

Mobility-Centric v.
Port-Centric



Multi-vendor
Network Services



Daly MEEC Webinar: ClearPass Access Management

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Geoff Giulino Senior Systems Engineer, Aruba

HQ: Sunnyvale, CA
130 country
operation



~ \$650M revenue
NASDAQ: ARUN

ARUBA™

DALY
Energy IT Service Provider

Daly and the MEEC Contract

IDIQ Contract for Desktops / Portables, Storage, Servers, Network, Virtual Computing, Peripherals, and Related Service.
Contract No.: UB-12-B-19-D1

Managing Agency - University of Baltimore on behalf of the Maryland Enterprise Educational Consortium (MEEC) and University System of Maryland (USM)

Daly was ranked #1 in all categories. As the top ranked contractor, Daly is designated as a Solutions Contractor specifically authorized to provide integrated solutions using technologies from across all categories of the contract. In this capacity, Maryland educational institutions can utilize Daly's engineering and architectural capabilities as well as a multitude of professional services to obtain the needed integrated systems.

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Trusted by Enterprises Worldwide

High Tech



Internet



Finance



Media & Ent.



Higher Education



Government



Healthcare



Retail



Primary Education



Public Transit



Public Venues



Services



Oil & Gas



Manufacturing



Hospitality



Telecom



Networking for BYOD & Mobility

More devices
than People



Explosion of
mobile apps



Even
customers
demand
access



RECONFIGURE NETWORK, SECURITY & MANAGEMENT SYSTEMS

PORT CENTRIC

Multiple touch points with
separate silos

Hardware approach

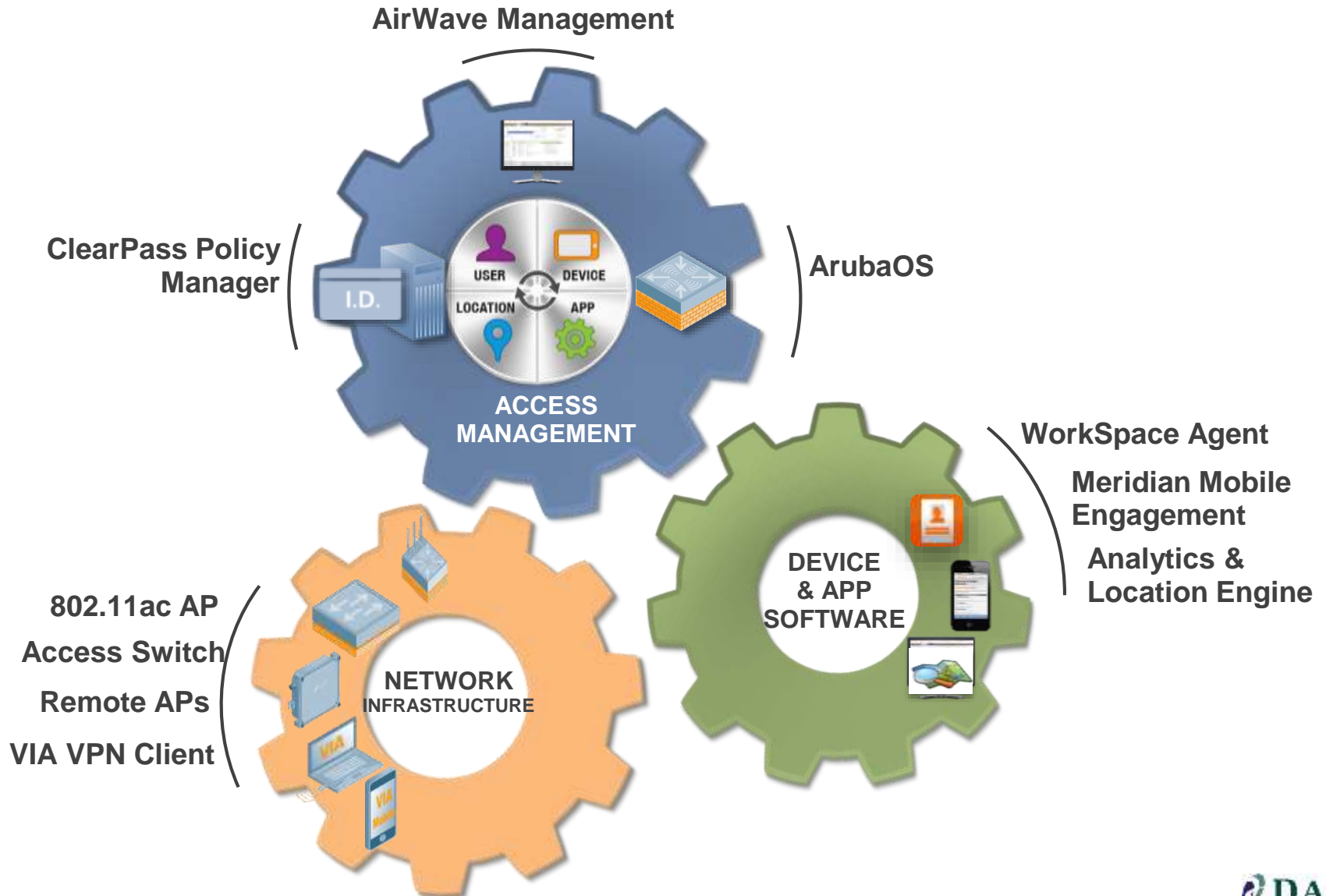
OR

MOBILITY CENTRIC

Policy & flows to unify systems
(network + apps + devices)

Software approach

Mobility-Centric MOVE™ Architecture



The Mobility Control Plane

**CLEARPASS POLICY
MANAGER**



NAC + MDM + MAM In One
(single policy definition point)



AIRWAVE MANAGEMENT

ARUBAOS



Context-Aware Firewall
(eliminate VLAN, SSID, ACL config)



Multi-vendor Management

Monitor the device & app experience

Unified Security Policy Examples

