CHAPTER 3

Provisioning SPVCs (PXM1E/PXM45) on CESM and MPSM Cards

This chapter describes how to provision circuit emulation Soft Permanent Virtual Circuits (SPVCs) on the physical ports of the CESM-8T1/B, CESM-8T1, CESM-8E1, MPSM-8T1-CES, and MPSM-8E1-CES cards by using the command-line interface (CLI).

These topics describe how to provision Circuit Emulation SPVCs on the CESM and MPSM cards:

- Preparing for Provisioning
- Quickstart Provisioning Procedures
- General CESM and MPSM SPVC Provisioning Procedures

Note The easiest way to add connections is by using the Cisco WAN Manager (CWM) application. For full details on how to set up a connection with CWM, refer to the *Cisco WAN Manager User's Guide, Release 15.1*.

This chapter explains how to provision the SPVC connection types described in Table 3-1.

Table 3-1 SPVC Connection Types Applicable to CESM and MPSM Cards

CESM and MPSM SPVC Connection Type	Description
CESM/MPSM-to-CESM/MPSM SPVCs	Soft permanent virtual circuits (SPVCs) are permanent connections that can be rerouted in the event of a link failure. A CESM/MPSM-to-CESM/MPSM SPVC establishes a connection between two CESM/MPSM ports. Such ports can be on the same card, on different cards in the same switch, or on different cards in different switches.
CESM/MPSM-to-Non-CESM/MPSM SPVCs	A CESM/MPSM-to-non-CESM/MPSM SPVC establishes a connection between a CESM or MPSM port and a port on a non-CESM/MPSM card such as a PXM1E, AXSM, or AUSM card. Such ports can be on different cards in the same switch or on different cards in different switches.

To eliminate redundancy and help experienced users complete configuration tasks efficiently, this chapter provides configuration quickstart procedures.

The first time you configure a connection type, use the applicable quickstart procedure to get an overview of the tasks to be performed. For more detailed instructions, consult the appropriate section(s) elsewhere in the document that are called out in the quickstart procedure. As you gain experience in configuring CESM and MPSM card connections, referring to a quickstart procedure may suffice for performing a particular configuration task.

Tip You can get information about most CLI commands by entering the command without parameters. Ordinarily, experienced users can configure CESM and MPSM card connections using just the quickstart procedures and the online help facilities.

Note For a detailed description of the commands used in this chapter, see Chapter 6, "CESM and MPSM Command Reference."

Preparing for Provisioning

Before you can begin provisioning Circuit Emulation SPVCs on CESM and MPSM cards, you need to bring up the physical lines and add logical ports on the service modules. For instructions on bringing up physical lines and adding logical ports on CESM and MPSM cards, see Chapter 2, "Preparing CESM and MPSM Lines and Ports for Communications."

Quickstart Provisioning Procedures

These quickstart tasks contain abbreviated procedures for provisioning SPVCs on CESM and MPSM cards installed in Cisco MGX 8850 (PXM1E/PXM45) and Cisco MGX 8830 Release 5.1 switches:

- CESM/MPSM-to-CESM/MPSM SPVC Configuration Quickstart
- CESM/MPSM-to-Non-CESM/MPSM SPVC Configuration Quickstart

These procedures provide a high level overview and serve as a procedural reminder for users already experienced in configuring MGX switches.

CESM/MPSM-to-CESM/MPSM SPVC Configuration Quickstart

To configure an SPVC between two CESM/MPSM card ports (on the same card in a switch, on different cards in the same switch, or on cards in different switches), perform the following steps:

