

cnMatrix ACL Feature Parameters and Commands

Commands	Description	CLI Mode
<pre>ip access-list {standard <access-list-number (1-1000)> extended <access-list-number (1001-65535)> }</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>standard <access-list-number (1-1000)></code> - Configures a Standard access-list with the specified access list number. Standard access lists create filters based on IP address and network mask only (L3 filters only). This value ranges from 1 to 1000. • <code>extended <access-list-number (1001-65535)></code> - Configures an Extended access-list with the specified access list number. Extended access lists enables specification of filters based on the type of protocol, range of TCP/UDP ports as well as the IP address and network mask (Layer 4 filters). This value ranges from 1001 to 65535. 	<p>Configures IP ACLs and enters into the IP Access-list configuration mode. Depending on the standard or extended option chosen by the user, this command returns a corresponding IP Access list configuration mode. ACLs on the system perform both access control and Layer 3 field classification.</p>	<p>Global Configuration</p>
<pre>egress access-list mode {ip mac}</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>ip</code> - Configures the Egress access-list mode as IP which supports IP based PCL(Policy Control List) at egress • <code>mac</code> - Configures the Egress access-list mode as MAC which supports MAC based PCL(Policy Control List) at egress. <div data-bbox="215 1041 313 1150" style="float: left; margin-right: 10px;">  </div> <div data-bbox="331 1041 984 1167" style="border: 1px solid black; background-color: #e6f2ff; padding: 5px;"> <p>Existing access list configurations should be deleted before setting Egress Filter Mode as IP</p> </div>	<p>Configures the default egress access-list mode as IP based or MAC based.</p>	<p>Global Configuration</p>
<pre>permit {any host <src-ip-address> <network-src-ip> <mask>} [{ any host <dest-ip-address> <network-dest-ip> <mask>}] [redirect {interface <iftyp> <ifnum> <iftyp><iface_list> [<iftyp><iface_list>]} load-balance {src-ip dst-ip src-mac dst-mac vlanid src-tcpport dst-tcpport src-udpport dst-udpport}] [sub-action {none modify-vlan<short (1-4094)> nested-vlan <short (1 -4094)>}] [priority <value (1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>any host <src-ip-address> <network-src-ip><mask></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - <code>any</code> – Packets from any source are matched. - <code>host <src-ip-address></code> - Packets from this IPv4 source address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this source IPv4 network and mask. • <code>any host <dest-ip-address> <network-dest-ip><mask></code> - Specifies the destination IP address. The destination IP can be: <ul style="list-style-type: none"> - <code>any</code> - Packets to any destination are matched - <code>host <src-ip-address></code> - Packets for this IPv4 destination address are matched 	<p>Configures the packets to be forwarded depending on the associated parameters.</p>	<p>Standard IP ACL Configuration</p>

Commands	Description	CLI Mode
<ul style="list-style-type: none"> - <code><network-src-ip> <mask></code> - Packets are matched using this destination IPv4 network and mask. • <code>redirect</code> - Redirects the packets to the destination interface or set of interfaces. <ul style="list-style-type: none"> - <code><iftyp></code>- Redirects the packets to the specified type of interface. - <code><ifnum></code>- Redirects the packets to the specified interface identifier. This is a unique value that represents the specific interface. This value is a combination of slot number and port number separated by a slash, for interface types gigabitethernet, fastethernet and extreme-ethernet. - <code><iface_list></code>- Redirects the packets to the the list of interfaces. • <code>load-balance</code>- Specifies the parameters based on which the traffic distribution needs to be done. Options are: <ul style="list-style-type: none"> - <code>src-ip</code>- Traffic distribution is based on the source IP address. - <code>dst-ip</code>- Traffic distribution is based on the destination IP address. - <code>src-mac</code>- Traffic distribution is based on the Source MAC address. - <code>dst-mac</code>- Traffic distribution is based on the Destination MAC address. - <code>vlanid</code> - Traffic distribution is based on the VLAN Id to be filtered. - <code>src-tcpport</code> - Traffic distribution is based on the source TCP port number. - <code>dst-tcpport</code>- Traffic traffic distribution is based on the destination TCP Port. - <code>src-udpport</code>- Traffic distribution is based on the source UDP port number. - <code>dst-udpport</code>- Traffic distribution is based on the destination UDP port number. • <code>sub-action</code> - Configures the VLAN specific sub action to be performed on the packet. Options are: <ul style="list-style-type: none"> - <code>none</code> - Specifies that the actions related to the VLAN ID will not be considered. - <code>modify-vlan <short (1-4094)></code> - Modifies the VLAN ID to which the packet gets classified. The packet could be an untagged or VLAN tagged packet. This value ranges from 1 to 4094. • <code>priority <value (1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255. 		
<pre>deny{ any host <src-ip-address> <network-src-ip> <mask> } [{ any host <dest-ip-address> <network- dest-ip> <mask> }] priority <value (1-255)></pre> <p>Available options:</p>	Denies traffic if the conditions defined in the deny statement are matched.	Standard IP ACL Configuration

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>any host <src-ip-address> <network-src-ip><mask></code> - Specifies the source IP address. The source IP can be: <ul style="list-style-type: none"> - <code>any</code> – Packets from any source are matched. - <code>host <src-ip-address></code> - Packets from this IPv4 source address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this source IPv4 network and mask. • <code>any host <dest-ip-address> <network-dest-ip><mask></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - <code>any</code> - Packets to any destination are matched. - <code>host <src-ip-address></code> - Packets for this IPv4 destination address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this destination IPv4 network and mask. • <code>priority <value (1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value implies a higher priority. This value ranges from 1 to 255. 		
<pre>permit { ip ospf pim <protocol-type (1-255)> } { any host <src-ip-address> <src-ip-address> <mask>} { any host <dest-ip-address> <dest-ip-address> <mask> } [{tos{max-reliability max-throughput min- delay normal <value (0-7)>}} dscp <value (0-63)>}] [priority <value (1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>ip ospf pim <protocol-type (1-255)></code> - Specifies the type of protocol for the packet. It can also be a protocol number. <div data-bbox="217 1220 313 1329" style="float: left; margin-right: 10px;">  </div> <div data-bbox="342 1220 984 1339" style="background-color: #e1f5fe; padding: 5px;"> <p>Protocol type with the value 255 indicates that protocol can be anything and it will not be checked against the action to be performed.</p> </div> <ul style="list-style-type: none"> • <code>any host <src-ip-address> <network-src-ip><mask></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - <code>any</code> – Packets from any source are matched. - <code>host <src-ip-address></code> - Packets from this IPv4 source address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this source IPv4 network and mask. - <code>mask</code> to use with the source IP address • <code>any host <dest-ip-address> <network-dest-ip><mask></code> - Specifies the destination IP address. The destination IP can be: <ul style="list-style-type: none"> - <code>any</code> - Packets to any destination are matched - <code>host <src-ip-address></code> - Packets for this IPv4 destination address are matched - <code><network-src-ip> <mask></code> - Packets are matched using this destination IPv4 network and mask. • <code>tos</code> - Matches the protocol packets based on the following type of service configuration: The options are: 	<p>Configures traffic for a particular protocol packet if the conditions defined in the permit statement are matched.</p>	<p>Extended IP ACL Configuration</p>

