

Product and Technology Overview

All Wireless Workplace for
#GenMobile

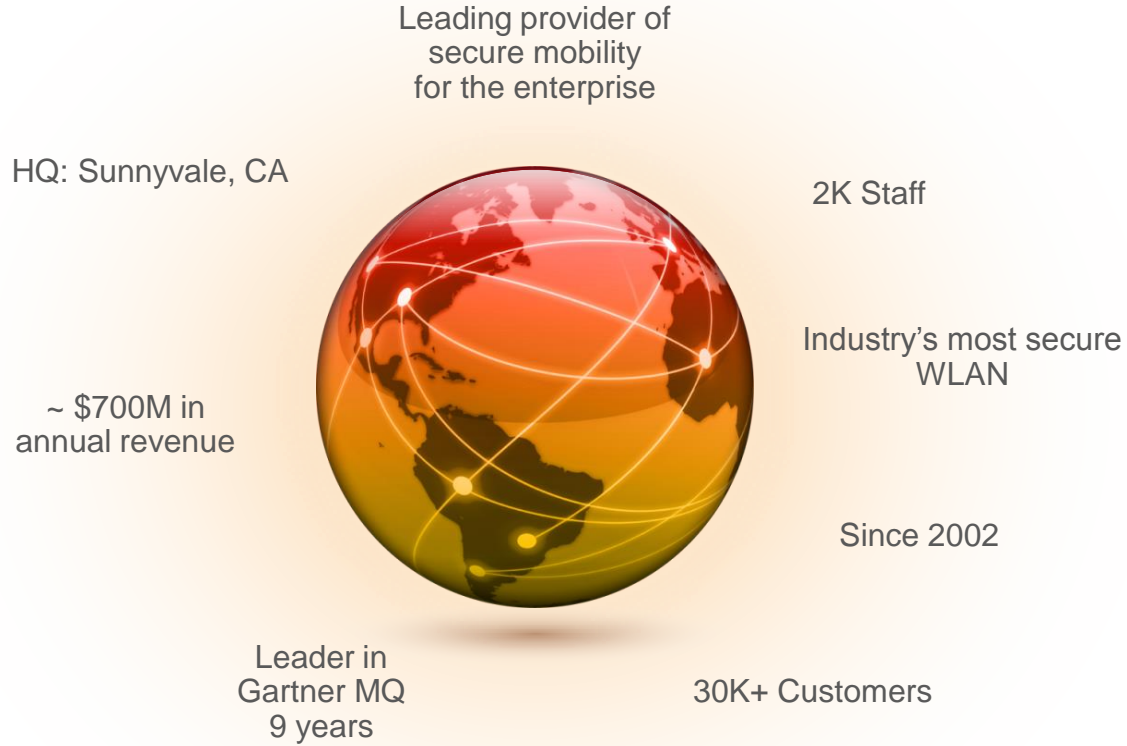
Nguyen Tran Thuc
HP Enterprise VietNam
Thuc.tran@hpe.com



Leader in Wired & Wireless LAN Magic Quadrant



Who Is Aruba?



Recognized as an Industry Leader

Leader: 2014 Wireless LAN Solution



Leader: 2014 Wired & Wireless Magic Quadrant



Leader in Wired & Wireless LAN Magic Quadrant 2015



HP Positioned in Gartner's Leaders Quadrant

This Magic Quadrant graphic was published by Gartner Inc. as part of a larger research note and should be evaluated in the context of the entire report. The Gartner report is available upon request from HP. 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. 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.

The Tide Has Shifted: Gartner Critical Capabilities

UNIFIED WIRED + WIRELESS		ENTERPRISE WLAN		SMALL OR REMOTE OFFICE		GUEST ACCESS		HIGH DENSITY VENUE	
1. CISCO	3.86	1. ARUBA	4.27	1. ARUBA	3.93	1. ARUBA	4.26	1. ARUBA	4.03
2. ARUBA	3.82	2. HIVE	3.84	2. CISCO	3.85	2. HIVE	3.81	2. XIRRUS	3.91
3. HP	3.65	3. CISCO	3.59	3. HP	3.66	3. CISCO	3.66	3. HIVE	3.89
4. EXTR	3.56	4. EXTR	3.29	4. EXTR	3.59	4. EXTR	3.35	4. CISCO	3.81
5. HIVE	3.53	5. AVAYA	3.26	5. HIVE	3.56	5. AVAYA	3.31	5. EXTR	3.56
6. JNPR	3.52	5. HP	3.26	6. AVAYA	3.49	5. HP	3.31	6. AVAYA	3.52

Trusted by Enterprises Worldwide

<h3>Technology</h3>	<h3>Social & New Media</h3>	<h3>Finance</h3>	<h3>Media & Ent,</h3>
<h3>Higher Education</h3>	<h3>Government</h3>	<h3>Healthcare</h3>	<h3>Retail</h3>
<h3>Primary Education</h3>	<h3>Public Transit</h3>	<h3>Public Venues</h3>	<h3>Services</h3>
<h3>Oil & Gas</h3>	<h3>Manufacturing</h3>	<h3>Hospitality</h3>	<h3>Telecom</h3>

#GenMobile

IS HERE



Before #GenMobile In 2005



#GenMobile in 2013-2015



South East Asia



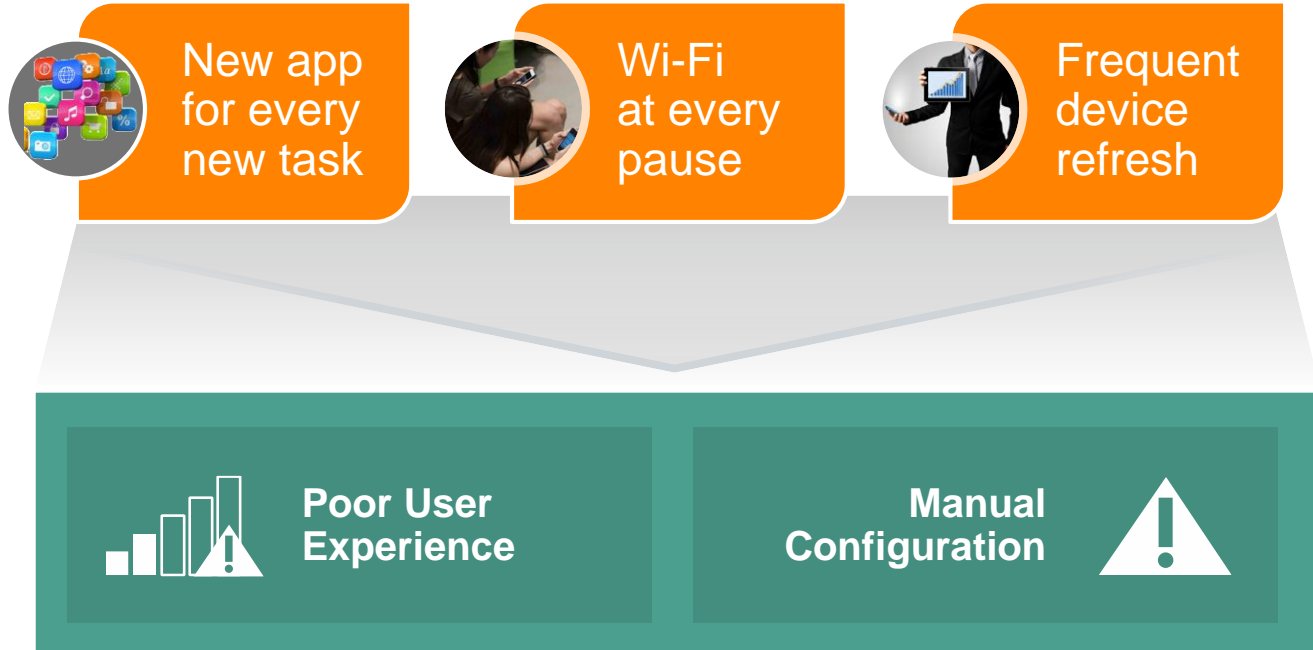
APAC



U.S.



GenMobile# Expectations/Pains



#GenMobile Imperative: All-Wireless Campus



STABLE AIR

Wi-Fi that doesn't slow down as many people connect



SECURE AIR

Secure resources when personal devices and guests connect



SIMPLE AIR

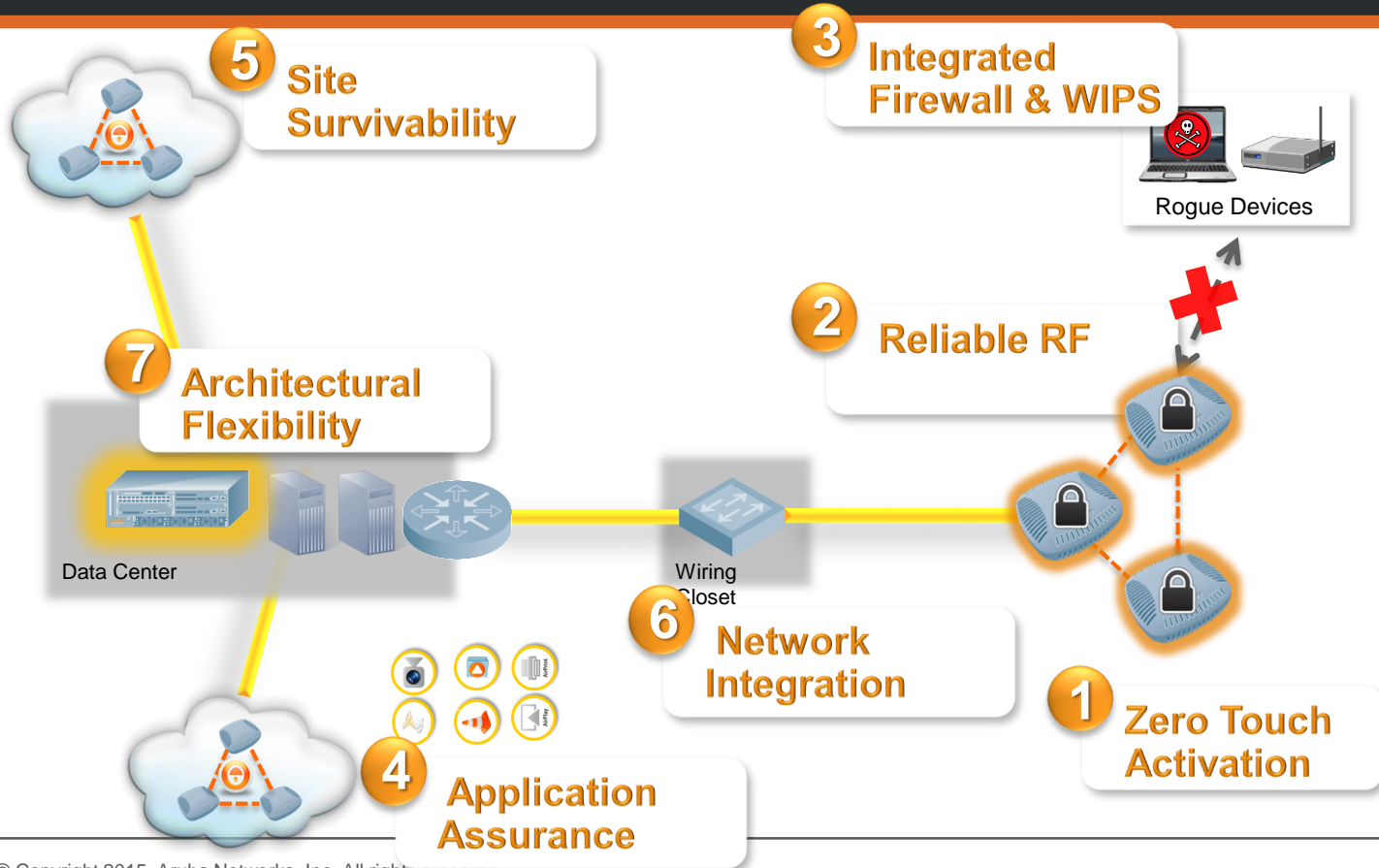
Easy to setup and manage.
Easy BYOD & Guest access.



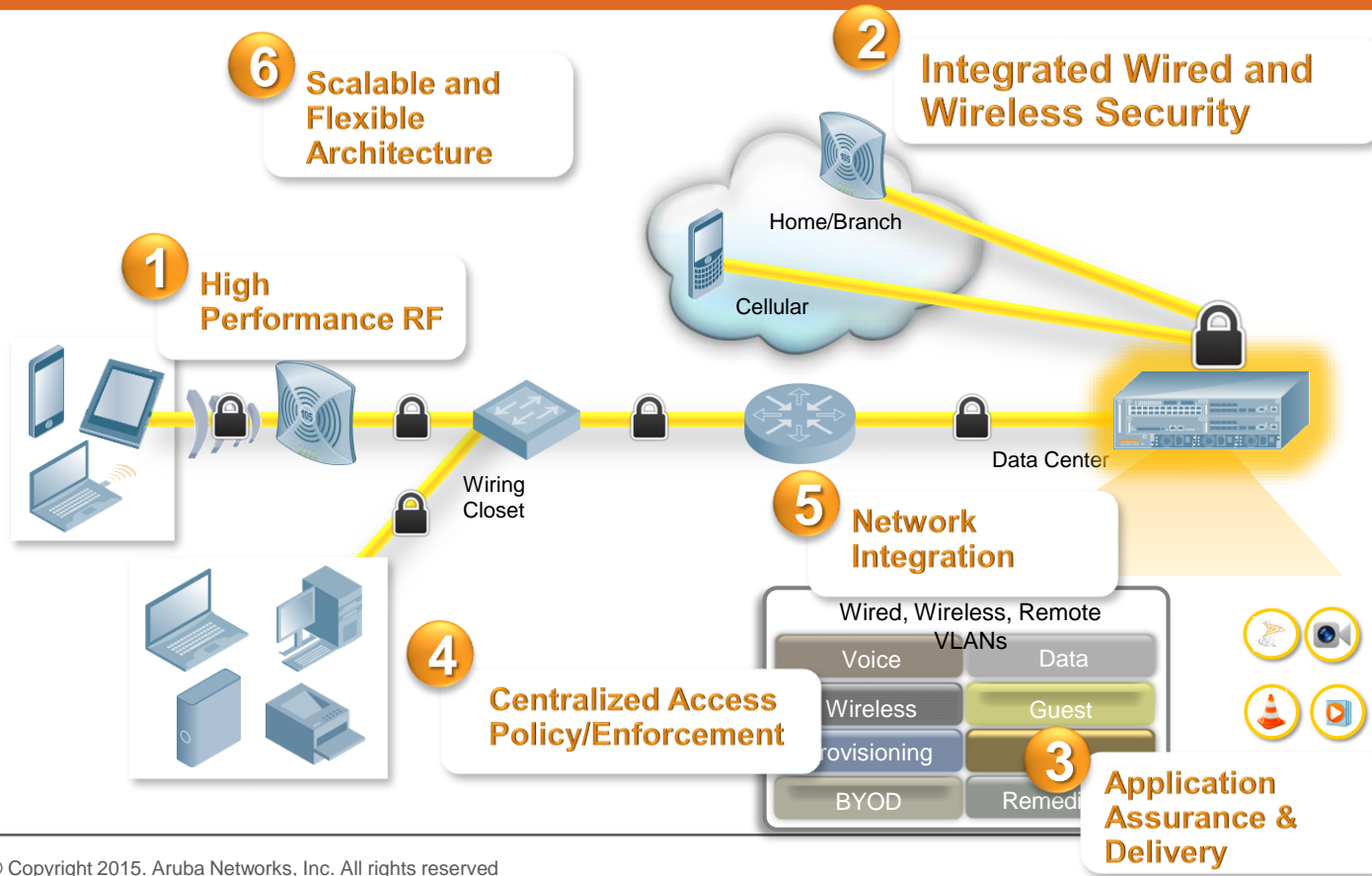
SMART AIR

Provide Visibility to WLAN.

