

Bandwidth Configuration on the SG350XG and SG550XG Switches

Objective

The Bandwidth page enables users to define two values, Ingress Rate Limit and Egress Shaping Rate, which determines how much traffic the system can receive and send.

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

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

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 > Bandwidth**. The *Bandwidth* page opens.

Bandwidth

Bandwidth Table

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

Entry No.	Interface	Ingress Rate Limit			Egress Shaping Rates			
		Status	Rate Limit (KBits/sec)	%	CBS (Bytes)	Status	CIR (KBits/sec)	CBS (Bytes)
<input type="radio"/>	1	XG1	Disabled				Disabled	
<input type="radio"/>	2	XG2	Disabled				Disabled	
<input type="radio"/>	3	XG3	Disabled				Disabled	
<input type="radio"/>	4	XG4	Disabled				Disabled	
<input type="radio"/>	5	XG5	Disabled				Disabled	
<input type="radio"/>	6	XG6	Disabled				Disabled	
<input type="radio"/>	7	XG7	Disabled				Disabled	
<input type="radio"/>	8	XG8	Disabled				Disabled	
<input type="radio"/>	9	XG9	Disabled				Disabled	
<input type="radio"/>	10	XG10	Disabled				Disabled	
<input type="radio"/>	11	XG11	Disabled				Disabled	
<input type="radio"/>	12	XG12	Disabled				Disabled	
<input type="radio"/>	13	XG13	Disabled				Disabled	
<input type="radio"/>	14	XG14	Disabled				Disabled	
<input type="radio"/>	15	XG15	Disabled				Disabled	
<input type="radio"/>	16	XG16	Disabled				Disabled	
<input type="radio"/>	17	XG17	Disabled				Disabled	
<input type="radio"/>	18	XG18	Disabled				Disabled	
<input type="radio"/>	19	XG19	Disabled				Disabled	
<input type="radio"/>	20	XG20	Disabled				Disabled	
<input type="radio"/>	21	XG21	Disabled				Disabled	
<input type="radio"/>	22	XG22	Disabled				Disabled	
<input type="radio"/>	23	XG23	Disabled				Disabled	
<input type="radio"/>	24	XG24	Disabled				Disabled	

Step 2. In the *Filter: Interface Type equals to* drop-down list, select the desired **Port of Unit** or **LAG**. The Port of Unit option means that you are selecting a port on a specific device in a stack, and LAG means that you are selecting a link aggregation group. After you have selected your desired option, click **Go**.

Bandwidth Table									
Filter: <i>Interface Type</i> equals to Port of Unit 1 Go									
Entry No.	Interface	Ingress					Egress Shaping Rates		
			Status	Rate Limit (KBits/sec)	%	CBS (Bytes)	Status	CIR (KBits/sec)	CBS (Bytes)
<input checked="" type="radio"/>	1	XG1	Disabled					Disabled	
<input type="radio"/>	2	XG2	Disabled					Disabled	
<input type="radio"/>	3	XG3	Disabled					Disabled	
<input type="radio"/>	4	XG4	Disabled					Disabled	
<input type="radio"/>	5	XG5	Disabled					Disabled	
<input type="radio"/>	6	XG6	Disabled					Disabled	
<input type="radio"/>	7	XG7	Disabled					Disabled	
<input type="radio"/>	8	XG8	Disabled					Disabled	
<input type="radio"/>	9	XG9	Disabled					Disabled	
<input type="radio"/>	10	XG10	Disabled					Disabled	
<input type="radio"/>	11	XG11	Disabled					Disabled	
<input type="radio"/>	12	XG12	Disabled					Disabled	
<input type="radio"/>	13	XG13	Disabled					Disabled	
<input type="radio"/>	14	XG14	Disabled					Disabled	
<input type="radio"/>	15	XG15	Disabled					Disabled	
<input type="radio"/>	16	XG16	Disabled					Disabled	
<input type="radio"/>	17	XG17	Disabled					Disabled	
<input type="radio"/>	18	XG18	Disabled					Disabled	
<input type="radio"/>	19	XG19	Disabled					Disabled	
<input type="radio"/>	20	XG20	Disabled					Disabled	
<input type="radio"/>	21	XG21	Disabled					Disabled	
<input type="radio"/>	22	XG22	Disabled					Disabled	
<input type="radio"/>	23	XG23	Disabled					Disabled	
<input type="radio"/>	24	XG24	Disabled					Disabled	

Note: You will have more options (e.g. **Port of Unit 2**) if there are more units in the stack.

