



Zebra & Aruba Overview

Zebra Technologies
Markus Wass
Sales Engineer
Suomenlinna 2.6.2022



Zebra's solutions lead the market in optimizing workflow

From the front of the store to the depths of the warehouse

Tablets/Kiosks



- Self-service
- Click & Collect
- Drive Thru
- Mobility DNA

Printers



- Mobile
- Card
- Desktop
- Industrial
- RFID

RFID



- Wand
- Stationary
- Bluetooth
- Ultrawide Band

Mobile Computers



- Retail / T&L Worker
- Manufacturing
- Healthcare
- Wearables
- Vehicle Mounts

Scanners



- Multi-Plane
- Handheld
- Mobile Computing
- Digital Image
- Ultra Rugged

Intelligent Edge



- Prescriptive Analytics
- SmartSight
- SmartPack
- SmartCount
- Motionworks
- Workforce Connect
- SmartLens

#1 MOBILE COMPUTING

#1 RFID READERS

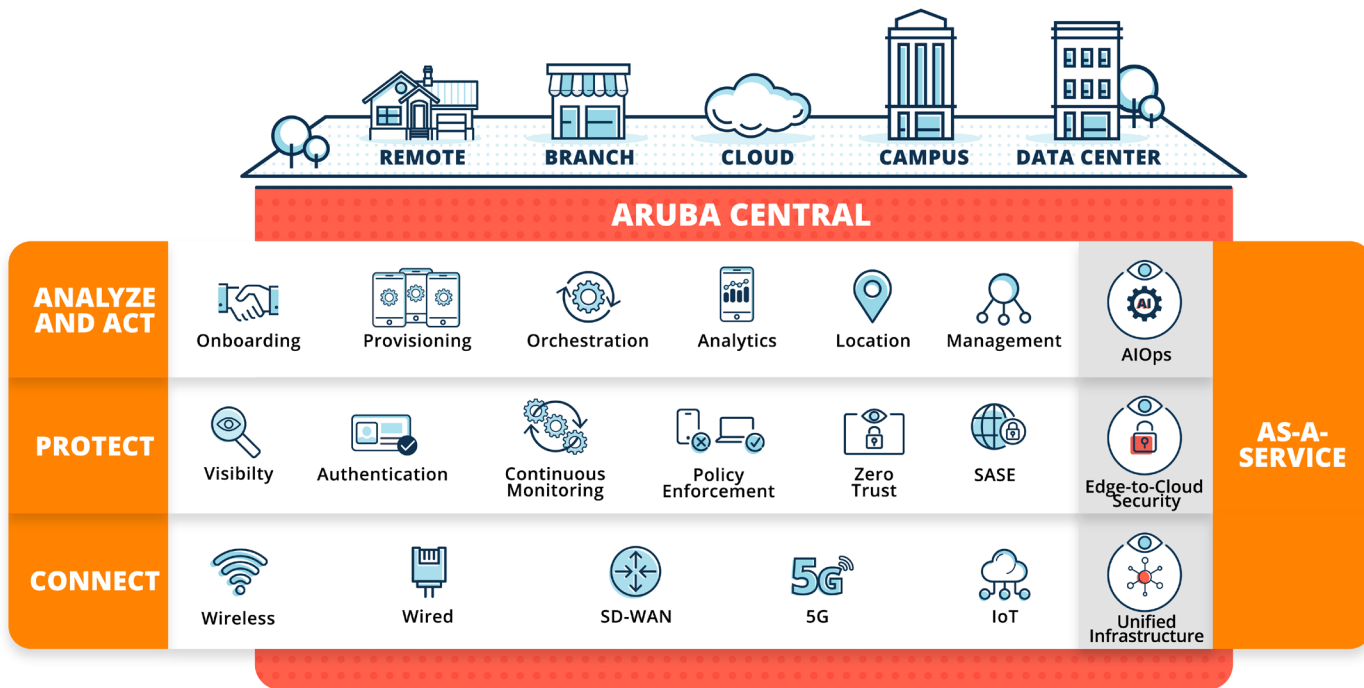
#1 SCANNING

#1 DESKTOP PRINTING

#1 TABLETOP PRINTING

#1 MOBILE PRINTING

REDEFINING THE EDGE NETWORKING STACK WITH ARUBA EDGE SERVICES PLATFORM (ESP)



