Wireless Uplink

Overview

Instead of offering WDS (difficult to setup and change) or Mesh (unpredictable uplink selection), we simply provide a feature called 'Wireless Uplink'.

It allows you to well, use wireless as AP's uplink. And more importantly, it allows you to change your topology on the fly. This design provides:

- easy to setup/change: you don't see configuration about Mac addresses, passphrase as it's all done by UniFi. Therefore, you can focus on topology, etc.
- predictable: once you've picked the uplink and satisfied with the quality, it will work today, tomorrow, and thereafter

Wireless Uplink Setup

Note: For a video walkthrough of configuring a wireless uplinks, see this link (http://www.youtube.com/watch?v=oA6m0P-NDnA) .

The Wireless Uplink is designed to be reliable rather than quick/dynamic. Please be patient for the isolated state change, the discovery, and the link setup. A general topology will be something like below:

- **Switch** -----(*wire*)--------- **Uplink AP**)))))))(*wireless*))))))))) **Island AP**

WARNING - For system upgrade, disable "automatic upgrade" and always manually upgrade the isolated AP first.

To enable wireless uplink:

- Adopt **all** APs through wire first (using Ethernet cable). In other words, adopt both uplink and island APs.
- Put the island AP to the intended location and connect its power. This means connect power adapter **POE** port to the island AP, but leave power adapter **LAN port empty**.
- After the island AP is up, on the controller, wait until it becomes "**Heartbeat Missed**" and then "**Disconnected**" or "**Isolated**" state (takes about **6+ minutes**). It will _not_ service any configured WLANs at this moment.
- Go to AP dialog->Configure->Wireless Uplink, **select** the uplink AP of your choice (click on "**Find more**" if no uplink AP is shown)
- The controller establishes wireless uplink between the selected uplink AP and the island AP. The island AP is now wireless connected and serving.

Technical details - Isolated AP

A new status, Isolated, is introduced. When the AP is unable to reach the gateway, it goes into Isolated state. In this state,

- all servicing WLANs are disabled (if we cannot reach the gateway, wireless clients won't either)
- has different LED pattern - steady green (managed) with occasional dims
- AP will send out beacon over the air and can be found by nearby APs
- Only the wired APs under the same controller can establish a downlink to this isolated AP
- by default, wired APs don't go off-channel to look for isolated APs. "Find more" trigger wired APs to do so. And after wireless uplink is set up, the isolated AP will always find and follow the same channel use by its uplink AP