



## Provisioning Lines

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This chapter describes the individual and batch procedures used to provision lines on the NE, and includes the following sections:

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# About Line Provisioning

You can provision lines from the line provision window.

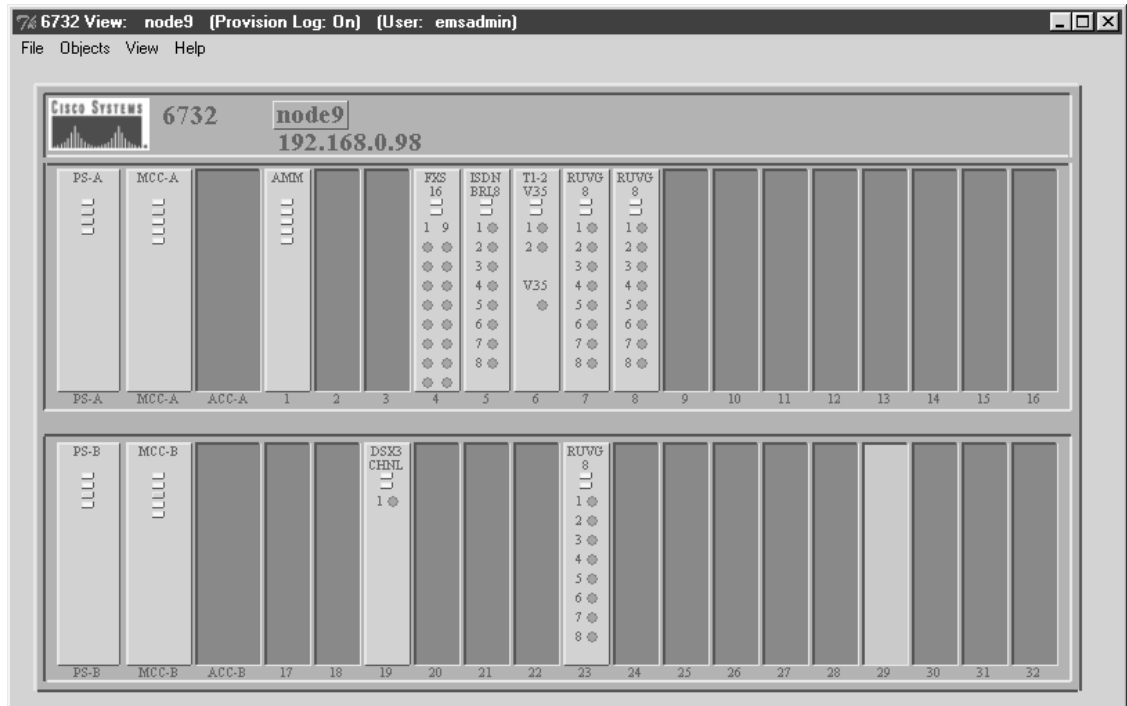


## Note

While provisioning lines, confirm your most recent action by clicking the **Refresh** button at the bottom of the screen to refresh the window display.

To open this window from Cisco 6700 NodeView, double-click the LED in the icon of the line to be provisioned (the line icon turns orange when the mouse is positioned over it). (See Figure 7-1.)

**Figure 7-1** Cisco 6700 NodeView



## Provisioning Analog Lines (FXS/16, RPOTS/16, RUVG/8)



**Note** The FXS/16 and RUVG/8 line provisioning windows are identical in structure and appearance (with **FXS,16** or **RUVG,8** appearing in place of **RPOTS,16**).

- Step 1** From Cisco 6700 NodeView (see Figure 7-1), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-2).

**Figure 7-2** RPOTS/16 Line Provisioning Window

RPOTS.16 Line Provision for 6732 node: node1

Basic Provisioning

Exit

**6732 Name:** node1

**Card Number:** 28

**Line Number:** 1

**Admin Status:** InService

**Operation Status:** Down

**Interface Group Type:** TR008

**Interface Group ID:** 1

**CRV:** 0

**Generic Signal Function:** Is

**On Hook:** Fulltime

**Line Test:** Off

**Termination Mode:** ohm9004and2dB

**Red Lined:** false

Apply Refresh

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- Step 2** In the **Line Number** field, select the analog line to be provisioned.
- Step 3** Set the following parameters according to your application:
- **Admin Status**—Set the status of the individual line, **InService** or **OutOfService**.
  - **Interface Group**—Select the interface group type used on the Class 5 switch:
    - For unconcentrated pass-through, select **None**.
    - For GR-303 applications, select **GR-303**. (See Chapter 10, “GR-303,” for detailed procedures.)
    - For TR-008 pass-through, select **TR-008**.



**Note** An NE can not provision TR-008, but it can pass TR-008 traffic to the switch.

- **Interface Group ID**—For GR-303 applications, select the interface group ID number (from 1 to 4) used on the Class 5 switch.
- **CRV**—For GR-303 applications, select a CRV for this line. Each GR-303 line must be provisioned with a unique CRV.

- **Generic Signal Function**—Select **ls** for loop start (default) or **gs** for ground start.
- **Termination Mode**—Select one of the following modes, expressed in ohms and digital-to-analog signal loss in dB:
  - **ohm600and0dB**
  - **ohm600and1dB** (default for RUVG/8)
  - **ohm600and2dB** (default for FXS/16)
  - **ohm600and5dB**
  - **ohm900andM2dB** (minus 2dB)
  - **ohm900and2dB** (default for RPOTS/16)
  - **ohm900and5dB**

**Step 4** Click **Apply** to provision the line.

**Step 5** Repeat this procedure to provision additional lines on the card.

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For batch provisioning, see *Batch Provisioning Analog Lines*, page 7-27.

## Provisioning ISDN,BRI/8 Lines

- Step 1** From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-3).

Figure 7-3 ISDN,BRI,8 Basic Provisioning Window

The screenshot shows a window titled "ISDN,BRI,8 Line Provision for 6732 node: 6732". On the left is a navigation pane with options: "ISDN,BRI,8 Basic Provisioning" (selected), "ISDN,BRI,8 PM Threshold (1-Hour & 1-Day)", "1-Hour PM Data", "1-Day PM Data", and "Exit". The main area contains the following configuration fields:

- 6732 Name:** 6732
- ISDN,BRI,8 Card Number:** 26
- ISDN,BRI,8 Line Number:** 1
- Admin Status:** OutOfService
- Operation Status:** Down
- Interface Group:** TR008
- Interface Group ID:** 1
- Call Reference Value(CRV):** 0
- ISDN,BRI,8 Scheme:** 4:1
- LT Overhead States:** act: 0, dea: 0, sco: 0, m44: 0, m45: 0, m46: 0, m47: 0, m48: 0, m51: 0, m52: 0, m61: 0
- NT Overhead States:** nib: 0, m47: 0, m46: 0, cso: 0, ntm: 0, ps2: 0, ps1: 0, act: 0, m52: 0, m61: 0, m51: 0
- EOC Protocol:** pointToPoint
- Line Termination Mode:** LT
- Red Lined:** false
- Loopback:** 2B+D-NE: Off, D-NE: Off, B2-NE: Off, B1-NE: Off, 2B+D-FE: Off, D-FE: Off, B2-FE: Off, B1-FE: Off
- Reset PM Count:** No

At the bottom right of the main area are "Apply" and "Refresh" buttons. A small number "35513" is visible in the bottom right corner of the window frame.

- Step 2** In the **ISDN,BRI,8 Line Number** field, select the ISDN line to be provisioned.

- Step 3** Set the following parameters according to your ISDN application:

- **Admin Status**—Set the status of the individual line, **InService** or **OutOfService**.
- **Interface Group**—Select the interface group type used on the Class 5 switch:
  - For GR-303 applications, select **GR-303**. (See Chapter 10, “GR-303,” for detailed procedures.)
  - For TR-008 pass-through, select **TR-008**.