Commands	Description	CLI Mode
<ul style="list-style-type: none"> - <code>max-reliability</code>- Matches the protocol packets having TOS field set as high reliability. - <code>max-throughput</code> - Matches the protocol packets having TOS field set as high throughput. - <code>min-delay</code>- Matches the protocol packets having TOS field set as low delay. - <code>normal</code> - Allows all protocol packets. Does not check for the TOS field in the packets. - <code><value (0-7)></code>- Matches the protocol packets based on the TOS value set. This value ranges from 0 to 7. • <code>dscp <value (0-63)></code> - Configures the Differentiated Services Code Point value to be checked against the packet, This value provides the quality of service control. This value ranges from 0 to 63. • <code>priority <value(1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value implies a higher priority. This value ranges from 1 to 255. 		
<pre>deny {ip ospf pim <protocol-type (1-255)>} { any host <src-ip-address> <src-ip-address> <mask>} { any host <dest-ip-address> <dest-ip-address> <mask>} [tos{max-reliability max-throughput min- delay normal <value (0-7)>} dscp <value (0-63)>}] [priority <value (1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>ip ospf pim <protocol-type (1-255)></code> - Specifies the type of protocol for the packet. It can also be a protocol number. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">  <p>Protocol type with the value 255 indicates that protocol can be anything and it will not be checked against the action to be performed.</p> </div> <ul style="list-style-type: none"> • <code>any host <src-ip-address> <network-src-ip><mask></code> - Specifies the source IP address. The source IP can be: <ul style="list-style-type: none"> - <code>any</code> – Packets from any source are matched. - <code>host <src-ip-address></code> - Packets from this IPv4 source address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this source IPv4 network and mask. • <code>any host <dest-ip-address> <network-dest-ip><mask></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - <code>any</code> - Packets to any destination are matched. - <code>host <src-ip-address></code> - Packets for this IPv4 destination address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this destination IPv4 network and mask. • <code>tos</code> - Matches the protocol packets based on the following type of service configuration: The options are: <ul style="list-style-type: none"> - <code>max-reliability</code>- Matches the protocol packets having TOS field set as high reliability. - <code>max-throughput</code> - Matches the protocol packets having TOS field set as high throughput. 	Denies traffic for a particular protocol packet if the conditions defined in the deny statement are matched.	Extended IP ACL Configuration

Commands	Description	CLI Mode
<ul style="list-style-type: none"> - <code>min-delay</code>- Matches the protocol packets having TOS field set as low delay. - <code>normal</code> - Allows all protocol packets. Does not check for the TOS field in the packets. - <code><value (0-7)></code>- Matches the protocol packets based on the TOS value set. This value ranges from 0 to 7. • <code>dscp <value (0-63)></code> - Configures the Differentiated Services Code Point value to be checked against the packet, This value provides the quality of service control. This value ranges from 0 to 63. • <code>priority <value(1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value implies a higher priority. This value ranges from 1 to 255. 		
<pre>permit tcp {any host <src-ip-address> <src-ip-address> <src-mask> } [{gt <port-number (1-65535)> lt <port-number (1-65535)> eq <port-number (1-65535)> range <port-number (1-65535)> <port-number (1-65535)>}] [{ any host <dest-ip-address> <dest-ip-address> <dest-mask> } [{gt <port-number (1-65535)> lt <port-number (1-65535)> eq <port-number (1-65535)> range <port-number (1-65535)> <port-number (1-65535)>}] [{ ack rst }] [{tos{max-reliability max-throughput min-delay normal <tos-value (0-7)>} dscp <value (0-63)>}] [redirect {interface <ifXtype> <ifnum> <ifXtype><iface_list> [<ifXtype><iface_list>]}load-balance {src-ip dst-ip src-mac dst-mac vlandid src-tcpport dst-tcpport src-udpport dst-udpport}] [sub-action {none modify-vlan<short (1-4094)> nested-vlan <short (1 - 4094)>}] [priority <value(1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>any host <src-ip-address> <network-src-ip><mask></code> - Specifies the source IP address. The source IP can be: <ul style="list-style-type: none"> - <code>any</code> – Packets from any source are matched. - <code>host <src-ip-address></code> - Packets from this IPv4 source address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this source IPv4 network and mask. • <code>gt <port-number (1-65535)></code> - Matches the TCP packets having the TCP source port numbers greater than the specified port number. This value ranges from 1 to 65535. • <code>lt <port-number (1-65535)></code> - Matches the TCP packets having the TCP source port numbers less than the specified port number. This value ranges from 1 to 65535. • <code>eq <port-number (1-65535)></code> - Matches the TCP packets having the TCP source port numbers equal to specified port number. This value ranges from 1 to 65535. • <code>range <port-number (1-65535)> <port-number (1-65535)></code>- Matches the TCP packets having the TCP source port numbers within the specified range. This value ranges from 1 to 65535. This value specifies the minimum port number and the maximum port number values. 	<p>Configures the TCP packets to be forwarded based on the associated parameters.</p>	<p>Extended IP ACL Configuration</p>

