

## Hierarchical QoS Parameters Overview

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You use hierarchical parameters in applications where you want the system to add instances associated with child interfaces and associate the sum with a parent interface. For example, to shape an S-VLAN to 50 percent of the sum of the shaping rates of the VLANs stacked above the S-VLAN, you specify *explicit* instances of the parameter associated with the VLANs, and the system creates an *implicit* instance of the parameter associated with the S-VLAN. The parameter maintains the value of the sum of the explicit instances.

The most common use of hierarchical parameters is in combination with the IP multicast bandwidth adjustment application.

For example, you create a hierarchical parameter that controls a VLAN. The hierarchical parameter has two explicit parameter instances on two IP interfaces, with values of 1 Mbps and 3 Mbps. Therefore, an implicit parameter instance is created at the VLAN interface with a value of 4 Mbps.

- Related Topics**
- Configuring a Parameter Definition to Calculate Hierarchical Instances
  - For information about the IP multicast bandwidth adjustment application, see [IP Multicast Bandwidth Adjustment for QoS Overview](#)

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