

This chapter explains how to connect PCs and workstations to the Cisco ONS 15454 SDH and how to log into Cisco Transport Controller (CTC) software, which is the Cisco ONS 15454 SDH Operation, Administration, Maintenance and Provisioning (OAM&P) user interface. Procedures for connecting to the ONS 15454 using Transaction Language One (TL1) are provided in the *Cisco ONS 15454 SDH and Cisco ONS 15600 SDH TL1 Command Guide*.

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## Before You Begin

This section lists the chapter procedures (NTPs). Turn to a procedure for applicable tasks (DLPs).

1. [NTP-D278 Set Up Computer for CTC](#)-Complete this procedure if your PC or workstation has never been connected to an ONS 15454 SDH.
2. [NTP-D260 Set Up CTC Computer for Local Craft Connection to the ONS 15454 SDH](#)-Complete this procedure to set up your computer for an onsite craft connection to the ONS 15454 SDH.
3. [NTP-261 Set Up a Computer for a Corporate LAN Connection to the ONS 15454 SDH](#)-Complete this procedure to set up your computer to connect to the ONS 15454 SDH using a corporate LAN.
4. [NTP-D262 Set Up a Remote Access Connection to the ONS 15454 SDH](#)-Complete this procedure to set up your computer for remote modem access to the ONS 15454 SDH.
5. [NTP-D23 Log into the ONS 15454 SDH GUI](#)-Complete this procedure to log into CTC.
6. [NTP-D357 Use the CTC Launcher Application to Manage Multiple ONS Nodes](#)-Complete this procedure to install and use the CTC launcher application.

## NTP-D278 Set Up Computer for CTC

|                                |   |
|--------------------------------|---|
| <b>Purpose</b>                 | This procedure configures your PC or UNIX workstation to run CTC. |
| <b>Tools/Equipment</b>         | Cisco ONS 15454 SDH Release 8.5 software CD                       |
| <b>Prerequisite Procedures</b> | <a href="#">Install the Shelf and FMECs</a>                       |
| <b>Required/As Needed</b>      | Required  |
| <b>Onsite/Remote</b>           | Onsite or remote  |
| <b>Security Level</b>          | None  |

**Note:** JRE 5.0 is required to log into nodes running Release 8.5. To log into nodes running Release 4.5 or earlier, you must uninstall JRE 1.4.2 or 5.0 and install JRE 1.3.1\_2. Complete the "[DLP-D422 Change the JRE Version](#)" task as necessary.

1. If your computer does not have an appropriate browser installed, complete the following:
  - ◆ To install Netscape 7.x, download the browser at the following site:  
<http://channels.netscape.com/ns/browsers/default.jsp>

- ◆ To install Internet Explorer 6.x on a PC, download the browser at the following site:  
<http://www.microsoft.com>
- 2. Complete the "[DLP-D224 Adjust the Java Virtual Memory Heap Size](#)" task to improve CTC efficiency.
- 3. If your computer is a Windows PC, complete the "[DLP-D433 Run the CTC Installation Wizard for Windows](#)" task, then go to Step 5.
- 4. If your computer is a UNIX workstation, complete the "[DLP-D434 Run the CTC Installation Wizard for UNIX](#)" task.
- 5. When your PC or workstation is set up, continue with the setup procedure appropriate to your network:
  - ◆ [NTP-D260 Set Up CTC Computer for Local Craft Connection to the ONS 15454 SDH](#)
  - ◆ [NTP-D261 Set Up a Computer for a Corporate LAN Connection to the ONS 15454 SDH](#)
  - ◆ [NTP-D262 Set Up a Remote Access Connection to the ONS 15454 SDH](#)

**Note:** Cisco recommends that you configure your browser to disable the caching of user IDs and passwords on computers that are used to access Cisco optical equipment. In Internet Explorer, choose **Tools > Internet Options > Content**. Click **Auto Complete** and uncheck the **User names and passwords on forms** option. In Netscape 7.0, choose **Edit > Preferences > Privacy & Security > Forms** and uncheck the option to save form data. For passwords, choose **Edit > Preferences > Privacy & Security > Passwords** and uncheck the option to remember passwords. Note that passwords can be stored in an encrypted format. Netscape versions earlier than 6.0 do not cache user IDs and passwords.

