



CTC Operations on the ML-Series Card

This chapter covers Cisco Transport Controller (CTC) operation of the ML-Series card. All operations described in the chapter take place at the card-level view of CTC. CTC shows provisioning information and statistics for both the Ethernet and packet-over-SONET (POS) ports of the ML-Series card. For the ML-Series cards, CTC manages SONET alarms and provisions STS circuits in the same manner as other Cisco ONS 15310-CL SONET traffic.

Use CTC to load a Cisco IOS configuration file or to open a Cisco IOS command-line interface (CLI) session. See [Chapter 3, “Initial Configuration of the ML-Series Card.”](#)

This chapter contains the following major sections:

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Displaying ML-Series POS Statistics on CTC

The POS statistics window lists POS port-level statistics. Display the CTC card view for the ML-Series card and click the **Performance > POS Ports** tabs to display the window.

[Table 2-1](#) describes the buttons in the POS Ports window.

Table 2-1 *ML-Series POS Statistics Fields and Buttons*

Button	Description
Refresh	Manually refreshes the statistics.

Table 2-1 *ML-Series POS Statistics Fields and Buttons*

Baseline	Resets the software counters (in that particular CTC client only) temporarily to zero without affecting the actual statistics on the card. From that point on, only counters displaying the change from the temporary baseline are displayed by this CTC client. These new baselined counters are shown only as long as the user displays the Performance window. If the user navigates to another CTC window and comes back to the Performance window, the true actual statistics retained by the card are shown.
Auto-Refresh	Sets a time interval for the automatic refresh of statistics.

Refer to the *Cisco ONS 15310-CL Troubleshooting Guide* for definitions of the ONS 15310-CL SONET POS parameters. CTC displays a different set of parameters for high-level data link control (HDLC) and frame-mapped generic framing procedure (GFP-F) framing modes.

Displaying ML-Series Ethernet Statistics on CTC

The Ethernet statistics window lists Ethernet port-level statistics. It is similar in appearance to the POS statistics window with different statistic parameters. The ML-Series Ethernet ports are zero based. Display the CTC card view for the ML-Series card and click the **Performance > Ether Ports** tabs to display the window. [Table 2-2](#) describes the buttons in the EtherPorts window.

Table 2-2 *ML-Series Ethernet Statistics Fields and Buttons*

Button	Description
Refresh	Queries the current values from the card and updates the CTC display.
Baseline	Resets the software counters (in that particular CTC client only) temporarily to zero without affecting the actual statistics on the card. From that point on, only counters displaying the change from the temporary baseline are displayed by this CTC client. These new baselined counters appear as long as the user displays the Performance window. If the user navigates to another CTC window and comes back to the Performance window, the true actual statistics retained by the card are shown.
Auto-Refresh	Sets a time interval for the automatic refresh of statistics.

Refer to the *Cisco ONS 15310-CL Troubleshooting Guide* for definitions of the ONS 15310-CL Ethernet parameters. CTC displays a different set of parameters for HDLC and GFP-F framing modes.

Displaying ML-Series Ethernet Ports Provisioning Information on CTC

The Ethernet port provisioning window displays the provisioning status of the Ethernet ports. Click the **Provisioning > Ether Ports** tabs to display this window. For ML-Series cards, the user must configure ML-Series Ethernet ports and POS ports using the Cisco IOS CLI.

Only the Port Name field can be provisioned from CTC. Click the Port Name field to assign a name to the port. The port name can also be configured in Cisco IOS. The port name field configured in CTC and the port name configured in Cisco IOS are independent of each other, and will not match unless the same name is used to configure the port name in both CTC and Cisco IOS.

The Provisioning > Ether Ports tab displays the following information:

- Port #—The fixed number identifier for the specific port.
- Port Name—Configurable 12-character alphanumeric identifier for the port.
- Admin State—Configured port state, which is administratively active or inactive. Possible values are UP and DOWN.
- Link State—Status between signaling points at port and attached device. Possible values are UP and DOWN.
- Operating Speed—ML-100T-8 possible values are Auto, 10Mbps, or 100Mbps.
- Operating Duplex—Setting of the port. ML-100T-8 possible values are Auto, Full, or Half.
- Flow Control—Negotiated flow control mode. ML-100T-8 possible values are None or Symmetrical.

**Note**

Auto indicates the port is set to autonegotiate capabilities with the attached link partner.

Displaying ML-Series POS Ports Provisioning Information on CTC

The POS ports provisioning window displays the provisioning status of the card's POS ports. Click the **Provisioning > POS Ports** tabs to display this window. For ML-Series cards, the user must configure ML-Series Ethernet ports and POS ports using the Cisco IOS CLI.

Only the Port Name field can be provisioned from CTC. Click in the Port Name field to assign a name to the port. The port name can also be configured in Cisco IOS. The port name field configured in CTC and the port name configured in Cisco IOS are independent of each other, and will not match unless the same name is used to configure the port name in both CTC and Cisco IOS.

The Provisioning > POS Ports tab displays the following information:

- Port #—Fixed number identifier for the specific port.
- Port Name—Configurable 12-character alphanumeric identifier for the port.
- Admin State—Configured administrative port state, which is active or inactive. Possible values are UP and DOWN. For the UP value to appear, a POS port must be both administratively active and have a SONET/SDH circuit provisioned.
- MTU—The maximum transfer unit, which is the largest acceptable packet size for that port. This value is not configurable on the ONS 15310 ML-Series card.
- Link State—Status between signaling points at the port and an attached device. Possible values are UP and DOWN.

Displaying SONET Alarms

To view SONET alarms on the ML-Series card, click the **Alarms** tab.

CTC manages the ML-Series card SONET alarm behavior in the same manner as it manages alarm behavior for other ONS 15310-CL SONET traffic. Click the **Provisioning > Alarm Profiles** tabs for the Ethernet and POS port alarm profile information. Refer to the *Cisco ONS 15310-CL Troubleshooting Guide* for detailed information.

Displaying J1 Path Trace

The J1 Path Trace is a repeated, fixed-length string comprised of 64 consecutive J1 bytes. You can use the string to monitor interruptions or changes to SONET circuit traffic. Click the **Maintenance > Path Trace** tabs for the J1 Path Trace information.

For information on J1 Path Trace, refer to the *Cisco ONS 15310-CL Troubleshooting Guide*.

Provisioning SONET Circuits

CTC provisions and edits STS level circuits for the two POS ports of the ML-Series card in the same manner as it provisions other ONS 15310-CL SONET OC-N cards. The ONS 15310-CL ML-Series card supports both contiguous concatenation (CCAT) and virtual concatenation (VCAT) circuits. Refer to the “Create Circuits” chapter of the *Cisco ONS 15310-CL Procedure Guide* to create SONET STS circuits.

**Note**

The initial state of the ONS 15310-CL ML-Series card POS port is inactive. A POS interface command of **no shutdown** is required to carry traffic on the SONET circuit.
