

A nighttime photograph of a city skyline with various buildings illuminated. The lights from the buildings and streetlights are reflected in a body of water in the foreground. The sky is dark, and there are some lens flare effects from the lights.

# HOW TOMORROW MOVES (MORGENDAGEN ER HER I DAG!)

aruba

a Hewlett Packard  
Enterprise company



Aruba  
network

aruba

Hewlett Packard

Enterprise

at Hewlett Packard  
Enterprise company

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# Agenda



**Hvorfor Mobile First infrastruktur?**

**Hvordan Mobile First infrastruktur?**

**Merverdi i Mobile First infrastruktur**

# HVORFOR MOBILE FIRST INFRASTRUKTUR?



# Reimagine a Workplace

# Understanding GenMobile is a must to implement the right strategy



# THE RISE OF GENMOBILE

200



**FRIMINUTT 1984**

Minnebok fra 80-tallet

013



**FRIMINUTT 2016**



# Powered by Untethered Unified Communications

Saved over \$700K by eliminating cabling and going UC  
American Fidelity Assurance



# Reduced network costs by 75% by going All-Wireless

Cardinal Health

**KLIPPER TRÅDEN:** Med et helt nybygd hovedkvarter kunne Sparebanken Vest bygge et trådløst nettverk som primær kommunikasjon for brukerne. Fra venstre sivilarkitekt Jan Erik Rossow i Arkitektgrup-  
pen Cubus, administrerende direktør Jan Erik Kjerpeseth i Sparebanken Vest, og prosjektdirektør Per Egil Steen i Stema Rådgivning under åpningen sist høst. FOTO: SPAREBANKEN VEST

## Trådløst overalt

Den aller nyeste trådløststandarden  
muliggjør «det trådløse kontor».  
Framtiden har endelig kommet.

STIG ØYVANN

Svein Arne Hammersland, leder it-arkitektur i Sparebanken Vest.

### Fritt setevalg

Hammersland forklarer at Sparebanken Vest har valgt å gå for «free seating», altså at ingen av de ansatte har fast, fysisk arbeidsplass i bygningen. Brukerne flytter rundt etter behov,

banken Vest likevel valgt å installere datakabler i bygningen. Det handler om å være føre var, på det tidspunktet designet ble gjort.

— Jeg har vært med i prosjektet siden 2010. En spennende diskusjon på den tiden var hvorvidt vi skulle gå all in bare med trådløst. Nå har det seg sånn at moderne bygg som dette krever kabling fram til det trådløse aksesspunktet, og det kre-



# That Enables Free Seating

60% of cubicles go unoccupied  
at ~\$14k per position

# Data centers evolve to meet the demand for growth

**Businesses will spend \$122B**  
on public cloud IT services in 2018

**90% of new commercial apps**  
are now specifically developed for cloud



# The Internet

of things

Gartner Says 6.1 Billion "Things" Will Be in Use Worldwide by 2020, Up From 1.2 Billion in 2014





# CELLULAR CALLS HIT ENTERPRISE NETWORKS WITH WI-FI CALLING

Wi-Fi is the  
New Small Cell

# HVORDAN MOBILE FIRST INFRASTRUKTUR?

# Wave 2 Milestones

## 2015

Infrastructure



## 2016-17

End Points



## 2015+

2.5GbE  
N-Base-T or  
MG-Base-T ?





# Switching That Meets the Needs of Today and Tomorrow



**Aruba 3810 with SmartRate**

**1, 2.5, 5, 10 GbE on existing twisted pair copper cabling**

**Auto-negotiate speeds**

**Standards based / SDN capable**

# Most Flexible 802.11ac AP Portfolio



**310 Series  
(Wave 2)**



**320 Series  
(Wave 2)**



**330 Series  
(Wave 2)**



**200 Series**



**210 Series**



**220 Series**



**205H**



**270 Series**



**228**



**277**

# Aruba Enables Deployment Flexibility

## CONTROLLER BASED



Centralized encryption with advanced services at scale

## CONTROLLERLESS WLAN WITH ARUBA INSTANT



Simplified branch Wi-Fi with built-in controller

## VIRTUAL INTRANET AGENT REMOTE APS



Remote access

One network management platform

One policy management platform

Single architecture across all locations/deployments

Dual-persona access points

Enterprise-class capabilities across all products

# ClientMatch™

## Uninterrupted access across your property

Intelligently steers devices to the best AP

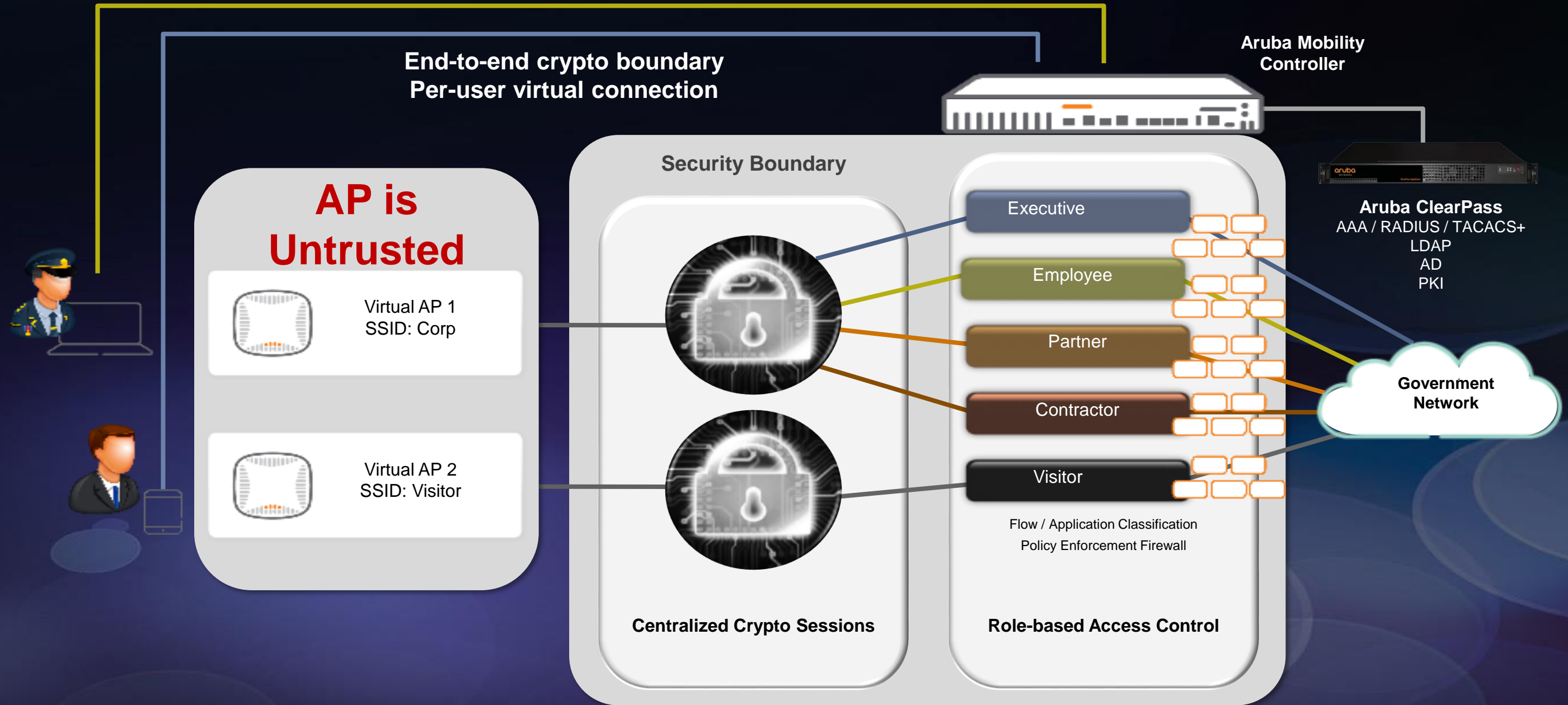
Reduces “sticky” clients issues =>  
fewer helpdesk tickets