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>any host <dest-ip-address> <network-dest-ip><mask></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - <code>any</code> - Packets to any destination are matched - <code>host <src-ip-address></code> - Packets for this IPv4 destination address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this destination IPv4 network and mask. • <code>gt <port-number (1-65535)></code> - Matches the TCP packets having the TCP destination port numbers greater than the specified port number. This value ranges from 1 to 65535. • <code>lt <port-number (1-65535)></code> - Matches the TCP packets having the TCP destination port numbers less than the specified port number. This value ranges from 1 to 65535. • <code>eq <port-number (1-65535)></code> - Matches the TCP packets having the TCP destination port numbers equal to specified port number. This value ranges from 1 to 65535. • <code>range <port-number (1-65535)> <port-number (1-65535)></code>- Matches the TCP packets having the TCP destination port numbers within the specified range. This value ranges from 1 to 65535. This value specifies the minimum port number and the maximum port number values. • <code>ack</code> - Matches TCP packets with the TCP ACK bit set. • <code>rst</code> - Matches TCP packets with the TCP RST bit set. • <code>eq <port-number (1-65535)></code> - Matches the TCP control packets having the TCP source port numbers equal to specified port number. This value ranges from 1 to 65535. • <code>tos</code> - Matches the TCP packets based on the following type of service configuration: The options are: <ul style="list-style-type: none"> - <code>max-reliability</code>- Matches the TCP packets having TOS field set as high reliability. - <code>max-throughput</code> - Matches the TCP packets having TOS field set as high throughput. - <code>min-delay</code>- Matches the protocol TCP having TOS field set as low delay. - <code>normal</code> - Allows all TCP packets. Does not check for the TOS field in the packets. - <code><value (0-7)></code>- Matches the TCP packets based on the TOS value set. This value ranges from 0 to 7. • <code>dscp <value (0-63)></code> - Configures the Differentiated Services Code Point value to be checked against the packet, This value provides the quality of service control. This value ranges from 0 to 63. • <code>redirect</code> - Redirects the packets to the destination interface or set of interfaces. <ul style="list-style-type: none"> - <code><iftype></code>- Redirects the packets to the specified type of interface. - <code><ifnum></code>- Redirects the packets to the specified interface identifier. This is a unique value that represents the specific interface. This value is a combination of slot number and port number separated by a slash, for interface types gigabitethernet, fastethernet and extreme-ethernet. - <code><iface_list></code>- Redirects the packets to the list of interfaces. 		

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>load-balance</code>- Specifies the parameters based on which the traffic distribution needs to be done. Options are: <ul style="list-style-type: none"> - <code>src-ip</code>- Traffic distribution is based on the source IP address. - <code>dst-ip</code>- Traffic distribution is based on the destination IP address. - <code>src-mac</code>- Traffic distribution is based on the Source MAC address. - <code>dst-mac</code>- Traffic distribution is based on the Destination MAC address. - <code>vlanid</code> - Traffic distribution is based on the VLAN Id to be filtered. - <code>src-tcpsport</code> - Traffic distribution is based on the source TCP port number. - <code>dst-tcpsport</code>- Traffic traffic distribution is based on the destination TCP Port. - <code>src-udpsport</code>- Traffic distribution is based on the source UDP port number. - <code>dst-udpsport</code>- Traffic distribution is based on the destination UDP port number. • <code>sub-action</code> - Configures the VLAN specific sub action to be performed on the packet: <ul style="list-style-type: none"> - <code>none</code> - Specifies that the actions related to the VLAN ID will not be considered. - <code>modify-vlan <short (1-4094)></code> - Modifies the VLAN ID to which the packet gets classified. The packet could be an untagged or VLAN tagged packet. This value ranges from 1 to 4094. • <code>priority <value(1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255. 		
<pre>deny tcp {any host <src-ip-address> <src-ip-address> <src-mask> } [{gt <port-number (1-65535)> lt <port-number (1-65535)> eq <port-number (1-65535)> range <port-number (1-65535)> <port-number (1-65535)>}] { any host <dest-ip-address> <dest-ip-address> <dest-mask> } [{gt <port-number (1-65535)> lt <port-number (1-65535)> eq <port-number (1-65535)> range <port-number (1-65535)> <port-number (1-65535)>}] [{ ack rst }] [{tos{max-reliability max-throughput min-delay normal <tos-value (0-7)> } dscp <value (0-63)>}] [priority <value(1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>any host <src-ip-address> <network-src-ip><mask></code> - Specifies the source IP address. The source IP can be: <ul style="list-style-type: none"> - <code>any</code> – Packets from any source are matched. - <code>host <src-ip-address></code> - Packets from this IPv4 source address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this source IPv4 network and mask. 	Configures the TCP packets to be rejected based on the associated parameters.	Extended IP ACL Configuration

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>gt <port-number (1-65535)></code> - Matches the TCP packets having the TCP source port numbers greater than the specified port number. This value ranges from 1 to 65535. • <code>lt <port-number (1-65535)></code> - Matches the TCP packets having the TCP source port numbers less than the specified port number. This value ranges from 1 to 65535. • <code>eq <port-number (1-65535)></code> - Matches the TCP packets having the TCP source port numbers equal to specified port number. This value ranges from 1 to 65535. • <code>range <port-number (1-65535)> <port-number (1-65535)></code>- Matches the TCP packets having the TCP source port numbers within the specified range. This value ranges from 1 to 65535. This value specifies the minimum port number and the maximum port number values. • <code>any host <dest-ip-address> <network-dest-ip><mask></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - <code>any</code> - Packets to any destination are matched. - <code>host <src-ip-address></code> - Packets for this IPv4 destination address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this destination IPv4 network and mask. • <code>gt <port-number (1-65535)></code> - Matches the TCP packets having the TCP destination port numbers greater than the specified port number. This value ranges from 1 to 65535. • <code>lt <port-number (1-65535)></code> - Matches the TCP packets having the TCP destination port numbers less than the specified port number. This value ranges from 1 to 65535. • <code>eq <port-number (1-65535)></code> - Matches the TCP packets having the TCP destination port numbers equal to specified port number. This value ranges from 1 to 65535. • <code>range <port-number (1-65535)> <port-number (1-65535)></code>- Matches the TCP packets having the TCP destination port numbers within the specified range. This value ranges from 1 to 65535. This value specifies the minimum port number and the maximum port number values. • <code>ack</code> - Matches TCP packets with the TCP ACK bit set. • <code>rst</code> - Matches TCP packets with the TCP RST bit set. • <code>tos</code> - Matches the TCP packets based on the following type of service configuration: The options are: <ul style="list-style-type: none"> - <code>max-reliability</code>- Matches the TCP packets having TOS field set as high reliability. - <code>max-throughput</code> - Matches the TCP packets having TOS field set as high throughput. - <code>min-delay</code>- Matches the protocol TCP having TOS field set as low delay. - <code>normal</code> - Allows all TCP packets. Does not check for the TOS field in the packets. - <code><value (0-7)></code>- Matches the TCP packets based on the TOS value set. This value ranges from 0 to 7. • <code>dscp <value (0-63)></code> - Configures the Differentiated Services Code Point value to be checked against the packet, This value provides the quality of service control. This value ranges from 0 to 63. • <code>priority <value(1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet 		

