

Bandwidth Per Port Configuration on Sx500 Series Stackable Switches

Objective

The *Bandwidth* page allows network managers to define the Ingress Rate Limit and the Egress Shaping Rate. These values determine how much traffic the system can send and receive. The ingress rate limit is the number of bits per second that can be received from the ingress interface. Excess bandwidth above this limit is discarded. Ingress traffic is traffic that originates from outside of the network and flows into the network. Egress traffic is network traffic that originates inside of the network and flows out of the network.

This article explains how to configure bandwidth limitations per interface on the Sx500 Series Stackable Switches.

Applicable Devices

- Sx500 Series Stackable Switches

Software Version

- v1.2.7.76

Bandwidth Configuration on Interfaces

Step 1. Log into the web configuration utility, and choose **Quality of Service > General > Bandwidth**. The *Bandwidth* page opens:

Bandwidth								
Bandwidth Table								
Filter: Interface Type equals to Port of Unit 1/2 <input type="button" value="Go"/>								
	Entry No.	Interface	Ingress Rate Limit			Egress Shaping Rates		
			Status	Rate Limit (KBits/sec)	%	Status	CIR (KBits/sec)	CBS (Bytes)
<input type="radio"/>	1	FE1	Disabled			Disabled		
<input type="radio"/>	2	FE2	Disabled			Disabled		
<input type="radio"/>	3	FE3	Disabled			Disabled		
<input type="radio"/>	4	FE4	Disabled			Disabled		
<input type="radio"/>	5	FE5	Disabled			Disabled		
<input type="radio"/>	6	FE6	Disabled			Disabled		
<input type="radio"/>	7	FE7	Disabled			Disabled		
<input type="radio"/>	8	FE8	Disabled			Disabled		
<input type="radio"/>	9	FE9	Disabled			Disabled		
<input type="radio"/>	10	FE10	Disabled			Disabled		
<input type="button" value="Copy Settings..."/>			<input type="button" value="Edit..."/>					

Step 2. Choose the interface type from the Interface Type drop-down list in the Filter field and click **Go**.

Bandwidth

Bandwidth Table

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

	Entry No.	Interface	Ingress Rate Limit			Egress Shaping Rates		
			Status	Rate Limit (KBits/sec)	%	Status	CIR (KBits/sec)	CBS (Bytes)
<input checked="" type="radio"/>	1	FE1	Disabled			Disabled		
<input type="radio"/>	2	FE2	Disabled			Disabled		
<input type="radio"/>	3	FE3	Disabled			Disabled		
<input type="radio"/>	4	FE4	Disabled			Disabled		
<input type="radio"/>	5	FE5	Disabled			Disabled		
<input type="radio"/>	6	FE6	Disabled			Disabled		
<input type="radio"/>	7	FE7	Disabled			Disabled		
<input type="radio"/>	8	FE8	Disabled			Disabled		
<input type="radio"/>	9	FE9	Disabled			Disabled		
<input type="radio"/>	10	FE10	Disabled			Disabled		

Step 3. Click the radio button next to the desired interface and click **Edit**. The Edit window opens

Bandwidth

Bandwidth Table

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

	Entry No.	Interface	Ingress Rate Limit			Egress Shaping Rates		
			Status	Rate Limit (KBits/sec)	%	Status	CIR (KBits/sec)	CBS (Bytes)
<input checked="" type="radio"/>	1	FE1	Disabled			Disabled		
<input type="radio"/>	2	FE2	Disabled			Disabled		
<input type="radio"/>	3	FE3	Disabled			Disabled		
<input type="radio"/>	4	FE4	Disabled			Disabled		
<input type="radio"/>	5	FE5	Disabled			Disabled		
<input type="radio"/>	6	FE6	Disabled			Disabled		
<input type="radio"/>	7	FE7	Disabled			Disabled		
<input type="radio"/>	8	FE8	Disabled			Disabled		
<input type="radio"/>	9	FE9	Disabled			Disabled		
<input type="radio"/>	10	FE10	Disabled			Disabled		

Step 4. (Optional) Click a radio button for either Unit/Slot and Port or LAG, and choose the interface from the drop-down lists.

