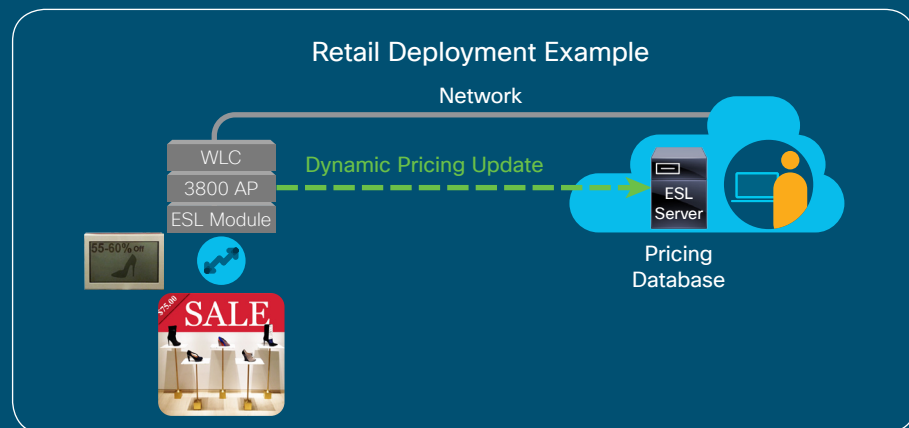


Aironet Developer Platform FAQ

Having a connected network drives positive business results. According to the [2016 Cisco Visual Network Index Forecast](#), due to the explosive growth in devices, there will be over 26.3 billion network devices by 2020. Of those networked devices, 46 percent will be Machine-to-Machine (M2M). That percentage translates into M2M traffic growing 14-fold from 2016 to 2021.

What do all of these numbers mean to you? It means that your wireless network not only needs to be robust enough to handle all of this new traffic, but it also needs to be ready for the future and to perform other tasks too. But what other tasks and how?

The new Cisco® Aironet Developer Platform framework works in tandem with your Cisco Aironet® access points and is the perfect solution, allowing your network to work for you. Modularity brings intent-based networking to the edge, customizing your ability to tackle new use cases and emerging technology standards so that your deployments are ready for the future. The Cisco Aironet Developer Platform program transforms the access point into a powerful development platform for mobility and Internet of Things (IoT) convergence. Basically, if you can imagine it, you can develop it.



With Cisco Aironet Developer Platform, your access points are no longer passive—they precisely perform the job you program them for. For example, grocery store employees know there is no more monotonous chore than manually changing price tags on shelves of goods. Using Cisco's Aironet Developer Platform framework, a partner developed an electronic shelf labeling system that is run through the Cisco Aironet 3800 Series Access Point. This enables store management to dynamically change prices with only a click of a button. The beauty of it is that it's not just one generic price change per shelf; the customer is able to target the price of each individual product across the store.

Not only did this customer say goodbye to the price gun forever, but the solution optimized operational efficiency by reducing cost and eliminating errors. Employees can now focus on improving customer experience.

Cisco Aironet Developer Platform opens the door to other industry sectors that require custom application development, such as hospitality, smart buildings, industrial IoT, and many others.

Using popular third-party developer platforms such as Raspberry Pi, BeagleBone, and Intel® Joule™, developers can create custom applications. These apps plug-and-play into the Cisco Aironet Developer Platform Hardware Development Kit (HDK), which is managed through the network infrastructure.

There is plenty of help when it comes to developing your idea. Cisco DevNet—Cisco's development program, found at <https://developer.cisco.com>—and its communities are packed with assistance, such as:

- Sample code and applications on DevNet
- Learning labs and documentation
- Tutorials and demo videos (coming soon)
- The DevNet Sandbox, where you can virtually test code for common use cases
- Knowledge base and technical support available through DevNet community and forums

With the Cisco Aironet Developer Platform module, the Cisco Aironet 3800 Series Access Points can now adapt to meet your business needs. All you need is the imagination to turn it into reality.

Business Aspects

Q What are some example use cases for Aironet Developer Platform?

A Electronic Shelf Labeling (ESL), IoT sensor gateways for industrial or enterprise sectors, Cisco Beacon Point (virtual Bluetooth Low Energy (vBLE) beacon for proximity engagement and indoor navigation), USB beacons (proximity engagement and wayfinding applications), Citizens Broadband Radio Service (CBRS) gateway, video surveillance, and digital media, among others.

Process

Q Is the Aironet Developer Platform program available globally?

A Yes.

Q Which Cisco Aironet products support Aironet Developer Platform?

A Cisco Aironet 3800 Series Access Point (expansion module) and the Cisco Aironet 1800 and 2800 Series (USB).

Q What is included in the Aironet Developer Platform HDK?

A HDK and mounting hardware (standoffs). Refer to the DevNet Aironet Developer Platform site for more details.

Q Do Single-Board Computer (SBC) development boards come with the Aironet Developer Platform HDK?

A No, developers must purchase their own SBCs.

Q What else do I need to plug my SBC into the HDK to get started?

- A
- A straight-through RJ-45 Ethernet cable for Ethernet connectivity
 - An SBC-specific power cable such as a USB-to-micro-USB charging cable
 - Spacers to mount the SBC onto the module (recommended)

Technology

Q Is Aironet Developer Platform supported on the 3800 Series Access Point via the Mobility Express deployment?

A There are no plans to support Aironet Developer Platform on the 3800 Series Access Point via the Mobility Express deployment.

Q What factors must be considered for module design?

A Since the module is in close proximity to the access point, thermal dissipation and RF coexistence must be taken into consideration. Best practices are described at <https://developer.cisco.com/site/adb/>.

Q Is it possible to configure VLANs for the two ports on the Aironet Developer Platform HDK board?

A No, this is not possible.

Q Does the USB interface on Aironet 3800 Series, 2800 Series, or 1800 Series fall under the Aironet Developer Platform development program?

A USB is supported under the Aironet Developer Platform development program.

Q What is the maximum power output on the Aironet Developer Platform HDK?

A The maximum power available from the 3800 Series Access Point to the Aironet Developer Platform HDK is 14W.

Q What are the power requirements for the 3800 Series Access Point plus the Aironet Developer Platform HDK?

A Cisco UPOE® (60W), though custom modules, can be designed to fit within the Power over Ethernet Plus (PoE+) window. Please engage with your Cisco SE for proper guidance.

Q Will the management of the modules be separate from the Cisco Wi-Fi management platform?

A The Aironet Developer Platform HDK provides Ethernet and power capability. For a loosely coupled framework, customers are responsible for building their end application on the module and on the server side. Refer to [DevNet](#) for development flow.

Q I received the Aironet Developer Platform HDK, but the device does not power up. What can I do?

A For hardware-related issues, send an email describing the problem, along with the serial number, to adp_support@cisco.com.

Q What LED color scheme is recommended for third party modules interfacing to Cisco Aironet Access Points?

A Cisco does not restrict LED color scheme on third party modules. However, in order to stay consistent the Aironet access point LED scheme is recommended. Refer to the Cisco Aironet 3800 Series Access Point [Getting Started Guide](#) for reference.