**Note** An NE can not provision TR-008, but it can pass TR-008 traffic to the switch.

- **Interface Group ID**—For GR-303 applications, select the interface group ID number (from 1 to 4) used on the Class 5 switch.
- **CRV**—For GR-303 applications, select a CRV for this line. Each GR-303 line must be provisioned with a unique CRV.
- **ISDN,BRI/8 Scheme**—Leave the default setting (**4:1**).
- **LT Overhead Status**—These parameters are set by the Class 5 switch. Do not change these values.

- **EOC Protocol**—Leave the default setting (**PointToPoint**).
- **Line Termination Mode**—Leave the default setting (**LT**).
- **Reset PM Count**—Select **Yes** to reset the performance monitoring data.  
(See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)

Step 4 Click **Apply** to provision the line.

Step 5 Repeat this procedure to provision additional lines on the card.

## Provisioning DSX1/8 Lines

Step 1 From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-4).

Figure 7-4 DSX1,8 Line Provisioning Window

The screenshot shows the 'DSX1,8 Line Provision for 6732 node: node1' window. On the left is a navigation pane with options: DSX1,8 Basic Provisioning, 15-Min PM Threshold, 1-Day PM Threshold, 15-Min PM Data, 1-Day PM Data, Far End 15-Min PM Data, Far End 1-Day PM Data, and Exit. The main area contains the following configuration fields:

- 6732 Name: node1
- DSX1,8 Card Number: 8
- DSX1,8 Line Number: 1
- Admin Status: InService
- Operation Status: Down
- Interface Group: None
- Interface Group ID: 1
- Interface Group Member ID: 0
- Line Coding: B8ZS
- Line Frame Type: ESF
- DS0 Mapping: D4
- Protect Group ID: 3
- Protect Unit Type: Protected
- Line Buildout: 534-655 Feet
- Loopback: Off
- Reset PM Count: No
- Line Test: Off
- DSX1,8 Problem List: (empty list box)

At the bottom are buttons for Apply, Refresh, and DS0 Signaling. A vertical label '31253' is on the right side of the window.

Step 2 In the **DSX1,8 Line Number** field, select the DS1 line to be provisioned.

**Step 3** Set the following parameters according to your DSX1 application:

- **Admin Status**—Set the status of the individual line, **InService** or **OutOfService**.
- **Interface Group**—Select the interface group type used on the Class 5 switch:
  - For unconcentrated pass-through, select **None**.
  - For GR-303 applications, select **GR-303**. (See Chapter 10, “GR-303,” for detailed procedures.)
  - For TR-008 pass-through, select **TR-008**.



**Note** An NE can not provision TR-008, but it can pass TR-008 traffic to the switch.

- **Interface Group ID**—For GR-303 applications, select the interface group ID number (from 1 to 4) used on the Class 5 switch.
- **Interface Group Member ID**—For GR-303 applications, select a member ID for this DSX1.
- **Line Coding**—Select **B8ZS** (binary 8 zero substitution) or **AMI** (alternate mark inversion).
- **Line Frame Type**—Select **ESF** (extended superframe), **SF** (superframe), or **SLC96** (subscriber loop carrier, 96 lines).
- **DS0 Mapping**—Select **D1**, **SLC-D4** (for use with TR-008), or **D4** (for use with GR-303).
- **Protect Unit Type**—Not supported.
- **Line Buildout**—Select the transmit line length from the pulldown menu.
- **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
- **Reset PM Count**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)
- **DS0 Signaling**—Click this button to open the DS0 signaling window. (See Figure 7-5.)

**Step 4** Click **Apply** to provision the line.

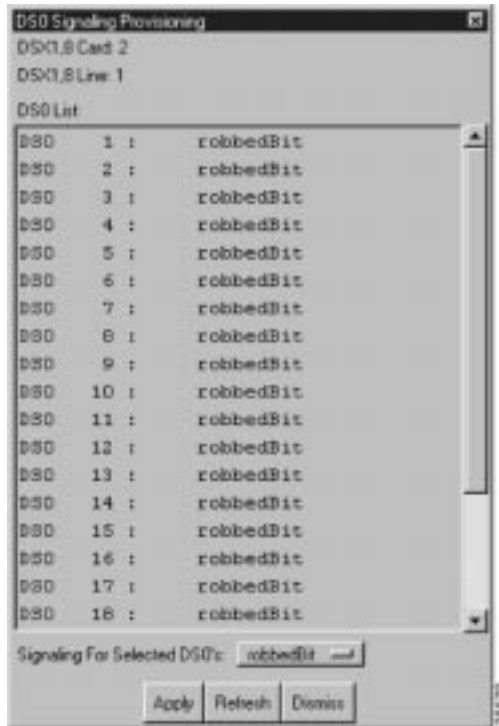
**Step 5** Repeat this procedure to provision additional lines on the card.

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## DS0 Channel Provisioning

- Step 1** From the DSX1/8 line provisioning window (see Figure 7-4), click **DS0 Signaling** to open the DS0 signaling window. (See Figure 7-5.)

*Figure 7-5 DS0 Signaling Window*



- Step 2** Highlight the DS0 channels to be modified.
- Step 3** Set the signaling for selected DS0s:
- **robbedBit**—for all voice traffic.
  - **clearChannel**—for all data traffic.
- Step 4** Click **Apply** to provision the selected DS0 channels.

For batch provisioning, see Batch Provisioning DSX1 Lines, page 7-28.



## Provisioning DSX3-CHNL Lines

- Step 1** From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-6).

**Figure 7-6** DSX3,CHNL Basic Provisioning Window

DSX3,CHNL Line Provision for 6732 node: node1

Basic Provisioning	<b>6732 Name:</b> node1
Maintenance Provisioning	<b>Card Number:</b> 19
M13 Provisioning	<b>Line Number:</b> 1
15-Min PM Threshold	<b>Admin Status:</b> InService
1-Day PM Threshold	<b>Operation Status:</b> Down
15-Min PM Data	<b>Line Coding:</b> B3ZS
1-Day PM Data	<b>Application Type:</b> CbitParity
Far End 15-Min PM Data	<b>Line Buildout:</b> 226-450 Feet
Far End 1-Day PM Data	<b>AIS Pattern:</b> payload1010CBit0
Exit	<b>Circuit Identifier:</b>
	<b>Send Code:</b> sendNoCode
	<b>Reset PM Count:</b> No
	<b>Problem List:</b>

Apply Refresh

- Step 2** Set the following parameters according to your DSX3 application:
- **Admin Status**—Set the status of the individual line, **InService** or **OutOfService**.
  - **Application Type**—Select the DS3 application type, **M13** (channelized) or **CBitParity** (straight-through).
  - **Line Buildout**—Select the transmit line length.
  - **AIS Pattern**—(Optional) Select one of the following alarm indicator signal (AIS) patterns:
    - payload1010CBit0
    - payload1010OHIgnored
    - payloadAllOnesOHIgnored
    - payloadIgnoredCBit0
    - unframedAllOnes
  - **Circuit Identifier**—(Optional) For use with the previously selected AIS pattern.

- **Send Code**—Select **SendNoCode** or **SendTestPattern**.
- **Reset PM Count**—Select **Yes** to reset the performance monitoring data.  
(See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)

**Step 3** Click **Apply** to provision the line.

## Provisioning DSX3-CHNL M13

M13 is a multiplexer that interleaves up to 28 incoming DS1 channels to a single DS3 output channel.

**Step 1** From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), click **M13 Provisioning** in the function bar. EMS displays the M13 provisioning window.  
(See Figure 7-7.)

