



# Overview of the Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM Voice Gateways

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## Overview

The Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways are analog voice gateways for the service provider, commercial, and enterprise unified communication markets. These voice gateways provide voice connectivity to devices such as analog phones, fax machines, and modems.

The Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways provide support for 2-FXS (Cisco VG202 and Cisco VG202XM) and 4-FXS (Cisco VG204 and Cisco VG204XM) ports and parity with Cisco IOS fax/modem, security, and Session Initiation Protocol (SIP) features. These voice gateways can be configured with Cisco Unified Communications Manager Express (CUCME) or Cisco Unified Communications Manager (CUCM).

The Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways support the following interfaces:

- 10/100 Fast Ethernet connection
- RJ-11 Foreign Exchange Station (FXS) interface
- DC input

**Note**

The Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways are fixed-configuration voice gateways and do not support interface cards.

## Physical Description

- [Front Panel Description, page 1-2](#)
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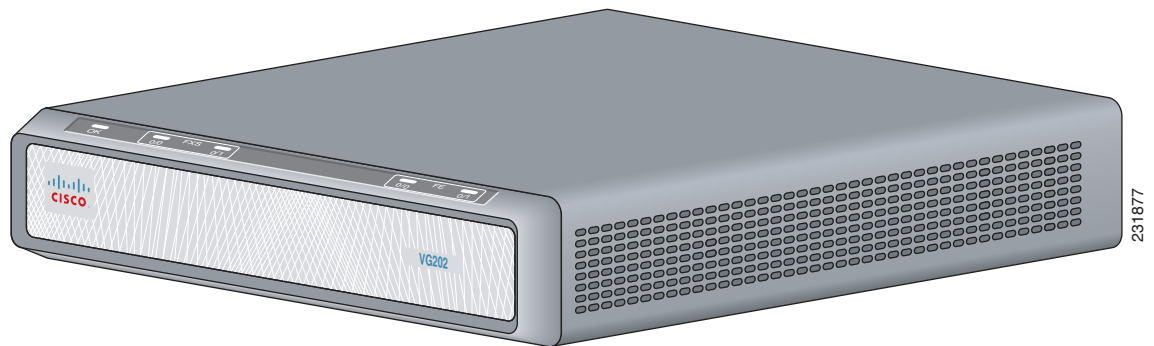
## Front Panel Description

[Figure 1-1](#) shows the chassis of the Cisco VG202 voice gateway as seen from the front panel.

**Note**

The Cisco VG202 and the Cisco VG202XM chassis are identical. The only difference is the model number on the front right. On the Cisco VG202 chassis, the faceplate label says VG202. On the Cisco VG202XM chassis, the faceplate label says VG202XM.

**Figure 1-1** Cisco VG202 Chassis Front Panel

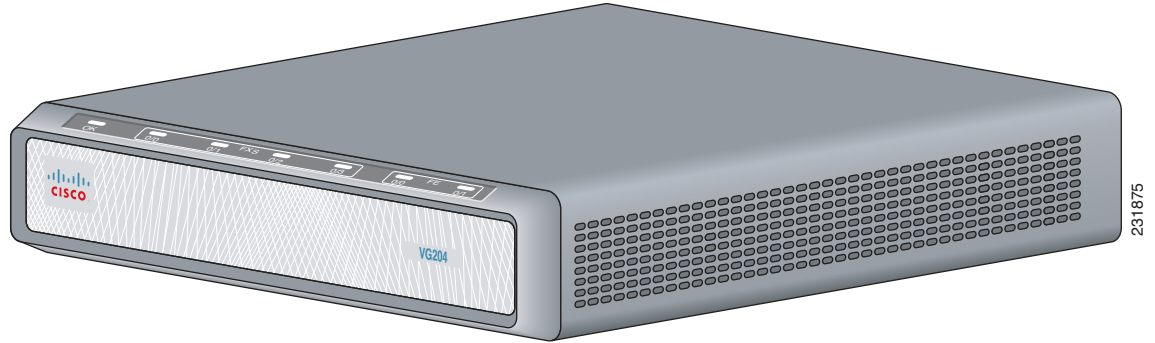


[Figure 1-2](#) shows the chassis of the Cisco VG204 voice gateway as seen from the front panel.

