration of a Cisco VG200 gateway, using the initial configuration dialog:

Step 1   Power on the gateway. The power switch is on the rear panel of the gateway, at the lower right corner, near the power cord.

Messages will begin to appear in your terminal emulation program window.

⚠

Caution   *Do not press any keys on the keyboard until the messages stop.* Any keys pressed during this time are interpreted as the first command entered when the messages stop, which might cause the gateway to power off and start over. It takes a few minutes for the messages to stop.

✎

Note   If you make a mistake while using the initial configuration dialog, you can exit and run the facility again. Press **Ctrl-c**, and enter **setup** at the enable mode prompt (VG200 #).

The messages look similar to the following:

```
######################################################################
######################################################################
############################################################## [OK]
                Restricted Rights Legend

Use, duplication, or disclosure by the Government is
subject to restrictions as set forth in subparagraph
(c) of the Commercial Computer Software - Restricted
Rights clause at FAR sec. 52.227-19 and subparagraph
(c) (1) (ii) of the Rights in Technical Data and Computer
Software clause at DFARS sec. 252.227-7013.


          Cisco Systems, Inc.
          170 West Tasman Drive
          San Jose, California 95134-1706


Cisco Internetwork Operating System Software
IOS (tm) VG200 Software (VG200-I6S-M), Experimental Version
12.0(20000117:081249) [sfry-viola_eft2 116]
Copyright (c) 1986-2000 by Cisco Systems, Inc.
Compiled Fri 28-Jan-00 22:18 by sfry
Image text-base: 0x80008088, data-base: 0x8066E970


cisco VG200 (MPC860) processor (revision 0x102) with 22528K/2048K
bytes of memory.
Processor board ID JAB034202S3 (0)
M860 processor: part number 0, mask 49
1 FastEthernet/IEEE 802.3 interface(s)
2 Voice FXS interface(s)
32K bytes of non-volatile configuration memory.
8192K bytes of processor board System flash (Read/Write)
```

Step 2   When the following message appears, enter **yes** to begin the initial configuration dialog:

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

Note   If you enter **n** (for no) in response to this message, you are prompted to terminate the initial configuration dialog. If you choose to terminate, you enter the Cisco IOS software command-line interface without running the configuration dialog.

Step 3   When the following message appears, enter **yes** to perform basic management setup:

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

Step 4   Enter the host name for the VG200, as in the following example:

```
Configuring global parameters:

Enter host name [Router]: VG200
```

You must make sure the same entry is used when configuring the Cisco VG200 gateway on Cisco CallManager.

Step 5   When you see the following prompt, enter an enable secret password:

```
Enter enable secret: xxxx
```

```
The enable secret is a password used to protect access to privileged
EXEC and configuration modes. This password, after entered, becomes
encrypted in the configuration.
```

Step 6   When you see the following prompt, enter an enable password that is different from the enable secret password.

```
Enter enable password: guessme
```

```
The enable password is used when you do not specify an enable secret
password, with some older software versions, and some boot images.
```

> **Note**   The enable password is *not* encrypted (less secure) and can be seen when viewing the configuration.

Step 7   Enter the virtual terminal password, which prevents unauthenticated access to the gateway through ports other than the console port.

```
Enter virtual terminal password: guessagain
```

```
The virtual terminal password is used to protect access to the gateway
over a network interface.
```

Step 8   When you see the following prompt, identify the Fast Ethernet interface, which you must configure to use the VG200.

```
Current interface summary

Any interface listed with OK? value "NO" does not have a valid
configuration

Interface        IP-Address      OK? Method Status     Protocol
FastEthernet0/0  unassigned      NO  unset  up          up

Enter interface name used to connect to the
management network from the above interface summary: FastEthernet0/0

d dialing? [no]:
```

Step 9   Configure the Fast Ethernet interface.

When you see the following prompts, enter the selections shown below, and then enter the IP address for the gateway on the Ethernet LAN.

```
Configuring interface parameters:

Do you want to configure FastEthernet0/0 interface [yes]:
 Use the 100 Base-TX (RJ-45) connector? [yes]:
 Operate in full-duplex mode? [no]:
 Configure IP on this interface? [no]: yes
 IP addresss for this interface: 192.168.100.1
```

Step 10 Save the configuration, as follows:

```
The following configuration command script was created:

hostname vg200
enable secret 5 $1$6F..$Lc8rqF6Nnos33ARvs9Uu7/
enable password cisco
line vty 0 4
password lab
snmp-server community public
!
no ip routing

!
interface FastEthernet0/0
no shutdown
full-duplex
ip address 192.168.100.1 255.255.255.0
!
end
:
Use this configuration? [yes/no]: yes
```

If you answer **no**, the configuration information you entered is *not* saved, and the system displays the gateway enable prompt (VG200 #). You can then enter **setup** to return to the initial configuration dialog.