	Command	Purpose
Step 1	*username* *<password>*	Start a configuration session. **Note** To perform all the steps in this quickstart procedure, you must log in as a user with GROUP1 privileges or higher.
Step 2	Refer to the software configuration guides for the switches between the two CESM/MPSM cards to be connected. See the *Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Configuration Guide, Release 5.1.*	Configure the trunks that link the switch(es) that host(s) the CESM or MPSM card ports. Verify PNNI connectivity between the nodes that host the SPVC endpoints.
Step 3	See the "CESM and MPSM Line Configuration Quickstart" section in Chapter 2, "Preparing CESM and MPSM Lines and Ports for Communications."	Bring up the physical lines at each end of the SPVC you are creating.
Step 4	See the "CESM and MPSM Port Configuration Quickstart" section in Chapter 2, "Preparing CESM and MPSM Lines and Ports for Communications."	Configure the Circuit Emulation ports at each end of the SPVC you are creating.
Step 5	**addcon** *<options>* Related commands: **dspcons** **dspcon** *<Port>* **cnfcon** *<options>*	Configure the slave side of the SPVC (if you are configuring a double-ended SPVC). See the "Configuring the Slave Side of SPVCs" section that appears later in this chapter.
Step 6	**addcon** *<options>* Related commands: **dspcons** **dspcon** *<Port>* **cnfcon** *<options>*	Configure the master side of the SPVC. **Note** In Cisco MGX Release 5.1, the CESM and MPSM cards cannot host the master side of a single-ended SPVC. See the "Configuring the Master Side of SPVCs" section that appears later in this chapter.

CESM/MPSM-to-Non-CESM/MPSM SPVC Configuration Quickstart

When creating an SPVC between a CESM or MPSM card and a non-CESM/MPSM card (such as a PXM1E, AXSM, or AUSM card), you must define both ends of the connection. This is just as you would for a CESM/MPSM-to-CESM/MPSM connection. You will need to refer to the documentation for the non-CESM/MPSM product for information on configuring the connection endpoint.

To configure an SPVC between a CESM/MPSM card and a non-CESM/MPSM card, perform the following steps:

	Command	Purpose
Step 1	*username* *<password>*	Start a configuration session. **Note** To perform all the steps in this quickstart procedure, you must log in as a user with GROUP1 privileges or higher.
Step 2	Refer to the software configuration guides for the switches between the two cards to be connected. See the *Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Configuration Guide, Release 5.1.*	Configure the trunks that link the switch(es) that host(s) the connection endpoints. Verify PNNI connectivity between the nodes that host the SPVC endpoints.
Step 3	See the "CESM and MPSM Line Configuration Quickstart" section in Chapter 2, "Preparing CESM and MPSM Lines and Ports for Communications."	Bring up the physical line at the CESM/MPSM card end of the SPVC you are creating.
Step 4	See the "CESM and MPSM Port Configuration Quickstart" section in Chapter 2, "Preparing CESM and MPSM Lines and Ports for Communications."	Configure the Circuit Emulation port at the CESM/MPSM card end of the SPVC you are creating.
Step 5	**addcon** <*options*> Related commands: **dspcons** **dspcon** <*Port*> **cnfcon** <*options*>	Configure the slave side of the SPVC (if you are configuring a double-ended SPVC). If the slave side of the connection is on the CESM or MPSM card, see the "Configuring the Slave Side of SPVCs" section that appears later in this chapter. If the slave side of the connection is on a non-CESM/MPSM card, refer to the documentation for that card.
Step 6	**addcon** <*options*> Related commands: **dspcons** **dspcon** <*Port*> **cnfcon** <*options*>	Configure the master side of the SPVC. **Note** In Cisco MGX Release 5.1, the CESM and MPSM cards cannot host the master side of a single-ended SPVC. If the master side of the connection is on the CESM or MPSM card, see the "Configuring the Master Side of SPVCs" section that appears later in this chapter. If the master side of the connection is on a non-CESM/MPSM card, refer to the documentation for that card.

General CESM and MPSM SPVC Provisioning Procedures

These procedures and topics describe configuring SPVCs on CESM and MPSM cards:

Configuring SPVCs on CESM and MPSM Cards

The CESM and MPSM card configured for circuit emulation services can communicate only with cards that understand AAL1 encapsulation or are transparent to the encapsulation type, and that support CBR class of service.