*Figure 7-7 M13 Provisioning Window*

**Step 2** In the **DS1 Number** field, select the DS1 line to be provisioned.

**Step 3** Set the following parameters according to your DSX1 application:

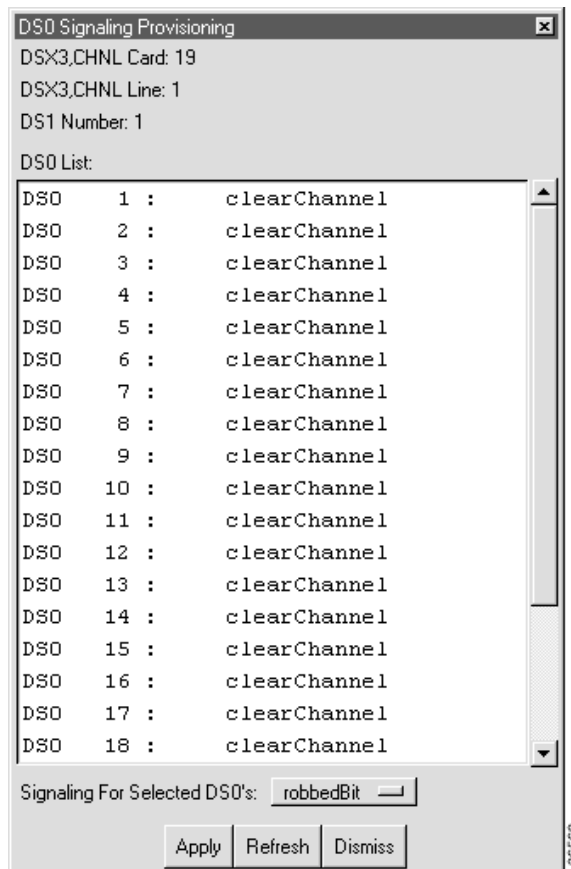
- **Admin Status**—Set the status of the individual line, **InService** or **OutOfService**.
- **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
- **Reset PM Count**—Select **Yes** to reset the performance monitoring data.  
(See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)

- **Frame Format**—Select **ESF** (extended superframe) or **SF** (superframe).
  - **DS0 Signaling**—Click this button to open the DS0 signaling window. (See Figure 7-8.)
- Step 4** Click **Apply** to provision the line.
- Step 5** Repeat this procedure to provision additional lines on the card.

## DS0 Channel Provisioning

- Step 1** From the M13 line provisioning window, click **DS0 Signaling** to open the DS0 signaling window. (See Figure 7-8.)

*Figure 7-8 DS0 Signaling Window*



- Step 2** Highlight the DS0 channels to be modified.
- Step 3** Set the signaling for selected DS0s:
- **robbedBit**—for all voice traffic.
  - **clearChannel**—for all data traffic.
- Step 4** Click **Apply** to provision the selected DS0 channels.

## Provisioning DSX3-CHNL Maintenance Lines

- Step 1** From the M13 provisioning window (see Figure 7-7), click **DSX3,CHNL Maintenance Provisioning** to open the DSX3-CHNL maintenance window. (See Figure 7-9.)

*Figure 7-9 DSX3-CHNL Maintenance Window*

DSX3,CHNL Line Provision for 6732 node: node1

Basic Provisioning	<b>6732 Name:</b> node1
Maintenance Provisioning	<b>Card Number:</b> 19
M13 Provisioning	<b>Line Number:</b> 1
15-Min PM Threshold	<b>Loopback:</b> Off
1-Day PM Threshold	<b>Corrupt LCV:</b> No
15-Min PM Data	<b>Corrupt P Bit:</b> No
1-Day PM Data	<b>Corrupt CP Bit:</b> No
Far End 15-Min PM Data	
Far End 1-Day PM Data	
Exit	Apply Refresh

- Step 2** Set the following parameters according to your testing application:
- **DSX3,CHNL Line Number**—Select the line number to be provisioned.
  - **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
  - **Corrupt LCV**—Select **Yes** to force a corrupt LCV.
  - **Corrupt P Bit**—Select **Yes** to force a corrupt P bit.
  - **Corrupt CP Bit**—Select **Yes** to force a corrupt CP bit.
- Step 3** Click **Apply** to provision the line.

For batch provisioning, see Batch Provisioning DSX3 Lines, page 7-29.

## Provisioning MSDSL-2W Lines

- Step 1** From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-10.)

Figure 7-10 MSDSL Basic Provisioning Window

- Step 2** In the **HDSL Line Number** field, select the line to be provisioned.
- Step 3** Set the following parameters according to your MSDSL application:
- **Frame Format**—Select **ESF** (extended superframe), **SF** (superframe), **HDLU-C** (high-speed digital line unit, central node), or **HDLU-R** (high-speed digital line unit, remote node).
  - **End Type**—Select **CP** (customer premises) or **CO** (central office) to set master/slave transceiver-level timing.
  - **Default Rate**—Select the default line rate.
  - **Auto Rate**—This parameter can not be manually set. EMS displays whether or not auto rate is active on the line.
  - **Tx Power**—Select the adjustment factor for the transmit signal relative to the transceiver negotiated level. The default, **zeroDb**, makes no adjustment.
  - **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
  - **T1E1 Mode**—Select the line mode, **T1** or **E1**.

- **Reset PM Count**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)
- **Test**—Select **On**, **Off**, or **Monitor**.
- **Bundle Size**—Set the number of DS0 channels for use with dynamic bandwidth allocation (DBA). DBA allows data channels to be used for voice traffic when needed.



**Note** To enable DBA, you must select the T1 line mode and the HDLU frame format.

- Step 4** Click **Apply** to provision the line.
- Step 5** Repeat this procedure to provision additional lines on the card.

## Provisioning OC3c-UNI Lines

- Step 1** From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-11.)

*Figure 7-11 OC3c-UNI Basic Provisioning Window*

- Step 2** Set the following parameters according to your OC3 application:
- **Physical Layer Sync Status Message**—Leave as default.

- **Sonet PM Reset**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)
- **Physical Layer Admin Status**—Set the status of the physical line, **InService** or **OutOfService**.
- **Path Number**—Leave blank.

Step 3 Click **Apply** to provision the line.

## Provisioning OC3c-UNI Maintenance Lines

Step 1 From the function bar in the OC3c-UNI basic provisioning window (see Figure 7-11), click **Maintenance Provision** to open the line provisioning window. (See Figure 7-12.)

Figure 7-12 OC3c-UNI Maintenance Provisioning Window

SONET Provision for 6732 node: node1

Basic Provision	<b>System Name:</b> node1
Maintenance Provision	<b>SONET Card Number:</b> 25
Section PM Threshold	<b>SONET Line Number:</b> 1
Line PM Threshold	<b>SONET Loop Back:</b> Off
Path PM Threshold	<b>Section Forced Corrupt BIP 8:</b> No
Section 15-Min PM Data	<b>Line Forced Corrupt BIP 8:</b> No
Section 1-Day PM Data	<b>Path Forced Corrupt BIP 8:</b> No
Line 15-Min PM Data	
Line 1-Day PM Data	
Path 15-Min PM Data	
Path 1-Day PM Data	
Far End Line 15-Min PM Data	
Far End Line 1-Day PM Data	
Far End Path 15-Min PM Data	
Far End Path 1-Day PM Data	
Exit	

Apply Refresh

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- Step 2** Set the following parameters according to your testing application:
- **SONET Loop Back**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
  - **Section Forced Corrupt BIP 8**—Select **Yes** to force a BIP 8 error at the section level.
  - **Line Forced Corrupt BIP 8**—Select **Yes** to force a BIP 8 error at the line level.
  - **Path Forced Corrupt BIP 8**—Select **Yes** to force a BIP 8 error at the path level.
- Step 3** Click **Apply** to provision the line.

## Provisioning STSX1-CHNL Lines

- Step 1** From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-13.)