Commands	Description	CLI Mode
<p>matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255.</p>		
<pre> permit udp { any host <src-ip-address> <src-ip- address> <src-mask> } [{ gt <port-number (1-65535)> lt <port-number (1-65535)> eq <port-number (1-65535)> range <port-number (1-65535)> <port-number (1- 65535)> }] [{ any host <dest-ip-address> <dest-ip- address> <dest-mask> } [{ gt <port-number (1-65535)> lt <port-number (1-65535)> eq <port-number (1- 65535)> range <port-number (1-65535)> <port-number (1-65535)> }] [{ tos { max-reliability max-throughput min- delay normal <tos-value (0-7)> } dscp <value (0- 63)> }] [redirect { interface <iftype> <ifnum> <iftype><iface_list> [<iftype><iface_list>] load- balance { src-ip dst-ip src-mac dst-mac vlanid src-tcpport dst-tcpport src-udpport dst- udpport }] [sub-action { none modify-vlan <short (1- 4094)> nested-vlan <short (1 -4094)> }] [priority <value (1-255)>] </pre> <p>Available options:</p> <ul style="list-style-type: none"> • any host <src-ip-address> <network-src-ip><mask> - Specifies the source IP address. The source IP can be: <ul style="list-style-type: none"> - any - Packets from any source are matched. - host <src-ip-address> - Packets from this IPv4 source address are matched. - <network-src-ip> <mask> - Packets are matched using this source IPv4 network and mask. • gt <port-number (1-65535)> - Matches the UDP packets having the UDP source port numbers greater than the specified port number. This value ranges from 1 to 65535. • lt <port-number (1-65535)> - Matches the UDP packets having the UDP source port numbers less than the specified port number. This value ranges from 1 to 65535. • eq <port-number (1-65535)> - Matches the UDP packets having the UDP source port numbers equal to specified port number. This value ranges from 1 to 65535. • range <port-number (1-65535)> <port-number (1-65535)>- Matches the UDP packets having the UDP source port numbers within the specified range. This value ranges from 1 to 65535. This value specifies the minimum port number and the maximum port number values. • any host <dest-ip-address> <network-dest-ip><mask> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - any - Packets to any destination are matched. - host <src-ip-address> - Packets for this IPv4 destination address are matched. - <network-src-ip> <mask> - Packets are matched using this destination IPv4 network and mask. • gt <port-number (1-65535)> - Matches the UDP packets having the UDP destination port numbers greater than the specified port number. This value ranges from 1 to 65535. 	<p>Specifies the UDP (User Datagram Protocol) packets to be forwarded based on the associated parameters.</p>	<p>Extended IP ACL Configuration</p>

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>lt <port-number (1-65535)></code> - Matches the UDP packets having the UDP destination port numbers less than the specified port number. This value ranges from 1 to 65535. • <code>eq <port-number (1-65535)></code> - Matches the UDP packets having the UDP destination port numbers equal to specified port number. This value ranges from 1 to 65535. • <code>range <port-number (1-65535)> <port-number (1-65535)></code>- Matches the UDP packets having the UDP destination port numbers within the specified range. This value ranges from 1 to 65535. This value specifies the minimum port number and the maximum port number values. • <code>tos</code> - Matches the UDP packets based on the following type of service configuration: The options are: <ul style="list-style-type: none"> - <code>max-reliability</code>- Matches the UDP packets having TOS field set as high reliability. - <code>max-throughput</code> - Matches the UDP packets having TOS field set as high throughput. - <code>min-delay</code>- Matches the UDP packets having TOS field set as low delay. - <code>normal</code> - Allows all UDP packets. Does not check for the TOS field in the packets. - <code><value (0-7)></code>- Matches the UDP packets based on the TOS value set. This value ranges from 0 to 7. • <code>dscp <value (0-63)></code> - Configures the Differentiated Services Code Point value to be checked against the packet, This value provides the quality of service control. This value ranges from 0 to 63. • <code>redirect</code> - Redirects the packets to the destination interface or set of interfaces. <ul style="list-style-type: none"> - <code><iftype></code>- Redirects the packets to the specified type of interface. - <code><ifnum></code>- Redirects the packets to the specified interface identifier. This is a unique value that represents the specific interface. This value is a combination of slot number and port number separated by a slash, for interface types gigabitethernet, fastethernet and extreme-ethernet. - <code><iface_list></code>- Redirects the packets to the list of interfaces. • <code>load-balance</code>- Specifies the parameters based on which the traffic distribution needs to be done. Options are: <ul style="list-style-type: none"> - <code>src-ip</code>- Traffic distribution is based on the source IP address. - <code>dst-ip</code>- Traffic distribution is based on the destination IP address. - <code>src-mac</code>- Traffic distribution is based on the Source MAC address. - <code>dst-mac</code>- Traffic distribution is based on the Destination MAC address. - <code>vlanid</code> - Traffic distribution is based on the VLAN Id to be filtered. - <code>src-tcpport</code> - Traffic distribution is based on the source TCP port number. 		

Commands	Description	CLI Mode
<ul style="list-style-type: none"> - <code>dst-tcpport</code>- Traffic traffic distribution is based on the destination TCP Port. - <code>src-udpport</code>- Traffic distribution is based on the source UDP port number. - <code>dst-udpport</code>- Traffic distribution is based on the destination UDP port number. <ul style="list-style-type: none"> • <code>sub-action</code> - Configures the VLAN specific sub action to be performed on the packet. Options are: <ul style="list-style-type: none"> - <code>none</code> - Specifies that the actions related to the VLAN ID will not be considered. - <code>modify-vlan <short (1-4094)></code> - Modifies the VLAN ID to which the packet gets classified. The packet could be an untagged or VLAN tagged packet. This value ranges from 1 to 4094. • <code>priority <value(1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255. 		
<pre>deny udp { any host <src-ip-address> <src-ip-address> <src-mask> } [{ gt <port-number (1-65535)> lt <port-number (1-65535)> eq <port-number (1-65535)> range <port-number (1-65535)> <port-number (1-65535)> }] [{ any host <dest-ip-address> <dest-ip-address> <dest-mask> }] [{ gt <port-number (1-65535)> lt <port-number (1-65535)> eq <port-number (1-65535)> range <port-number (1-65535)> <port-number (1-65535)> }] [{ tos { max-reliability max-throughput min-delay normal <tos-value(0-7)> } dscp <value (0-63)> }] [priority <value(1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>any host <src-ip-address> <network-src-ip><mask></code> - Specifies the source IP address. The source IP can be: <ul style="list-style-type: none"> - <code>any</code> – Packets from any source are matched. - <code>host <src-ip-address></code> - Packets from this IPv4 source address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this source IPv4 network and mask. • <code>gt <port-number (1-65535)></code> - Matches the UDP packets having the UDP source port numbers greater than the specified port number. This value ranges from 1 to 65535. • <code>lt <port-number (1-65535)></code> - Matches the UDP packets having the UDP source port numbers less than the specified port number. This value ranges from 1 to 65535. • <code>eq <port-number (1-65535)></code> - Matches the UDP packets having the UDP source port numbers equal to specified port number. This value ranges from 1 to 65535. • <code>range <port-number (1-65535)> <port-number (1-65535)></code>- Matches the UDP packets having the UDP source port numbers within the specified range. This value ranges from 1 to 65535. This value specifies the minimum port number and the maximum port number values. 	<p>Configures the UDP packets to be rejected based on the associated parameters.</p>	<p>Extended IP ACL Configuration</p>

