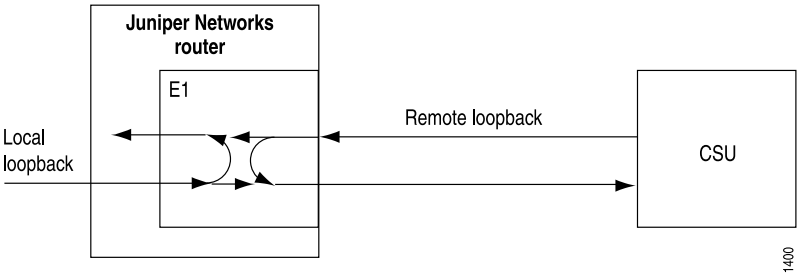
Configuring E1 Loopback Capability

You can configure loopback capability between the local E1 interface and the remote channel service unit (CSU), as shown in Figure 1. You can configure the loopback to be local or remote. With local loopback, the E1 interface can transmit packets to the CSU, but receives its own transmission back again and ignores data from the CSU. With remote loopback, packets sent from the CSU are received by the E1 interface, forwarded if there is a valid route, and immediately retransmitted to the CSU.

Figure 1: Remote and Local E1 Loopback



To configure loopback capability on an E1 interface, include the loopback statement at the [edit interfaces *interface-name* e1-options] hierarchy level:

```
[edit interfaces interface-name e1-options]
[Unresolved xref] (local | remote);
```

Packets can be looped on either the local routing platform or the remote CSU.

To exchange BERT patterns between a local routing platform and a remote routing platform, include the loopback remote statement in the interface configuration at the remote end of the link. From the local routing platform, you issue the test interface command.

For more information about configuring BERT, see Interface Diagnostics. For more information about using operational mode commands to test interfaces, see the *JUNOS System Basics and Services Command Reference*.

To turn off the loopback capability, remove the loopback statement from the configuration:

```
[edit]
user@host# delete interfaces e1-fpc/pic/port e1-options loopback
```

You can determine whether there is an internal problem or an external problem by checking the error counters in the output of the show interface *interface-name* extensive command:

```
user@host> show interfaces interface-name extensive
```

Example: Configuring E1 Loopback Capability

To determine whether a problem is internal or external, loop packets on both the local and the remote routing platform. To do this, include the no-keepalives and encapsulation cisco-hdlc statements at the [edit interfaces *interface-name*] hierarchy level and the loopback local statement at the [edit interfaces *interface-name* e1-options] hierarchy level.

With this configuration, the link stays up, so you can loop ping packets to a remote routing platform. The loopback local statement causes the interface to loop within the PIC just before the data reaches the transceiver.

```
[edit interfaces]
e1-1/0/0 {
    no-keepalives;
    encapsulation cisco-hdlc;
    e1-options {
        loopback local;
    }
    unit 0 {
        family inet {
            address 10.100.100.1/24;
        }
    }
}
```