A Tightly-Woven Partnership with No Channel Conflict

Zebra is



ArubaEdge Partner

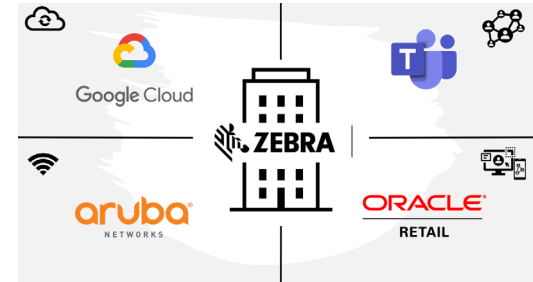
Aruba is



PartnerConnect Alliance Partner



Strategic Technology Partners



Joint Venture Partners

Goals of the Zebra and Aruba Relationship

Bring together best of breed network edge solutions with unique advantages

- Work together in several ways to help serve our customers with greater capability.
 - Mutually certify products for interoperability purposes
 - Innovate for better user experiences with performance enhancements and new features
 - Collaborate on joint opportunities to aid in customer needs





Industry Leading
Edge Networking and Security

Preferred wireless, wired, SD-
WAN, security and mobile
engagement solutions



Industry Leading
Enterprise Asset Intelligence

Preferred RFID, mobile computer,
auto ID and data collection, and
mobile printing solutions

ZEBRA Integration Supply Chain & Logistics

Zebra Technologies recognized as a Leader in 2022 Gartner® Magic Quadrant™ for Indoor Location Services for the third year in a row

For three years in a row Gartner has placed Zebra in the Leaders' quadrant.

According to Gartner, "Vendors in the Leaders quadrant will have demonstrated an ability to fulfill a broad variety of customer requirements through the breadth of their indoor location service solutions. Leaders will have the ability to provide complete and differentiating capabilities as part of their indoor location offerings. This includes global service and support. Leaders should have demonstrated the ability to shape the market, maintain strong relationships with their channels and customers, and have no obvious gaps in their portfolios."

www.zebra.com/gartnermq2022

Gartner and Magic Quadrant are registered trademarks of Gartner, Inc. and/or its affiliates in the U.S. and internationally and are used herein with permission. All rights reserved.

Gartner, Magic Quadrant for Indoor Location Services, Tim Zimmerman, Annette Zimmermann, 23 February 2022

This graphic was published by Gartner, Inc. as part of a larger research document and should be evaluated in the context of the entire document. The Gartner document is available upon request from www.zebra.com/gartnermq2022

Gartner does not endorse any vendor, product or service depicted in its research publications and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

ZEBRA TECHNOLOGIES

Figure 1: Magic Quadrant for Indoor Location Services, Global



Source: Gartner (February 2022)

Supported Location Technologies - MotionWorks Enterprise

Ultra Wideband

Real Time Asset and Personnel Visibility

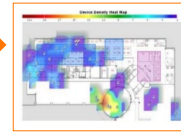
- Accuracy : 15 cm
- 6.35 to 6.75 GHz
- Tracks Active Tags



Bluetooth Low Energy

Low Cost Asset Tracking

- Accuracy : 1.5 m
- 2.4 to 2.483 GHz
- Tracks Smart phones



Wi-Fi

Device Tracking

- Accuracy : 10 m (new 802.11MC 1-2m)
- 2.4 to 2.483 GHz & 5.1 to 5.8 GHz
- Tracks Active Tags and Wi-Fi devices



