Configuring Dynamic Hierarchical Scheduling and Queuing in a Dynamic Profile for Subscriber Access

You can configure dynamic scheduling and queuing in dynamic profile for subscriber access.

To configure dynamic scheduling and queuing for subscriber access using dynamic scheduling and queuing parameters:

1. Configure the static CoS parameters in the [edit class-of-service] hierarchy.
   a. Enable the hierarchical scheduler for the interface.

      See Configuring Hierarchical Schedulers for CoS.

   b. Configure the drop profiles.

      See Configuring RED Drop Profiles.

   c. Configure the forwarding classes.

      See Configuring Forwarding Classes

   d. Configure the rewrite-rules and classifier definitions.

      See Configuring Rewrite Rules and Defining Classifiers.

   See the *JUNOS Class of Service Configuration Guide* for information about configuring the remaining CoS parameters.
2. Configure a static or dynamic subscriber interface that can be referenced in the dynamic profile.
   - For static VLAN interfaces, see Configuring Static Subscriber Interfaces in Dynamic Profiles.
   - For dynamic VLAN interfaces, see Configuring a Static or Dynamic VLAN Subscriber Interface over Aggregated Ethernet.
   - For dynamic IP demux interfaces, see Configuring Dynamic Subscriber Interfaces Using IP Demux Interfaces in Dynamic Profiles and Configuring a Static or Dynamic IP Demux Subscriber Interface over Aggregated Ethernet.
   - For dynamic VLAN demux interfaces, see Configuring Dynamic Subscriber Interfaces Using VLAN Demux Interfaces in Dynamic Profiles.
   - For dynamic PPPoE interfaces, see Configuring Dynamic PPPoE Subscriber Interfaces Using Dynamic Profiles.
3. Configure CoS parameters in a dynamic profile.
   a. Configure the dynamic profile.

      See Configuring a Basic Dynamic Profile.

   b. Configure traffic shaping and scheduling parameters in the dynamic profile using a traffic-control profile.

      See Configuring Traffic Scheduling and Shaping for Subscriber Access.

c. Configure the schedulers and scheduler map in the dynamic profile.

   You can configure the schedulers using dynamic variables or a combination of both static values and dynamic variables.

   See Configuring Schedulers in a Dynamic Profile for Subscriber Access.

d. Apply CoS parameters to a subscriber interface by referencing an interface in the dynamic profile.

   - For traffic shaping and scheduling, see Applying Traffic Shaping and Scheduling to a Subscriber Interface in a Dynamic Profile.
   - For rewrite-rules, see Applying a Rewrite Rule Definition to a Subscriber Interface in a Dynamic Profile.
   - For classifiers, see Applying a Classifier to a Subscriber Interface in a Dynamic Profile.

4. (Optional) Configure variables in access and service profiles to enable RADIUS to activate subscriber and upgrade services through CoA.

NOTE: Do not instantiate a CoA request using a service dynamic profile that is already in use on the same logical interface.

   a. Configure user-defined CoS variables in a dynamic profile.

      See Configuring User-Defined CoS Variables in a Dynamic Service Profile

   b. (Optional) Enable multiple clients for the same subscriber (logical interface) to aggregate attributes by configuring the aggregate-clients option for the dynamic profile attached to a DHCP subscriber interface.

      See Attaching Dynamic Profiles to DHCP Subscriber Interfaces.

      Because you have configured the scheduler map in the dynamic profile, queues are merged when subscribers change services. Other CoS parameters are replaced.

      When multiple subscribers are enabled on a DHCP subscriber interface, and the dynamic profile referenced by DHCP does not have the replace keyword configured, the system does not replace the parameters. Instead, it combines the values of the parameters to their maximum scalar value.

Related Topics

- For hardware requirements and configuration guidelines, see Guidelines for Configuring Dynamic CoS for Subscriber Access
- CoS for Subscriber Access Overview
- Example: Configuring Dynamic Hierarchical Scheduling and Queuing for Subscriber Access

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