Cabling for System Management, Alarms, and Network Clocking

The CRS Back-to-Back System supports several options for system management connections, and it provides connections for triggering external alarms and controlling optical cable clocking. A console port connection must be established before the system can be configured and become operational. The optional external alarm and network clocking features can be cabled at any time.

This chapter describes the following cabling options:

Console Port Cabling

The initial configuration of an PRP takes place through the console port. Although PRPs have Ethernet ports, the Ethernet ports cannot be used until they are configured.

To connect to any of the console ports in the CRS Back-to-Back System, use a rollover cable with an RJ-45 connector on the end that connects to the CRS Back-to-Back System component. Typically, the other end of the rollover cable also uses an RJ-45 connector. The other end of the rollover cable may connect to a terminal, computer running terminal emulation software, or terminal server. Adapters are available to connect the RJ-45 connector on the rollover cable to a variety of serial ports. For more information on rollover cables and connectors, see the following web page:

http://www.cisco.com/en/US/docs/switches/wan/mgx/mgx_8850/software/mgx_r3/rpm/rpm_r1.5/configuration/guide/rpmappb.html#wp1003614

For information on connecting to the console port on an PRP, see *Cisco IOS XR Getting Started Guide* .

Auxiliary Port Cabling

Auxiliary ports are provided on the PRP card for remote connections through modems. PRP auxiliary ports can be used to configure the CRS Back-to-Back System.

The typical connection to the auxiliary ports uses a serial cable with RJ-45 connectors at each end. As with the rollover cable, adapters are available to connect the RJ-45 connector at the other end to a variety of serial port types. *Cisco IOS XR Getting Started Guide* provides illustrations that show how PRP auxiliary ports are connected through modems to a remote terminal.

Management Ethernet Port Cabling

Each PRP provides a Management Ethernet port that can be used to manage the PRP through an Ethernet network. This port can also be used to download software to PRPs in the CRS Back-to-Back System or transfer files to remote servers for analysis or backup storage.

The typical connection to the Management Ethernet port uses an Ethernet cable with RJ-45 connectors at each end. The other end of the cable typically connects to an Ethernet switch, hub, or router that provides connectivity between the CRS Back-to-Back System and networks from which system management is desired.

For information on connecting to the Management Ethernet port on an PRP, see *Cisco IOS XR Getting Started Guide* .

Alarm Module Alarm-Out Cabling

Each AC or DC power shelf in LCCs contains an alarm module that monitors the status of the power shelf and provides an external interface for system alarms. The same alarm module is used in all power shelves. For more information on alarm module connections, see *Cisco CRS Carrier Routing System 16-Slot Line Card Chassis System Description* .

What to Do Next

When you have completed the cabling connections described in this chapter, document these connections and forward them to the people who will configure the system. For example, if you have cabled the console port to a terminal server so that people can access the console port from a network, they need the IP address of the terminal server and corresponding port number before they can use the console port.