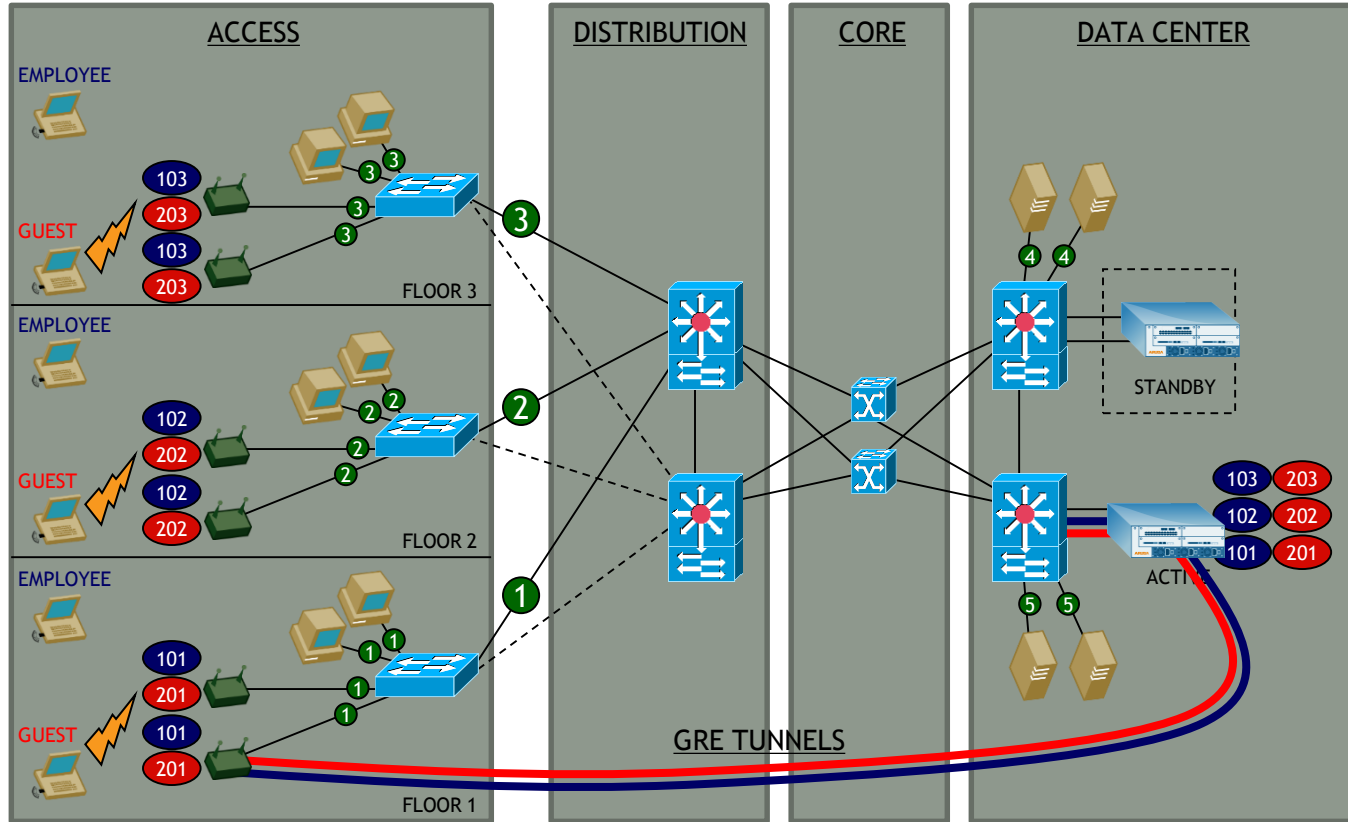
Benefits of Aruba Instant



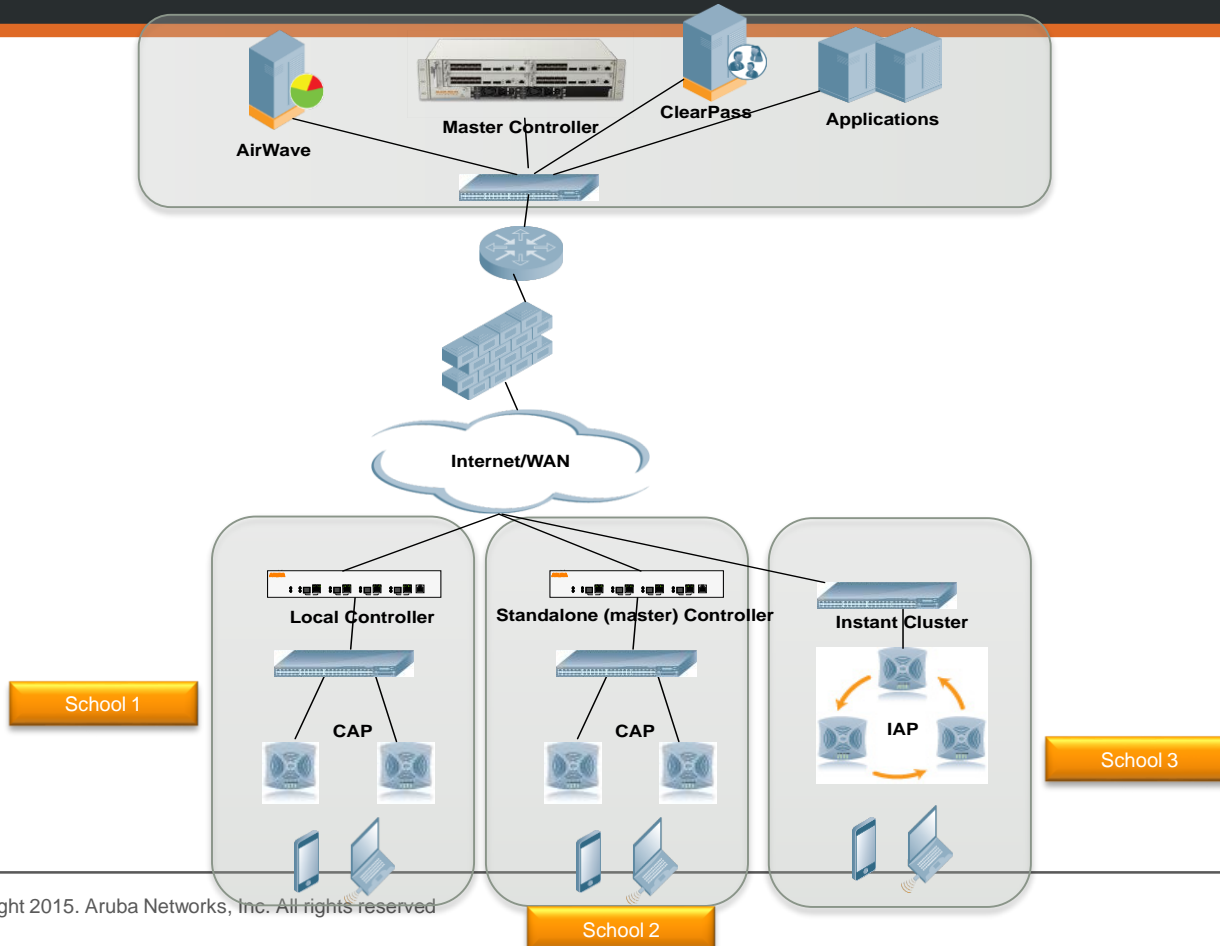
Benefits of a Mobility Controller



Benefits of a Mobility Controller



A Hybrid “Site Survivable” Campus



Flexible Architecture



Mobility Controllers

- Complex VLAN topologies
- Centralized encryption
- Better DPI, L3 mobility
- Bandwidth limits by user role



Aruba Instant Enterprise

- Ideal for small campuses
- Many individual remote sites
- No on-site IT expertise
- Minimal onsite HW and cost

Access Points

Outdoor Access Points



270 Series
First & only
enterprise-
grade 11ac

Hospitality Access Points



205H
3 ports
802.11ac



AP-103H
2 ports
802.11n

Indoor Access Points



320 Series
Highest Density
Dual uplink, 2.5 Gbps



220 Series
High Density/Perf.
Dual uplink, 1.7 Gbps



210 Series
Carpeted space
1.7 Gbps



200 Series
Lower density
1 Gbps

Remote APs



RAP-3
3 ports



RAP-109
4 ports







RAP-155
4 ports



205H
3 ports
802.11ac

802.11ac AP portfolio selection

	Model	Location	Performance	Density	Vertical
	200 Series	Indoor	Moderate	Moderate (50 active)	K-12 Retail
	210 Series	Indoor	High	Moderate (75 active)	Carpeted space
	220 Series	Indoor	High	High (125+ active)	Lecture Halls Venues Warehouses
	320 Series	Indoor	Highest	Highest (150+ active)	Lecture Halls Venues
	270 Series	Outdoor	High	High (125+ active)	Outdoor

High-level Product Summary

Lowest cost dual radio 2x2 11n hospitality APs for low-density deployments

- Up to 32 concurrent clients

Entry-level Hospitality variant of AP-103

Part numbers:

- AP-103H: Entry-level dual-radio 2x2 802.11n hospitality AP, integrated antennas, 2 local network ports, passive Pass-Through port.
- No Instant variant



Dual radio, 802.11n 2x2:2 (300Mbps max at HT40)

- All the standard radio features: SDM, CSD, STBC, MRC, LDPC
- Advanced Cellular Coexistence (ACC)

Platform:

- QCA chipset: AR9344 SoC (“Wasp”) + AR9582 2nd radio (“Peacock”)
- 64MB SDRAM, 16MB FLASH

Wired interfaces:

- 1x Gb Ethernet (uplink), console port (pin header), DC power, reset button
- 2x Fast Ethernet (local), one pair passive RJ45 Pass-through ports

Minimum SW versions

AOS: 6.4.1

Power:

DC or 802.3af PoE, 9.5W max peak

Introducing the Aruba 205H

High performance dual radio 2x2 11ac Hospitality/Branch AP

- Base platform identical to AP-205, with all typical features (including ACC)
- Integrated “somewhat directional” antennas
- Intended for vertical (wall/desk) orientation (only)
- Three active GbE local ports. One can supply POE-PSE (when DC or 802.3at powered)
- Set of RJ45 pass-through ports (back to bottom)
- USB host interface (5W), DC power (48V), reset button, LEDs (2x: system, PSE), console

Both controller based and Instant product variants

Size (wall mounted, with plate): 86mm (w) x 150mm (h) x 40mm (d)

- Slightly higher and deeper than AP-103H

Software: AOS 6.4.3.0, Instant version 4.2.0.0

Orderable: now for AOS, March pricelist for Instant

Shipping: late March for AOS, April for Instant

Remember: always check compliance website for the latest local certification status



Product Use-Cases and Positioning

Hospitality – Wall

- High-end alternative to AP-103H
 - 11ac, PSE, USB, GbE ports, etc.
 - Instant option
- Limited impact on existing products



Branch – Desk

- Needs optional kit for this
 - AP-205H-MNTR
- 11ac dual radio RAP option
- 802.11ac alternative to RAP-109



270 Series & 228 Hardened AP Portfolio



AP-275 (K2)
Integrated Omnis

Dual Radio 11ac 3x3:3SS



AP-274 (K2)
Connectorized

Dual Radio 11ac 3x3:3SS



NEW

AP-277 (Pumori)
Integ. Directional

Dual Radio 11ac 3x3:3SS

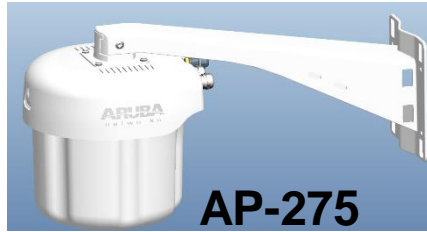


NEW

AP228 (Wutai)
6 x RPSMA

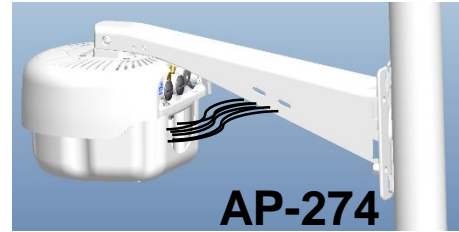
Dual Radio 11ac 3x3:3SS

AP-270 Series APs



FEATURES

- **Smallest Total Volume**
- **Dual 11ac 3x3:3**
- **Simplified installation**
- **Operates with:**
 - **Aruba Mobility Controllers**
 - **Aruba Instant**



BENEFITS

- **Stealth radio that blends with street furniture**
- **Next Generation Outdoor Now!**
- **Reduced Training**
- **Fewer Man Hours**
- **Build to meet end user needs**



AP-270 Series

Antenna Gain: 5 dBi

2G: 3x3:3 11ac (2.4 GHz)

5G: 3x3:3 11ac (5.15 to 5.875 GHz)

11ac Beamforming

Conducted Tx Power

2G: 23 dBm per branch (27.7 aggregate)

MAX EIRP = 36 dBi

5G: 23 dBm per branch (27.7 aggregate)

MAX EIRP = 36 dBi

Power Interface: AC and 802.3at (PoE+)

Power Consumption: 25 W

WAN + LAN Port

Advanced Cellular Coexistence

IP66 and IP67

-40° to +65°C

No Heater. Start and operate.



AP-275



AP-277 802.11ac Outdoor Campus AP

Outdoor 3x3 802.11ac

- Industrial temperature rated. -40 to + 60°C.

