



Cisco TelePresence ISDN GW 3241 Getting Started Guide

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General information

About the Cisco TelePresence ISDN GW 3241

The Cisco TelePresence ISDN GW 3241 (ISDN GW 3241) is a high performance video gateway which enables ISDN network connectivity for Cisco TelePresence IP-based video infrastructure products as well as IP-based endpoints.

Package contents

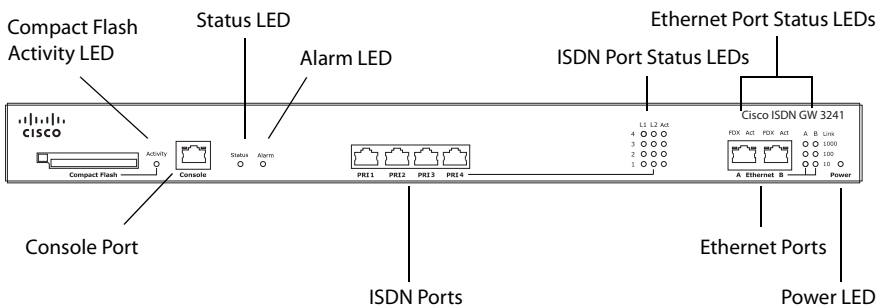
The following items are included with the ISDN GW 3241. Verify that you have these items before installing the device:

- ▶ Cisco TelePresence ISDN GW 3241
- ▶ Console cable (blue)
- ▶ Power cable
- ▶ Rack mounting kit

Port and LED location

Figure 1 shows the position of ports and LEDs on the ISDN GW 3241.

Figure 1: ISDN GW 3241 front panel



LED behavior

Table 1 describes the behavior of the LEDs.

Table 1: ISDN GW 3241 LED behavior

LED	Color	Indicates
Compact Flash Activity	Flashing green	One of: <ul style="list-style-type: none"> ▶ The device is booting ▶ A configuration change has been made ▶ The configuration is being transferred by FTP
Status	Green	The device is operating normally
Alarm	Red	The device is booting or has developed a fault. For example: <ul style="list-style-type: none"> ▶ Temperature outside normal limits ▶ Fan failure ▶ Battery failure of the internal clock See the web interface for more information about the problem (go to Status > Health)

ISDN Port Status, for each ISDN port:

L1	Off	There is no connection on this port, or the device is not receiving framing (also known as Red Alarm)
	Flashing green	The device is receiving framing, but the far end is not receiving framing (also known as Yellow Alarm)
	Green	The port is connected to the far end
L2	Green	Layer 2 connectivity has been achieved with the ISDN network from this port. This means that D-channel signaling has been established with the network
Act	Green	At least one active call is using this port. Data is currently being received on this port

Table 1: ISDN GW 3241 LED behavior (continued)

LED	Color	Indicates
Ethernet Port Status, for each Ethernet port:		
FDX	Green	The link has been negotiated as a full-duplex link
Act	Green	Packets are being transmitted on this port
Link	Green	The speed of the link from this port, which is either 10, 100, or 1000 Mbps
Power	Blue	The device is receiving power

Connecting the ISDN GW 3241

Before you start



IMPORTANT: Before installing the ISDN GW 3241, you must read the safety information at <http://www.cisco.com/go/telepresence/safety>

Your ISDN connection



To reduce the risk of fire, use only 26 AWG or larger telecommunication line cord.

Outside North America

Check with your network provider to ensure that your incoming ISDN PRI line is terminated in an NTU/CSU (Network Termination Unit/ Channel Service Unit). If it is not, then seek their advice regarding the provisioning of such a device. Do not connect the ISDN GW 3241 directly to an external ISDN line.

Within North America


If your network provider has not terminated all of your incoming ISDN PRI lines with an NTU/CSU, we recommend that you install a suitably approved CSU to protect the ISDN GW 3241 from damage by surges on your ISDN PRI lines.



If you do not install a CSU between the incoming ISDN PRI lines and the ISDN GW 3241, then the ISDN GW 3241 must be installed in a restricted location as defined by EN, IEC and UL60950. This is defined as an area intended for qualified or trained personal only with access controlled by a locking mechanism such as a key.