Step 3. Click the radio button of the interface that you wish to configure bandwidth settings, then click **Edit....**

Bandwidth Table									
Filter: <i>Interface Type</i> equals to <input type="text" value="Port of Unit 1"/> <input type="button" value="Go"/>									
	Entry No.	Interface	Ingress Rate Limit			Egress Shaping Rates			
			Status	Rate Limit (KBits/sec)	%	CBS (Bytes)	Status	CIR (KBits/sec)	CBS (Byte)
<input checked="" type="radio"/>	1	XG1	Disabled					Disabled	
<input type="radio"/>	2	XG2	Disabled					Disabled	
<input type="radio"/>	3	XG3	Disabled					Disabled	
<input type="radio"/>	4	XG4	Disabled					Disabled	
<input type="radio"/>	5	XG5	Disabled					Disabled	
<input type="radio"/>	6	XG6	Disabled					Disabled	
<input type="radio"/>	7	XG7	Disabled					Disabled	
<input type="radio"/>	8	XG8	Disabled					Disabled	
<input type="radio"/>	9	XG9	Disabled					Disabled	
<input type="radio"/>	10	XG10	Disabled					Disabled	
<input type="radio"/>	11	XG11	Disabled					Disabled	
<input type="radio"/>	12	XG12	Disabled					Disabled	
<input type="radio"/>	13	XG13	Disabled					Disabled	
<input type="radio"/>	14	XG14	Disabled					Disabled	
<input type="radio"/>	15	XG15	Disabled					Disabled	
<input type="radio"/>	16	XG16	Disabled					Disabled	
<input type="radio"/>	17	XG17	Disabled					Disabled	
<input type="radio"/>	18	XG18	Disabled					Disabled	
<input type="radio"/>	19	XG19	Disabled					Disabled	
<input type="radio"/>	20	XG20	Disabled					Disabled	
<input type="radio"/>	21	XG21	Disabled					Disabled	
<input type="radio"/>	22	XG22	Disabled					Disabled	
<input type="radio"/>	23	XG23	Disabled					Disabled	
<input type="radio"/>	24	XG24	Disabled					Disabled	

The *Edit Bandwidth* window appears:

Interface: Unit LAG

Ingress Rate Limit: Enable

* Ingress Rate Limit: KBits/sec (Range: 100 - 10000000, Default: 100)

* Ingress Committed Burst Size (CBS): Bytes (Range: 3000 - 19173960, Default: 128000)

Egress Shaping Rate: Enable

* Committed Information Rate (CIR): KBits/sec (Range: 64 - 10000000, Default: 64)

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

Note: The Ingress Rate Limit fields will not appear when the interface type is **LAG**. If your interface type is **LAG**, skip to [Step 7](#).

Step 4. In the *Ingress Rate Limit* field, check the **Enable** check box if you want to enable ingress rate limit. The Ingress Rate Limit limits the amount of incoming traffic on the interface. If you do not want to enable it, skip to [Step 7](#).

Interface:	<input checked="" type="radio"/> Unit	1	Port	XG1	<input type="radio"/> LAG	1
Ingress Rate Limit:	<input checked="" type="checkbox"/> Enable					
Ingress Rate Limit:	100	KBits/sec (Range: 100 - 10000000, Default: 100)				
Ingress Committed Burst Size (CBS):	128000	Bytes (Range: 3000 - 19173960, Default: 128000)				
Egress Shaping Rate:	<input type="checkbox"/> Enable					
Committed Information Rate (CIR):	64	KBits/sec (Range: 64 - 10000000, Default: 64)				
Egress Committed Burst Size (CBS):	128000	Bytes (Range: 4096 - 16762902, Default: 128000)				
<input type="button" value="Apply"/> <input type="button" value="Close"/>						

Step 5. If you chose to enable Ingress Rate Limit in [Step 4](#), enter the desired maximum amount of bandwidth allowed on the interface in the *Ingress Rate Limit* field. The lowest amount is 100 KBits/sec and the maximum amount is 10000000 KBits/sec.