NETWORK CONTROL

DEVICE CONTROL

APPLICATION CONTROL

Jailbroken Device



Wipe/Lock
Confidential
Apps

Increase
Network QoS



Latency Sensitive
UCC App

Location &
Sharing Rules
Based
Visibility



Initiate AirPlay
or AirPrint

Employees: WorkSpace App Enforces Policy

Personal

- WorkSpace App provisioned to device



Corporate

- Employee self-service mobility
- Personalized portal with Single Sign-On



WORK
APPS



BYOD
DEVICES



ACCOUNT
& GUESTS



IOS/MAC OS X



ANDROID

Guest Web Portal for Policy Enforcement

Self-register using customizable web portal

Push ads & messages to custom web & mobile skins

Hardware or Virtual Appliance
ON ANY NETWORK

ARUBA NETWORKS ClearPass Guest
Welcome to Aruba Networks
Visitor Self-Registration
Please enter your details and the name of the person you are visiting to access the network.

Visitor Registration	
Sponsor's Name:	Bill Daniels <small>Name of the person sponsoring this visitor account.</small>
Your Name:	Jeff Watts <small>Please enter your full name.</small>
Phone Number:	408-555-1212 <small>Please enter your contact phone number.</small>
Company Name:	Visitor, Inc. <small>Please enter your company name.</small>
Email Address:	jwatts@visitorinc.com <small>Please enter your email address. This will become your username to log into the network.</small>
Confirm:	<input checked="" type="checkbox"/> I accept the terms of use

* required field

movistar 10:06 45%
australian open
The Grand Slam of Asia/Pacific
Guest Registration
Guest Self-Registration
Please register to access the network.

Visitor Registration	
* Your Name:	<input type="text"/> <small>Please enter your full name.</small>
* Email Address:	<input type="text"/> <small>Please enter your email address. This will become your username to log into the network.</small>

Twelve piece MP Chicken Filet
Start your chicken craving and have it all in 30 seconds. To make sure you get the most out of your dining experience, try a 12-piece chicken filets with a side of french fries, a soft drink, and a McFlurry with our new Raspberry Cheesecake Sauce. \$12.99. *Taxes and fees extra.

