

## Chapter 22

# Configuring Cisco HDLC

The NMC-RX application supports High-Level Data Link Control (Cisco HDLC) on the following modules:

CT3, CT1, and CE1

cOC3 and cOC12

OC48/STM16 POS, OC3 POS, and OC12 POS

T3-Frame and E3-Frame, HSSI, and X.21/V.35

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## Overview

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Cisco HDLC is an encapsulation protocol that governs information transfer. It is a bit-oriented synchronous data-link layer protocol that specifies a data encapsulation method on synchronous serial links using frame characters and checksums.

Cisco HDLC monitors line status on a serial interface by exchanging keepalive request messages with peer network devices. It also allows routers to discover IP addresses of neighbors by exchanging Serial Link Address Resolution Protocol (SLARP) address-request and address-response messages with peer network devices.

Cisco HDLC is compatible with Cisco Systems Cisco-HDLC protocol, the default protocol for all Cisco serial interfaces.

## Creating Cisco HDLC Interfaces

You can create an IP interface with its IP address on top of the Cisco HDLC interface.



**NOTE:** Cisco HDLC configuration is the same for all modules.

To create a Cisco HDLC interface:

1. Navigate to the appropriate level in the system's configuration to set Cisco HDLC encapsulation on an interface:

For CT3, CT1, CE1, cOC3, or cOC12—Select a DS0 bundle.

For T3-Frame, E3-Frame, X.21/V.35, or HSSI—Select a line interface.

For OC48/STM16 POS, OC3/OC12 POS—Select a POS interface.

2. Right-click, select Create, and click Cisco HDLC.

The Create Cisco HDLC dialog box appears.

3. Set the parameters. See Table 68.

**Table 68: Cisco HDLC Parameters**

Parameter	Description
Name	Identifies the interface; generated automatically
Alias	Description of the interface; 0–15 characters; default: blank
Ifindex	Identifies the interface on the particular line interface; generated automatically
Operational	Current operational status of the interface
Administrative	Desired status of the interface: Up/Down; default: Up
HDLC Keep Alive	Specifies the keepalive timeout value; both endpoints need to have the same value for keepalive; range 0–6553
Down When Looped	Enables loopback detection on the interface

4. When you have finished, click OK to save the settings.

Once you have created a Cisco HDLC interface, you can create an IP interface and an IP address on top of it. See *NMC-RX User Guide , Vol. 2, Chapter 6, Configuring IP*, for a full discussion of IP interfaces and addresses.

