Provisioning TDM Cross Connections

Time division multiplexing (TDM) cross connections are available on the following line cards:

- DSX1/8
- DSX3-CHNL
- STSX1-CHNL
- T1-2-V35
- MSDSL-2W (referred to in EMS as HDSL2/MS4)
- RPOTS/16

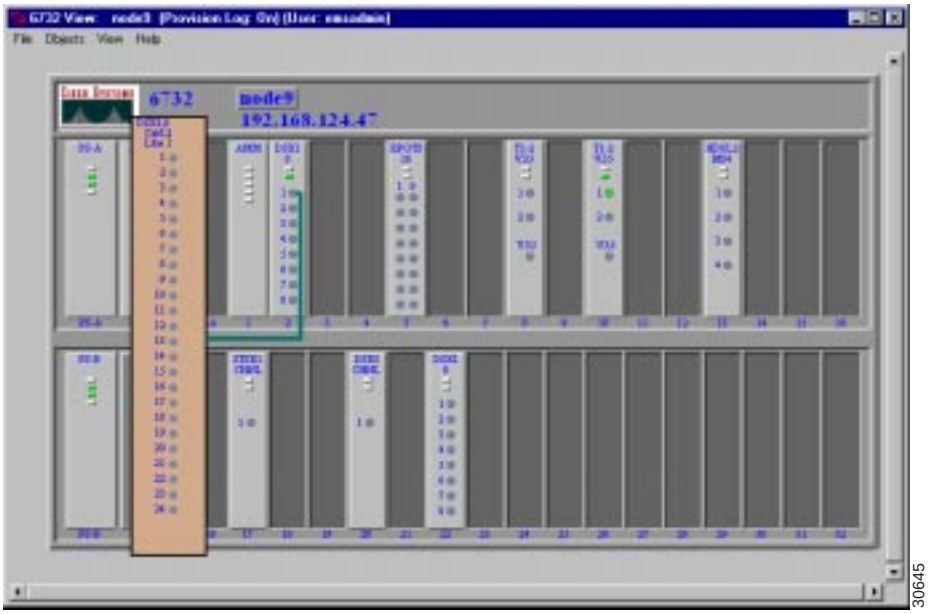
Note You cannot start a cross connection **from** an RPOTS/16 line card, but you can create a cross connection from another valid card to an RPOTS card.

To create a TDM cross connection:

Step 1 To start internal cross connect provisioning, enter the node view of the node to be provisioned.

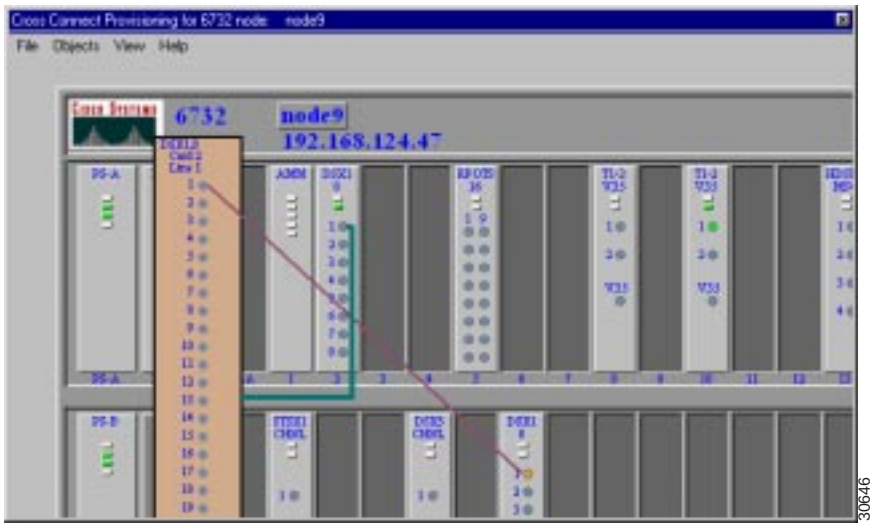
Step 2 Move the cursor to the specific line (facility) that will be provisioned. Right-click the line and select **TDM Cross Connect**. This launches an expanded view of the line card and line to be provisioned. (See Figure 8-1.)

Figure 8-1 Internal Cross Connect—Expanded Card and Line View



Step 3 Move the cursor to the DS0 line to be provisioned. Click the DS0 line and drag the cursor to the desired destination line. (See Figure 8-2.)

