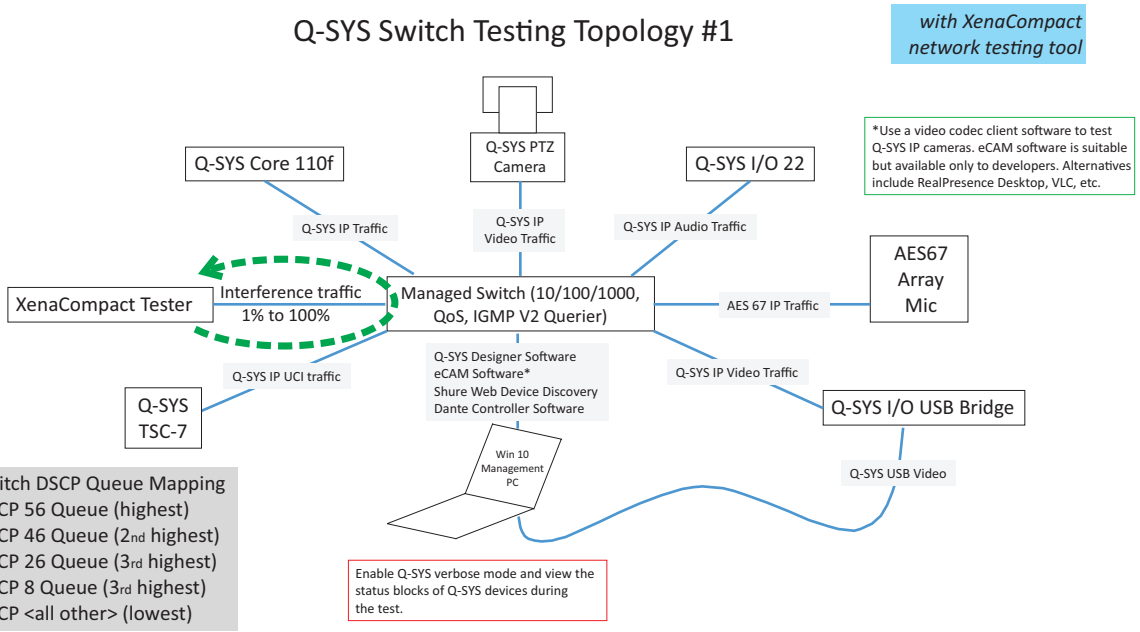
Q-SYS Networked Systems **Technical Notes**

Q-LAN Switch Testing Topologies

Network switch testing topologies for Q-LAN

This technical note describes three recommended test setup topologies for evaluating network switch performance in Q-SYS networks.

NOTE: Although AES67 recommends DSCP values of EF(46) for PTPv2 packets and 34(AF41) for audio, some AES67 devices might not follow these. To verify DSCP usage, mirror the switch port that the AES67 device is connected to and monitor the data packets using Wireshark. If the AES67 device uses different DSCP values, adjust the Q-SYS DSCP settings and the switch's QoS settings to match the AES67 device.



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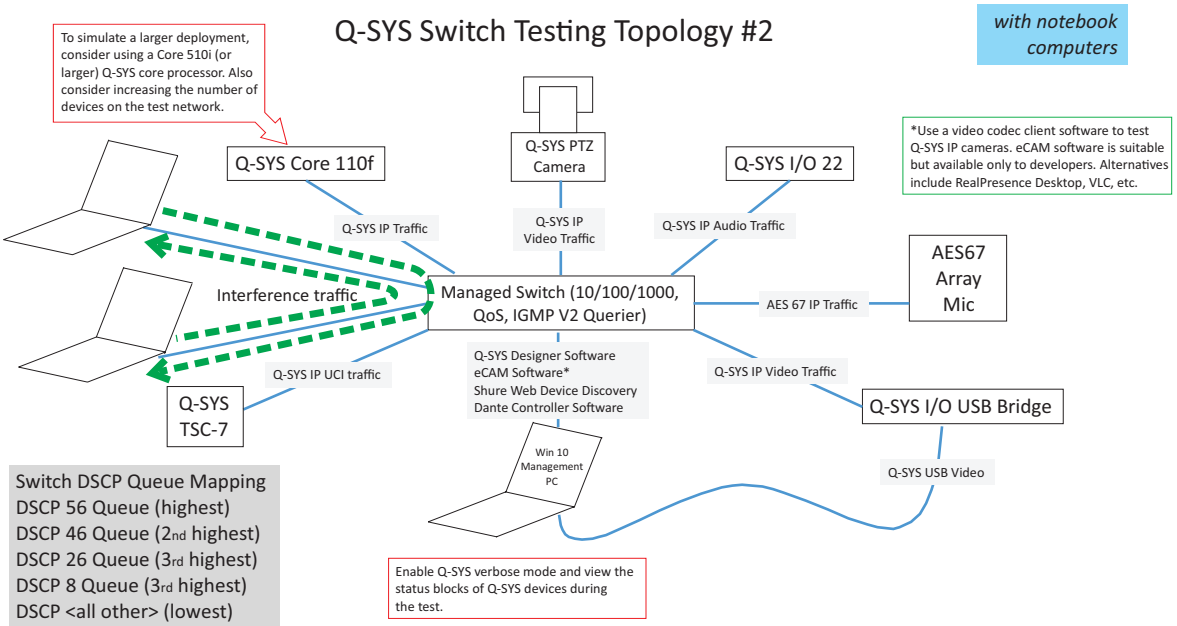
Q-SYS Networked Systems **Technical Notes**

