



Cisco TelePresence Serial GW MSE 8330 Getting started

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General information

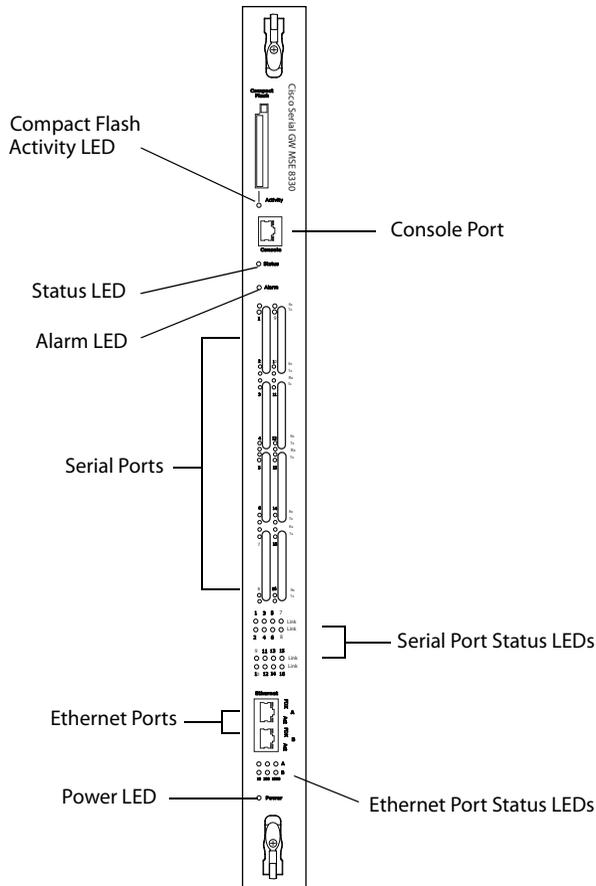
About the Cisco TelePresence Serial GW MSE 8330

The Cisco TelePresence Serial GW MSE 8330 (Serial GW MSE 8330) is a high-performance video gateway that provides synchronous serial network connectivity for standards-based IP video infrastructure products as well as IP-based endpoints.

Port and LED location

Figure 1 shows the position of ports and LEDs on the serial gateway.

Figure 1: Serial GW MSE 8330 front panel



LED behavior

Table 1: Serial GW MSE 8330 LED behavior

LED	Display	Indicates
Compact Flash Activity	Flashing green	One of: <ul style="list-style-type: none"> ▶ serial gateway is booting ▶ configuration change has been made ▶ configuration being transferred by FTP ▶ reading/writing to CDRs ▶ audit logs activity
Status	Green	Serial gateway is operating normally
Alarm	Red	Serial gateway is booting or has developed a fault, for example: <ul style="list-style-type: none"> ▶ temperature is outside normal limits ▶ battery failure of the internal clock Refer to the web interface for more information about the problem (go to Status > Health)

Serial Port Status, for each Serial port:

Rx	Off	No timing (clock signal) has been received on the port or invalid timing has been received
	On	Valid timing is being received on the port
	Flashing	Port is locked on in both directions and ready for video data transfer
Tx	Off	Port is not transmitting data
	On	Port is transmitting framing data
	Flashing	Port is locked on in both directions and ready for video data transfer
Link	Off	No active call on this port
	Flashing	Call setup (handshaking or dialing) in progress
	On	Call setup is complete and a connection established

Table 1: Serial GW MSE 8330 LED behavior (continued)

LED	Display	Indicates
Ethernet Port Status, for each Ethernet port:		
FDX	Green	Link has been negotiated as a full-duplex link
Act	Green	Packets are being transmitted on this port
Link	Green	Speed of the link from this port (10, 100, or 1000 Mbps)
Power	Blue	Serial gateway is receiving power from the Cisco TelePresence MSE 8000 (MSE 8000) chassis

Installing the Serial GW MSE 8330



IMPORTANT: Before installing the Serial GW MSE 8330 into the MSE 8000, and connecting the power supply, you must read the safety information at <http://www.cisco.com/go/telepresence/safety>.



Although blades are hot-swappable parts, you must only remove one blade at any time. Remove the power from the MSE 8000, if you need to remove more than one blade at a time.



Before hot-swapping a blade, shut down the blade using the web interface. Do not shut down a blade during a software upgrade or if the blade is processing.

For information about powering the MSE 8000, see the *Cisco TelePresence MSE 8000 Getting Started* guide on http://www.cisco.com/en/US/products/ps11340/tsd_products_support_series_home.html.

Step one: Install the serial gateway into the MSE 8000 chassis



You must install either a blade or a blanking blade in each of the ten positions in the chassis.



