

## Monitoring the QoS Scheduler Hierarchy

**Purpose** Display information about the QoS scheduler hierarchy, including interfaces, resources, and shaping rates on a particular interface. Phantom nodes are not displayed in the output for this command.

If you do not specify the **traffic-class-group** keyword, the output displays information for the default traffic-class group.

**Action** To display the scheduler hierarchy for a particular interface:

```
host1# show qos scheduler-hierarchy interface fastEthernet 9/0
Scheduler hierarchy for the default traffic-class group
```

interface	resource	shaping rate	shared shaping rate	assured rate or weight
ethernet Eth9/0	ethernet port			wgt 8
ethernet Eth9/0	ethernet queue			wgt 8
svlan Eth9/0 svlan 2	svlan node			wgt 8
vlan Eth9/0.1	vlan node			wgt 1
vlan Eth9/0.1	vlan queue best-effort		2000000	wgt 8
vlan Eth9/0.2	vlan node			wgt 3
vlan Eth9/0.2	vlan queue video	2000000		wgt 8
vlan Eth9/0.2	vlan queue best-effort		6000000	wgt 8
vlan Eth9/0.3	vlan node			wgt 6
vlan Eth9/0.3	vlan queue video	3000000		wgt 8
vlan Eth9/0.3	vlan queue best-effort		8000000	wgt 8

Scheduler hierarchy for traffic-class group EF

interface	resource	shaping rate	shared shaping rate	assured rate or weight
ethernet Eth9/0	ethernet group node EF			wgt 8
svlan Eth9/0 svlan 2	svlan node EF			wgt 8
vlan Eth9/0.2	vlan queue EF voice	100000		wgt 8
vlan Eth9/0.3	vlan queue EF voice	300000		wgt 8

To display the scheduler hierarchy from the specified interface down to the port, then up from the specified interface:

```
host1#show qos scheduler-hierarchy interface fastEthernet 9/0.2 level 0
Scheduler hierarchy for the default traffic-class group
```

interface	resource	shaping rate	shared shaping rate	assured rate or weight
ethernet Eth9/0	ethernet port			wgt 8
svlan Eth9/0 svlan 2	svlan node			wgt 8
vlan Eth9/0.2	vlan node			wgt 3
vlan Eth9/0.2	vlan queue video	2000000		wgt 8
vlan Eth9/0.2	vlan queue best-effort		6000000	wgt 8

Scheduler hierarchy for the default traffic-class group

assured

interface	resource	shaping rate	shared shaping rate	rate or weight
ethernet Eth9/0	ethernet port			wgt 8
ethernet Eth9/0	ethernet group node EF			wgt 8
svlan Eth9/0 svlan 2	svlan node EF			wgt 8
vlan Eth9/0.2	vlan queue EF voice	100000		wgt 8

To display the QoS scheduler hierarchy for a specified interface rather than those stacked above the interface:

```
host1#show qos scheduler-hierarchy interface fastEthernet 9/0.2 explicit
Scheduler hierarchy for the default traffic-class group
```

interface	resource	shaping rate	shared shaping rate	assured rate or weight
vlan Eth9/0.2	vlan node			wgt 3
vlan Eth9/0.2	vlan queue video	2000000		wgt 8
vlan Eth9/0.2	vlan queue best-effort		6000000	wgt 8

Scheduler hierarchy for traffic-class group EF

interface	resource	shaping rate	shared shaping rate	assured rate or weight
vlan Eth9/0.2	vlan queue EF voice	100000		wgt 8

To display the scheduler hierarchy of a specific traffic-class group or the default traffic-class group:

```
host1#show qos scheduler-hierarchy interface fastEthernet 9/0
traffic-class-group EF
```

Scheduler hierarchy for traffic-class group EF

interface	resource	shaping rate	shared shaping rate	assured rate or weight
ethernet Eth9/0	ethernet group node EF			wgt 8
svlan Eth9/0 svlan 2	svlan node EF			wgt 8
vlan Eth9/0.2	vlan queue EF voice	100000		wgt 8
vlan Eth9/0.3	vlan queue EF voice	300000		wgt 8

To display a summary of the scheduler profiles stacked above the specified interface:

```
host1#show qos scheduler-hierarchy interface fastEthernet 9/0 summary
```

```
Total number of nodes: 7
  Level 0 nodes:      1
  Level 1 nodes:      2
  Level 2 nodes:      4
  Level 3 nodes:      0
Total number of queues: 8
  Level 0 queues:     0
  Level 1 queues:     1
  Level 2 queues:     0
  Level 3 queues:     7
```

To display information about a specified interface in condensed format:

```
host1#show qos scheduler-hierarchy interface fastEthernet 9/0 brief
```

Scheduler hierarchy for the default traffic-class group

interface	resource
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ethernet Eth9/0	ethernet port
ethernet Eth9/0	ethernet queue
svlan Eth9/0 svlan 2	svlan node
vlan Eth9/0.1	vlan node
vlan Eth9/0.1	vlan queue best-effort
vlan Eth9/0.2	vlan node
vlan Eth9/0.2	vlan queue video
vlan Eth9/0.2	vlan queue best-effort
vlan Eth9/0.3	vlan node
vlan Eth9/0.3	vlan queue video
vlan Eth9/0.3	vlan queue best-effort