Q-LAN Switch Testing Topologies

Q-SYS Switch Testing Topology #2

with notebook computers

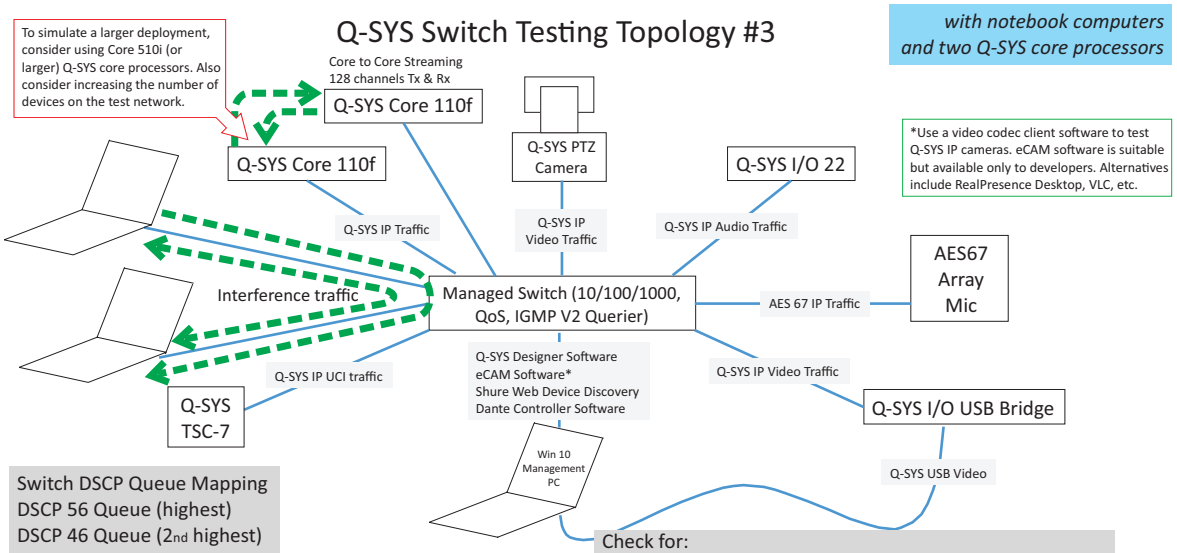


Switch DSCP Queue Mapping
DSCP 56 Queue (highest)
DSCP 46 Queue (2nd highest)
DSCP 26 Queue (3rd highest)
DSCP 8 Queue (3rd highest)
DSCP <all other> (lowest)

NOTE: To generate interference between two PCs, copy large files between them or use iPerf (http://iperf.fr). The purpose is to load the switch with extra traffic to prove that the QoS protects high-priority traffic properly.

Q-SYS Switch Testing Topology #3

with notebook computers and two Q-SYS core processors



Switch DSCP Queue Mapping
DSCP 56 Queue (highest)
DSCP 46 Queue (2nd highest)
DSCP 26 Queue (3rd highest)
DSCP 8 Queue (3rd highest)
DSCP <all other> (lowest)

Check for:
- Network discovery of Q-SYS, AES67, Dante
- QoS protecting PTPv2, audio, and video from other traffic
- Stability of IGMP V2 Snooping with Querier

NOTE: To generate interference between two PCs, copy large files between them or use iPerf (http://iperf.fr). The purpose is to load the switch with extra traffic to prove that the QoS protects high-priority traffic properly.

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