**Note**

The Cisco VG204 and the Cisco VG204XM chassis are identical. The only difference is the model number on the front right. On the Cisco VG204 chassis, the faceplate label says VG204. On the Cisco VG204XM chassis, the faceplate label says VG204XM.

Figure 1-2 Cisco VG204 Chassis Front Panel



## Back Panel Description

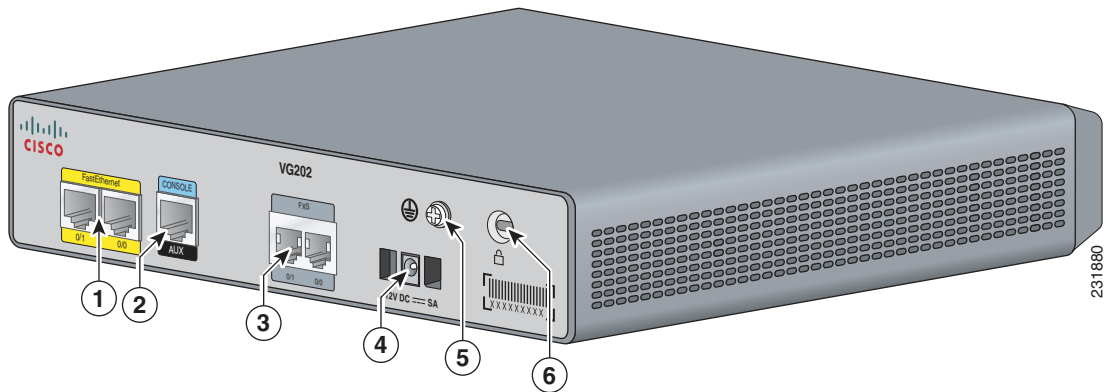
The Cisco VG202 voice gateway supports two RJ-11 ports and supports two FXS voice ports with two 10/100 Fast Ethernet ports. [Figure 1-3](#) shows the interfaces and ports on the Cisco VG202 voice gateway. All interface ports are on the back of the chassis.



### Note

The Cisco VG202 and the Cisco VG202XM chassis are identical. The only difference is the model number on the top center. On the Cisco VG202 chassis, the faceplate label says VG202. On the Cisco VG202XM chassis, the faceplate label says VG202XM.

Figure 1-3 Cisco VG202 Chassis Back Panel



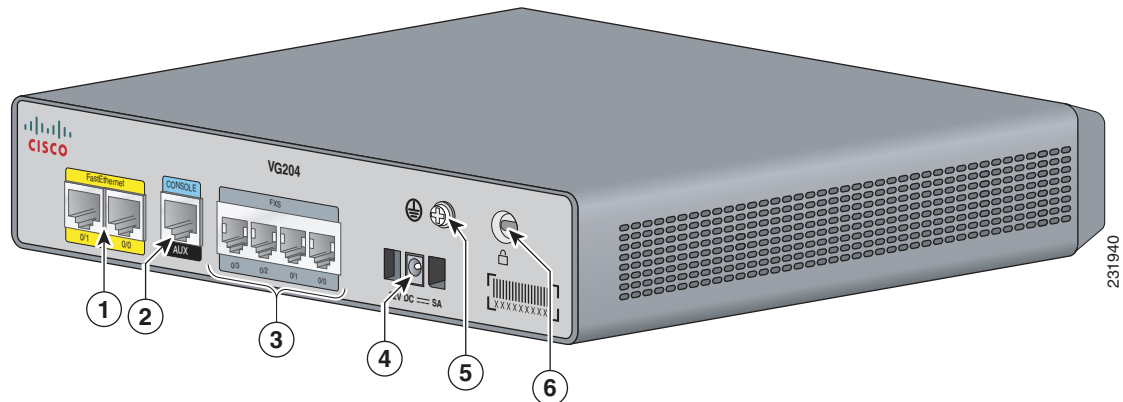
<b>1</b>	Fast Ethernet port 1, Fast Ethernet port 0	<b>2</b>	Serial port—console or auxiliary	<b>3</b>	FXS ports
<b>4</b>	Power connector	<b>5</b>	Chassis ground connection	<b>6</b>	Kensington security slot

