



16 x D1 and 8 x D1 Video Capture Cards

The 16 x D1 and 8 x D1 video capture cards capture and compress standard definition analog video streams, and are available in the following configurations:

- CIVS-ENC-8P—8 channel video capture card
- CIVS-ENC-16P—16 channel video capture card

Each card can capture full-resolution standard video on all available channels at full frames-per-second.

This document includes the following topics:

- [Before You Begin, page E-1](#)
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- [Features, page E-4](#)
- [Encoding Parameter Limitations, page E-4](#)
- [Motion Detection with Low Quality Cameras, page E-5](#)
- [Video Card Connector and LED, page E-6](#)
- [Understanding Video Channel Numbers, page E-6](#)
- [Connecting the Video Capture Card to the BNC Breakout Panel, page E-10](#)
- [Part Numbers, page E-12](#)
- [Specifications, page E-13](#)
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Before You Begin

Before connecting or configuring the 16 x D1 and 8 x D1 video capture cards, review the following guidelines:

- The video capture cards are available as an option for the Multiservices Platform Series Series 1-RU (CPS-MSP-1RU-K9) and 2-RU (CPS-MSP-2RU-K9) models only.
- The Multi Services Platform Series Device that contains the video capture card must be installed and located in a designated restricted access location.

- If the coaxial cable that is connected to a camera is located on the building exterior, the coaxial cable shield must be connected to earth (grounded) at the entrance to the building. The shield connection should be done in accordance with applicable national electrical installation codes. In the United States, this shield connection is required by Section 820.93 of the National Electrical Code, ANSI/NFPA 70. All grounding points should be of same voltage potential.
- To meet the European alarm specification EN50130-4, an uninterruptible power supply (UPS) is required for stabilizing power interruptions. APC model number SUA2200I or equivalent must be used with the Multiservices Platform Series that contains the video capture card.
- The Multiservices Platform Series that contains the video capture card must be installed by a service person. All equipment must be connected to a socket outlet with a protective earthing connection.
- Analog cameras with pan-tilt-zoom (PTZ) controls require a serial connection. See the [“Connecting and Configuring Analog PTZ Cameras”](#) section on page E-14 for more information.

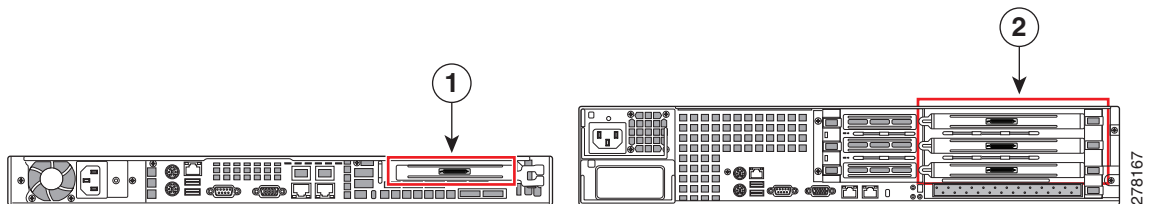
Overview

The 16 x D1 and 8 x D1 video capture cards are factory installed in the following Multiservices Platform Series:

- 1-RU Multiservices Platform Series (CPS-MSP-1RU-K9)—Supports a single 8 or 16 channel encoder card.
- 2-RU Multiservices Platform Series (CPS-MSP-2RU-K9)—Supports 8 or 16 channel encoder cards installed in three slots. The supported card configurations are for 8, 16, 24, 32, 40, or 48 channels.

Figure E-1 shows the rear of the Multiservices Platform Series with the video capture card installed. The circled area shows the location of the cards and I/O connectors.

Figure E-1 1-RU and 2-RU Multi Services Platform Series Devices with Optional Video Capture Card Installed



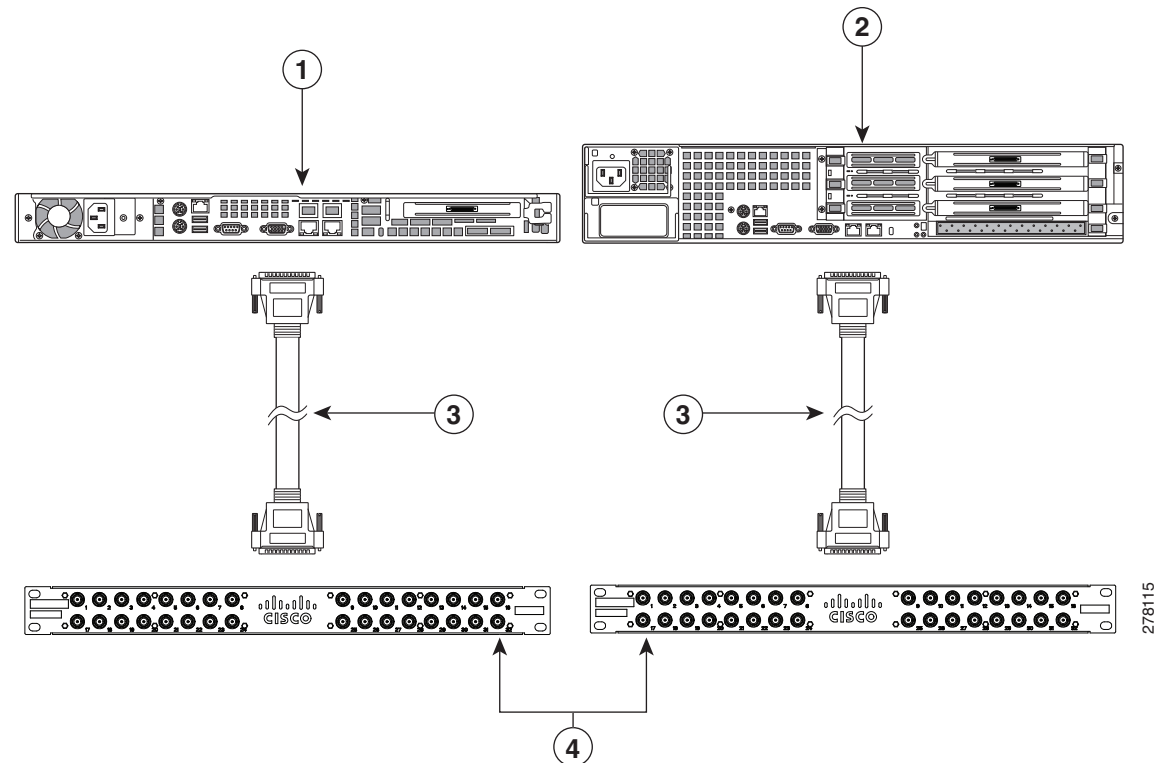
1	1-RU Multiservices Platform Series (CPS-MSP-1RU-K9)	2	2-RU Multiservices Platform Series (CPS-MSP-2RU-K9)
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 **Note**