**Stop. You have completed this procedure.**

## NTP-D260 Set Up CTC Computer for Local Craft Connection to the ONS 15454 SDH

|                                |  |
|--------------------------------|--|
| <b>Purpose</b>                 | This procedure explains how to set up a PC running Windows or a Solaris workstation for an onsite local craft connection to the ONS 15454 SDH. |
| <b>Tools/Equipment</b>         | Network interface card (NIC), also referred to as an Ethernet card<br>Straight-through (CAT-5) LAN cable                                       |
| <b>Prerequisite Procedures</b> | <a href="#">NTP-D278 Set Up Computer for CTC</a>   |
| <b>Required/As Needed</b>      | As needed  |
| <b>Onsite/Remote</b>           | Onsite or remote   |
| <b>Security Level</b>          | None   |

1. Complete one of the CTC computer setup tasks listed in [Table 3-1](#) based upon your CTC connection environment.

**Table 3-1: CTC Computer Setup for Local Craft Connection to the ONS 15454 SDH**

| CTC Connection Environment   | CTC Computer Setup Task   |
|--|---|
| <ul style="list-style-type: none"> <li>• You are connecting from a Windows PC.</li> <li>• You will connect to one ONS 15454 SDH.</li> <li>• You need to access non-ONS 15454 SDH applications such as ping and tracert (trace route).</li> </ul> | <a href="#">DLP-D50 Set Up a Windows PC for Craft Connection to an ONS 15454 SDH on the Same Subnet Using Static IP Addresses</a> |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• You are connecting from a Windows PC.</li> <li>• The CTC computer is provisioned for Dynamic Host Configuration Protocol (DHCP).</li> <li>• The ONS 15454 SDH has DHCP forwarding enabled.</li> <li>• The ONS 15454 SDH is connected to a DHCP server.</li> </ul> <p><b>Note:</b> The ONS 15454 SDH does not provide IP addresses. If DHCP is enabled, it passes DHCP requests to an external DHCP server.</p>  | <p><a href="#"><u>DLP-D51 Set Up a Windows PC for Craft Connection to an ONS 15454 SDH Using Dynamic Host Configuration Protocol</u></a></p> <p><b>Note:</b> Do not use this task for initial node turn-up. Use the task only if DHCP forwarding is enabled on the ONS 15454 SDH. By default, DHCP is not enabled. To enable it, see the <a href="#"><u>NTP-D169 Set Up CTC Network Access</u></a>.</p> |
| <ul style="list-style-type: none"> <li>• You are connecting from a Windows PC.</li> <li>• All nodes that you will access run Software Release 3.3 or later.</li> <li>• You will connect to ONS 15454 SDH nodes at different locations and times and do not wish to reconfigure your PC IP settings each time.</li> <li>• You do not need to access or use non-ONS 15454 SDH applications such as ping and tracert (trace route).</li> <li>• You will connect to the ONS 15454 SDH TCC2/TCC2P Ethernet port or FMEC LAN pins either directly or through a hub.</li> </ul> | <p><a href="#"><u>DLP-D52 Set Up a Windows PC for Craft Connection to an ONS 15454 SDH Using Automatic Host Detection</u></a></p>   |
| <ul style="list-style-type: none"> <li>• You are connecting from a Solaris Workstation.</li> <li>• You will connect to one ONS 15454 SDH.</li> <li>• You need to access non-ONS 15454 SDH applications such as ping and tracert (trace route).</li> </ul>  | <p><a href="#"><u>DLP-D319 Set Up a Solaris Workstation for a Craft Connection to an ONS 15454 SDH</u></a></p>  |

2. Connect a straight-through (CAT-5) LAN cable from the PC or Solaris workstation NIC to one of the following:

- RJ-45 (LAN) port on the active or standby TCC2/TCC2P card
- RJ-45 jack on the MIC-C/T/P FMEC
- RJ-45 (LAN) port on a hub or switch to which the ONS 15454 SDH is physically connected

**Note:** For instructions about crimping your own straight-through (CAT-5) LAN cables, refer to the *Cisco ONS 15454 SDH Troubleshooting Guide*.

**Note:** For initial shelf turn-up, you should connect your PC directly to the LAN port on the ONS 15454 TCC2/TCC2P card.