Shrimp King (New)
Shrimp King is the new star of the menu. It's a delicious blend of shrimp and chicken, served with a special sauce and topped with a special sauce. \$12.99. *Taxes and fees extra.

WUPPIE!
It's a group of four that's just what you need. The WUPPIE! is a delicious blend of chicken, beef, and cheese, served with a special sauce and topped with a special sauce. \$12.99. *Taxes and fees extra.

Route guest access request to a **sponsor**

Integrates with Lobby, CRM & patient systems

Network Enforcement with Integrated Firewall



**AirPlay
AirPrint**

**Visibility to Apple TVs
per role & location**



**Microsoft
Lync**

**Track & prioritize flows
even when encrypted**



Cloud Apps

**Control bandwidth per
time-of-day & location**



**Multicast
Video**

**Optimize bandwidth
over wireless**

Flexible Deployment Options



CORE CONTROLLER

- One touch point for VLANs & IP
- Speeds up L3 roaming
- Ideal for campus



DMZ CONTROLLER

- Site-to-site IPsec VPN
- Split tunnel options
- Ideal for teleworkers, small branch



CONTROLLER-LESS

- Virtual controller with Instant APs
- Distributed forwarding
- Ideal for branch

Controller-less (Aruba Instant)



Web-based management and automatic cloud updates

Master AP as virtual controller

Automatic configuration download



Faster setup



Faster network



Faster maintenance



Stronger security

AirWave: Manage Network Operations



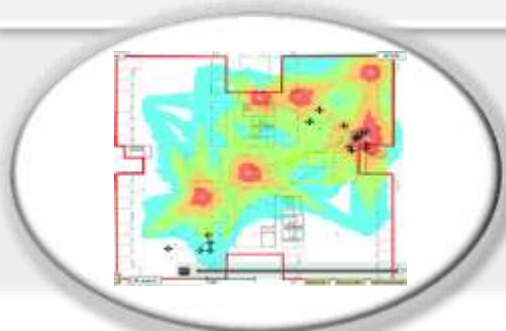
Centralized Management



Monitoring & Visibility



Reporting & Compliance



Enterprise-Grade Wi-Fi Access Points

CONTROLLERLESS & CONTROLLER-MANAGED

- Purpose-Built 802.11ac & 802.11n APs
- Adaptive RF with airtime fairness & app-awareness
- Zero-touch provisioning
(Controller-less APs)

Single- and dual-radio
Access Points



Aruba ClientMatch™ Enables 802.11ac Wi-Fi

REAL-TIME RF CORRELATION



DEVICE TYPE



LOCATION



CONGESTION



INTERFERENCE



Patent: 8,401,554



Enables use of
802.11ac Wi-Fi rates

- **98%** of mobile devices with higher signal quality
- **94%** better performance for “sticky” clients
- No client-side software required

Enterprise Switches to Connect APs



Mobility Access Switches

**ONLY WIRED NETWORK SOLUTION
DESIGNED FOR MOBILITY**

- Role-based access for wired network
- Wi-Fi integration with controller tunneling
- Stacking across wiring closets

Extend Work Desk to Remote Locations



Remote Access Points

Aruba Virtual Intranet Access (VIA) client



DESIGNED FOR BRANCH OFFICES, HOME OFFICES & BUSINESS TRAVELERS

- Secure access to corporate resources
- Zero-touch provisioning
- Wired & wireless connectivity (APs)