If you answer **yes**, the configuration is saved and you are returned to the EXEC prompt (for example, VG200>).

```
Building configuration...
Use the enabled mode 'configure' command to modify this configuration.
```

Step 11 When the messages stop displaying on your screen, press **Return** to get the EXEC prompt (for example, VG200>).

```
Press RETURN to get started!

%LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up

...
```

The VG200> prompt indicates that you are now at the CLI.

Voice Interface Configuration with the Intial Configuration Dialog

From this point on in the initial configuration dialog, the prompts you see vary depending on the network modules in your gateway. The following sections describe the steps for the optional interface modules that require additional configuration using the intitial configuration dialog.

- ISDN BRI Interface Configuration, page 2-10
- E1/T1 ISDN PRI Configuration, page 2-15

ISDN BRI Interface Configuration

Use the initial configuration dialog to configure an ISDN BRI interface. This configuration requires you to enter the ISDN switch type. These switch types are shown in Table 2-1.

Table 2-1   ISDN Switch Types

Country	ISDN Switch Type	Description
Australia	basic-ts013	Australian TS013 switches
Europe	basic-1tr6	German 1TR6 ISDN switches
	basic-nwnet3	Norwegian NET3 ISDN switches (phase 1)
	basic-net3	NET3 ISDN switches (UK and others)
	basic-net5	NET5 switches (UK and others)
	vn2	French VN2 ISDN switches
	vn3	French VN3 ISDN switches
Japan	ntt	Japanese NTT ISDN switches
New Zealand	basic-nznet3	New Zealand NET3 switches

Table 2-1   ISDN Switch Types (continued)

Country	ISDN Switch Type	DescrIption
North America	basic-5ess	AT&T basic rate switches
	basic-dms100	NT DMS-100 basic rate switches
	basic-ni1	National ISDN-1 switches

When you reach the following prompt on the System Configuration Dialog, enter an ISDN switch type from Table 2-1:

```
BRI interface needs isdn switch-type to be configured
   Valid switch types are:
           [0]   none..........Only if you don't want to configure BRI.
         [1]  basic-1tr6....1TR6 switch type for Germany
           [2]   basic-5ess....AT&T 5ESS switch type for the US/Canada
           [3]   basic-dms100..Northern DMS-100 switch type for
US/Canada
           [4]   basic-net3....NET3 switch type for UK and Europe
         [5]  basic-ni......National ISDN switch type
         [6]  basic-ts013...TS013 switch type for Australia
         [7]  ntt...........NTT switch type for Japan
           [8]   vn3...........VN3 and VN4 switch types for France

   Choose ISDN BRI Switch Type [2]:

Do you want to configure BRI0/0 interface? [yes]:

  Do you have a service profile identifiers (SPIDs) assigned? [no]: y
  Enter SPID1: 12345
  Enter SPID2: 12345
```

Note   The setup command facility only prompts for the SPID number if you specify **basic-5ess**, **basic-ni1**, or **basic-dms100** for the switch type.

ISDN BRI Line Configuration

Before using a Cisco VG200 with an ISDN BRI interface, you must order a correctly configured ISDN BRI line from your local telecommunications service provider.

The ordering process varies from provider to provider and from country to country. However, here are some general guidelines:

- Ask for two channels to be called by one number.

- Ask for delivery of calling line identification, also known as caller ID or Automatic Number Identification (ANI).

ISDN BRI Provisioning by Switch Type

ISDN BRI provisioning refers to the types of services provided by the ISDN BRI line. Although provisioning is performed by your ISDN BRI service provider, you must tell the provider what you want.

Table 2-2 lists the provisioning you should order for the Cisco VG200 based on switch type.

