

Configuring Explicit Constituents for Simple or Compound Shared Shaping

You can specify explicit constituents and set the attributes of both implicit and explicit shared-shaping constituents that determine how bandwidth is allocated to them.

There are two types of explicit constituents:

- Simple explicit constituents—The software selects constituents based on the **shared-shaping-constituent** command. The weight and priority attributes of the **shared-shaping-constituent** command are ignored, because the simple shared shaper does not allocate bandwidth among constituents; instead it controls just the best-effort queue or node.
- Compound explicit—The software selects constituents based on the configured shared priority and shared weight in the **shared-shaping-constituent** command. If no attributes are specified, the software supplies a shared priority consistent with the legacy scheduler configuration. You can specify a constituent as strict (priority) or weighted. Strict-priority constituents are allocated bandwidth ahead of weighted constituents.

Before you configure explicit constituents:

- Configure the traffic classes and traffic-class groups.
See [Configuring Traffic Classes That Define Service Levels](#) and [Configuring Traffic-Class Groups That Define Service Levels](#).

To configure explicit constituents:

1. Create the scheduler profile.

```
host1(config)#scheduler-profile explicit
```

2. Configure the shared-shaper and specify that you do not want the router to identify shared shaper constituents associated with the logical interface.

To configure a simple shared shaper:

```
host1(config-scheduler-profile)#shared-shaping-rate 128000 bps
```

To configure a compound shared shaper:

```
host1(config-scheduler-profile)#shared-shaping-rate 128000 burst 32767  
compound explicit-constituents
```

3. Specify the attributes for the explicit constituent.

```
host1(config-scheduler-profile)#shared-shaping-constituent weight 28
```

You can specify a constituent as strict (priority) or weighted. Strict-priority constituents are allocated bandwidth ahead of weighted constituents.

You can optionally set a value that determines the precedence of a constituent among its peers (strict or weighted) for claiming bandwidth.

For strict-priority constituents, the priority range is 1–8 and the default value is 8. A lower value correlates to a higher claim.

For weighted constituents, the range is 1–31 and the default value is 8. The weights of all sibling weighted constituents are added together. Then each weighted constituent is allocated bandwidth according to the proportion of its weight to the total.

- Related Topics**
- Constituent Selection for Shared Shaping Overview
 - Explicit Constituent Selection Overview
 - scheduler-profile
 - shared-shaping-constituent
 - shared-shaping-rate

Published: 2009-12-16