The Cisco TelePresence Supervisor MSE 8050 (Supervisor) blade must be installed into slot 1 of the MSE 8000 chassis.

- 1 Remove the blade or blanking blade from the slot into which you are going to install the serial gateway:
 - i Using a No.1 Phillips screwdriver, loosen the screws in the retaining latches with an anti-clockwise quarter turn.
 - ii Open both retaining latches on the front of the blade or blanking blade. When open, a retaining latch is at a 90° angle perpendicular to the front of the blade.
 - iii Slide out the blade or blanking blade.
- 2 Open both retaining latches on the front of the serial gateway. When open, a retaining latch is at a 90° angle perpendicular to the front of the blade.
- 3 Slide the serial gateway into the blade slot (as shown in Figure 2) until it stops.

- 4 Simultaneously close both retaining latches on the blade (thereby engaging the connectors at the rear of the blade) to secure it in the chassis as shown in Figure 3.
- 5 Using a No.1 Phillips screwdriver, tighten the screws in the retaining latches with a clockwise quarter turn.

Figure 2: Inserting a blade into the chassis

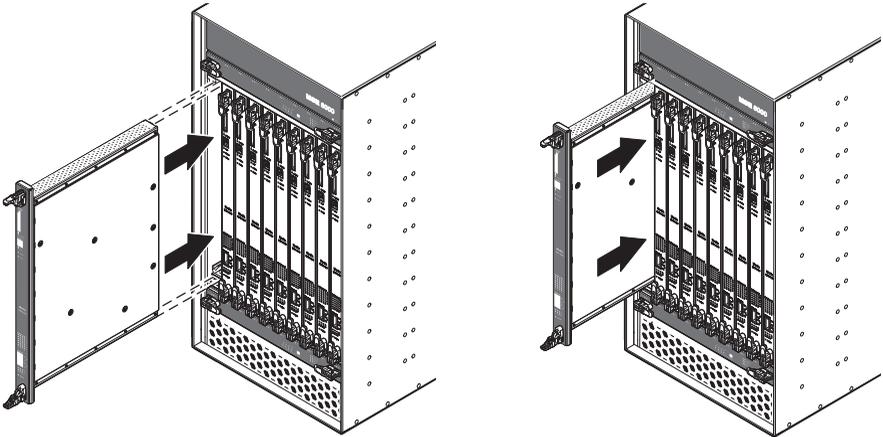
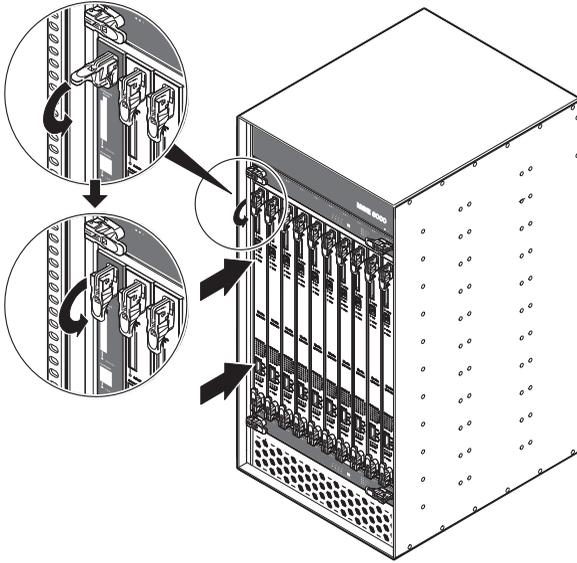


Figure 3: Closing the retaining latches on the front of a blade



Connecting the Serial GW MSE 8330

Cabling and connector information



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

The serial gateway requires a network adaptor cable (or “Y cable”) that provides connectivity to V.35, RS-530 and RS-449 networks with RS-366 dialing. The Y cable has a single 68-pin connector on the gateway side (DTE) and dual TANDBERG DB-26 connectors on the network switch side (DCE). (TANDBERG is now part of Cisco.)

For ordering purposes, the Y cable part name is *Cisco TelePresence Serial GW Y Cable to 2 DB26 connectors* and the part number is CTI-GWS-CAB-2DB26.

The Y cable is transformed into a V.35, RS-530 or RS-449 interface by attaching the appropriate TANDBERG standard cable for the required protocol type. For example, if you attach a V.35-specified cable then that port is now transformed into a standard 34-pin Winchester interface.



Any additional cables attached to the Y cable should be at minimum shielded cable with metal-backed connectors in order not to compromise EMC performance.

The Y cable supports two logical interfaces through its dual connectors. It is possible to attach a different protocol type to each connector.