*Figure 7-13 STSX1-CHNL Basic Provisioning Window*

SONET Provision for 6732 node: node1

Basic Provision	<b>System Name:</b> node1
VT-DS1 Basic Provision	<b>SONET Card Number:</b> 18
Maintenance Provision	<b>SONET Line Number:</b> 1
Section PM Threshold	<b>Medium Type:</b> Sonet
Line PM Threshold	<b>Line Coding:</b> B3ZS
Path PM Threshold	<b>Line Type:</b> Coax
Section 15-Min PM Data	<b>Line Buildout:</b> 0-225 Feet
Section 1-Day PM Data	<b>Sync Status Message:</b> No
Line 15-Min PM Data	<b>Sonet PM Reset:</b> No
Line 1-Day PM Data	<b>Admin Status:</b> InService
Path 15-Min PM Data	<b>Operation Status:</b> Down
Path 1-Day PM Data	<b>Line SSM Quality Level:</b> 0
Far End Line 15-Min PM Data	<b>Line Problem List:</b>
Far End Line 1-Day PM Data	<b>Path Number:</b>
Far End Path 15-Min PM Data	<b>Path Problem List:</b>
Far End Path 1-Day PM Data	
Exit	<b>Apply</b> <b>Refresh</b>



- Step 2** Set the following parameters according to your STSX1,CHNL application:
- **Line Buildout**—Select the transmit line length.
  - **Sonet PM Reset**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)
  - **Admin Status**—Set the status of the physical line, **InService** or **OutOfService**.
  - **Path Number**—Leave blank.
- Step 3** Click **Apply** to provision the line.

For batch provisioning, see Batch Provisioning STSX1 Lines, page 7-31.

## Provisioning VT-DS1 Lines

- Step 1** From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-14.)

*Figure 7-14 STSX1,CHNL VT-DS1 Basic Provisioning Window*

SONYET Provision for 6732 node: node1

Basic Provision	<b>SONYET Card Number:</b> 17
VT-DS1 Basic Provision	<b>SONYET Line Number:</b> 1
Maintenance Provision	<b>VT-DS1 Number:</b> 1
Section PM Threshold	<b>Interface Group Type:</b> GR303
Line PM Threshold	<b>Interface Group ID:</b> 0
Path PM Threshold	<b>Interface Group Member ID:</b> 0
Section 15-Min PM Data	<b>Problem List:</b>
Section 1-Day PM Data	
Line 15-Min PM Data	
Line 1-Day PM Data	
Path 15-Min PM Data	
Path 1-Day PM Data	<b>Admin Status:</b> InService
Far End Line 15-Min PM Data	<b>Operation Status:</b> Down
Far End Line 1-Day PM Data	<b>Loopback:</b> Off
Far End Path 15-Min PM Data	<b>Reset PM Count:</b> No
Far End Path 1-Day PM Data	<b>Force Bip2:</b> No
Exit	<b>Frame Format:</b> ESF

Apply Refresh DSO Signaling

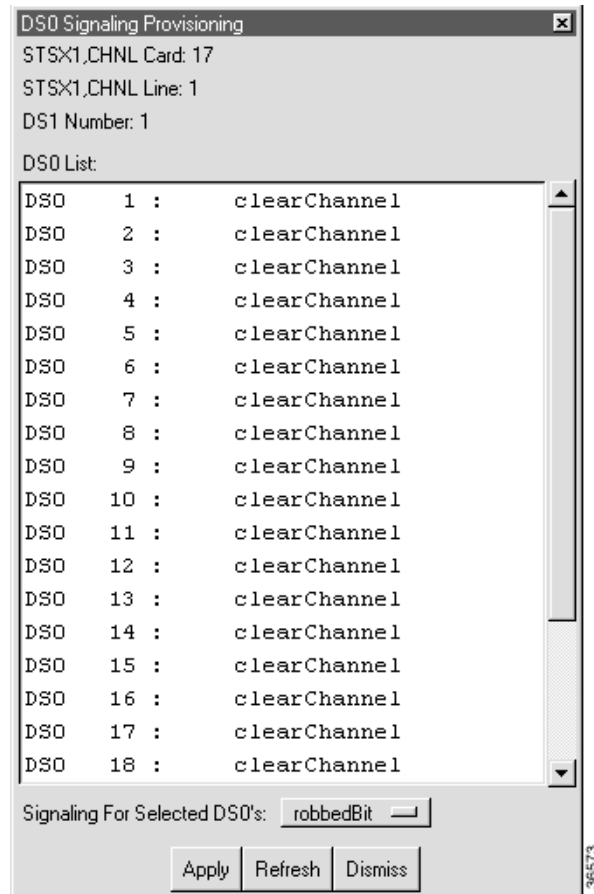
- Step 2** In the **VT-DS1 Number** field, select the DS1 line to be provisioned.

- Step 3** Set the following parameters according to your DSX1 application:
- **Interface Group ID**—For GR-303 applications, select the interface group ID number (from 1 to 4) used on the Class 5 switch. (See Chapter 10, “GR-303,” for detailed procedures.)
  - **Interface Group Member ID**—For GR-303 applications, select a member ID for this DSX1.
  - **Admin Status**—Set the status of the individual line, **InService** or **OutOfService**.
  - **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
  - **Reset PM Count**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)
  - **Force Bip2**—For testing purposes only. Select **Yes** to force an error in transmission.
  - **Frame Format**—Select **ESF** (extended superframe) or **SF** (superframe).
  - **DS0 Signaling**—Click this button to open the DS0 signaling window. (See Figure 7-16.)
- Step 4** Click **Apply** to provision the line.
- Step 5** Repeat this procedure to provision additional DS1 lines on the card.
-

## DS0 Channel Provisioning

- Step 1** From the STSX1,CHNL line provisioning window, click **DS0 Signaling** to open the DS0 signaling window. (See Figure 7-15.)

*Figure 7-15 DS0 Signaling Window*



- Step 2** Highlight the DS0 channels to be modified.
- Step 3** Set the signaling for selected DS0s:
- **robbedBit**—for all voice traffic.
  - **clearChannel**—for all data traffic.
- Step 4** Click **Apply** to provision the selected DS0 channels.

## Provisioning VT-DS1 Maintenance Lines

- Step 1** From the function bar in the STSX1,CHNL VT-DS1 basic provisioning window (see Figure 7-14), click **Maintenance Provision** to open the line provisioning window. (See Figure 7-16.)

*Figure 7-16 STSX1,CHNL Maintenance Provisioning Window*

- Step 2** Set the following parameters according to your testing application:
- **SONET Loop Back**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
  - **Section Forced Corrupt BIP 8**—Select **Yes** to force a BIP 8 error at the section level.
  - **Line Forced Corrupt BIP 8**—Select **Yes** to force a BIP 8 error at the line level.
  - **Path Forced Corrupt BIP 8**—Select **Yes** to force a BIP 8 error at the path level.
- Step 3** Click **Apply** to provision the line.

## Provisioning T1-2,V.35 Lines

- Step 1** From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-17.)

Figure 7-17 T1-2,V.35 Line Provisioning Window

- Step 2** In the **T1 Line Number** field, select the T1 line to be provisioned.
- Step 3** Set the following parameters according to your T1 application:
- **Line Coding**—Select **B8ZS** (binary 8 zero substitution) or **AMI** (alternate mark inversion).
  - **Line Frame Type**—Select **ESF** (extended superframe), **SF** (superframe), **HDLU-C** (high-speed digital line unit, central node), or **HDLU-R** (high-speed digital line unit, remote node).
  - **DS0 Mapping**—Leave as default value (**D4**).
  - **Line Mode**—Select **DSX1** or **T1** line mode.
  - **Line Buildout**—Select the transmit line length.
  - **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
  - **Reset PM Count**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)

- **Line Power**—Leave blank (not supported).
- **Bundle Size**—Set the number of DS0 channels for use with dynamic bandwidth allocation (DBA). DBA allows data channels to be used for voice traffic when needed.