The Cisco VG204/Cisco VG204XM voice gateway supports four RJ-11 ports and supports four FXS voice ports with two 10/100 Fast Ethernet ports. [Figure 1-4](#) shows the interfaces and ports on the Cisco VG204/Cisco VG204XM voice gateway. All interface ports are on the back of the chassis.

**Note**

The Cisco VG204 and the Cisco VG204XM chassis are identical. The only difference is the model number on the top center. On the Cisco VG204 chassis, the faceplate label says VG204. On the Cisco VG204XM chassis, the faceplate label says VG204XM.

**Figure 1-4 Cisco VG204 Chassis Back Panel**



<b>1</b>	Fast Ethernet port 1, Fast Ethernet port 0	<b>2</b>	Serial port—console or auxiliary	<b>3</b>	FXS ports
<b>4</b>	Power connector	<b>5</b>	Chassis ground connection	<b>6</b>	Kensington security slot

**Note**

- A Kensington security slot is located on the back panel of the chassis. To secure the chassis to a desktop or other surface, use the Kensington lockdown equipment.
- The Fast Ethernet built-in switch ports provide connections to 10/100BASE-T (10/100-Mbps) Fast Ethernet networks.

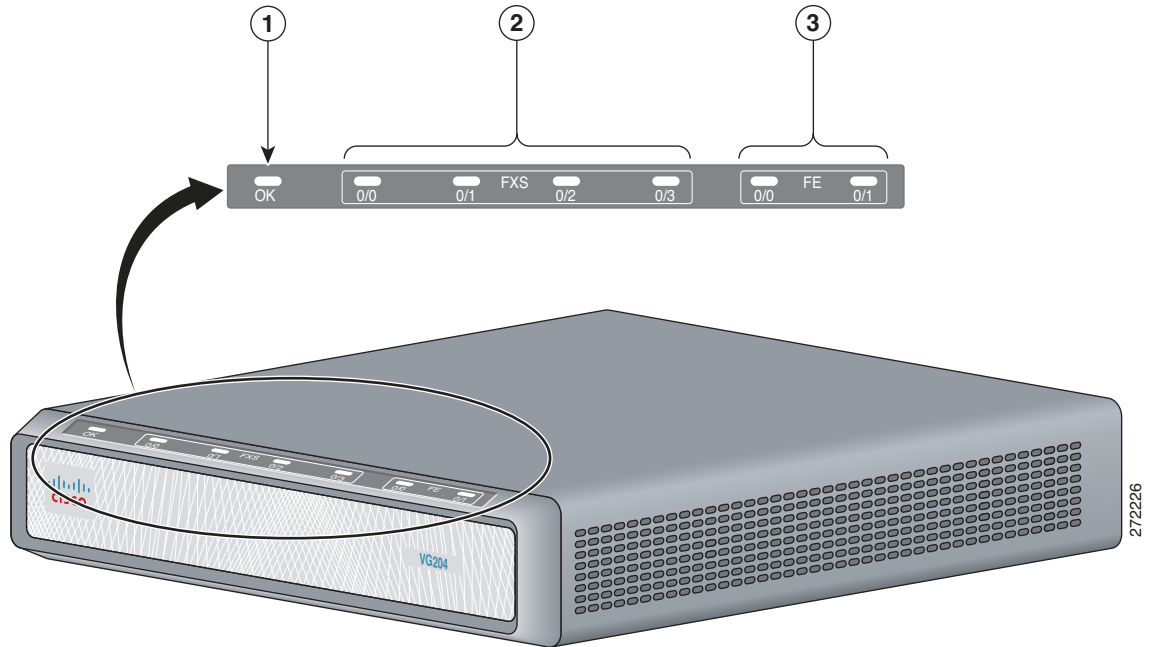
## LEDs

For the Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways, the LEDs are on the front of the chassis. [Figure 1-5](#) shows the LEDs on the Cisco VG204 chassis.