CESM and MPSM SPVCs are created between one circuit emulation port and another circuit emulation port. Soft permanent virtual circuits (SPVCs) are permanent connections that can be rerouted in the event of a link failure. An SPVC, a variant of a permanent virtual circuit (PVC), can be rerouted using the Private Network-to-Network Interface (PNNI) Version 1.0 protocol.

Both PVCs and SPVCs are full-time connections. However, a PVC uses a predefined circuit path that fails altogether if that path is interrupted for any reason. Conversely, if a link along an SPVC path fails or that link cannot provide the required bandwidth to support the connection, the PNNI protocol reroutes that link to maintain the connection and to supply the necessary bandwidth.

Each SPVC has two endpoints. The master endpoint is responsible for routing and rerouting functions. The slave endpoint is responsible for responding to requests from the master during connection setup and rerouting. Both endpoints are configured on the switch or switches to which the circuit emulation CPE connects. Such endpoints can be on the same switch or on different switches.

The master/slave relationship exists for each SPVC and applies only to that SPVC connection. For example, you can have one SPVC with a master on Node A and a slave on Node B, and then create another SPVC with the master on Node B and the slave on Node A. It is good practice to distribute the master side of SPVCs among network nodes so that route processing functions can be distributed.

You can create two types of SPVCs on CESM and MPSM cards in PXM45/PXM1E platforms:

- Single-ended SPVCs.
- Double-ended SPVCs.

Single-ended SPVCs are defined at the master endpoint and do not require configuration of a slave endpoint. The primary benefit of single-ended SPVCs is that they are easier to configure. After configuration, the master endpoint configures and brings up the slave endpoint. In order for this feature to work correctly, the destination endpoint must support single-ended SPVCs.

Note In Cisco MGX Release 5.1, the CESM-8T1/B, CESM-8T1, CESM-8E1, and MPSM-8T1E1 cards support only the slave side of single-ended SPVCs. This means that you can configure master endpoints for single-ended SPVCs on other devices that support this feature, but you cannot create a single-ended SPVC by defining a master endpoint on a CESM or MPSM card. If both SPVC endpoints must terminate on CESM or MPSM cards, you must create a double-ended SPVC.

Double-ended SPVCs require separate configuration of the master and slave endpoints. The slave endpoint must be configured first because this step generates a slave address that must be entered during master endpoint configuration.

Configuring the Slave Side of SPVCs

If you wish to configure a double-ended SPVC connection, you must first configure the slave endpoint for the connection. If you are configuring a single-ended SPVC, you need not configure a slave endpoint.

To configure the slave side of a double-ended SPVC, perform the following steps:

Step 1 Establish a configuration session using a user name with GROUP1 privileges or higher.

Step 2 Define the slave side of the SPVC by entering the following **addcon** command:

```
PXM1E_SJ.1.4.CESM.a > addcon <port_num> [-master <MasterShip>] [-rmc <RemoteConnId>]
[-pf <PartialFill>] [-condat <ConditionalData>] [-condsig <ConditionalSigCode>]
[-cdv <CDVT>] [-cas <SignallingType>] [-clip <CellLossIntegPeriod>]
[-maxbuf <MaximumBufferSize>] [-clkmode <ClockMode>] [-contp <ControllerType>]
[-rtngprio <RoutingPriority>] [-prefrte <PreferredRouteID>] [-directrte <DirectedRoute>]
[-maxcost <MaxCost>] [-type <RestrictedType>] [-cos <connServiceType>]
```

Note

- If the **addcon** command fails and displays the "Failed to update disk" message, it could be that the PNNI controller has not been added on the PXM1E or PXM45 card. For information on adding the PNNI controller, refer to the *Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Configuration Guide, Release 5.1*.
- If the **addcon** command fails and displays the "InvalidTrafficParm: check conformance or local/remote param mismatch" message, it could be that the local connection parameters on the slave/master endpoint do not match the remote connection parameters on the master/slave endpoint. To successfully add a connection both the local and remote connection parameters must match.