**Note** You must select the T1 line mode and the HDLU frame format to enable DBA.

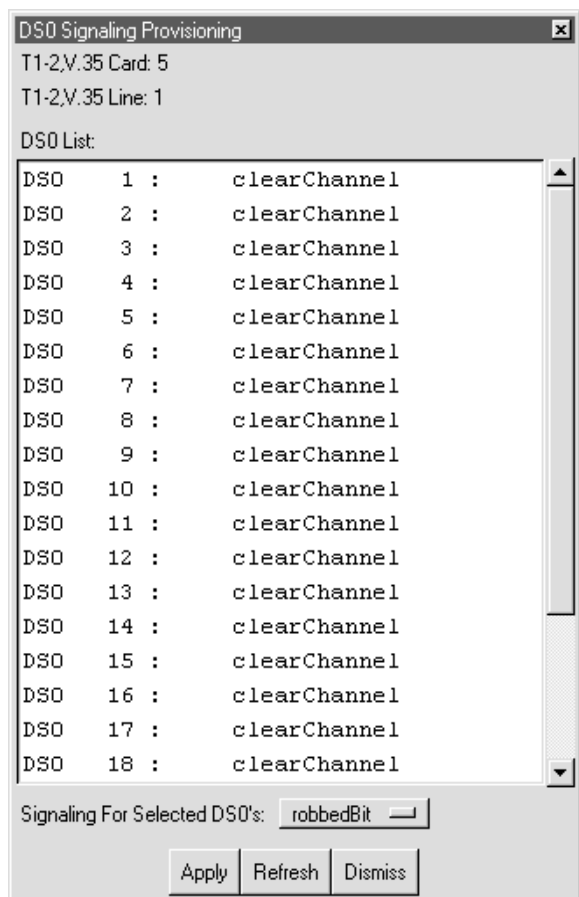
- **DS0 Signaling**—Click this button to open the DS0 signaling window. (See Figure 7-18.)

**Step 4** After making changes in the basic provisioning window, click **Apply** to provision the line.

## DS0 Channel Provisioning

**Step 1** From the T1 line provisioning window (see Figure 7-17), click **DS0 Signaling** to open the DS0 signaling window. (See Figure 7-18.)

*Figure 7-18 DS0 Signaling Window*



**Step 2** Highlight the DS0 channels to be modified.

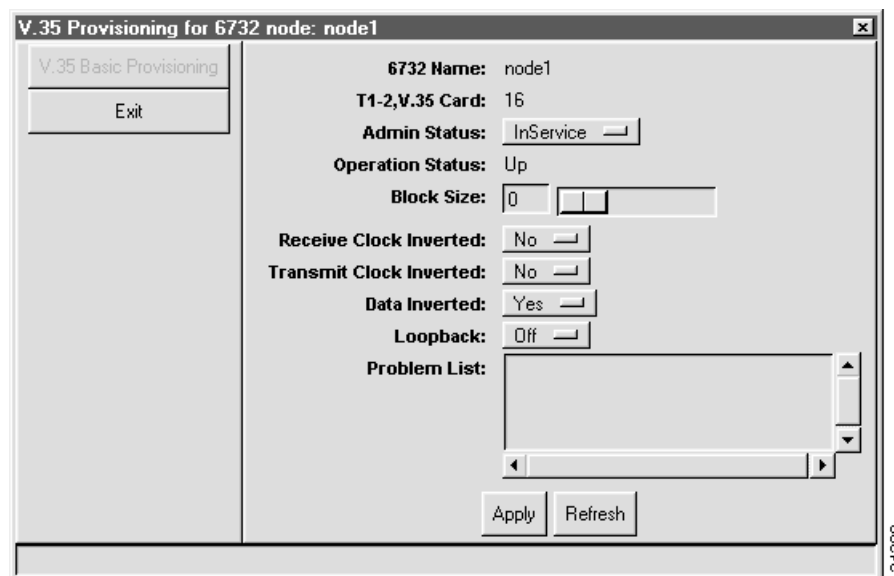
- Step 3** Set the signaling for selected DS0s:
- **robbedBit**—for all voice traffic.
  - **clearChannel**—for all data traffic.
- Step 4** Click **Apply** to provision the selected DS0 channels.

For batch provisioning, see Batch Provisioning T1 Lines, page 7-33.

## Provisioning V.35 Ports

- Step 1** From Cisco 6700 NodeView (see Figure 7-1 on page 7-2), double-click the LED in the appropriate icon to open the line provisioning window. (See Figure 7-19.)

*Figure 7-19 V.35 Port Basic Provisioning Window*



- Step 2** Set the following parameters for your V.35 serial port connection:
- **Block Size**—Select the number of DS0 channels to be provisioned for the V.35 serial port.
  - **Receive Clock Inverted**—Select **Yes** to invert the received clocking signal.
  - **Transmit Clock Inverted**—Select **Yes** to invert the transmitted clocking signal.
  - **Data Inverted**—Select **Yes** to invert the data over the V.35 port.
  - **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).

For the T1-2,V.35 line card in a Cisco 6732 or Cisco 6705 chassis, typical settings are as follows:

- Receive Clock Inverted—No
- Transmit Clock Inverted—No
- Data Inverted—Yes

**Step 3** For the V.35 serial port on a Cisco IAD1101, typical settings are as follows:

- Receive Clock Inverted—No
- Transmit Clock Inverted—Yes
- Data Inverted—No

**Step 4** Click **Apply** to provision the line.

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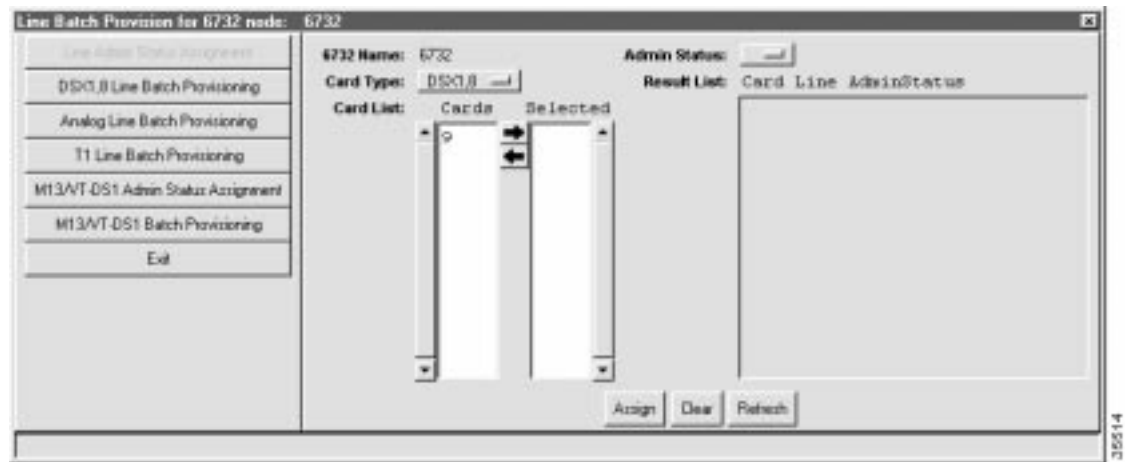
# About Batch Provisioning

Batch provisioning is a way of placing multiple lines in service at the same time.

## Batch Provisioning Overview

- Step 1** From the Cisco 6700 NodeView menu bar (see Figure 7-1 on page 7-2), select **Objects > Line Batch Provisioning**. EMS displays the line status assignment window. (See Figure 7-20.)