- The 16 x D1 and 8 x D1 video capture cards are preinstalled in Multiservices Platform Series and are not available as an upgrade to existing installations. Field replaceable units (FRUs) are available for the same card, but you cannot upgrade an existing card to a different type. Replacement cards must be installed in the same server slot as the removed card.
- Audio is not supported by the 16 x D1 and 8 x D1 video capture cards.

Cisco recommends that a separate BNC breakout panel be used to provide BNC connectors for the cameras. The breakout panel should be rack-mounted behind the server and connected to the video capture card with a DB37 multi-channel video cable, as shown in [Figure E-2](#). See the [“Connecting the Video Capture Card to the BNC Breakout Panel”](#) section on [page E-10](#) for more information.

Figure E-2 Multi Services Platform Series Devices with Optional Video Capture Card, BNC Panel, and Connecting Cable



1	1-RU Multiservices Platform Series with installed video capture card
2	2-RU Multiservices Platform Series with installed video capture card
3	Multi-channel video cables
4	BNC breakout panels

See the [“Part Numbers”](#) section on [page E-12](#) for more information.

Requirements

The following items are required to support the 16 x D1 and 8 x D1 video capture cards.

- Cisco VSM release 6.3 or higher. See the [“Configuration Instructions for Cisco Video Surveillance”](#) section on [page E-14](#).
- CPS-MSP-1RU-K9 or CPS-MSP-2RU-K9 Multiservices Platform Series with one or more 16 x D1 and 8 x D1 video capture cards.
- BNC breakout panel and multi-channel video cable.

See the “[Part Numbers](#)” section on page E-12 for more information.

Features

The 16 x D1 and 8 x D1 video capture cards include the following features:

- Support for all encoding features in Cisco VSM release 6.3 and higher
- Support for H.264 and Motion JPEG compression
 - Video streams with Motion JPEG compression support up to 15 fps
 - Primary streams with H.264 compression support up to 30 fps @ D1
 - Secondary streams with H.264 compression support up to 15 fps @ 2CIF
- Video motion detection (VMD) on each primary video stream
- Up to four motion detection windows can be configured for each video stream
- Dynamic configuration change without reboot
- NTSC and PAL support



Note

All video channels on a card should be set to the same video standard (NTSC or PAL).

Encoding Parameter Limitations

[Table E-1](#) lists the limitations for resolutions and bitrate, and frame rate.

Table E-1 *Encoding Parameter Limitations*

Parameter	Limitation
Resolution	Primary channel—CIF, 2CIF, 4CIF, D1 Secondary channel—CIF, 2CIF
Bitrate	56 Kbps to 6 Mbps

Table E-1 Encoding Parameter Limitations

Parameter	Limitation
H.264 frame rates	<p>Primary Video Stream</p> <ul style="list-style-type: none"> Primary NTSC @ (D1 or 4CIF): 30,15,10,7,5,5,3,2,1 Primary NTSC @ (2CIF or CIF): 15,10,7,5,5,3,2,1 Primary PAL @ (D1 or 4CIF): 25, 12.5, 6.25, 5, 2.5, 1 Primary PAL @ (2CIF or CIF): 12.5, 6.25, 5, 2.5, 1 <p>Secondary Video Stream</p> <ul style="list-style-type: none"> Secondary NTSC @ (2CIF or CIF): 15,10,7,5,5,3,2,1 <p>Note The H.264 frame rate is selected automatically based on the selected bitrate.</p>
Motion JPEG frame rates supported in Cisco VSM	<p>Primary Video Stream</p> <ul style="list-style-type: none"> Primary NTSC @ (D1 or 4CIF): 15, 10, 7.5, 5, 3, 2, 1 Primary NTSC @ (2CIF or CIF): 10, 7.5, 5, 3, 2, 1 Primary PAL @ (D1 or 4CIF): 12.5, 6.25, 5, 2.5, 1 Primary PAL @ (2CIF or CIF): 6.25, 5, 2.5, 1 <p>Secondary Video Stream</p> <ul style="list-style-type: none"> Secondary NTSC @ (2CIF or CIF): 10, 7.5, 5, 3, 2, 1 Secondary PAL @ (2CIF or CIF): 6.25, 5, 2.5, 1 <p>Note Although other Motion JPEG frame rates can be selected in Cisco VSM, only the settings listed in list section are supported.</p> <p>Note All video channels on a card should be set to the same video standard (NTSC or PAL).</p>