Dual radio:

- 802.11ac 3x3:3 HT40 2.4GHz(450Mbps)
 - Supports Turbo QAM and 802.11ac beamforming
 - 11n compatible
- 802.11ac 3x3:3 VHT80 5GHz(1.3Gbps)

Aggregate TCP platform throughput performance >1Gbps

Antennas

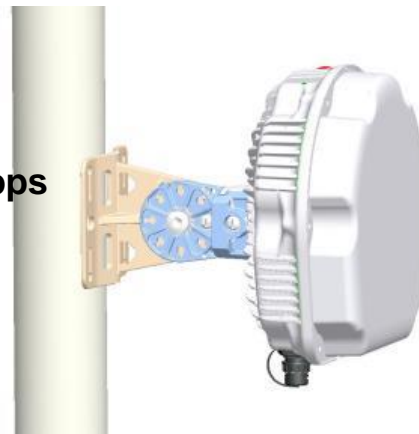
- 6 Integrated Directional elements 6.5 dBi

Wired interfaces

- Network: 2x 10/100/1000Base-T Ethernet
- USB 2.0 host interface, console port,

Power

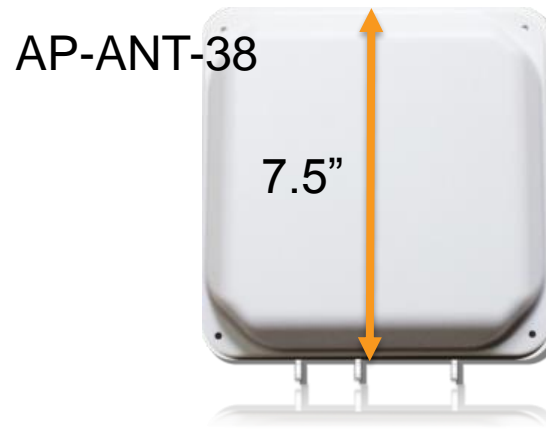
- Powered by 110/220V AC or 802.3at power



AP-277: Campus Access / Outdoor Retail

Clean front face

- Non descript so will blend in to the environment
- Small compared to other solutions



AP-228 Extended Temp Indoor AP

- **Weather protected extended temperature 3x3 802.11ac**
 - Industrial temperature rated. -40 to + 60°C.
- **Dual radio:**
 - 802.11ac 3x3:3 HT40 2.4GHz(450Mbps)
 - Supports Turbo QAM and 802.11ac beamforming
 - 11n compatible
 - 802.11ac 3x3:3 VHT80 5GHz(1.3Gbps)
- **Aggregate TCP platform throughput performance >1Gbps**
- **Antennas**
 - 6 RPSMA connector
- **Wired interfaces**
 - Network: 2x 10/100/1000Base-T Ethernet
 - USB 2.0 host interface, console port,
- **Power**
 - Powered by 802.3at power



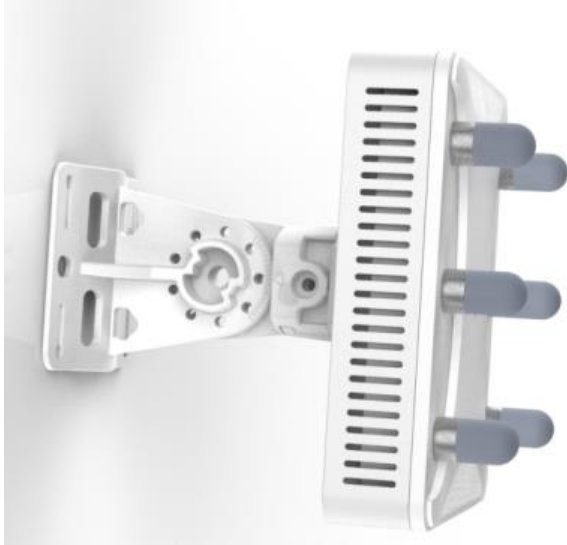
Why AP-228

- **49er's stadium**
 - Every other place in the world is too hot or too cold for the 225
 - Need a connectorized unit for high gain LPV antennas
- **Some customers still want an enclosure solution**
 - Vandalism and physical security of the AP
- **It is a simple product extension from AP-270 series**



Product Installation Options

Wall-mounting



Ceiling-mounting



Reading the Waves – 802.11ac

Wave 2
5GHz

1.7
Gbps

Wave 1
5GHz

1.3
Gbps

802.11n
5GHz

0.45
Gbps

Multi-User MIMO on the 320 series

4x4:3SS
MU-MIMO



2x multiple with
3 stream multi-user
MIMO

**600 Mbps total
capacity**

Aruba 320 series with 802.11ac Wave 2

IAP/AP-325

IAP/AP-324



MU-MIMO simultaneously up to 3 clients

Aruba ClientMatch® with MU-MIMO grouping

4SS for up to 1.7 Gbps with 80MHz channels

Integrated BLE and dual GbE uplink

ArubaOS 6.4.4 / InstantOS 4.3.0

Multi-User MIMO aware ClientMatch®



Up to 42% boost over competitive solutions

Critical in early days of Wave 2

Wave 2 milestones

2015

Infrastructure



2016-17

End Points



2015+

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



Wired backhaul for 802.11ac

1 Gbps

Available today
with PoE+

2.5 Gbps

Limited number of the initial
Wave 2 deployments

Competing
standards

Access network infrastructure in the campus



Dual 1Gbps

200 series
11ac Wave 1

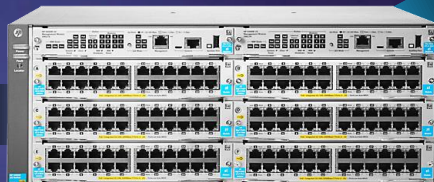


HP stackables



2.5Gbps with
SmartRate

300 series
11ac Wave 2



HP 5400R z12



SDN and
Mobility Controllers



Visibility & management
with AirWave / IMC



Policy management with
ClearPass

Modular switches



5406/5412 R

- 6 and 12-slot compact chassis
- Redundant management and power for modules
- 96 10 GbE ports, 288 1 GbE ports
- 288 ports full PoE+ capable
- Full L3 features
- SDN OpenFlow 1.3
- Limited Lifetime Warranty 2.0

SMB and Branch Core



7503

7502/3

7506

7506V

7510

- 2, 3, 6 and 10-slot chassis
- 40 GbE capable
- 84 10 GbE ports, 480 1 GbE ports
- High-density PoE+
- Full L3 features & IPv6/MPLS
- IRF stacking
- UWW

Enterprise access



10504

10508

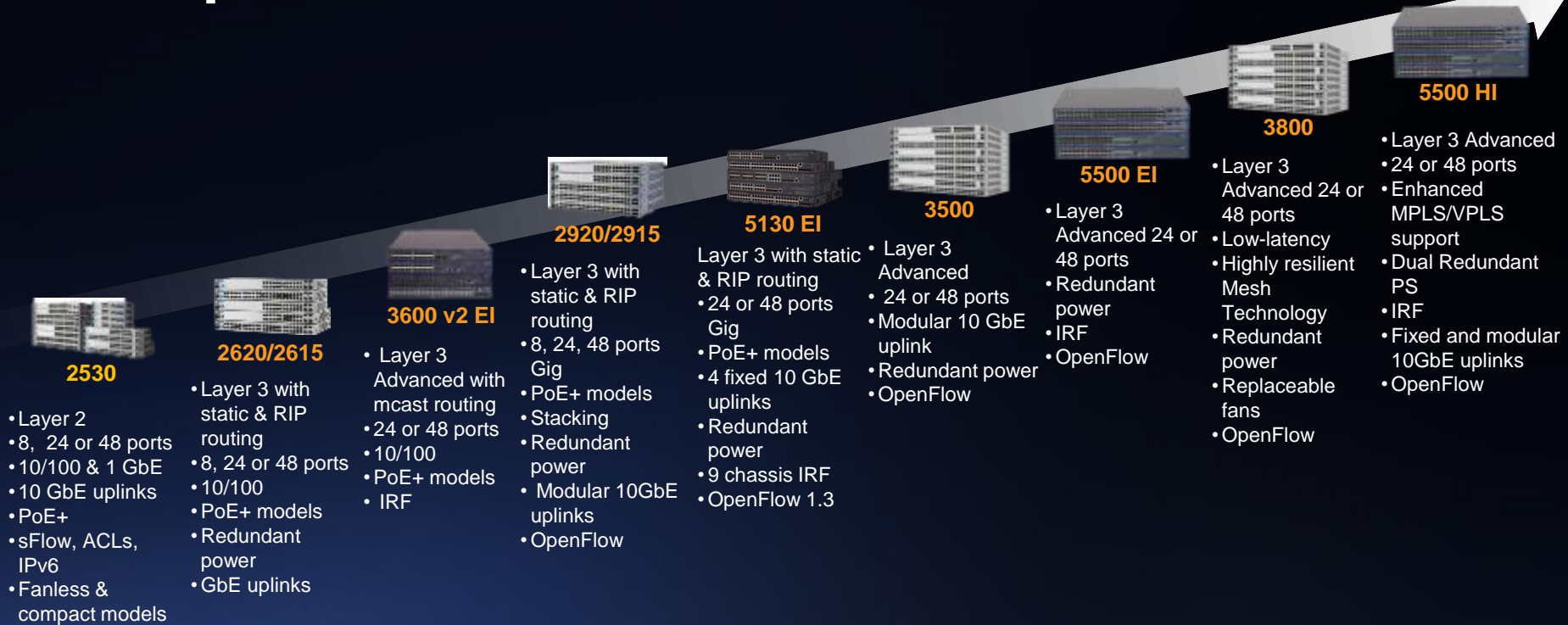
10508V

10512

- 4, 8 and 12-slot chassis
- 40 GbE capable (up to 96 ports)
- 100 GbE Ready
- 576 10 GbE or 1 GbE ports
- Full L3 features & IPv6/MPLS
- IRF stacking
- UWW

Campus Core

Fixed port switches

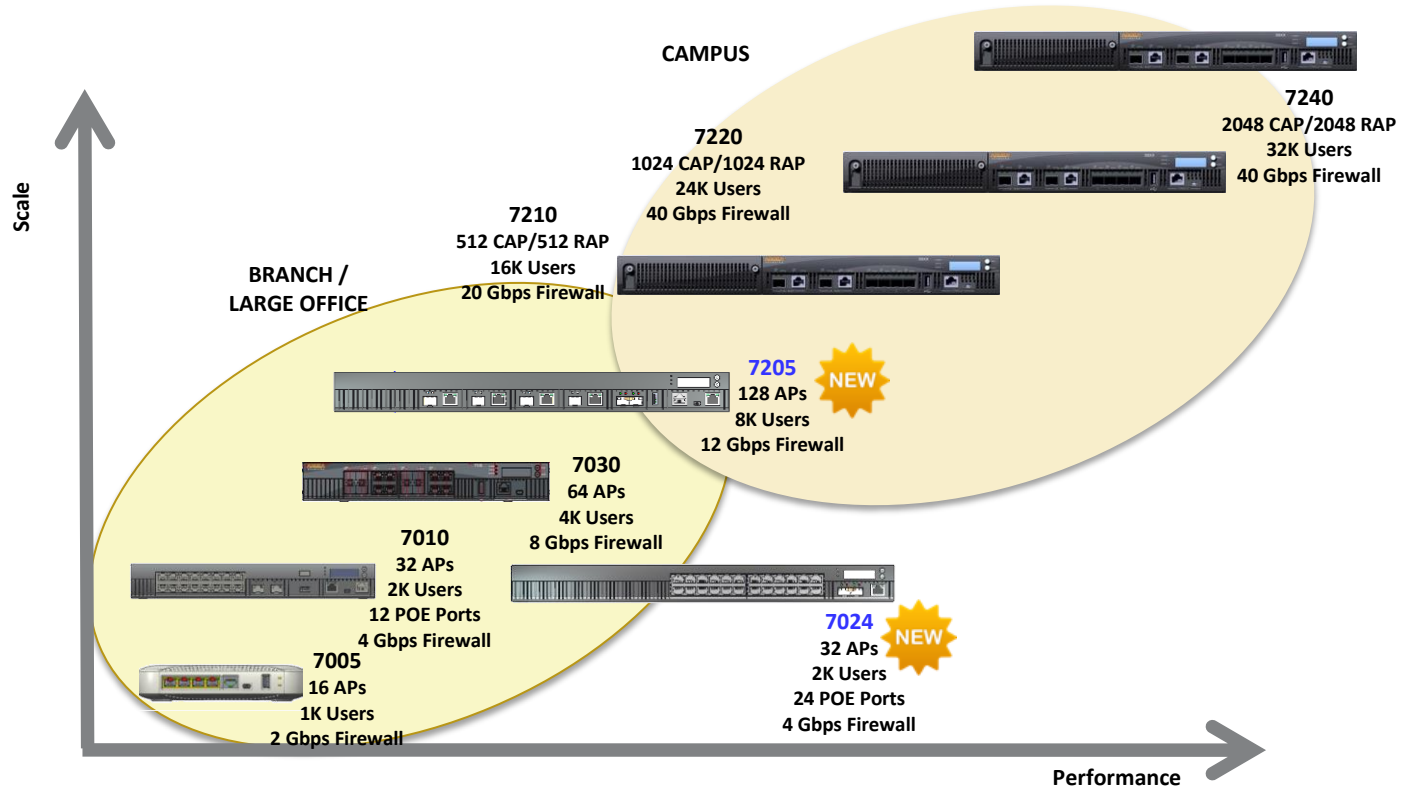


SMB & Branch Core

Enterprise

access

Campus Controller Portfolio Snapshot



Controller Portfolio

BRANCH



7030
64 APs
4K Users
8Gbps FW



NEW

7024
32 APs
2K Users
24 POE
Ports
4Gbps FW



7010
32 APs
2K Users
12 POE
Ports
4Gbps FW



7005
16 APs
1K Users
2Gbps FW

CAMPUS



7240
2048 APs
32K Users
40Gbps FW



7220
1024 APs
24K Users
40Gbps FW



7210
512 APs
16K Users
20 Gbps
FW



NEW

7205
256 APs
8K Users
12 Gbps
FW

Network management

Central

Cloud-based

Instant APs and switches
Zero-touch provisioning
Guest access
WIDS reports



AirWave

On-prem

Aruba and 3rd party APs
Aruba and 3rd party switches
Visual RF, WIDS Reports
App + network visibility



IMC

On-prem

Campus core and data center
Support for 220 manufacturers
Automation and



Deployment flexibility for WLANs

Controller Based

Centralized encryption/switching
Larger mobility domains
Advanced services at scale

Same AP
Hardware

Controllerless (Instant)

Many individual remote sites
Simplified management
Minimal onsite HW and IT

CONTROLLER

AirWave

Large sites, many branches
Controller and switch management
Multivendor support

INSTANT

Same
Workflows

Central

Cloud-based management
Simple maintenance and setup
Many independent branches

INSTANT

Cloud-based Aruba Central

Public cloud subscription

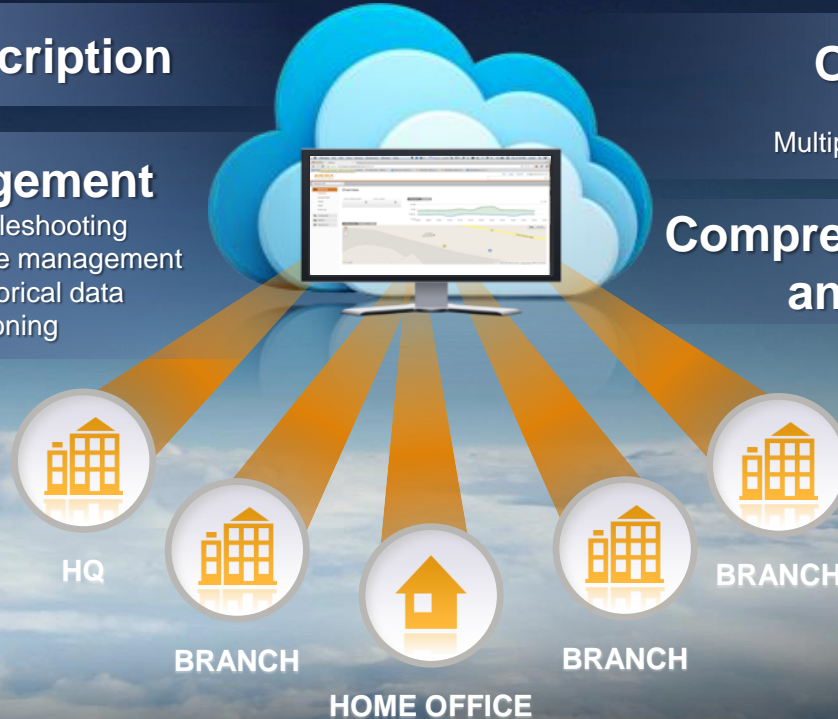
Enterprise management

Remote monitoring and troubleshooting
Central configuration and firmware management
Compliance records and historical data
True zero touch provisioning