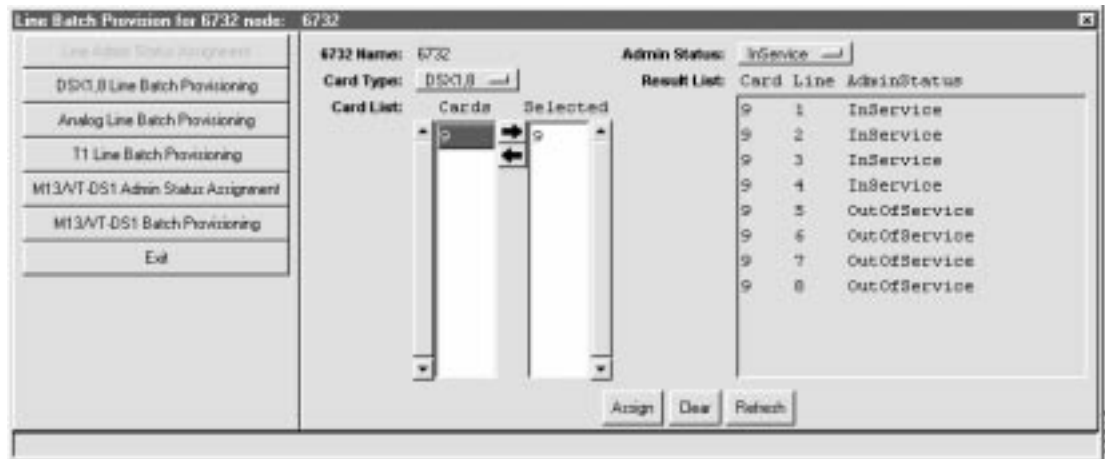
*Figure 7-20 Line Admin Status Assignment Window*



- Step 2** In the **Admin Status** field, select **inService**.
- Step 3** In the **Card Type** field, select one of the line card types that are currently installed in the NE. If the selected card type is present, EMS displays the slot numbers for each card in the **Card List** window. For example, if your NE has FXS/16 cards in slots 3 and 4, selecting the **FXS** card type displays 3 and 4 in the card list window.
- Step 4** In the **Card List** window, click each card number while holding down the **Control** key to select (highlight) the card.

- Step 5** When all card numbers are selected, click the right arrow next to the card list window. The **Result List** (on the right side of the window) displays all lines on the selected cards, along with the status (**InService** or **OutOfService**) of each line. (See Figure 7-21.)

*Figure 7-21 Line Batch Provisioning Window with Selected Cards*



- Step 6** In the **Result List** window, select the lines to be placed in service.
- Step 7** After the lines are selected, click the **Apply** button to put the lines in service. EMS works down the list, changing each **OutOfService** line to **InService**.
- Step 8** Repeat Step 3 through Step 7 for each card type present in the NE.
- Step 9** Click the **Exit** button on the left side of the window to return to Cisco 6700 NodeView.
- Step 10** Select **View > Refresh Card Display** to update the NodeView display. Lines that have been placed in service displays a green LED.

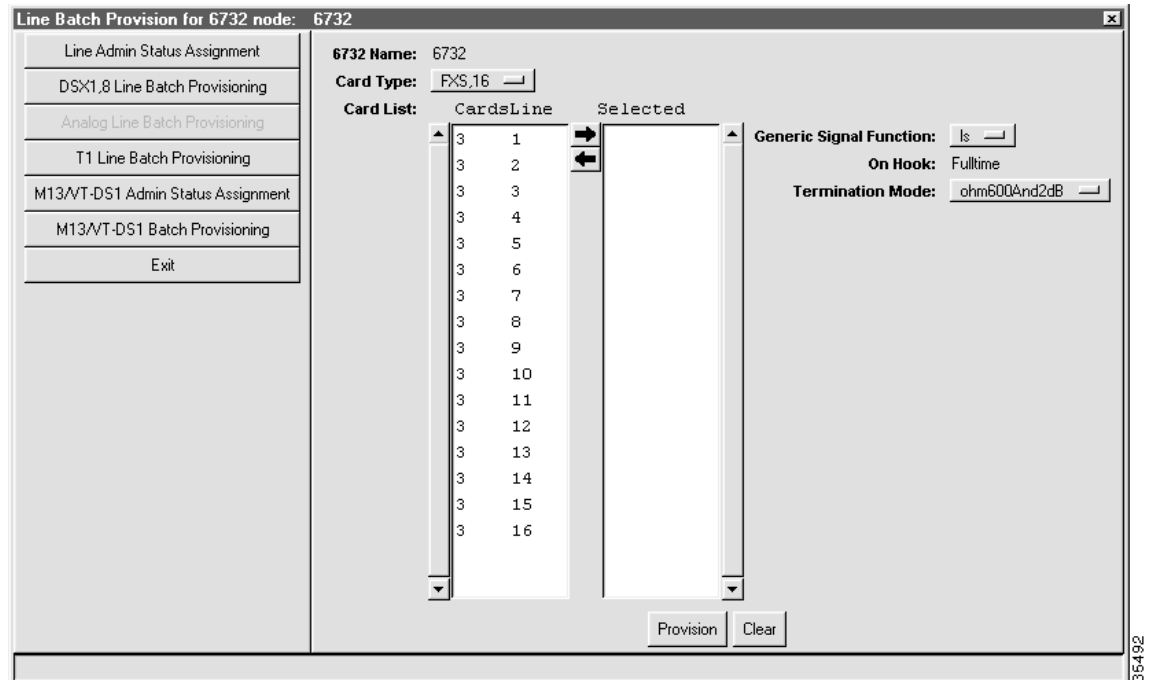
The following sections detail batch line provisioning:

- Batch Provisioning Analog Lines, page 7-27
- Batch Provisioning DSX1 Lines, page 7-28
- Batch Provisioning DSX3 Lines, page 7-29
- Batch Provisioning STSX1 Lines, page 7-31
- Batch Provisioning T1 Lines, page 7-33

## Batch Provisioning Analog Lines

- Step 1** From the Cisco 6700 NodeView menu bar (see Figure 7-1 on page 7-2), select **Objects > Line Batch Provisioning**. EMS displays the line status assignment window. (See Figure 7-20 on page 7-25.)
- Step 2** Select **Analog Line Batch Provisioning** in the function bar. EMS displays the analog line batch provisioning window. (See Figure 7-22.)

*Figure 7-22 Analog Line Batch Provisioning Window*



- Step 3** Set the **Card Type** to the card or cards to be provisioned.
- Step 4** In the **Card List**, select the lines to be provisioned.
- Step 5** Click the right arrow between the **Card List** and the **Selected** list. EMS places the selected lines in the **Selected** list.
- Step 6** Set the following parameters according to your application:
- **Generic Signal Function**—Select **ls** for loop start (default) or **gs** for ground start.
  - **Termination Mode**—Select one of the following modes, expressed in ohms and digital-to-analog signal loss in dB:
    - **ohm600and0dB**
    - **ohm600and1dB** (default for RUVG/8)
    - **ohm600and2dB** (default for FXS/16)

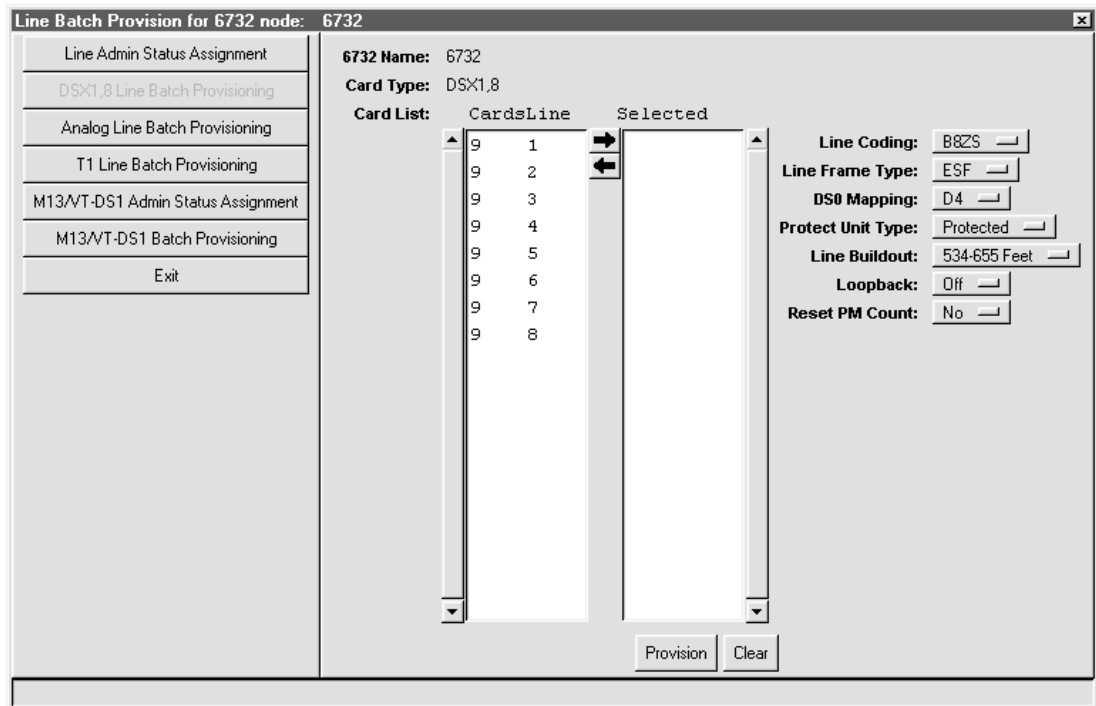
- **ohm600and5dB**
- **ohm900andM2dB** (minus 2dB)
- **ohm900and2dB** (default for RPOTS/16)
- **ohm900and5dB**

Step 7 Click **Apply** to provision the lines.