No client-side software required

### REAL-TIME RF CORRELATION



# Mobility Firewall Architecture

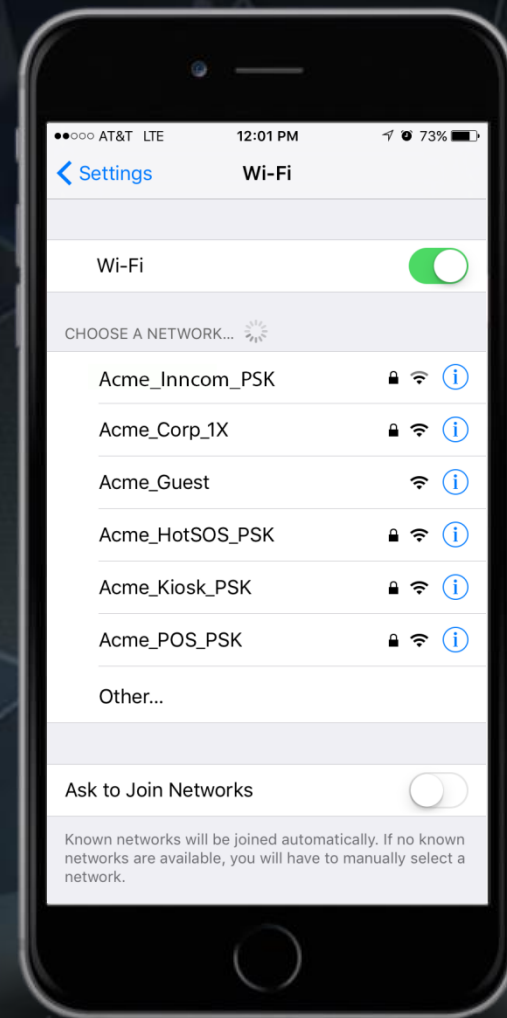


*Multiple classes of users on same infrastructure easily separated by policy*

# A More Intuitive User Experience

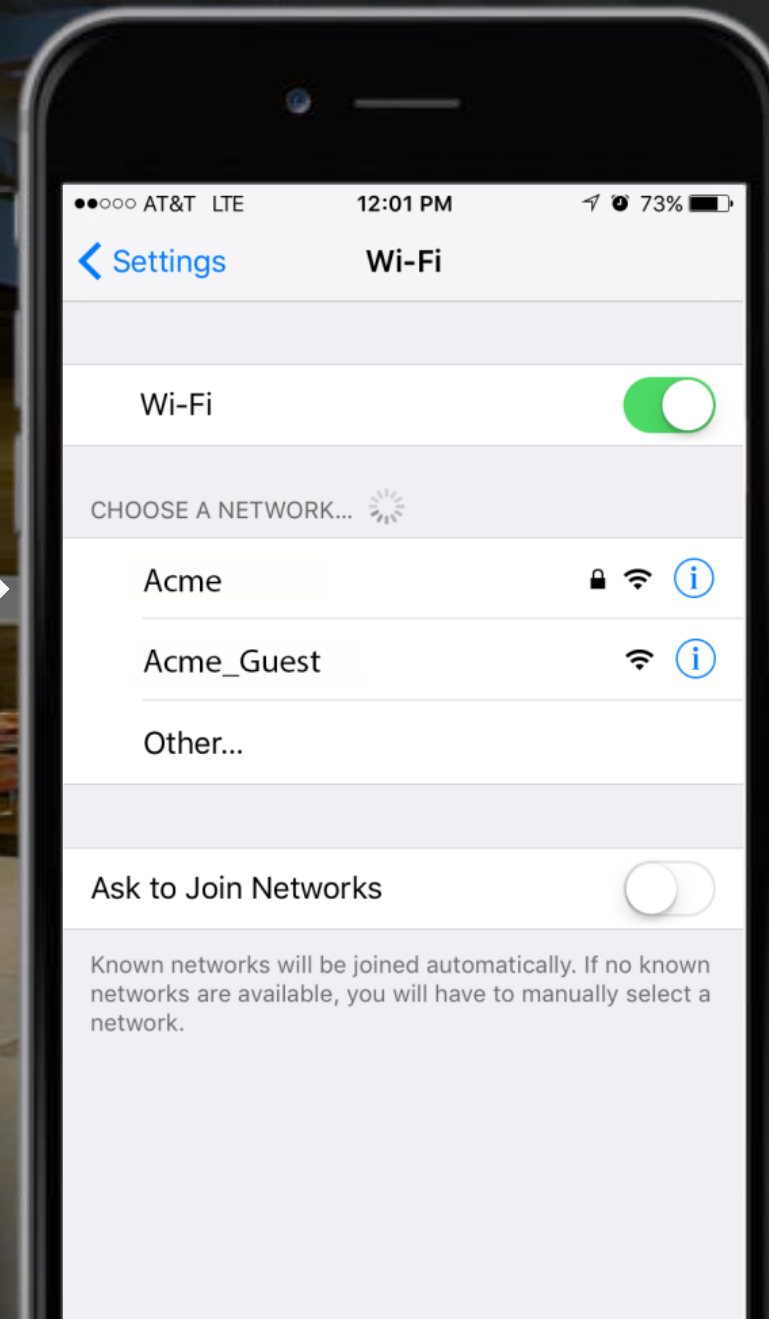
## OLD WAY:

Without advanced policy, separate traffic by SSIDs



## NEW WAY:

Simplify with ClearPass, separate traffic dynamically



# Step Up Your Guest Experience

Custom portals  
to showcase your property

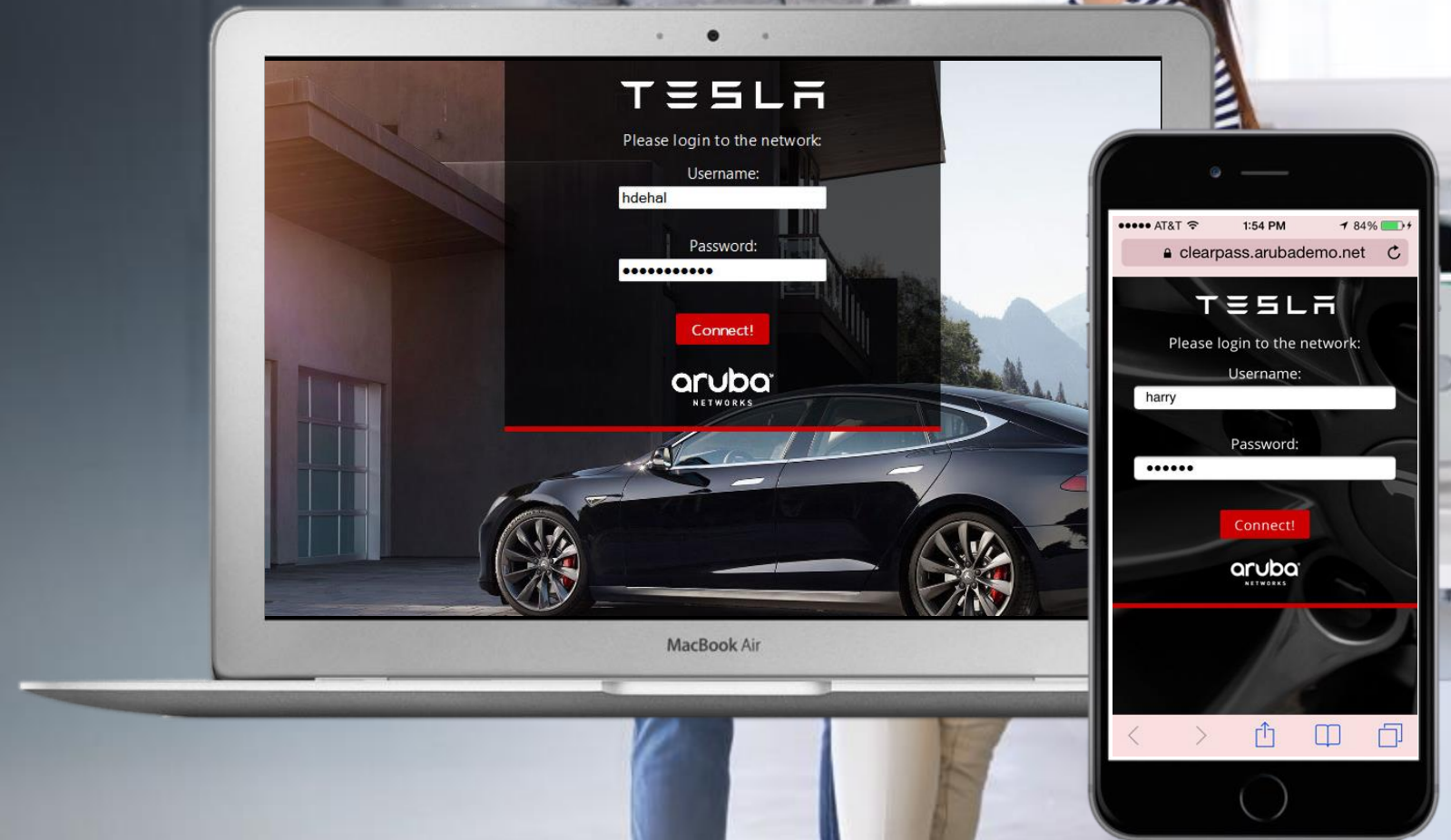
Can be used to advertise mobile  
app and deliver download link

