



Release Notes

Neutron Switch c1.6.x

November 2015

This document provides release information for Neutron Series
Wireless Management Switch.

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Introduction

This document provides release information for Neutron Series Wireless Management Switch version **c1.6.x**, including enhanced and new features and known issues. This document assumes that you are already familiar with the Neutron product line and the features of earlier releases.

What's New?

Below are the new features included in this release:

- Support Background Scanning
- Support Auto Tx Power
- Support Auto Channel Selection
- Support Hotspot Service
- Support Migration to ezMaster
- Update Band Steering algorithm
- EWS5912FP supports management of up to 50 APs instead of 20 APs

Supported Platforms

EWS version **c1.6.x** supports the following EWS Switch models:

- EWS2910P
- EWS5912FP
- EWS7928P
- EWS7928FP
- EWS7952FP

EWS version **c1.6.x** supports the following EWS Access Point models:

- EWS210AP
- EWS300AP
- EWS310AP
- EWS320AP
- EWS350AP
- EWS360AP
- EWS500AP
- EWS510AP
- EWS650AP
- EWS660AP
- EWS860AP

Upgrade Information

In order to ensure compatibility between your devices, both the Neutron Switch and Neutron Access Point must both operate under **c1.6.x**.

The following EWS versions can be directly upgraded to version **c1.6.x**:

- c1.0.6
- c1.0.9
- c1.3.x
- c1.5.x

If your device is running an earlier version which is not listed above, you must first upgrade to one of the versions above ahead of upgrading to this release.

Your devices can either be upgraded manually from the device GUI or by using the One-Click Update function on the EWS Switch.

Naming rule for CAPWAP version

cX.X.X

First digit: protocol design change

Second digit: feature change

Third digit: bug fix

The EWS Switch and EWS AP are only compatible if the first and second digits are the same.

Enhanced & New Features

This section contains enhancements and new features that have been applied to the Neutron Series in this release.

1. Background Scanning

With Background Scanning enabled, the controller periodically samples RF activity of all Access Points including channel utilization and surrounding devices in all available channels. Background scanning is the basis of Auto Channel, Auto Tx Power and Rogue AP detection, and must be enabled for these features to operate. You may, if you prefer, disable it if you feel it's not helpful, or adjust the scanning frequency, if you want scans at greater or fewer intervals.

Note: For latency-sensitive applications such as VoIP, it is recommended to set the background scan interval to a higher value, e.g. 5 or 10 minutes. For regular application, the recommended value is 30 seconds. This value will also be directly related on how long it takes for the AP to scan for rogue devices.

2. Auto Tx Power

Using the information collected by Background Scanning, APs can automatically adjust their transmit power to optimize coverage. When enabled, APs will optimize their transmit power based on the time interval configured for Background Scanning.

Note: **Background Scanning** must be **enabled** and **Transmit Power** of APs must be set to **Auto** (under Wireless Radio Settings) for this feature to operate.

3. Auto Channel Selection

Using the information collected by Background Scanning, the controller has the channel utilization statistics of all channels. With this info, APs will be able to automatically adjust their radio channel for the best channel utilization and performance.

Note: **Background Scanning** must be **enabled** and **Channel** of APs must be set to **Auto** (under Wireless Radio Settings) for this feature to operate.

4. Hotspot Service

A hotspot is a wireless network that provides access through a captive portal. A captive portal provides registered users with network access while containing unregistered

users. Users will need to enter a valid user name and password before they are allowed access to the Internet through the hotspot. c1.6.x supports authentication using the controller's internal database as well as authentication using an external RADIUS server.

5. Migration to ezMaster

This feature will help to migrate the EWS Switch and all the APs managed by the EWS Switch to ezMaster automatically without the need of manually entering the check code and MAC address of all the APs one by one.

6. New Band Steering Algorithm

Once enabled, when the wireless client first associates with the AP, the AP will detect whether or not the wireless client is dual-band capable, and if it is, it will force the client to connect to the less congested 5GHz network to relieve congestion and overcrowding on the mainstream 2.4GHz frequency. It does this by actively blocking the client's attempts to associate with the 2.4GHz network. The 3 modes available in this release:

- **Prefer 5GHz:** All dual-band clients with 5GHz RSSI above the threshold will be connected to the 5GHz band.
- **Force 5GHz:** All dual-band clients will connect to the 2.4GHz.
- **Band Balance:** Automatically balances the number of newly connected clients across both 2.4GHz and 5GHz bands.
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IMPORTANT INFORMATION: *Band Steering only defines the action when a wireless client associates with an AP for the first time, and the wireless client must be in both 2.4GHz and 5GHz wireless coverage zone when authenticating with the AP for the Band Steering algorithm to take effect.*

Known Issues

This section lists the known issues in this release.

1. Client Interoperability Issue

- Apple iPhone 6 running iOS 9, iOS9.1 unable to connect to a captive portal enabled guest network.

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