## SG/SF 250交换机上入口和出口接口的带宽设置

## 目标

带宽是指可通过网络路径传输的数据量。可以对传入流量和传出流量使带宽设置不同。入口接口是指具有传入流量的接口,而出口接口是指具有传出流量的接口。

本文档的目标是说明如何在SG250和SF250交换机上配置带宽设置。

## 适用设备

- SF250
- SG250
- SG250X

## 软件版本

• 2.4.5.71

### 配置带宽设置

步骤1.登录交换机的Web配置实用程序。

| viluilu Switch<br>cisco | Switch | Switch Management |                           |        |
|-------------------------|--------|-------------------|---------------------------|--------|
|                         |        | Application.      |                           |        |
|                         |        | Username:         | cisco                     |        |
|                         |        | Password:         | •••••                     |        |
|                         |        | Language:         | English 🗸                 |        |
|                         |        |                   | Log In Secure Browsing (H | ITTPS) |

步骤2.从页面顶部的"显示模式"下拉菜单中选择"高级"。



步骤3.从菜单中单击Quality of Service > General > Bandwidth。



"带宽*"(Bandwidth)*页面打开:

带宽表包含每个接口的以下字段:

·*入口速率限制 —* 入口流量是指传入流量。启用后,它显示入口(传入)接口的速率限制。对于FE(快速以太网)端口,分配的带宽将在62 - 100,000 Kbps范围内,而对于GE(千兆以太 网)端口,带宽范围将在62 - 1000,000 Kbps范围内。

- 状态 — 显示是否启用入口速率限制。

- 速率限制(KBits/sec) — 显示端口的入口速率限制。

- % — 显示端口的入口速率限制除以总端口带宽。

- *CBS(字节)* — 承诺突发大小(CBS)是入口接口数据的最大突发大小,以网络接受的数据字 节为单位。CBS的范围可以是3000到19,173,960字节。

·*出口整形速率* — 显示出口(传出)流量的统计信息。

- 状态 — 显示是否启用出口整形速率。

- *CIR(KBits/sec)* — 承诺信息速率(CIR)显示出口接口的最大带宽。它指定帧中继服务上的保 证带宽量。这可保证在CIR级别内的帧将被发送,但当帧超过此限制时,不保证发送。对于 FE端口,整形速率在64至1,00,000 Kbps范围内,而对于GE端口,整形速率在64至1,000,000 Kbps范围内。