3. Continue with the [NTP-D23 Log into the ONS 15454 SDH GUI](#), if applicable.

**Stop. You have completed this procedure.**

## NTP-D261 Set Up a Computer for a Corporate LAN Connection to the ONS 15454 SDH

|                                |  |
|--------------------------------|--|
| <b>Purpose</b>                 | This procedure sets up your computer to access the ONS 15454 SDH through a corporate LAN.  |
| <b>Tools/Equipment</b>         | NIC, also referred to as an Ethernet card<br>Straight-through (CAT 5) LAN cable  |
| <b>Prerequisite Procedures</b> | <ul style="list-style-type: none"> <li>• <a href="#">NTP-D278 Set Up Computer for CTC</a></li> <li>• The ONS 15454 SDH must be provisioned for LAN connectivity, including IP address, subnet mask, and default gateway.</li> <li>• The ONS 15454 SDH must be physically connected to the corporate LAN.</li> <li>• The CTC computer must be connected to the corporate LAN that has connectivity to the ONS 15454 SDH.</li> </ul> |
| <b>Required/As Needed</b>      | As needed  |
| <b>Onsite/Remote</b>           | Onsite or remote   |
| <b>Security Level</b>          | None   |

1. If your computer is already connected to the corporate LAN, go to Step 3. If you changed your computer network settings for craft access to the ONS 15454 SDH, change the settings back to the corporate LAN access settings. This generally means:
  - ◆ Set the IP Address on the TCP/IP dialog box back to **Obtain an IP address automatically** (Windows 98) or **Obtain an IP address from a DHCP server** (Windows NT, 2000, or XP).
  - ◆ If your LAN requires that Domain Name System (DNS) or Windows Internet Naming Service (WINS) be enabled, change the setting on the DNS Configuration or WINS Configuration tab of the TCP/IP dialog box.
2. Connect a straight-through (CAT-5) LAN from the PC or Solaris workstation NIC card to a corporate LAN port.
3. If your computer is connected to a proxy server, disable proxy service or add the ONS 15454 SDH nodes as exceptions. To disable proxy service, complete one of the following tasks, depending on the web browser you use:
  - ◆ [DLP-D56 Disable Proxy Service Using Internet Explorer \(Windows\)](#)
  - ◆ [DLP-D57 Disable Proxy Service Using Netscape \(Windows and UNIX\)](#)
4. Continue with the [NTP-D23 Log into the ONS 15454 SDH GUI](#).

**Stop. You have completed this procedure.**

## NTP-D262 Set Up a Remote Access Connection to the ONS 15454 SDH

|                        |   |
|------------------------|---|
| <b>Purpose</b>         | This procedure connects the CTC computer to an ONS 15454 SDH using a LAN modem.   |
| <b>Tools/Equipment</b> | Modem and modem documentation. The modem must be: <ul style="list-style-type: none"> <li>• Connected to the ONS 15454 SDH</li> <li>• Provisioned for the ONS 15454 SDH</li> <li>• Provisioned for Ethernet access to run CTC</li> </ul> |

|                                |  |
|--------------------------------|--|
| <b>Prerequisite Procedures</b> | <a href="#">NTP-D278 Set Up Computer for CTC</a> |
| <b>Required/As Needed</b>      | As needed  |
| <b>Onsite/Remote</b>           | Onsite or remote                                 |
| <b>Security Level</b>          | None   |

1. Connect the modem to the RJ-45 (LAN) port on the TCC2/TCC2P card or the RJ-45 jack on the MIC-C/T/P FMEC.
2. While referring to the modem documentation, complete the following tasks to provision the modem for the ONS 15454 SDH:
  - ◆ For CTC access, set the modem for Ethernet access.
  - ◆ Assign an IP address to the modem that is on the same subnet as the ONS 15454 SDH.
  - ◆ The IP address the modem assigns to the CTC computer must be on the same subnet as the modem and the ONS 15454 SDH.

**Note:** For assistance on provisioning specific modems, contact the Cisco Technical Assistance Center (TAC). See the [Obtaining Documentation and Submitting a Service Request](#) for more information.
3. Continue with the [NTP-D23 Log into the ONS 15454 SDH GUI](#).  
**Stop. You have completed this procedure.**