**Note**

- The Cisco VG204 and the Cisco VG204XM chassis are identical. The only difference is the model number on the right. On the Cisco VG204 chassis, the faceplate label says VG204. On the Cisco VG204XM chassis, the faceplate label says VG204XM.
- LEDs on the Cisco VG202 and Cisco VG202XM chassis are the same as the LEDs on the Cisco VG204 chassis, as shown in [Figure 1-5](#) except that the chassis for the Cisco VG202 and Cisco VG202XM voice gateways only have LEDs for two FXS ports.

Figure 1-5 Cisco VG204 Chassis LEDs



<b>1</b>	OK LED	<b>2</b>	FXS0, FXS1, FXS2, FXS3 LEDs
<b>3</b>	Fast Ethernet 0/0 and 0/1 LEDs		

Table 1-1 describes the status of each LED on the Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM chassis.

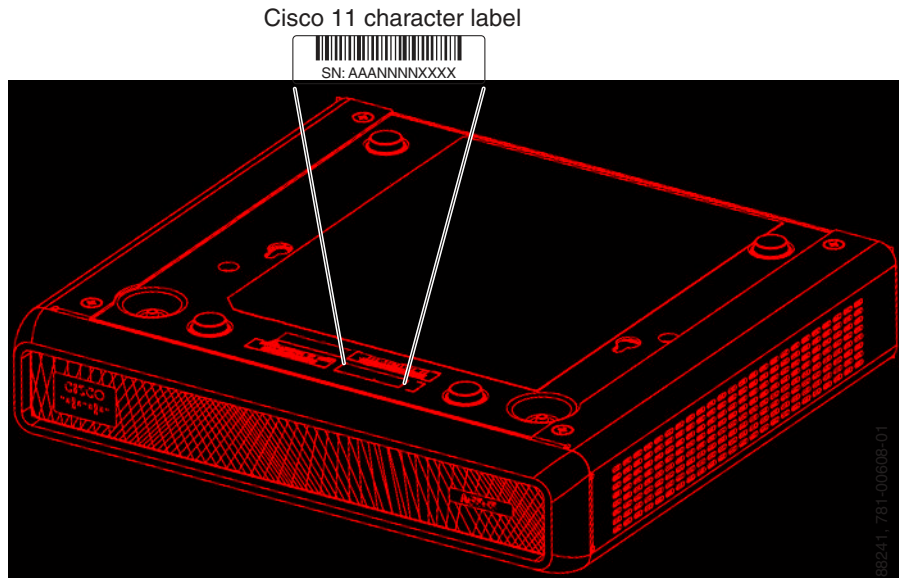
Table 1-1 Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM LEDs

No	LED/Color	Description
1	PWR OK—green	Off—no power Steady on—normal operation Slow blink—bootup phase or in ROMMON monitor mode
2	FXS ports 0 through 3—green	Off—On hook Steady On—Off hook
3	Fast Ethernet ports 0/1—green	Off—No link Steady on—link Blinking—TXD/RXD data

## Product Serial Number Location

The serial number label for the Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways is located on the bottom of the chassis, near the compliance label. The size of the serial number label is 0.25 x 1 inch (0.635 x 2.54 centimeters). It has the letters “SN:” followed by eleven characters. See Figure 1-6.