Table 2-2   ISDN Provisioning by Switch Type

Switch Type	Provisioning
5ESS Custom BRI	For voice
	(Use these values only if you have an ISDN telephone connected.) 2 B channels for voice MultiPoint Terminal type = D 2 directory numbers assigned by service provider 2 service profile identifiers (SPIDs) required, assigned by service provider MTERM = 2 Number of call appearances = 1 Display = No Ringing/idle call appearances = idle Autohold= no Onetouch = no Request delivery of calling line ID on Centrex lines Set speed for ISDN calls to 56 kbps outside local exchange Directory number 1 can hunt to directory number 2

Table 2-2   ISDN Provisioning by Switch Type (continued)

Switch Type	Provisioning
5ESS National ISDN (NI-1) BRI	Terminal type = A 2 B channels for voice 2 directory numbers assigned by service provider 2 SPIDs required; assigned by service provider Set speed for ISDN calls to 56 kbps outside local exchange Directory number 1 can hunt to directory number 2
DMS-100 BRI	2 B channels for voice 2 directory numbers assigned by service provider 2 SPIDs required; assigned by service provider Functional signaling Dynamic terminal endpoint identifier (TEI) assignment Maximum number of keys = 64 Release key = no, or key number = no Ringing indicator = no EKTS = no PVC = 2 Request delivery of calling line ID on Centrex lines Set speed for ISDN calls to 56 kbps outside local exchange Directory number 1 can hunt to directory number 2

Defining ISDN Service Profile Identifiers

Some service providers assign service profile identifiers (SPIDs) to define the services subscribed to by an ISDN device. If your service provider requires SPIDs, your ISDN device cannot place or receive calls until it sends a valid SPID to the service provider when initializing the connection. A SPID is usually a seven-digit telephone number plus some optional numbers, but service providers may use different numbering schemes. SPIDs have significance at the local access ISDN interface only.

Currently, only DMS-100 and NI-1 switch types require SPIDs. Two SPIDs are assigned for the DMS-100 switch type, one for each B channel. The AT&T 5ESS switch type may support SPIDs, but Cisco recommends that you set up that ISDN service without SPIDs.

If your service provider assigns you SPIDs, you must define these SPIDs on the Cisco VG200. To define SPIDs and the local directory number (LDN) on the Cisco VG200 for both ISDN BRI B channels, use the following **isdn spid** commands:

```
VG200(config-if)# isdn spid1 spid-number [ldn]

VG200(config-if)# isdn spid2 spid-number [ldn]
```

Note   Although the LDN is an optional parameter in the command, you may need to enter it so the Cisco VG200 can answer calls made to the second directory number.

E1/T1 ISDN PRI Configuration

This section contains a sample configuration for the channelized E1/T1 ISDN PRI interface. Enter the values appropriate for your Cisco VG200 and network.

Note   The messages you see will vary depending on the hardware configuration of your Cisco VG200 gateway.

```
The following ISDN switch types are available:
    [0] none...........If you do not want to configure ISDN
    [1] primary-4ess....AT&T 4ESS switch type for US and Canada
    [2] primary-5ess....AT&T 5ESS switch type for US and Canada
    [3] primary-dms100..Northern Telecom switch type for US and
Canada
    [4] primary-net5....European switch type for NET5
    [5] primary-ni......National ISDN Switch type for the U.S
    [6] primary-ntt.....Japan switch type
    [7] primary-ts014...Australian switch type
  Choose ISDN PRI Switch Type [2]:

Configuring controller T1 1/0 in pri or channelized mode
  Do you want to configure this interface controller? [no]:
  Will you be using PRI on this controller? [yes]:
```

The following is an example of a E1/T1 PRI mode configuration using the setup command facility:

```
The following framing types are available:
                esf | sf
Enter the framing type [esf]:

The following linecode types are available:
                ami | b8zs
Enter the line code type [b8zs]:
Enter number of time slots [24]:

Do you want to configure Serial1/0:23 interface? [yes]:
```

Basic Configuration with the Cisco IOS CLI

The Cisco VG200 runs the Cisco IOS Release 12.1(1)XE, which includes specialized adaptations for Voice over IP (VoIP) and Media Gateway Control Protocol (MGCP). If you are familiar with other versions of the Cisco IOS, you will find configuring the Cisco VG200 gateway straightforward because you will use the Cisco IOS CLI, with which you are familiar.

If you have never used the Cisco IOS CLI, you should still be able to perform the configuration required using the instructions and examples provided in this guide. To help get you started, this section provides a brief overview of some of the main features of the CLI. For further information, refer to the Cisco IOS configuration guides and command references for details about specific commands.

Getting Help

Use the question mark (?) and arrow keys to help you enter commands, as follows:

- For a list of available commands, enter a question mark, for example:

  VG200> **?**

- To complete a command, enter a few known characters followed by a question mark (with no space), for example:

  VG200> **s?**

- For a list of command variables, enter the command followed by a space and a question mark, for example:

  ```
  VG200> show ?
  ```

- To redisplay a command you previously entered, press the up arrow key. You can continue to press the up arrow key for more commands.