Social logon support

One Wi-Fi login for repeat visitors

Integration with  
leading PMS providers

ClearPass Guest



# BYOD: Employees Onboard Their Own Devices

## ClearPass Onboard

### User and IT friendly:

One time user registration/no IT intervention

### Secure: 802.1x EAP-TLS

**Visibility:** Regain visibility  
for policy and troubleshooting





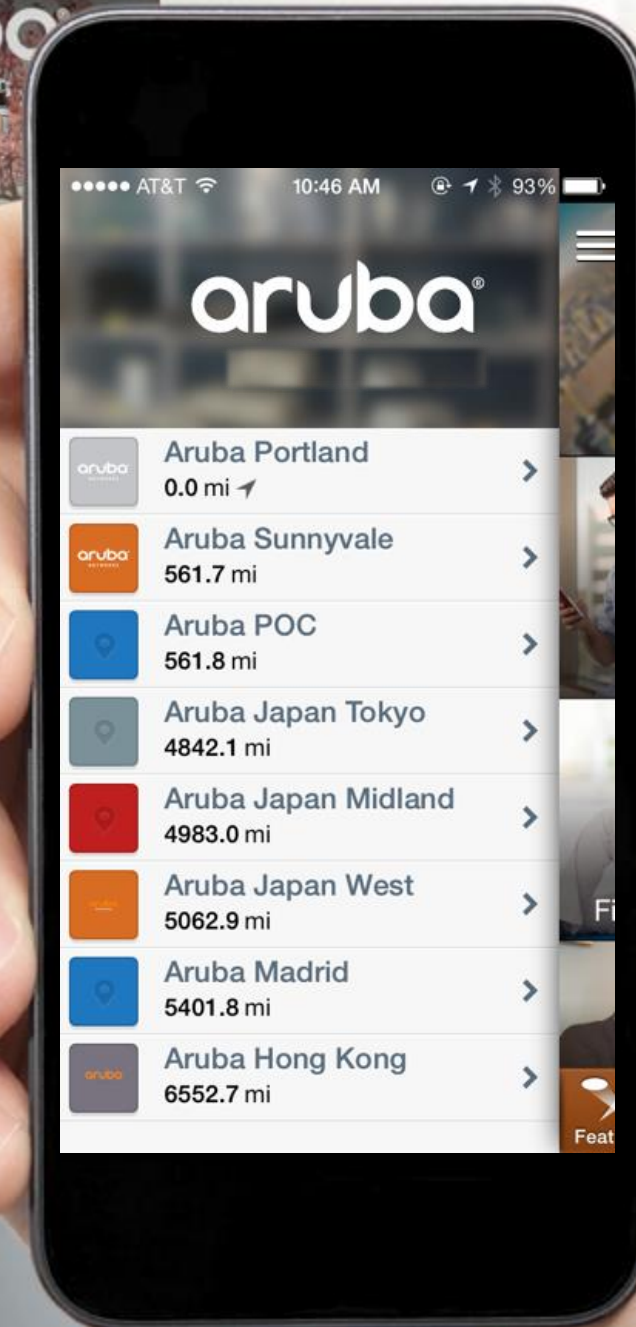
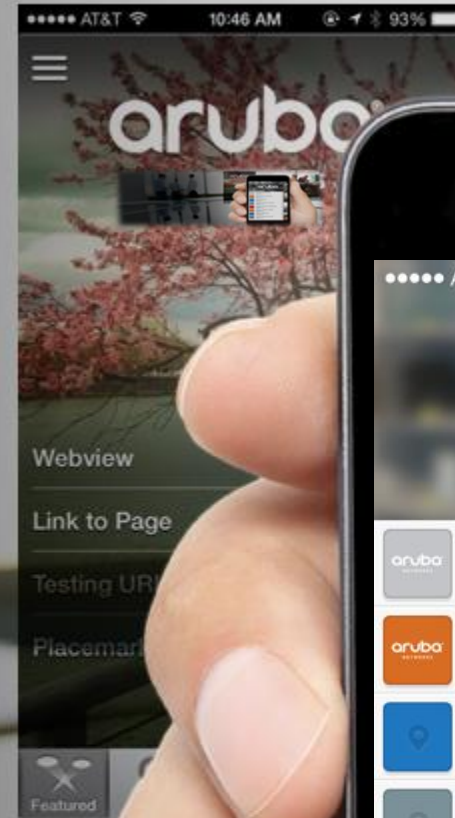
# ClearPass Exchange: End to End Controls



# MERVERDI I MOBILE FIRST INFRASTRUKTUR

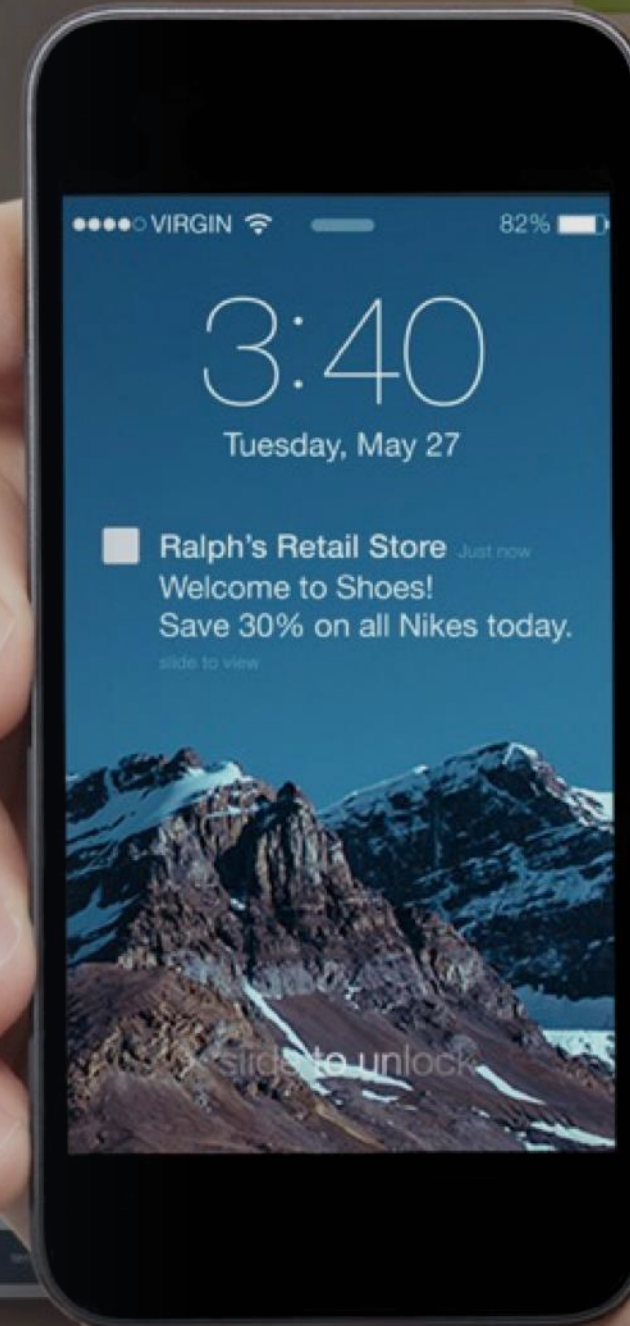
ONCE THE  
SMARTPHONE  
RULES THEM ALL...

