

OAM Remote and Local Loopback Feature

Remote loopback mode ensures link quality between the router and a remote peer during installation or troubleshooting. JUNOS Software can place a remote entity into loopback mode (if remote loopback mode is supported by the remote entity). When you place a remote entity into loopback mode, the interface receives the remote loopback request and puts the interface into remote loopback mode. When the interface is in remote loopback mode, all frames except OAM PDUs are looped back without any changes made to the frames. OAM PDUs continue to be sent and processed.

A local OAM entity in active mode can start a remote loopback of its peer through a Loopback Control OAM PDU that contains the option to enable loopback. During the initiation phase, the local OAM entity discards any locally sourced non-OAM PDUs. When the peer receives a loopback request, and assuming that it supports the service, it sets the forwarding state to loop any received non-OAM PDUs; any locally generated non-OAM PDUs are discarded while in loopback ([Unresolved xref]). This forwarding state is conveyed to the peer using an Information OAM PDU. When the Information OAM PDU is received after loopback is disabled, the local OAM entity resumes transmission of locally sourced non-OAM PDUs, in addition to OAM PDUs. You can prevent two active mode OAM entities from simultaneously placing each other into loopback mode by making sure that the lower valued source address is the entity that is placed in loopback mode ([Unresolved xref]).

Because OAM PDUs are processed during remote loopback, variables can be retrieved to measure the link performance. The initiating OAM entity stops the remote loopback process by sending another Loopback Control OAM PDU with the option to disable the looping of any non-OAM PDUs. When the loopback feature is enabled, the forwarding process counts the number of packets and bytes transmitted to the peer, and the number of packets and bytes received from the peer.



NOTE: The peer in loopback mode might intentionally discard data frames to accommodate OAM traffic. OAM PDUs are assigned a higher priority than regular data packets when oversubscription of the allocated bandwidth occurs.

- Related Topics**
- OAM Messages
 - Configuring 802.3ah OAM Link-Fault Management
 - Example: Enabling Remote Loopback Support on the Local Interface
 - ethernet oam lfm remote-loopback supported
 - ethernet oam lfm remote-loopback