Northbound APIs for 3rd Party Apps

ANALYTICS



CONTENT SERVICES



MDM



SECURITY & COMPLIANCE



LOCATION



UCC



Network + Device
+ App Policies



Real-time Visibility
& Flow Controls

PROGRAMMABLE INTERFACE



Visitor Engagement with Meridian



Museums,
Parks



Healthcare
Centers



Retailers



Campus



Stadiums,
Event Centers

Aruba Network

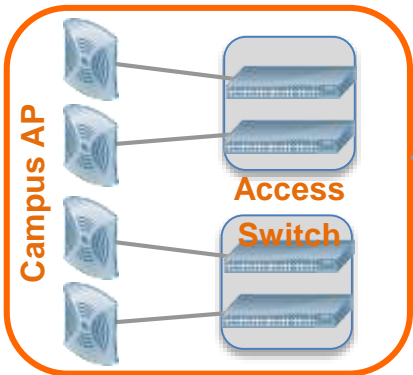
Devices

Access

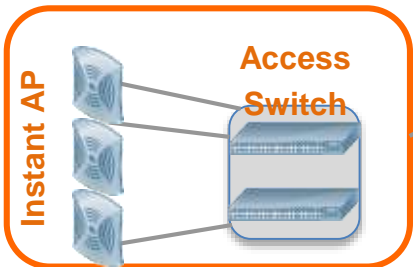
Core

Data Center

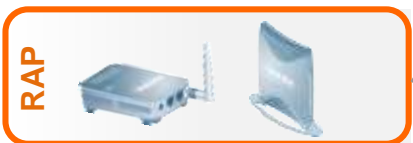
CAMPUS



BRANCH



SMALL OFFICE/HOME OFFICE



MOBILE WORKER



Mobility Controller



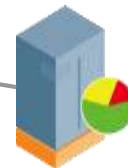
Optional



ClearPass



Airwave



Activate



App API



BYOD



COMPAN



GUEST



PORT CENTRIC

v.

MOBILITY CENTRIC



**Architect for BYOD with Network + Device +
App**

Reduces IT Touch Points.

Rightsize Networks for Next-Gen Workplace

App-Aware Flows.

Software Approach

Customers



Microsoft

- High capacity 802.11n worldwide
- Video performance for Lync and live video broadcast.

- Best video performance
- Only Wi-Fi to identify and prioritize Lync

Disney

- Superior guest & employee Wi-Fi experience at Disney parks
- 3G offload
- Single vendor network with wired & wireless access

- Complete unified solution: guest access, network management, access switches, controllers, Aps & Policy Enforcement Firewall



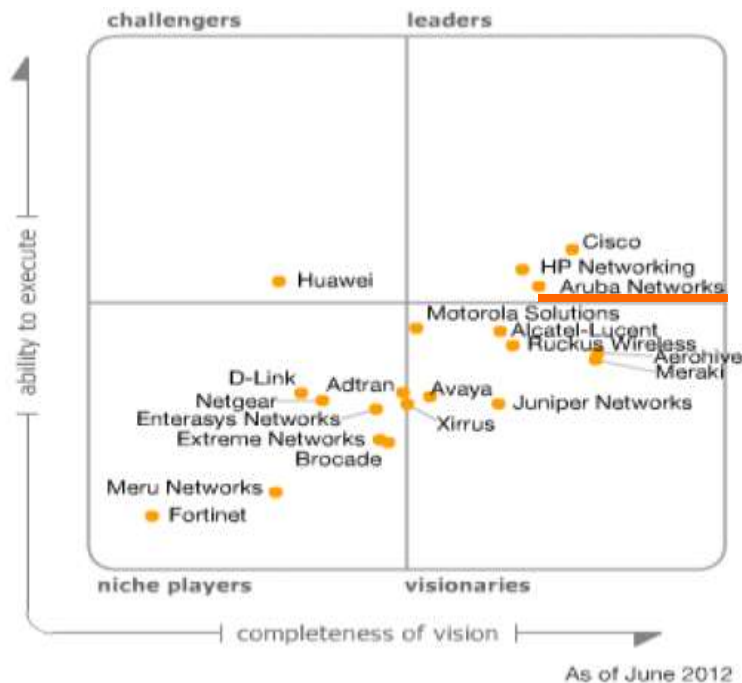
- Reliable managed Wi-Fi solution to retail & restaurants
- Offload cellular traffic

- Over 10,000 stores deployed
- 'Carrier-free' network used to offload data traffic

