

## PARTNER SOLUTION OVERVIEW

# Aruba and EnOcean

## Lean, Green, And Maintenance-Free IoT with EnOcean Alliance

IT infrastructure is the lifeblood of most enterprises: the infrastructure is pervasive across all locations, uptime is actively managed, and cybersecurity is both of paramount concern and the focus of time and resources. It is no wonder, then, that IT teams are being bombarded with requests to connect all manner of Internet of Things (IoT) devices to the corporate network.

Originally used to describe an ecosystem of interconnected machines, IoT devices and the networks that connect them are in reality vessels for data and contextual information like location and identity. The conjunction of IoT data and context is called “hyper-awareness,” and it provides situational awareness about efficiency, productivity, reliability, loyalty, safety, and security. Successful IoT projects create hyper-awareness in service to a company’s strategic business goals, and rely on an extensible networking platform and a broad range of IoT devices to fulfill that mission.

An extensible network that can adapt to future demands without ripping and replacing infrastructure is essential to accommodate changing business goals. By securely interfacing IoT devices, and generating contextual information, Aruba’s Edge Services Platform (ESP) enables business operations and facility applications to become hyper-aware of their operating environments. ESP’s unified infrastructure, edge-to-cloud security, and AI-powered software - used in conjunction with suitable IoT devices – enables enterprises to successfully and economically deploy and exploit IoT solutions. The richer the set of available IoT devices, the greater the opportunities to boost efficiency, productivity, profitability, reliability, safety, and security.

EnOcean, a venture-backed spinoff of Siemens, and the EnOcean Alliance ecosystem of product vendors have developed one of the broadest available ranges of IoT devices for commercial, multi-family, institutional, and industrial applications. The EnOcean ISO/ IEC 14543-3-1X protocol and ultra-low power consumption sub 1GHz radios are tailored for wireless sensors and actuator communications.

### WHY ARUBA AND ENOCEAN?

- Retrofits to existing Aruba networks without a rip-and-replace
- Reduces life-cycle costs by eliminating batteries, wires, and hardware gateways
- Enhances security by tunneling IoT data to target applications
- Leverages open ISO standard IoT protocol
- Eliminates vendor lock-in with IoT devices available from hundreds of vendors
- Accommodates a broad range of on-premise and cloud monitoring scenarios including Microsoft Azure IoT
- Provides ease of mind with validated interoperability

Coupled with EnOcean’s energy harvesting technology that draws power from visible light, mechanical motion, and temperature change, the solution enables electronic control systems to reliably operate without batteries or an external power supply.

Aruba and EnOcean have teamed to enable existing Aruba access points to seamlessly connect EnOcean-enabled devices with on-premises or cloud applications. An EnOcean USB adapter, plugged into a compatible Aruba access point, enables communications at the edge without hardware gateways or replacement of the Aruba infrastructure. A WebSocket connection between the access point and the server or cloud service securely streams IoT data up- and down-stream.



Figure 1. Aruba and EnOcean Joint Solution

The joint solution has several advantages:

- Lowers latency between IoT devices and the target application
- Eliminates the costs and security vulnerabilities of hardware gateways
- Avoids CISO issues with attaching IoT devices directly to a corporate network
- Lowers life-cycle costs by minimizing the need to buy, install, replace, and dispose of IoT device batteries, the cost of which can be an order of magnitude higher than the IoT device when truck dispatches and labor are considered
- Simplifies system management by reducing the number of devices that need to be monitored and updated

The EnOcean Alliance is a federation of nearly 400 product vendors, manufacturing more than 5,000 different lighting, temperature, air quality, security, safety, and power monitoring sensors and actuators. By securely interfacing those IoT devices with new or existing Aruba Wi-Fi 5 (802.11ac) and Wi-Fi 6 (802.11ax) access points, enterprises can quickly meet changing requirements. Typical use cases include digital twins, human activity monitoring, organizational redesign, augmented reality, human productivity, and occupant health and safety. Collaboration between Aruba and the EnOcean Alliance makes hyper-awareness simple and inexpensive.

### GETTING STARTED

An EnOcean IoT Starter Kit provides a simple means to test the potential of the joint solution. Please go to [enocean.com/en/about-us/press-releases/enocean-adds-iot-starter-kit-to-product-portfolio](https://enocean.com/en/about-us/press-releases/enocean-adds-iot-starter-kit-to-product-portfolio) for more information.

We have also taken the guesswork out of deploying EnOcean-based solutions by certifying the interoperability of EnOcean Alliance vendor solutions. Set-up is a breeze: install the IoT devices, insert the EnOcean USB adapter into an access point running ArubaOS 8.7 or higher, enter the WebSocket information, and stream data to a configured compatible application.

### SUMMARY

To simplify the connection of wireless IoT devices, Aruba has transformed its access points into full-fledged IoT platforms. The collaboration between Aruba, EnOcean and the EnOcean Alliance leverages this capability and makes it simpler than ever to achieve hyper-aware smart facilities. New IoT use cases can be easily handled without the need to rip-and-replace edge infrastructure, deploy sensor wiring, or dispose of batteries. And the solution is compatible with a wide suite of compatible applications, including Microsoft Azure IoT.

To learn more about Aruba's hyper-aware solutions please go to [arubanetworks.com/solutions/internet-of-things](https://arubanetworks.com/solutions/internet-of-things)



## DEPEND ON ENOCEAN

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### EnOcean

EnOcean creates energy harvesting wireless IoT building controls. They are currently headquartered in Oberhaching, Germany.

**CONTACT US TODAY, SO WE CAN START BUILDING YOUR CUSTOMIZED CLOUD NETWORKING SOLUTION.**

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