INDOOR LOCATION  
SERVICES CAN  
IMPROVE USER  
EXPERIENCE



**ONCE THE  
INDOOR LOCATION  
INFRASTRUCTURE IS  
READY ...**

**YOUR BUSINESS  
PARTNERS WILL  
START TAKING  
ADVANTAGE**

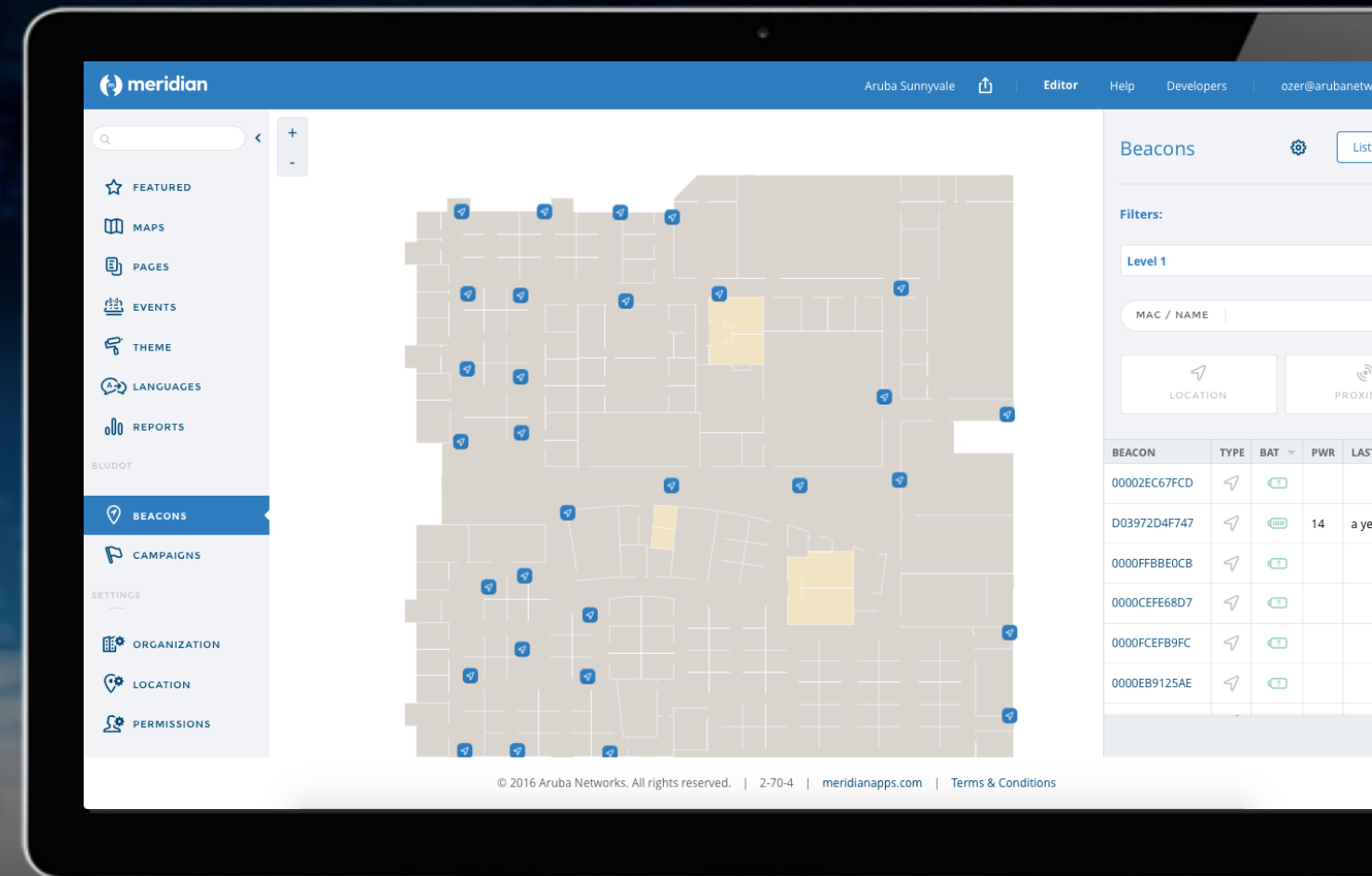


# IMPROVE WORKPLACE PRODUCTIVITY AND INFLUENCE REVENUE GROWTH

**Enable indoor location on any Wi-Fi**  
with Aruba Beacons and Sensors

**Centrally manage beacons & sensors**  
with Aruba Meridian App Platform

**Publish maps, campaigns & content**  
for developers with Meridian SDKs



The screenshot displays the Aruba Meridian App Platform interface. The top navigation bar includes the 'meridian' logo, user information 'Aruba Sunnyvale', and links for 'Editor', 'Help', 'Developers', and 'ozer@arubanetw'. A left sidebar menu lists various features: FEATURED, MAPS, PAGES, EVENTS, THEME, LANGUAGES, REPORTS, BEACONS (highlighted), CAMPAIGNS, ORGANIZATION, LOCATION, and PERMISSIONS. The main area shows a map with numerous blue beacon icons. On the right, a 'Beacons' panel is visible, containing a search bar for 'MAC / NAME', a 'Level 1' filter, and a table of beacon details.

BEACON	TYPE	BAT	PWR	LAST
00002EC67FCD	📍	🔋		
D03972D4F747	📍	🔋	14	ay
0000FFB8E0CB	📍	🔋		
0000CEFE68D7	📍	🔋		
0000FCEFB9FC	📍	🔋		
0000EB9125AE	📍	🔋		

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# SOFTWARE CONTROLS FOR MOBILE ENGAGEMENT

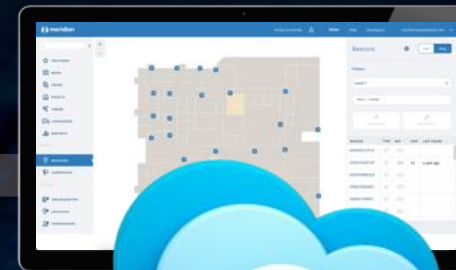
Battery powered  
Aruba Beacons



Beacon management  
with Aruba Sensors  
on any Wi-Fi



Beacon management  
with Aruba 802.11ac  
access points



Indoor maps with content,  
push notification  
campaigns and centralized  
beacon management