Interface:	<input checked="" type="radio"/> Unit	1	Port	XG1	<input type="radio"/> LAG	1
Ingress Rate Limit:	<input checked="" type="checkbox"/> Enable					
Ingress Rate Limit:	200	KBits/sec (Range: 100 - 10000000, Default: 100)				
Ingress Committed Burst Size (CBS):	128000	Bytes (Range: 3000 - 19173960, Default: 128000)				
Egress Shaping Rate:	<input type="checkbox"/> Enable					
Committed Information Rate (CIR):	64	KBits/sec (Range: 64 - 10000000, Default: 64)				
Egress Committed Burst Size (CBS):	128000	Bytes (Range: 4096 - 16762902, Default: 128000)				
<input type="button" value="Apply"/> <input type="button" value="Close"/>						

Step 6. If you chose to enable Ingress Rate Limit in [Step 4](#), enter the desired maximum burst size of data for the ingress interface in bytes of data. This amount can be sent even if it temporarily increases the bandwidth beyond the allowed limit. The minimum range is 3000 Bytes and the maximum range is 10000000 Bytes.

Interface:	<input checked="" type="radio"/> Unit	1	Port	XG1	<input type="radio"/> LAG	1
Ingress Rate Limit:	<input checked="" type="checkbox"/> Enable					
Ingress Rate Limit:	200	KBits/sec (Range: 100 - 10000000, Default: 100)				
Ingress Committed Burst Size (CBS):	128000	Bytes (Range: 3000 - 19173960, Default: 128000)				
Egress Shaping Rate:	<input type="checkbox"/> Enable					
Committed Information Rate (CIR):	64	KBits/sec (Range: 64 - 10000000, Default: 64)				
Egress Committed Burst Size (CBS):	128000	Bytes (Range: 4096 - 16762902, Default: 128000)				
<input type="button" value="Apply"/> <input type="button" value="Close"/>						

Step 7. In the *Egress Shaping Rate* field, check the **Enable** check box if you want to enable a limit for outgoing traffic. If you do not want to enable it, skip to [Step 10](#).

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/>	Port <input type="text" value="XG1"/>	<input type="radio"/> LAG <input type="text" value="1"/>
Ingress Rate Limit:	<input checked="" type="checkbox"/> Enable		
Ingress Rate Limit:	<input type="text" value="200"/>	KBits/sec (Range: 100 - 10000000, Default: 100)	
Ingress Committed Burst Size (CBS):	<input type="text" value="128000"/>	Bytes (Range: 3000 - 19173960, Default: 128000)	
Egress Shaping Rate:	<input checked="" type="checkbox"/> Enable		
Committed Information Rate (CIR):	<input type="text" value="64"/>	KBits/sec (Range: 64 - 10000000, Default: 64)	
Egress Committed Burst Size (CBS):	<input type="text" value="128000"/>	Bytes (Range: 4096 - 16762902, Default: 128000)	
<input type="button" value="Apply"/> <input type="button" value="Close"/>			

Step 8. If you chose to enable Egress Shaping Rate in [Step 7](#), enter the desired maximum bandwidth for the egress interface in the *Committed Information Rate (CIR)* field. The minimum amount is 64 KBits/sec and the maximum is 10000000 KBits/sec.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/>	Port <input type="text" value="XG1"/>	<input type="radio"/> LAG <input type="text" value="1"/>
Ingress Rate Limit:	<input checked="" type="checkbox"/> Enable		
Ingress Rate Limit:	<input type="text" value="200"/>	KBits/sec (Range: 100 - 10000000, Default: 100)	
Ingress Committed Burst Size (CBS):	<input type="text" value="128000"/>	Bytes (Range: 3000 - 19173960, Default: 128000)	
Egress Shaping Rate:	<input checked="" type="checkbox"/> Enable		
Committed Information Rate (CIR):	<input type="text" value="100"/>	KBits/sec (Range: 64 - 10000000, Default: 64)	
Egress Committed Burst Size (CBS):	<input type="text" value="128000"/>	Bytes (Range: 4096 - 16762902, Default: 128000)	
<input type="button" value="Apply"/> <input type="button" value="Close"/>			

