
High Level Requirements

C_ROCKWELL_COLLINS-INSPECTA

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1.0RX_Firewall

1.1 rx_firewall: drop malformed frames (*RC_INSPECTA_00-HLR-1*))

The firewall shall drop any malformed frame.

1.2 rx_firewall: drop ipv6 frames (*RC_INSPECTA_00-HLR-2*))

The firewall shall drop any frame that is type ipv6.

1.3 rx_firewall: drop RxIn ipv4 non-(tcp,udp) frames (*RC_INSPECTA_00-HLR-3*))

The firewall shall drop any frame from RxIn that is an Ipv4 frame whose protocol is not TCP and not UDP.

1.4 rx_firewall: drop RxIn ipv4 tcp frames with unexpected ports (*RC_INSPECTA_00-HLR-4*))

The firewall shall drop any frame from RxIn that is an Ipv4 frame whose protocol is TCP and whose port is not defined in the TCP port whitelist.

1.5 rx_firewall: drop RxIn ipv4 udp frames with unexpected ports (*RC_INSPECTA_00-HLR-8*))

The firewall shall drop any frame from RxIn that is an Ipv4 frame whose protocol is UDP and whose port is not defined in the UDP port whitelist.

1.6 rx_firewall: copy through any ARP frame (*RC_INSPECTA_00-HLR-5*))

If the firewall gets an ARP packet frame from RxIn, the firewall shall copy that frame to TxOut.

1.7 rx_firewall: copy through allowed tcp port frames (*RC_INSPECTA_00-HLR-6*))

The firewall shall copy any frame from RxIn that is an Ipv4 frame with the TCP protocol and whose port is defined in the TCP port whitelist to RxOut.

1.8 rx_firewall: copy through allowed udp port frames (*RC_INSPECTA_00-HLR-13*))

The firewall shall copy any frame from RxIn that is an Ipv4 frame with the UDP protocol and whose port is defined in the UDP port whitelist to RxOut.

2.0TX_Firewall

2.1 tx_firewall: drop malformed frames (*RC_INSPECTA_00-HLR-9*))

The firewall shall drop any malformed frame.

2.2 tx_firewall: drop ipv6 frames (*RC_INSPECTA_00-HLR-10*))

The firewall shall drop any frame that is type ipv6.

2.3 tx_firewall: copy through any ARP frame (*RC_INSPECTA_00-HLR-7*))

If the firewall gets an ARP packet frame from TxIn, the firewall shall copy that frame to TxOut. A size of 64 is provided in TxOut.

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2.4 tx_firewall: copy through any IPv4 frame (*RC_INSPECTA_00-HLR-12*))

If the firewall gets an IPv4 packet frame from TxIn, the firewall shall copy that frame to TxOut. The size of the frame is calculated by the sum of the total size provided by the IPv4 header and the 14 bytes of the ethernet header, which is provided in TxOut.