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>any host <dest-ip-address> <network-dest-ip><mask></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - <code>any</code> - Packets to any destination are matched - <code>host <src-ip-address></code> - Packets for this IPv4 destination address are matched - <code><network-src-ip> <mask></code> - Packets are matched using this destination IPv4 network and mask. • <code>gt <port-number (1-65535)></code> - Matches the UDP packets having the UDP destination port numbers greater than the specified port number. This value ranges from 1 to 65535. • <code>lt <port-number (1-65535)></code> - Matches the UDP packets having the UDP destination port numbers less than the specified port number. This value ranges from 1 to 65535. • <code>eq <port-number (1-65535)></code> - Matches the UDP packets having the UDP destination port numbers equal to specified port number. This value ranges from 1 to 65535. • <code>range <port-number (1-65535)> <port-number (1-65535)></code>- Matches the UDP packets having the UDP destination port numbers within the specified range. This value ranges from 1 to 65535. This value specifies the minimum port number and the maximum port number values. • <code>tos</code> - Matches the UDP packets based on the following type of service configuration: The options are: <ul style="list-style-type: none"> - <code>max-reliability</code>- Matches the UDP packets having TOS field set as high reliability. - <code>max-throughput</code> - Matches the UDP packets having TOS field set as high throughput. - <code>min-delay</code>- Matches the UDP packets having TOS field set as low delay. - <code>normal</code> - Allows all UDP packets. Does not check for the TOS field in the packets. - <code><value (0-7)></code>- Matches the UDP packets based on the TOS value set. This value ranges from 0 to 7. • <code>dscp <value (0-63)></code> - Configures the Differentiated Services Code Point value to be checked against the packet, This value provides the quality of service control. This value ranges from 0 to 63. • <code>priority <value(1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255. 		
<pre>permit icmp {any host <src-ip-address> <src-ip-address> <mask>}{any host <dest-ip-address> <dest-ip-address> <mask> [message-type <short (0-255)>] [message-code <short (0-255)>] [redirect {interface <iftype> <ifnum> <iftype><iface_list>[<iftype><iface_list>] load-balance {src-ip dst-ip src-mac dst-mac vlanid src-tcpport dst-tcpport src-udpport dst-udpport}}} [sub-action {none modify-vlan<short (1-4094)> nested-vlan <short (1 -4094)>}] [priority <value(1-255)>]</pre> <p>Available options:</p>	<p>Configures the ICMP (Internet Control Message Protocol) packets to be forwarded based on the IP address and the associated parameters.</p>	<p>Extended IP ACL Configuration</p>

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>any host <src-ip-address> <network-src-ip><mask></code> - Specifies the source IP address. The source IP can be: <ul style="list-style-type: none"> - <code>any</code> – Packets from any source are matched. - <code>host <src-ip-address></code> - Packets from this IPv4 source address are matched. - <code><network-src-ip> <mask></code> - Packets are matched using this source IPv4 network and mask. • <code>any host <dest-ip-address> <network-dest-ip><mask></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - <code>any</code> - Packets to any destination are matched - <code>host <src-ip-address></code> - Packets for this IPv4 destination address are matched - <code><network-src-ip> <mask></code> - Packets are matched using this destination IPv4 network and mask. • <code>message-type <short (0-255)></code> - Configures the ICMP Message type to be checked against the packet. The packet is allowed if it matches with the message type. This value ranges from 0 to 255. Some of the ICMP message types are: <ul style="list-style-type: none"> - 0 Echo reply - 3 Destination unreachable - 4 Source quench - 5 Redirect - 8 Echo request - 11 Time exceeded - 12 Parameter problem - 13 Timestamp request - 14 Timestamp reply - 15 Information request - 16 Information reply - 17 Address mask request - 18 Address mask reply - 255 No ICMP type • <code>message-code <short (0-255)></code> - Configures the ICMP Message code to be checked against the packet. The packet is allowed if it matches with the message code. This value ranges from 0 to 255. Some of the ICMP message Codes are: <ul style="list-style-type: none"> - 0 Network unreachable - 1 Host unreachable - 2 Protocol unreachable - 3 Port unreachable - 4 Fragment need - 5 Source route fail - 6 Destination network unknown - 7 Destination host unknown - 8 Source host isolated - 9 Destination network administratively prohibited - 10 Destination host administratively prohibited - 11 Network unreachable TOS - 12 Host unreachable TOS - 255 No ICMP code • <code>redirect</code> - Redirects the packets to the destination interface or set of interfaces. <ul style="list-style-type: none"> - <code><iftyp></code>- Redirects the packets to the specified type of interface. 		