## Batch Provisioning DSX1 Lines

- Step 1 From the Cisco 6700 NodeView menu bar (see Figure 7-1 on page 7-2), select **Objects > Line Batch Provisioning**. EMS displays the line status assignment window. (See Figure 7-20 on page 7-25.)
- Step 2 Select **DSX1,8 Line Batch Provisioning** in the function bar. EMS displays the DSX1 line batch provisioning window. (See Figure 7-23.)

Figure 7-23 DSX1 Line Batch Provisioning Window



- Step 3 In the **Card List**, select the lines to be provisioned.
- Step 4 Click the right arrow between the **Card List** and the **Selected** list. EMS places the selected lines in the **Selected** list.
- Step 5 Set the following parameters according to your DSX1 application:
- **Line Coding**—Select **B8ZS** (binary 8 zero substitution) or **AMI** (alternate mark inversion).
  - **Line Frame Type**—Select **ESF** (extended superframe), **SF** (superframe), or **SLC96** (subscriber loop carrier, 96 lines).
  - **DS0 Mapping**—Select **D1**, **SLC-D4** (for use with TR-008), or **D4** (for use with GR-303).

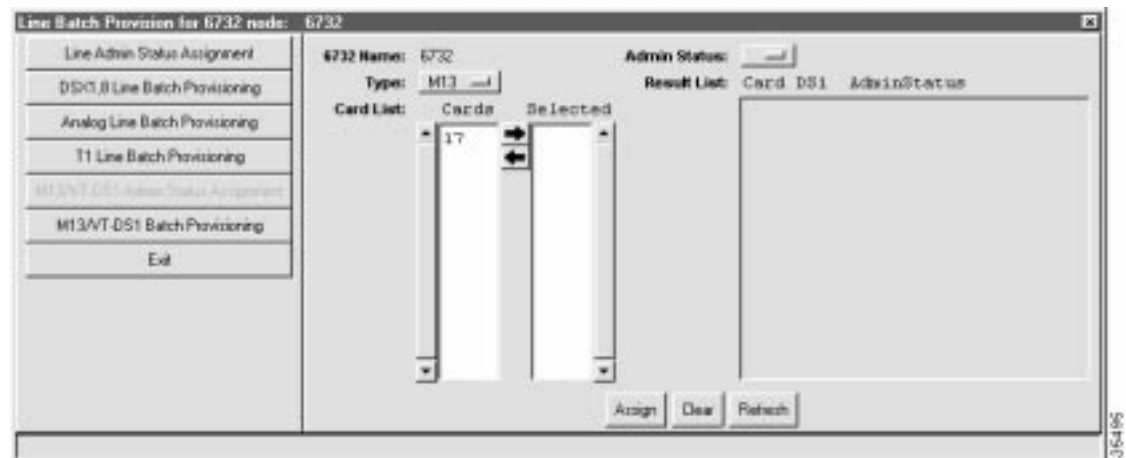
- **Protect Unit Type**—Not supported.
- **Line Buildout**—Select the transmit line length.
- **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
- **Reset PM Count**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)

Step 6 Click **Apply** to provision the lines.

## Batch Provisioning DSX3 Lines

- Step 1 From the Cisco 6700 NodeView menu bar, select **Objects > Line Batch Provisioning**. EMS displays the line status assignment window. (See Figure 7-20 on page 7-25.)
- Step 2 Select **M13/VT-DS1 Admin Status Assignment** in the function bar. EMS displays the M13/VT-DS1 batch provisioning window. (See Figure 7-24.)

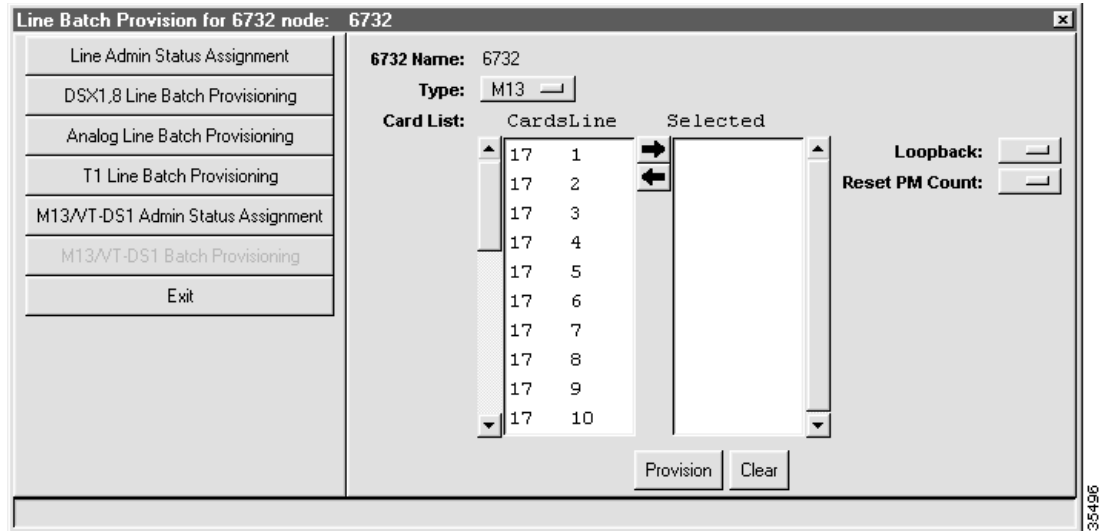
Figure 7-24 M13/VT-DS1 Batch Provisioning Window



- Step 3 Set the **Type** to **M13** (DSX3).
- Step 4 In the **Card List**, select the cards with lines to be placed in service.
- Step 5 Click the right arrow between the **Card List** and the **Selected** list. EMS places the selected lines in the **Selected** list.
- Step 6 Set the **Admin Status** to **inService** or **OutOfService**.
- Step 7 Click **Assign** to place the lines in service or out of service.

- Step 8** Select **M13/VT-DS1 Batch Provisioning** in the function bar. EMS displays the M13/VT-DS1 batch provisioning window. (See Figure 7-23.)

