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#ArubaAirheads



Introducing to Airwave

IT requires management tools designed for mobile-first networks



Performance
for mobile users



Reliability
for critical apps



Unified
wired & wireless

Aruba for managing mobile-first networks

Aruba AirWave



Multivendor
wired + wireless
network management

Aruba Central



Cloud platform
for network management
+ services

Aruba AirWave

Management and monitoring designed for mobile-first networks



Performance for mobile

- Live RF & client monitoring, VisualRF
- Aruba Clarity: live user monitoring & synthetic testing

Reliability for critical apps

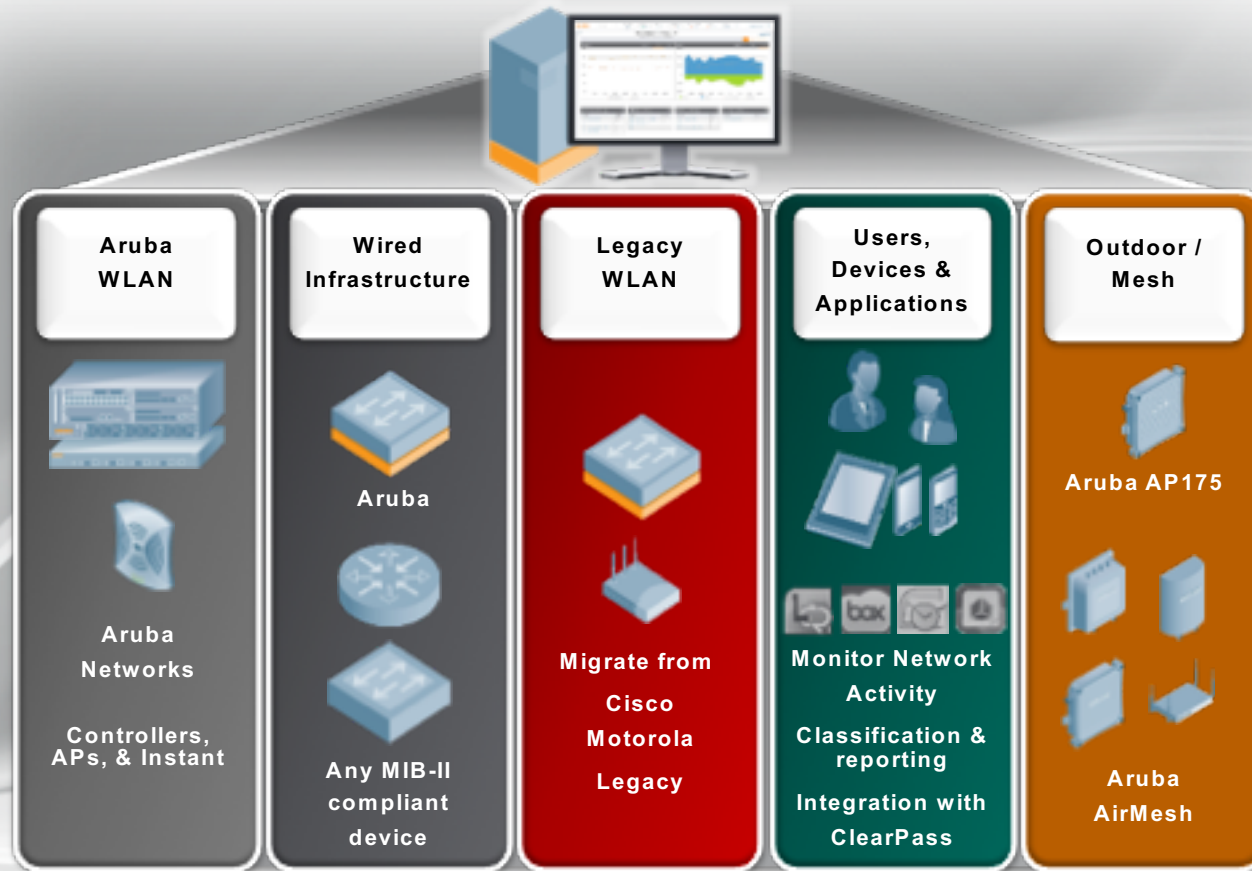
- App & web analytics
- MobileUC visibility



