

## Configuring the Clock Source

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For both the router and interfaces, the clock source can be the router's internal Stratum 3 clock, which resides on the System Control Board (SCB), the System and Switch Board (SSB), the Forwarding Engine Board (FEB), or the Miscellaneous Control Subsystem (MCS) (depending on the router model), or an external clock that is received on the interface. By default, the 19.44-MHz Stratum 3 reference clock generates the clock signal for all serial PICs (SONET/SDH) and Plesiochronous Digital Hierarchy (PDH) PICs. PDH PICs include DS3, E3, T1, and E1 PICs.

For example, interface A can transmit on interface A's received clock (external, loop timing) or the Stratum 3 clock (internal, line timing or normal timing). Interface A cannot use a clock from any other source. For interfaces such as SONET/SDH that can use different clock sources, you can configure the source of the transmit clock on each interface.

To set the clock source, include the **clocking** statement at the **[edit interfaces *interface-name*]** hierarchy level:

```
[edit interfaces interface-name]  
clocking (external | internal);
```

For information about clocking on channelized interfaces, see [\[Unresolved xref\]](#). Also see Configuring SONET/SDH Physical Interface Properties and Configuring the Channelized T3 Loop Timing. For information about configuring an external synchronization interface that can be used to synchronize the internal Stratum 3 clock to an external source on the M320 and M120 routing platforms, see [\[Unresolved xref\]](#).

