Quality of Service (QoS)

US Signal's Quality of Service (QoS) enhancement prioritizes your critical data ensuring serviceability. QoS is available throughout the US Signal IP network and your premises. Add QoS to a switched or routed service and get the benefits of an enhanced Service Level Agreement.

At a Glance

- Mark packets with Differentiated Services Code Point (DSCP) fields when layer 3 network services are delivered
- Mark packets with Class of Service (CoS) fields when layer 2 network services are delivered.
- Supports Strict Priority Queuing, Weighted Round Robin, Strict Round Robin, and Weighted fair queuing methods
- Predetermined voice, video, and data templates are available
- Ensures performance in times of congestion on access circuits

QoS Classes

US Signal QoS divides you traffic into classes that are given different priorities in times of congestion on your access circuit. The three classes and data examples associated with each class are below:

Class Name	Highest Priority
Premium	Voice
Critical	Video
Business	Transactions, VPN
Default	Web Surfing

Profiles

You can choose from three templates based on your layer-2 and layer-3 traffic patterns. Each template is designed to address a different traffic structure, dictated by the general service types you are using.

Class Name	Template	Template	Template
Primary Use	Voice	Video	Data
Premium	35%	20%	15%
Critical	25%	35%	20%
Business	15%	20%	40%
Default	Remaining	Remaining	Remaining

For traffic with 802.1Q (Layer-2) tags, US Signal provides traffic prioritization based on the 802.1p Class of Service (CoS) field in 802.1Q tagged frames. You must mark frames with the desired CoS value in the 802.1p field for all 802.1Q tagged traffic to gain the

For traffic without 802.1Q tags (Layer-3), US Signal provides traffic prioritization based on the Differentiated Services Code Point (DSCP) field in the IP Header. You must mark all IP packets with the correct DSCP value to gain the advantage of the US Signal QoS features.

Traffic tagged with the Premium class will be prioritized using strict priority queuing methods. All other classes will be prioritized using weighted round robin, strict round robin, or weighted fair queuing depending on your use case and QoS requirements.

Class Name	USS CoS Value	Customer CoS Value	Customer DSCP Value
Premium	5	5	40/46
Critical	3	7/6	24/26/28/30/48
Business	2/1	4/3/2	10/12/14/16/18/20/22
Default	0	0/1	All remaining values