Meridian  
SDK



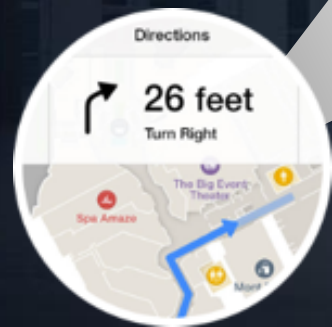
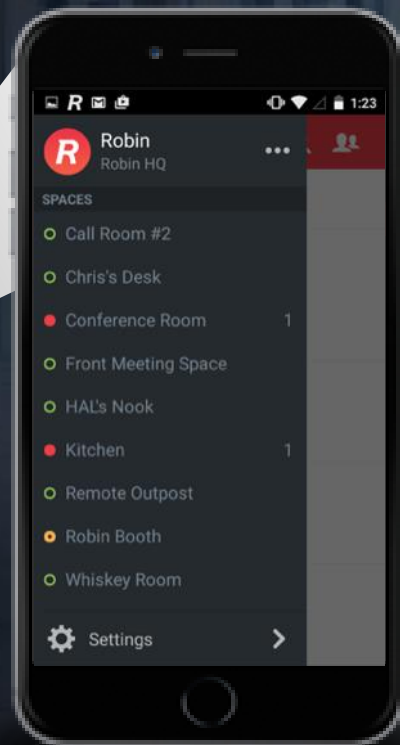
Smartphone with the  
Meridian powered app  
(iOS, Android)

VENUENEXT Robin involvio  
EB eventboard impekable  
FORGE MEDIA + DESIGN  
R CloudLeaf PROXCE mtuity

Partners:  
App Development  
Agencies and  
Software Vendors

# MEETING ROOM AUTOMATION WITH MERIDIAN AND ROBIN

*Robin*



Wayfinding to reserved meeting rooms

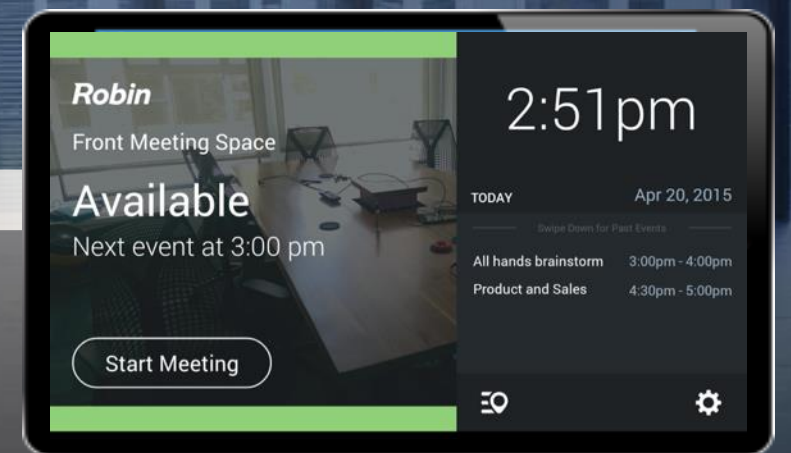
Nearest meeting room discovery and on-demand booking with the Robin app