Industry Recognition

Gartner

Leader in the 2012 Magic Quadrant for Wired and Wireless LAN Access



Source: Gartner (June 2012)

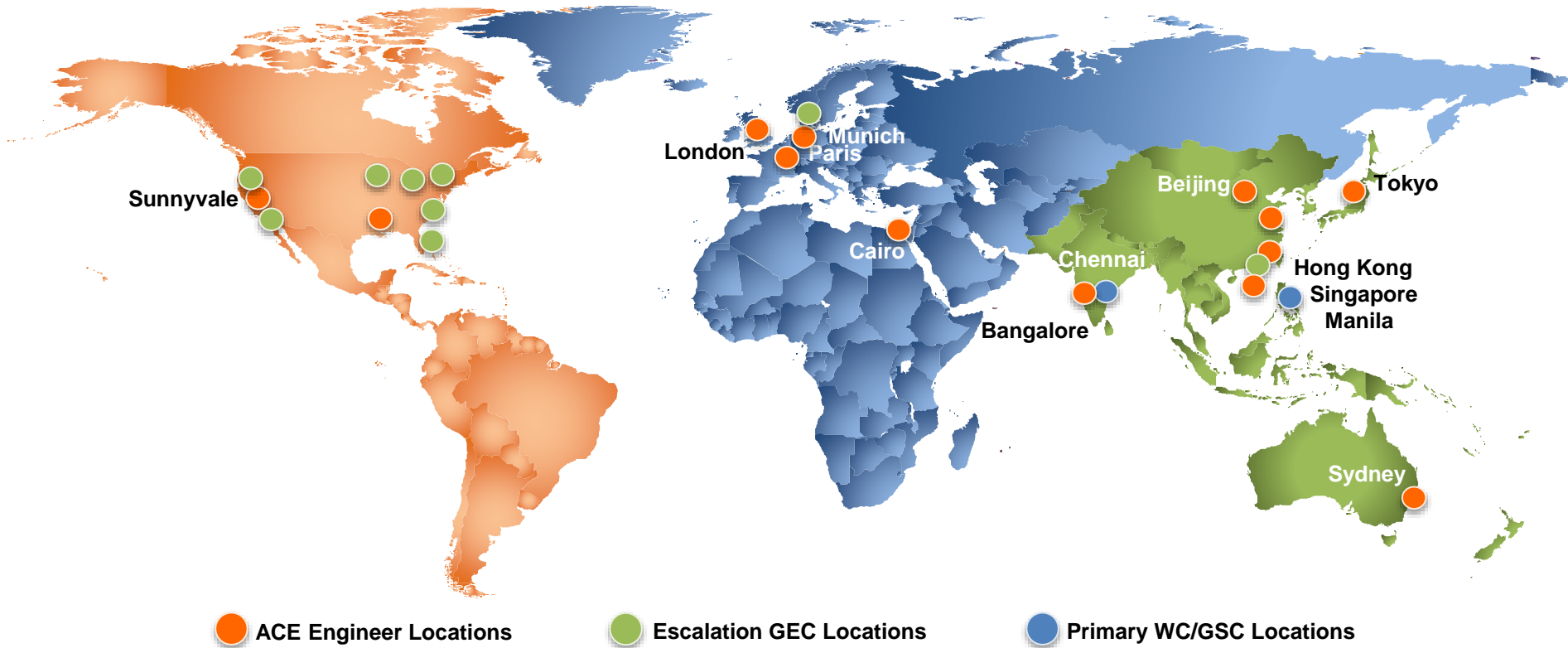
Forbes

7th fastest growing tech company

DELL'ORO GROUP

30% YoY WLAN Growth

Global Presence & Support



