

MLPPP Conformance Test Cases

Link Establishment Phase

- Test DUT's behavior when it receives Configure Request without MRRU option
- Test to bring the DUT in the LCP Opened state.
- Test DUT's behavior when it receives Configure Request with MRRU value less than MRU value.
- Test DUT's behavior when it is Configure-Naked with End Point Discriminator option
- Test the DUT's response to the Reordered Configure-Ack which is received as a response to the sent Configure-Request
- Test the DUT's response that it will it accept the Configure-Ack containing less options than the sent Configure-Request.
- To test whether DUT accepts the Configure-Ack containing modified value for the MRRU Option
- To test whether DUT accepts the Configure-Ack containing modified value for the End Point Discriminator option.
- Test DUT's behavior when it receives configure-Request with its own Magic Number
- Test the case that when link is Looped-Back DUT has to change its Magic Number
- Test DUT's response to the Configure-Request which contains Maximum Receive Unit =0
- Test behavior of the DUT for the Code Reject Received for configure-Request
- Test the DUT's behavior for the Protocol Reject received in the Request Sent State.
- Test the DUT's response for the Discard Request.
- Test the DUT for the condition that after sending MAXFAILURE times
- Configure-Nak any further requirement to send Configure-Nak must be converted into Configure-Reject
- Test the DUT's behavior for the Echo Request received in the other than the opened state.
- Test the Response of the DUT for the Echo Reply.
- Test the DUT for its response to the Echo Request with wrong Magic Number.

Link Maintenance Phase

- Test the DUT for the limit applied on the maximum number of Echo Request sent when there is no reply being received for it
- Test the DUT to send Echo reply for the received Echo Request
- Test the DUT's response when it receives Echo Reply with wrong Magic Number
- Test the DUT's response when it receives Echo Reply with the wrong Data field contents
- Test send Echo Reply whenever it receives Echo Request
- Echo Test

Link Terminating Phase

- Test the condition that DUT must send the Terminate-Ack for the received Terminate-Request.
- Test DUT for the condition that receiver of the Terminate-Request should wait for the Peer to disconnect and must not disconnect at least one Restart time has expired after sending the Terminate-Ack.
- Test DUT's behavior for the messages received in the stopped state.
- Test DUT's behavior for the Terminate-Ack Received in the Stopped State.
- Test DUT's response on receiving Configure-Request in the Stopped state.
- Test DUT's for MLPPP Bundle Concepts and test DUT for handling Bundle of PPP links.
- Test DUT's behavior when it receives Configure-Nak for Short Sequence Number Option
- Test DUT's behavior when first MLPPP Packet sent by the DUT has the sequence number zero.
- To test the DUT's response when first MLPPP packet received by it is not having sequence number zero.
- Test DUT's response when packet received by it are not following valid sequence number.
- Test DUT that whether it includes Address and Control Fields in the PPP fragments
- Test DUT's response when it is made to receive Short Sequence Number IPCP packet even on not negotiating that option in LCP phase.
- To bring the DUT in the NCP opened state with NCP over MLPPP method
- To bring the DUT in the NCP opened state with NCP over PPP method
- To continuously execute the Echo Test
- To simulate complete MLPPP operation

Multi-Class MLPPP Test Cases

- Test DUT for its response to the Configure-Request containing Multi-Link Header Format option twice.
- Test DUT for its response to the Configure-Request containing Multi-Link Header Format with code=6 and suspendable Class =5
- Test DUT for its response to the Configure-Request containing Multi-Link Header Format with code=2 and suspendable Class =16
- Test DUT whether it supports the minimum suspendable classes when the Multilink Header Format option code=6.
- To Test the DUT whether it supports the minimum suspendable classes when the Multilink Header Format option code=2.
- To Test the DUT for its response to the Configure-Request containing MultiLink Header Format and Short Sequence number option
- To bring the DUT in the LCP Opened State.

PPP MUX CP Test Cases

- To make the DUT to enter the opened state for PPP MUX CP
- To test the DUT for its response to the invalid Configure-Ack of PPP MUX CP.

PPP Conformance Test Cases

Link Establishment Phase

- Test Looped-Back Link
- Test response when Maximum Receive Unit
- Test DUT behavior for the Code Reject Received for configure-Request
- To DUT behavior for the Protocol Reject received in the Request Sent
- State
- Test DUT's response for the Discard Request
- Test DUT for the condition that after sending MAXFAILURE times
- Test DUT's behavior for the Configure-Ack with reordered options
- Test the DUT's behavior for the Echo Request received in the other than the
- opened state
- Test to bring the Link in Opened state

Link Maintenance Phase

- Test the Response of the DUT for the Echo Reply
- Test the DUT for its response to the Echo Request with wrong Magic Number
- Test the limit applied on the maximum number of Echo Request sent when there is no reply being received for it
- Test the case that DUT has to send Echo reply for the received Echo Request
- Test the DUT's response when it receives Echo Reply with wrong Magic Number
- Test the DUT's behavior when it receives Echo Reply with the wrong Data
- field contents
- Test send Echo Reply whenever it receives Echo Request
- Echo Test

Link Terminating Phase

- Test the condition that DUT must send the Terminate-Ack for the received Terminate-Request.
- Test the condition that receiver of the Terminate-Request should wait for the Peer to disconnect and must not disconnect at least until one Restart time has expired after sending the Terminate-Ack.
- Test the DUT's behavior for the messages received in the stopped state.
- Test the DUT's behavior for the Terminate -Ack Received in the Stopped State.
- Test the DUT's response for the Configure-Request message received in the Stopped state.

NCP Negotiation Phase

Test DUT's response when it receives compressed packets in NCP

- Phase even though compression option is not negotiated by the DUT in the Link Establishment Phase.
- Test DUT's response for the condition that when it receives Configure-NAK suggesting different IP Address for sent IPCP Configure-Request, will it send new IPCP Configure-Request with that IP Address
- Test DUT's response for the IPCP Configure-Request received in the Link Establishment Phase (LCP negotiation)
- To Bring the DUT in the NCP UP state.
- Test DUT for its ability to handle the compressed packets.
- Test DUT's response when it receives IPCP Configure-Request with the options having same values as that of just sent IPCP Configure Request
- Test DUT's response to the IPCP Configure-Ack having less options than the sent IPCP Configure-Request (IPHC-IP Compression Protocol, and Van Jacobson-IP Compression Protocol is used)
- Test DUT's response for to the Reordered IPCP Configure-Ack for the sent IPCP Configure-Request (IPHC-IP Compression Protocol)
- Test DUT's response to the IPCP Configure-Request with options
- Test DUT's response to the Invalid IPCP Configure-Ack for the sent IPCP Configure-Request (IPHC-IP Compression Protocol is used)
- Test DUT's response that on the reception of LCP Configure-Request in the NCP Open, should drive the Peer to the Link Establishment Phase
- Test sending MAX-Failure times IPCP Configure-Nak any further IPCP Configure-Nak should be converted to IPCP Configure-Reject
- To test the DUT response for the IPCP Configure-Request received in the NCP stopped state which was attained by virtue of failed Max-Configure attempts.
- To test the DUT's response to the Protocol-Reject message received for the IPCP.
- To test the DUT's response to the Configure-Reject message received for particular option.
- To test DUT's response to the Invalid (Containing wrong Identifier) IPCP Configure-Ack for the sent IPCP Configure-Request (IPHC-IP Compression Protocol is used)
- To test the DUT for the case that even on not negotiating compression field options in the Link Establishment Phase will it be sending Compressed packets in the NCP Phase.