If you do not install a CSU between the incoming ISDN PRI lines and the ISDN GW 3241, then you are required to connect the ISDN GW 3241 to a protective earth as follows:

Connect a protective earth cable (not supplied) to the terminals on the rear of the chassis marked with the earth symbol .

Connect the other end of this cable to a true earth.



The earth terminal accepts two M4 screws on a 16mm (5/8") spacing for use with a two hole copper lug (such as the Panduit LCD10-10A-L).

Step one: Connect power

Connect the power connector on the rear of the device to the power supply using the supplied power cable. (There is no On/Off switch.)

Step two: Connect to Ethernet Port A

Connect an Ethernet cable from Ethernet Port A to an Ethernet switch (rather than a hub, to minimize interference from other devices on the network). The Ethernet port is a 10/100/1000 Mbps auto-sensing connection.



Only connect to Ethernet Port A, as all initial configuration must be done on this port. Do not connect anything to Ethernet Port B.

Step three: Connect to the ISDN ports

The ISDN GW 3241 uses a standard RJ48C ISDN interface for each PRI port. Use a single straight-through STP patch cable to connect each PRI port on the ISDN GW 3241 to your ISDN connection.

For information about the behavior of the ISDN port LEDs, see Table 1, ISDN GW 3241 LED behavior, on page 4.



For D-channel signaling to be established, the ISDN GW 3241 must have found and synchronized with the ISDN network clock. In some installations, you may have to explicitly request your ISDN provider to enable the network clock before the link will be established.

Initial configuration

Step one: Connect to the console port

- 1 Ensure power is connected to the ISDN GW 3241 and the Status LED is green.
- 2 Connect the console port of the ISDN GW 3241 to the serial port of your PC using the blue RJ45 to DB9 console cable supplied.
- 3 Use a serial terminal program, such as Secure CRT or HyperTerminal, to connect to the ISDN GW 3241. Set your terminal software to the following settings:
 - Baud rate: 38400
 - Data bits: 8
 - Parity: none
 - Stop bits: 1
 - Flow control: none
- 4 Press Enter and the following command prompt appears on the terminal:
ISDN-GW: >

Step two: Configure Ethernet Port A settings

The default setting for the ISDN GW 3241 Ethernet ports is auto-sensing mode. If the switch ports to which you connect the ISDN GW 3241 are not also set to auto-sensing mode, then you need to configure the ISDN GW 3241 Ethernet ports to use the same speed and duplex mode.



Only connect to Ethernet Port A, as all initial configuration must be done on this port. Do not connect anything to Ethernet Port B.



Both ends of the Ethernet connection must be configured in the same way. For example, either configure both ends of the link to be auto-sensing or configure both ends to operate at the same speed and duplex.



To establish a 1000 Mbps connection, both ends of the link must be configured as auto-sensing.

- 1 To configure Ethernet Port A, enter the following for auto-sensing mode:
ethertype A auto
 or to configure a speed and duplex, use the following command:
ethertype A <10|100> <half|full>
- 2 To display the current configuration and status of the Ethernet ports, enter:
status

For example, to configure a full-duplex 100 Mbps link, enter:

```
ethertype A 100 full
```



To establish a 1000 Mbps connection, both ends of the link must be configured as auto-sensing.

Step three: Assign an IP address to the ISDN GW 3241 (optional)

The default setting for the ISDN GW 3241 is to use DHCP to obtain an IP address. You can assign a static IP address if you prefer or if a DHCP server is not available. If you want the IP address to be assigned by your DHCP server, omit this step.



From Version 2.1, ISDN GW 3241 software supports IPv4 and IPv6 addressing. By default, Port A is configured to assign an IPv4 address using DHCP and IPv6 on Port A is disabled.

From Version 2.1:

- ▶ To assign a static IPv4 address to Port A, use the following command:
static A <IP address> <netmask> [<default gateway address>]
 For example, to assign an address of 192.168.1.2 where the default gateway is at 192.168.1.1, enter:
static A 192.168.1.2 255.255.255.0 192.168.1.1
- ▶ To set DNS manually, use this command:
dns <DNS server address> [<secondary DNS server>] [<domain>]
- ▶ To return to using DHCP after setting a static IPv4 address, use the following command:
dhcp -4 A



For information on assigning a static IPv6 address, type **help static**.
For information on assigning an automatic IPv6 address, type **help dhcp** or see the online help.

