OTA VLAN Outline

This document outlines the VLAN structures utilized at One-Touch Automation (OTA) for deployed networks. OTA leverages Ubiquiti Networks hardware and software ecosystem.

The core components to OTA networks deployed are as follows:

- UDM Routers (Pro or SE variants)
- USW POE Switches
- U6-Pro Access Points

Best Practices

IP Schemes:

- Use Class C network for each VLAN unless specific requirements dictate a /23 or greater.
- Do not use the same subnet third octet for every client, change them and rotate to prevent overlap as much as possible
- **NEVER** use the same subnet as your office setup. This will prevent you from being able to remotely log into clients that share the same subnet.
- 192.168.XX.xxx
    - e.g. VLAN1/10 - 192.168.31.xxx
    - e.g VLAN20 - 192.168.32.xxx
    - e.g VLAN30 - 192.168.33.xxx
    - e.g VLAN40 - 192.168.34.xxx
    - e.g VLAN50 - 192.168.35.xxx
    - e.g VLAN60 - 192.168.36.xxx

VLANs Networks:

When configuring the VLANs, use this naming specified *below*. This naming should be kept consistent throughout the network hardware.

- *VLAN1/10 – Core Network Devices*
    - Routers
    - Switches
    - Access Points
    - Network Monitoring Hubs

- *VLAN20 – OTA Subsystem Devices*
    - Lutron Processors
    - PDUs
    - UPSs

    - Security Panel
    - A/V Devices with IP Control (Non-multicast)
    - Pool Controller
    - Savant LEAP bridge

- *VLAN30 – Savant Devices / Client VLAN*
    - Savant Control Devices
        - Host
        - Remote
        - AVB
        - AVoIP (Unless large system, move to own VLAN)
        - Client Sources

- *VLAN40 – Surveillance*
    - Cameras
    - NVR
    - 2N Devices

- *VLAN50 – Guest VLAN*
    - For Guest Network

- *VLAN60 – Savant Lighting (if applicable)*
    - Wi-Fi Dimmers / Switches / Keypads
    - Savant PBCs

<u>Unifi Switch Port Profiles:</u>

- Trunk Port
    - ALL VLANs - TAGGED
- Wi-Fi Port
    - VLAN1/10 - UNTAGGED
    - VLAN20 - TAGGED
    - VLAN30 – TAGGED
    - VLAN50 – TAGGED
    - VLAN60 – TAGGED (if applicable)
- Savant Host
    - VLAN20 – TAGGED (if applicable)
    - VLAN30 – UNTAGGED
    - VLAN60 – TAGGED (if applicable)

Router Config Options:

- To enable mDNS routing across VLANs, on each VLAN enable “Multicast DNS” option. This will allow AirPlay, Spotify Connect, etc features to work across the various VLANs as needed.
- On guest networks – Enable “Isolation” – This will prevent clients from seeing other internal resources.

Broadcasted SSIDs –

- Client SSID *
  - VLAN30
- OTA-Service
  - VLAN30
- Guest Network *
  - VLAN50
- Savant-Remotes
  - VLAN30
- Savant-Lighting
  - VLAN60

** SSID names to be created per client request*

Wi-Fi Settings For Savant SSIDs:

- 2.4Ghz Only
- Multicast Enhancement – ENABLED
- Band Steering – DISABLED
- BSS Transition – DISABLED
- Fast Roaming – DISABLED

Client Wi-Fi SSID Settings:

- 2.4Ghz / 5.0Ghz Dual Band
- Multicast Enhancement – ENABLED
- Band Steering – DISABLED
- BSS Transition – DISABLED
- Fast Roaming – ENABLED