Commands	Description	CLI Mode
<ul style="list-style-type: none"> - <code><ifnum></code>- Redirects the packets to the specified interface identifier. This is a unique value that represents the specific interface. This value is a combination of slot number and port number separated by a slash, for interface types gigabitethernet, fastethernet and extreme-ethernet. - <code><iface_list></code>- Redirects the packets to the the list of interfaces • <code>load-balance</code>- Specifies the parameters based on which the traffic distribution needs to be done. Options are: <ul style="list-style-type: none"> - <code>src-ip</code>- Traffic distribution is based on the source IP address. - <code>dst-ip</code>- Traffic distribution is based on the destination IP address. - <code>src-mac</code>- Traffic distribution is based on the Source MAC address. - <code>dst-mac</code>- Traffic distribution is based on the Destination MAC address. - <code>vlanid</code> - Traffic distribution is based on the VLAN Id to be filtered. - <code>src-tcpport</code> - Traffic distribution is based on the source TCP port number. - <code>dst-tcpport</code>- Traffic traffic distribution is based on the destination TCP Port. - <code>src-udpport</code>- Traffic distribution is based on the source UDP port number. - <code>dst-udpport</code>- Traffic distribution is based on the destination UDP port number. • <code>sub-action</code> - Configures the VLAN specific sub action to be performed on the packet. Options are: <ul style="list-style-type: none"> - <code>none</code> - Specifies that the actions related to the VLAN ID will not be considered. - <code>modify-vlan <short (1-4094)></code> - Modifies the VLAN ID to which the packet gets classified. The packet could be an untagged or VLAN tagged packet. This value ranges from 1 to 4094. - • <code>priority <value(1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255. 		
<pre>deny icmp {any host <src-ip-address> <src-ip-address> <mask>}{any host <dest-ip-address> <dest-ip- address> <mask> }[message-type <short (0-255)>] [message-code <short (0-255)>] [priority <value(1- 255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>any host <src-ip-address> <network-src-ip><mask></code> <ul style="list-style-type: none"> - Specifies the source IP address. The source IP can be: <ul style="list-style-type: none"> - <code>any</code> – Packets from any source are matched. - <code>host <src-ip-address></code> - Packets from this IPv4 source address are matched. 		Extended IP ACL Configuration

Commands	Description	CLI Mode
<ul style="list-style-type: none"> - <code><network-src-ip> <mask></code> - Packets are matched using this source IPv4 network and mask. • <code>any host <dest-ip-address> <network-dest-ip><mask></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> - <code>any</code> - Packets to any destination are matched - <code>host <src-ip-address></code> - Packets for this IPv4 destination address are matched - <code><network-src-ip> <mask></code> - Packets are matched using this destination IPv4 network and mask. • <code>message-type <short (0-255)></code> - Configures the ICMP Message type to be checked against the packet. The packet is allowed if it matches with the message type. This value ranges from 0 to 255. Some of the ICMP message types are: <ul style="list-style-type: none"> - 0 Echo reply - 3 Destination unreachable - 4 Source quench - 5 Redirect - 8 Echo request - 11 Time exceeded - 12 Parameter problem - 13 Timestamp request - 14 Timestamp reply - 15 Information request - 16 Information reply - 17 Address mask request - 18 Address mask reply - 255 No ICMP type • <code>message-code <short (0-255)></code> - Configures the ICMP Message code to be checked against the packet. The packet is allowed if it matches with the message code. This value ranges from 0 to 255. Some of the ICMP message Codes are: <ul style="list-style-type: none"> - 0 Network unreachable - 1 Host unreachable - 2 Protocol unreachable - 3 Port unreachable - 4 Fragment need - 5 Source route fail - 6 Destination network unknown - 7 Destination host unknown - 8 Source host isolated - 9 Destination network administratively prohibited - 10 Destination host administratively prohibited - 11 Network unreachable TOS - 12 Host unreachable TOS - 255 No ICMP code • <code>priority <value(1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255. 		
<pre>permit ipv6 { flow-label <integer(1-65535)> {any host <ip6_addr> <integer(0-128)> } { any host <ip6_addr> <integer(0-128)> } } [redirect {interface <iftyp> <ifnum> <iftyp><iface_list></pre>	Configures IPv6 packets to be forwarded based on protocol and associated parameters.	Extended IP ACL Configuration

Commands	Description	CLI Mode
<pre>[<iftyp><iface_list>]load-balance {src-ip dst-ip src-mac dst-mac vlanid src-tcpport dst-tcpport src-udpport dst-udpport}}][sub-action {none modify-vlan<short (1-4094)> nested-vlan <short (1 - 4094)>}] [priority <value(1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code>flow-label</code> - Configures the Flow identifier in the IPv6 header. This value ranges from 1 to 65535. • <code>any host <ip6_addr> <integer (0-128)></code> - Specifies the source IPv6 address. <ul style="list-style-type: none"> ○ <code>any</code> - Packets from any source are matched. ○ <code>host <ip6_addr> <integer (0-128)></code> - Packets from this IPv4 source address and prefix length are matched. • <code>any host <ip6_addr> <integer (0-128)></code> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> ○ <code>any</code> - Packets to any destination are matched ○ <code>host <ip6_addr> <integer (0-128)></code> - Packets for this IPv6 destination address and prefix length are matched • <code>redirect</code> - Redirects the packets to the destination interface or set of interfaces. <ul style="list-style-type: none"> ○ <code><iftyp></code>- Redirects the packets to the specified type of interface. ○ <code><ifnum></code>- Redirects the packets to the specified interface identifier. This is a unique value that represents the specific interface. This value is a combination of slot number and port number separated by a slash, for interface types gigabitethernet, fastethernet and extreme-ethernet. ○ <code><iface_list></code>- Redirects the packets to the the list of interfaces • <code>load-balance</code>- Specifies the parameters based on which the traffic distribution needs to be done. Options are: <ul style="list-style-type: none"> ○ <code>src-ip</code>- Traffic distribution is based on the source IP address. ○ <code>dst-ip</code>- Traffic distribution is based on the destination IP address. ○ <code>src-mac</code>- Traffic distribution is based on the Source MAC address. ○ <code>dst-mac</code>- Traffic distribution is based on the Destination MAC address. ○ <code>vlanid</code> - Traffic distribution is based on the VLAN Id to be filtered. ○ <code>src-tcpport</code> - Traffic distribution is based on the source TCP port number. ○ <code>dst-tcpport</code>- Traffic traffic distribution is based on the destination TCP Port. ○ <code>src-udpport</code>- Traffic distribution is based on the source UDP port number. ○ <code>dst-udpport</code>- Traffic distribution is based on the destination UDP port number. • <code>sub-action</code> - Configures the VLAN specific sub action to be performed on the packet. Options are: 		