Command Modes

The Cisco IOS interface is divided into different modes. Each command mode permits you to configure different components on your gateway. The commands available at any given time depend on which mode you are currently in. Entering a question mark (**?**) at the prompt displays a list of commands available for each command mode. Table 2-1 lists the most common command modes.

Table 2-3   Common Command Modes

Command Mode	Access Method	Gateway Prompt Displayed	Exit Method

User EXEC	Log in.	`hostname>`
		 The default is
		 `router>`
			Use the **logout** command.

Privileged EXEC	From user EXEC mode, enter the **enable** command.	`hostname#`
		 The default is
		 `router#`
			To exit to user EXEC mode, use the **disable**, **exit**, or **logout** command.

Global configuration	From the privileged EXEC mode, enter the **configure terminal** command.	`hostname (config)#`
		 The default is
		 `router (config)#`
			To exit to privileged EXEC mode, use the **exit** or **end** command, or press **Ctrl-Z**.

Table 2-3   Common Command Modes (continued)

Command Mode	Access Method	Gateway Prompt Displayed	Exit Method
Interface configuration	From the global configuration mode, enter the **interface** *type number* command, such as **FastEthernet serial 1/0**.	hostname (config-if)# The default is router (config-if)#	To exit to global configuration mode, use the **exit** command. To exit directly to privileged EXEC mode, press **Ctrl-Z**.
Dial-peer configuration	From the global configuration mode, enter the dial-peer *voice* command, such as **dial-peer voice 1.**	hostname(config-dial-peer) The default is router (config-dial-peer)#	To exit to global configuration mode, use the **exit** command. To exit directly to privileged EXEC mode, press **Ctrl-Z**.

Timesaver   Each command mode restricts you to a subset of commands. If you are having trouble entering a command, check the prompt, and enter the question mark (**?**) for a list of available commands. You might be in the wrong command mode or using the wrong syntax.

In the following example, which uses the default prompt (router>), notice how the prompt changes after each command to indicate a new command mode:

```
router> enable
Password: <enable password>
router#configure terminal
router(config-if)# line 0
router(config-line)# controller t1 1/0
router(config-controller)# exit
router(config)# exit
router#
%SYS-5-CONFIG_I: Configured from console by console
```

The last message is normal and does not indicate an error. Press **Return** to return to the prompt.

Note You can press **Ctrl-Z** in any mode to immediately return to privileged EXEC mode (router#), instead of entering **exit**, which returns you to the previous mode.

Disabling a Command or Feature

If you want to undo a command you entered or disable a feature, enter the keyword **no** before most commands; for example, **no mgcp**.

Saving Configuration Changes

You need to enter the **copy running-config startup-config** command to save your configuration changes to nonvolatile random-access memory (NVRAM), so the changes are not lost if there is a system reload or power outage. For example:

```
router# copy running-config startup-config
Building configuration...
```

Note It might take a minute or two to save the configuration to NVRAM. After the configuration has been saved, the privileged EXEC mode prompt (router#) reappears.

Configuring the Host Name and Password

Configuring a host name allows you to distinguish multiple Cisco gateways from each other. Setting an encrypted password allows you to prevent unauthorized configuration changes.

You might want to use CLI commands if you have already run the initial configuration dialog and you want to change your gateway configuration. This section describes how to use CLI commands to configure the host name for the Cisco VG200 gateway and to set or change an encrypted password.

Before you begin configuring the interface, make sure you do the following:

- Connect a terminal to the console port on the gateway.

- Power on the gateway.

- Wait for the Cisco IOS banner and other information messages to finish displaying.

Perform the following steps to configure the host name and password using the Cisco IOS CLI:

Step 1   Enter enable mode by entering the following command from the initial gateway prompt:

```
router> enable
Password: <password>
router#
```

You have entered enable mode when the prompt changes to router#.

Step 2   Enter global configuration mode by entering the following command from the EXEC mode prompt:

```
router# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
router(config)#
```

You have entered global configuration mode when the prompt changes to router(config)#.

Step 3   Change the name of the gateway to a meaningful name by entering the following command from the EXEC mode prompt:

```
router(config)# hostname yourhostname
```

Replace yourhostname with the name you want to use to identify your gateway. This must match the domain name entry you use for configuring the Cisco VG200 gateway in Cisco CallManager Administrator.