Step four: Discover the IP address of the ISDN GW 3241

- 1 To display the current status of the IP address, enter: **status**
If DHCP is enabled on your network and you permit the ISDN GW 3241 to acquire its address using DHCP, the IP address acquired by Ethernet Port A is shown. If you assigned a static IP address, the static address is shown.
- 2 Make a note of the IP address, which is needed to access the web interface of the ISDN GW 3241 in the next step.

Configuring the ISDN GW 3241

Step one: Log in to the web interface

- 1 In a web browser, navigate to the IP address of the ISDN GW 3241.
- 2 Click **Log in**.
- 3 Type **admin** in the username field and leave the password field blank.
- 4 Click **OK**.

The **Login information page** is displayed.



We recommend that you change the admin account to use a password as soon as possible. Click **Change password** on the **Login information** page, or go to **Users** and click the **admin** user ID.

Step two: Set up the ISDN interface

To define the ISDN interface type for the ISDN GW 3241, go to **Settings > ISDN** in the ISDN GW 3241 web interface. For assistance click the help button for the page. Leave the advanced settings unchanged unless you have specific configuration requirements.

Step three: Configure the ISDN ports

To configure the ISDN ports on the ISDN GW 3241, go to **Settings > ISDN ports** and specify the appropriate values for each port. For assistance click the help button for the page.

Step four: Configure call control

To define a SIP proxy for call control/address resolution, go to **Settings > SIP**. If you use an H.323 gatekeeper, go to **Settings > H.323** instead. For assistance click the help button for the page.

Step five: Configure the dial plan

By default the ISDN GW 3241 rejects all calls. To enable calling with the ISDN GW 3241 you must configure a dial plan with at least one dial plan rule for each direction in which you want calls to be accepted (IP to ISDN and/or ISDN to IP).

Although the ISDN GW 3241 supports advanced dial plan capabilities, we recommend that you define just a simple dial plan to get started. The online help topic “Getting started with the gateway” explains how to create a suitable basic dial plan.

Information about setting up and managing more complex dial plans, including advanced settings and examples, is available in the “Dial plan” section of the online help.

Troubleshooting and technical support information

Refer to this section if you are experiencing difficulties with the ISDN GW 3241.

Calls fail to complete

If outgoing calls fail to complete, check that you have configured the ISDN GW 3241 and all other equipment correctly, paying particular attention to the number you are trying to call. Remember that endpoints may be busy when you call them.

Using the event log to help solve a problem

You can use the event log to produce debugging information to assist technical support in solving any problems. Event logging capture filter topics are set by default to **Errors, warnings and information**. Do not change the capture filter topic level without the guidance of technical support.

Getting more help

If you experience any problems when configuring or using the ISDN GW 3241, consult the online help available from the user interface.

If you cannot find the answer you need, check the web site at <http://www.cisco.com/cisco/web/support/index.html> where you will be able to:

- ▶ Make sure that you are running the most up-to-date software.
- ▶ Get help from the Cisco Technical Support team.

Make sure you have the following information ready before raising a case:

- ▶ Identifying information for your product, such as model number, firmware version, and software version (where applicable).
- ▶ Your contact email address or telephone number.
- ▶ A full description of the problem.

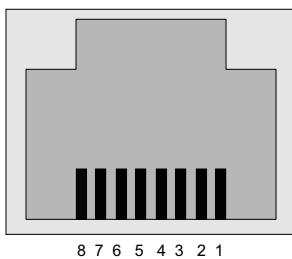
Pin outs

The pin numbering for the PRI ports on the ISDN GW 3241 is shown in Figure 2. The pin assignments for the PRI ports are shown in Table 2:

Table 2: Pin assignments for PRI ports

Pin number	Signal
1	Receive -
2	Receive +
3	Not connected
4	Transmit -
5	Transmit +
6	Not connected
7	Not connected
8	Not connected

Figure 2: Pin numbering for PRI ports



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