



Ethernet Switch Setup for Q-SYS

Avaya ERS4850 Series (Models ERS4826GTS, ERS4826GTS-PWR+, ERS4850GTS, and ERS4850GTS-PWR+)

Firmware used: 5.8.0.1 Software used: v5.8.1.029

Configuring the Switch

Assign an IP address, enable the optional web interface, and assign QoS

1. Using a standard network switch console or “rollover” cable, connect the serial port on the PC, or a USB-to-serial adapter, to the console port on the front of the switch.
2. Open a terminal emulator such as HyperTerminal or PuTTY and connect to the switch using the following serial settings: 9600, N, 8, 1; no flow control.
If the switch does not respond by initiating a terminal session, try turning it off and on again. As the switch boots up, the terminal emulator window should start displaying log messages.
3. When the AVAYA logo appears, it will also display a status area indicating the switch model, hardware version, firmware version, and the software version.
4. Press **Ctrl+Y**. A prompt showing the switch model number will appear—for example, **4850GTS-PWR+>** will appear. (Other models will display accordingly; for this setup guide, we will use the 4850GTS-PWR+ as an example.)
5. Type `enable` and then press **Enter**.
6. The prompt will change to **4850GTS-PWR+#**
Type
configure terminal
and press **Enter**.
7. The message “Enter configuration commands, one per line. End with CNTL/Z.” will appear, followed by the configuration-mode prompt, **4850GTS-PWR+(config)#**
The next step is to configure the switch’s intended IP address and subnet. Type
ip address xxx.xxx.xxx.xxx yyy.yyy.yyy.yyy

(where “xxx.xxx.xxx.xxx” is the intended IP address and “yyy.yyy.yyy.yyy” is the intended subnet mask) and then press **Enter**.

Note: If the switch will reside in a part of the network that is inaccessible to the computer except through a gateway, you must add the gateway’s IP address to this command. (This is not a common situation.) In this case, you would type

```
ip address xxx.xxx.xxx.xxx yyy.yyy.yyy.yyy zzz.zzz.zzz.zzz
```

(where zzz.zzz.zzz.zzz is the optional gateway address) and then press **Enter**.

8. Enabling the web interface is optional. To do so, type

```
web-server enable
```

and press **Enter**.

9. Next, set the QoS parameters for Q-LAN audio and PTP packets with the following sets of commands (you may copy and paste from the text below):

At the prompt, type

```
qos traffic-profile classifier name "QLAN_Audio" addr-type ipv4  
ds-field 34 protocol 17 dst-port-min 6517 dst-port-max 7030  
update-dscp 46 update-lp 6 eval-order 1 drop-out-action enable
```

and then press **Enter**.

Next, type

```
qos traffic-profile classifier name "QLAN_PTP" addr-type ipv4  
ds-field 46 protocol 17 dst-port-min 319 dst-port-max 320  
update-dscp 46 update-lp 6 eval-order 1 drop-out-action enable
```

and then press **Enter**.

10. The next step is to add traffic profiles to individual ports that host Q-LAN devices, so their data packets are steered into Avaya’s “Premium Queue.” QSC recommends *not* applying these profiles to ports that belong to other VLANs, so it often would not be appropriate to apply them to the entire switch. If a port uplinks to another Avaya switch, for example, it is better to let them honor their own IP precedence. In the commands below substitute the port number or numbers where it says “*port number(s)*”; use a hyphen to designate a range of port numbers, such as “1-3” for 1 through 3.

At the prompt, type

```
qos traffic-profile set port port number(s) name "QLAN_Audio" track-  
statistics aggregate
```

and then press **Enter**.

Then type

```
qos traffic-profile set port port number(s) name "QLAN_PTP"  
track-statistics aggregate
```

and press **Enter**.

11. Configuration is done. So exit configuration mode and save the settings with these commands.

At the prompt, press **Ctrl+Z** (or type

```
exit
```

and then press **Enter**).

Next, type

```
save config
```

(or **write mem**)

and press **Enter**.

12. The switch is now correctly configured to properly prioritize Q-SYS traffic in an Avaya enterprise QoS environment.

Notes: How to set the switch to factory default configuration

If you have "Enable" access:

1. At the prompt, type

```
en
```

and then press **Enter**.

2. Type

```
boot default
```

and press **Enter**.

3. At the question **Reboot the unit(s) (y/n)?** press **Y**.

4. The switch will reboot with the factory default settings. This may take a couple minutes.

If you do not have your credentials or have lost them:

1. Connect the computer to the switch's console port, using settings 9600, 8, N, 1. Open your terminal emulation program.

2. Turn the switch off and on again to reboot it.
3. When the first line of the diagnostic tests appears, press **Ctrl+C**.
4. A menu will appear listing a number of options. Press **I** to initialize the switch and load its default settings into its configuration.
5. Then press **A** to run the Agent code, which will complete the initialization and automatically reboot the switch.