Figure 8-2 Internal Cross Connect—Draw Visual Cross Connect



Note TDM cross connects can not be made within the same card. You must drag the cross connection line to a destination other than the originating card.

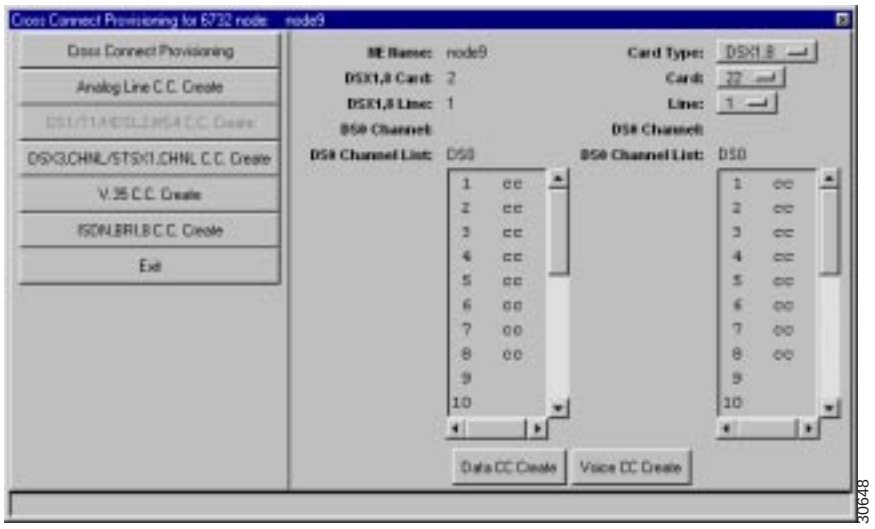
Step 4 After the visual cross connect is created, the cross connect provisioning screen will appear. (See Figure 8-3.) From this screen, you can select the number of DS0 lines to be cross connected.

Step 5 Determine the DS0 lines that are to be cross connected. In the **DS0 Channel List** on the left side, select the DS0 lines to be cross connected. Select the destination lines in the **DS0 Channel List** on the right side. Click **Create** to complete the cross connect provisioning process.

Figure 8-3 Internal Cross Connect—Create Cross Connect

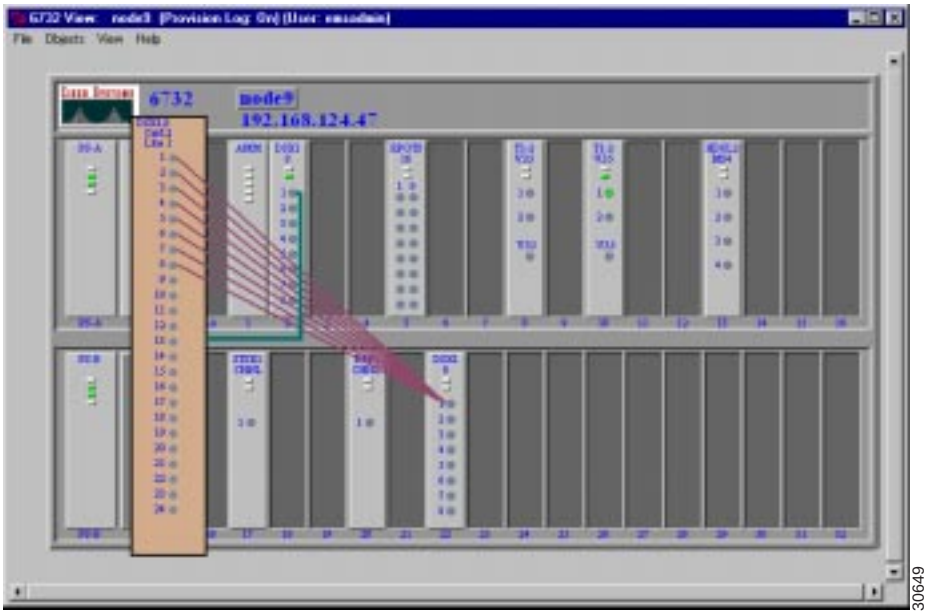
EMS confirms the completion of the cross connects with the text "**cc**" placed next to each successfully provisioned line. (See Figure 8-4.)

Figure 8-4 Internal Cross Connect—Cross Connects Confirmed



Step 6 Click **Exit** to return to the node view. All of the provisioned cross connects will be shown. (See Figure 8-5.)