Multivendor management



Multi-Infrastructure, Multi-Vendor Support

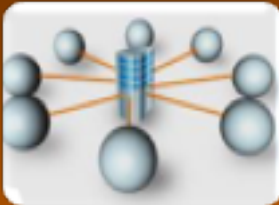


AirWave Key Features



Comprehensive Visibility

- Entire access network - wireless and wired
- Device discovery, classification and diagnosis
- Reporting and analysis



Centralized Management

- Configuration, Zero Touch Provisioning (ZTP), firmware distribution, automated compliance across entire distributed organization



Easy, intuitive interface

- Role-based administrative access
- Organize and manage by business / organizational unit

Clarity Live

Monitoring live client data flow

Visualize:

- Radio Association
- Authentication
- DHCP
- DNS



Customizable thresholds & timelines

View failure rates & response times

Drilldown widgets



Holistic network view

Ensure reliability for business critical applications

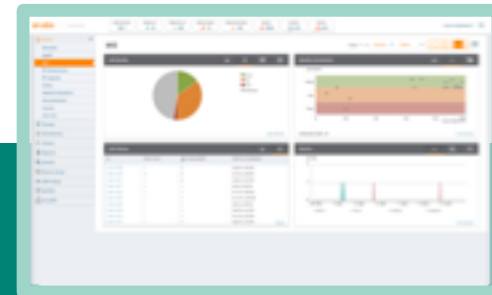
App & Web Analytics



View common app/web usage and performance

Troubleshoot app performance in real time

UCC Performance

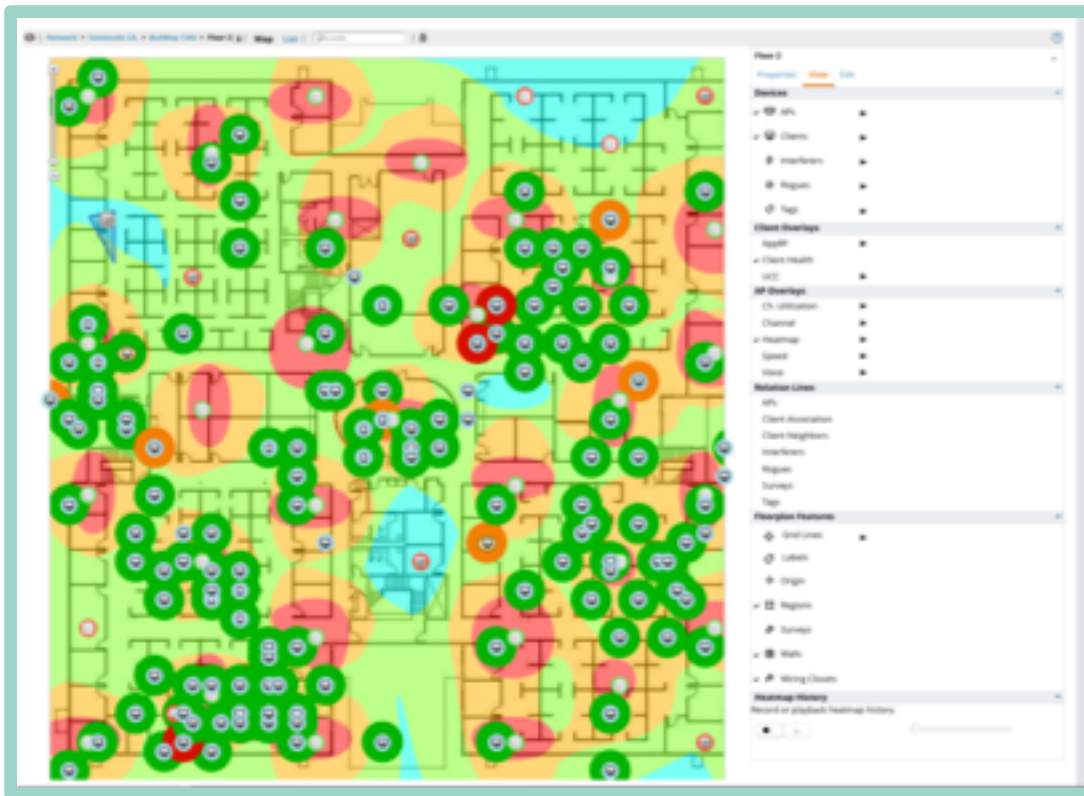


View call quality, client health correlation & call volume

Identify root cause & resolve issues faster

Analyze and troubleshoot faster

Visualize performance and coverage with VisualRF™



- Network wide mapping: Clients, devices, rouges, non Wi-Fi interferences
- Context overlays: AppRF, Client Health, UCC, Voice, Channel, Channel Utilization, Speed, Heatmap
- Location tracking
- Heatmap history/playback
- Site planning

Take control of wireless security

Keep out rogue devices with AirWave RAPIDS™

- automated detection & containment



Simplify multivendor networks



Wireless + Wired

Aruba + 3rd Party

Multiple Generations

Centralized management

- Configuration, firmware distribution
- ZTP for Aruba Instant & ArubaOS Switches (w/Activate or DHCP)

