C H A P T E R **19**

DLPs F400 to F499

DLP-F400 Connect to ONS Nodes Using the CTC Launcher

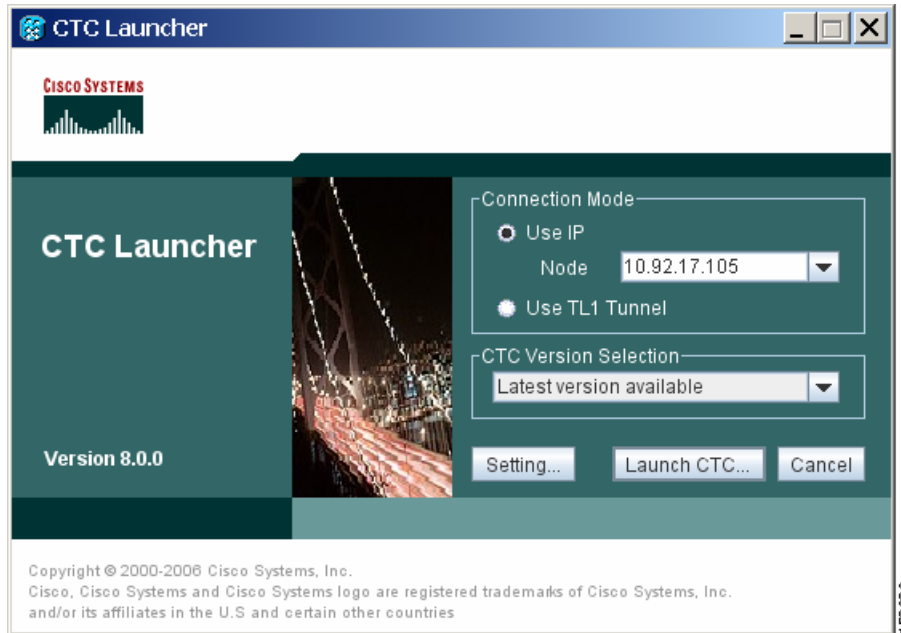|	
Purpose	This task connects the CTC Launcher to ONS nodes.
Tools/Equipment	None
Prerequisite Procedures	NTP-F126 Set Up Computer for CTC, page 3-1
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	None

Step 1 Start the CTC Launcher:

- Windows: navigate to the directory containing the StartCTC.exe file and double-click it. (You can also use the Windows Start menu Run command.)
- Solaris: assuming the StartCTC.exe file is accessible from the current shell path, navigate to the directory containing the StartCTC.exe file and type:

   % java -jar StartCTC.exe

Step 2 In the CTC Launcher dialog box, choose **Use IP**.

Figure 19-1 shows the CTC Launcher window.

Figure 19-1   CTC Launcher Window

Step 3   In the Login Node box, enter the ONS NE node name or IP address. (If the address was entered previously, you can choose it from the drop-down menu.)

Step 4   Select the CTC version you want to launch from the following choices in the drop-down menu:

- Same version as the login node: Select if you want to launch the same CTC version as the login node version, even if more recent versions of CTC are available in the cache.

- Latest version available: Select if you want to launch the latest CTC version available. If the cache has a newer CTC version than the login node, that CTC version will be used. Otherwise the same CTC version as the login node will be used.

- Version x.xx: Select if you want to launch a specific CTC version.

Note   Cisco recommends that you always use the "Same version as the login node" unless the use of newer CTC versions is needed (for example, when CTC must manage a network containing mixed version NEs).

Step 5   Click **Launch CTC**. After the connection is made, the CTC Login dialog box appears.

Step 6   Log into the ONS node.

Note   Because each CTC version requires particular JRE versions, the CTC Launcher will prompt the user for the location of a suitable JRE whenever a new CTC version is launched for the first time using a file chooser dialog (if a suitable JRE version is not known by the launcher yet). That JRE information is then saved in the user's preferences file. From the selection dialog, select any appropriate JRE directory.

After the JRE version is selected, the CTC will be launched. The required jar files will be downloaded into the new cache if they are missing. The CTC Login window will appear after a few seconds.

Step 7   Return to your originating procedure (NTP).

DLP-F401 Create a TL1 Tunnel Using the CTC Launcher

Purpose	This task creates a TL1 tunnel using the CTC Launcher, and the tunnel transports the TCP traffic to and from ONS ENEs through the OSI-based GNE.
Tools/Equipment	None
Prerequisite Procedures	NTP-F126 Set Up Computer for CTC, page 3-1
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	None

Step 1   Double-click the StartCTC.exe file.

Step 2   Click **Use TL1 Tunnel**.

Step 3   In the Open CTC TL1 Tunnel dialog box, enter the following:

- Far End TID—Enter the TID of the ONS ENE at the far end of the tunnel. The TID is the name entered in the Node Name field on the node view Provisioning > General tab.