Figure 8-5 Cross Connects Displayed

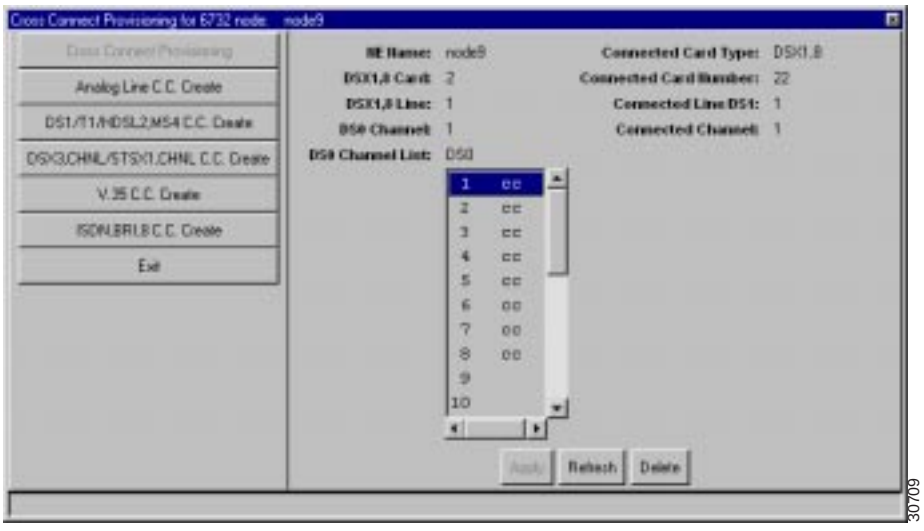


Delete Internal Cross Connects

The cross connect provisioning screen can also be used to delete cross connects. Cross connect deletions can be initiated from the node view with cross connects displayed, or from the cross connect provisioning window (select the **Cross Connect Provisioning** option).

Step 1 With the cross connects displayed from the node view, double-click a specific cross connection line. EMS launches the cross connect provisioning window. (See Figure 8-6.)

Figure 8-6 Cross Connect Provisioning Window



Step 2 From the **DS0 Channel List**, select the cross connections to be deleted. Click **Delete** to remove the cross connections. EMS confirms the deletion by removing the "**cc**" text next to each line.

End Cross Connect Display

To end internal cross connect provisioning, right-click the expanded line card and select **End Cross Connect Display**.

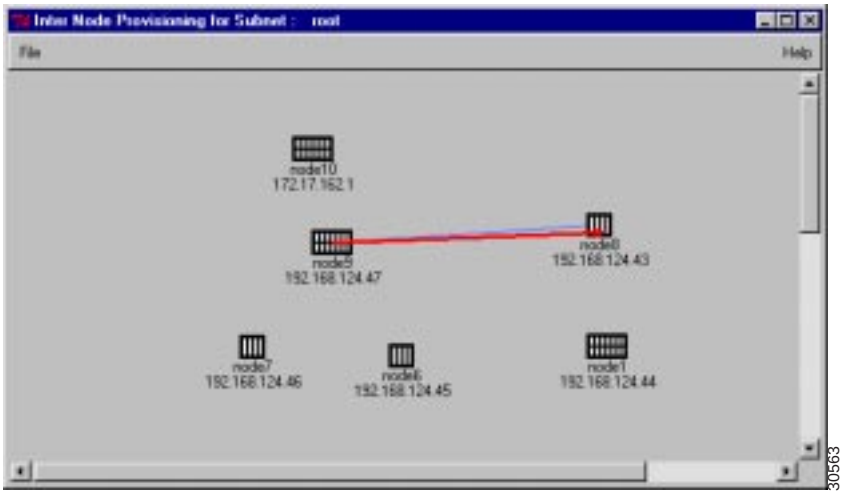
Provisioning Remote Cross Connections

Inter-node (external) cross connects are made from one Cisco 6700 NE to another Cisco 6700 NE.

Note Prior to inter-node cross connect provisioning, an inter-node link (non-data link or data link) must be established between the nodes involved in the inter-node cross connect. See Chapter 6, "Inter-Node Data Links," for more information on inter-node links.

Step 1 From the node view of the node that will initiate the cross connect provisioning (source), select the **Inter Node Provision** option. Click and drag a line between the nodes to be cross connected. A red line will indicate the path. (See Figure 8-7.)