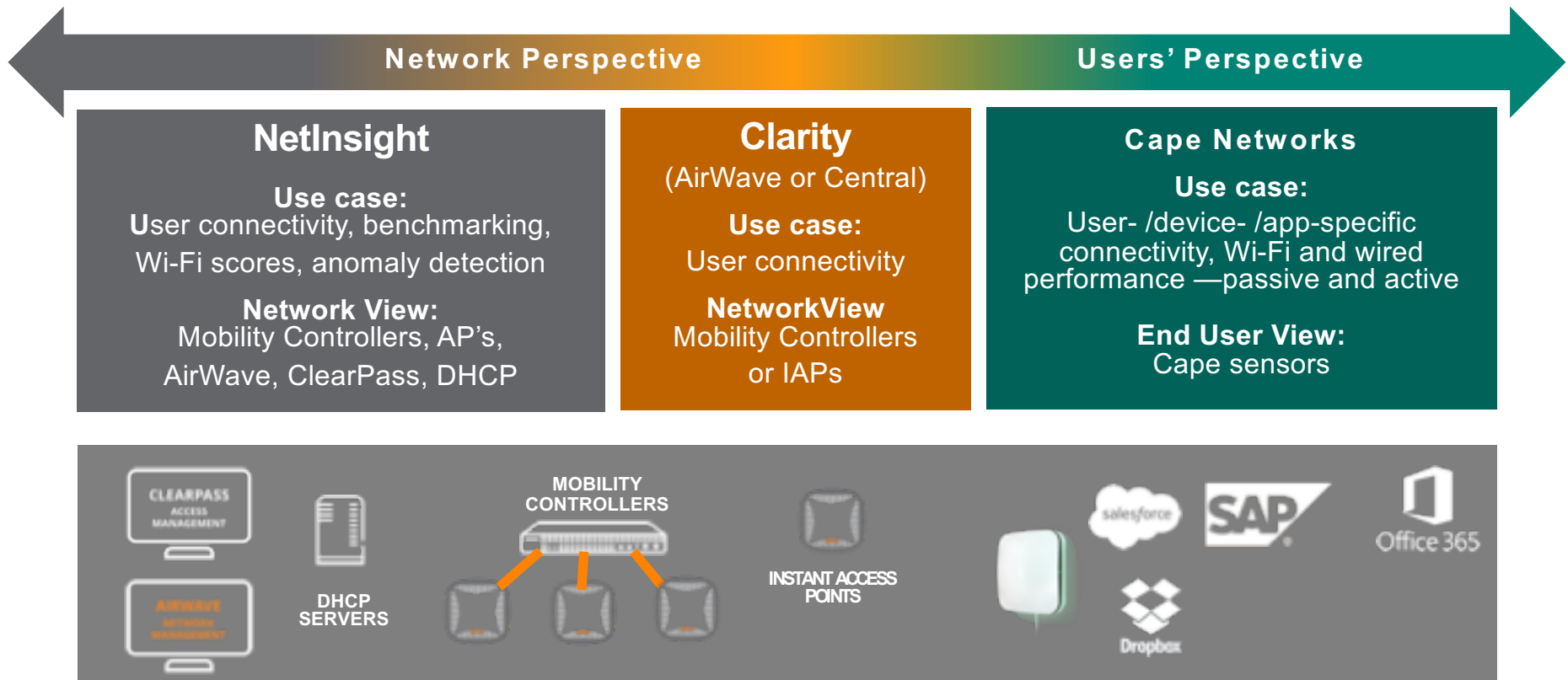
Comprehensive visibility

- Device discovery, classification and diagnosis
- Reporting and analysis



Aruba Service Assurance

Aruba's Analytics and Assurance



