

Configuring CoS Settings on the SG350XG and SG550XG Switches

Objective

Class of Service (CoS) is used to manage network traffic at layer 2 (Data Link layer) by allowing certain types of traffic priority over the others. An example would be giving voice traffic a higher priority than video traffic. CoS uses a 3 bit field in an Ethernet frame header that is used by Quality of Service (QoS) to configure and differentiate network traffic. CoS is useful in events that the network experiences issues such as congestion or delay.

The objective of this document is to show you how to configure CoS settings on the SG350XG and SG550XG Switches.

Note: The steps in this document are performed under the Advanced Display Mode. To change the advance Display Mode, go to the top right corner and select **Advanced** in the *Display Mode* drop-down list.

The following table describes the default mapping when there are 8 queues (for the 350 and 550 family):

802.1p Values (0-7, 7 being the highest)	Queue (8 queues 1-8, 8 is the highest priority)	7 Queues (8 is the highest priority used for stack control traffic) Stack	Notes
0	1	1	Background
1	2	1	Best Effort
2	3	2	Excellent Effort
3	6	5	Critical Application - LVS phone SIP
4	5	4	Video
5	8	7	Voice - Cisco IP phone default
6	8	7	Interwork Control LVS phone RTP
7	7	6	Network Control

Applicable Devices

- SG350XG
- SG550XG

Software Version

- v2.0.0.73

Configuring Bandwidth

Step 1. Log in to the web configuration utility and choose **Quality of Service > General > CoS/802.1p to Queue**. The *Cos/802.1p to Queue* page opens.

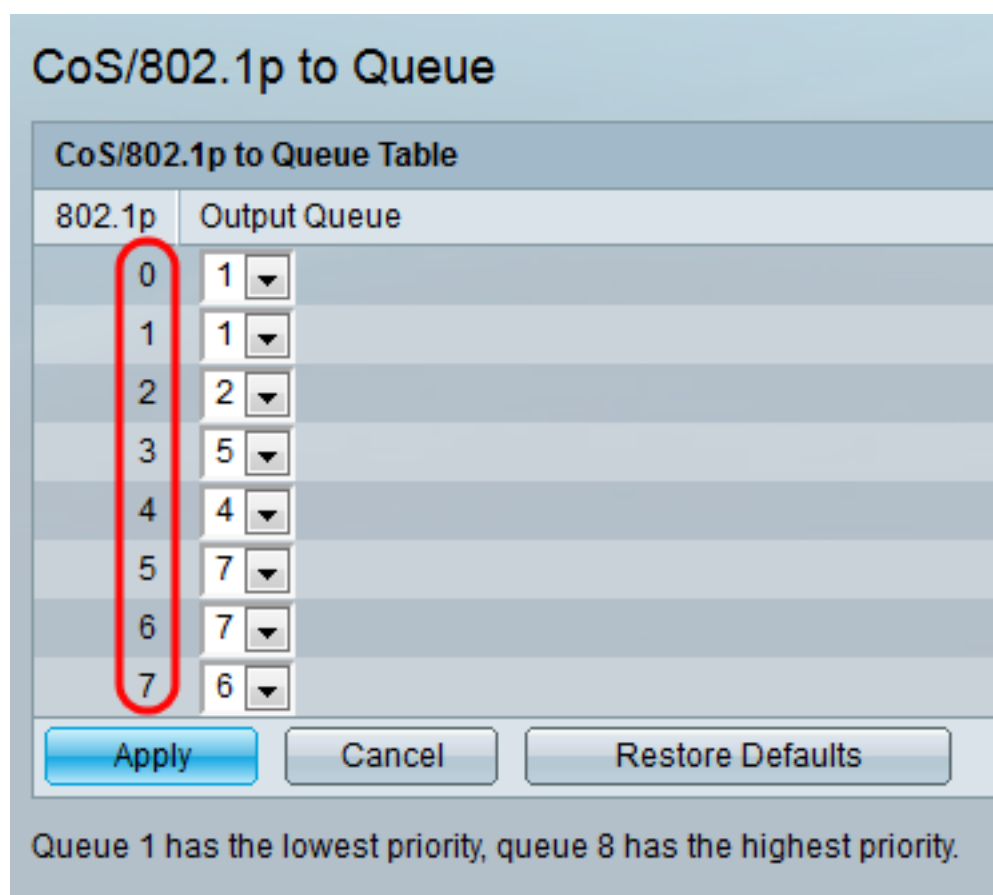
CoS/802.1p to Queue

CoS/802.1p to Queue Table	
802.1p	Output Queue
0	1
1	1
2	2
3	5
4	4
5	7
6	7
7	6

Apply Cancel Restore Defaults

Queue 1 has the lowest priority, queue 8 has the highest priority.

Note: The *802.1p* field displays the 802.1p priority tag values to be assigned to an egress queue, where 0 is the lowest and 8 is the highest priority.



CoS/802.1p to Queue Table	
802.1p	Output Queue
0	1
1	1
2	2
3	5
4	4
5	7
6	7
7	6

Apply Cancel Restore Defaults

Queue 1 has the lowest priority, queue 8 has the highest priority.

Step 2. In the *Output Queue* field, select the egress queue to which the 802.1p priority is mapped. Either 4 (for the 350 family) or 8 (for the 550 family) egress queues are supported, where Queue 4 (for the 350 family) or Queue 8 (for the 550 family) is the highest priority egress queue and Queue 1 is the lowest priority.

CoS/802.1p to Queue

CoS/802.1p to Queue Table	
802.1p	Output Queue
0	1
1	1
2	2
3	3
4	4
5	5
6	6
7	6

Apply Cancel Restore Defaults

Queue 1 has the lowest priority, queue 8 has the highest priority.

Step 3. Click **Apply**. The 802.1p priority values to queues are mapped, and the running configuration file is updated.

CoS/802.1p to Queue

CoS/802.1p to Queue Table	
802.1p	Output Queue
0	1
1	2
2	3
3	6
4	5
5	8
6	8
7	7

Apply Cancel Restore Defaults

Queue 1 has the lowest priority, queue 8 has the highest priority.

Step 4. (Optional) Click **Restore Defaults** to restore the output queues to the default

settings.

CoS/802.1p to Queue

CoS/802.1p to Queue Table	
802.1p	Output Queue
0	1
1	2
2	3
3	6
4	5
5	8
6	8
7	7

Queue 1 has the lowest priority, queue 8 has the highest priority.

Conclusion

This document shows you how to manage your network traffic better by prioritizing certain types of traffic over the others. To verify that this is working correctly, you can compare video streaming quality under different CoS rules. Another option that you can do is use a packet sniffer program to compare the packets for different CoS rules.