- CBS(字节) — 出口接口的最大数据突发大小(以数据字节为单位)。

| ndwidth  |  |   |  |  |
|--|--|---|--|--|
| Bandwidth Table Showing 1-52 of 52 All 👻 per page  |  |   |  |  |
| Iter: Interface Type equals to Port 🔽 Go   |  |   |  |  |
| Entry No. Interface Ingress Rate Limit<br>Status Rate Limit (KB  | Egress Shaping Rates Bits/sec) % CBS (Bytes) Status CIR (KBits/sec) CBS (Bytes)  |   |  |  |
| 步骤4.通过单击要5   | 为其配置带宽设置的接口的相应单选按钮   | 选择接口,然后单击 <b>Ec</b>   |  |  |
| • 49 GE1   | Disabled 1   | Disabled  |  |  |
| O 50 GE2   | Disabled   | Disabled  |  |  |
| O 51 GE3   | Disabled   | Disabled  |  |  |
| O 52 GE4   | Disabled   | Disabled  |  |  |
| Copy Settings Edit 2   |  |   |  |  |
| 系统将显示新窗口。  |  |   |  |  |
| Copy Settings<br>系统将显示新窗口。<br>Interface:   | Port GE1      O LAG 1  |   |  |  |
| S统将显示新窗口。<br>Interface:  | <ul> <li>Port GE1 </li> <li>Calle</li> </ul>   |   |  |  |
| Copy Settings<br>系统将显示新窗口。<br>Interface:<br>Ingress Rate Limit:<br>Ingress Rate Limit:   | <ul> <li>Port GE1 </li> <li>Description</li> <li>Description</li> <li>Enable</li> <li>100</li> <li>KBits/sec (Range: 100 - 100</li></ul> | 100000, Default: 100)   |  |  |
| Copy Settings<br>系统将显示新窗口。<br>Interface:<br>Ingress Rate Limit:<br>Ingress Rate Limit:<br>Ingress Rate Limit:  | <ul> <li>Port GE1 </li> <li>D LAG 1 </li> <li>Enable</li> <li>100</li> <li>KBits/sec (Range: 100 - 10</li> <li>CBS): 128000</li> <li>Bytes (Range: 3000 - 1917)</li> </ul>   | 00000, Default: 100)<br>'3960, Default: 128000)                         |  |  |
| Copy Settings<br>系统将显示新窗口。<br>Interface:<br>Ingress Rate Limit:<br>Ingress Rate Limit:<br>Ingress Committed Burst Size (<br>Egress Shaping Rate:   | <ul> <li>Port GE1 &lt; O LAG 1 </li> <li>Enable</li> <li>100</li> <li>KBits/sec (Range: 100 - 10</li> <li>CBS): 128000</li> <li>Bytes (Range: 3000 - 1917</li> <li>Enable</li> </ul>   | 00000, Default: 100)<br>′3960, Default: 128000)                         |  |  |
| Copy Settings<br>系统将显示新窗口。<br>Interface:<br>Ingress Rate Limit:<br>Ingress Rate Limit:<br>Ingress Rate Limit:<br>Ingress Committed Burst Size (<br>Egress Shaping Rate:<br>Image: Committed Information Rate (Cl | <ul> <li>Port GE1 &lt; O LAG 1 </li> <li>Enable</li> <li>100</li> <li>KBits/sec (Range: 100 - 10</li> <li>CBS): 128000</li> <li>Bytes (Range: 3000 - 1917</li> <li>Enable</li> <li>IR): 64</li> <li>KBits/sec (Range: 64 - 100</li> </ul>  | 000000, Default: 100)<br>/3960, Default: 128000)<br>00000, Default: 64) |  |  |

步骤5.如果要在特定端口上应用带宽设置**,请选**择"端口接口";如果要在包含几个或所有单个 端口的捆绑上应用带宽设置,请单击LAG(链路聚合)。然后,从它旁边的下拉列表中选择一 个特定值。

# **注意:**要配置LAG设置,可以从菜单导航*至Port Management > Link Aggregation > LAG Management*;选择要编辑的LAG,并将端口添加到该LAG。

| (       | Interface:                          | Port GE1      ( | ) LAG 1   |
|---------|-------------------------------------|-----------------|---|
|         | Ingress Rate Limit:                 | Enable          |   |
| *       | Ingress Rate Limit:                 | 100             | KBits/sec (Range: 100 - 1000000, Default: 100)  |
| <b></b> | Ingress Committed Burst Size (CBS): | 128000          | Bytes (Range: 3000 - 19173960, Default: 128000) |
|         | Egress Shaping Rate:                | Enable          |   |
| *       | Committed Information Rate (CIR):   | 64              | KBits/sec (Range: 64 - 1000000, Default: 64)    |
| *       | Egress Committed Burst Size (CBS):  | 128000          | Bytes (Range: 4096 - 16762902, Default: 128000) |

Apply Close

步骤6.(可选)如果要定义传入流量带宽,请选中Ingress Rate Limit复选框。

| Interface:                          | Port GE1      ( | ) LAG 1   |
|-------------------------------------|-----------------|---|
| Ingress Rate Limit:                 | Enable          |   |
| Ingress Rate Limit:                 | 100             | KBits/sec (Range: 100 - 1000000, Default: 100)  |
| Ingress Committed Burst Size (CBS): | 128000          | Bytes (Range: 3000 - 19173960, Default: 128000) |
| Egress Shaping Rate:                | Enable          |   |
| Committed Information Rate (CIR):   | 64              | KBits/sec (Range: 64 - 1000000, Default: 64)    |
| Egress Committed Burst Size (CBS):  | 128000          | Bytes (Range: 4096 - 16762902, Default: 128000) |
| Apply Close                         |                 |   |

