

PARTNER SOLUTION OVERVIEW

ARUBA AND ZF OPENMATICS

Connecting Factories With Industrial Asset Tags

NETWORK AS AN IOT PLATFORM

Factory asset tracking systems feed real-time inventory and work-in-process data to analytics engines to more efficiently manage production lines. If inventory delivery is delayed the production line can be slowed instead of stopped, reducing or eliminating expensive scrap, rework, and re-start expenses. The result is a “connected factory” that is contextually adaptive and can balance the speed of production with the availability of parts.

Asset tags are an important building block of the connected factory. Attached to, or inserted into, items to be tracked, tags broadcast an ID number over wireless to identify the specific asset and, optionally, send telemetry data such as temperature or shock level. RF asset tracking infrastructure picks up the ID number and relays it to the factory management systems.

Dedicated tag RF infrastructure is expensive to deploy and adds a new failure domain that can impact workflows and even revenue, and margins. For those reasons operations teams typically prefer asset tag data to be collected and managed thru a factory's existing wireless infrastructure.

ACCESS POINT AS COMMUNICATION PLATFORM

Aruba's networks have been field-proven in some of the most demanding manufacturing deployments, and deliver the robustness and reliability needed for business-critical asset tracking, data, voice, video, and IoT services. Network security is best-in-class and Common Criteria, NATO, and FIPS 140-2 validated versions are available for defense-related manufacturing environments.

With the addition of built-in IoT radios, Aruba access points have become platforms that support a broad range of IoT devices including asset tags, mobile tools, sensors, actuators, and worker safety devices.

WHY ZF AND ARUBA

- Reduces costs by using commonly shared Aruba wireless infrastructure for both secure access and asset tracking
- Works with all BLE-enabled Aruba access points
- Simple set-up, configuration, and diagnostics
- Trouble-free adds, moves, and changes
- End-to-end security protects TAG communications
- Certified interoperability across the product portfolios



Figure 1: ZF Openmatics TAG

ZF OPENMATICS, a division of ZF Aftermarket – the second largest product and solution supplier in the global automobile spare part market worldwide – is a major supplier of ruggedized deTAGtive BLE asset tags (TAGs). TAGs have industrial ratings up to IP69K, and are resistant to compressed water, rough treatment, and harsh weather conditions.

Used together with the Openmatics DetTAGive® mobile app and cloud-based deTAGtive logistics portal, TAGs help track the location of powertrains, engines, and other industrial goods through logistics chains and manufacturing floors.

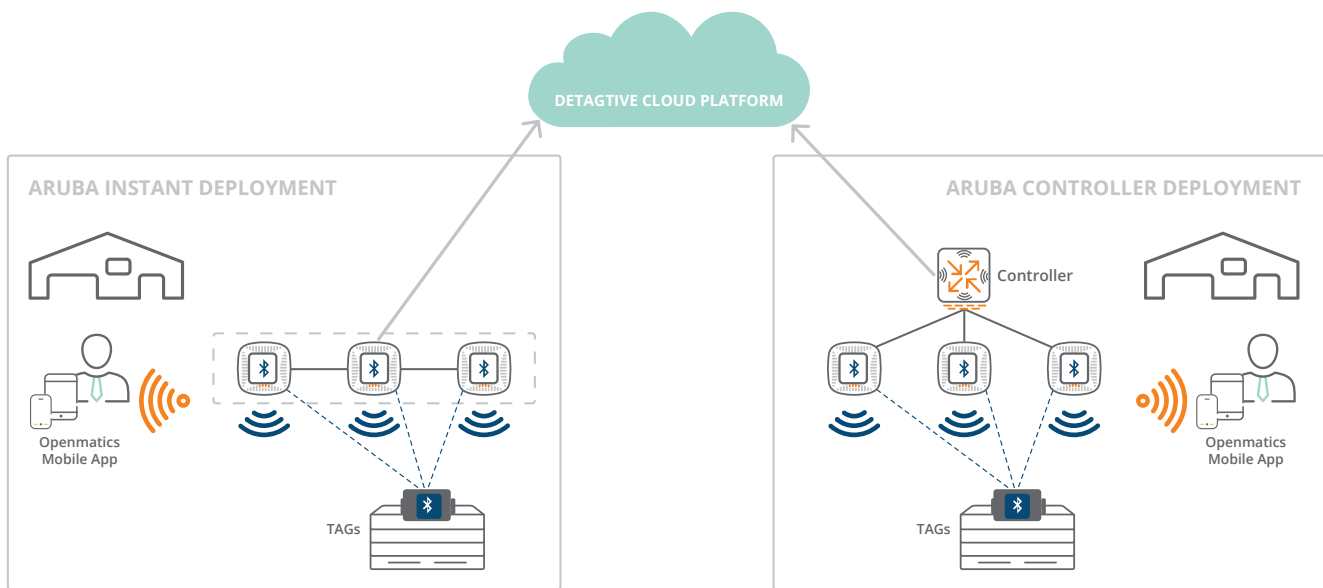


Figure 2: Aruba and ZF Openmatics Joint Solution

ZF OPENMATICS and Aruba have partnered to deliver asset tracking solutions that can be economically, reliably, and securely deployed over a site's Aruba wireless network by leveraging the access points' internal BLE radios. The deTAGtive solution was proven, and is used throughout ZF's own production facilities in conjunction with the installed Aruba Wi-Fi infrastructure.

The access points serve as secure communication platforms between TAGs and the deTAGtive portal. Dynamic segmentation is maintained through the Aruba switch fabric, helping to protect the asset tracking system against attack, and the network against infected devices.

Aruba's 'colorless switch port' concept automatically establishes the correct secure connections with access points regardless of the switch port into which they're connected. This feature greatly simplifies system deployment, and reduces the chances of miswiring during plant updates.

UNIQUE VALUE PROPOSITIONS

Once deployed, the system updates the cloud-based deTAGtive application about asset location. These data can then be shared with ERP systems using open APIs to further automate production management.

Key benefits include:

- Enable real-time location monitoring across the entire plant without significant investments in new infrastructure
- Update cloud-based application without impacting workflows
- Share location data and asset status via open APIs to optimize time-and-motion, maintenance, and asset storage processes
- Protect factory workflow information with end-to-end security

CERTIFIED INTEROPERABILITY

We've taken the guesswork out of asset tracking deployments by certifying the interoperable operation of ZF Openmatics products with Aruba infrastructure, and by simplifying system set-up. For Aruba Instant deployments just select "ZF" from a drop-down menu on the access point configuration page, select the IP address of the deTAGtive application, and you're done. Controller-based systems are configured using a few CLI commands. Joint deployments go in faster and are easier to maintain.

SUMMARY

Aruba's secure platform is the ideal way to support ZF Openmatics asset tracking TAGs – and deliver the benefits of a connected factory – in industrial and manufacturing applications of any size.

Contact your local sales representative to see how together Aruba and ZF deliver the most cost-effective, cloud-managed asset tracking solutions in the industry.

For more information on Aruba Instant, please visit:

<https://www.arubanetworks.com/products/networking/aruba-instant/>

For more information on ZF Openmatics, please visit:

<https://aftermarket.zf.com/go/en/openmatics/home/>