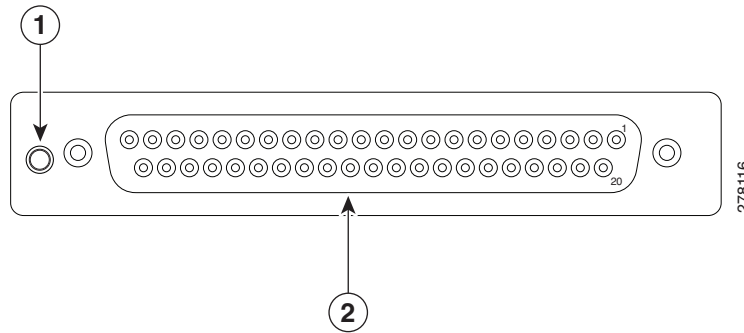
Motion Detection with Low Quality Cameras

Video containing large amounts of visual noise (sometimes caused by low quality cameras) may be prone to triggering false motion events. Use low sensitivity motion detection settings to capture only motion events of interest.

Video Card Connector and LED

The 16 x D1 and 8 x D1 video capture cards provide DB37 connectors for attaching analog cameras. To connect video cameras, Cisco recommends connecting a multi-channel video cable to a Cisco BNC breakout panel, as shown in [Figure E-3](#).

Figure E-3 1-RU and 2-RU Multi Services Platform Series Devices



1	LED light
2	DB37 connector

The card LED has the following states:

- Green—Power to the card is on and the card passed a power-up self-test
- Yellow—Power to the card is on but card failed the power-up self-test
- Not lit—Power to the card is off

Understanding Video Channel Numbers

Channel numbers are defined by the server expansion slot where the card is installed. This section includes the following topics:

- [1-RU Multi Services Platform Series Device Channel Numbers, page E-6](#)
- [2-RU Multi Services Platform Series Device Channel Numbers, page E-8](#)



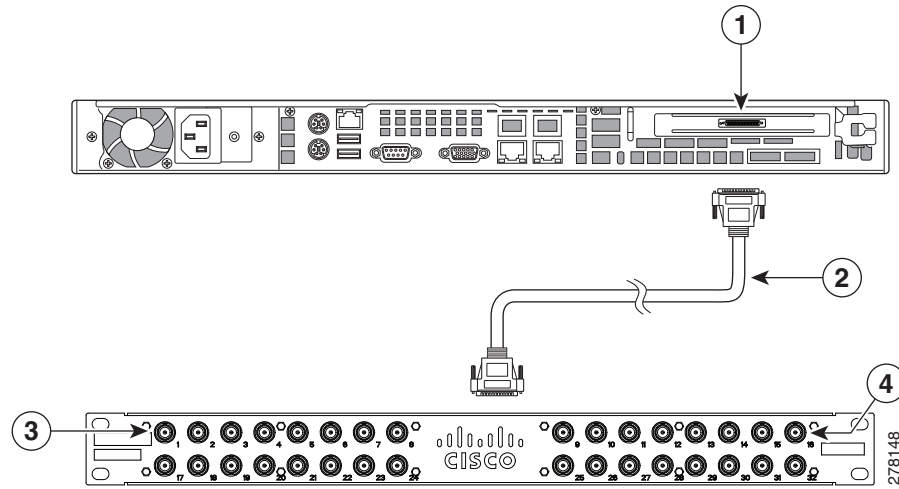
Tip

In the following sections, *slot* refers to the physical location of the card in a Multiservices Platform Series. *Channel* refers to the channel number for the camera that is used in software configurations.

1-RU Multi Services Platform Series Device Channel Numbers

In a 1-RU Multiservices Platform Series, there is a single slot for either a 16 or 8 channel video capture card. Connect a multi-channel video cable from the server video card to the top DB37 connector on a BNC breakout panel, as shown in [Figure E-4](#). The corresponding top row of connectors on the BNC panel are labeled 1 through 16. If an 8-channel video capture card is installed, only ports 1 through 8 on the BNC panel are used.

Figure E-4 1-RU Multi Services Platform Series Device Video Capture Card Port Numbers



1	Video capture connection for the 1-RU Multiservices Platform Series (ports 1 through 16)	3	BNC panel port numbers 1 through 8
2	DB37 multi-channel video cable	4	BNC panel port numbers 9 through 16

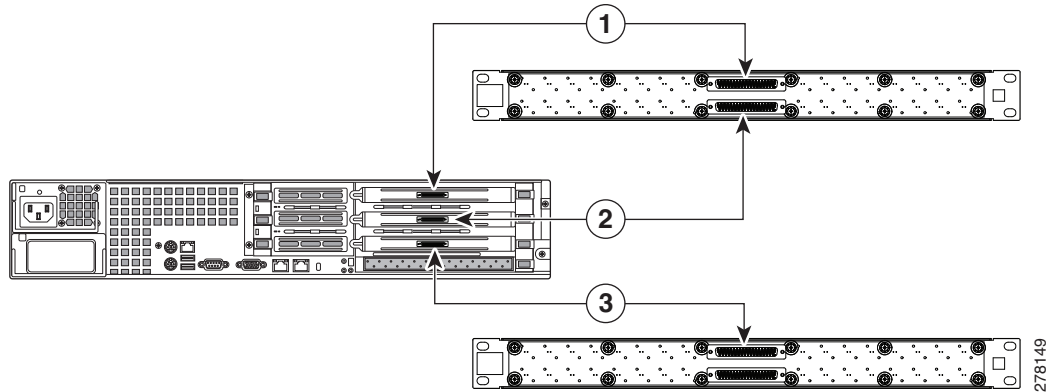
Note

Although you can connect the DB37 cable to the lower connector of the BNC panel, the corresponding BNC connectors are labeled 17 through 32. The camera channel numbers remain 1 through 16, however, as determined by the installed location of the card (or channels 1 through 8 for an 8 port card). Cisco recommends using the top DB37 connector on the BNC panel to avoid confusion.