Commands	Description	CLI Mode
<ul style="list-style-type: none"> o none - Specifies that the actions related to the VLAN ID will not be considered. o modify-vlan <short (1-4094)> - Modifies the VLAN ID to which the packet gets classified. The packet could be an untagged or VLAN tagged packet. This value ranges from 1 to 4094. • priority <value (1-255)> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255. 		
<pre>deny ipv6 { flow-label <integer(1-65535)> {any host <ip6_addr> <integer(0-128)> } { any host <ip6_addr> <integer(0-128)> }} [priority <value(1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • flow-label - Configures the Flow identifier in the IPv6 header. This value ranges from 1 to 65535. • any host <ip6_addr> <integer (0-128)> - Specifies the source IPv6 address. <ul style="list-style-type: none"> o any - Packets from any source are matched. o host <ip6_addr> <integer (0-128)> - Packets from this IPv4 source address and prefix length are matched. • any host <ip6_addr> <integer (0-128)> - Specifies the source IP address. The source IP address can be : <ul style="list-style-type: none"> o any - Packets to any destination are matched. o host <ip6_addr> <integer (0-128)> - Packets for this IPv6 destination address and prefix length are matched. • priority <value (1-255)> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255 	<p>Specifies the IPv6 packets to be rejected based on associated parameters.</p>	
<pre>permit { any host <src-mac-address>}{ any host <dest-mac-address> }[{ aarp amber dec-spanning decnet-iv diagnostic dsm etype-6000 etype-8042 lat larc-sca mop-console mop-dump msdos mumps netbios vines-echo vines-ip xns-id <protocol (0-65535)> }] [encapsType <integer (1-65535)>] [vlan <vlan-id (1-4094)>] [outerEtherType < integer (1-65535)>] [vlan-priority <value (0-7)>] [redirect {interface <iftype> <ifnum> <iftype><iface_list> [<iftype><iface_list>] load-balance {src-ip dst-ip src-mac dst-mac vlanid src-tcpport dst-tcpport src-udpport dst-udpport}}] [sub-action {none modify-vlan<short (1-4094)> nested-vlan <short (1 -4094)> strip-ether-hdr}}] [priority <value(1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • any host <src-mac-address>- Specifies the source MAC address. The source mac address can be: 	<p>Configures the packets to be forwarded based on the MAC address and the associated parameters, that is, this command allows non-IP traffic to be forwarded if the conditions are matched.</p>	<p>Extended IP ACL Configuration</p>

Commands	Description	CLI Mode
<ul style="list-style-type: none"> o <code>any</code> - Allows all packets. Does not check for the source MAC address in the packets. o <code>host <src-mac-address></code> - Allows only the packets having the specified source MAC address. • <code>any host <dest-mac-address></code>- Specifies the destination MAC address. The destination mac address can be: <ul style="list-style-type: none"> o <code>any</code> - Allows all packets. Does not check for the source MAC address in the packets. o <code>host <src-mac-address></code> - Allows only the packets having the specified destination MAC address. • <code>aarp</code> - Configures the non-IP protocol type as EtherType AppleTalk Address Resolution Protocol that maps a data-link address to a network address. • <code>amber</code> - Configures the non-IP protocol type as EtherType DEC-Amber. • <code>dec-spanning</code> - Configures the non-IP protocol type as EtherType Digital Equipment Corporation (DEC) spanning tree • <code>decnet-iv</code> - Configures the non-IP protocol type as EtherType DECnet Phase IV protocol. • <code>diagnostic</code> - Configures the non-IP protocol type as EtherType DEC-Diagnostic. • <code>dsm</code> - Configures the non-IP protocol type as EtherType DEC-DSM/DDP. • <code>etype-6000</code> - Configures the non-IP protocol type as EtherType 0x6000. • <code>etype-8042</code> - Configures the non-IP protocol type as EtherType 0x8042. • <code>lat</code> - Configures the non-IP protocol type as EtherType DEC-LAT. • <code>lavc-sca</code> - Configures the non-IP protocol type as EtherType DEC-LAVC-SCA. • <code>mop-console</code> - Configures the non-IP protocol type as EtherType DEC-MOP Remote Console. • <code>mop-dump</code> - Configures the non-IP protocol type as EtherType DEC-MOP Dump. • <code>msdos</code> - Configures the non-IP protocol type as EtherType DEC-MSDOS. • <code>mumps</code> - Configures the non-IP protocol type as EtherType DEC-MUMPS. • <code>netbios</code> - Configures the non-IP protocol type as EtherType DEC- Network Basic Input/Output System (NETBIOS). • <code>vines-echo</code> - Configures the non-IP protocol type as EtherType Virtual Integrated Network Service (VINES) Echo from Banyan Systems. • <code>vines-ip</code> - Configures the non-IP protocol type as EtherType VINES IP. • <code>xns-id</code> - Configures the non-IP protocol type as EtherType Xerox Network Systems (XNS) protocol suite. • <code><protocol (0-65535)></code> - Configures the non-IP protocol type to be filtered. This value ranges from 0 to 65535. The value 0 represents that filter is applicable for all protocols. 		

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>encaptype <value (1-65535)></code> - Configures the arbitrary ether type of a packet with Ethernet II or SNAP encapsulation in decimal. This value ranges from 1 to 65535. • <code>vlan <vlan-id (1-4094)></code> - Specifies the vlan id to be filtered. This value ranges from 1 to 4094. • <code>vlan-priority <value (0-7)></code>- Configures VLAN priority value to match against incoming packets. This value ranges from 0 to 7. • <code>redirect</code> - Redirects the packets to the destination interface or set of interfaces. <ul style="list-style-type: none"> ○ <code><iftype></code>- Redirects the packets to the specified type of interface. ○ <code><ifnum></code>- Redirects the packets to the specified interface identifier. This is a unique value that represents the specific interface. This value is a combination of slot number and port number separated by a slash, for interface types gigabitethernet, fastethernet and extreme-ethernet. ○ <code><iface_list></code>- Redirects the packets to the the list of interfaces. • <code>load-balance</code>- Specifies the parameters based on which the traffic distribution needs to be done. Options are: <ul style="list-style-type: none"> ○ <code>src-ip</code>- Traffic distribution is based on the source IP address. ○ <code>dst-ip</code>- Traffic distribution is based on the destination IP address. ○ <code>src-mac</code>- Traffic distribution is based on the Source MAC address. ○ <code>dst-mac</code>- Traffic distribution is based on the Destination MAC address. ○ <code>vlanid</code> - Traffic distribution is based on the VLAN Id to be filtered. ○ <code>src-tcpport</code> - Traffic distribution is based on the source TCP port number. ○ <code>dst-tcpport</code>- Traffic traffic distribution is based on the destination TCP Port. ○ <code>src-udpport</code>- Traffic distribution is based on the source UDP port number. ○ <code>dst-udpport</code>- Traffic distribution is based on the destination UDP port number. • <code>sub-action</code> - Configures the VLAN specific sub action to be performed on the packet. Options are: <ul style="list-style-type: none"> ○ <code>none</code> - Specifies that the actions related to the VLAN ID will not be considered. ○ <code>modify-vlan <short (1-4094)></code> - Modifies the VLAN ID to which the packet gets classified. The packet could be an untagged or VLAN tagged packet. This value ranges from 1 to 4094. • <code>priority <value (1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255. 		

