Monitoring Quality of Service

Quality of Services (QoS) is the technique of prioritizing traffic flows and specifying preferences for forwarding packets with higher priority. It prioritizes traffic flow for different applications, users, or data flows and ensures certain level of performance to a data flow. This service plays an important part when the network capacity is insufficient, especially for real time streaming multimedia applications such as VoIP, online games, and IP-TV.
In Prime Network, you can view all the services configured for the selected network element in the QoS node under logical inventory.

The QoS Node under logical inventory is made up of two sub-nodes—the Policy Container and the Class of Service container. Both these sub-nodes are explained in greater detail in the following sections.

Viewing the Service Policy and Policy Group Profiles

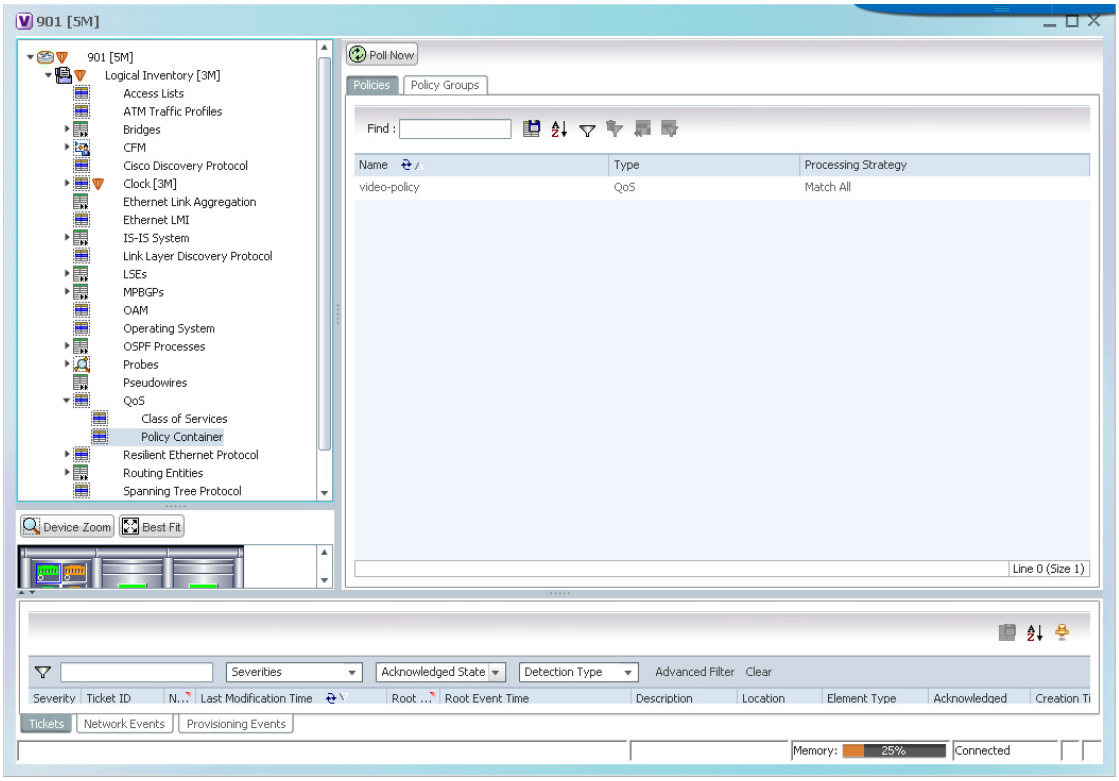
The Policy Container node in the logical inventory lists all the available service groups and service policies that are associated with service templates, BBA groups, and subscriber access points.

To view the service policy and policy group profiles:

Step 1 Right-click on the required device and choose the **Inventory** option.

Step 2 In the **Inventory** window, choose **Logical Inventory> QoS> Policy Container**. The Policies tab is displayed by default in content pane, which lists the existing policies are displayed as shown in Figure 21-1.

Figure 21-1 Policy Container



Step 3 Right-click on a policy and choose **Properties**. The Service Policy Properties window is displayed. Table 21-1 describes the fields that are displayed in the Service Policy Properties window.

Table 21-1 Service Policy Properties

Field Name	Description
Name	The name of the policy.
Type	The type of policy, which defaults to QoS.
Processing Strategy	The strategy in applying the policy, which defaults to Match All.
Policy Rules & Actions tab	
Name	The name of the policy rule.
Match Condition	The class of service associated to the policy. Clicking this link will take you to the relevant service under the Class of Service node in the logical inventory.
Action Execution Strategy	The policy execution strategy, which can be any of the following: • Execute All • Execute Until Success • Execute Until Failure
Applied Interfaces tab	

Table 21-1 Service Policy Properties (continued)

Field Name	Description
Interface Name	The name of the interface on which the service policy is applied.
Entity Association	The logical or physical port to which the policy is associated to. Clicking this link will display the relevant ethernet/gigabit ethernet port. Verify the Ingress Policy or Egress Policy applicable to the port.
Action Lists tab	
Sequence Number	The sequence number of the action list.
Action Type	The action taken on the entity. For example, Activate, Deactivate, Authenticate and Authorize.
Affected Entity Type	The entity type affected due to the selected action list. For example, service-policy, traffic shaping.
Affected Entity	The entity that gets affected due to the selected action.
Entity Association	The link to the entity affected due to the action. Clicking on this link will take you to the relevant entity. For example, if the associated entity is a policy, then clicking this link will take you to the relevant policy under the Policy Container node.