2-RU Multi Services Platform Series Device Channel Numbers

In a 2-RU Multiservices Platform Series, there are three slots for 16 and 8 port video capture cards. [Figure E-5](#) shows the location of the video cards, and the corresponding connections to the BNC breakout panels.

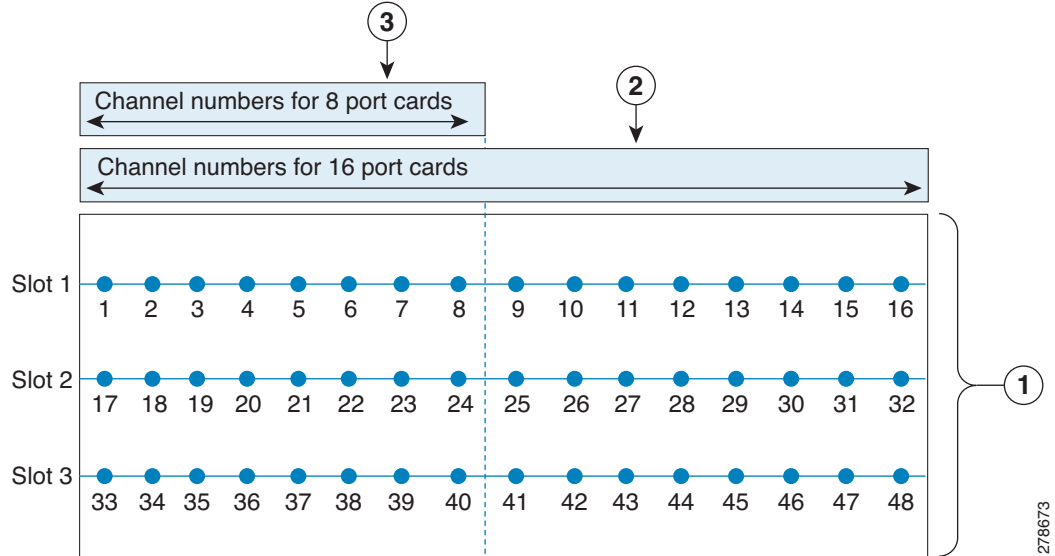
Figure E-5 2-RU Multi Services Platform Series Device Video Capture Card Port Numbers



1	Top video capture card connection for ports 1 through 16. Use the top connector of a BNC panel.
2	Middle video capture card connection for ports 17 through 32. Use the bottom connector of a BNC panel.
3	Bottom video capture card connection for ports 33 through 48. Use the top or bottom connector of a second BNC panel.
Note This card supports ports 33 through 48 regardless of the labels on the BNC panel.	

Figure E-6 shows the location of the video cards, and the corresponding connections to the BNC breakout panels.

Figure E-6 Channel Numbers for the 2-RU Multi Services Platform Series Device



- 1** 2-RU Multiservices Platform Series video card slots. Each dot represents a supported channel for cards installed in that slot.
- 2** 16 channel cards support all 16 channels in a slot. The channel numbers are defined by the server slot in which the card is installed.
- 3** 8 channel cards support the first 8 channels in each slot. The channel numbers are defined by the server slot in which the card is installed.

Table E-2 shows the possible video capture card combinations in a 2-RU Multiservices Platform Series.

Table E-2 Channel Configurations in a 2-RU Multi Services Platform Series Device

Total Number of Channels	Installed Video Capture Cards	Channel Numbers in Cisco VSM Software Configuration
8	Top slot: 8 channel card	1 through 8
16	Top slot: 16 channel card or Top slot: 8 channel card Middle slot: 8 channel card	Top slot: 1 through 16 or Top slot: 1 through 8 Middle slot: 17 through 24

Table E-2 Channel Configurations in a 2-RU Multi Services Platform Series Device (continued)

Total Number of Channels	Installed Video Capture Cards	Channel Numbers in Cisco VSM Software Configuration
24	Top slot: 16 channel card Middle slot: 8 channel card or Top slot: 8 channel card Middle slot: 8 channel card Bottom slot: 8 channel card	Top slot: 1 through 16 Middle slot: 17 through 24 or Top slot: 1 through 8 Middle slot: 17 through 24 Bottom slot: 33 through 40
32	Top slot: 16 channel card Middle slot: 16 channel card or Top slot: 16 channel card Middle slot: 8 channel card Bottom slot: 8 channel card	Top slot: 1 through 16 Middle slot: 17 through 32 or Top slot: 1 through 16 Middle slot: 17 through 24 Bottom slot: 33 through 40
40	Top slot: 16 channel card Middle slot: 16 channel card Bottom slot: 8 channel card	Top slot: 1 through 16 Middle slot: 17 through 32 Bottom slot: 33 through 40
48	Top slot: 16 channel card Middle slot: 16 channel card Bottom slot: 16 channel card	Top slot: 1 through 16 Middle slot: 17 through 32 Bottom slot: 33 through 48

Connecting the Video Capture Card to the BNC Breakout Panel

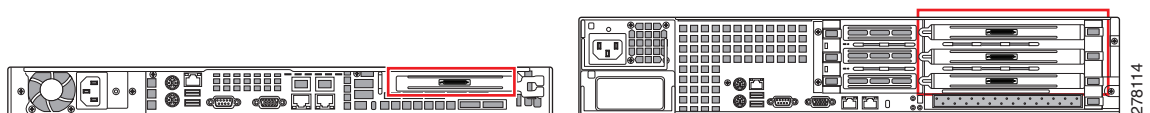
The BNC breakout panel provides connections for the BNC cables from the analog cameras.