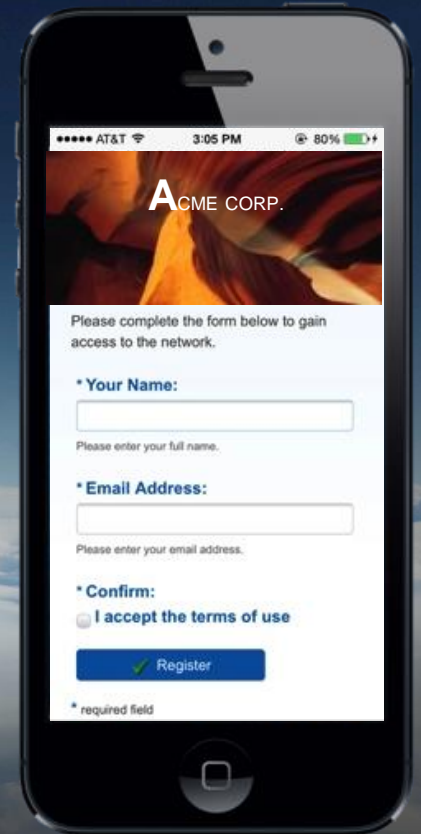
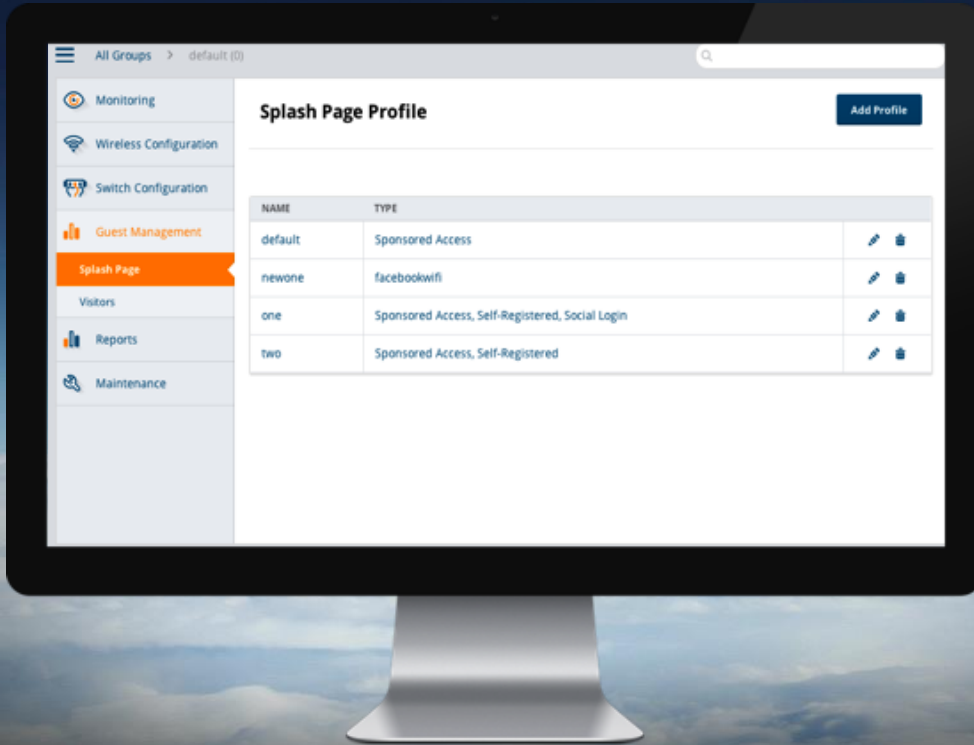
One interface

Multiple sites
Multiple clusters in a single site

**Comprehensive e-Support
and community**



Aruba Central with guest access management



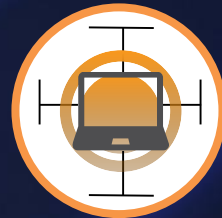
On-prem network management with AirWave



MULTI-VENDOR



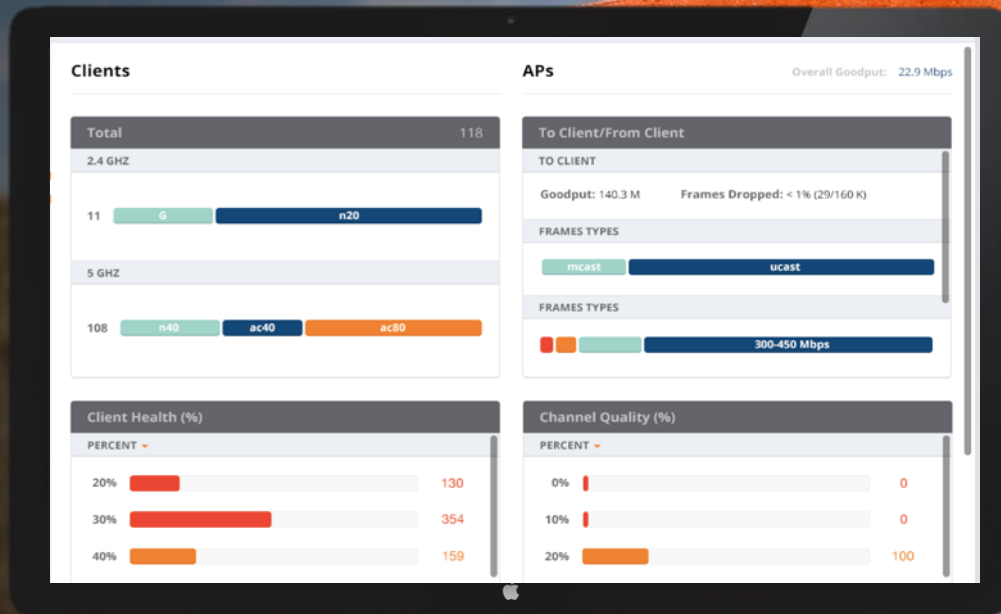
USER EXPERIENCE



VISUAL RF

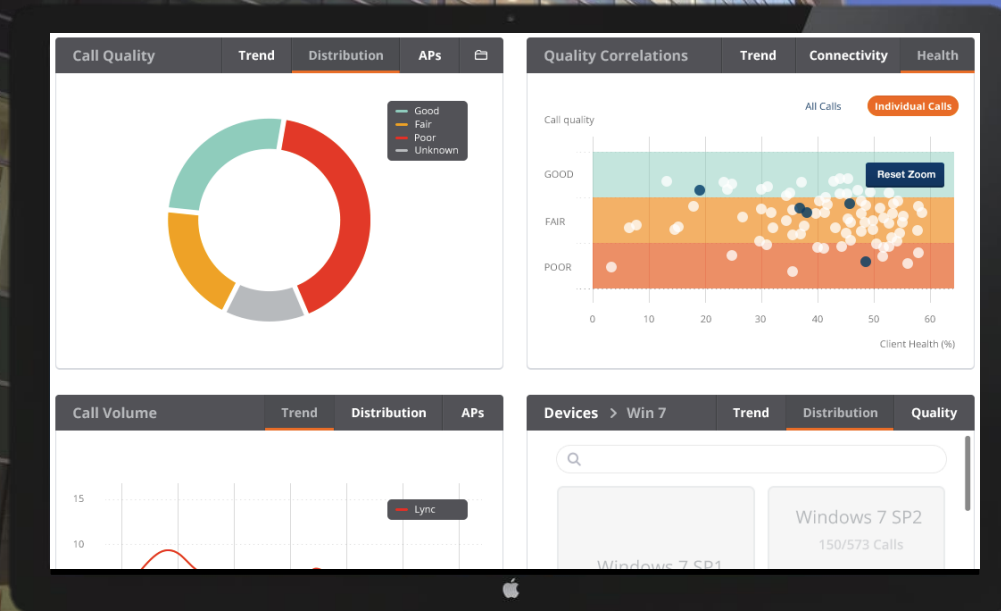


20/100 visibility Infrastructure health

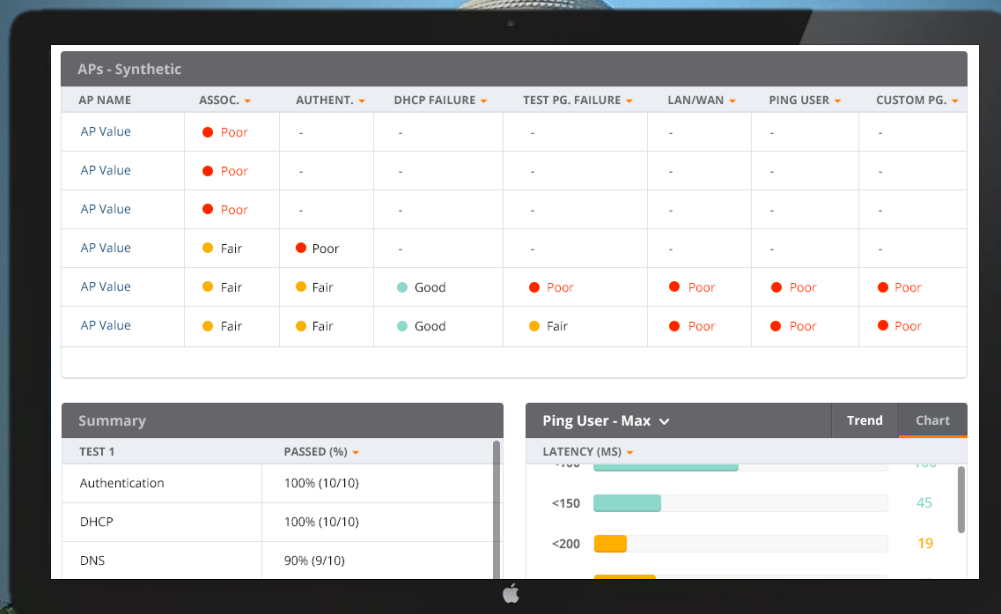


20/40 visibility

App awareness



20/20 visibility Mobility experience management (Q4'CY15)



Management options



DEPLOYMENT	n/a	Management as a Service No Hardware, No Software	Onsite
MANAGEMENT	One cluster of Instant APs	Instant APs, Aruba Switches Multiple Sites, Multiple Clusters	Instant APs, ArubaOS APs, Aruba Switches, Third-Party Wired & Wireless
ADVANCE CAPABILITIES	Simple Guest Wi-Fi	Guest/Visitor Management (Auth options & Customization)	VisualRF, Advanced Reporting, Alerts & Customizations
PRICING	Free	Subscription per AP/Switch - 1/3/5yr Tech Support Included	Perpetual S/W License per AP/Switch + Recurring Annual Maintenance + HW (optional)

Aruba Central for HP wired

Roadmap

Integrated, simple wired and wireless
Zero-touch provisioning
Integrated access control
Unified alerts, reporting &
troubleshooting
Automated L2-3 configuration

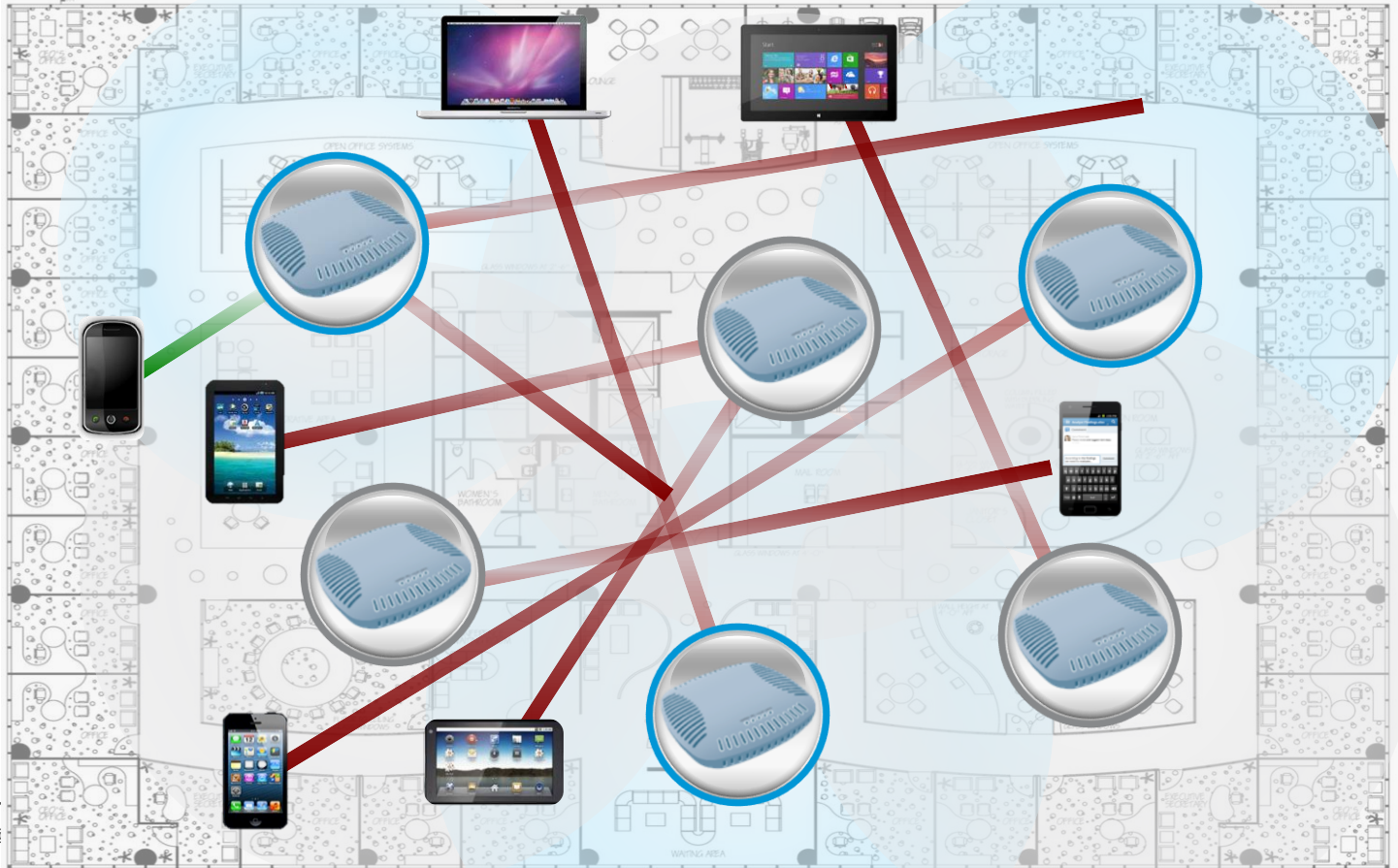


STABLE AIR

Wi-Fi slows down as many people connect



More APs Don't Always Help





Patent
8,401,

Device Type Summary



Windows 7	56.4%
Apple iPhone	17.8%
Other	12.9%
Android	7.9%
Apple Apple TV	5.6%

Device Type	Number of Steers	% of Total
Windows 7	57	56.00
Apple iPhone	18	17.00
Android	8	7.00
Apple Apple TV	5	4.00
Apple Mac	3	2.00
ASUS Nexus 7	2	1.00
Motorola MB865	2	1.00
Samsung SGH-T999	2	1.00
Samsung Android Messenger;	1	0.00
Windows XP	1	0.00
Samsung SGH-I747	1	0.00
Apple iPad	1	0.00
12 Device Types	101	100.00%