Table 3-2 lists and describes the parameters for the **addcon** command. If you omit an option, a default value for that option is used for SPVC configuration. To override the default value for a given option, enter the option with a desired value.

Caution Once you create an SPVC connection, you cannot change the SPVC prefix until all SPVC connections have been deleted. The procedure for changing the SPVC prefix is described in the *Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Configuration Guide, Release 5.1*.

Table 3-2 Parameters for the addcon Command

Parameter	Description
port_number	Enter the port number to which you will add the connection. To display a list of configured ports, enter the **dspports** command. The port number is found in the *Port* column in the format *Slot.Line.Port*. The port number range varies with the card type: • CESM-8T1 and MPSM-8T1-CES range: 1–192 • CESM-8E1 and MPSM-8E1-CES range: 1–248
-master	Mastership role of connection. Select from the following options: • 1 = master • 2 = slave (default)

Table 3-2 Parameters for the addcon Command (continued)

Parameter	Description
-rmc	Remote connection ID. This option is used when defining the master end of a connection. After issuing the **addcon** command to create the slave side of a double-ended SPVC connection, use the generated slave connection ID with this option. The format is: *RemoteNsapAddress.VPI.VCI*. **Tip** You can view the address components for a slave or master connection using the **dspcon** or **dspchan** command.
-pf	Partial fill for ATM cells. This option determines how many bytes must be assembled before an ATM cell is sent across the network. Partially filled cells take less time to assemble and reduce transmission delay. However, partially filled cells consume more ATM network bandwidth. You can select the number of bytes for ATM cells as follows: • Fully filled (48 bytes) = 0 • Structured T1 range = 25 to 47 • Structured E1 range = 20 to 47 • Unstructured T1/E1 range = 33 to 47 **Note** For structured connections other than Basic and 1x64 Basic without AAL1 Pointer, the partial fill value should be greater than the number of DS0s assigned to port + 1.
-condat	Conditional data is the bit pattern that is used in the data timeslots when there is an underflow or when there is a loss of signal (LOS). For a voice connection, the larger the *ConditionalData* value, the louder the hiss heard during LOS. The data pattern is configured as a base-10 number to represent an 8-bit binary code. • UDT = 255 • SDT range = 0 to 255
-condsig	Conditional signaling is the signaling bits that are sent on the line when there is an underflow and also toward the network when forming dummy cells. Conditional signaling is a string of bits that you specify with a base-10 number in the range 0–15, where, for example, 15=1111, and 0=0000. These bits represent the four binary signaling bits (A, B, C, and D) to the line or network when an underflow occurs.
-cdv	The Cell Delay Variation Time (CDVT) determines the amount of delay variation in the network that can be accommodated by the egress buffer. The CDVT value is how much the egress buffer is filled before sending cells to the attached CPE. This parameter allows you to configure the maximum cell arrival jitter that the reassembly process will tolerate in the cell stream without producing errors on the CBR service interface. Enter the CDVT in increments of 125 microseconds: • T1 range = 125-24000 microseconds • E1 range = 125-26000 microseconds

Table 3-2 Parameters for the addcon Command (continued)