To connect the BNC breakout panel to the 16 x D1 or 8 x D1 video capture cards, complete the following procedure.

Procedure

- Step 1** Purchase and rack-mount the server with one or more factory installed 16 x D1 or 8 x D1 video capture cards.

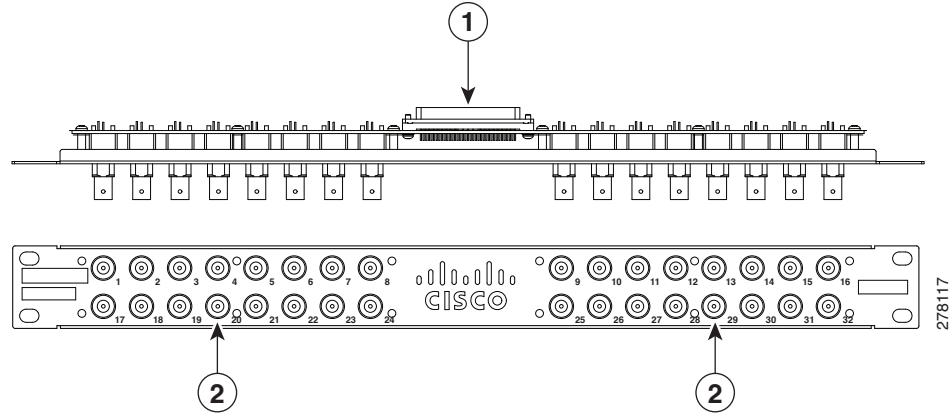
See the “Part Numbers” section on page E-12 for a list of supported servers and cards.

Figure E-7 CPS-MSP-1RU-K9 and CPS-MSP-2RU-K9 with Optional Video Capture Card Installed

Step 2 Rack-mount the BNC breakout panel behind the server.

Figure E-8 shows the panel and connections.

Figure E-8 BNC Breakout Panel



1	Two DB37 receptacles for the multi-channel video cables that connect to the video capture cards
2	BNC connectors for the video camera coaxial cables

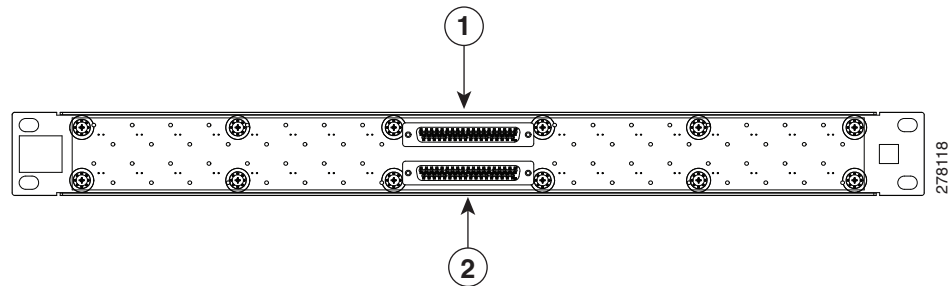
Step 3 Attach a CIVS-CAB-16V multi-channel video cable from each video capture card to the BNC breakout panel.



Note

- The same multi-channel video cable is used for 8 or 16 channel cards.
- Video capture channels are defined by the location of the card in the server, not the numbers labeled on the BNC panel. See the “[Understanding Video Channel Numbers](#)” section on page E-6 for more information.

Figure E-9 DB37 Receptacles on Rear of BNC Breakout Panel



1	Multi-channel video cable connector for video ports labeled 1 through 16. Note 8 channel cards use ports 1 through 8.
2	Multi-channel video cable connector for video ports labeled 17 through 32. Note 8 channel cards use ports 17 through 24.

Step 4 Attach coaxial cables from the video cameras to the appropriate port on the BNC breakout panel.

Figure E-10 Front of BNC Breakout Panel: BNC Connectors



Note

- The video encoder channels are determined by the installed location of the card, not by the numbers on the BNC panel. See the [“Understanding Video Channel Numbers”](#) section on page E-6 for more information. For example, if three video capture cards are installed in a 2-RU server, the bottom card can be attached to the top connector of a second BNC panel. The channel numbers for this bottom video are 33 to 48, even though the BNC panel shows ports 1 to 16.
- If the camera or coaxial cable is installed on the building exterior, the coaxial cable shield must be connected to earth (grounded) at the entrance to the building. The shield connection should be done in accordance with applicable national electrical installation codes. In the United States, this shield connection is required by Section 820.93 of the National Electrical Code, ANSI/NFPA 70.



Tip

Keep a record of the channel used for each camera. Use this record when configuring the cameras in the Cisco VSM software.

Step 5 If the analog camera also includes PTZ controls, connect the camera serial cable to the Multiservices Platform Series serial port, as described in the [“Connecting and Configuring Analog PTZ Cameras”](#) section on page E-14.

Step 6 Configure the cameras, channels and features as described in the “Managing Analog Cameras” and “Managing Camera Feeds” sections in [Cisco Video Surveillance Manager User Guide](#).

Part Numbers

[Table E-3](#) lists the part numbers for 16 x D1 and 8 x D1 video capture cards, the Multiservices Platform Series that support the cards, and accessories that are used to connect video cameras to the card.

Table E-3 Part Numbers

PID	Item	Description
CPS-MSP-1RU-K9	1-RU Multiservices Platform Series	Supports a single 8 or 16 channel video capture card.
CPS-MSP-2RU-K9	2-RU Multiservices Platform Series	Supports up to three 8 or 16 channel video capture cards.
CIVS-ENC-8P	8 channel encoder	8 x D1 video capture card.
CIVS-ENC-16P	16 channel encoder	16 x D1 video capture card.

