

Port Role Configuration with the J-Web Interface (with CLI References)

When you configure Gigabit Ethernet interface properties with the J-Web interface (Configure > Interfaces) you can optionally select pre-configured port roles for those interfaces. When you select a role from the **Port Role** field and apply it to a port, the J-Web interface modifies the switch configuration using CLI commands. Table 1 lists the CLI commands applied for each port role.



NOTE: If there is an existing port role configuration, it is cleared before the new port role configuration is applied.

Table 1: Port Role Configuration Summary

Configuration Description	CLI Commands
Default Port Role	
Set the port role to Default.	<code>set interfaces <i>interface</i> apply-macro juniper-port-profile Default</code>
Set port family to ethernet-switching.	<code>set interfaces <i>interface</i> unit 0 family ethernet-switching</code>
Set port mode to access.	<code>port-mode access</code>
Enable RSTP if redundant trunk groups are not configured.	<code>delete protocols rstp interface <i>interface</i> disable</code>
Disable RSTP if redundant trunk groups are configured.	<code>set protocols rstp interface <i>interface</i> disable</code>
Desktop Port Role	
Set the port role to desktop.	<code>set interfaces <i>interface</i> apply-macro juniper-port-profile Desktop</code>
Set VLAN if new VLAN is specified.	<code>set vlans <<i>vlan name</i>> vlan-id <<i>vlan-id</i>></code>
Set port family to ethernet-switching.	<code>set interfaces <i>interface</i> unit 0 family ethernet-switching</code>
Set Port Mode to Access.	<code>port-mode access</code>
Set VLAN if new VLAN is specified.	<code>set interfaces <i>interface</i> unit 0 family ethernet-switching</code> <code>vlan members <i>vlan-members</i></code>
Set port security parameters.	<code>set ethernet-switching-options secure-access-port vlan</code> <code>MacTest arp-inspection</code>
Set RSTP protocol with edge option.	<code>set protocols rstp interface <i>interface</i> edge</code>
RSTP protocol is disabled if redundant trunk groups are configured.	<code>set protocols rstp interface <i>interface</i> disable</code>
Desktop and Phone Port Role	

Table 1: Port Role Configuration Summary (continued)

Configuration Description	CLI Commands
Set the port role to desktop and phone.	<code>set interfaces <i>interface</i> apply-macro juniper-port-profile Desktop and Phone</code>
Set data VLAN if new VLAN is specified.	<code>set vlans <i>vlan-name</i> vlan-id <i>vlan id</i></code>
Set voice VLAN if new voice VLAN is specified.	
Set port family to ethernet-switching.	<code>set interfaces <i>interface</i> unit 0 family ethernet-switching</code>
Set Port Mode to access.	<code>port-mode access</code>
Set data VLAN on port stanza.	<code>set interfaces <i>interface</i> unit 0 family ethernet-switching</code> <code>vlan members <i>vlan-members</i></code>
Set port security parameters.	<code>set ethernet-switching-options secure-access-port vlan</code> <code>MacTest arp-inspection</code>
Set VOIP VLAN.	<code>set ethernet-switching-options voip interface <i>interface</i>.0</code> <code>vlan <i>vlan</i> <i>vlan name</i></code>
Set class of service parameters	<code>set class-of-service interfaces <i>interfaces</i> scheduler-map</code> <code>juniper-port-profile-map</code>
SCHEDULER_MAP = juniper-port-profile-map	<code>set class-of-service interfaces <i>interface</i> unit 0</code> <code>classifiers ieee-802.1 juniper_ieee_classifier</code>
IEEE_CLASSIFIER = juniper-ieee-classifier	<code>set class-of-service interfaces <i>interface</i> unit 0</code> <code>classifiers dscp juniper-dscp-classifier</code>
DSCP_CLASSIFIER = juniper-dscp-classifier	
Set CoS Configuration	Refer Table 2 for details.
Wireless Access Point Port Role	
Set the port role to wireless access point.	<code>set interfaces <i>interface</i> apply-macro juniper-port-profile</code> <code>Wireless Access Point</code>
Set VLAN on VLANs stanza.	<code>set vlans <i>vlan name</i> vlan-id <i>vlan-id</i></code>
Set port family to ethernet-switching	<code>set interfaces <i>interface</i> unit 0 family ethernet-switching</code>
Set port mode to Access.	<code>port-mode access</code>
Set VLAN on port stanza.	<code>set interfaces <i>interface</i> unit 0 family ethernet-switching</code> <code>vlan members <i>vlan-members</i></code>
Set RSTP protocol with edge option.	<code>set protocols rstp interface <i>interface</i> edge</code>
RSTP protocol is disabled if redundant trunk groups are configured.	<code>set protocols rstp interface <i>interface</i> disable</code>
Routed Uplink Port Role	
Set the port role to Routed Uplink.	<code>set interfaces <i>interface</i> apply-macro juniper-port-profile</code> <code>Routed Uplink</code>
Set port family to inet.	<code>set interfaces <i>interface</i> unit 0 family inet address</code> <code><i>ipaddress</i></code>
Set IP address on the port.	