## NTP-D23 Log into the ONS 15454 SDH GUI

|                                |  |
|--------------------------------|--|
| <b>Purpose</b>                 | This procedure logs into CTC, the graphical user interface software used to manage the ONS 15454 SDH. This procedure includes optional node login tasks.   |
| <b>Tools/Equipment</b>         | None   |
| <b>Prerequisite Procedures</b> | <a href="#">NTP-D278 Set Up Computer for CTC</a><br><br>One of the following procedures: <ul style="list-style-type: none"> <li>• <a href="#">NTP-D260 Set Up CTC Computer for Local Craft Connection to the ONS 15454 SDH</a></li> <li>• <a href="#">NTP-D261 Set Up a Computer for a Corporate LAN Connection to the ONS 15454 SDH</a></li> <li>• <a href="#">NTP-D262 Set Up a Remote Access Connection to the ONS 15454 SDH</a></li> </ul> |
| <b>Required/As Needed</b>      | As needed  |
| <b>Onsite/Remote</b>           | Onsite or remote   |
| <b>Security Level</b>          | Retrieve or higher   |

1. Complete the "[DLP-D60 Log into CTC](#)" task.
 

**Note:** For information about navigating in CTC, see [CTC Information and Shortcuts](#). CTC, during network topology discovery, polls each node in the network to determine which one contains the most recent version of the CTC software. If CTC discovers a node in the network that has a more recent version of the CTC software than the version you are currently running, CTC generates a message stating that a later version of the CTC has been found in the network, and offers to install the CTC software upgrade. If you have network discovery disabled, CTC will not seek more recent versions of the software. Unreachable nodes are not included in the upgrade discovery.

**Note:** Upgrading the CTC software will overwrite your existing software. You must restart

CTC after the upgrade is complete.

2. As needed, complete the "[DLP-D61 Create Login Node Groups](#)" task. Login node groups allow you to manage nodes that are not connected to the login node through a data communications channel (DCC).
3. As needed, complete the "[DLP-D62 Add a Node to the Current Session or Login Group](#)" task.
4. As needed, complete the "[DLP-D35 Delete a Node from the Current Session or Login Group](#)" task.
5. As needed, complete the "[DLP-D25 Configure the CTC Alerts Dialog Box for Automatic Popup](#)" task.

**Stop. You have completed this procedure.**

## NTP-D357 Use the CTC Launcher Application to Manage Multiple ONS Nodes

|                                |  |
|--------------------------------|--|
| <b>Purpose</b>                 | This procedure uses the CTC Launcher to start a CTC session with an ONS NE that has an IP connection to the CTC computer; create TL1 tunnels to connect to ONS network elements (NEs) on the other side of third-party, OSI-based gateway network elements (GNEs); and view, manage, and delete TL1 tunnels using CTC.                                     |
| <b>Tools/Equipment</b>         | None   |
| <b>Prerequisite Procedures</b> | <p><a href="#">NTP-D278 Set Up Computer for CTC</a></p> <p>One of the following procedures:</p> <ul style="list-style-type: none"> <li>• <a href="#">NTP-D260 Set Up CTC Computer for Local Craft Connection to the ONS 15454 SDH</a></li> <li>• <a href="#">NTP-D261 Set Up a Computer for a Corporate LAN Connection to the ONS 15454 SDH</a></li> </ul> |
| <b>Required/As Needed</b>      | As needed  |
| <b>Onsite/Remote</b>           | Onsite or remote   |
| <b>Security Level</b>          | Retrieve or higher   |

**Note:** JRE 5.0 must be installed on the PC you are using with the CTC Launcher application.

1. As needed, complete one of the following tasks to install the CTC Launcher:
  - ◆ [DLP-D472 Install the CTC Launcher Application from a Release 8.5 Software CD](#)
  - ◆ [DLP-D473 Install the CTC Launcher Application from a Release 8.5 Node](#)
2. As needed, complete the "[DLP-D474 Connect to ONS Nodes Using the CTC Launcher](#)" task to connect to an ONS network element with direct IP connectivity.
3. As needed, complete the "[DLP-D480 Install or Reinstall the CTC JAR Files](#)" task to install or reinstall the CTC JAR files.
4. As needed, complete one of the following tasks to create a TL1 tunnel, which enables you to connect to an ONS network element residing behind OSI-based, third-party GNEs:
  - ◆ [DLP-D475 Create a TL1 Tunnel Using the CTC Launcher](#)
  - ◆ [DLP-D476 Create a TL1 Tunnel Using CTC](#)
5. As needed, complete the "[DLP-D477 View TL1 Tunnel Information](#)" task.
6. As needed, complete the "[DLP-D478 Edit a TL1 Tunnel Using CTC](#)" task.
7. As needed, complete the "[DLP-D479 Delete a TL1 Tunnel Using CTC](#)" task.

**Stop. You have completed this procedure.**