Reasons for Steer Summary

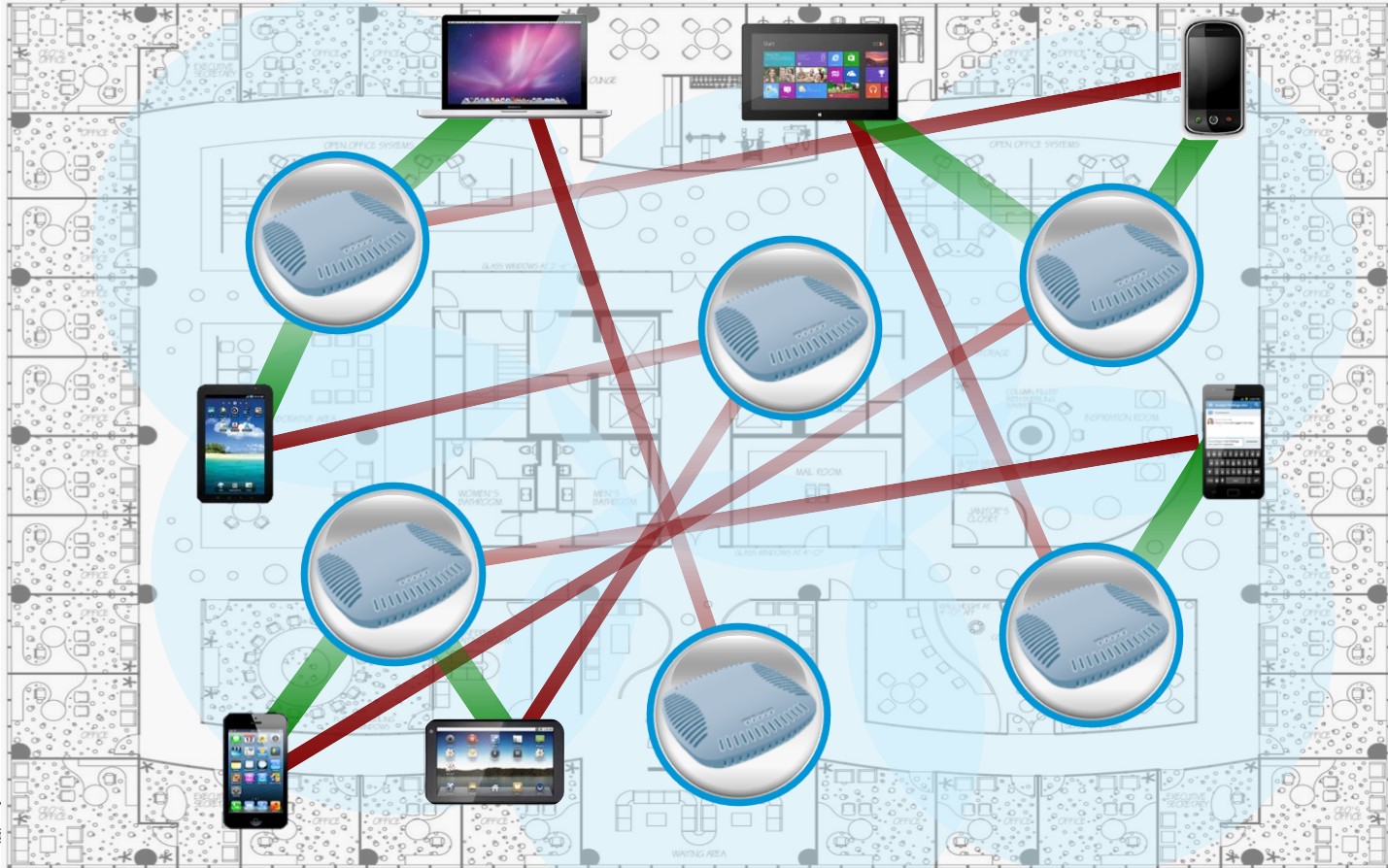


STICKY_CLIENT	86.1%
unknown	11.9%
BAND_STEER	2.0%

Reasons for Steer	Number of Steers	% of Total
STICKY_CLIENT	87	86.00
-	12	11.00
BAND_STEER	2	1.00
3 Reasons for Steers	101	100.00%

ty
e

ClientMatch in Action



SECURE AIR

**Personal devices & apps aren't secure
and create security issues**



Secure Air: Identity based Security

Key Features

Single Point of Security Control

Universal Authentication

Role-Based Access Control

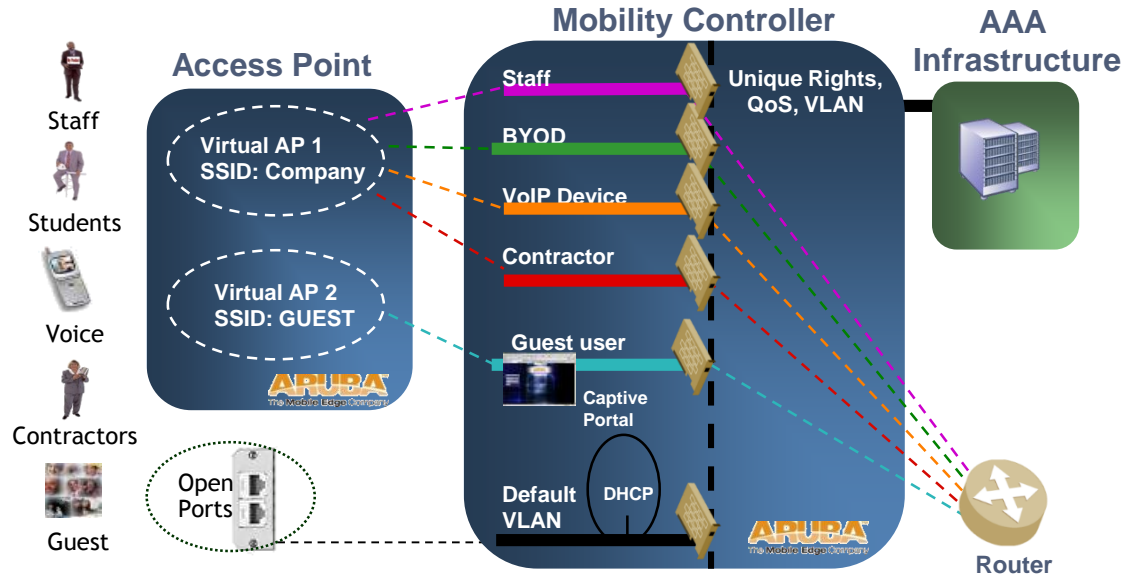
Stateful Firewalls

High-Speed Encryption

Hardware-based Processing

Automatic Client Blacklisting

Flexible Policy Creation

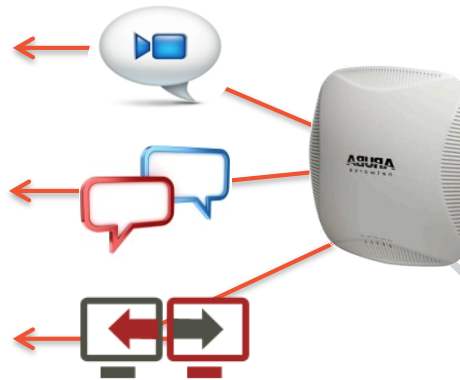


Secure Air: *App Visibility and Enforcement*

Visibility and control
of over 1,500s apps



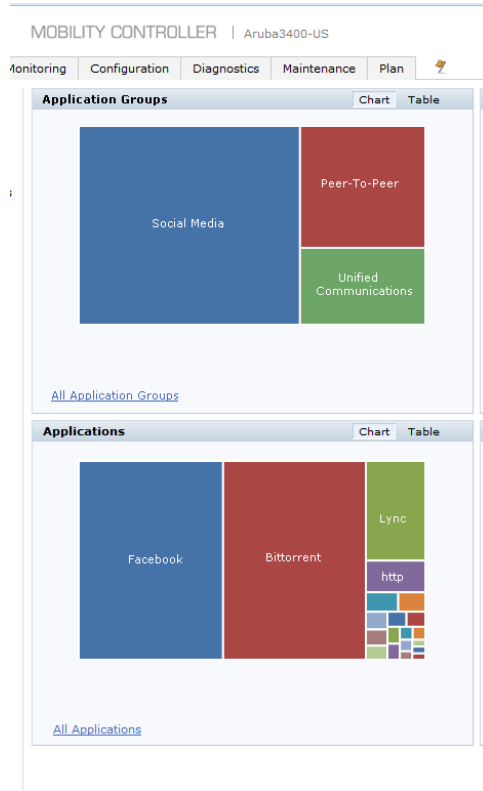
Integrated Next-Gen
Mobility Firewall with DPI



Orchestrate QoS
& troubleshooting



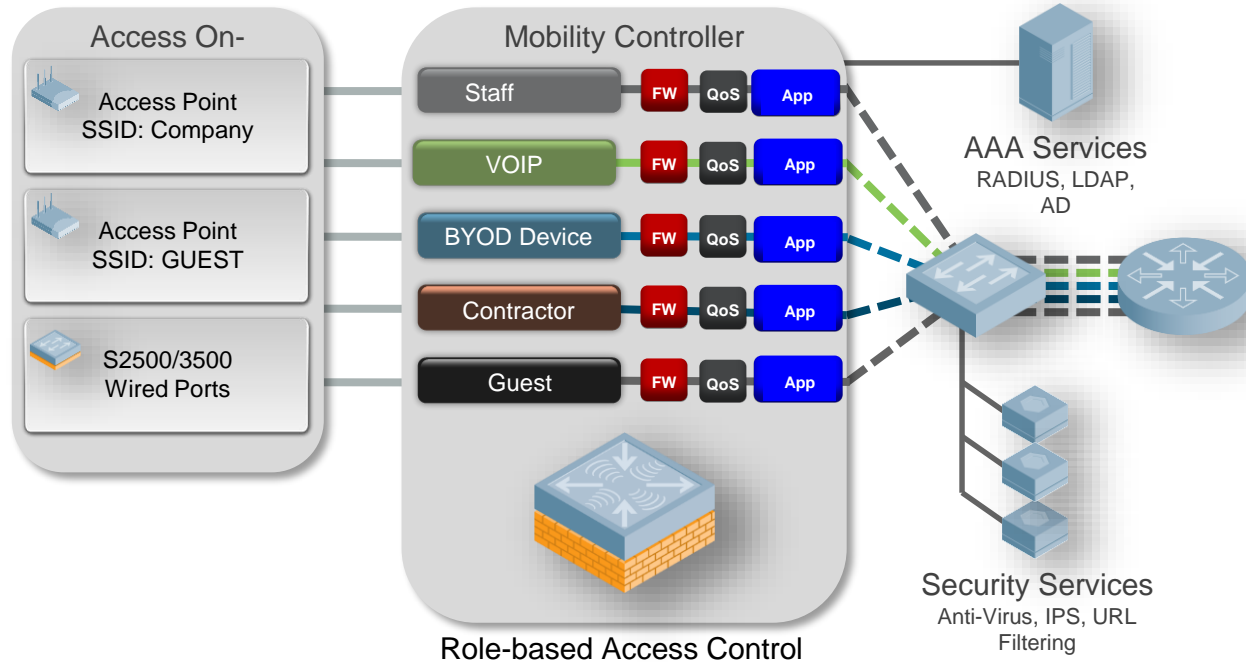
AppRF 2.0



- Incorporates Protocol-Aware Deep Packet Inspection technology
 - Uses advanced techniques for application ID
 - Over 1500 Applications
- Operates at user role level to provide *automated* application control
 - Block application or categories of apps
 - QoS application at L2 or L3
 - Bandwidth contracts for applications
- New Category Dashboard element
 - Shows apps by category such as Peer-to-Peer, Streaming video
- Graphically based application blocking work flow

Role-Based Security App Policy Control

Multiple classes of users on same infrastructure easily separated



Web Content Filtering

- Shows web browsing breakdown by categories and risks
- Use web categories and risks in AppRF policy making
 - Block, QoS, Bandwidth limit, mirror, log web content just like IP addresses and applications
- Allows blocking of sites that present a security risk to end users



SIMPLE AIR
Easy to Setup and manage BYOD.
Guest management make easy.



Securing GenMobile

1 in 3



of workers admit to having lost data due to the misuse of a mobile device

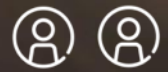
6 in 10



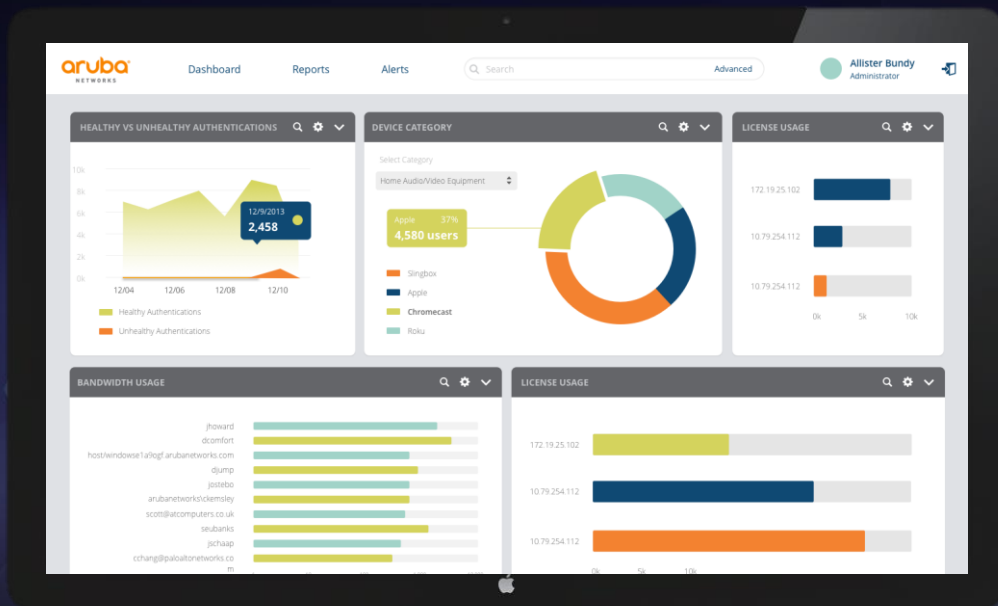
share their work and personal devices with others regularly

The age bracket with the highest propensity of data and identity theft are employees between

25-34 years old



Safeguarding Network Access with ClearPass



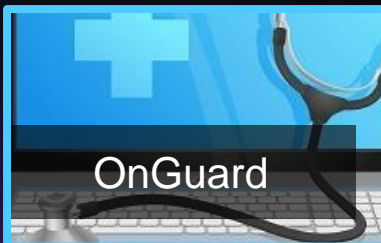
8M authentications per day
at Ohio State University

100K onboarded devices
at a top 10 bank

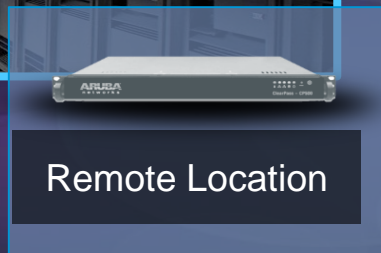
1M devices per year
at University of Washington