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

Ingress Rate Limit: ☒ Enable

✱ Ingress Rate Limit: 120 KBits/sec. (Range: 100 - 100000, Default: 100)

Egress Shaping Rate: ☐ Enable

✱ Committed Information Rate (CIR): 64 KBits/sec. (Range: 64 - 100000, Default: 64)

✱ Committed Burst Size (CBS): 128000 Bytes (Range: 4096 - 16762902, Default: 128000)

Apply Close

Step 5. (Optional) To enable an ingress limit, check the Ingress Rate Limit check box. This is the to limit the ingress (incoming) traffic on the particular port.

Note: If you do not want to configure an Ingress Rate Limit, skip to Step 7.

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

Ingress Rate Limit: ☒ Enable

✱ Ingress Rate Limit: 120 KBits/sec. (Range: 100 - 100000, Default: 100)

Egress Shaping Rate: ☐ Enable

✱ Committed Information Rate (CIR): 64 KBits/sec. (Range: 64 - 100000, Default: 64)

✱ Committed Burst Size (CBS): 128000 Bytes (Range: 4096 - 16762902, Default: 128000)

Apply Close

Step 6. Enter the maximum amount of bandwidth allowed on the interface in the Ingress Rate Limit field. This is the maximum bandwidth of ingress traffic for a specific port.

Note: The Ingress Rate Limit fields do not appear when the interface type is LAG.

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

Ingress Rate Limit: ☒ Enable

✱ Ingress Rate Limit: 120 KBits/sec. (Range: 100 - 100000, Default: 100)

Egress Shaping Rate: ☐ Enable

✱ Committed Information Rate (CIR): 64 KBits/sec. (Range: 64 - 100000, Default: 64)

✱ Committed Burst Size (CBS): 128000 Bytes (Range: 4096 - 16762902, Default: 128000)

Apply Close

Step 7. (Optional) To enable egress shaping on the interface, check the Egress Shaping Rate check box. Egress shaping is useful for when a destination expects a smooth flow of data as opposed to irregular bursts of data.

Note: If you do not want to configure an Egress Rate Limit, skip to Step 10.

Interface:	<input checked="" type="radio"/> Unit/Slot	1/2	Port	FE1	<input type="radio"/> LAG	1
Ingress Rate Limit:	<input checked="" type="checkbox"/> Enable					
Ingress Rate Limit:	120		KBits/sec. (Range: 100 - 100000, Default: 100)			
Egress Shaping Rate:	<input checked="" type="checkbox"/> Enable					
Committed Information Rate (CIR):	70		KBits/sec. (Range: 64 - 100000, Default: 64)			
Committed Burst Size (CBS):	6670		Bytes (Range: 4096 - 16762902, Default: 128000)			
<input type="button" value="Apply"/> <input type="button" value="Close"/>						

Step 8. Enter the maximum bandwidth allowed for the egress interface in the Committed Information Rate (CIR) field. This is the allowable bandwidth which the Internet Service Provider (ISP) provides.

Interface:	<input checked="" type="radio"/> Unit/Slot	1/2	Port	FE1	<input type="radio"/> LAG	1
Ingress Rate Limit:	<input checked="" type="checkbox"/> Enable					
Ingress Rate Limit:	120		KBits/sec. (Range: 100 - 100000, Default: 100)			
Egress Shaping Rate:	<input checked="" type="checkbox"/> Enable					
Committed Information Rate (CIR):	70		KBits/sec. (Range: 64 - 100000, Default: 64)			
Committed Burst Size (CBS):	6670		Bytes (Range: 4096 - 16762902, Default: 128000)			
<input type="button" value="Apply"/> <input type="button" value="Close"/>						

Step 9. Enter the maximum burst size of data allowed by the egress interface (in bytes of data) in the Committed Burst Size field.

Note: This amount can be sent even if it increases the bandwidth above the allowed limit. This is the allowable rate which can exceed the CIR.