**注意:**如果您未在步骤6中*选中Ingress Rate Limit*,则跳至步骤<u>9</u>。

步骤7.在Ingress Rate Limit字段中输入值。

| Interface:                           | Port GE1      (  | ) LAG 1   |  |
|--------------------------------------|------------------|---|--|
| Ingress Rate Limit:                  | 🖂 Enable         |   |  |
| Ingress Rate Limit:                  | 150              | KBits/sec (Range: 100 - 1000000, Default: 100)  |  |
| Ingress Committed Burst Size (CBS):  | 128000           | Bytes (Range: 3000 - 19173960, Default: 128000) |  |
| Egress Shaping Rate:                 | Enable           |   |  |
| Committed Information Rate (CIR):    | 64               | KBits/sec (Range: 64 - 1000000, Default: 64)    |  |
| I Egress Committed Burst Size (CBS): | 128000           | Bytes (Range: 4096 - 16762902, Default: 128000) |  |
| Apply Close                          |                  |   |  |
| <b>注意:</b> 当接口类 <i>型为LA</i>          | <i>G时,</i> 不会显示两 | 两个Ingress Rate Limit字段。                         |  |

步骤8.在Ingress Committed Burst Size(CBS)字段中输入该值。

| Interface:                           | Port GE1      ( | ) LAG 1 V                                       |
|--------------------------------------|-----------------|---|
| Ingress Rate Limit:                  | Enable          |   |
| Ingress Rate Limit:                  | 150             | KBits/sec (Range: 100 - 1000000, Default: 100)  |
| Ingress Committed Burst Size (CBS):  | 150000          | Bytes (Range: 3000 - 19173960, Default: 128000) |
| Egress Shaping Rate:                 | Enable          |   |
| Committed Information Rate (CIR):    | 64              | KBits/sec (Range: 64 - 1000000, Default: 64)    |
| ✤ Egress Committed Burst Size (CBS): | 128000          | Bytes (Range: 4096 - 16762902, Default: 128000) |
|                                      |                 |   |

**注意:**当Ingress Rate Limit复选*框启用时,*Ingress Rate Limit和Ingress Committed Burst Size(CBS)字段将自动填充默认值。

步骤9.(可选)如果要定义传出流量带**宽,请选**中Egress Shaping Rate复选框。整形速率是 指出口接口上允许的最大带宽。

| Interface:                          | Port GE1      ( | ) LAG 1   |  |  |
|-------------------------------------|-----------------|---|--|--|
| Ingress Rate Limit:                 | Enable          |   |  |  |
| Ingress Rate Limit:                 | 150             | KBits/sec (Range: 100 - 1000000, Default: 100)  |  |  |
| Ingress Committed Burst Size (CBS): | 150000          | Bytes (Range: 3000 - 19173960, Default: 128000) |  |  |
| Egress Shaping Rate:                | Enable          |   |  |  |
| Committed Information Rate (CIR):   | 64              | KBits/sec (Range: 64 - 1000000, Default: 64)    |  |  |
| Egress Committed Burst Size (CBS):  | 128000          | Bytes (Range: 4096 - 16762902, Default: 128000) |  |  |
| Apply Close                         |                 |   |  |  |

**注意:**如果您未在步骤9中*选中出口*整形速率,则跳至步<u>骤12</u>。

步骤10.在"承诺信息速率(CIR)"字段中输入值。

| Interface:                          | Port GE1      ( | ) LAG 1 V                                       |
|-------------------------------------|-----------------|---|
| Ingress Rate Limit:                 | Enable          |   |
| Ingress Rate Limit:                 | 150             | KBits/sec (Range: 100 - 1000000, Default: 100)  |
| Ingress Committed Burst Size (CBS): | 150000          | Bytes (Range: 3000 - 19173960, Default: 128000) |
| Egress Shaping Rate:                | 🖂 Enable        |   |
| Committed Information Rate (CIR):   | 65              | KBits/sec (Range: 64 - 1000000, Default: 64)    |
| Egress Committed Burst Size (CBS):  | 128000          | Bytes (Range: 4096 - 16762902, Default: 128000) |
| Apply Close                         |                 |   |

