



Change Port Settings

This chapter explains how to change transmission settings on electrical and optical ports in a Cisco ONS 15327.

Before You Begin

Before performing any of the following procedures, investigate all alarms and clear any trouble conditions. Refer to the *Cisco ONS 15327 Troubleshooting Guide* as necessary.



Caution

Changing card or port settings can be service affecting. You should make all changes during a scheduled maintenance window.

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

1. [NTP-B88 Modify Line Settings and PM Parameter Thresholds for Electrical Ports, page 10-1](#)—Complete as needed.
2. [NTP-B89 Modify Line Settings and PM Parameter Thresholds for Optical Ports, page 10-9](#)—Complete as needed.

NTP-B88 Modify Line Settings and PM Parameter Thresholds for Electrical Ports

Purpose	This procedure changes the line and threshold settings for electrical ports; default values are listed in the “Card Default Settings” section on page C-4 .
Tools/Equipment	None
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

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- Step 1** Complete the “[DLP-B60 Log into CTC](#)” task on page 2-23 at the node where you want to change the card/port settings.
- Step 2** Complete the “[NTP-B108 Back Up the Database](#)” procedure on page 14-6 to preserve the existing database.
- Step 3** Perform either of the following tasks as needed:
- [DLP-B165 Change Line and Threshold Settings for the DS-1 Ports](#), page 10-2
 - [DLP-B166 Change Line and Threshold Settings for the DS-3 Ports](#), page 10-6
- Step 4** When you are finished changing the port settings, complete the “[NTP-B108 Back Up the Database](#)” procedure on page 14-6.
- Stop. You have completed this procedure.**
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DLP-B165 Change Line and Threshold Settings for the DS-1 Ports

Purpose	This task changes the line and threshold settings for the DS-1 ports. The default DS-1 port settings are listed in Table C-1 on page C-5 .
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC , page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher



Note The ONS 15327 XTC cards provide 14 (XTC-14) or 28 (XTC-28-3) DS-1 ports. Each port operates at 1.544 Mbps. Default thresholds are based on recommendations in GR-820-CORE, Section 4.0.

- Step 1** In node view, double-click the XTC card where you want to change the DS-1 line or threshold settings.
- Step 2** Click the **Provisioning** > DS-1 tabs ([Figure 10-1](#)).

Figure 10-1 Provisioning Line Parameters on the DS-1 Ports

The screenshot shows the Cisco Transport Controller interface for provisioning DS-1 ports. The main area displays a grid of port settings for DS1 and DS3 ports. Below this, a table provides detailed information for the DS1 ports.

Port #	Port Name	Line Type	Line Coding	Line Length	State	AINS Soak
1	Frisco	D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
2	San Francisco	D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
3		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
4		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
5		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
6		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
7		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
8		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
9		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
10		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
11		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)
12		D4	AMI	0 - 131 ft	OOS	08:00 (H:M)

- Step 3** Depending on the setting you need to modify, click the **Line**, **Line Thresholds**, **Elect Path Thresholds**, **VT1.5 Path Threshold**, or **Alarm Behavior** subtab.



Note See [Chapter 6, “Manage Alarms”](#) for information about the Alarm Behavior subtab.

- Step 4** Modify any of the settings found under these subtabs.
For definitions of the line settings, see [Table 10-1](#). For definitions of the line threshold settings, see [Table 10-2 on page 10-4](#). For definitions of the electrical path settings, see [Table 10-3 on page 10-5](#).
For the factory default settings for the DS-1 ports, see [Table C-1 on page C-5](#).
- Step 5** Click **Apply**.
- Step 6** Repeat Steps 4 and 5 for each subtab that has parameters you want to provision.
[Table 10-1](#) describes the values on the Provisioning > Line subtab for the DS-1 ports.

Table 10-1 Line Options for DS-1 Ports

Parameter	Description	Options
Port #	Port number	<ul style="list-style-type: none"> • 1 to 14 (XTC-14) • 1 to 28 (XTC-28-3)
Port	Port name	User-defined, up to 32 alphanumeric/special characters. Blank by default See DLP-B314 Assign a Name to a Port, page 5-16 .
Line Type	Defines the line framing type	<ul style="list-style-type: none"> • D4 • ESF - Extended Super Frame • Unframed
Line Coding	Defines the DS-1 transmission coding type	<ul style="list-style-type: none"> • AMI - Alternate Mark Inversion (default) • B8ZS - Bipolar 8 Zero Substitution
Line Length	Defines the distance (in feet) from backplane connection to the next termination point	<ul style="list-style-type: none"> • 0 - 131 (default) • 132 - 262 • 263 - 393 • 394 - 524 • 525 - 655
State	Places port in service, out of service, out of service-maintenance, or out of service-auto in service.	<ul style="list-style-type: none"> • IS • OOS • OOS_MT • OOS_AINS
AINS Soak	Automatic in-service soak	<ul style="list-style-type: none"> • Duration of valid input signal in hh.mm after which the port is set in service by the software. • 0 to 48 hours, 15 minutes increments.

