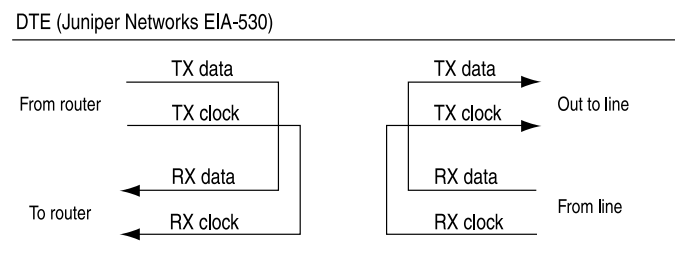


## Configuring Serial Loopback Capability

From the routing platform, remote line interface unit (LIU) loopback loops the TX (transmit) data and TX clock back to the routing platform as RX (receive) data and RX clock. From the line, LIU loopback loops the RX data and RX clock back out the line as TX data and TX clock, as shown in Figure 1.

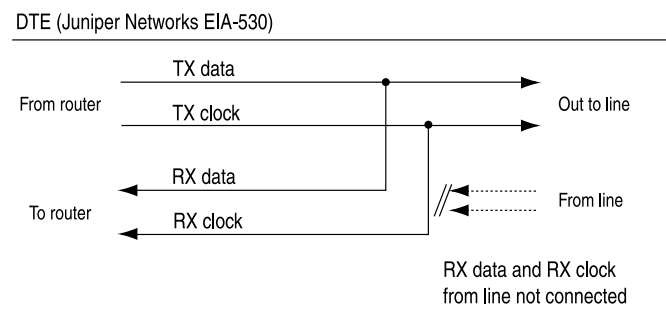
**Figure 1: Serial Interface LIU Loopback**



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DCE local and DCE remote control the EIA-530 interface-specific signals for enabling local and remote loopback on the link partner DCE. Local loopback is shown in Figure 2.

**Figure 2: Serial Interface Local Loopback**



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For EIA-530 interfaces, you can configure DCE local, DCE remote, local, and remote (LIU) loopback capability.

For V.35, you can configure remote LIU and local loopback capability. DCE local and DCE remote loopbacks are not supported on V.35 and X.21 interfaces. Local and remote loopbacks are not supported on X.21 interfaces.

To configure the loopback capability on a serial interface, include the **loopback** statement, specifying the **dce-local**, **dce-remote**, **local**, or **remote** option:

**[Unresolved xref] mode;**

You can include this statement at the following hierarchy levels:

- [edit interfaces *se-pim/0/port* serial-options]

- [edit interfaces *se-fpc/pic/port* serial-options]

To disable the loopback capability, remove the **loopback** statement from the configuration:

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

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

```
user@host> show interfaces se-fpc/pic/port extensive
```

### **Example: Configuring Serial Loopback Capability**

To determine the source of a problem, loop packets on the local routing platform, the local DCE, the remote DCE, and the remote line interface unit (LIU). To do this, include the **no-keepalives** and **encapsulation cisco-hdlc** statements at the [edit interfaces *se-fpc/pic/port*] hierarchy level, and the **loopback local** option at the [edit interfaces *se-pim/0/port* serial-options] or [edit interfaces *se-fpc/pic/port* serial-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]
se-1/0/0 {
  no-keepalives;
  encapsulation cisco-hdlc;
  serial-options {
    loopback local;
  }
  unit 0 {
    family inet {
      address 10.100.100.1/24;
    }
  }
}
```