Table E-3 Part Numbers (continued)

PID	Item	Description
CIVS-PAN-32BNC	BNC breakout panel	An optional panel that provides up to 32 BNC ports for connecting video cameras to video capture cards. The panel is installed behind the server and connected to the video capture card using the multi-channel video cable.
CIVS-CAB-16V	Multi-channel video cable	A DB37 cable that connects the video capture card to the BNC breakout panel. The cable is 2.5 feet (76 cm) long and provides connection for up to 16 video ports. The same cable is used with 8 and 16 channel video capture cards.
CIVS-KYBD2232=	Serial Port Data Converter (Generic)	Converts RS-232 serial signals to RS-485/RS-422. Use this converter when connecting multiple analog PTZ cameras to the MSP server serial port. See the “Connecting and Configuring Analog PTZ Cameras” section on page E-14 for more information.

Specifications

Table E-4 lists the physical specifications for the 16 x D1 and 8 x D1 video capture cards.

Table E-4 Specifications for 16 x D1 and 8 x D1 Video Capture Cards

Item	Description
Connectivity	
Internal connection	PCIe (PCI Express) full height, ¾ length
External connection	DB37 connector to provide 8 or 16 NTSC or PAL video channels; this connector is intended to interface to a BNC breakout panel
Physical	
Form factor	PCIe (PCI Express) full height, ¾ length
Length	10.03 inches (254.76 mm)
Height	3.87 inches (98.30 mm)
Bracket	Standard bracket plus additional gold finger tab
Power and environmental requirements	
Power	12VDC +/- 20% 24 W typical, 29 W maximum
Operating temperature	50° to 95°F (10° to 35°C)
Non-operating temperature	-40° to 158°F (-40° to 70°C)
Operating relative humidity	8% to 90% (non-condensing)
Non-operating relative humidity	5% to 95% (non-condensing)
Required airflow	140 LFM

Configuration Instructions for Cisco Video Surveillance

This section includes the following topics:

- [Configuring Camera Channel Numbers in Cisco VSM, page E-14](#)
- [Connecting and Configuring Analog PTZ Cameras, page E-14](#)

Configuring Camera Channel Numbers in Cisco VSM

To configure analog cameras in the Cisco VSM software, you must enter the channel number for each camera. See the “Managing Analog Cameras” and “Managing Camera Feeds” sections in *Cisco Video Surveillance Manager User Guide*.

The channel number for each camera is defined by the physical connection of the camera. See the “Understanding Video Channel Numbers” section on page E-6 for more information.



Note

To configure a secondary stream in Cisco VSM, you must manually enter x_2 , where x is the channel number. This option is not in the drop-down menu. For example, enter 8_2 to configure a secondary video stream on channel 8.

Connecting and Configuring Analog PTZ Cameras

To enable the PTZ controls for an analog camera, connect a serial cable from the camera to the Multiservices Platform Series. The serial cable connection is in addition to the BNC video connection.

- A single camera is connected directly to the Multiservices Platform Series with an RS-232 serial cable, as shown in [Figure E-11](#).
- To connect multiple PTZ analog cameras, use a Cisco data converter to convert the RS-232 serial signals to RS-485/RS-422, as shown in [Figure E-12](#). Connect the RS-485/RS-422 serial cable to the first camera, and then connect additional cameras in a daisy-chain configuration.

After the serial and BNC cables are connected, configure the following:

- Enter the server serial port settings using the Cisco Video Surveillance Management Console. See [Step 5](#) in the following procedure.
- Enter the analog camera PTZ settings using the Cisco Video Surveillance Operations Manager (VSOM). See [Step 7](#) in the following procedure.

Complete the following steps to connect and configure PTZ analog cameras:

Procedure

-
- Step 1** Connect the BNC video cable, as described in “[Connecting the Video Capture Card to the BNC Breakout Panel](#)” section on page E-10.
 - Step 2** Connect an RS-232 serial port adapter to the serial port on the Multiservices Platform Series.
The RS-232 adapter provides connections for individual serial cable wires. The RS-232 adapter is purchased separately and is not provided by Cisco.
 - Step 3** Connect a RS-232 serial cable to the RS-232 serial port adapter.

- Step 4** Connect the PTZ analog camera(s):
- [Single Camera Configuration, page E-15](#)
 - [Multiple Camera Configuration, page E-16](#)

Single Camera Configuration

If only one PTZ analog camera is used:

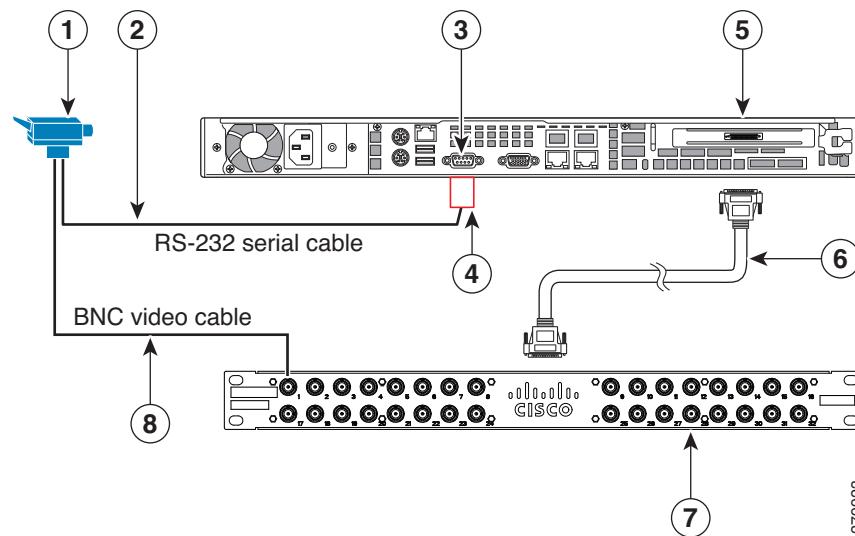
- Connect a RS-232 cable from the COM (serial) port on the camera to the serial port adapter on the Multiservices Platform Series, as shown in [Figure E-11](#).