Parameter	Description
-cas	Channel associated signaling (CAS) value. • Basic = 1 • E1 CAS = 2 • DS1 superframe CAS = 3 • DS1 extended superframe CAS = 4 • CCS = 5 • Conditioned E1 CAS = 6 • 1x64 Basic without AAL1 Pointer = 7 • DS1 SF CAS MF (available with multiframe option enabled) = 8 (Supported only on CESM-8T1/B) • DS1 ESF CAS MF (available with multiframe option enabled) = 9 (Supported only on CESM-8T1/B) **Note** The channels on a particular line can be either all MF (SF MF or ESF MF) or all non-MF (SF or ESF). The first connection type added on a particular line (MF/non-MF) decides the sync. mode. The second connection must have the same cesCAS type, and so on.
-clip	The Cell loss integration period (CLIP) is the amount of time the egress buffer can be under run before an alarm is declared. Range: 1000 to 65535 milliseconds.
-maxbuf	Maximum egress buffer size in bytes. Buffers are used to mitigate variations in the cell delay. The size can be automatically computed, or you can enter a specific size in bytes. The ranges are as follows: • Autocompute = 0 • Minimum value = the greater of {(CDVT in frames*2)*N or (CDVT+frames in 2 cells)*N} • T1/E1 UDT maximum value = 16224 • T1 SDT maximum value = 384*N • E1 SDT maximum value = 417*N N = Number of 64 Kbps time slots (SDT) = 32 (T1/E1 UDT)
-clkmode	Clock mode. • Synchronous = 1 • SRTS (asynchronous) = 2 • Adaptive (asynchronous) = 3
-contp	The Virtual Switch Interface (VSI) controller type that manages the connection. On PXM1E, PXM45 platforms select one of the following: • 1 = PAR • 2 = PNNI (default) • 3 = MPLS

Table 3-2 Parameters for the addcon Command (continued)

Parameter	Description
-rtngprio	Routing priority for this connection. This parameter defines the rerouting derouting priority of the connection. Range is 1 to 15. Default setting is 8.
-prefrte	Preferred Route ID for this connection. The preferred route feature is applicable only to the master end of an SPVC. This option assigns a unique identifier for the preferred route to which this connection is associated. When the route ID is set to 0, the connection is not associated with any preferred routes. Range is 0 to 65,535. Default is 0.
-directrte	Directed Route option. When this option is yes, the associated preferred route is the only permissible route for the connection to take. Should the directed preferred route be unavailable, the connection is failed. When the option is no, the connection is allowed to try another alternate route should the preferred route be unavailable. • 1 = Yes • 2 = No (default)
-maxcost	Maximum end-to-end cost for the connection. The VSI controller uses the maximum cost to determine which network routes are available to the connection. The maximum cost is the calculated sum of the administrative weights (AWs) in both directions on every hop in a selected route. Range is 1 to 2,147,483,647. Default setting is 2147483647.
-type	Trunk restriction option. • 1 = Enable connection routing without trunk restrictions (Default) • 2 = Restrict the connection routing to terrestrial trunks • 3 = Restrict the connection routing to satellite trunks
-cos	Connection service type. • 21 = CBR1 • 31 = CBR2 (Used only for signaling with UNI 3.1 devices) • 32 = CBR3 (Used only for signaling with UNI 3.1 devices)

The following **addcon** command defines a CESM port as the slave side of an SPVC connection. Note the slave Local Connection ID shown at the end of the display.

```
PXM1E_SJ.1.4.CESM.a > addcon 1

Local Connection ID is : 4700918100000000001a53337700000107230100.4.35


PXM1E_SJ.1.4.CESM.a >
```

Step 3 Write down the NSAP address displayed when the **addcon** command output is completed. You will need the NSAP address to configure the master side of the SPVC connection.

Tip When you set up the master side of the SPVC, you will need to enter the slave ATM address reported by the **addcon** command. If you maintain the current session or use the session Copy command to copy the ATM address now, you can use the session Paste command to complete the **addcon** command on the switch that hosts the master side of the SPVC.

Step 4 Verify the addition of the slave side of the SPVC connection by entering the following command, which displays all configured SPVCs:

```
PXM1E_SJ.1.4.CESM.a > dspcons

  LCN  Port.VPI.VCI Type M/S Clock PCR    CDVT  BufSz CLIP  Admin Alarm
  ---- ------------ ---- --- ----- ------ ----- ----- ----- ----- -----
  0035 001.04.035   stru S   Synch 4096   01000 00384 02500 Up    CTRLR-ABIT
  0037 003.04.037   stru S   Synch 4096   01000 00384 02500 Up    CTRLR-ABIT

  Number of channels:    2

  ChanNumNextAvailable:  38

PXM1E_SJ.1.4.CESM.a >
```