Figure 8-7 Inter Node Provisioning—Create Path



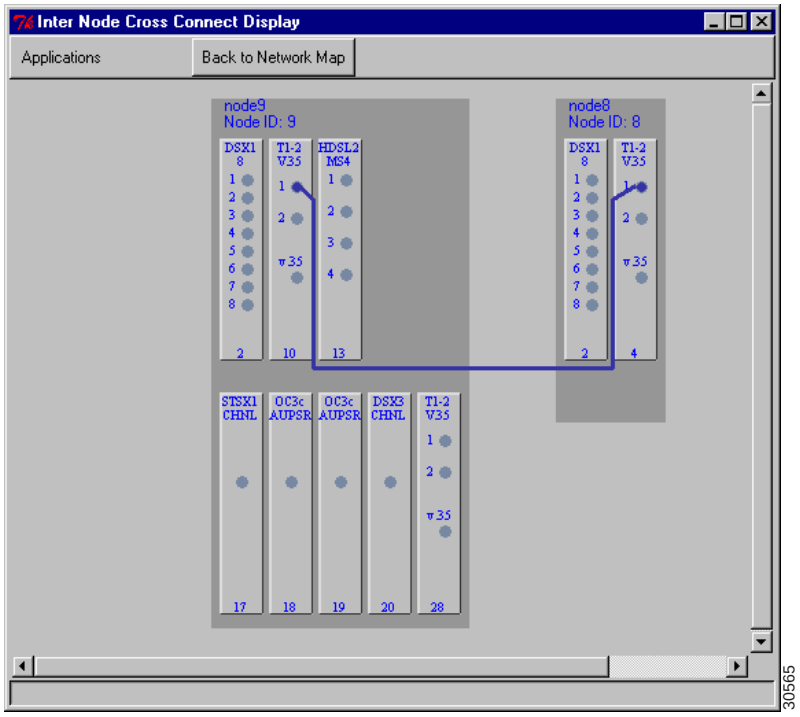
A **Path List** window will appear after the visual link is made between the two nodes. (See Figure 8-8.) This indicates the path that will be used to communicate between the two nodes (**Path ID**) and the number of nodes that are included in the path (**Node Count**). Networks that contain more nodes and different configurations might have multiple paths from the source node to the destination node. In the example below, Path ID 0 is selected.

Figure 8-8 Inter Node Provisioning—Path List

Step 2 Move the cursor to the red line that was just created. Double-click this line to launch the Inter-Node Cross Connect Provisioning window.

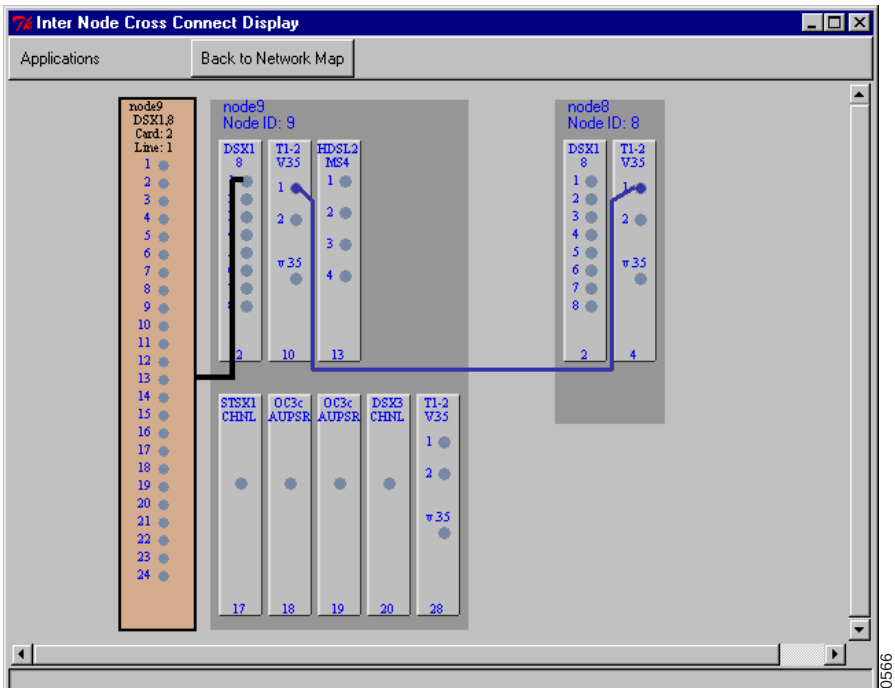
Step 3 From the Inter-Node Cross Connect Provisioning screen, the EMS displays all of the line cards that are installed in the linked nodes. Note that the inter-node link is displayed on this screen.