[Table 10-2](#) describes the values on the Provisioning > Line Thresholds subtab for the DS-1 ports.

Table 10-2 Line Thresholds Options for DS-1 Ports

Parameter	Description	Options
Port	Port number	<ul style="list-style-type: none"> • 1 to 14 (XTC-14) • 1 to 28 (XTC-28-3)
CV	Coding violations	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
ES	Errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.

Table 10-2 Line Thresholds Options for DS-1 Ports (continued)

Parameter	Description	Options
SES	Severely errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
LOSS	Number of one-second intervals containing one or more loss of signal (LOS) defects	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.

Table 10-3 on page 10-5 describes the values on the Provisioning > Elect Path Thresholds subtab for the DS-1 ports.

Table 10-3 Electrical Path Threshold Options for DS-1 Ports

Parameter	Description	Options
Port	Port number	<ul style="list-style-type: none"> • 1 to 14 (XTC-14) • 1 to 28 (XTC-28-3)
CV	Coding violations	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
ES	Errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
SES	Severely errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
SAS	Severely errored frame/alarm indication signal	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
AISS	Alarm indication signal seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
UAS	Unavailable seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.

Table 10-4 describes the values on the Provisioning > VT1.5 Path Thresholds subtab for the DS-1 ports.

Table 10-4 VT1.5 Path Thresholds Options for DS-1 ports

Parameter	Description	Options
Port #	DS-1 ports partitioned for STS	Read-only Line 1, STS 1, Line 2, STS 1 Line 3, STS 1, Line 4 STS 1
CV	Coding violations	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near End, STS termination).
ES	Errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near End, STS termination).
FC	Failure count	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near End, STS termination).
SES	Severely errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near End, STS termination).
UAS	Unavailable seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near End, STS termination).



Note The threshold value displays after the circuit is created.

Step 7 Return to your originating procedure (NTP).

DLP-B166 Change Line and Threshold Settings for the DS-3 Ports

Purpose	This task changes the line and threshold settings for the DS-3 ports. The default DS-3 values are listed in Table C-2 on page C-7 .
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In the node view, double-click the XTC-28-3 card where you want to change the DS-3 line or threshold settings.
- Step 2** Click the **Provisioning** tab.
- Step 3** Click the **DS-3** tab.
- Step 4** Depending on the setting you need to modify, click the **Line**, **Line Thresholds**, **STS-1 Path Threshold**, or **Alarm Behavior** subtab.



Note See [Chapter 6, “Manage Alarms”](#) for information about the Alarm Behavior subtab.

- Step 5** Modify any of the settings found under these subtabs. For definitions of the Line settings, see [Table 10-5 on page 10-7](#). For definitions of the Line Threshold settings, see [Table 10-6 on page 10-8](#). For definitions of the SONET Threshold settings, see [Table 10-7 on page 10-8](#).

For the factory default settings for the DS-3 ports, see [Table C-2 on page C-7](#).

- Step 6** Click **Apply**.
- Step 7** Repeat Steps [5](#) and [6](#) for each subtab that has parameters you want to provision.
[Table 10-5](#) describes the values on the Provisioning > Line subtab for the DS-3 ports.

Table 10-5 Line Options for DS-3 Ports

Parameter	Description	Options
Port #	Port number	1 to 3
Port	Port name	User-defined, up to 32 alphanumeric/special characters. Blank by default. See DLP-B314 Assign a Name to a Port, page 5-16 .
Line Length	Defines the distance (in feet) from backplane connection to the next termination point	<ul style="list-style-type: none"> 0 - 225 (default) 226 - 450
State	Places port in service, out of service, out of service-maintenance, or out of service-auto in service.	<ul style="list-style-type: none"> IS OOS OOS_MT OOS_AINS
AINS Soak	Automatic in-service soak	Time of presence of valid input signal in hh.mm after which the port is set in service by the software. 0 to 48 hours, 15 minutes increments.