Aruba NetInsight

Analytics for Experience-Critical Networks

Detection of problems
before user impact

PROACTIVE

Automated insights &
recommendations for fixes

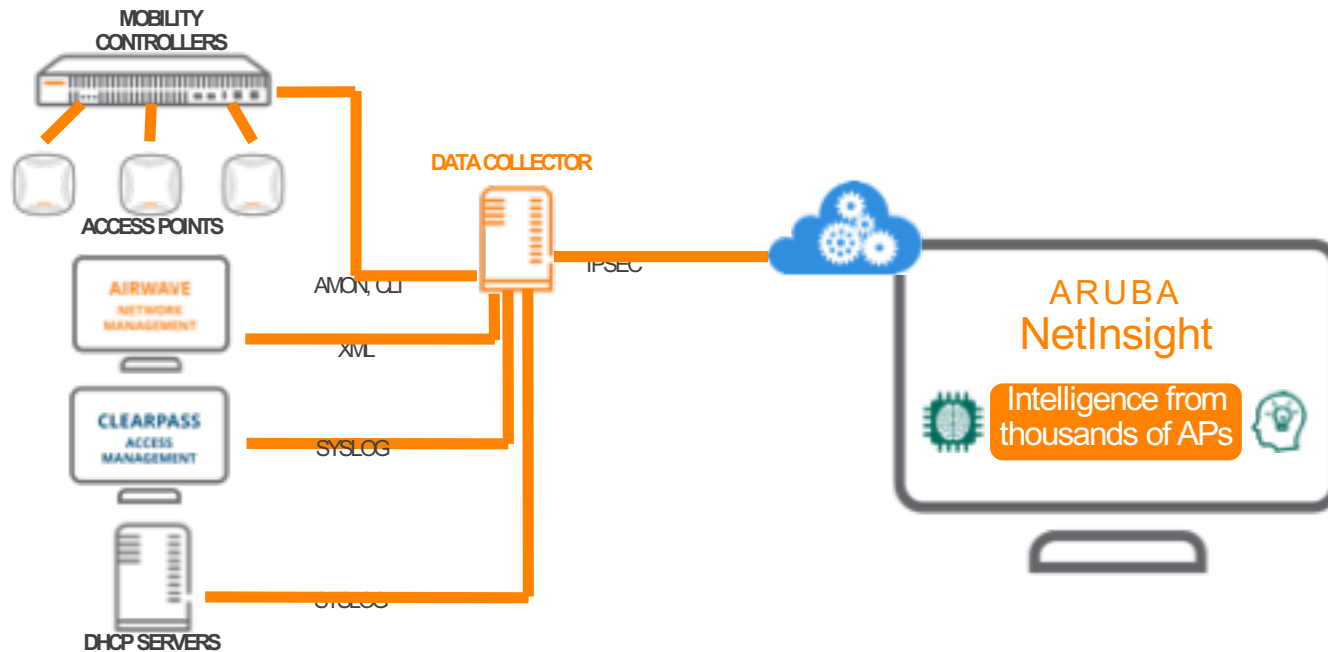