Commands	Description	CLI Mode
<pre>deny { any host <src-mac-address> } { any host <dest-mac-address> } [{ aarp amber dec-spanning decnet-iv diagnostic dsm etype-6000 etype-8042 lat lavc-sca mop-console mop-dump msdos mumps netbios vines-echo vines-ip xns-id <short (0-65535)> }] [encaps-type <integer (1-65535)>] [vlan <vlan-id (1-4094)>] [vlan-priority <priority (0-7)>] [priority <value(1-255)>]</pre> <p>Available options:</p> <ul style="list-style-type: none"> • any host <src-mac-address>- Specifies the source MAC address. The source mac address can be: <ul style="list-style-type: none"> ○ any - Allows all packets. Does not check for the source MAC address in the packets. ○ host <src-mac-address> - Allows only the packets having the specified source MAC address. • any host <dest-mac-address>- Specifies the destination MAC address. The destination mac address can be: <ul style="list-style-type: none"> ○ any - Allows all packets. Does not check for the source MAC address in the packets. ○ host <src-mac-address> - Allows only the packets having the specified destination MAC address. • aarp - Configures the non-IP protocol type as EtherType AppleTalk Address Resolution Protocol that maps a data-link address to a network address. • amber - Configures the non-IP protocol type as EtherType DEC-Amber. • dec-spanning - Configures the non-IP protocol type as EtherType Digital Equipment Corporation (DEC) spanning tree. • decnet-iv - Configures the non-IP protocol type as EtherType DECnet Phase IV protocol. • diagnostic - Configures the non-IP protocol type as EtherType DEC-Diagnostic. • dsm - Configures the non-IP protocol type as EtherType DEC-DSM/DDP. • etype-6000 - Configures the non-IP protocol type as EtherType 0x6000. • etype-8042 - Configures the non-IP protocol type as EtherType 0x8042. • lat - Configures the non-IP protocol type as EtherType DEC-LAT. • lavc-sca - Configures the non-IP protocol type as EtherType DEC-LAVC-SCA. • mop-console - Configures the non-IP protocol type as EtherType DEC-MOP Remote Console. • mop-dump - Configures the non-IP protocol type as EtherType DEC-MOP Dump. • msdos - Configures the non-IP protocol type as EtherType DEC-MSDOS. • mumps - Configures the non-IP protocol type as EtherType DEC-MUMPS. • netbios - Configures the non-IP protocol type as EtherType DEC- Network Basic Input/Output System (NETBIOS). 	<p>Configures the packets to be rejected based on the MAC address and the associated parameters.</p>	<p>Extended IP ACL Configuration</p>

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>vines-echo</code> - Configures the non-IP protocol type as EtherType Virtual Integrated Network Service (VINES) Echo from Banyan Systems. • <code>vines-ip</code> - Configures the non-IP protocol type as EtherType VINES IP. • <code>xns-id</code> - Configures the non-IP protocol type as EtherType Xerox Network Systems (XNS) protocol suite. • <code><protocol (0-65535)></code> - Configures the non-IP protocol type to be filtered. This value ranges from 0 to 65535. The value 0 represents that filter is applicable for all protocols. • <code>encaptype <value (1-65535)></code> - Configures the arbitrary ether type of a packet with Ethernet II or SNAP encapsulation in decimal. This value ranges from 1 to 65535. • <code>vlan <vlan-id (1-4094)></code> - Specifies the vlan id to be filtered. This value ranges from 1 to 4094. • <code>vlan-priority <value (0-7)></code> - Configures VLAN priority value to match against incoming packets. This value ranges from 0 to 7. • <code>priority <value (1-255)></code> - Configures the priority of the filter to decide which filter rule is applicable when the packet matches with more than one filter rules. Lower value of 'filter priority' implies a higher priority. This value ranges from 1 to 255. 		
<pre>ip access-group <access-list-number (1-65535)> {in out}</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code><access-list-number (1-65535)></code> - Specifies the IP access control list number which is to be enabled on the interface. This value ranges from 1 to 65535. • <code>in</code> - Apply the ACL on the ingress of the port. • <code>out</code> - Apply the ACL on the egress of the port.  <div style="background-color: #e1f5fe; padding: 5px; border: 1px solid #ccc;"> <p>Redirect action is not applicable when applying the ACL on the egress of a port.</p> </div>	<p>Applies the specified IP ACL on the port.</p> <p>The no form of this command removes all access groups or the specified access group from the port.</p>	<p>Interface Configuration</p>
<pre>mac access-group <access-list-number (1-65535)> {in out}</pre> <p>Available options:</p> <ul style="list-style-type: none"> • <code><access-list-number (1-65535)></code> - Specifies the MAC access control list number which is to be enabled on the interface. This value ranges from 1 to 65535. • <code>in</code> - Apply the ACL on the ingress of the port. • <code>out</code> - Apply the ACL on the egress of the port.  <div style="background-color: #e1f5fe; padding: 5px; border: 1px solid #ccc;"> <p>Redirect action is not applicable when applying the ACL on the egress of a port.</p> </div>	<p>Applies the specified MAC ACL on the port.</p> <p>The no form of this command removes all access groups or the specified access group from the port.</p>	<p>Interface Configuration</p>
<pre>show access-lists [{ip <access-list-number (1-65535)> mac <access-list-number (1-65535)> <access-list-number (1-65535)> }]</pre> <p>Available options:</p>	<p>Displays the access lists configuration.</p>	<p>Privileged EXEC</p>

Commands	Description	CLI Mode
<ul style="list-style-type: none"> • <code>ip <access-list-number (1-65535)></code> - Displays the configurations for the specified ip access-list. This value ranges from 1 to 65535. • <code>mac <access-list-number (1-65535)></code> - Displays the configurations for the specified mac access-list. This value ranges from 1 to 65535. • <code><access-list-number (1-65535)></code> - Displays the configurations for the specified access-list. This value ranges from 1 to 65535. 		
<code>show egress access-list mode</code>	Displays the egress filter mode configuration.	Privileged EXEC