Overview of the Cisco VG224 Voice Gateway

This chapter provides a brief description of the Cisco VG224 voice gateway (VG) and contains the following sections:

- Overview, page 1-1
- Cisco VG224 Voice Gateway Deployment, page 1-4
- Interfaces and Service Capabilities, page 1-4
- Physical Description and LEDs, page 1-5
- Specifications, page 1-6
- Software Elements, page 1-7

Overview

The Cisco VG224 supports the following interfaces:

- 10/100BASE-T LAN connection
- RJ-21 analog voice interface
- External/Internal compact flash

The Cisco VG224 can be housed in a rack, mounted on a wall, or set on a bench-top surface.

Warning

This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means by security. Statement 1017
The Cisco VG224 provides 24 analog foreign exchange station (FXS) voice ports with two 10/100BASE-T ports. The chassis has the following interfaces:

- RJ-21 analog voice interface
- Two 10/100BASE-T ports
- External compact flash memory
- AC and DC power inputs

Figure 1-2 shows the basic types of Cisco VG224 chassis as seen from the cabling side.

**Product Serial Number Location for the Cisco VG224 Voice Gateway**

The serial number label for the Cisco VG224 Voice Gateway is located on the rear of the chassis, in the middle-left side. (See Figure 1-3.)
Figure 1-3 Serial Number Locations

The serial number for the Cisco VG224 Voice Gateway is 11 characters long.
Configuration Options

The following interface options are available in the Cisco VG224 voice gateway:

<table>
<thead>
<tr>
<th></th>
<th>RJ-21¹</th>
<th>T1/E1²</th>
<th>FE³</th>
<th>WIC/VIC⁴</th>
<th>CF⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco VG224 voice gateway</td>
<td>yes</td>
<td>none</td>
<td>2</td>
<td>n/a</td>
<td>external</td>
</tr>
</tbody>
</table>

1. Analog voice interface
2. T1/E1 ports
3. 10/100BASE-T ports
4. WAN interface card (data); voice interface card (voice)
5. Compact flash

Cisco VG224 Voice Gateway Deployment

Figure 1-4 shows a typical deployment scenario for the Cisco VG224 voice gateway.

Interfaces and Service Capabilities

The various physical ports and the services supported by each port type are described in Table 1-2.

- Two administrative ports—One console and one auxiliary.
- One or two 10/100BASE-T LAN ports.
- Cisco VG224 voice gateway for analog voice user interface is equipped with an RJ-21 port for connection to a distribution panel.
Table 1-2  Cisco VG224 Voice Gateway Interfaces and Service Capabilities

<table>
<thead>
<tr>
<th>Port</th>
<th>Interface Configurations</th>
<th>Interface To</th>
<th>Services Supported</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Console Port 0/0</td>
<td>EIA/TIA-232 asynchronous serial (DCE(^1))</td>
<td>ASCII terminal</td>
<td>Local administrative access</td>
<td>RJ-45 physical interface</td>
</tr>
<tr>
<td>Auxiliary Port 0/1</td>
<td>EIA/TIA-232 asynchronous serial (DTE(^2))</td>
<td>Modem</td>
<td>Remote administrative access</td>
<td>RJ-45 physical interface</td>
</tr>
<tr>
<td>Fast Ethernet Port 0/0, 0/1</td>
<td>10/100BASE-T (802.3)</td>
<td>LAN</td>
<td>Data</td>
<td>RJ-45 physical interface</td>
</tr>
<tr>
<td>RJ-21 24 analog FXS voice ports Port 2/0 to 2/23</td>
<td>FXS (loop-start or ground-start)</td>
<td>Analog phone, fax, or modem</td>
<td>Analog voice/fax or modem</td>
<td>Provides battery RJ-21 physical interface</td>
</tr>
<tr>
<td>CF(^3) Slot 0</td>
<td></td>
<td>Flash memory</td>
<td>Flash card</td>
<td></td>
</tr>
</tbody>
</table>

1. DCE = data communications equipment
2. DTE = data terminal equipment
3. CF = compact flash memory

Physical Description and LEDs

All interface ports and LEDs are on the rear of the chassis.