Passive RFID

Passive RFID Tag Tracking

- Accuracy : 1 m
- 860 to 960 MHz
- Tracks Passive Tags



WhereNet

Longest Range Asset and Personal Tracking

- Accuracy : 1-3 m
- 2.4 to 2.483 GHz
- Tracks Active Tags



aruba
a Hewlett Packard
Enterprise company

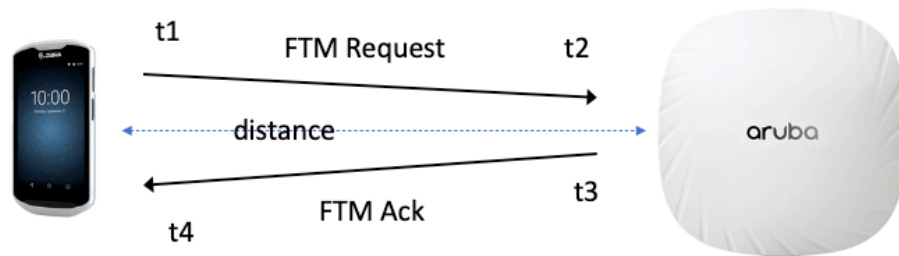
 **ZEBRA**



- ✓ **Location integration: 802.11mc (completed) – Device Tracking**
- ✓ **Voice (WorkForce Connect) QoS integration (completed)**
- ✓ **UXI – Underway – Device Health and Status**

802.11mc Location Using RTT (Round Trip Time)

- Aruba and Zebra are the first to support 802.11mc Wi-Fi based location in the enterprise
- Joint support since Mar 2021
- ArubaOS 8.8 onwards includes support for the complete line of Aruba Wi-Fi 6 APs



$$\text{time} = (t_4 - t_1) - (t_3 - t_2)$$
$$\text{distance} = c * (\text{time} / 2)$$

Blog: bit.ly/aruba-80211mc

Location Services Example

Leveraging of network services for inventory management



Aruba UXI + Zebra:

Overview

- The Aruba User Experience Insight Agent for Zebra enables IT administrators and network operations to measure and troubleshoot the end-user experience from Zebra handsets.
- The UXI agent performs synthetic tests and collects passive application analysis beginning with real voice calls and roaming analysis including successes and failures made available via the Zebra Worry-Free Wi-Fi API.



Aruba UXI + Zebra:

Co-developing a first of its kind

UXI Sensors



Zebra Agent



Cloud UI



- Actively tests wired wireless
- Baseline & trend
- Testing across any network
- Power outage notifications

- Device Roaming and voice analysis
- Testing across any network
- Becomes another sensor
- Global baselining metrics
- Provides packet capture details

- Global device and network analytics
- Prioritize critical issues
- Integrate into your workflow
- Single pane NOC views

Gamechanger: Aruba UXI with Zebra Worry-Free-WiFi-Insights

Other vendors **CANNOT** test, monitor and alert to this level

	UXI Agent w Zebra WFW Insights	Generic Android Agent
Synthetic Testing	✓	✓
Real Application Performance (not synthetic)	✓	✗
Packet Capture	✓	✗
Roaming performance and Root Cause Analysis from packet analysis (not available from Android OS)	✓	✗
Location-Issue tracking using 802.11mc	✓	✗
Access to persistent device identifiers (Hidden by Android OS A11+)	✓	✗
Agent does not alter device performance*	✓	✗

*Generic agents may impact device roaming behavior and battery performance

Target Markets....Retail, Logistics, Healthcare

Zebra devices support mission critical applications



Are user complaints real network issues? Or are they just perception or a one-off?

Where exactly are the issues happening within the facility?

Unable to pinpoint root cause of issues between WLAN, Device and Application

Did my software upgrade or config change have an impact on users?

Needless resources dedication to site visits and difficult over the phone troubleshooting?



Zoom into any of 1000s of devices to view real time performance on that device

Pin-point the exact location performance degradation is happening

See an end-to-end view of experience identifying the point where failures happen

Immediate change notification + historical benchmarks

Save the truck roll: Back in time and packet capture analysis remotely and automatically

Retail Environment



Online order fulfillment; support roaming; Inventory fulfillment

Logistics - Warehouse



Voice pick services; warehouse performance metrics; roaming

Healthcare



Scanning; barcode readers; push-to-talk priority on the network

Kiitos!



Markus.wass@zebra.com

ZEBRA and the stylized Zebra head are trademarks of Zebra Technologies Corp., registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners. ©2019 Zebra Technologies Corp. and/or its affiliates. All rights reserved.