[Table 10-6](#) describes the values on the Provisioning > Line Thresholds subtab for the DS-3 ports.

Table 10-6 Line Threshold Options for DS-3 Ports

Parameter	Description	Options
Port #	Port number	1 to 3
CV	Coding violations	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
ES	Errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
SES	Severely errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.
LOSS	Loss of signal; number of one-second intervals containing one or more LOS defects	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button.

[Table 10-7](#) describes the values on the Provisioning > STS-1 Path Threshold subtab for the DS-3 ports.

Table 10-7 STS-1 Path Threshold Options for DS-3 Ports

Parameter	Description	Options
Port #	DS-3 ports partitioned for STS	Read-only DS-3 ports 1 to 3 any available STS
CV	Coding violations	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near and Far End, STS termination only).
ES	Errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near and Far End, STS termination only).
FC	Failure count	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near and Far End, STS termination only).
SES	Severely errored seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near and Far End, STS termination only).
UAS	Unavailable seconds	Numeric. Can be set for 15-minute or one-day intervals. Select the bullet and click the Refresh button (Near and Far End, STS termination only).



Note The threshold value displays after the circuit is created.

Step 8 Return to your originating procedure (NTP).

NTP-B89 Modify Line Settings and PM Parameter Thresholds for Optical Ports

Purpose	This procedure changes the line and threshold settings for optical cards and ports. The default OC-N card settings are provided in the “Card Default Settings” section on page C-4.
Tools/Equipment	None
Prerequisite Procedures	None
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** Complete the [“DLP-B60 Log into CTC”](#) task on page 2-23 at the node where you want to change the card settings. If you are already logged in, continue with Step 2.
- Step 2** Complete the [“NTP-B108 Back Up the Database”](#) procedure on page 14-6.
- Step 3** Perform any of the following tasks as needed:
- [DLP-B170 Change Line Settings for OC-N Cards](#), page 10-9
 - [DLP-B171 Change SONET Thresholds Settings for OC-N Cards](#), page 10-11
 - [DLP-B172 Change an Optical Port to SDH](#), page 10-14
- Step 4** Complete the [“NTP-B108 Back Up the Database”](#) procedure on page 14-6.
- Stop. You have completed this procedure.**
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DLP-B170 Change Line Settings for OC-N Cards

Purpose	This task changes the line settings for OC-N cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC , page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** Double-click the OC-N card where you want to change the line settings.
- Step 2** Click the **Provisioning > Line** tabs.
- Step 3** Modify any of the settings listed in [Table 10-8](#).

See [Table C-3 on page C-8](#) for OC-3 card default settings, [Table C-4 on page C-10](#) for OC-12 card default settings, or [Table C-5 on page C-12](#) for OC-48 card default settings.



Note The STS subtab is used to provision intermediate path performance monitoring (IPPM). To provision IPPM, circuits must be provisioned on the card.

Table 10-8 OC-N Card Line Settings

Parameter	Description	Options
Port #	Port number (read-only)	<ul style="list-style-type: none"> 1 to 4 (OC-3) 1 (OC-12, OC-48)
Port Name	Provides the ability to assign the specified port a name	User-defined, up to 32 alphanumeric/special characters. Blank by default. See DLP-B314 Assign a Name to a Port, page 5-16 .
SF BER	Sets the signal fail bit error rate	<ul style="list-style-type: none"> 1E-3 1E-4 (default) 1E-5
SD BER	Sets the signal degrade bit error rate	<ul style="list-style-type: none"> 1E-5 1E-6 1E-7 (default) 1E-8 1E-9
Provides Synch	If checked, the card is provisioned as a network element timing reference	<ul style="list-style-type: none"> Yes (checked) No (unchecked) (Read-only)
EnableSync Msg	Enables synchronization status messages (S1 byte), which allow the node to choose the best timing source	<ul style="list-style-type: none"> Yes (checked, default) No (unchecked)
Send DoNotUse	When checked, sends a DUS (do not use) message on the S1 byte	<ul style="list-style-type: none"> Yes (checked) No (unchecked, default)
PJSTSMon #	Sets the STS that will be used for pointer justification. If set to 0, no STS is monitored. Only one STS can be monitored on each OC-N port.	<ul style="list-style-type: none"> 0 - 3 (OC-3, per port) 0 - 12 (OC-12) 0 - 48 (OC-48)