Interface:	<input checked="" type="radio"/> Unit/Slot	1/2	Port	FE1	<input type="radio"/> LAG	1
Ingress Rate Limit:	<input checked="" type="checkbox"/> Enable					
Ingress Rate Limit:	120		KBits/sec. (Range: 100 - 100000, Default: 100)			
Egress Shaping Rate:	<input checked="" type="checkbox"/> Enable					
Committed Information Rate (CIR):	70		KBits/sec. (Range: 64 - 100000, Default: 64)			
Committed Burst Size (CBS):	6670		Bytes (Range: 4096 - 16762902, Default: 128000)			
<input type="button" value="Apply"/> <input type="button" value="Close"/>						

Step 10. Click **Apply**. The Bandwidth configuration is applied.

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

Ingress Rate Limit: ☒ Enable

Ingress Rate Limit: KBits/sec. (Range: 100 - 100000, Default: 100)

Egress Shaping Rate: ☒ Enable

Committed Information Rate (CIR): KBits/sec. (Range: 64 - 100000, Default: 64)

Committed Burst Size (CBS): Bytes (Range: 4096 - 16762902, Default: 128000)

Apply Close

Bandwidth

Bandwidth Table

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

	Entry No.	Interface	Ingress Rate Limit			Egress Shaping Rates		
			Status	Rate Limit (KBits/sec)	%	Status	CIR (KBits/sec)	CBS (Bytes)
<input checked="" type="radio"/>	1	FE1	Enabled	120	0.1	Enabled	70	6670
<input type="radio"/>	2	FE2	Disabled			Disabled		
<input type="radio"/>	3	FE3	Disabled			Disabled		
<input type="radio"/>	4	FE4	Disabled			Disabled		
<input type="radio"/>	5	FE5	Disabled			Disabled		
<input type="radio"/>	6	FE6	Disabled			Disabled		
<input type="radio"/>	7	FE7	Disabled			Disabled		
<input type="radio"/>	8	FE8	Disabled			Disabled		
<input type="radio"/>	9	FE9	Disabled			Disabled		
<input type="radio"/>	10	FE10	Disabled			Disabled		

Copy Settings... Edit...

Step 11. (Optional) Click the radio button next to the desired interface/port and click **Copy Settings**. The Copy Settings window appears.

Bandwidth

Bandwidth Table

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

	Entry No.	Interface	Ingress Rate Limit			Egress Shaping Rates		
			Status	Rate Limit (KBits/sec)	%	Status	CIR (KBits/sec)	CBS (Bytes)
<input checked="" type="radio"/>	1	FE1	Enabled	120	0.1	Enabled	70	6670
<input type="radio"/>	2	FE2	Disabled			Disabled		
<input type="radio"/>	3	FE3	Disabled			Disabled		
<input type="radio"/>	4	FE4	Disabled			Disabled		
<input type="radio"/>	5	FE5	Disabled			Disabled		
<input type="radio"/>	6	FE6	Disabled			Disabled		
<input type="radio"/>	7	FE7	Disabled			Disabled		
<input type="radio"/>	8	FE8	Disabled			Disabled		
<input type="radio"/>	9	FE9	Disabled			Disabled		
<input type="radio"/>	10	FE10	Disabled			Disabled		

Copy Settings... Edit...

Step 12. (Optional) Enter the interface(s) to which the configuration needs to be copied in the provided field.

Copy configuration from entry 1 (FE1)

to: (Example: 1,3,5-10 or FE1,FE3-FE5)

Apply

Close

Step 13. Click **Apply** to apply the settings.

Bandwidth Table

Filter: *Interface Type* equals to

	Entry No.	Interface	Ingress Rate Limit			Egress Shaping Rates		
			Status	Rate Limit (KBits/sec)	%	Status	CIR (KBits/sec)	CBS (Bytes)
<input type="radio"/>	1	FE1	Enabled	120	0.1	Enabled	70	6670
<input type="radio"/>	2	FE2	Disabled			Disabled		
<input type="radio"/>	3	FE3	Enabled	120	0.1	Enabled	70	6670
<input type="radio"/>	4	FE4	Disabled			Disabled		
<input type="radio"/>	5	FE5	Disabled			Disabled		
<input type="radio"/>	6	FE6	Disabled			Disabled		
<input type="radio"/>	7	FE7	Disabled			Disabled		
<input type="radio"/>	8	FE8	Disabled			Disabled		
<input type="radio"/>	9	FE9	Disabled			Disabled		
<input type="radio"/>	10	FE10	Disabled			Disabled		

Copy Settings...

Edit...