In this and subsequent examples in this document, the host name VG200 is used.

Step 4   Enter a secret password for privileged EXEC mode by entering the following command from the EXEC mode prompt:

```
VG200(config)# enable secret <password>
```

Replace <*password*> with a password that will control access to privileged EXEC mode. When a user enters **enable** at the EXEC prompt (for example, VG200>), they must enter this password to gain access to configuration mode.

Step 5   Enter line configuration mode by entering the following command from the EXEC mode prompt:

```
VG200(config)# line con 0
```

When you enter line configuration mode, the prompt changes to `router(config-line)#`.

Step 6   Complete the configuration by entering the following command from line configuration mode:

```
VG200(config-line)# exec-timeout 0 0
```

This command prevents the gateway's EXEC facility from timing out if you do not enter any information on the console screen for an extended period.

Step 7   Exit back to global configuration mode by entering the following command from line configuration mode:

```
VG200(config-line)# exit
VG200(config)#
```

Step 8   Verify that you configured the correct host name and password by entering the following command from the global configuration prompt:

```
VG200(config)# show config
Using 1888 out of 126968 bytes
!
version XX.X
.
.
.
!
hostname VG200
!
enable secret 5 $1$60L4$X2JYOwoDc0.kqa1loO/w8/
.
```

Tips   Troubleshooting: If you are having trouble, make sure that caps lock is off and that you have entered the correct passwords. Passwords are case sensitive.

Step 9   Save the configuration by entering the following command from enable mode:

```
VG200# copy running-config startup-config
```

This saves the configuration changes to NVRAM so that they are not lost during resets, power cycles, or power outages.

Configuring the Fast Ethernet Interface

You can use the initial configuration dialog, as described earlier in this chapter, to configure the Fast Ethernet interface on your Cisco VG200 gateway. Otherwise, you can configure the Ethernet interface by entering CLI commands at the gateway prompt, as shown in the following steps.

Step 1   Enter enable mode, as follows:

```
VG200 > enable
Password: <password>
VG200#
```

You have entered enable mode when the prompt changes to `VG200#`.

Step 2   Enter global configuration mode by entering the following command from the EXEC mode prompt:

```
VG200# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
VG200(config)#
```

You have entered global configuration mode when the prompt changes to `VG200(config)#`.

Step 3   Enter interface configuration mode by entering the following command from the global configuration prompt:

```
VG200(config)# interface FastEthernet0/0
```

You have entered interface configuration mode when the prompt changes to `VG200(config-if)#`.

Step 4   Assign an IP address and subnet mask to the interface by entering the following command from the interface configuration prompt:

```
VG200(config-if)# ip address ipaddress subnetmask
```

Replace *ipaddress* with the IP address of the Fast Ethernet interface in dotted decimal format. Replace *subnetmask* with the subnet mask in use on the subnetwork connected to the Fast Ethernet interface.

Step 5   Complete the Fast Ethernet configuration by entering the following commands from the interface configuration prompt:

```
VG200(config-if)# no ip directed-broadcast
VG200(config-if)# duplex auto
VG200(config-if)# speed auto
```

Step 6   Exit back to global configuration mode by entering the following commands from the interface configuration prompt:

```
VG200(config-if)# exit
```

Step 7   Complete the configuration by entering the following commands from the global configuration prompt:

```
VG200(config)# ip default-gateway routeripaddress
VG200(config)# ip classless
VG200(config)# ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
VG200(config)# no ip http server
```

Replace *routeripaddress* with the IP address of the router that will be used to connect the subnetwork connected to the Cisco VG200 gateway to other subnetworks.

Step 8   Return to enable mode by entering the following command from the global configuration prompt:

```
VG200(config)# Ctrl-z
```

Step 9   Save the configuration by entering the following command from enable mode:

```
VG200# copy running-config startup-config
```

This saves the configuration changes to NVRAM so that they are not lost during resets, power cycles, or power outages.

Where to Go Next

At this point you can proceed to the following:

- The Cisco IOS software configuration guide and command reference publications for more advanced configuration topics. These publications are available on the Documentation CD-ROM that came with your gateway, on the World Wide Web from Cisco's home page, or you can order printed copies.

- For troubleshooting information, refer to the *System Error Messages* and *Debug Command Reference* publications.

- Chapter 3, "Configuring Voice over IP," to configure the specific voice ports and other parameters required to enable VoIP connections in your network.