Meridian SDK



Meridian SDK

*Robin*



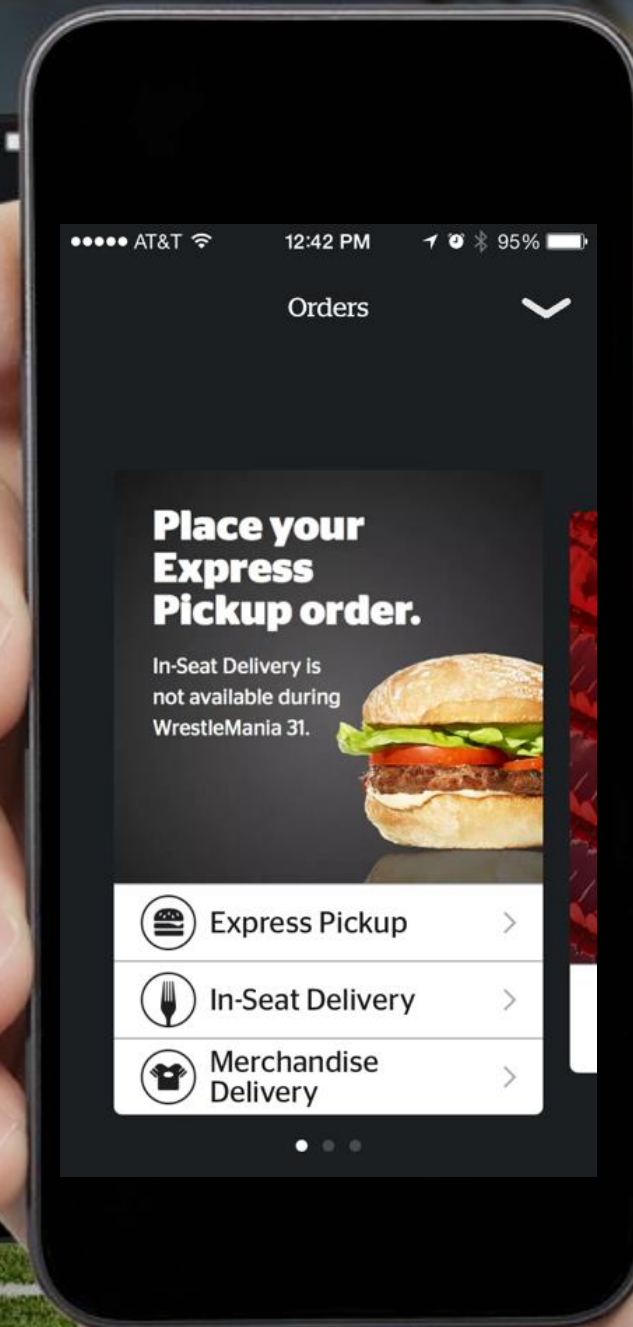
IoT digital sign powered by Robin



# A MEMORABLE FAN EXPERIENCE WITH MERIDIAN AND VENUENEXT

\$1M revenue boost with purchases with the mobile app in one season

10x growth in the marketing contacts database





# Software controls for mobile engagement



Push notification on venue's mobile app



Wayfinding to products & services

Meridian SDK



Aruba Beacons and Meridian

Meridian SDK



Personalized digital signage

REST API

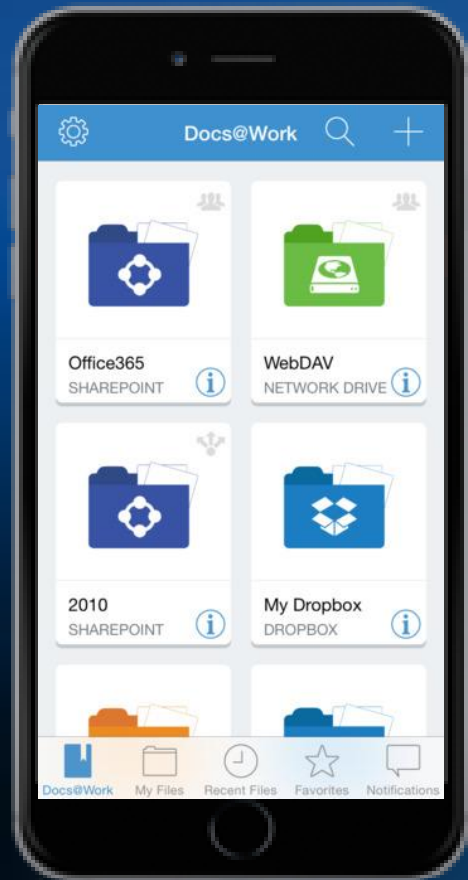


Aruba WLAN



Aruba ClearPass

# Software controls for secure data access



Location-based document access control on the MobileIron Docs@Work app



Wayfinding to geofenced locations

Meridian SDK



Aruba Beacons and Meridian

Meridian SDK



Aruba WLAN

Mobile device management (MDM)

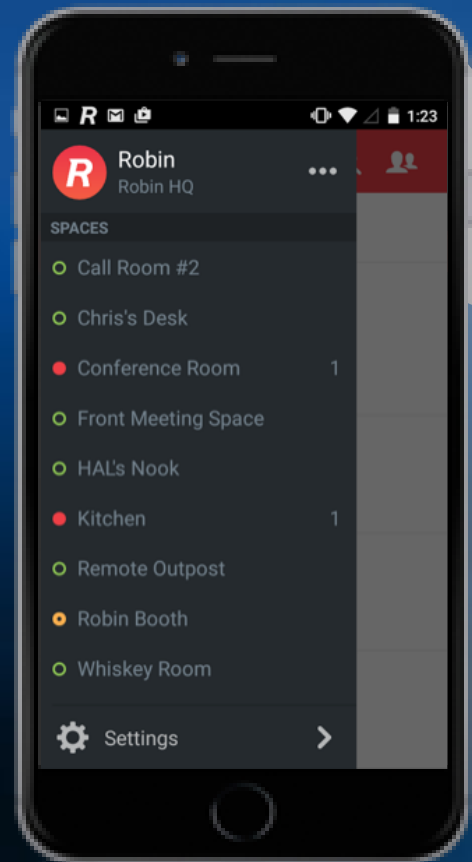


REST API



Aruba ClearPass

# Software controls for meeting room automation



Nearest meeting room discovery and on-demand booking with the Robin app



Wayfinding to reserved meeting rooms

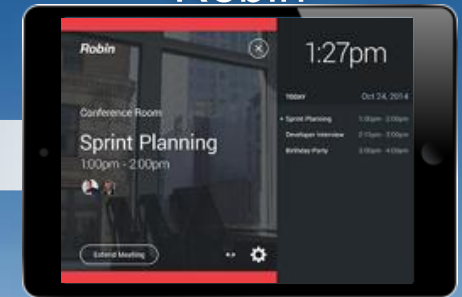
Meridian SDK



Aruba Beacons and Meridian

Meridian SDK

IoT digital sign powered by Robin



REST API

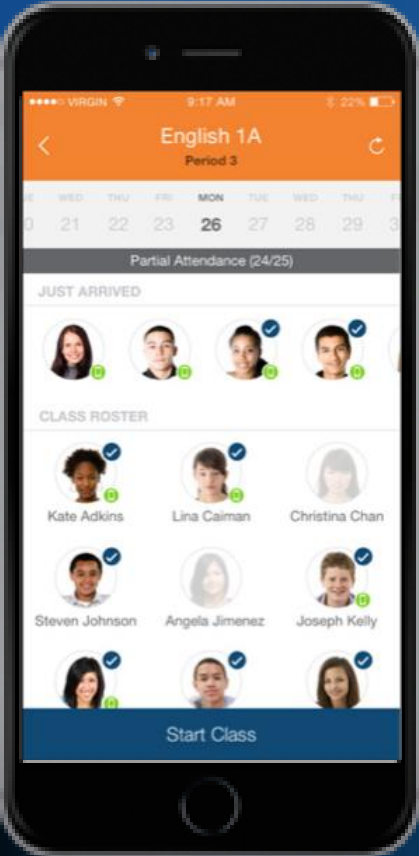


Aruba WLAN

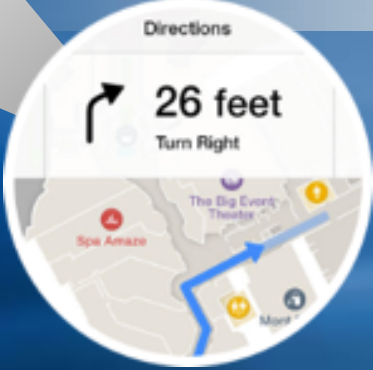


Aruba ClearPass

# Software controls for classroom management



Teacher and student facing mobile apps for messaging, digital roll call, calendars and network access control in the classroom