Table 10-8 OC-N Card Line Settings (continued)

Parameter	Description	Options
State	Places port in service, out of service, out of service-maintenance, or out of service-auto in service.	<ul style="list-style-type: none"> • IS • OOS • OOS_MT • OOS_AINS
AINS Soak	Automatic in-service soak	<ul style="list-style-type: none"> • Duration of valid input signal in hh.mm after which the card is set in service by the software. • 0 to 48 hours, 15 minutes increments.
Type	Defines the port as SONET or SDH. The Enable Sync Msg field and the Send Do Not Use field must be disabled before the port can be set to SDH.	<ul style="list-style-type: none"> • Sonet • SDH

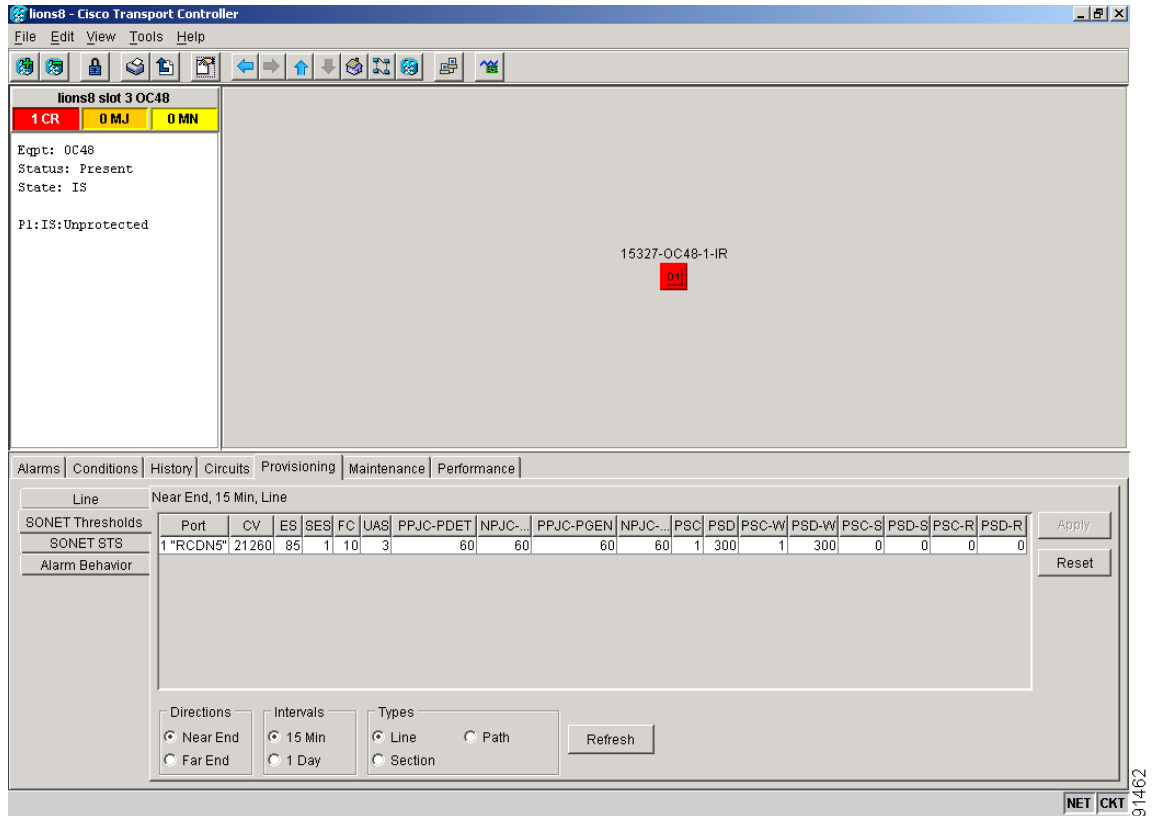
- Step 4** Click **Apply**.
- Step 5** Return to your originating procedure (NTP).

DLP-B171 Change SONET Thresholds Settings for OC-N Cards

Purpose	This task changes SONET thresholds settings for OC-N cards.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** In node view, double-click the OC-N card where you want to change the SONET thresholds settings ([Figure 10-2](#)).
- Step 2** Click the **Provisioning > SONET Thresholds** tabs ([Figure 10-2](#)).

Figure 10-2 Provisioning SONET Thresholds for the OC48 IR 1310 Card



Step 3 Modify any of the settings listed in [Table 10-9](#).