Step 5 If you add the master side of the SPVC at a later date, you can display the slave connection ID with the **dspcon** command as shown in the following example. The connection number is specified by entering the port number. The complete slave ID must be entered at the master endpoint in the format *ChanLocalNSAP.ChanLocalVpi.ChanLocalVci*. These values correspond to **dspcon** parameters shown in this example:

```
PXM1E_SJ.1.4.CESM.a > dspcon 1

  ------------------------------------------
  ChanNum:   35         RowStatus: Add
  AdmnState: Up         ChanState: Alarm
  ---------- ---------- ---------- ----------
  PORT-ALARM CTRLR-ABIT E-AIS/RDI  CELL-LOSS
  ---------- ---------- ---------- ----------
      NO         NO         NO        YES
  ------------------------------------------
  ChanNum:                   35
  ChanRowStatus:             Add
  ConnAdminStatus:           Up
  ChanLineNum:               1
  ChanMapVpi:                4
  ChanMapVci:                35
  ChanCBRService:            struct
  ChanClockMode:             Synchronous
  ChanCAS:                   Basic
  ChanPartialFill:           47
  ChanMaxBufSize:            384 bytes
  ChanCDVT:                  1000 micro seconds
  C L I P:                   2500 milliseconds
  ChanLocalRemoteLpbkState: Disabled
  ChanTestType:              TestOff
  ChanTestState:             NotInProgress
  ChanRTDresult:             65535 ms
  ChanPortNum                1
  ChanConnType               SPVC
  ISDetType                  DetectionDisabled
  CondData                   255
  CondSignalling             15
  ExtISTrig                  DisableIdleSupression
```

```
  ISIntgnPeriod             3 seconds
  ISSignallingCode          0
  OnHookCode                1
  ChanLocalVpi:             4
  ChanLocalVci:             35
  ChanLocalNSAP:            47009181000000000001a53337700000107230100
  ChanRemoteVpi:            0
  ChanRemoteVci:            0
  ChanRemoteNSAP:           NULL NSAP
  ChanMastership:           Slave
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      CBR1
  ChanRoutingPriority:      8
  ChanPreferredRouteId:     0
  ChanDirectedRoute:        No
  ChanMaxCost:              2147483647
  ChanRestrictTrunkType:    No Restriction
  ChanConnPCR:              4096
  ChanConnMCR:              4096
  ChanConnPercentUtil:      100
  Channel Reroute:          False

  ChanNumNextAvailable:  36

PXM1E_SJ.1.4.CESM.a >
```

Configuring the Master Side of SPVCs

To configure the master side of an SPVC, perform the following steps:

Step 1 Establish a configuration session using a user name with GROUP1 privileges or higher.

Tip During this procedure, you will have to enter the ATM address for the slave end of the connection. If you establish this session from the same workstation you used to create the slave connection, you can do a copy and paste sequence to avoid data entry errors.

Step 2 To define the master side of the SPVC connection, enter the following command:

```
PXM1E_SJ.1.4.CESM.a > addcon <port_num> [-master <MasterShip>] [-rmc <RemoteConnId>]
[-pf <PartialFill>] [-condat <ConditionalData>] [-condsig <ConditionalSigCode>]
[-cdv <CDVT>] [-cas <SignallingType>] [-clip <CellLossIntegPeriod>]
[-maxbuf <MaximumBufferSize>] [-clkmode <ClockMode>] [-contp <ControllerType>]
[-rtngprio <RoutingPriority>] [-prefrte <PreferredRouteID>] [-directrte <DirectedRoute>]
[-maxcost <MaxCost>] [-type <RestrictedType>] [-cos <connServiceType>]
```

Table 3-2 lists and describes the parameters for the **addcon** command. If you omit an option, a default value for that option is used for SPVC configuration. To override the default value for a given option, enter the option with a desired value.