The ClearPass Platform

Expandable Applications



Baseline Hardware or VM Appliances



Automated Onboarding of Personal Devices

Authentication With Unique Device Certificates

1

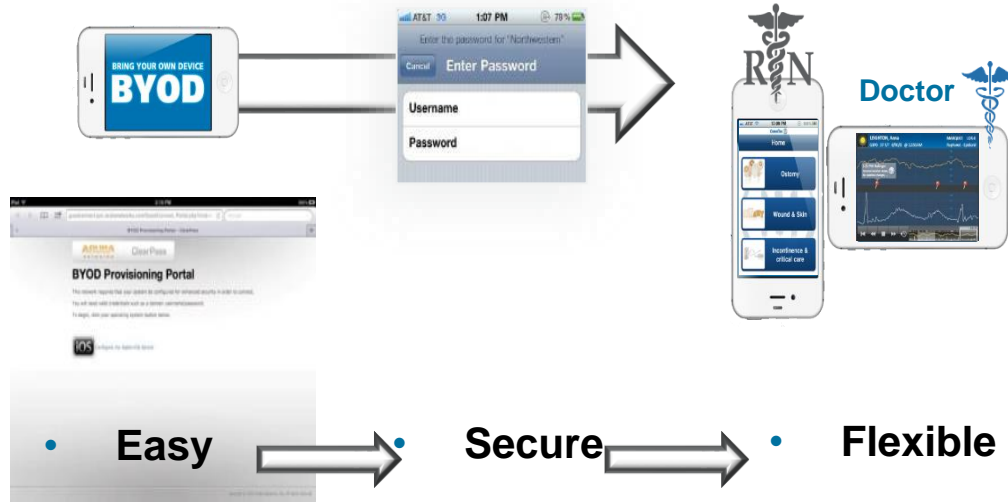
User's device detected & redirected to portal

2

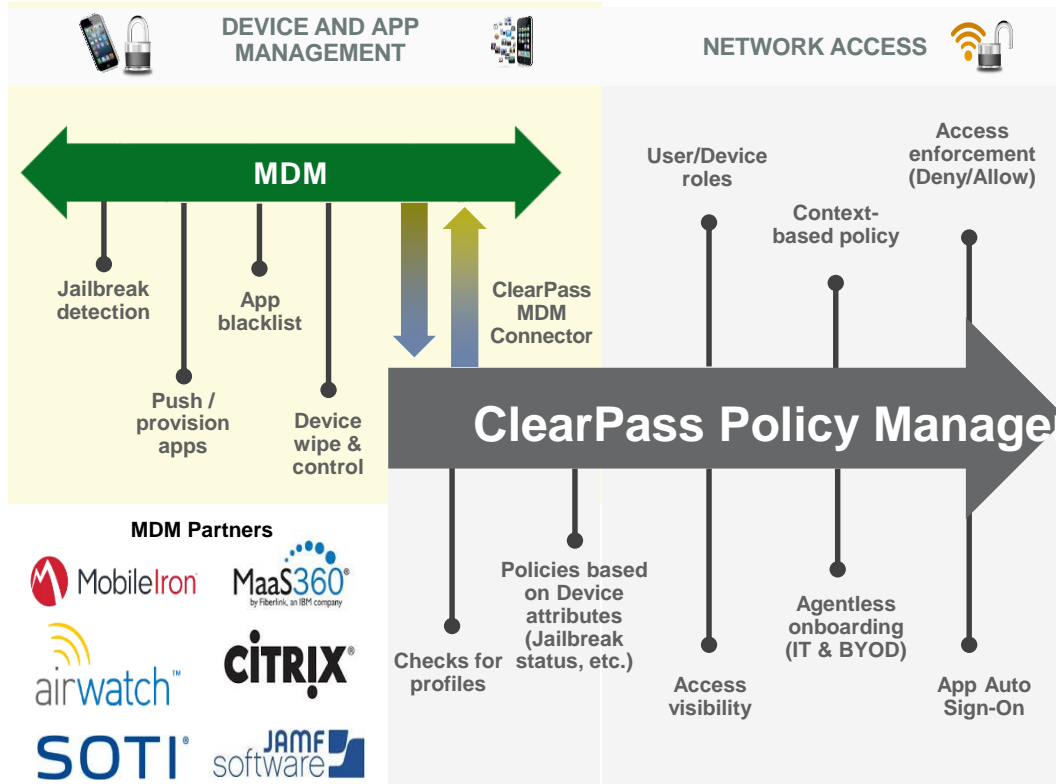
Settings & certificate configured after credentials entered

3

Automatically places user on proper network segment



Extending MDM with Network Policy



Sponsor-Based Guest Wi-Fi

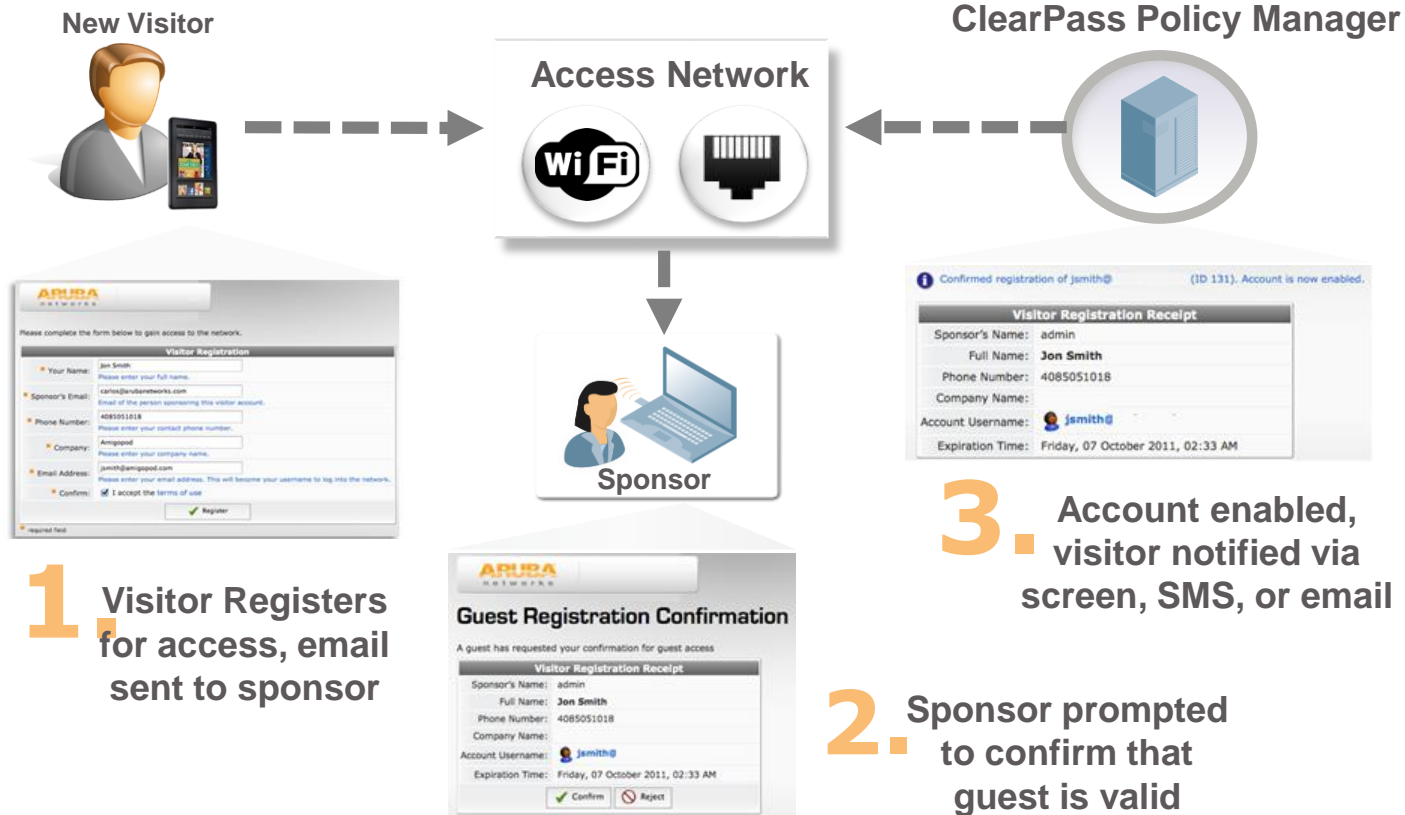


Problem: Getting Wi-Fi access for campus visitors is difficult & time consuming

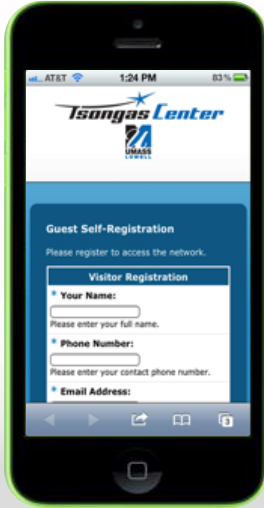



- Sponsor self-registers & validates guests without calling Helpdesk
- Username & password automatically delivered via SMS or e-mail
- University branded and personalized captive portal to each guest

Automated Guest Onboarding



Sponsor-Based Guest Wi-Fi



Custom experience in stadium and on campus



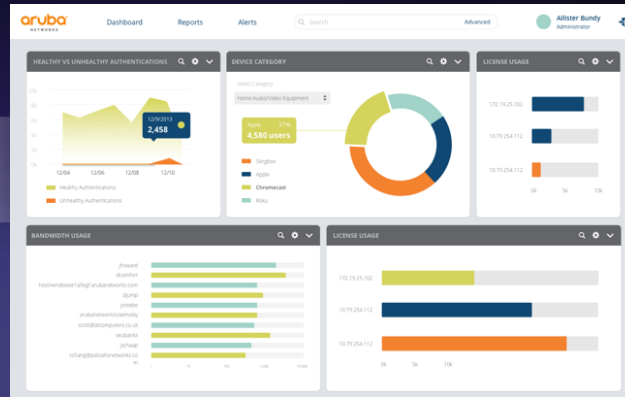
Optimized for any mobile device

Translating access policy to enforcement

Aruba ClearPass



Unified policy
enforcement



HP Network Protector

ArcSight
An HP Company

MobileIron

paloalto
NETWORKS

Best of breed
security systems

ClearPass for multi-vendor wired infrastructure



Device profiling
Onboard
Wired NAC
Guest access
Trends & insights



Existing deployments of
HP switch ports



Existing deployments of
Cisco switch ports

ClearPass Exchange program

FORTINET

MobileIron

Check Point
SOFTWARE TECHNOLOGIES LTD.

aruba
NETWORKS
an HP company

airwatch
by **vmware**

paloalto
NETWORKS



CITRIX

ArcSight
An HP Company

BROCADE

splunk



IBM Radar

JUNIPER
NETWORKS



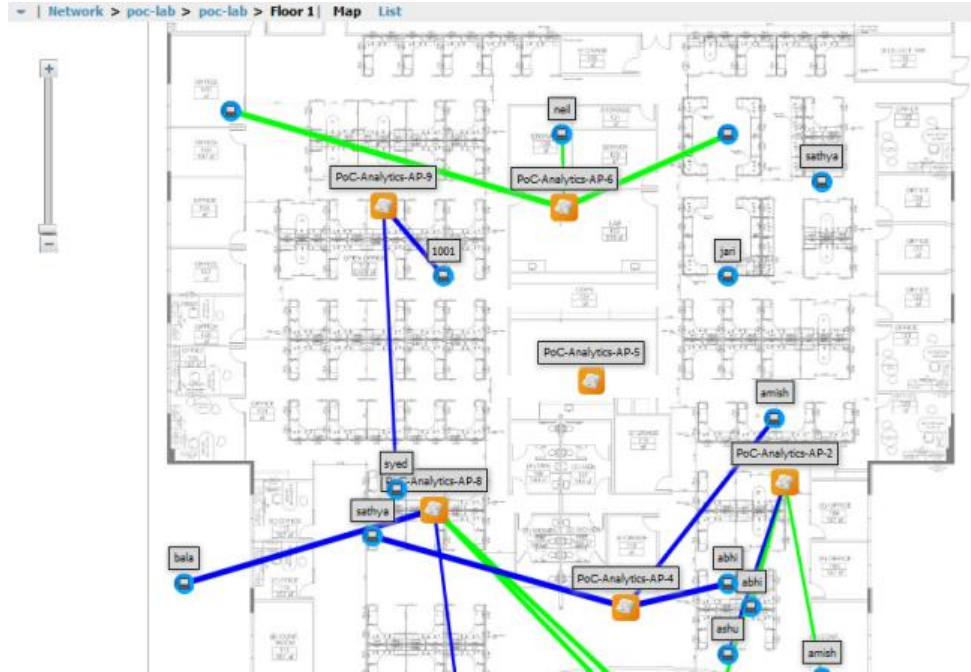


SMART AIR

Can't see over the air
Manage user
experience

Smart Air: Client Visibility

- Floor plan with AP/Client relation link.



Smart Air: Client Health Visibility

Simplified Searching

By user/device name, IP or MAC address

Displays relevant devices matching search criteria

Client health overlay

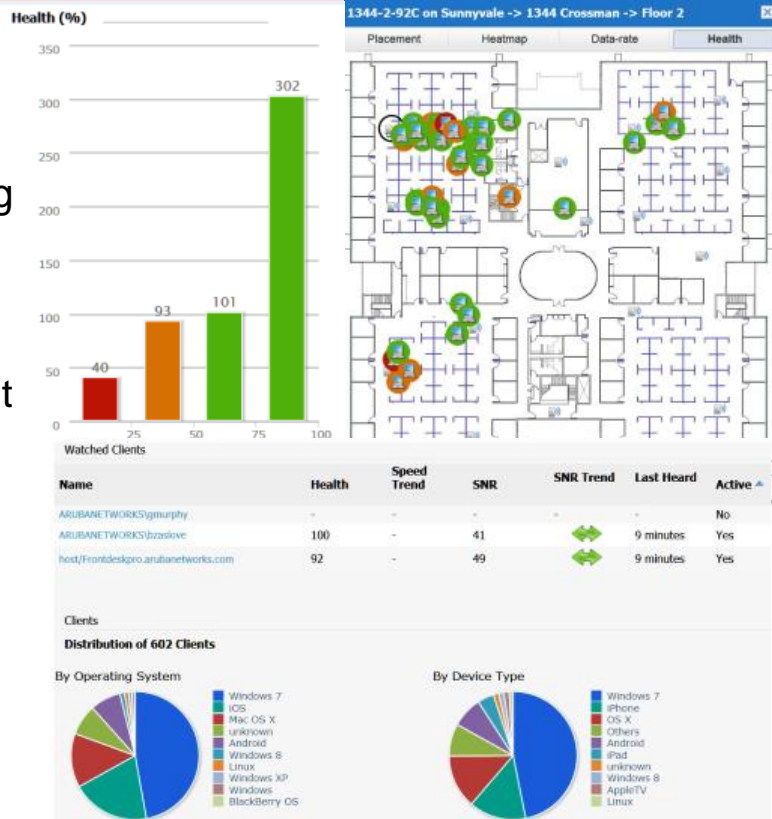
Helps identify if the problem is with the client or RF environment

RF Performance

Display the clients with low client health

Proactively monitor client / RF issues

Watched client / VIP perspective



Application Overlay

- AppRF overlay for clients
- Identifies clients contributing to the selected Application.
- Thresholds for showing red (high), orange and green usage for clients contributing to that application

Overlays

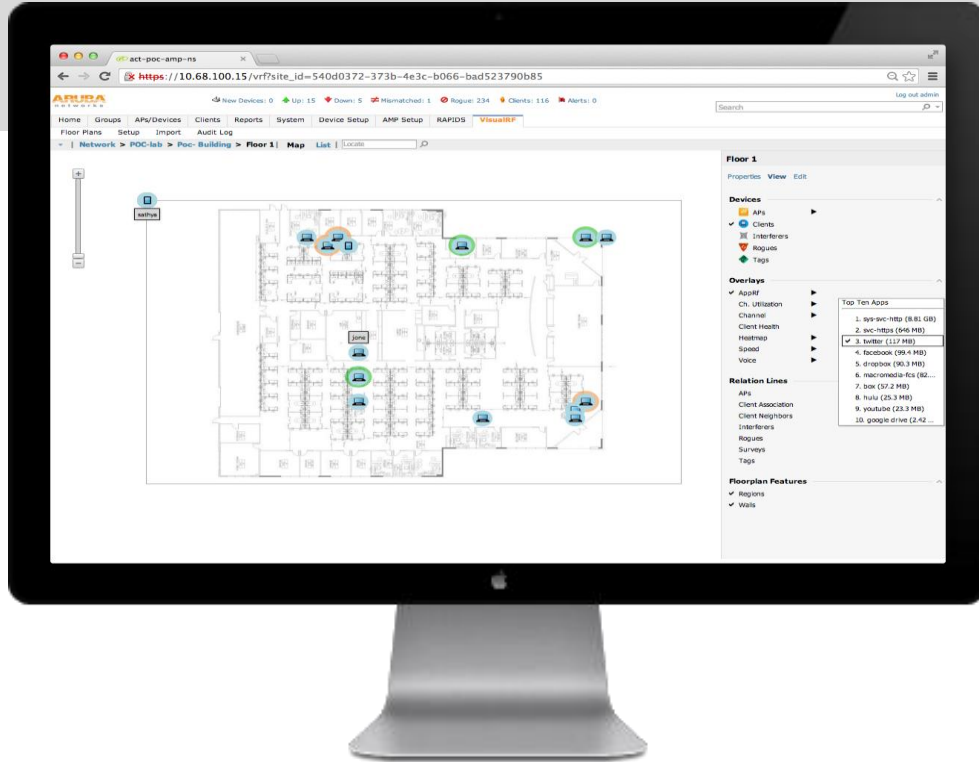
✓ AppRf ▶

Top Ten Apps

1. web (296 MB)
2. box (20.5 MB)
3. facebook (19.7 MB)
4. dropbox (11 MB)
5. twitter (7.24 MB)
- ✓ 6. youtube (4.62 MB)
7. sys-svc-dns (1.06 MB)
8. google drive (812 KB)
9. svc-sips (614 KB)
10. sys-svc-msrpc-udp (...)