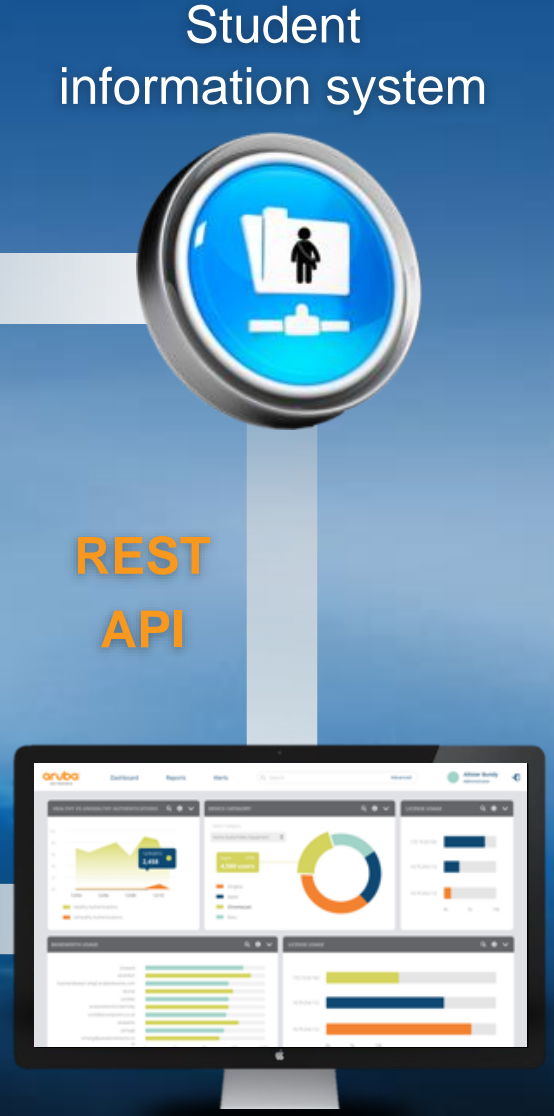
Wayfinding within the school



Meridian SDK



Aruba WLAN



REST API

Aruba ClearPass

Aruba Beacons and Meridian

# Agenda

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Hvordan Mobile First infrastruktur?

Merverdi i Mobile First infrastruktur

# HP and Aruba...Better Together

Leader in campus networks

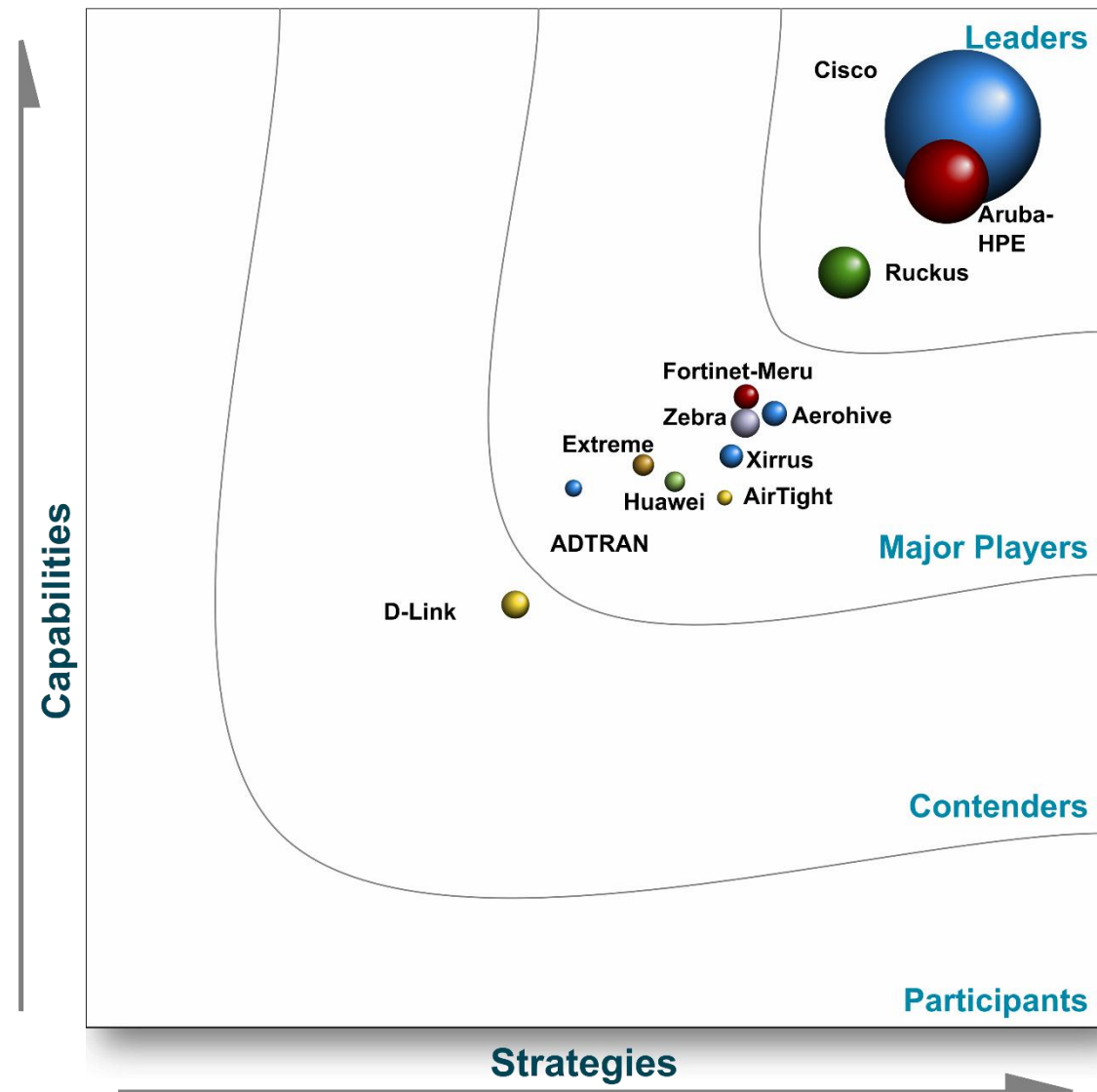
“Clients globally should consider HP Aruba for all wired / WLAN access layer opportunities.”

Gartner MQ for Wired and Wireless LAN Access Infrastructure, August 2015



# IDC ranks HPE Aruba a “Leader” in WLAN market

IDC MarketScape: Worldwide Enterprise WLAN Vendor Assessment



“The combined entity pushes Aruba-HPE more strongly into the second-place position in terms of revenue and market share.”

“The WLAN portfolio from the Aruba side has frequently been at the forefront of WLAN innovation and technology transitions.”

Source: IDC MarketScape: Worldwide Enterprise WLAN 2015-2016 Vendor Assessment | Document #US40653915e

# Why Customers Choose Aruba

## Access Solutions



802.11ac wireless  
Multi-gig SDN switching  
Lifetime warranty

## Policy Services and NAC



Guest access  
Self-service BYOD access

## Architecture and Visibility



Application aware QoS  
RF visibility  
Architectural flexibility

## Location Based Services



Wayfinding and push  
Code-free AppMaker  
Rich management





Thank You

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