- Host Name/IP Address—Enter the GNE DNS host name or IP address through which the tunnel will established. This is the third-party vendor GNE that is connected to an ONS node through an OSI DCC network. CTC uses TCP/IP over a DCN to reach the GNE. The GNE accepts TL1 connections from the network and can forward TL1 traffic to the ENEs.

- Choose a port option:
    - Use Default TL1 Port—Choose this option if you want to use the default TL1 port 3081 and 3082.
    - Use Other TL1 Port—Choose this option if the GNE uses a different TL1 port. Enter the port number in the box next to the User Other TL1 Port radio button.

- TL1 Encoding Mode—Choose the TL1 encoding:
    - LV + Binary Payload— TL1 messages are delimited by LV (length value) headers and TCP traffic is encapsulated in binary form. Cisco recommends this option because it is the most efficient encoding mode. However, you must verify that the GNE supports LV + Binary Payload encoding.
    - LV + Base64 Payload— TL1 messages are delimited by LV headers and TCP traffic is encapsulated using Base64 encoding.
    - Raw—TL1 messages are delimited by semi-columns only, and the TCP traffic is encapsulated using Base64 encoding.

- GNE Login Required—Check this box if the GNE requires a a local TL1 ACT-USER login before forwarding TL1 traffic to ENEs.

- TID—If the GNE Login Required box is checked, enter the GNE TID.

Step 4   Click **OK**.

Step 5 If the GNE Login Required box is checked, complete the following steps. If not, continue Step 6.

    a. In the Login to Gateway NE dialog box UID field, enter the TL1 user name.

    b. In the PID field, enter the TL1 user password.

    c. Click **OK**.

Step 6 When the CTC Login dialog box appears, complete the CTC login.

Step 7 Return to your originating procedure (NTP).

DLP-F402 Create a TL1 Tunnel Using CTC

Purpose	This task creates a TL1 tunnel using CTC.
Tools/Equipment	None
Prerequisite Procedures	NTP-F126 Set Up Computer for CTC, page 3-1
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1 From the Tools menu, choose **Manage TL1 Tunnels**.

Step 2 In the TL1 Tunnels window, click **Create**.

Step 3 In the Create CTC TL1 Tunnel dialog box, enter the following:

- Far End TID—Enter the TID of the ONS ENE at the far end of the tunnel. The ENE must be a Cisco ONS NE. The TID is the name entered in the Node Name field on the node view Provisioning > General tab.

- Host Name/IP Address—Enter the GNE DNS host name or IP address through which the tunnel will established. This is the third-party vendor GNE that is connected to an ONS NE with an OSI DCC. CTC uses TCP/IP over a DCN to reach the GNE. The GNE accepts TL1 connections from the network and can forward TL1 traffic to the ENEs.

- Choose a port option:

  - Use Default TL1 Port—Choose this option if you want to use the GNE default TL1 port. TL1 uses standard ports, such as 3081 and 3082, unless custom TL1 ports are defined.

  - Use Other TL1 Port—Choose this option if the GNE uses a different TL1 port. Enter the port number in the box next to the User Other TL1 Port radio button.

- TL1 Encoding Mode—Choose the TL1 encoding:

  - LV + Binary Payload— TL1 messages are delimited by LV (length value) headers and TCP traffic is encapsulated in binary form. Cisco recommends this option because it is the most efficient. However, you must verify that the GNE supports LV + Binary Payload encoding.

  - LV + Base64 Payload— TL1 messages are delimited by LV headers and TCP traffic is encapsulated using Base64 encoding.

  - Raw—TL1 messages are delimited by semi-columns only, and the TCP traffic is encapsulated using Base64 encoding.

   - GNE Login Required—Check this box if the GNE requires a a local TL1 ACT-USER login before forwarding TL1 traffic to ENEs.

   - TID—If the GNE Login Required box is checked, enter the GNE TID.

Step 4   Click **OK**.

Step 5   If the GNE Login Required box is checked, complete the following steps. If not, continue Step 6.

   a.   In the Login to Gateway NE dialog box UID field, enter the TL1 user name.

   b.   In the PID field, enter the TL1 user password.

   c.   Click **OK**.

Step 6   After the CTC Login dialog box appears, log into CTC.

Step 7   Return to your originating procedure (NTP).

DLP-F403 View TL1 Tunnel Information

Purpose	This task views a TL1 tunnel created using the CTC Launcher.
Tools/Equipment	None
Prerequisite Procedures	NTP-F126 Set Up Computer for CTC, page 3-1
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Retrieve or higher

Step 1   Log into CTC.

Step 2   From the Tools menu, choose **Manage TL1 Tunnels**.

Step 3   In the TL1 Tunnels window, view the information shown in Table 19-1.