Figure 1-5  Cisco VG224 Voice Gateway LEDs

1. Chassis ground connection  5. Fast Ethernet port 0  9. On/off switch
2. RJ-21 connector 6. AUX port 10. AC power input
3. Compact flash port 7. Console port
4. Fast Ethernet port 1 8. DC power input\(^1\)

1. This is not a redundant failover power supply connection. You must use either DC or AC.
Chassis Grounding

Chassis grounding is provided through the power cable, which uses a standard grounding plug. The chassis is also equipped with two multi 4 x 0.7 screw terminals for chassis grounding. The accessory kit contains a crimp-type ground lug that attaches to the two screw terminals. For more information, refer to the “Installing the Ground Connection” section on page 3-11.

Port Numbering Conventions

Port numbering conventions for the Cisco VG224 are as follows:

- An external compact flash card is numbered CF 0.
- 10/100BASE-T ports are numbered 10/100BASE-T 0/0 and 10/100BASE-T 0/1 from right to left.
- FXS voice port numbering begins at 2/0 and extends to 2/7, 2/15, or 2/23, depending on the number of voice ports.

Specifications

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>1.75H x 17.5W x 13.5D in. (44.4 x 444.5 x 342.9 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>11 lb (4.106 kg) max</td>
</tr>
<tr>
<td>Input power</td>
<td>100 to 240 VAC, 1 A (max), 50 to 60 Hz, 70 W (max)</td>
</tr>
<tr>
<td>Maximum power surge</td>
<td></td>
</tr>
<tr>
<td>Input power (DC 12 volt battery)</td>
<td>60 W (204.7 BTU/h)</td>
</tr>
<tr>
<td>Caution</td>
<td>Do not try to use AC and DC power at the same time. If you do, the unit stops operating and you have to reboot using a single power source.</td>
</tr>
<tr>
<td>MTBF</td>
<td>195,671 hours</td>
</tr>
<tr>
<td>Operating environment</td>
<td>32 to 122°F (0 to 50°C)</td>
</tr>
<tr>
<td>Nonoperating temperature</td>
<td>–40 to 185°F (–40 to 85°C)</td>
</tr>
<tr>
<td>Operating humidity</td>
<td>5 to 95%, noncondensing</td>
</tr>
<tr>
<td>Noise level</td>
<td>55 dB @ 3 ft</td>
</tr>
<tr>
<td>Agency approvals</td>
<td>Refer to the Cisco VG224 Regulatory Compliance and Safety Information document at the following URL: <a href="http://www.cisco.com/en/US/products/hw/gatecont/ps2250/products_regulatory_approvals_and_compliance_list.html">http://www.cisco.com/en/US/products/hw/gatecont/ps2250/products_regulatory_approvals_and_compliance_list.html</a></td>
</tr>
</tbody>
</table>
Warning

Ultimate disposal of this product should be handled according to all national laws and regulations.
Statement 1040

Software Elements

The operating system for the Cisco VG224 voice gateway is the Cisco IOS software that resides in flash memory.

Configuration Connections

You can use an ASCII terminal or a PC to configure a Cisco VG224 voice gateway. The configuration can be performed in several ways:

• Locally, with a direct connection through the console port
• Remotely, with a connection through the auxiliary port and a modem
• Through Telnet and TFTP

Configuration Methods

Automated Configuration

If your Cisco VG224 voice gateway was ordered with the Simple Network-Enabled Auto-Provision (SNAP) option, no onsite configuration is required. When the Cisco VG224 voice gateway is powered on and connected, the SNAP application downloads the applicable configuration files automatically.

Manual Configuration

When a Cisco VG224 voice gateway is first installed, use the procedure in Chapter 4, “Power-On Procedure,” for the initial configuration. This sets the basic communication parameters. After the Cisco VG224 voice gateway is operating and able to communicate, use the procedures in the Cisco VG224 Voice Gateway Software Configuration Guide to configure the specific services and functions, or to make changes to the existing configuration.

There are multiple methods for configuring a Cisco VG224 voice gateway:

• System configuration dialog
• Configuration mode—Cisco IOS software command-line interface (CLI)
• setup command facility—Remote configuration through a LAN
• SNMP-based application—CiscoView or HP OpenView
• HTTP-based configuration server—Provides access to the CLI from a web browser