Scheduler hierarchy for traffic-class group EF

interface	resource
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ethernet Eth9/0	ethernet group node EF
svlan Eth9/0 svlan 2	svlan node EF
vlan Eth9/0.2	vlan queue EF voice
vlan Eth9/0.3	vlan queue EF voice

To display the scheduler level, scheduler profile that controls QoS behavior of the scheduler nodes and queues, and the burst associated with shaping rates:

```
host1#show qos scheduler-hierarchy interface fastEthernet 9/0 full | include subscriber-best-effort
```

vlan Eth9/0.1	subscriber-best-effort	2000000 default
vlan Eth9/0.2	subscriber-best-effort	6000000 default
vlan Eth9/0.3	subscriber-best-effort	8000000 default

To display the QoS scheduler hierarchy using a filter as an alternative to using the **level** keyword:

```
host1#show qos scheduler-hierarchy interface fastEthernet 9/0 full | include level 2
```

vlan Eth9/0.1	vlan node	level 2
vlan Eth9/0.2	vlan node	level 2
vlan Eth9/0.3	vlan node	level 2
svlan Eth9/0 svlan 2	svlan node EF	level 2

To display the QoS scheduler hierarchy for an interface set:

```
host1#show qos scheduler-hierarchy qos-interface-set vlanset1
```

Scheduler hierarchy for the default traffic-class group

interface	resource	assured		
		shared	rate	
		shaping	shaping	or
		rate	rate	weight
ethernet Eth1/0/0	ethernet port			wgt 8

superset cluster	superset node	800000000	wgt 8
set vlnaset1	set node	300000000	wgt 8
vlan Eth1/0/0.1	vlan queue best-effort		wgt 8
vlan Eth1/0/0.2	vlan queue best-effort		wgt 8

Scheduler hierarchy for traffic-class group EF

interface	resource	assured		
		shared rate		
		shaping shaping or		
		rate	rate	weight
-----	-----	-----	-----	-----
ethernet Eth1/0/0	ethernet port			wgt 8
ethernet Eth1/0/0	ethernet group node EF			wgt 8
superset cluster	superset node EF	100000000		wgt 8
set vlnaset1	set queue EF EF			wgt 8

Scheduler hierarchy for traffic-class group AF

interface	resource	assured		
		shared rate		
		shaping shaping or		
		rate	rate	weight
-----	-----	-----	-----	-----
ethernet Eth1/0/0	ethernet port			wgt 8
superset cluster	superset node AF	100000000		wgt 8
set vlnaset1	set node AF			wgt 8
vlan Eth1/0/0.1	vlan queue AF AF			wgt 8
vlan Eth1/0/0.2	vlan queue AF AF			wgt 8

To display the QoS scheduler hierarchy for an interface superset:

```
host1#show qos scheduler-hierarchy qos-interface-superset cluster
Scheduler hierarchy for the default traffic-class group
```

interface	resource	assured		
		shared		rate
		shaping	shaping	or
		rate	rate	weight
-----	-----	-----	-----	-----
ethernet Eth1/0/0	ethernet port			wgt 8
superset cluster	superset node		800000000	wgt 8
set vlanset1	set node		300000000	wgt 8
vlan Eth1/0/0.1	vlan queue best-effort			wgt 8
vlan Eth1/0/0.2	vlan queue best-effort			wgt 8
set vlanset2	set node			wgt 8
vlan Eth1/0/0.3	vlan queue best-effort			wgt 8

#### Scheduler hierarchy for traffic-class group EF

interface	resource	assured		
		shared		rate
		shaping	shaping	or
		rate	rate	weight
-----	-----	-----	-----	-----
ethernet Eth1/0/0	ethernet port			wgt 8
ethernet Eth1/0/0	ethernet group node EF			wgt 8
superset cluster	superset node EF	100000000		wgt 8
set vlanset1	set queue EF EF			wgt 8
set vlanset2	set queue EF EF			wgt 8

#### Scheduler hierarchy for traffic-class group AF

interface	resource	assured		
		shared		rate
		shaping	shaping	or
		rate	rate	weight
-----	-----	-----	-----	-----

ethernet Eth1/0/0	ethernet port	wgt 8
superset cluster	superset node AF 100000000	wgt 8
set vlnaset1	set node AF	wgt 8
vlan Eth1/0/0.1	vlan queue AF AF	wgt 8
vlan Eth1/0/0.2	vlan queue AF AF	wgt 8
set vlnaset2	set node AF	wgt 8
vlan Eth1/0/0.3	vlan queue AF AF	wgt 8

**Meaning** Table 1 lists the **show qos scheduler-hierarchy** command output fields.

**Table 1: show qos scheduler-hierarchy Output Fields**

Field Name	Field Description
interface	Type of interface
resource	Traffic resource associated with the logical interface
shaping rate	Individual shaping rate of a traffic resource in bits per second
shared shaping rate	Configured shared-shaping rate in bits per second
assured rate or weight	Configured assured rate in bits per second or configured weight

- Related Topics**
- Configuring a Scheduler Hierarchy
  - Configuring Simple Shared Shaping
  - Configuring Compound Shared Shaping
  - Configuring Interface Sets for QoS
  - Configuring Interface Supersets for QoS
  - show qos scheduler-hierarchy

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Published: 2010-01-12