**Figure 1-6** Serial Number Location on Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM Voice Gateways



## Port Numbering Conventions

Port numbering conventions for the Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways are as follows:

- Fast Ethernet ports are numbered 0 and 1, from left to right.
- FXS voice port numbering begins at 0 and reaches a maximum of 2 or 4, depending on the number of voice ports, from left to right.

## Interfaces and Service Capabilities

Table 1-2 describes the physical ports and services that each port type supports, including the following:

- The Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways provide a connection to the terminal or PC for software configuration or troubleshooting. The console port may be configured as a virtual auxiliary port for dial backup and remote management.
- Two Fast Ethernet ports.
- Two FXS ports for the Cisco VG202 and Cisco VG202XM voice gateways and four FXS ports for the Cisco VG204 and Cisco VG204XM voice gateways.

**Table 1-2** Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM Voice Gateways Interfaces and Service Capabilities

Port	Interface Configurations	Interface To	Services Supported	Details
Console/AUX Port	EIA/TIA-232 asynchronous serial (DCE)	ASCII terminal or personal computer	Local administrative access	RJ-45 physical interface
Fast Ethernet Ports 0/0, 0/1	10/100BASE-T (802.3)	LAN	Data	RJ-45 physical interface
Ports 0 to 1, or 0 to 3	FXS (loop-start or ground-start)	Analog phone, fax, or modem	Analog voice/fax or modem	2-port FXS, on premises only 4-port FXS, on premises only

Table 1-3 lists the interface options that are available for the Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways.

**Table 1-3** Interface Options for Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM Voice Gateways

Voice Gateway	RJ-11 <sup>1</sup>	RJ-45 <sup>2</sup>	FE <sup>3</sup>	FXS <sup>4</sup>
Cisco VG202 and Cisco VG202XM	2	Yes	2	2
Cisco VG204 and Cisco VG204XM	4	Yes	2	4

1. Analog voice interface.
2. Analog voice interface.
3. 10/100BASE-T ports.
4. Foreign exchange station.

## Software Elements

- [Operating System, page 1-7](#)
- [Configuration Connections, page 1-7](#)

## Operating System

The operating system for the Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways is the Cisco IOS software that resides in flash memory.

## Configuration Connections

You can use an ASCII terminal or a PC to configure the Cisco VG202, Cisco VG202XM, Cisco VG204, or Cisco VG204XM voice gateway. The configuration can be performed in several ways:

- Locally, with a direct connection through the serial port

- Remotely, with a connection through the serial port
- Through Telnet and TFTP

## Memory

The Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways contain flash memory and main memory:

- The onboard flash memory contains the 128 MB Cisco IOS software image.
- The boot flash memory contains the ROMMON boot code.
- The anti-counterfeiting solution contains the cookie configuration.

For the Cisco VG202 and Cisco VG204 voice gateways, the onboard CPU memory is 128 MB. For the Cisco VG202XM and Cisco VG204XM voice gateways, the onboard CPU memory is 256 MB.

## Hardware and Electrical Specifications

Table 1-4 shows the hardware and electrical specifications for the Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM voice gateways.

**Table 1-4 Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM Voice Gateway Technical Specifications**

Characteristic	Value
Dimensions	1.75H x 9.75W x 8.0D in. (44.45 x 247.65 x 203.2 mm)
Weight	3.422 lb (1.55 kg) max
Input power	30 W
Operating temperature	32 to 104 degrees F (0 to 40 degrees C)
Operating humidity	5 to 95 percent, noncondensing
Noise level	n/a
Agency approvals	See the <i>Regulatory Compliance and Safety Information for the Cisco VG202, Cisco VG202XM, Cisco VG204, and Cisco VG204XM Voice Gateways</i> document.

## Chassis Grounding

For information on grounding the chassis, see the “Installing the Ground Connection” section on page 3-7.