Note Connect the wires from the PTZ analog camera according to the camera documentation. The PTZ controls will not work if the serial cable wires are incorrectly attached.

- Connect the BNC video cable between the camera and the BNC breakout panel.
- Continue to [Step 5](#).

Figure E-11 Single Analog PTZ Camera: Serial and BNC Cable Connections



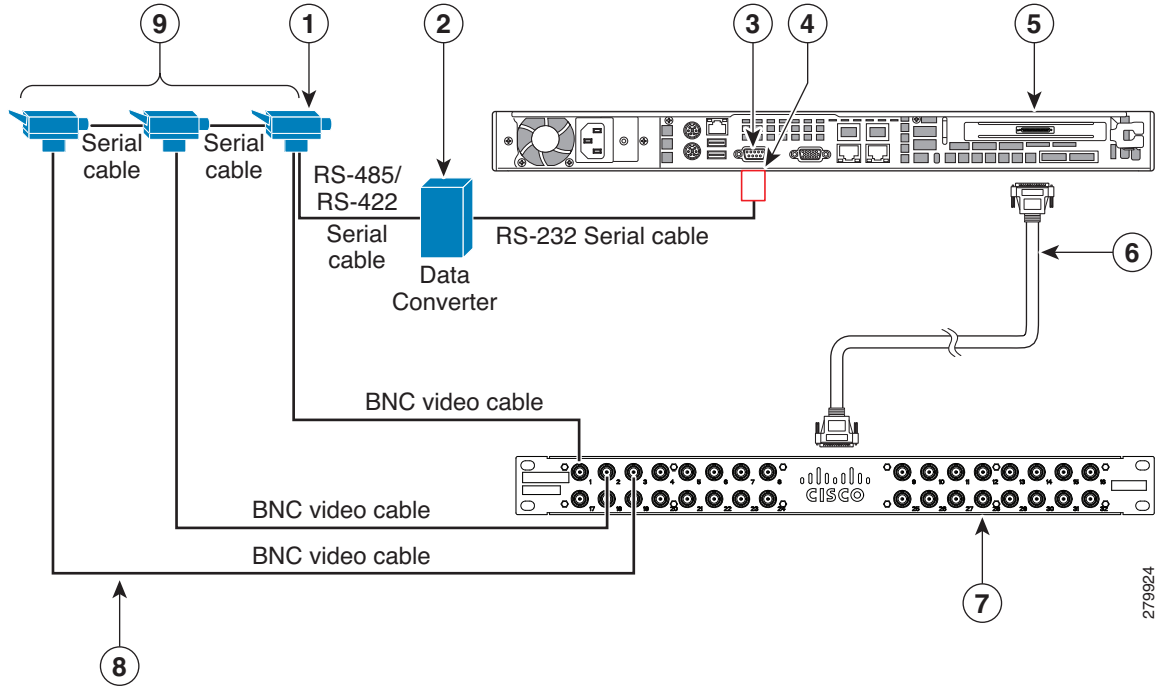
1	Analog PTZ camera.	5	16 x D1 and 8 x D1 video capture cards installed in a Multiservices Platform Series.
2	RS-232 serial cable to provide PTZ control for a single analog camera.	6	Multi-channel video cable.
3	Serial port on the 1-RU or 2-RU Multiservices Platform Series.	7	BNC breakout panel.
4	Serial cable adapter used to connect individual RS-232 wires from the camera.	8	BNC video cable connected between the camera and the BNC breakout panel.

Multiple Camera Configuration

To connect multiple cameras, you must use a Cisco data converter to convert the RS-232 serial signals to RS-485/RS-422. Multiple cameras are only supported with RS-485/RS-422 serial connections.

Figure E-12 summarizes the cable connections in a multi-camera configuration.

Figure E-12 Multiple Analog PTZ Camera: Serial and BNC Cable Connections



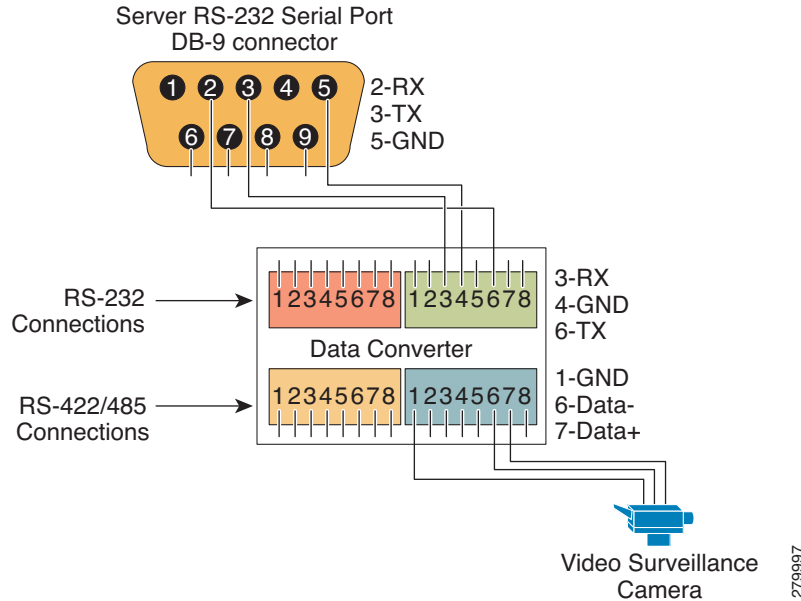
1	First analog PTZ camera in the daisy-chain.	6	Multi-channel video cable.
2	Data converter to convert RS-232 serial signals to RS-485/RS-422 (see Figure E-13).	7	BNC breakout panel.
3	RS-232 serial port on the 1-RU or 2-RU Multiservices Platform Series.	8	BNC video cables connected between each camera and the BNC breakout panel.
4	Serial cable adapter used to connect individual RS-232 wires from the camera (see Figure E-13).	9	Additional analog cameras connected with serial cables in a daisy-chain configuration.
5	16 x D1 and 8 x D1 video capture cards installed in a Multiservices Platform Series.		

