Cisco APIC-EM and Apple Fastlane

About Cisco APIC-EM and Apple Fastlane

Cisco APIC-EM through its EasyQoS application supports Apple Fastlane. This support provides the following benefits to your network:

- Optimization of Wi-Fi connectivity for Apple iOS devices in the network, as well as most other wireless clients running real-time applications. This feature provides support for a reliable voice experience even in a congested network environment.
- Prioritization of business applications. With Cisco EasyQoS, the network administrator can prioritize the applications as per the environment.

Cisco APIC-EM and Apple Fastlane Requirements

The following are the requirements for Cisco EasyQoS support for Apple Fastlane in your network:

- Cisco APIC-EM with release version 1.5.x installed and running
- Supported Apple devices with Apple iOS 10 installed and running

Note For a list of the supported Apple devices, see Cisco APIC-EM and Apple Fastlane Recommended Platforms, Devices, Software, and Licenses, on page 2.

- Cisco AireOS controllers running release 8.3.112 and higher.

Cisco APIC-EM and Apple Fastlane Recommended Platforms, Devices, Software, and Licenses

The following are recommended platforms, devices, software, and licenses for running Apple Fastlane in your network with the Cisco APIC-EM.

- **Infrastructure and Platforms Recommendations**
  - Cisco WLC: Running AireOS 8.3.112 and higher.
  - Cisco WLC: Running 802.11ac Aironet
  - Cisco Catalyst switches
  - Software licenses, maintenance, and support for the above network infrastructure
- **iOS Devices Recommendations (Fastlane)**
  - iPhone 5 and later versions
  - iPad mini 2 and later versions
  - iPad Air and later versions
  - iPad Pro
  - iPod touch (6th generation)

Configuring an Apple Fastlane Solution using APIC-EM

You can use the Cisco APIC-EM controller to assist in configuring support for Apple Fastlane on your network devices (Cisco Wireless LAN controllers). The following procedure describes how the Fastlane macro on the Cisco WLCs configure support for Fastlane, as well as how the Cisco APIC-EM controller assists in configuring support for Apple Fastlane.

The Cisco APIC-EM controller and EasyQoS application will apply the Fastlane QoS policy to WLANs/SSIDs added to a policy scope when the AireOS version is 8.3.112 or higher. Cisco EasyQoS simply replaces the default AVC Profile generated by Fastlane with a new AVC profile which contains the applications selected within the EasyQoS graphical user interface.

Before You Begin

Map out the network path or paths for IP traffic for your Apple Fastlane solution.

Determine the Cisco Wireless LAN Controllers (WLCs) in the network path or paths that must be configured for Apple Fastlane.

Ensure that you have met all of the software requirements for the Apple devices and Cisco WLCs that are to be part of your Apple Fastlane solution.

Step 1 On the Cisco Wireless LAN (WLAN) Controllers (WLC) in your network that are to be part of the Apple Fastlane traffic paths, configure the Platinum profile by setting unmarked and multicast traffic to "best effort".

Note Fastlane is a macro which runs on the Cisco WLC platforms. When you enable Fastlane, the Cisco WLC automatically performs this step and configures the Platinum profile by setting unmarked and multicast traffic to "best effort".

Refer to your Cisco WLC documentation for information about the Platinum profile.

Step 2 On the Cisco WLCs, disable UDP bandwidth limitations for the Platinum profile.

Note When you enable Fastlane, the Cisco WLC automatically performs this step and disables UDP bandwidth limitations for the Platinum profile.

Refer to your Cisco WLC documentation for information about UDP bandwidth limitations for the Platinum profile.

Step 3 Apply the Platinum profile to the target WLAN(s).

Note When you enable Fastlane, the Cisco WLC automatically performs this step and applies the Platinum profile to the target WLAN(s).

Refer to your Cisco WLC documentation for information about the Platinum profile to the target WLAN(s).

Step 4 Enable both Aironet Client Monitor (ACM) and Call Admission Control (CAC).

Note When you enable Fastlane, both Aironet Client Monitor (ACM) and Call Admission Control (CAC) are automatically enabled.

Refer to your Cisco WLC documentation for information about ACM and CAC.

Step 5 Limit voice bandwidth reservation to fifty (50) percent.

Note When you enable Fastlane, the voice bandwidth reservation is automatically limited to fifty (50) percent.

Refer to your Cisco WLC documentation for information about voice bandwidth reservation on the Cisco devices.

Step 6 Enable WMM EDCA (Wi-Fi Multimedia Enhanced Distributed Channel Access) profiles.

Note When you enable Fastlane, the WMM EDCA (Wi-Fi Multimedia Enhanced Distributed Channel Access) profiles are automatically enabled.

Refer to your Cisco WLC documentation for information about the WMM EDCA profiles.

Step 7 On the Cisco APIC-EM controller, create a QOS-PROFILE with customized applications.

Note When you enable Fastlane, it automatically performs this step and creates the QoS-Profile with customized applications. However, EasyQoS will create it's own AVC Profile based on the applications selected within the EasyQoS graphical user interfaces for the policy scope. EasyQoS will replace the system generated QOS-PROFILE with the AVC Profile it generates.

For information about configuring an EasyQoS profile, see Creating or Editing a Policy.

Step 8 On the Cisco WLCs in your network, configure best practice UP-to-DSCP and DSCP-to-UP mapping.

Note When you enable Fastlane, best practice UP-to-DSCP and DSCP-to-UP mappings are automatically configured.

Refer to your Cisco WLC documentation for information about UP-to-DSCP and DSCP-to-UP mapping.

Step 9 Enable upstream QoS trust.

Note When you enable Fastlane, upstream QoS trust is automatically enabled..

Refer to your Cisco WLC documentation for information about upstream QoS trust in your network.