Step 4 Close the **Service Policy Properties** window.

Step 5 In the content pane, click the **Policy Group** tab. A list of existing groups are displayed.

Step 6 Right-click on a policy group and choose **Properties**.

Table 21-2 describes the fields in the Policy Group tab.

Table 21-2 Policy Group Properties

Field Name	Description
Name	The name of the policy group.
Type	The type of policy group, which can be any one of the following: • Accounting • Control • PBR • Performance Traffic • QoS • Traffic • Redirect This field defaults to Control.
Processing Strategy	The strategy in applying the policy, which defaults to Match All.
Policies	
Name	The name of the service policy map.
Type	The type of policy map.
Processing Strategy	The strategy in applying the policies on the incoming traffic.

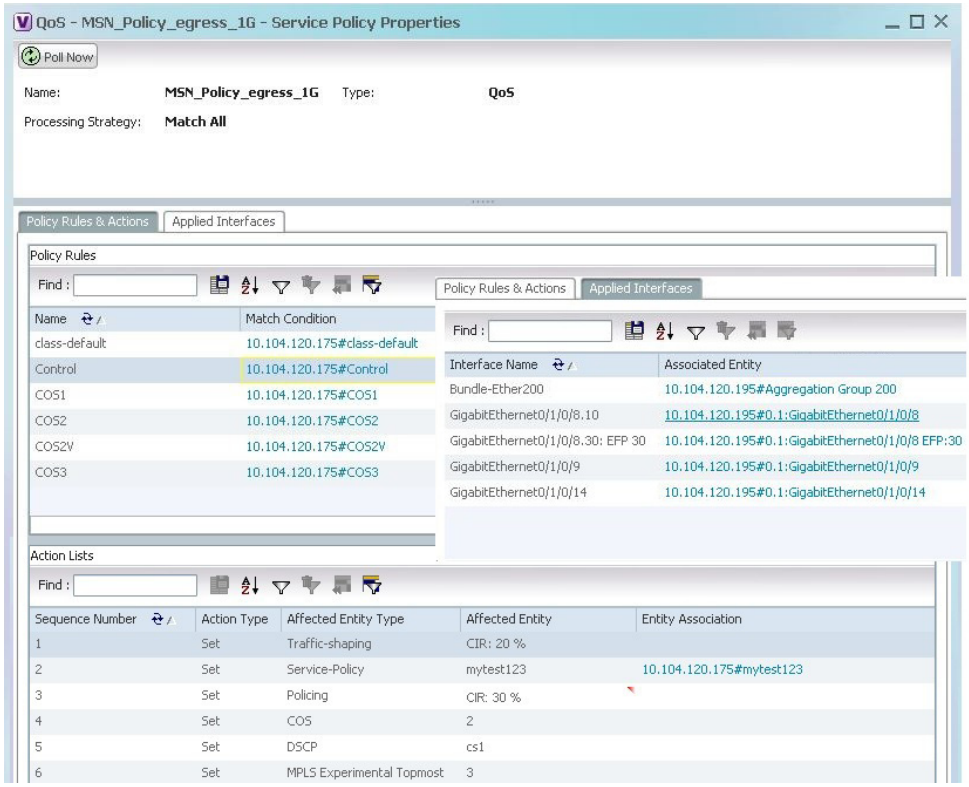
Table 21-2 Policy Group Properties (continued)

Field Name	Description
Applied Interfaces tab	
Interface Name	The name of the interface on which the service policy is applied.
Entity Association	The logical or physical port to which the policy is associated to. Clicking this link will display the relevant logical or physical port. Verify the Ingress Policy or Egress Policy applicable to the port.

Step 7 In the Policies tab, right-click on a policy from the list and choose **Properties**. The Service Policy Properties dialog box is displayed. See Table 21-1 for more details.

Figure 21-2 shows the association between the policy and interface.

Figure 21-2 Policy and Interface Association



Viewing the Class of Services Profile

To view the QoS profile:

Step 1 Right-click on the device and choose the **Inventory** option.

Step 2 In the **Inventory** window, choose **Logical Inventory > QoS > Class of Services**. A list of existing policies are displayed in the content pane.

Step 3 Right-click on a service in the list and choose **Properties**. The Class of Services Properties dialog box is displayed. You can click on the tabs to view more details.

Table 21-3 describes the fields that are displayed in the Class of Services Properties dialog box.

Table 21-3 Class of Services Properties

Field Name	Description
Name	The name of the class of service.
Type	The type of the class of service, which can be any one of the following: • Control • QoS • Traffic This field defaults to QoS.
Matching Strategy	The matching condition for the service, which can be any one of the follwoing: • Match All • Match Any • Match None This field defaults to Match All.
Match Criteria Lists	
Index	The sequential number for the match criteira.
Match Type	The type that is used to match lists. For example, Access Group, Discard-class, DSCP, MPLS, QoS-group.
Match Condition	The match condition for the class of service, which can be any one of the following: • available/not available • class • greater-than/not greater-than • greater-than-or-equal/not greater-than-or-equal • less-than/not less-than • less-than-or-equal/not less-than-or-equal
Match Value	The value associated with the match type.
Associated Entity	The entity specified in the Match Value field. Click this hyperlink to view the related record.