

Avi-on Vocabulary

Keywords to unlock the magic of Avi-on Bluetooth® Lighting Controls

Basic Elements of Avi-on Lighting Controls

- **Devices or Nodes.** Bluetooth hardware products that control fixtures
- **Controllers.** Sensors, wall stations, and other Bluetooth hardware products that send control commands to devices or nodes
- **Bridge.** A device that connects the Avi-on Network to other systems, such as the Remote Access Bridge, and the BACnet Bridge. Bridge devices are not gateways and are not required for the system to operate
- **Network.** The collection of Avi-on devices (or nodes) that make up your controls system
- **Account.** Each Avi-on Network has an account with a unique username and password. Accounts can be transferred to different email addresses, but they cannot be combined. Accounts have a maximum of 20 scenes and 20 schedules, and an unlimited number of groups
- **Location.** The physical geographic location of the project. Presently, one location per account

Key Avi-on App Functionality

- **Add or Claim a device.** Avi-on devices live in a secure, password-protected account with a unique network key that both protects them from unauthorized access and also distinguishes one network from another. “Claiming” is the process of securely transferring the network key and assigning a unique, network specific device address
- **Remove or Unclaim a device.** Using an *Avi-on App* to “Remove” or “unclaim” a device takes it out of the project’s account and makes it available to other projects. This step will also remove any specific programming to the device. “Unclaimed” devices with onboard LEDs will flash in sets of two. There are a couple of important details to this process:
 - The device itself has the network key and address. Removing it removes the key and address
 - The device also has a registration in the cloud, which allows you to see it on the mobile app, and elsewhere
 - If you remove the device using the app or *Avi-on Pro*, it will both reset the device and remove it from the cloud
 - If you press the “my device is broken” on the app while removing it or use the button reset, the device will be reset, but not removed from the cloud. This will create an orphaned entry in the old account and lead to a duplicate entry if the device is later added back to the same account
- **Group devices.** Use groups to associate areas with sensors, wall stations, schedules, and other settings

Core Technology Patents & Certifications

- **Avi-on Mesh.** Avi-on’s core technology is Avi-on Mesh, a patented method of using Bluetooth radios to create a distributed network with no central gateway. It operates very differently (and more securely) than regular Bluetooth
- **No Gateway, Distributed Network.** Avi-on’s Bluetooth devices store their own settings without needing any central controller, giving virtually unlimited scalability without running miles of wire for routers and gateways
- **Certified UL Platinum Security.** UL Platinum IOT Cybersecurity & DLC 5.0 Qualified Products List (QPL) Cybersecurity

Stages of Project

- **Startup or Commissioning.** Used interchangeably, these terms describe the planning to completion of a lighting controls project. Success is signaled by a customer walk-through and sign-off
- **Remote or Onsite Startup.** Avi-on partners and customers can choose between cost-effective and efficient remote assistance via tools like *Avi-on Pro* plus the LTE RAB, or onsite in-person startup and commissioning
- **Remote Diagnostics.** On large or complex projects, remote diagnostics via a tool like the *Avi-on Pro + LTE RAB Combo* are useful to tune sensors and settings across many devices
- **Ongoing Support.** After startup and commissioning is complete, customers have the option to purchase a support contract

Avi-on Digital Toolbox. Avi-on has a collection of digital tools that enable you to configure, customize, and monitor various aspects of the Avi-on lighting control system either onsite or remotely

- **Avi-on Mobile Commissioning App.** Mobile app for smartphones or tablets available on iTunes or Google Play. Used to commission small, low-complexity projects under 150-200 nodes. If you are an end-user, take extreme care when making changes to settings. Inadvertent errors might require paid remote or onsite assistance to correct
- **Avi-on ZoneScanner App.** Mobile app available only from Avi-on. Speeds project startup by enabling electricians to “scan and assign:” scan Avi-on QR stickers and assign those devices to zones. Saves time and money
- **Avi-on Pro for Mac.** Mac laptop application available only from Avi-on. For remote startup, *Avi-on Pro + LTE RAB* are the recommended tools. Pro requires purchase of *Avi-on Pro USB Dongle* plus in depth training by Avi-on staff
- **Avi-on Pro USB Dongle.** Required to operate *Avi-on Pro for Mac* when you are on-site
- **MyAccount.Avi-on.com.** Website for username/password changes and generating ZoneScanner 4-Digit Codes. Shows network status at the time of last connection (if there is no RAB, that status may be years old). Not for system management, so don’t try it

Avi-on Products. A short list of SKUs handle thousands of applications of any size, with special focus on offices, schools, municipalities, warehouses, recreation, and industrial locations. Avi-on has five categories of products

- **Devices (LVFA, IFAC, & XFAC).** Bluetooth devices that turn lights on/off by either low-voltage and/or load control. Features like UL 924 and energy data are available
- **Controllers:** Sensors, Wall Stations, and other devices that send signals to Devices to control lights
 - **Sensors:** Direct Connect Sensors (PIR, microwave, & others) that plug directly into controllers for in-fixture or distributed use. Features like high/low trim and ALS, as well as analog sensors, are available
 - **Wall Stations.** 2- and 4-button versions of both AC- and battery-powered in-wall form factors
- **Remote Startup, Maintenance, & Connection Tools.** A RAB enables 24/7 backup to the cloud, remote support, energy data, API connections, and it keeps the information current in Avi-on’s phone, laptop, and web apps (*MyAccount.Avi-on.com*)
 - The LTE/Ethernet Bridge is preferred because it speeds Pro startup with remote claiming, diagnostics, and large scale complex programming. It can be implemented as a temporary or permanent part of the network without IT assistance. Avi-on suggests that commissioning partners own one or two LTE RABs as training and temporary startup tools
 - The Wi-Fi Bridge is limited to projects of < 50 Avi-on devices
- **Network & Other Accessories.** Added products (including the NTM, Remote Access Bridges, and BACnet Link) complete a robust menu of functionality. The Network Time Manager (NTM) is recommended for all projects