步骤11.在Egress Committed Burst Size(CBS)字段中输入所需的值。

**注意:**即使临时将带宽增加到超出允许的限制,也可以发送此数量。

| Interface:                         | Port GE1      ( | ) LAG 1 🗸                                       |
|------------------------------------|-----------------|---|
| Ingress Rate Limit:                | Enable          |   |
| Ingress Rate Limit:                | 150             | KBits/sec (Range: 100 - 1000000, Default: 100)  |
| Size (CBS):                        | 150000          | Bytes (Range: 3000 - 19173960, Default: 128000) |
| Egress Shaping Rate:               | Enable          |   |
| Committed Information Rate (CIR):  | 65              | KBits/sec (Range: 64 - 1000000, Default: 64)    |
| Egress Committed Burst Size (CBS): | 140000          | Bytes (Range: 4096 - 16762902, Default: 128000) |
|                                    |                 | ·   |

Apply Close

#### 步骤12.单击"**应用**"保存设置。

| Interface:                          | Port GE1      ( | ) LAG 1 V                                       |
|-------------------------------------|-----------------|---|
| Ingress Rate Limit:                 | Enable          |   |
| 🌣 Ingress Rate Limit:               | 150             | KBits/sec (Range: 100 - 1000000, Default: 100)  |
| Ingress Committed Burst Size (CBS): | 150000          | Bytes (Range: 3000 - 19173960, Default: 128000) |
| Egress Shaping Rate:                | Enable          |   |
| Committed Information Rate (CIR):   | 65              | KBits/sec (Range: 64 - 1000000, Default: 64)    |
| Egress Committed Burst Size (CBS):  | 140000          | Bytes (Range: 4096 - 16762902, Default: 128000) |
| Apply Close                         |                 |   |

## 复制设置

### 步骤1.要将一个接口的设置复制到另一个或多个接口,请点击源接口的单选按钮。

| Bandwidth Table                            |           |           |            |   |   |             |          |                 |             |
|--|-----------|-----------|------------|---|---|-------------|----------|-----------------|-------------|
| Filter: Interface Type equals to Port V Go |           |           |            |   |   |             |          |                 |             |
|  | Entry No. | Interface | Ingress Ra | Ingress Rate Limit Egress Shaping Rates |   |             |          |                 |             |
|  |           |           | Status     | Rate Limit (KBits/sec)                  | % | CBS (Bytes) | Status   | CIR (KBits/sec) | CBS (Bytes) |
| 0  |           | FE1       | Enabled    | 100                                     |   | 654164      | Enabled  | 64              | 55616       |
| 0  | 2         | FE2       | Disabled   |   |   |             | Disabled |                 |             |
| 0  | 3         | FE3       | Disabled   |   |   |             | Disabled |                 |             |

### 步骤2.单击"复**制设置"**。

| Copy Settings                | Edit                                |
|------------------------------|-------------------------------------|
| 系统将显示一个新                     | 窗口:                                 |
| Copy configuration from entr | y 49 (GE1)                          |
| to:                          | (Example: 1,3,5-10 or: FE1,FE3-GE4) |
| Apply Close                  | ]                                   |

步骤3.在提供的字段中,输入目标接口。要将相同的设置复制到多个接口,请用逗号分隔目标 接口或接口范围。

| Copy configuration from entry 49 (GE1) |                                     |
|--|-------------------------------------|
| to: FE2-FE10,GE2                       | (Example: 1,3,5-10 or: FE1,FE3-GE4) |
| Apply Close                            |                                     |
| 步骤4.单击" <b>应用</b> "以复制设置。              |                                     |
| Copy configuration from entry 49 (GE1) |                                     |
| to: FE2-FE10,GE2                       | (Example: 1,3,5-10 or: FE1,FE3-GE4) |
|  |                                     |

您现在应该已成功配置了SG250或SF250交换机的带宽设置。