

# Configuration of Egress Shaping per Queue on Sx500 Series Stackable Switches

## Objective

Egress shaping per queue limits the transmission rate of selected outgoing frames on a per queue, per port basis. To do this, the switch shapes, or limits the output load. This does not include management frames, so they do not count towards the rate limit. Egress shaping is used to help prevent congestion for your ISP (Internet Service Provider).

This article explains how to configure egress shaping per queue on the Sx500 series stackable switches.

**Note:** Queues are used to help prioritize traffic on a network. For more information on queues and how to configure them, see [Quality of Service \(QoS\) Queue Settings on Sx500 Series Stackable Switches](#).

If you are unfamiliar with terms in this document, check out [Cisco Business: Glossary of New Terms](#).

## Applicable Devices

- Sx500 Series Stackable Switches

## Software Version

- 1.2.7.76

## Configuration of Egress Shaping per Queue

Step 1. Log in to the web configuration utility and choose **Quality of Service > General > Egress Shaping per Queue**. The *Egress Shaping per Queue* page opens:

Egress Shaping Per Queue Table														
Filter: Interface Type equals to Port of Unit 1/2 <input type="button" value="Go"/>														
Entry No.	Interface	Queue 1 Egress Shaping			Queue 2 Egress Shaping			Queue 3 Egress Shaping			Queue 4 Egress Shaping			
		Status	CIR	CBS	Status	CIR	CBS	Status	CIR	CBS	Status	CIR	CBS	
<input type="radio"/>	1	FE1	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	2	FE2	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	3	FE3	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	4	FE4	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	5	FE5	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	6	FE6	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	7	FE7	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	8	FE8	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	9	FE9	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	10	FE10	Disabled			Disabled			Disabled			Disabled		

It shows the rate limit and burst size for each queue.

Step 2. Choose an interface type from the Filter drop-down list and click **Go**. The Interface list is displayed.

Filter: Interface Type equals to Port of Unit 1/2

Entry No.	Interface	Queue 1 Egress Shaping			Queue 2 Egress Shaping			Queue 3 Egress Shaping			Queue 4 Egress Shaping		
		Status	CIR	CBS	Status	CIR	CBS	Status	CIR	CBS	Status	CIR	CBS
<input checked="" type="radio"/>	1 FE1	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	2 FE2	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	3 FE3	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	4 FE4	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	5 FE5	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	6 FE6	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	7 FE7	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	8 FE8	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	9 FE9	Disabled			Disabled			Disabled			Disabled		
<input type="radio"/>	10 FE10	Disabled			Disabled			Disabled			Disabled		

Step 3. Click the radio button that corresponds with the interface that you want to edit and click **Edit**. The *Edit Egress Shaping Per Queue* window appears.

Interface:  Unit/Slot 1/2  Port FE1  LAG 1

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Queue 1:  Enable

☀ Committed Information Rate (CIR):  (Range: 64 - 1000000)

☀ Committed Burst Size (CBS):  (Range: 4096 - 16762902)

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Queue 2:  Enable

☀ Committed Information Rate (CIR):  (Range: 64 - 1000000)

☀ Committed Burst Size (CBS):  (Range: 4096 - 16762902)

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Queue 3:  Enable

☀ Committed Information Rate (CIR):  (Range: 64 - 1000000)

☀ Committed Burst Size (CBS):  (Range: 4096 - 16762902)

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Queue 4:  Enable

☀ Committed Information Rate (CIR):  (Range: 64 - 1000000)

☀ Committed Burst Size (CBS):  (Range: 4096 - 16762902)

This window enables shaping the egress for up to four queues on each interface.

Step 4. (Optional) Click the radio button that corresponds to the desired interface type in the Interface field.

- Unit/Slot — From the Unit/Slot drop-down lists choose the appropriate Unit/Slot. The unit identifies whether the switch is the Active or Member in the stack. The slot identifies which

switch is connected to which slot (slot 1 is SF500 and slot 2 is SG500).

– Port — From the Port drop-down list, choose the appropriate port to configure.

- LAG — Choose the LAG from the LAG drop-down list. A Link Aggregate Group (LAG) is used to link multiple ports together. LAGs multiply bandwidth, increase port flexibility, and provide link redundancy between two devices to optimize port usage.

Step 5. Check the **Enable** check box to enable egress shaping on this queue.

Step 6. Enter the value provided by your ISP in the Committed Information Rate (CIR) field. This is the bandwidth, in Kbps, that your ISP guarantees to support.

Step 7. Enter the value provided by your ISP in the Committed Burst Size (CBS) field. This is the maximum amount of data in bytes that your ISP can handle in one second, should a burst exceed the CIR.

Step 8. Repeat Steps 5 through 7 for each queue you wish to configure.

Step 9. Click **Apply** to save your settings to the running configuration file.