For detailed pin layouts for each cable type, refer to Pin outs on page 16.

Step one: 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 two: Connect the Y cable (network adaptor cable)

- 1 Connect the 68-pin connector into an available port on the serial gateway.
- 2 Connect the 26-pin dual connectors to the target network switching equipment. The cabling for the serial data interface and the RS-366 dialing interface is customer-specific and therefore beyond the scope of this guide.

Initial configuration

Step one: Configure Ethernet Port A settings

By default the Ethernet ports on the serial gateway are set to auto-sensing mode. If the switch ports to which you connect the serial gateway are not also set to auto-sensing mode, then you need to configure the 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.

To configure Ethernet Port A, log in to the Supervisor's web interface and go to **Hardware > Blades**. For more information about configuring the port, refer to the online help accessible from the Supervisor's web interface.

Step two: Assign an IP address to the serial gateway

You can use the Supervisor's web interface to configure the IP addresses of all blades installed in the MSE 8000. Note that all blades are supplied with DHCP enabled. You can either keep this setting or assign static IP addresses to a blade from the Supervisor's web interface. To view or configure the IP address of the serial gateway, log in to the Supervisor and go to **Hardware > Blades**. To access the web interface of the serial gateway, go to **Hardware > Blades** and click the IP address of that blade.

Configuring the Serial GW MSE 8330

Step one: Log in to the serial gateway

All administration of the serial gateway is performed via the web interface.

To log in to the serial gateway:

- 1 Log in to the Supervisor's web interface.
- 2 Go to **Hardware > Blades** and click the IP address of the serial gateway.
- 3 Click **Log in** and enter the user name **admin** with no password. The **Login information page** is displayed.



We recommend that you change the admin account to use a password as soon as possible. To do that, click **Change password** on the **Login information** area of the **Home** page or go to **Users**, click the **admin** link, and provide the required user information.

Step two: Allocate port licences

Port licenses must be allocated to the Serial GW from the Supervisor's **Port licenses** page. Refer to the online help for assistance.

Step three: Configure the serial ports

- 1 In the web interface, go to **Settings > Serial ports**.
- 2 For **Port type**, select the appropriate serial network protocol.
- 3 For **Cable length**, there is no need to change this setting if you are using standard cables. If you are using non-standard cables then select the appropriate measurement.
- 4 We recommend that you leave the remaining settings to their default values.
- 5 Click **Apply changes** to save the configuration changes.
- 6 Restart the serial gateway.

Step four: Configure an H.323 gatekeeper

If you have H.323 endpoints, using an H.323 gatekeeper can make it easier for callers to make their call. You can configure the serial gateway to use an external gatekeeper or its own built-in gatekeeper.

To configure an H.323 gatekeeper, go to **Settings > H.323**. For more information refer to the online help.

Step five: Configure the dial plan

The default behavior of the serial gateway is to reject all calls. You must configure a dial plan to allow permitted calls to be placed.

Below are some simple configurations for dial plan rules. Refer to the online help for more information on dial plan rule syntax.

IP to serial dial plan setup

This example allows IP endpoints to dial (via a gatekeeper) a destination number over the serial network. It assumes that the serial gateway is registered to the gatekeeper with dial plan prefix 888.

- 1 In the web interface, go to **Dial plan > IP to Serial** and click **Add rule**.
- 2 For **Condition**, select **Called number matches** and enter the appropriate match for incoming calls to serial endpoints. For example, 888(D*).
- 3 For **Action**, select **Call this number** and enter \$1.
- 4 Leave the other values unchanged.
Click **Add rule** to add the rule to the dial plan.

Serial to IP dial plan setup

Option 1. This example assumes that the serial gateway is configured with at least one serial port and that you require access to a single, defined endpoint on the IP side.

- 1 Go to **Dial plan > Serial to IP**, and click **Add rule**.
- 2 For **Condition match calls incoming on port**, select **Any**.
- 3 For **Action**, select **Call this number** and enter the destination IP endpoint address in any valid format (IP address, hostname, H.323 alias, E.164 number or H.323 URI).
- 4 Leave the other values unchanged.
Click **Add rule** to add the rule to the dial plan.

Option 2. This example assumes that the serial gateway is configured with at least one serial port and that you require access to multiple endpoints on the IP side. When you initiate a call from the serial endpoint you will be greeted by the serial gateway auto attendant.

- 1 Go to **Dial plan > Serial to IP**, and click **Add rule**.
- 2 For **Condition match calls incoming on port**, select **Any**.
- 3 For **Action**, select **Enter the auto attendant**.
- 4 Leave the other values unchanged.
Click **Add rule** to add the rule to the dial plan.