Figure 8-9 Inter Node Cross Connect



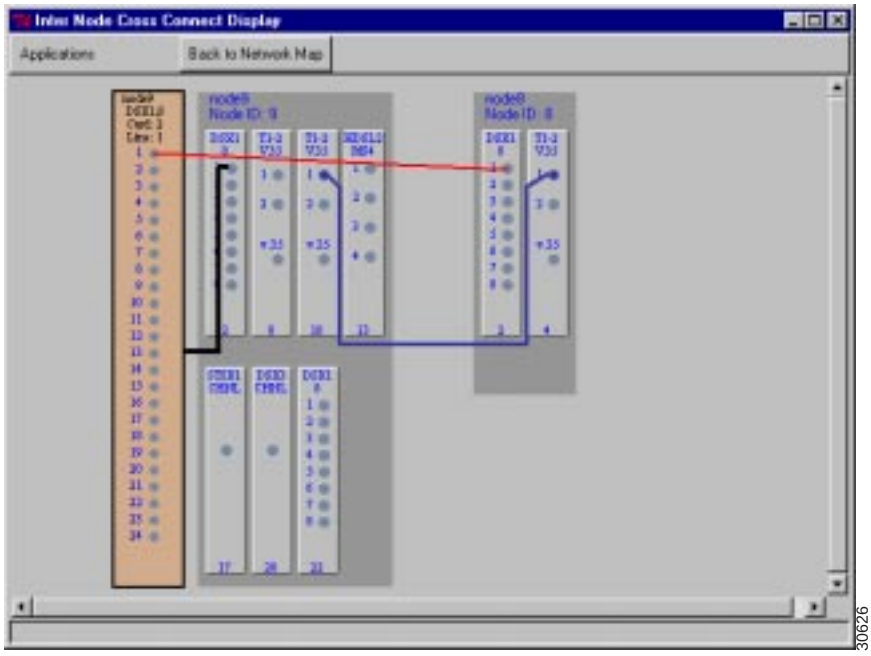
Step 4 Move the cursor to the desired card and line on the source node. Right-click the specific line, and select **Start Inter Node Cross Connect** from the popup menu. EMS launches the expanded (cross connect) line card view. (See Figure 8-10.)

Figure 8-10 Inter-Node Cross Connect—Expanded Line Card View



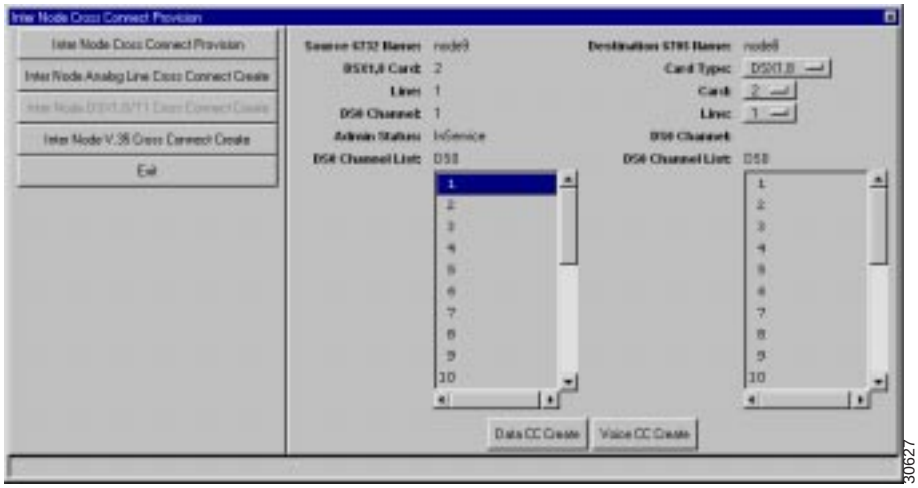
Step 5 Drag a line from the source DS0 to the destination line on the other NE. (See Figure 8-11.)