See [Table C-3 on page C-8](#) for OC-3 card default settings, [Table C-4 on page C-10](#) for OC-12 card default settings, or [Table C-5 on page C-12](#) for OC-48 card default settings.

Table 10-9 OC-N SONET Thresholds Options

Parameter	Description	Options
Port	Port number	<ul style="list-style-type: none"> 1 to 4 (OC-3) 1 (OC-12, OC-48)
CV	Coding violations	Numeric. Can be set for 15-minute or one-day intervals for Line, Section, or Path (Near and Far End). Select the bullet and click the Refresh button.
ES	Errored seconds	Numeric. Can be set for 15-minute or one-day intervals for Line, Section, or Path (Near and Far End). Select the bullet and click the Refresh button.
SES	Severely errored seconds	Numeric. Can be set for 15-minute or one-day intervals for Line, Section, or Path (Near and Far End). Select the bullet and click the Refresh button.

Table 10-9 OC-N SONET Thresholds Options (continued)

Parameter	Description	Options
SEFS	Severely errored framing seconds	Numeric. Can be set for 15-minute or one-day intervals for Line, Section, or Path (Near and Far End). Select the bullet and click the Refresh button.
FC	Failure count	Numeric. Can be set for 15-minute or one-day intervals for Line. Select the bullet and click the Refresh button. or Path (Near and Far End)
UAS	Unavailable seconds	Numeric. Can be set for 15-minute or one-day intervals for Line or Path (Near and Far End). Select the bullet and click the Refresh button.
PPJC-PDET	Positive Pointer Justification Count, STS Path detected.	Numeric. Can be set for 15-minute or one-day intervals for Line (Near and Far End). Select the bullet and click the Refresh button.
NPJC-PDET	Negative Pointer Justification Count, STS Path detected.	Numeric. Can be set for 15-minute or one-day intervals for Line (Near and Far End). Select the bullet and click the Refresh button.
PPJC-PGEN	Positive Pointer Justification Count, STS Path generated.	Numeric. Can be set for 15-minute or one-day intervals for Line (Near and Far End). Select the bullet and click the Refresh button.
NPJC-PGEN	Negative Pointer Justification Count, STS Path generated.	Numeric. Can be set for 15-minute or one-day intervals for Line (Near and Far End). Select the bullet and click the Refresh button.
PSC	Protection Switching Count (Line)	Numeric. Can be set for 15-minute or one-day intervals for Line (Near and Far End). Select the bullet and click the Refresh button.
PSD	Protection Switch Duration (Line)	Numeric. Can be set for 15-minute or one-day intervals for Line (Near and Far End). Select the bullet and click the Refresh button.
PSC-W	Protection Switching Count - Working line BLSR is not supported on the OC-3 card; therefore, the PSC-W, PSC-S, and PSC-R PMs do not increment.	Numeric. Can be set for 15-minute or one-day intervals for Line (Near and Far End). Select the bullet and click the Refresh button.
PSD-W	Protection Switching Duration - Working line BLSR is not supported on the OC-3 card; therefore, the PSD-W, PSD-S, and PSD-R PMs do not increment.	Numeric. Can be set for 15-minute or one-day intervals for Line (Near and Far End). Select the bullet and click the Refresh button.

- Step 4** Click **Apply**.
- Step 5** Return to your originating procedure (NTP).
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DLP-B172 Change an Optical Port to SDH

Purpose	Use this task to provision a port on an OC-N card for SDH.
Tools/Equipment	None
Prerequisite Procedures	DLP-B60 Log into CTC, page 2-23
Required/As Needed	As needed
Onsite/Remote	Onsite or remote
Security Level	Provisioning or higher

- Step 1** Double-click the OC-N card where you want to provision a port for SDH. Before you can change the port type to SDH, ensure the following:
- The EnableSyncMsg and SendDoNotUse fields are unchecked.
 - The card is not part of a BLSR or 1+1 protection group.
 - The card is not part of an orderwire channel.
 - The card is not a SONET DCC termination point.
- Step 2** Click the **Provisioning > Line** tabs.
- Step 3** In the Type field, specify the port and choose SDH.
- Step 4** Click **Apply**.
- Step 5** If the card is a multiport OC-N card, such as an OC-3, you can repeat Steps 3 and 4 for any other ports on the card.
- Step 6** Return to your originating procedure (NTP).
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