QoS Basic Mode Configuration on 300 Series Managed Switches

Objective

Quality of Service (QoS) is a group of technologies that is used to manage network traffic efficiently. In QoS basic mode, a specific domain in a network can be defined as trusted. Within this domain, frames are marked with CoS values and packets are marked with DSCP values to signify what type of service is required. The switch uses these fields to assign the packets to a specific output queue.

This article explains how to configure QoS Basic Mode on the 300 Series Managed Switches.

Applicable Devices

- SF/SG 300 Series Managed Switches

Software Version

- 1.2.7.76

QoS Basic Mode

Global Settings:

Step 1. Log in to the web configuration utility and choose **Quality of Service > QoS Basic Mode > Global Settings**. The *Global Settings* page opens:

Step 2. Click the radio button that corresponds to the desired QoS trust mode in the Trust Mode field.

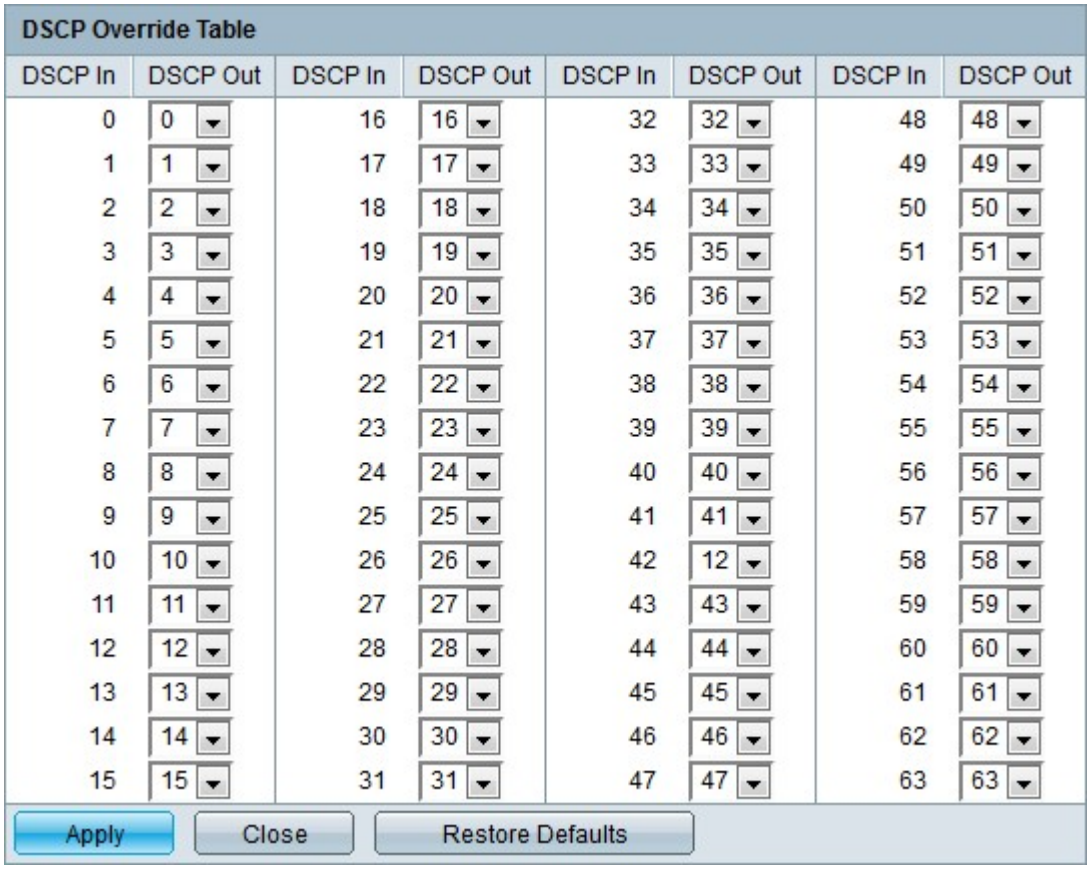
The default CoS values are as followed. CoS 7 is the highest priority value while CoS 0 is the lowest.

- CoS/802.1p — The network traffic is mapped to queues based on the VLAN Priority Tag (VPT) field in the VLAN tag. If there is no VLAN tag on the incoming packets, the traffic is mapped to queues based on the default CoS values.