Smart Air: *Unified Communications*



**Interactive UC
dashboard for
wireless LANs
With AirWave 8**

Say Goodbye to the Desk Phone



Making Wi-Fi and Bluetooth Work Together



Analytics and Presence

IT Centric



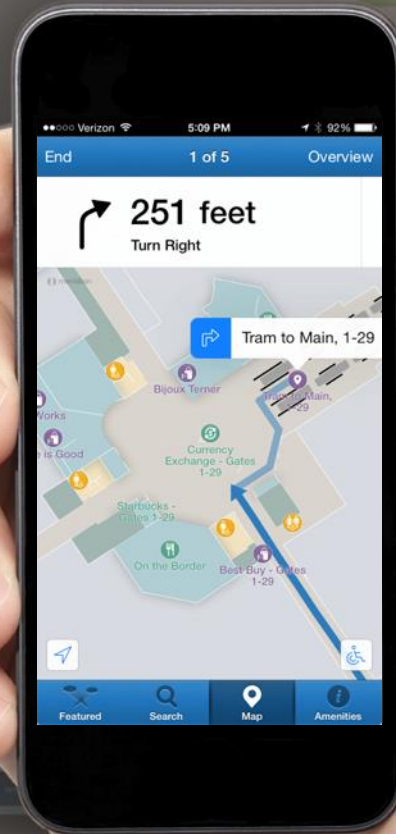
Real-Time Location

User Centric

Enabling engagement like never before

Use Wi-Fi analytics to fuel decision making

Increase loyalty with personalized digital ads



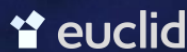
Unlocking the Value of Network Context



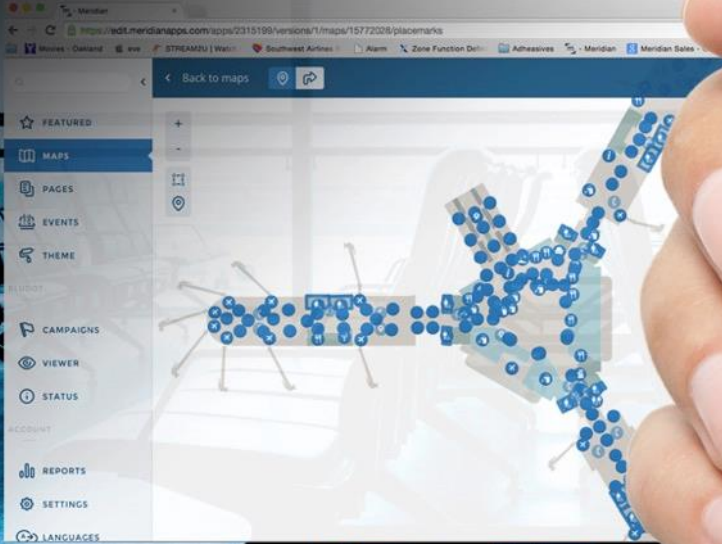
Aruba ALE



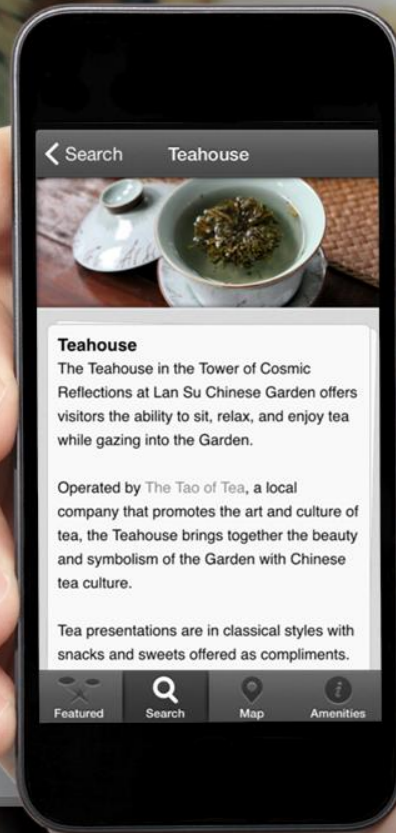
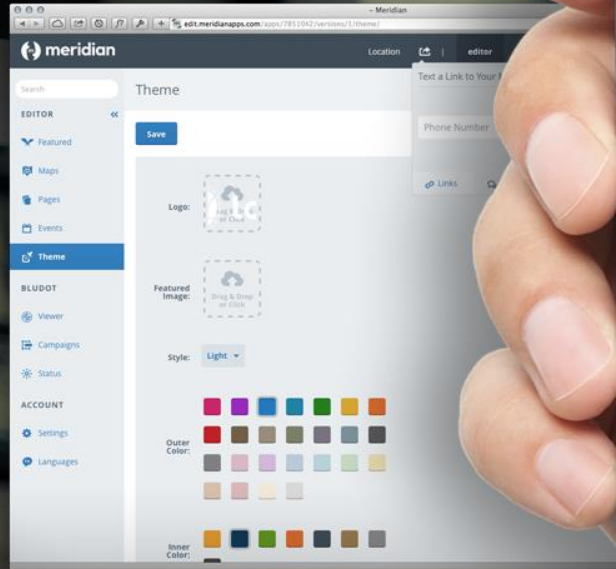
Software AG Suite
Powering the Digital Enterprise



Location Redefining Our Experiences



Meridian App Platform and AppMaker

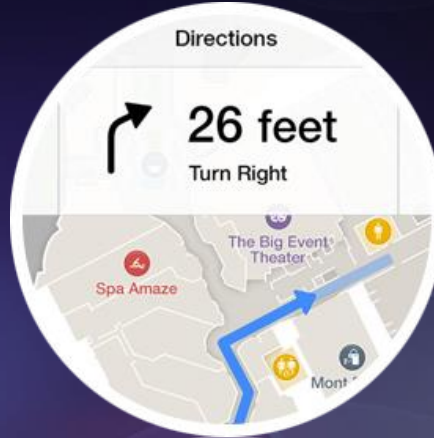


Meridian Software Development Kits (SDKs)

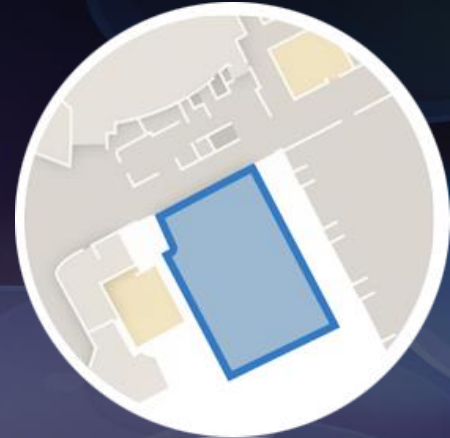
BluDot Kit



Nav Kit



Zone Kit



Aruba Beacons with Bluetooth Low Energy (BLE)

Enterprise-grade and
simple to deploy

Compatible with
iBeacon API

Protects user privacy

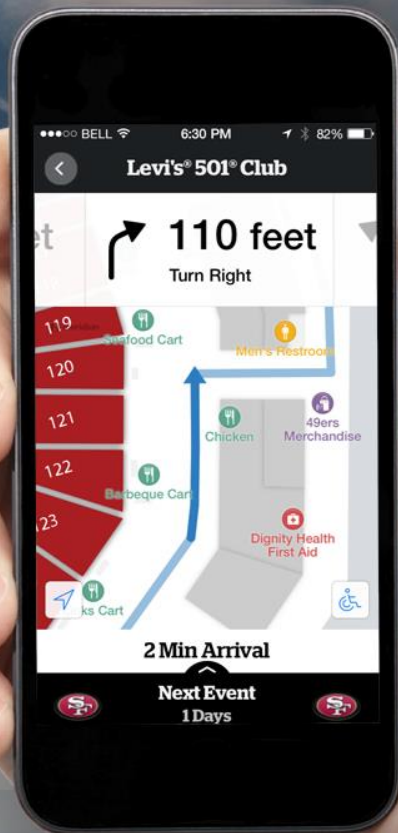
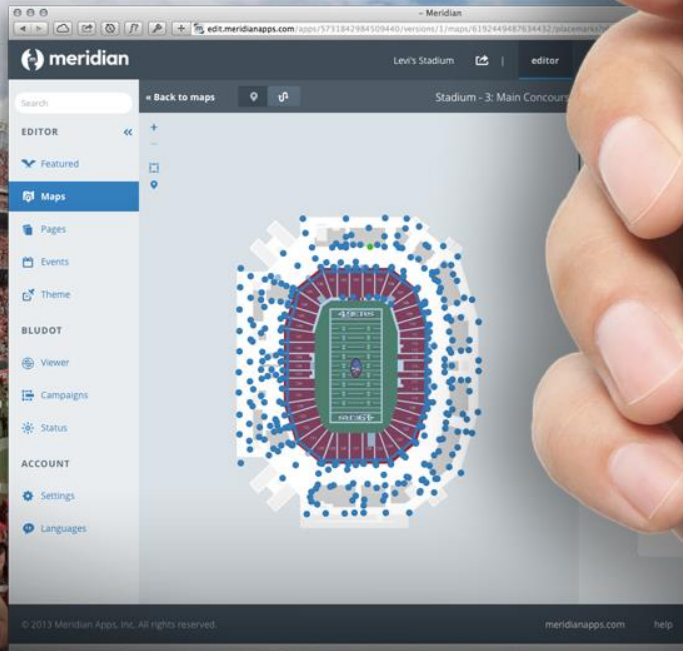


Battery life of 1.5 to 2 years
or USB powered

Excellent accuracy
($<1\text{m}$) for location

Low latency ($<2\text{sec}$)
for notifications

Mapping and indoor wayfinding

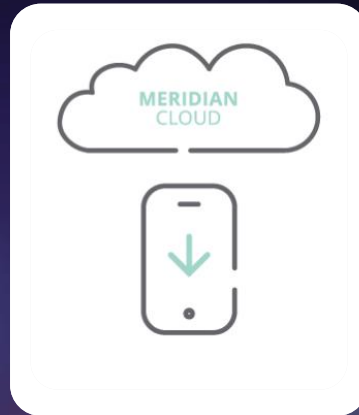


Glowing blue dot indoors with Aruba Location Beacons

Beacons are always
chirping at the same
power strength



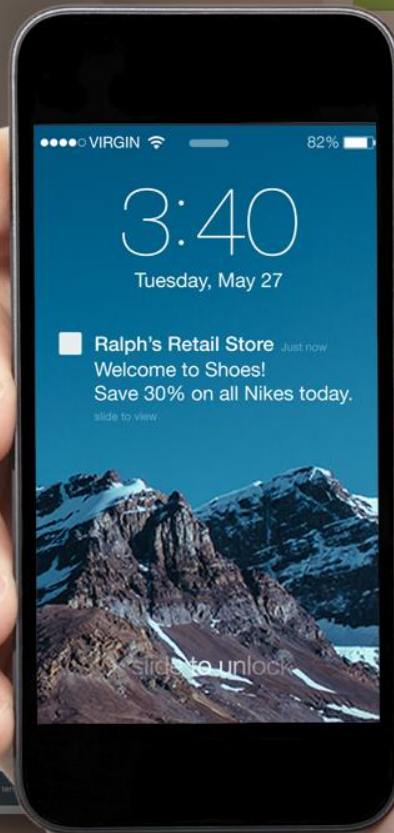
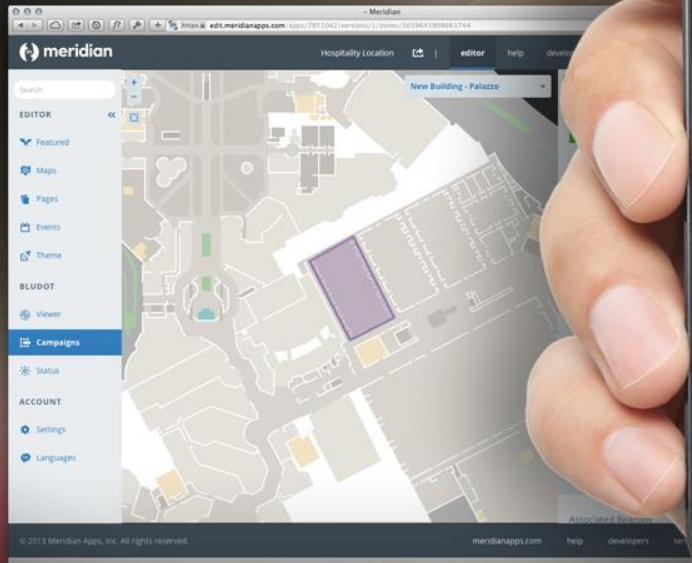
User downloads the app
and permits the use of
location



App calculates the real-
time location of the
mobile device



Proximity-based mobile notifications



✓ Campaign Active

381120

enter. Happy
r at Taylor

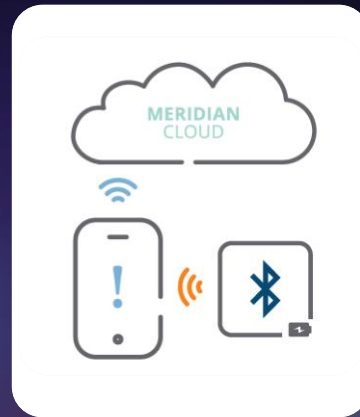
vents

Push notifications indoors with Aruba Proximity Beacons

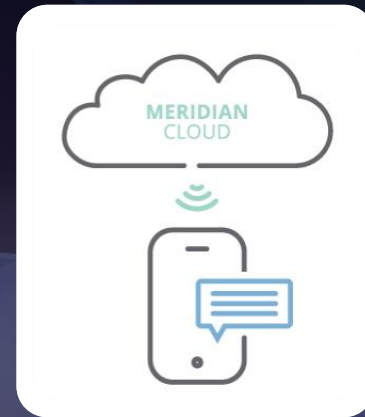
**Proximity beacon
is chirping at
varying strengths**



