

Configuring SRC ACP to Manage the Edge Network

The tasks to configure SRC ACP to manage the edge network are:

- Configuring Network Interfaces in the Directory for the Edge Network on page 1
- Configuring Bandwidths for Subscribers on page 2
- Assigning Network Interfaces to Subscribers on page 3
- Configuring Bandwidths for Services in the Edge Network on page 4

Configuring Network Interfaces in the Directory for the Edge Network

You must add network interfaces to the directory. For the edge network, you do so by specifying the network interfaces of the routers and the switches in the access network between subscribers and the SRC network.

Use the following configuration statements to configure a network interface:

```
shared admission-control device name {
    description description;
}
shared admission-control device name interface name {
    description description;
    upstream-provisioned-rate upstream-provisioned-rate;
    downstream-provisioned-rate downstream-provisioned-rate;
    upstream-background-bandwidth upstream-background-bandwidth;
    downstream-background-bandwidth downstream-background-bandwidth;
    detect-link-rate;
}
```

To configure the network interfaces of the routers and the switches in the access network:

1. From configuration mode, access the configuration statement that configures network interfaces.

```
user@host# edit shared admission-control device name
```

Enter the name of the network device.

2. (Optional) Specify a description for the network device.

```
[edit shared admission-control device name]
user@host# set description description
```

3. Specify the network interface.

```
user@host# edit shared admission-control device name interface name
```

Enter the name of the virtual router.

4. (Optional) Specify the provisioned bandwidth for the network interface.

```
[edit shared admission-control device name interface name]  
user@host# set upstream-provisioned-rate upstream-provisioned-rate  
user@host# set downstream-provisioned-rate downstream-provisioned-rate
```

5. (Optional) Specify the background bandwidth for the network interface.

```
[edit shared admission-control device name interface name]  
user@host# set upstream-background-bandwidth upstream-background-bandwidth  
user@host# set downstream-background-bandwidth  
          downstream-background-bandwidth
```

For information about background bandwidths, see Allocating Bandwidth to Applications Not Controlled by SRC ACP.

6. (Optional) Specify whether SRC ACP detects the link rate for the network interface.

```
[edit shared admission-control device name interface name]  
user@host# set detect-link-rate
```

If you set this option, specify portId as an index key when configuring SRC ACP operations so that updated sync rates are provided from interface tracking events. If the sync rate is not available, then the provisioned bandwidth configured in the subscriber profile is used.

7. (Optional) Verify your configuration.

```
[edit shared admission-control device name interface name]  
user@host# show
```

Configuring Bandwidths for Subscribers

You must configure bandwidths for subscribers that SRC ACP manages in the edge region of the network.

If the access network between the subscriber and the router uses ATM, and all the traffic coming from one DSLAM travels on a single virtual path, you do not need to provision bandwidths for each subscriber. In this case, SRC ACP can derive the congestion points from the router (see Deriving Congestion Points Automatically).

However, if the access network uses a protocol other than ATM, you must provide the following information for each subscriber.

- Provisioned downstream bandwidth
- Provisioned upstream bandwidth
- Actual downstream bandwidth for the current subscriber session
- Actual upstream bandwidth for the current subscriber session
- List of DNs of interfaces associated with congestion points

To configure bandwidths for subscribers:

1. From configuration mode, access the configuration statement that configures residential subscribers.

```
user@host# edit subscribers retailer name subscriber-folder folder-name  
subscriber name admission-control
```

For more information about configuring residential subscribers, see Adding Residential Subscribers (SRC CLI).

2. (Optional) Specify the provisioned downstream bandwidth. This rate is used if the subscriber bandwidth settings are not provided by remote update (through the API for ACP) or by the `downstream-sync-rate` value.

```
[edit subscribers retailer name subscriber-folder folder-name subscriber name  
admission-control]  
user@host# set downstream-provisioned-rate downstream-provisioned-rate
```

3. (Optional) Specify the provisioned upstream bandwidth. This rate is used if the subscriber bandwidth settings are not provided by remote update (through the API for ACP) or by the `upstream-sync-rate` value.

```
[edit subscribers retailer name subscriber-folder folder-name subscriber name  
admission-control]  
user@host# set upstream-provisioned-rate upstream-provisioned-rate
```

4. (Optional) Specify the actual downstream bandwidth for the current subscriber session. If you do not set this value and it is not provided by remote update (through the API for ACP), then the `downstream-provisioned-rate` value is used.

```
[edit subscribers retailer name subscriber-folder folder-name subscriber name  
admission-control]  
user@host# set downstream-sync-rate downstream-sync-rate
```

5. (Optional) Specify the actual upstream bandwidth for the current subscriber session. If you do not set this value and it is not provided by remote update (through the API for ACP), then the `upstream-provisioned-rate` value is used.

```
[edit subscribers retailer name subscriber-folder folder-name subscriber name  
admission-control]  
user@host# set upstream-sync-rate upstream-sync-rate
```

Assigning Network Interfaces to Subscribers

You must assign to the subscriber object interfaces (including the router interfaces) for all congestion points between the subscriber and the router.



NOTE: You must define the interface in the directory before you can assign it to a residential subscriber (see “Configuring Network Interfaces in the Directory for the Edge Network” on page 1).

To assign an interface:

1. From configuration mode, access the configuration statement that configures residential subscribers.

```
user@host# edit subscribers retailer name subscriber-folder folder-name  
subscriber name admission-control
```

For more information about configuring residential subscribers, see Adding Residential Subscribers (SRC CLI).

2. (Optional) Specify the DNs of interfaces associated with congestion points for this subscriber.

```
[edit subscribers retailer name subscriber-folder folder-name subscriber name  
admission-control]  
user@host# set congestion-points [congestion-points...]
```

Configuring Bandwidths for Services in the Edge Network

Upstream and downstream bandwidths must be specified for services that SRC ACP manages. You can obtain bandwidths for services in two ways:

- Provide static values through the directory.
- Allow the values to be provided through the SAE core API.

For example, a business partner may need to specify the required values for a particular piece of content through the SAE core API.

To configure values for services:

1. From configuration mode, access the configuration statement that configures services.

```
user@host# edit services global service name admission-control
```

For more information about configuring services, see Overview of Services for the SRC Software.

2. (Optional) Specify the required downstream and upstream bandwidths.

```
[edit services global service name admission-control]  
user@host# set required-downstream-bandwidth required-downstream-bandwidth  
user@host# set required-upstream-bandwidth required-upstream-bandwidth
```

- Related Topics**
- Configuring SRC ACP to Manage the Edge Network (C-Web Interface)
 - Configuring SRC ACP to Manage the Backbone Network

- Viewing Information About Subscriber Sessions in the Edge Network
- Overview of SRC ACP

Published: 2009-09-15