There are a number of ways in which you can use the dial plan. For example, you can use it to enable the serial gateway to join incoming calls to the correct conference on an MCU. Dial plan configurations and rule syntax are explained in greater detail in the online help.

Troubleshooting and technical support information

Refer to this section if you are experiencing difficulties with the serial gateway.

Calls fail to complete

If outgoing calls fail to complete, check that you have configured the serial gateway 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.

Checking for updates and getting help

If you experience any problems when configuring or using the product, consult the online help available from the user interface. The online help explains how the individual features and settings work.

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,
- ▶ find further relevant documentation, for example product user guides, printable versions of the online help, reference guides, and articles that cover many frequently asked questions,
- ▶ get help from the Cisco Technical Support team. Make sure you have the following information ready before raising a case:
 - the serial number and product model number of the unit (if applicable)
 - the software build number which can be found on the product user interface (if applicable)
 - your contact email address or telephone number
 - a full description of the problem

Pin outs



No RTS signal support on DCE side

The DB-26 connectors on the network switch side (DCE) of the Y cable do not support the RTS (request to send) signal. We strongly advise that your DCE equipment is configured to operate without RTS. If this is not possible, contact Cisco customer support for assistance and they will advise you on cable re-pinning options.

On some encryption devices the RTS signal is known as PTRS (plain text ready to send) and may need to be configured as “Forced On”.

V.35 pin out



Cables should be at minimum shielded cable with metal backed connectors in order not to compromise EMC performance.

Table 2: Pin assignments for V.35 interfaces

DTE	→	DCE	
Pin	Direction	Signal	Description
1	↔	FGND	Frame ground/shield
11	→	TD-A	Send data
12	→	TD-B	Send data
13	←	RD-A	Receive data
14	←	RD-B	Receive data
15	←	RC-A	Receive clock
16	←	RC-B	Receive clock
17	←	TC-A	Send clock
18	←	TC-B	Send clock

Table 2: Pin assignments for V.35 interfaces

DTE	→	DCE	
Pin	Direction	Signal	Description
19	↔	SG	Signal ground
22	←	CD	Carrier detect
23	←	SG	Signal ground
24	←	RI	Ring indicator
25	→	LOS	Synchronization signal (some encryption devices)
26	→	DTR	DTE ready

RS-530 pin out



Cables should be at minimum shielded cable with metal backed connectors in order not to compromise EMC performance.

Table 3: Pin assignments for RS-530 interfaces

DTE	→	DCE	
Pin	Direction	Signal	Description
1	↔	FGND	Frame ground/shield
11	→	TD-A	Send data
12	→	TD-B	Send data
13	←	RD-A	Receive data
14	←	RD-B	Receive data
15	←	RC-A	Receive clock
16	←	RC-B	Receive clock
17	←	TC-A	Send clock
18	←	TC-B	Send clock
19	↔	SG	Signal ground
20	→	DTR-A	DTE ready
21	→	DTR-B	DTE ready
22	←	CD-A	Carrier detect
23	←	CD-B	Carrier detect
25	→	LOS	Synchronization signal (some encryption devices)

RS-449 pin out



Cables should be at minimum shielded cable with metal backed connectors in order not to compromise EMC performance.

Table 4: Pin assignments for RS-449 interfaces

DTE	→	DCE	
Pin	Direction	Signal	Description
1	↔	FGND	Frame ground/shield
11	→	TD-A	Send data
12	→	TD-B	Send data
13	←	RD-A	Receive data
14	←	RD-B	Receive data
15	←	RC-A	Receive clock
16	←	RC-B	Receive clock
17	←	TC-A	Send clock
18	←	TC-B	Send clock
19	↔	SG	Signal ground
20	→	DTR-A	DTE ready
21	→	DTR-B	DTE ready
22	←	CD-A	Carrier detect
23	←	CD-B	Carrier detect
24	←	IC	Incoming call
25	→	LOS	Synchronization signal (some encryption devices)

RS-366 pin out



Cables should be at minimum shielded cable with metal backed connectors in order not to compromise EMC performance.

Table 5: Pin assignments for RS-366 interfaces

DTE	→	DCE	
Pin	Direction	Signal	Description
1	↔	FGND	Frame ground/shield
2	→	DPR	Digit present
3	←	ACR	Abandon call and retry
4	→	CRQ	Call request
5	←	PND	Present next digit
6	←	DLO	Data line occupied
7	→	NB1	Digit bit 1
8	→	NB2	Digit bit 2
9	→	NB4	Digit bit 4
10	→	NB8	Digit bit 8

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