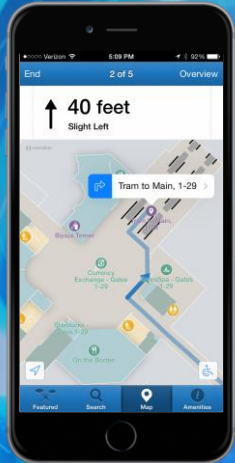
**Mobile app wakes up
and notifies the
Meridian cloud**



**Meridian tells the app
to display a local
push notification**



First solution with end-to-end beacon management



Battery powered
Aruba Beacons



USB
Aruba Beacons



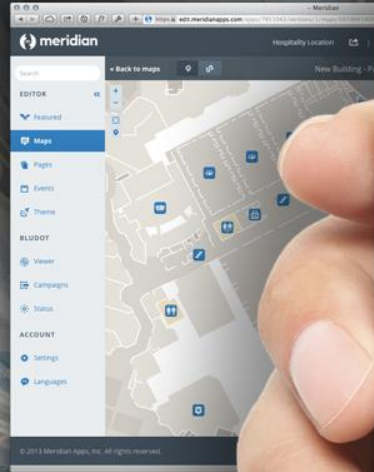
Comprehensive management tools

Beacons Mobile App

Update indoor map and measure accuracy

Meridian Cloud

Monitor beacon status, battery power level, and update firmware

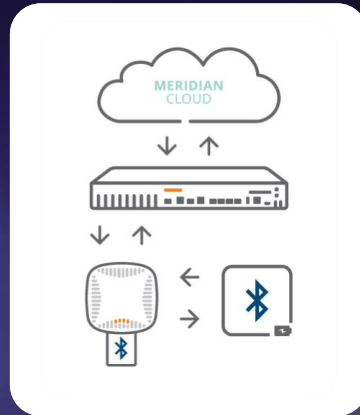


How does Aruba Wi-Fi help manage Aruba Beacons?

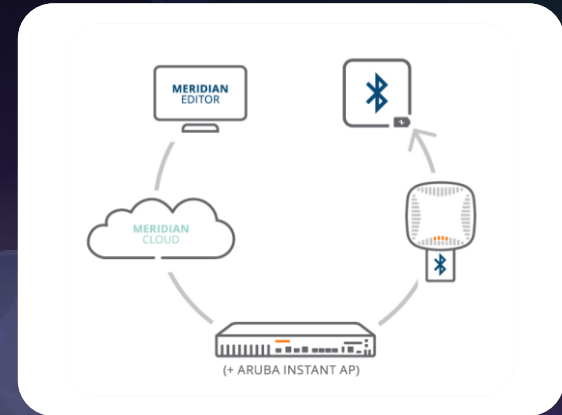
Aruba USB Beacon plugs into an Aruba Wi-Fi access point



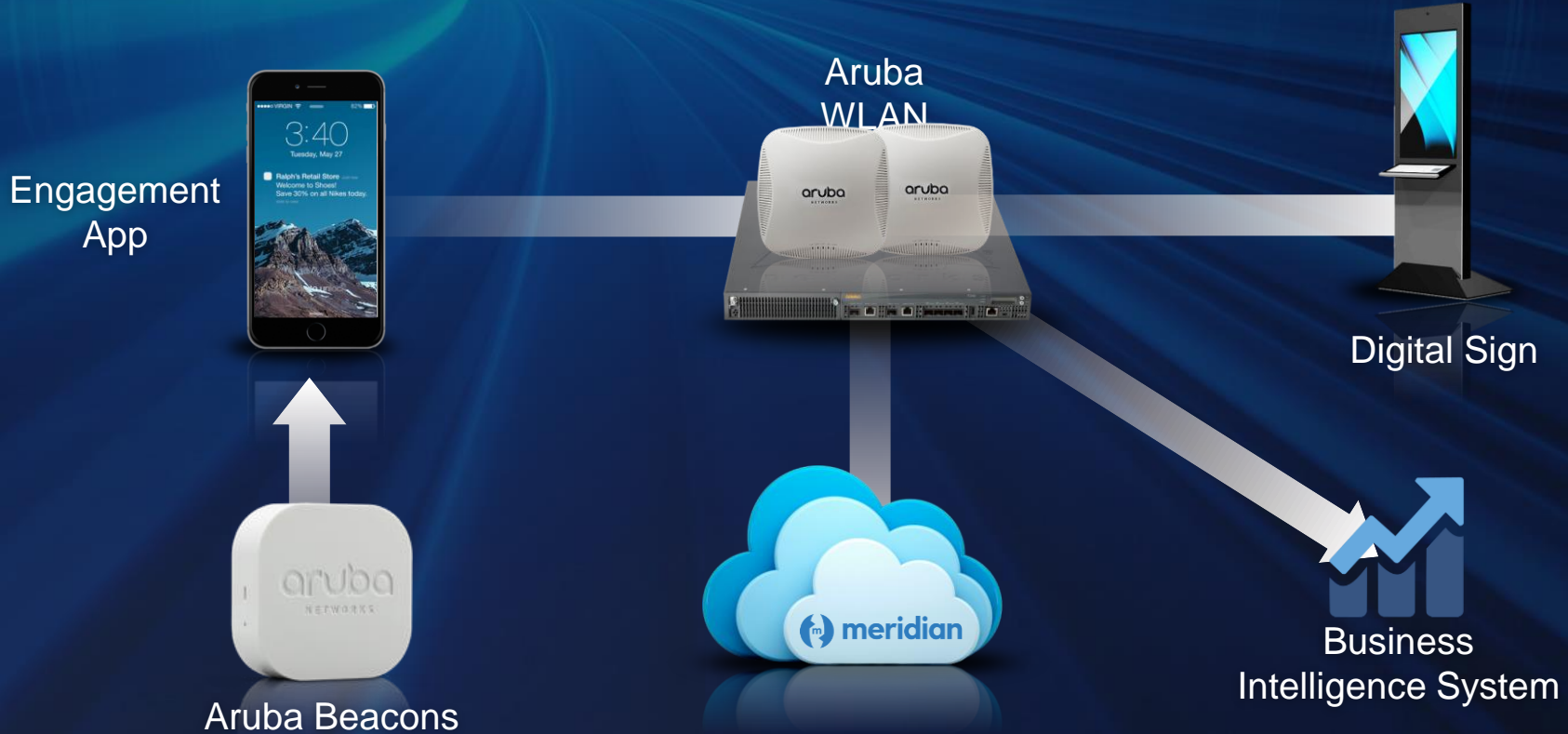
AP communicates with battery-powered beacons and Meridian cloud




Aruba Beacon details are monitored and modified within the Meridian cloud



Personalized digital signages, per location

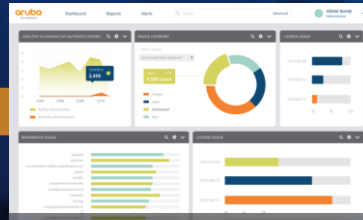


Automated controls to secure BYOD

 **MobileIron**
Your iPad has been quarantined based on jailbreak being detected



Compromised Device



Aruba ClearPass

IT Systems



MDM

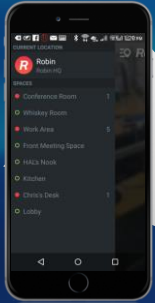


Cellular Network

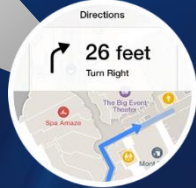


Automated meeting room attendance and booking

Robin

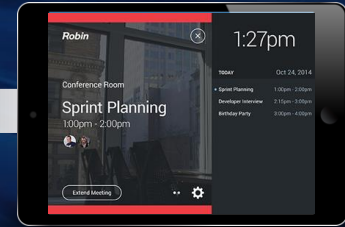


Aruba Beacons

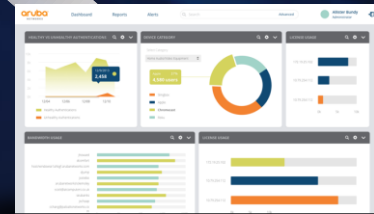


Nav Kit

Aruba WLAN

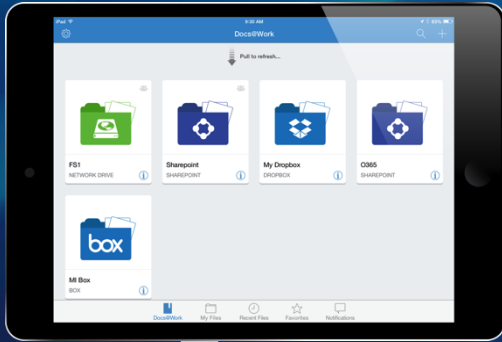


IoT Digital Sign

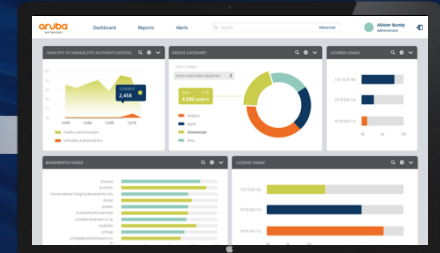


Aruba ClearPass

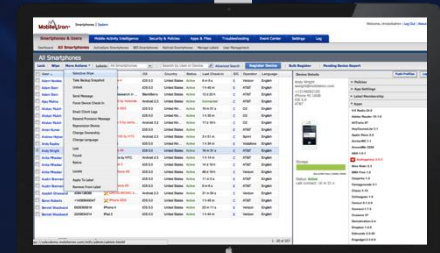
DRM and geofencing for sensitive data



Aruba WLAN



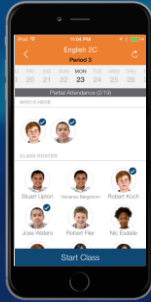
ClearPass
Policy



Mobile Device
Management

Digital roll call and classroom management

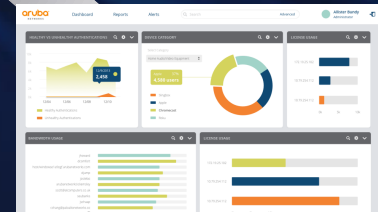
MyClass
App



Aruba WLAN

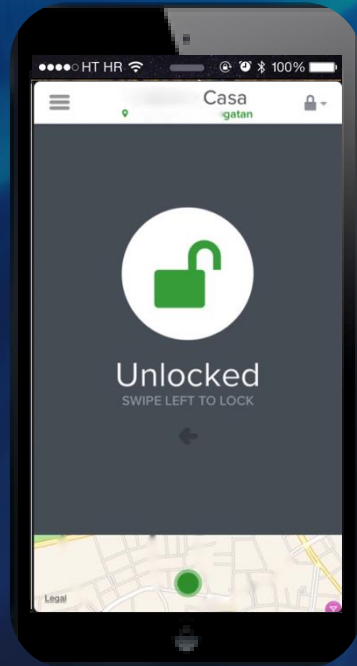


Student
Information
System

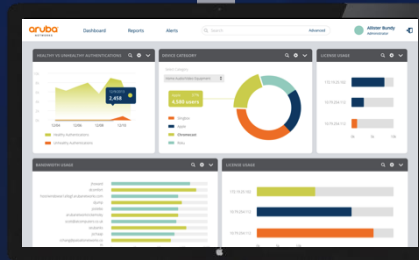


Aruba ClearPass

Location and identity driven physical security



Physical Security System

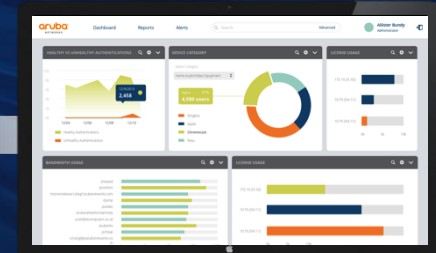


ClearPass Policy

Protection against lost devices



Aruba Beacons at the building perimeter



ClearPass Policy

aruba Mobile Device Management

Name	Model	OS	Location	Status
1. John Doe	iPhone11,2	iOS	1000000000	OK
2. Jane Smith	Galaxy S20	Android	1000000000	OK
3. Bob Johnson	Pixel 4	Android	1000000000	OK
4. Alice Brown	iPhone12,1	iOS	1000000000	OK
5. Charlie White	Galaxy S21	Android	1000000000	OK
6. Diana Green	Pixel 5	Android	1000000000	OK
7. Frank Black	iPhone13,1	iOS	1000000000	OK
8. Grace King	Galaxy S22	Android	1000000000	OK
9. Henry Lee	Pixel 6	Android	1000000000	OK
10. Ivy Hill	iPhone14,2	iOS	1000000000	OK
11. Jack Adams	Galaxy S23	Android	1000000000	OK
12. Karen Baker	Pixel 7	Android	1000000000	OK
13. Larry Clark	iPhone15,1	iOS	1000000000	OK
14. Mary Evans	Galaxy S24	Android	1000000000	OK
15. Nick Foster	Pixel 8	Android	1000000000	OK
16. Olivia Garcia	iPhone16,1	iOS	1000000000	OK
17. Paul Harris	Galaxy S25	Android	1000000000	OK
18. Rachel King	Pixel 9	Android	1000000000	OK
19. Steve Lewis	iPhone17,1	iOS	1000000000	OK
20. Tracy Miller	Galaxy S26	Android	1000000000	OK

Mobile Device Management

Architecting for Tomorrow



Mobile

- Gigabit Wi-Fi
- Mobile UC
- Business continuity
- Guest access, BYOD
- Location services

Cloud

- Transformation workshop
- Open standards
- Dual vendor
- Rightsized solution



Thank You

A word cloud of various languages expressing gratitude, including: Vinaka, Maake, Asante, Dhanyavadagalu, Shukria, Manana, Dankon, Matondo, Kiitos, Maanapu, Biyan, Dzieluje, Arigato, Chokwane, Diolch i Chi, Terima Kasih, Taiku, Tack, Blagodaram, Ngiyabonga, Juspapar, Grazias, Mochchakkeram, Tingki, Ua Tsaug Rau Koj, Bedankt, Dakujem, धन्यवाद, cảm ơn bạn, Kop Khun Khap, Paldies, Gratias Tibi, Obrigado, Dëkuji, Nirringrazzjak, Hvala, Di Ou Mèsi, Kia Ora, ありがとう, Suksama, Rahmat, Matur Nuwun, 谢谢, Welalin, Danke, Merci, Go Raibh Maith Agat, Djiere Dieuf, Eskerrik Ask, Misaotra, Matur Nuwun, 谢谢, xBala, Welalin, Di Ou Mèsi, Kia Ora, Kop Khun Khap, Paldies, Gratias Tibi, Obrigado, Djiere Dieuf, Eskerrik Ask, Najis Tuke, Matur Nuwun, 谢谢, xBala, Welalin, Di Ou Mèsi, Kia Ora, Kop Khun Khap, Paldies, Gratias Tibi, Obrigado, Djiere Dieuf, Eskerrik Ask, Najis Tuke.