Table 19-1   *TL1 Tunnels Window*

Item	Description
Far End TID	The Target ID of the NE at the far end of the tunnel. This NE is an ONS NE. It is typically connected with an OSI DCC to a third-party vender GNE. CTC manages this NE.
GNE Host	The GNE host or IP address through which the tunnel is established. This is generally a third-party vendor GNE that is connected to an ONS NE with an OSI DCC. CTC uses TCP/IP over a DCN to reach the GNE. The GNE accepts TL1 connections from the network and can forward TL1 traffic to the ENEs.
Port	The TCP port number where the GNE accepts TL1 connections coming from the DCN. These port numbers are standard (such as 3081 and 3082) unless custom port numbers are provisioned on the GNE.

Table 19-1   *TL1 Tunnels Window (continued)*

Item	Description
TL1 Encoding	Defines the TL1 encoding used for the tunnel: • LV + Binary Payload— TL1 messages are delimited by an LV (length value) header. TCP traffic is encapsulated in binary form. • LV + Base64 Payload— TL1 messages are delimited by an LV header. TCP traffic is encapsulated using the base 64 encoding. • Raw—TL1 messages are delimited by semi-columns only, and the TCP traffic is encapsulated using Base64 encoding.
GNE TID	The GNE TID is shown when the GNE requires a local TL1 ACT-USER login before forwarding TL1 traffic to ENEs. If present, CTC asks the user for the ACT-USER user ID and password when the tunnel is opened.
State	Indicates the tunnel state: OPEN—A tunnel is currently open and carrying TCP traffic. RETRY PENDING—The TL1 connection carrying the tunnel has been disconnected and a retry to reconnect it is pending. (CTC automatically attempts to reconnect the tunnel at regular intervals. During that time all ENEs behind the tunnel are unreachable.) (empty)—No tunnel is currently open.
Far End IP	The IP address of the ONS NE that is at the far end of the TL1 tunnel. This information is retrieved from the NE when the tunnel is established.
Sockets	The number of active TCP sockets that are multiplexed in the tunnel. This information is automatically updated in real time.
Retries	Indicates the number of times CTC tried to reopen a tunnel. If a network problem causes a tunnel to go down, CTC automatically tries to reopen it at regular intervals. This information is automatically updated in real time.
Rx Bytes	Shows the number of bytes of management traffic that were received over the tunnel. This information is automatically updated in real time.
Tx Bytes	Shows the number of bytes of management traffic that were transmitted over the tunnel. This information is automatically updated in real time.

Step 4   Return to your originating procedure (NTP).

DLP-F404 Edit a TL1 Tunnel Using CTC

Purpose	This task edits a TL1 tunnel using CTC.
Tools/Equipment	None
Prerequisite Procedures	DLP-F181 Log into CTC, page 16-34
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1   From the Tools menu, choose **Manage TL1 Tunnels**.

Step 2   In the TL1 Tunnels window, click the tunnel you want to edit.

Step 3   Click **Edit**.

Step 4   In the Edit CTC TL1 Tunnel dialog box, edit the following:

- Use Default TL1 Port—Choose this option if you want to use the GNE default TL1 port. TL1 uses standard ports, such as 3081 and 3082, unless custom TL1 ports are defined.

- Use Other TL1 Port—Choose this option if the GNE uses a different TL1 port. Enter the port number in the box next to the User Other TL1 Port radio button.

- TL1 Encoding Mode—Choose the TL1 encoding:

  - LV + Binary Payload— TL1 messages are delimited by LV (length value) headers and TCP traffic is encapsulated in binary form. Cisco recommends this option because it is the most efficient. However, you must verify that the GNE supports LV + Binary Payload encoding.

  - LV + Base64 Payload— TL1 messages are delimited by LV headers and TCP traffic is encapsulated using Base64 encoding.

  - Raw—TL1 messages are delimited by semi-columns only, and the TCP traffic is encapsulated using Base64 encoding.

- GNE Login Required—Check this box if the GNE requires a a local TL1 ACT-USER login before forwarding TL1 traffic to ENEs.

- TID—If the GNE Login Required box is checked, enter the GNE TID.

Step 5   Click **OK**.

Step 6   If the GNE Login Required box is checked, complete login in the Login to Gateway NE dialog box. If not, continue Step 6.

   a.   In the UID field, enter the TL1 user name.

   b.   In the PID field, enter the TL1 user password.

   c.   Click **OK**.

Step 7   When the CTC Login dialog box appears, complete the CTC login. Refer to login procedures in the user documentation for the ONS ENE.

Step 8   Return to your originating procedure (NTP).

DLP-F405 Delete a TL1 Tunnel Using CTC

Purpose	This task deletes a TL1 tunnel using CTC.
Tools/Equipment	None
Prerequisite Procedures	DLP-F181 Log into CTC, page 16-34
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

Step 1   From the Tools menu, choose **Manage TL1 Tunnels**.

Step 2   In the TL1 Tunnels window, click the tunnel you want to delete.

Step 3   Click **Delete**.

Step 4   In the confirmation dialog box, click **OK**.

Step 5   Return to your originating procedure (NTP).