- DSCP — All IP traffic is mapped to queues based on the DSCP field in the IP header of a packet. If the traffic is not IP traffic, it is mapped to the best effort queue.
- CoS/802.1p-DSCP — All non-IP traffic is mapped through the use of CoS while all IP traffic is mapped through DSCP.
- 7 — Network Control
- 6 — Internetwork Control
- 5 — Voice
- 4 — Video
- 3 — Critical Application
- 2 — Excellent Effort
- 1 — Best Effort
- 0 — Background

Step 3. Check **Override Ingress DSCP** to override the original DSCP values in the ingress packets with the new values. The switch uses new DSCP values for the egress queueing.

Step 4. If Override Ingress DSCP enabled, click **DSCP Override Table** to reconfigure the DSCP values. The *DSCP Override* window appears.



DSCP Override Table

DSCP In	DSCP Out	DSCP In	DSCP Out	DSCP In	DSCP Out	DSCP In	DSCP Out
0	0	16	16	32	32	48	48
1	1	17	17	33	33	49	49
2	2	18	18	34	34	50	50
3	3	19	19	35	35	51	51
4	4	20	20	36	36	52	52
5	5	21	21	37	37	53	53
6	6	22	22	38	38	54	54
7	7	23	23	39	39	55	55
8	8	24	24	40	40	56	56
9	9	25	25	41	41	57	57
10	10	26	26	42	12	58	58
11	11	27	27	43	43	59	59
12	12	28	28	44	44	60	60
13	13	29	29	45	45	61	61
14	14	30	30	46	46	62	62
15	15	31	31	47	47	63	63

Apply Close Restore Defaults

Step 5. Configure the DSCP Override Table.

- DSCP In — Displays the value of the incoming packets that need to be remapped to an alternative value.
- DSCP Out — From the DSCP Out drop-down list choose the desired DSCP Out value that corresponds to the DSCP In value.

Note: Click Restore Defaults to restore the DSCP override table to the default values. The default is when the DSCP Out values match the values of the corresponding DSCP In values.

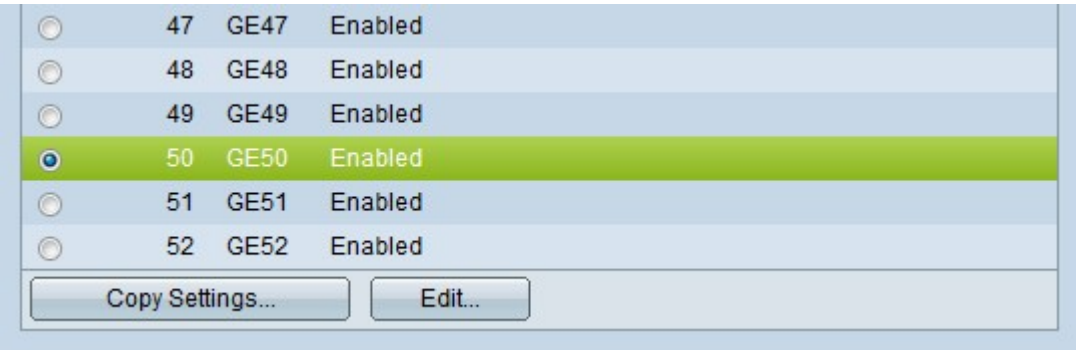
Step 6. Click **Apply.**

Interface Settings

Step 1. Log in to the web configuration utility and choose **Quality of Service > QoS Basic Mode > Interface Settings**. The *Interface Settings* page opens:

Step 2. From the Interface Type equals to drop-down list choose the type of interfaces to be displayed.

Step 3. Click **Go**. The specified interfaces are displayed.



Step 4. Click the radio button of the interface you want to edit.

Step 5. Click **Edit** to configure the interface. The *Edit QoS Interface Settings* window appears.

Step 6. (Optional) Click the radio button that corresponds to the desired interface you want to edit in the Interface field.

- Port — From the Port drop-down list choose the port to configure. This will only affect the single port chosen.
- LAG — From the LAG drop-down list choose the LAG to configure. This will affect the group of ports defined in the LAG configuration.

Step 7. Check **Enable** in the QoS State field to prioritize inbound traffic based on the system wide configured trust mode. If this option is disabled, all inbound traffic on the port is mapped to the best effort queue and no prioritization takes place.

Step 8. Click **Apply**.

Conclusion

You have now configured QoS basic mode on your 300 series switch.

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