### Warning

**There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.** Statement 1015



**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

**Warning**

**No user-serviceable parts inside. Do not open.** Statement 1073

**Warning**

**This equipment needs to be grounded. Use a green and yellow 12 to 14 AWG ground wire to connect the host to earth ground during normal use.** Statement 242

**Warning**

**The importance of proper grounding cannot be overemphasized. It will minimize the potential for damage to your system and maximize safety at the system site. We recommend you consult a licensed electrician or your local electric utility company if you have any questions.** Statement 269

**Warning**

**A ground wire must always be a single piece of wire. Never splice two wires together for a ground. Corrosion and weathering can lead to a poor connection at the splice, making the ground ineffective and dangerous.** Statement 270

**Warning**

**Use copper conductors only.** Statement 1025

**Warning**

**Installation of the equipment must comply with local and national electrical codes.** Statement 1074

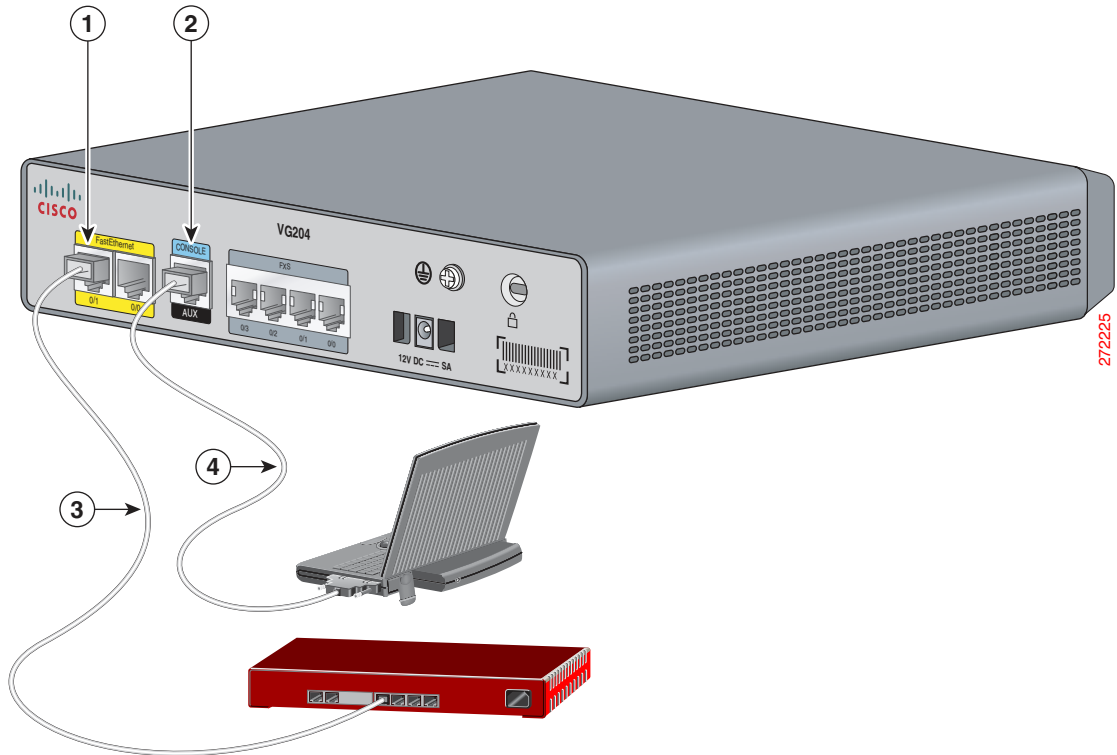
**Warning**

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

## Voice Gateway Deployment

Figure 1-7 shows a typical deployment scenario for a Cisco VG202, Cisco VG202XM, Cisco VG204, or Cisco VG204XM voice gateway.

**Figure 1-7** Typical Deployment of a Cisco VG202, Cisco VG202XM, Cisco VG204, or Cisco VG204XM Voice Gateway



<b>1</b>	Fast Ethernet port	<b>2</b>	Console port
<b>3</b>	Fast Ethernet straight-through cable connected to an Ethernet hub	<b>4</b>	RJ-45-to-DB9 console cable connected to a PC