Switch Configuration Example **for Q-SYS™ Platform**
Cisco Catalyst 3560 and 3750 Series

Important Note

This switch configuration example is intended to serve as a network setup guideline for systems using only Q-LAN audio streaming within your Q-SYS system and should be used alongside the **Q-SYS Q-LAN Networking Overview** tech note for deeper setup insight. Keep in mind that QSC is unable to provide live network configuration support for third-party switch configuration. To learn more about network switch qualification services and the plug-and-play Q-SYS NS Series preconfigured network switches, visit **http://www.qsc.com/switches**.

> This document applies to these Cisco switches:
> **Catalyst 3560E-24TD** | **Catalyst 3560E-24PD** | **Catalyst 3560E-48TD** | **Catalyst 3560E-24PD | Catalyst 3560E-48TD-F | Catalyst 3560E-12D | Catalyst 3560E-12SD | Catalyst 3560X-24T | Catalyst 3560X-24P | Catalyst 3560X-48P | Catalyst 3560X-48T | Catalyst 3560X-48PF | Catalyst 3750E-24TD | Catalyst 3750E-24PD | Catalyst 3750E-48TD | Catalyst 3750E-48PD | Catalyst 3750E-48PD-F | Catalyst 3750X-24T | Catalyst 3750X-24P | Catalyst 3750X-48T | Catalyst 3750X-48P | Catalyst 3750X-48PF | Catalyst 3750X-12S | Catalyst 3750X-24S**

Introduction

As of release 5.3.x, Q-SYS Designer software now supports AES67-standard interoperability. The AES67 standard does not prescribe a method of discovery for devices so manufacturers are free to implement one or more discovery services for their devices. In this configuration document, the process uses Bonjour as the discovery method for AES67 devices.

Q-SYS Designer now also offers a selection of Differential Services Code Point (DSCP) setting presets to optimize Quality of Service (QoS) for different types of deployment. DSCP codes are a six-bit value placed in the IP header of data packet, and they instruct a network switch to handle various types of data with defined levels of priority that ensure proper QoS.

Configuration

Initial configuration (IP address setup) of a Cisco Catalyst switch involves pressing and holding ts status button, connecting a computer to any Ethernet port on the switch, and accessing a web-based setup utility. The Cisco Catalyst *Getting Started Guide* (PDF) describes the process in higher detail.

Reset

If the switch had been previously configured for a different use, we recommend that you restore it to factory defaults and/or perform an IP and system setup. Do this through either the web interface as described in the *Getting Started Guide* or from the command line as described below.

1. Type **enable** and press **Enter** to log into the switch and go into privileged EXEC mode:

2. Type **erase startup-config** and press **Enter** to erase the configuration file.

3. Type **reload** and press **Enter** to reboot the switch.

Basic setup

These next steps re for a basic functional configuration for Q-SYS. Integrate these configurations with any others required for the installation.

1. Type **enable** and press **Enter** to log into the switch and go into privileged EXEC mode.

2. Type **configure terminal** and press **Enter** to go into configuration mode.

3. Type **mls qos** and press **Enter** to enable QoS globally.

4. Type **mls qos queue-set output 1 buffers 10 25 25 40** and press **Enter** to allocate additional buffers for audio traffic class.

5. Type **mls qos queue-set output 1 threshold 4 100 100 100 100** and press **Enter** to configure the audio class buffers.

6. Type **no mls qos rewrite ip dscp** and press **Enter** to enable DSCP transparency mode.

7. Type **interface range GigabitEthernet? 0/1-28** and press **Enter** to configure all gigabit interfaces.

8. Type **mls qos trust dscp** and press **Enter** to trust (honor) incoming DSCP value to classify traffic.

9. Type **priority-queue out** and press **Enter** to enable strict priority mode for egress queue 1.

10. Type **srr-queue bandwidth share 1 1 1 255** and press **Enter** to get as close to strict priority queuing as possible for egress queue 4.

11. Type **exit** and press **Enter** to exit the interface configuration.

10-gigabit per second uplink

If the 10 Gb/s uplink module is installed, it will require these additional configurations:

1. Type **interface range TenGigabitEthernet? 0/1-2** and press **Enter** to configure all 10 gigabit interfaces.

2. Type **mls qos trust dscp** and press **Enter** to trust (honor) incoming DSCP value to classify traffic.