Figure 8-11 Inter-Node Cross Connect—Draw Visual Cross Connect



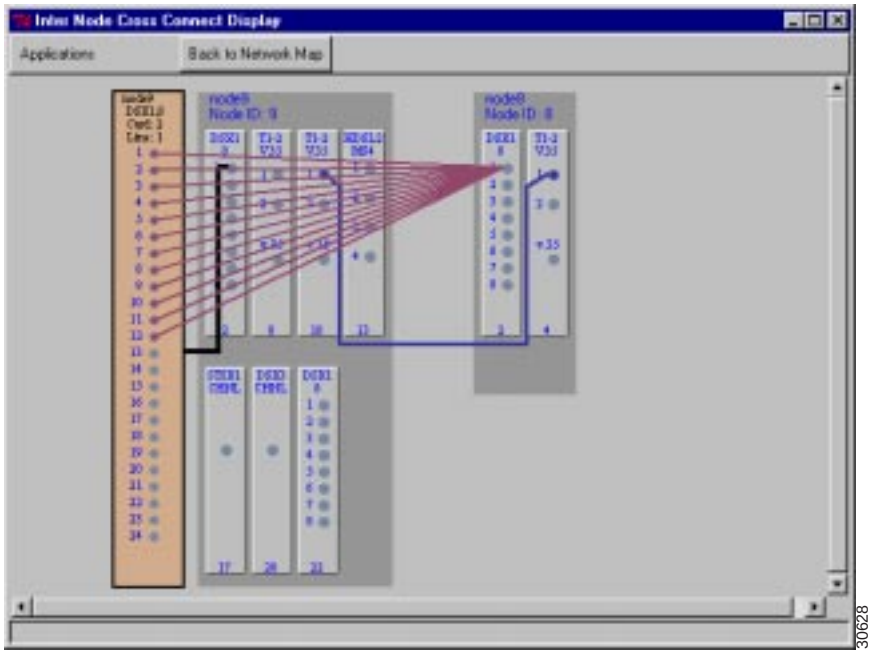
Step 6 After the visual line is drawn, EMS launches the inter node cross connect provisioning window. (See Figure 8-12.) Determine the DS0 lines that are to be cross connected. In the **DS0 Channel List** on the left side, select the DS0 lines to be cross connected. Select the destination lines in the **DS0 Channel List** on the right side. Click **Data CC Create** or **Voice CC Create** to create a data or voice cross connection.

Figure 8-12 Inter-Node Cross Connect—Create Cross Connect



EMS confirms the completion of the cross connects with the text "**cc**" placed next to each successfully provisioned line. Click **Exit** to return to the inter-node cross connect and visually confirm the inter-node cross connects. (See Figure 8-13.)

Figure 8-13 Inter-Node Cross Connects Displayed

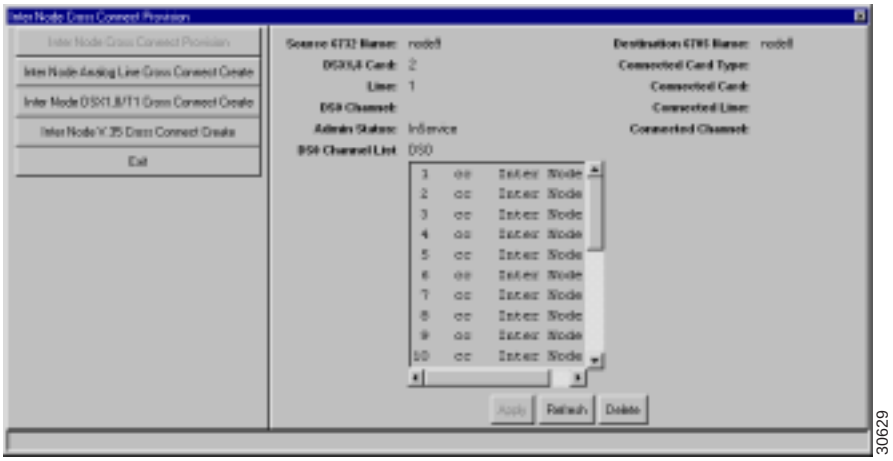


Delete Inter Node Cross Connects

The inter node cross connect provisioning window can also be used to delete cross connects. Cross connect deletions can be initiated from the node view with cross connects displayed, or from the inter node cross connect provisioning window (select the **Inter-Node Cross Connect Provision** option).

Step 1 With the cross connects displayed from the node view, double-click a specific cross connection line. EMS launches the inter-node cross connect provisioning window. (See Figure 8-14.)

Figure 8-14 Initiate Delete Cross Connects



Step 2 From the **DS0 Channel List**, select the cross connections to be deleted. Click **Delete** to remove the cross connections. EMS confirms the deletion by removing the cross-connect text next to each line.

End Inter Node Cross Connect

To end inter-node cross connect provisioning, right-click the expanded line card and select **End Cross Connect Display**.