Step 9. If you chose to enable Egress Shaping Rate in [Step 7](#), enter the desired maximum burst size of data for the egress interface in the *Egress Committed Burst Size (CBS)* field. This amount can be sent even if it temporarily increases the bandwidth beyond the allowed limit. The minimum range is 4096 Bytes and the maximum range is 16762902 Bytes.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/>	Port <input type="text" value="XG1"/>	<input type="radio"/> LAG <input type="text" value="1"/>
Ingress Rate Limit:	<input checked="" type="checkbox"/> Enable		
Ingress Rate Limit:	<input type="text" value="200"/>	KBits/sec (Range: 100 - 10000000, Default: 100)	
Ingress Committed Burst Size (CBS):	<input type="text" value="128000"/>	Bytes (Range: 3000 - 19173960, Default: 128000)	
Egress Shaping Rate:	<input checked="" type="checkbox"/> Enable		
Committed Information Rate (CIR):	<input type="text" value="100"/>	KBits/sec (Range: 64 - 10000000, Default: 64)	
Egress Committed Burst Size (CBS):	<input type="text" value="180000"/>	Bytes (Range: 4096 - 16762902, Default: 128000)	
<input type="button" value="Apply"/> <input type="button" value="Close"/>			

Step 10. Click **Apply**. The bandwidth settings are written to the Running Configuration file.

Copying Settings

Step 1. Click the radio button of the interface you want to copy bandwidth configuration from. Then click **Copy Settings...**

Bandwidth Table									
Filter: <i>Interface Type</i> equals to <input type="text" value="Port of Unit 1"/> <input type="button" value="Go"/>									
	Entry No.	Interface	Ingress Rate Limit				Egress Shaping Rates		
			Status	Rate Limit (KBits/sec)	%	CBS (Bytes)	Status	CIR (KBits/sec)	CBS (Bytes)
<input checked="" type="radio"/>	1	XG1	Enabled	200	0.002	128000	Enabled	100	180000
<input type="radio"/>	2	XG2	Disabled				Disabled		
<input type="radio"/>	3	XG3	Disabled				Disabled		
<input type="radio"/>	4	XG4	Disabled				Disabled		
<input type="radio"/>	5	XG5	Disabled				Disabled		
<input type="radio"/>	6	XG6	Disabled				Disabled		
<input type="radio"/>	7	XG7	Disabled				Disabled		
<input type="radio"/>	8	XG8	Disabled				Disabled		
<input type="radio"/>	9	XG9	Disabled				Disabled		
<input type="radio"/>	10	XG10	Disabled				Disabled		
<input type="radio"/>	11	XG11	Disabled				Disabled		
<input type="radio"/>	12	XG12	Disabled				Disabled		
<input type="radio"/>	13	XG13	Disabled				Disabled		
<input type="radio"/>	14	XG14	Disabled				Disabled		
<input type="radio"/>	15	XG15	Disabled				Disabled		
<input type="radio"/>	16	XG16	Disabled				Disabled		
<input type="radio"/>	17	XG17	Disabled				Disabled		
<input type="radio"/>	18	XG18	Disabled				Disabled		
<input type="radio"/>	19	XG19	Disabled				Disabled		
<input type="radio"/>	20	XG20	Disabled				Disabled		
<input type="radio"/>	21	XG21	Disabled				Disabled		
<input type="radio"/>	22	XG22	Disabled				Disabled		
<input type="radio"/>	23	XG23	Disabled				Disabled		
<input type="radio"/>	24	XG24	Disabled				Disabled		

The *Copy Settings* window appears:

Copy configuration from entry 1 (XG1)

to: (Example: 1,3,5-10 or XG1,XG3-XG5)

Step 2. In the *to* field, enter the port or range of ports that you want to copy the selected port's settings to. Then click **Apply**.

Copy configuration from entry 1 (XG1)

to: (Example: 1,3,5-10 or XG1,XG3-XG5)