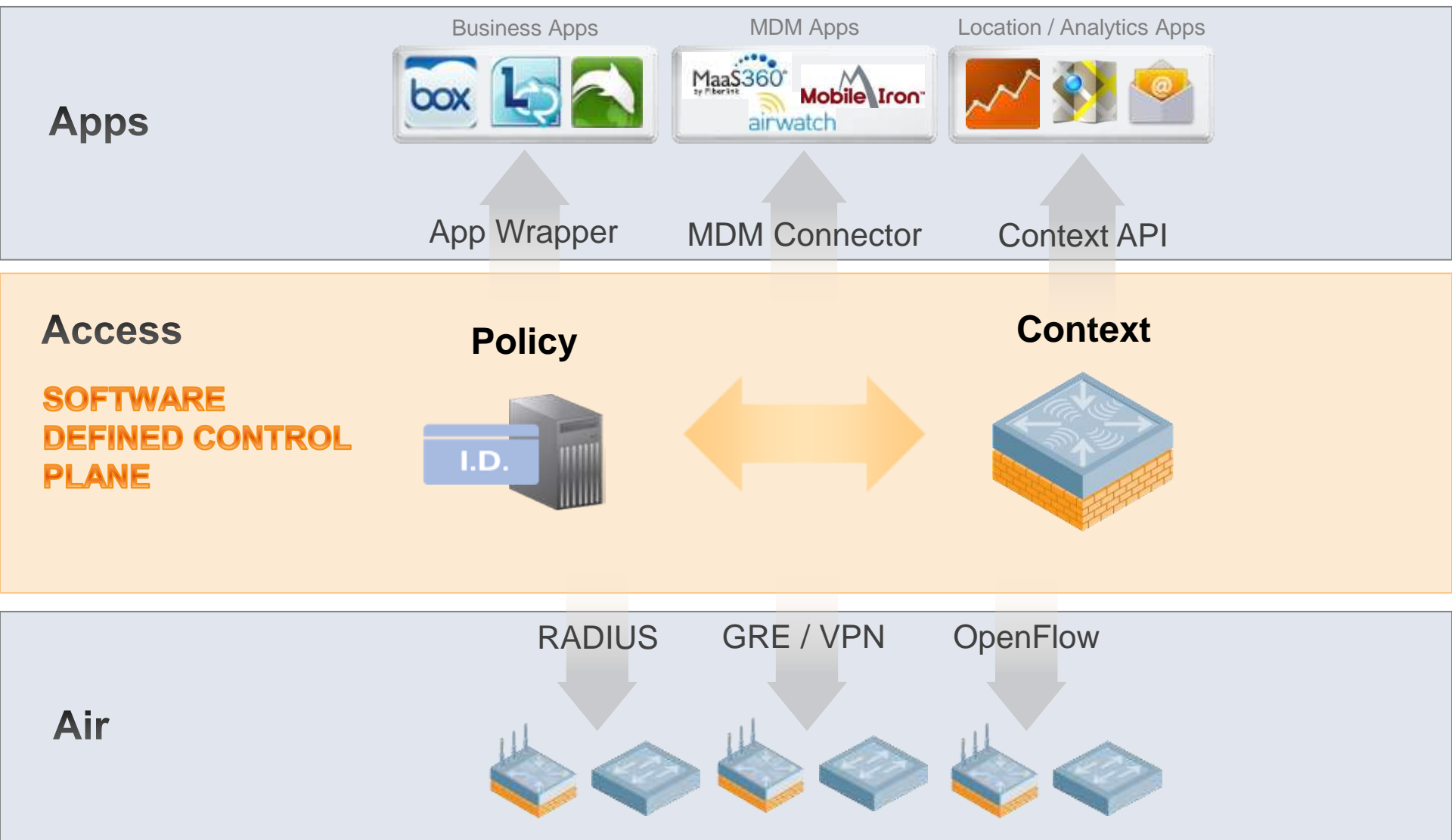
- 14 Support Centers Worldwide
- 24 x 7 x 365 Operation; 27,000+ Customers
- 60,000+ Support Cases/Year

- 180+ Support Engineers
- Average Call Answer < 10 Sec
- CSAT Average ~ 9.04/Support Rep.

Airheads Community



Aruba MOVE™ Architecture





Thank You