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To connect multiple PTZ analog cameras, complete the following steps:

- a. Connect a RS-232 serial cable between the DB-9 serial connector on the server and the Cisco data converter (Figure E-13).

Figure E-13 Serial Port Pinouts for the Cisco Data Converter



The RS-232 connections are:

MSP Server	Data Converter
2-RX connects to	6-TX
3-TX connects to	3-RX
5-GND connects to	4-GND



Tip

Connect the wires from the server to either the green or red connector on the data converter. The camera is connected to the corresponding orange or blue RS-485/RS-422 connector, as shown in Figure E-13.

- b. Connect a RS-485 or RS-422 serial cable between the data converter and the first analog camera in the daisy-chain (Figure E-13).

See the camera documentation for connection instructions. Serial port connections vary by camera and manufacturer.

- c. Connect an additional RS-485/RS-422 serial cable between the COM port on the first PTZ camera to the COM port on the second PTZ camera, as shown in Figure E-12 on page E-16.



Note

See the camera documentation for connection instructions. Each camera in the daisy-chain must have identical serial port settings.

- d. Continue to connect additional RS-485/RS-422 serial cables between the PTZ cameras in a daisy-chain configuration, as shown in [Figure E-12 on page E-16](#).
- e. Connect BNC cables between each camera and the BNC breakout panel ([Figure E-12](#)).

Step 5 Configure the server serial port using the Cisco Video Surveillance Management Console, as follows:

- a. Log in to the Video Surveillance Management Console using one of the options that is described in the “Using the VSM Management Console” chapter in [Cisco Video Surveillance Operations Manager User Guide](#).
- b. Click **Serial Port Configuration** under the **Configuration** heading in the left menu.



Note The Serial Port Configuration window appears only for servers with 16 x D1 and 8 x D1 video capture cards installed. This configuration window was added in Cisco VSM release 6.3 to support serial port connections for PTZ analog cameras connected to the 16 x D1 and 8 x D1 video capture cards.

- c. Click **Configure New Serial Port**.
- d. From the Port drop-down menu choose **COM1**.
- e. Configure the following serial port settings to match the values the PTZ camera requires:
 - Speed—Speed of the port, in bps
 - Parity—Parity of the port (none, even or odd)
 - Data Bits
 - Number of stop bits—1 or 2



Note The serial port settings are defined by the PTZ analog camera. See the camera documentation for the required settings, including instructions for changing the camera serial settings, if necessary. All PTZ cameras in the same daisy-chain must have the same serial settings.

- f. Click the **Add** button.
- A new row for the port that you configured appears.



Tip If you need to change the serial port settings, choose the options at top of the Serial Port Configuration page and then click the **Update** button. These settings need to be changed only if an error was made and the configuration does not match the required camera settings.

Step 6 If multiple cameras are attached in a daisy-chain configuration, configure the daisy-chain number on each camera according to the documentation that is included with the camera.

Step 7 Use the Cisco VSOM pages to enter the PTZ settings for the camera.

- a. Log in to Cisco VSOM as described in the “Overview” chapter of [Cisco Video Surveillance Operations Manager User Guide](#).
- b. Click the **Admin** control link.
- c. Click **Analog Cameras**.
- d. Choose a camera name for an existing configuration, or click **Add a New Analog Camera**.
- e. Choose the **PTZ Config** tab.

- f. Choose the **Camera is PTZ enabled** check box to enable the settings.
 - g. Choose **COM1** from the **COM Port** drop-down menu.
 - h. Enter the **Chain Number** for the camera. This is the number configured on the camera in [Step 6](#).
-

Troubleshooting PTZ Camera Controls

If the PTZ controls on an analog camera do not operate properly, review the physical connections and software configurations. Each connection and setting must be correct for the PTZ controls to operate.

- Verify that the COM (serial) port is properly configured on the server. See [Step 5](#) in the “[Connecting and Configuring Analog PTZ Cameras](#)” section on page E-14.
 - Verify that the COM (serial) port settings entered in the Cisco Video Surveillance Management Console are the same as the settings on the camera.
 - See the camera documentation for the correct settings.
 - See [Step 5](#) in the “[Connecting and Configuring Analog PTZ Cameras](#)” section on page E-14 for information about entering the configuration on the Cisco Video Surveillance Management Console.
 - Verify that the serial wiring connections to the camera and to the server serial port are correct. See the camera documentation for the correct wiring.
 - Verify that the correct Chain Number for the PTZ camera is entered in the Cisco Video Surveillance Operations Manager.
 - Verify that the camera can be controlled independently by using PTZ controls.
 - If multiple cameras are connected in a daisy-chain:
 - Connect only a single camera and verify PTZ functionality. If the camera is functional, add and verify one additional camera at a time.
 - Verify that the serial port settings are the same for all cameras in the daisy-chain.
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Related Documentation

For information about configuring cameras that are attached to the 16 x D1 and 8 x D1 video capture cards, see the “[Managing Analog Cameras](#)” and the “[Managing Camera Feeds](#)” sections in [Cisco Video Surveillance Manager User Guide](#).