Note

- If the **addcon** command fails and displays the "Failed to update disk" message, it could be that the PNNI controller has not been added on the PXM1E or PXM45 card. For information on adding the PNNI controller, refer to the *Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Configuration Guide, Release 5.1*.
- If the **addcon** command fails and displays the "InvalidTrafficParm: check conformance or local/remote param mismatch" message, it could be that the local connection parameters on the slave/master endpoint do not match the remote connection parameters on the master/slave endpoint. To successfully add a connection both the local and remote connection parameters must match.

The following **addcon** command defines a CESM port as the master side of a double-ended SPVC.

```
PXM1E_SJ.1.4.CESM.a > addcon 2 -master 1 -rmc
4700918100000000001a53337700000107230100.4.35

PXM1E_SJ.1.4.CESM.a >
```

Step 3 To view the master-side of the new SPVC connection in the connection list, enter the **dspcons** command:

```
PXM1E_SJ.1.4.CESM.a > dspcons

  LCN  Port.VPI.VCI Type M/S Clock PCR    CDVT  BufSz CLIP  Admin Alarm
  ---- ------------ ---- --- ----- ------ ----- ----- ----- ----- -----
  0035 001.04.035   stru S   Synch 4096   01000 00384 02500 Up    OK
  0036 002.04.036   stru M   Synch 4096   01000 00384 02500 Up    OK
  0037 003.04.037   stru S   Synch 4096   01000 00384 02500 Up    CTRLR-ABIT

  Number of channels:    3

  ChanNumNextAvailable:  38
```

This command displays all the connections for the CESM or MPSM card.

Step 4 To display the configuration information for a specific SPVC endpoint, enter the following command:

```
PPXM1E_SJ.1.4.CESM.a > dspcon <port>
```

Replace the *port* parameter with the port number for the connection you want to display. The port number is listed in the **dspcons** command display.

The following is sample output from the **dspcon** command for the connection created in the previous example. Notice that once the master connection is added, the **dspcon** report shows the NSAP IDs for both ends of the connection.

```
PXM1E_SJ.1.4.CESM.a > dspcon 2

  ------------------------------------------
  ChanNum:   36         RowStatus: Add
  AdmnState: Up         ChanState: Ok
  ---------- ---------- ---------- ----------
  PORT-ALARM CTRLR-ABIT E-AIS/RDI  CELL-LOSS
  ---------- ---------- ---------- ----------
      NO         NO         NO         NO
  ------------------------------------------
  ChanNum:                  36
  ChanRowStatus:            Add
  ConnAdminStatus:          Up
  ChanLineNum:              2
  ChanMapVpi:               4
  ChanMapVci:               36
```

```
ChanCBRService:           struct
ChanClockMode:            Synchronous
ChanCAS:                  Basic
ChanPartialFill:          47
ChanMaxBufSize:           384 bytes
ChanCDVT:                 1000 micro seconds
C L I P:                  2500 milliseconds
ChanLocalRemoteLpbkState: Disabled
ChanTestType:             TestOff
ChanTestState:            NotInProgress
ChanRTDresult:            65535 ms
ChanPortNum               2
ChanConnType              SPVC
ISDetType                 DetectionDisabled
CondData                  255
CondSignalling            15
ExtISTrig                 DisableIdleSupression
ISIntgnPeriod             3 seconds
ISSignallingCode          0
OnHookCode                1
ChanLocalVpi:             4
ChanLocalVci:             36
ChanLocalNSAP:            47009181000000000001a53337700000107230200
ChanRemoteVpi:            4
ChanRemoteVci:            35
ChanRemoteNSAP:           47009181000000000001a53337700000107230100
ChanMastership:           Master
ChanVpcFlag:              Vcc
ChanConnServiceType:      CBR1
ChanRoutingPriority:      8
ChanPreferredRouteId:     0
ChanDirectedRoute:        No
ChanMaxCost:              2147483647
ChanRestrictTrunkType:    No Restriction
ChanConnPCR:              4096
ChanConnMCR:              4096
ChanConnPercentUtil:      100
Channel Reroute:          False

ChanNumNextAvailable:  38
```