Technical Bulletin

Using the Control4 HC250 with Araknis PoE Switch Models

Models Affected

- **Araknis PoE Switches:**
  - AN-300-SW-F-8-POE
  - AN-300-SW-F-16-POE
  - AN-300-SW-F-24-POE
  - AN-300-SW-R-8-POE
  - AN-300-SW-R-16-POE
  - AN-300-SW-R-24-POE

- **Control4 Home Controllers:**
  - C4-HC250-BL-1

Issue

Symptom: The Araknis PoE switch stops sending PoE power on all network ports when a Control4 HC250 is connected to the network.

Detailed Explanation: When a Control4 HC-250 (model number C4-HC-250-BL-1) is connected to any Araknis PoE switch, and the HC-250 chassis is in contact with anything that completes a ground loop back to the switch, PoE power is disabled in the switch. The issue can occur whether the equipment is directly or indirectly connected.

When the devices are connected, TVS diodes, designed to protect the switch from surge and ESD events, disable PoE power from Ethernet ports upon detecting return voltage from the ground loop. Many other switches on the market don't have TVS safeguards, so they will not exhibit this behavior.

Resolution

There are two scenarios where the C4-HC-250-BL-1 will ground out an Araknis PoE switch:

First, if the HC-250 is connected directly to any of the banks on an Araknis PoE switch, the switch will stop transmitting power on all ports. We suggest using a PoE injector between the HC-250 and the PoE switch as the easiest solution.

Second, if the Araknis PoE switch is connected to the same bank of ports as an HC-250 on a different switch, the Araknis PoE switch will stop transmitting power on all ports. To correct this scenario, connect the Araknis PoE switch and the HC-250 to different banks of the other switch.

> **NOTE:** Control4 has released an updated version of the HC-250 (model number C4-HC-250-BL-1A) with redesigned grounding to prevent this issue from occurring in the future.

Contacting Technical Support

Phone: (866) 838-5052

Email: support@araknisnetworks.com