*Figure 7-25 M13/VT-DS1 Batch Provisioning Window*

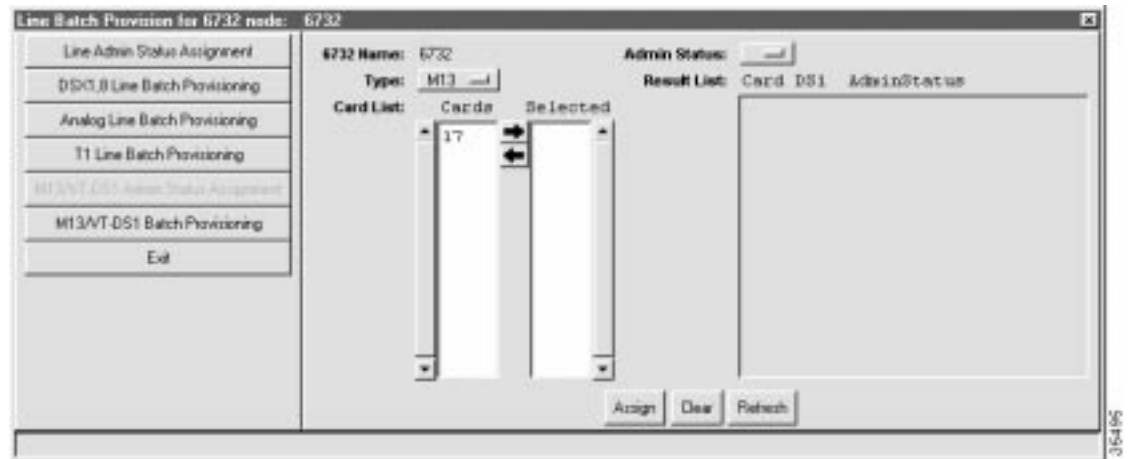


- Step 9** Set the **Type** to **M13** (DSX3).
- Step 10** In the **Card List**, select the lines to be provisioned.
- Step 11** Click the right arrow between the **Card List** and the **Selected** list. EMS places the selected lines in the **Selected** list.
- Step 12** Set the following parameters according to your application:
- **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
  - **Reset PM Count**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)
- Step 13** Click **Apply** to provision the lines.

## Batch Provisioning STSX1 Lines

- Step 1** From Cisco 6700 NodeView menu bar (see Figure 7-1 on page 7-2), select **Objects > Line Batch Provisioning**. EMS displays the line status assignment window. (See Figure 7-20 on page 7-25.)
- Step 2** Select **M13/VT-DS1 Admin Status Assignment** in the function bar. EMS displays the M13/VT-DS1 batch provisioning window. (See Figure 7-26.)

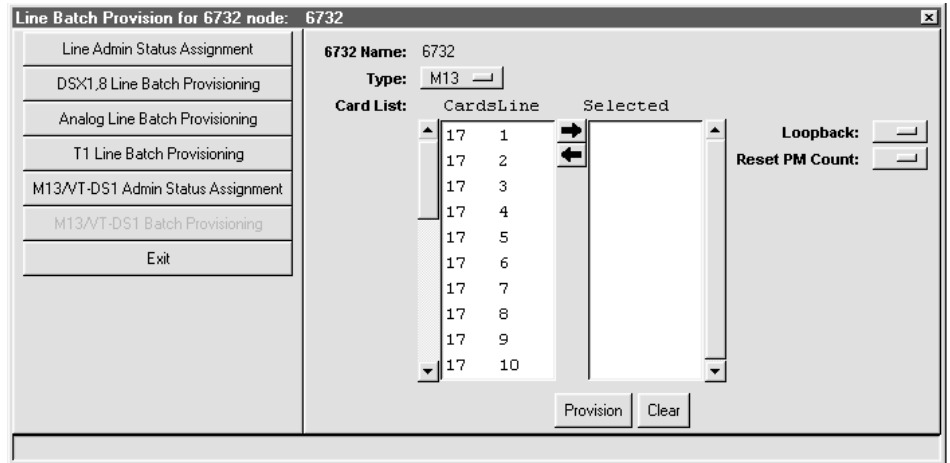
*Figure 7-26 M13/VT-DS1 Batch Provisioning Window*



- Step 3** Set the **Type** to **VT-DS1** (STSX1).
- Step 4** In the **Card List**, select the cards with lines to be placed in service.
- Step 5** Click the right arrow between the **Card List** and the **Selected** list. EMS places the selected lines in the **Selected** list.
- Step 6** Set the **Admin Status** to **InService** or **OutOfService**.
- Step 7** Click **Assign** to place the lines in service or out of service.

- Step 8** Select **M13/VT-DS1 Batch Provisioning** in the function bar. EMS displays the M13/VT-DS1 batch provisioning window. (See Figure 7-27.)

*Figure 7-27 M13/VT-DS1 Line Batch Provisioning Window*



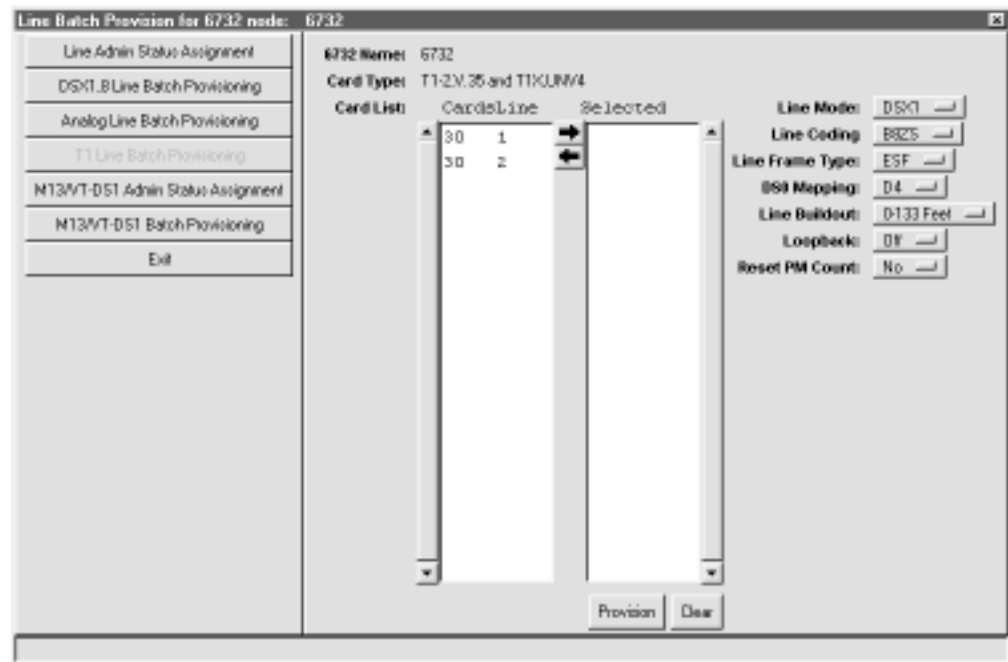
- Step 9** Set the **Type** to **VT-DS1** (STSX1).
- Step 10** In the **Card List**, select the lines to be provisioned.
- Step 11** Click the right arrow between the **Card List** and the **Selected** list. EMS places the selected lines in the **Selected** list.
- Step 12** Set the following parameters according to your application:
- **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
  - **Reset PM Count**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)
- Step 13** Click **Apply** to provision the lines.



## Batch Provisioning T1 Lines

- Step 1** From the Cisco 6700 NodeView menu bar (see Figure 7-1 on page 7-2), select **Objects > Line Batch Provisioning**. EMS displays the line status assignment window. (See Figure 7-20 on page 7-25.)
- Step 2** Select **T1 Line Batch Provisioning** in the function bar. EMS displays the T1 line batch provisioning window. (See Figure 7-28.)

*Figure 7-28 T1 Line Batch Provisioning Window*



- Step 3** In the **Card List**, select the lines to be provisioned.
- Step 4** Click the right arrow between the **CardsLine** List and the **Selected** list. EMS places the selected lines in the Selected list.
- Step 5** Set the following parameters according to your application:
- **Line Coding**—Select **B8ZS** (binary 8 zero substitution) or **AMI** (alternate mark inversion).
  - **Line Frame Type**—Select **ESF** (extended superframe), **SF** (superframe), **HDLU-C** (high-speed digital line unit, central), or **HDLU-R** (high-speed digital line unit, remote).
  - **DS0 Mapping**—Leave as default (**D4**).
  - **Line Buildout**—Select the transmit line length.
  - **Loopback**—Select **Off** (disable loopback), **Line** (facing away from the NE), or **Equipment** (internal loopback).
  - **Reset PM Count**—Select **Yes** to reset the performance monitoring data. (See Chapter 16, “System Maintenance and Monitoring,” for PM information and procedures.)
- Step 6** Click **Apply** to provision the lines.

