Understanding Interface Numbering and Cisco IOS Software Basics

This chapter provides an overview of interface numbering in the Cisco VG350, Cisco VG310, and Cisco VG320 Analog Voice Gateways (VG). It also describes how to use the Cisco IOS software commands.

This chapter presents the following major topics:

- Identifying the Cisco Voice Gateways, page 1-10
- Cisco VG350 Port Numbering Conventions, page 1-10
- Identifying the Cisco VG310 and Cisco VG320, page 1-11
- Upgrading to a New Cisco IOS Release, page 1-15
- Where to Go Next, page 1-15
Identifying the Cisco Voice Gateways

This section describes how to identify and differentiate between Cisco VG350, Cisco VG310 and Cisco VG320 voice gateways platforms.

Identifying the Cisco VG350

Figure 1-1 shows the front panels of the Cisco VG350 Voice Gateway Chassis:

Cisco VG350 Port Numbering Conventions

Figure 1-2 shows the Cisco VG350 back panel:
Figure 1-2  Cisco VG350 Back Panel

Identifying the Cisco Voice Gateways

1. EHWIC slots 1, 2, and 3 (0, Far right)
2. RJ-45 serial console port
3. SFP1 and SFP2 (2, Top)
4. 10/100/1000 Ethernet ports GE 0/1 and GE 0/2 (GE 0/2, Top)
5. 10/100/1000 Ethernet port GE 0/0
6. USB0 and USB1 (1, Top)
7. Ground
8. CompactFlash 0 and 1 (0, Far right)
9. SM-D-72FXS Service Module
10. SM-D-48FXS-E Service Module

Identifying the Cisco VG310 and Cisco VG320

Figure 1-3 shows the front panels of the Cisco VG310 and Cisco VG320 Voice Gateway Chassis:

Figure 1-3  Cisco VG310 and Cisco VG320 Front Panel

Cisco VG310 Port Numbering Conventions

Figure 1-4 shows the Cisco VG310 back panel:
Identifying the Cisco Voice Gateways

Figure 1-4  Cisco VG310 Back Panel

Cisco VG320 Port Numbering Conventions

Figure 1-5 shows the Cisco VG320 back panel:

Cisco VG320 Port Numbering Conventions

1 FXS Status LEDs
2 CF Storage Card
3 USB Console Management
4 USB Storage Port
5 Power On/Off Switch
6 AC Power Connector
7 DC PS Connector
8 Two 1-Gbps Ethernet L3 interfaces
9 HWIC module slot
10 RJ-21 24FXS Ports Connector
Understanding Cisco IOS Software Basics

This section describes what you need to know about the Cisco IOS software before you configure the router using the CLI. This chapter includes the following:

- Getting Help, page 1-13
- Command Modes, page 1-13
- Undoing a Command or Feature, page 1-14
- Saving Configuration Changes, page 1-15
- Where to Go Next, page 1-15

Understanding these concepts will save time as you begin to use the CLI. If you have never used Cisco IOS software or need a refresher, take a few minutes to read this chapter before you proceed to the next chapter.

If you are already familiar with Cisco IOS software, proceed to the “Configuring the Host Name and Password” section on page 2-17

Getting Help

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

- For a list of available commands, enter a question mark:
  
  `Router> ?`

- To complete a command, enter a few known characters followed by a question mark (with no space):
  
  `Router> s?`

- For a list of command variables, enter the command followed by a space and a question mark:
  
  `Router> 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 user interface is divided into different modes. Each command mode permits you to configure different components on your router. 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 1-1 lists the most common command modes.
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Understanding Cisco IOS Software Basics

Understanding Cisco IOS Software Basics

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 be using the wrong syntax.

In the following example, notice how the prompt changes after each command, to indicate a new command mode for Cisco VG350:

```
Router> enable
Password: <enable password>
Router# configure terminal
Router(config)# interface gigabitEthernet 0/0
Router# %SYS-5-CONFIG_I: Configured from console by console
```

The last message is normal and does not indicate an error. Press Return to get the Router# prompt.

On Cisco VG310 and Cisco VG320, the Ethernet interface since the serial interface is not supported.

Press Ctrl-Z in any mode to immediately return to enable mode (Router#), instead of entering exit, which returns you to the previous mode.

### Undoing 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 ip routing.
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...
```

It might take a minute or two to save the configuration to NVRAM. After the configuration has been saved, the following appears:

```
[OK]
Router#
```

Upgrading to a New Cisco IOS Release

To install or upgrade to a new Cisco IOS release, see How to Update/Upgrade Cisco IOS Software.

Where to Go Next

Now that you have learned some Cisco IOS software basics, you can begin to configure the router using the CLI.

Remember that:

- You can use the question mark (?) and arrow keys to help you enter commands.
- Each command mode restricts you to a set of commands. If you have difficulty entering a command, check the prompt and then enter the question mark (?) for a list of available commands. You might be in the wrong command mode or be using the wrong syntax.
- To disable a feature, generally enter the keyword `no` before the command; for example, `no ip routing`.
- You need to save your configuration changes to NVRAM so the changes are not lost if there is a system reload or power outage.

Proceed to Chapter 2, “Configuring the Host Name and Password,” to begin configuring the router.