Table 1: Port Role Configuration Summary (continued)

Configuration Description	CLI Commands
Set class-of-service parameters SCHEDULER_MAP = juniper-port-profile-map IEEE_CLASSIFIER = juniper-ieee-classifier DSCP_CLASSIFIER = juniper-dscp-classifier	set class-of-service interfaces <i>interface</i> scheduler-map juniper-port-profile-map set class-of-service interfaces <i>interface</i> unit 0 classifiers ieee-802.1 juniper_ieee_classifier set class-of-service interfaces <i>interface</i> unit 0 classifiers dscp juniper-dscp-classifier
Set CoS configuration	Refer Table 2 for details.
Layer 2 Uplink Port Role	
Set the port role to Layer 2 Uplink.	set interfaces <i>interface</i> apply-macro juniper-port-profile Layer2 Uplink
Set port family to ethernet-switching Set port mode to trunk.	set interfaces <i>interface</i> unit 0 family ethernet-switching port-mode trunk
Set Native VLAN name.	set interfaces <i>interface</i> unit 0 family ethernet-switching native-vlan-id <i>vlan-name</i>
Set the port as part of all valid VLANs; "valid" refers to all VLANs except native VLAN and voice VLANs.	set interfaces <i>interface</i> unit 0 family ethernet-switching vlan members <i>vlan-members</i>
Set port security parameter.	set ethernet-switching-options secure-access-port dhcp-trusted
Set RSTP protocol with point-to-point option.	set protocols rstp interface <i>interface</i> mode point-to-point
Disable RSTP if redundant trunk groups are configured.	set protocols rstp interface <i>interface</i> disable
Set class-of-service parameters. SCHEDULER_MAP = juniper-port-profile-map IEEE_CLASSIFIER = juniper_ieee_classifier DSCP_CLASSIFIER = juniper_dscp_classifier	set class-of-service interfaces <i>interface</i> scheduler-map juniper-port-profile-map set class-of-service interfaces <i>interface</i> unit 0 classifiers ieee-802.1 juniper_ieee_classifier set class-of-service interfaces <i>interface</i> unit 0 classifiers dscp juniper-dscp-classifier
Set CoS configuration	Refer to Table 2 for details.

Table 2 lists the CLI commands for the recommended CoS settings that are committed when the CoS configuration is set.

Table 2: Recommended CoS Settings for Port Roles

CoS Parameter	CLI Command
Forwarding Classes	
voice	set class-of-service forwarding-classes class voice queue-num 7

Table 2: Recommended CoS Settings for Port Roles *(continued)*

CoS Parameter	CLI Command
expedited-forwarding	set class-of-service forwarding-classes class expedited-forwarding queue-num 5
assured-forwarding	set class-of-service forwarding-classes class assured-forwarding queue-num 1
best-effort	set class-of-service forwarding-classes class best-effort queue-num 0
Schedulers	
strict-priority-scheduler	<p>The CLI commands are:</p> <ul style="list-style-type: none"> <pre> set class-of-service schedulers strict-priority-scheduler transmit-rate percent 10 set class-of-service schedulers strict-priority-scheduler buffer-size percent 5 set class-of-service schedulers strict-priority-scheduler priority strict-high </pre>
expedited-scheduler	<p>The CLI commands are:</p> <ul style="list-style-type: none"> <pre> set class-of-service schedulers expedited-scheduler transmit-rate percent 30 set class-of-service schedulers expedited-scheduler buffer-size percent 30 set class-of-service schedulers expedited-scheduler priority low </pre>
assured-scheduler	<p>The CLI commands are:</p> <pre> set class-of-service schedulers assured-scheduler transmit-rate percent 25 set class-of-service schedulers strict-priority-scheduler buffer-size percent 25 set class-of-service schedulers strict-priority-scheduler priority low </pre>
best-effort-scheduler	<p>The CLI commands are:</p> <pre> set class-of-service schedulers best-effort-scheduler transmit-rate percent 35 set class-of-service schedulers best-effort-scheduler buffer-size percent 40 set class-of-service schedulers best-effort-scheduler priority low </pre>

Table 2: Recommended CoS Settings for Port Roles *(continued)*

CoS Parameter	CLI Command
Classifiers	<p>The classifiers are:</p> <pre>set class-of-service classifiers ieee-802.1 juniper_ieee_classifier import default forwarding-class voice loss-priority low code-points 101 set class-of-service classifiers dscp juniper_dscp_classifier import default forwarding-class voice loss-priority low code-points 101110</pre>
Related Topics	<ul style="list-style-type: none">■ Configuring Gigabit Ethernet Interfaces (J-Web Procedure)■ Configuring Gigabit Ethernet Interfaces (CLI Procedure)

Published: 2009-07-22