INTELLIGENT

Optimization & validation
of changes

CONTINUOUS



How NetInsight Works



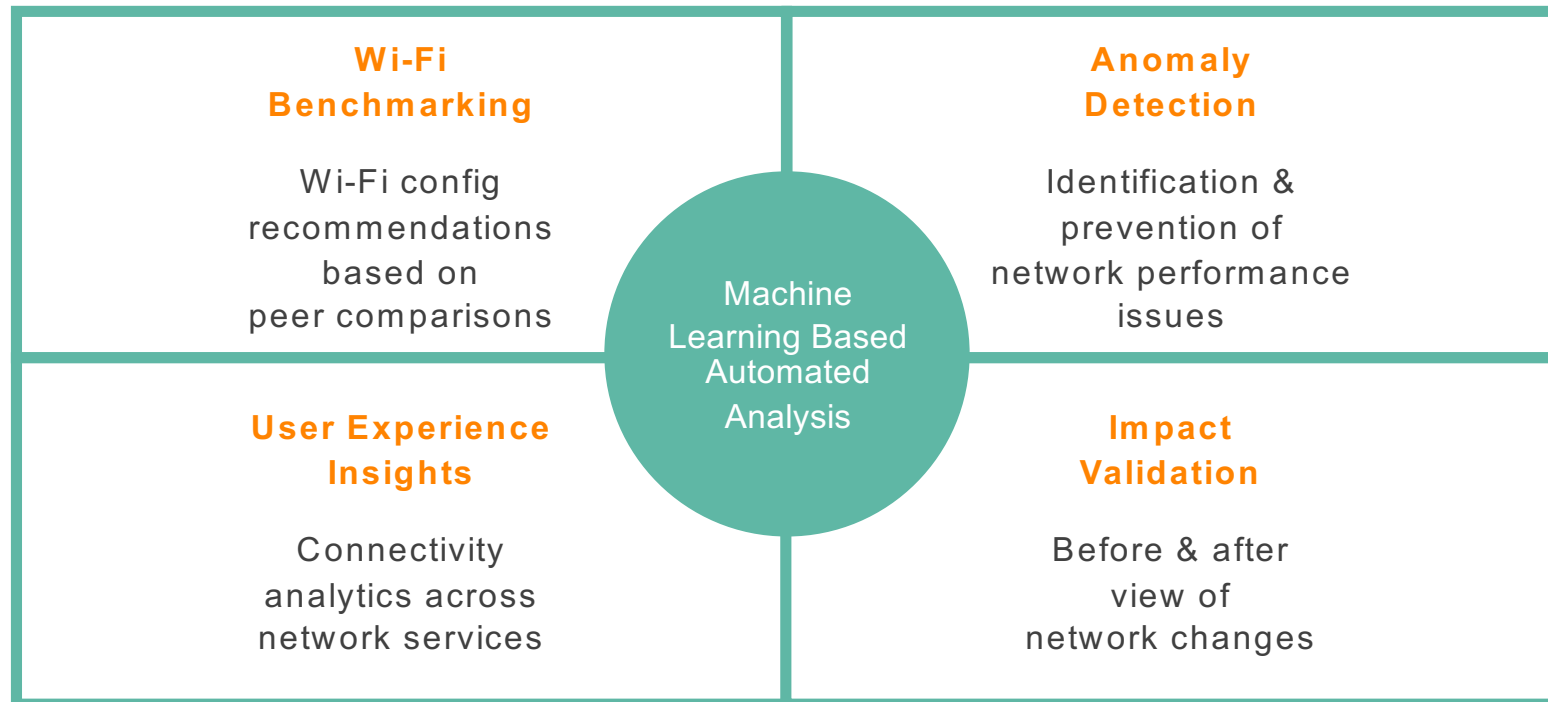
Data extracted from multiple sources

Compressed & sent securely to NetInsight

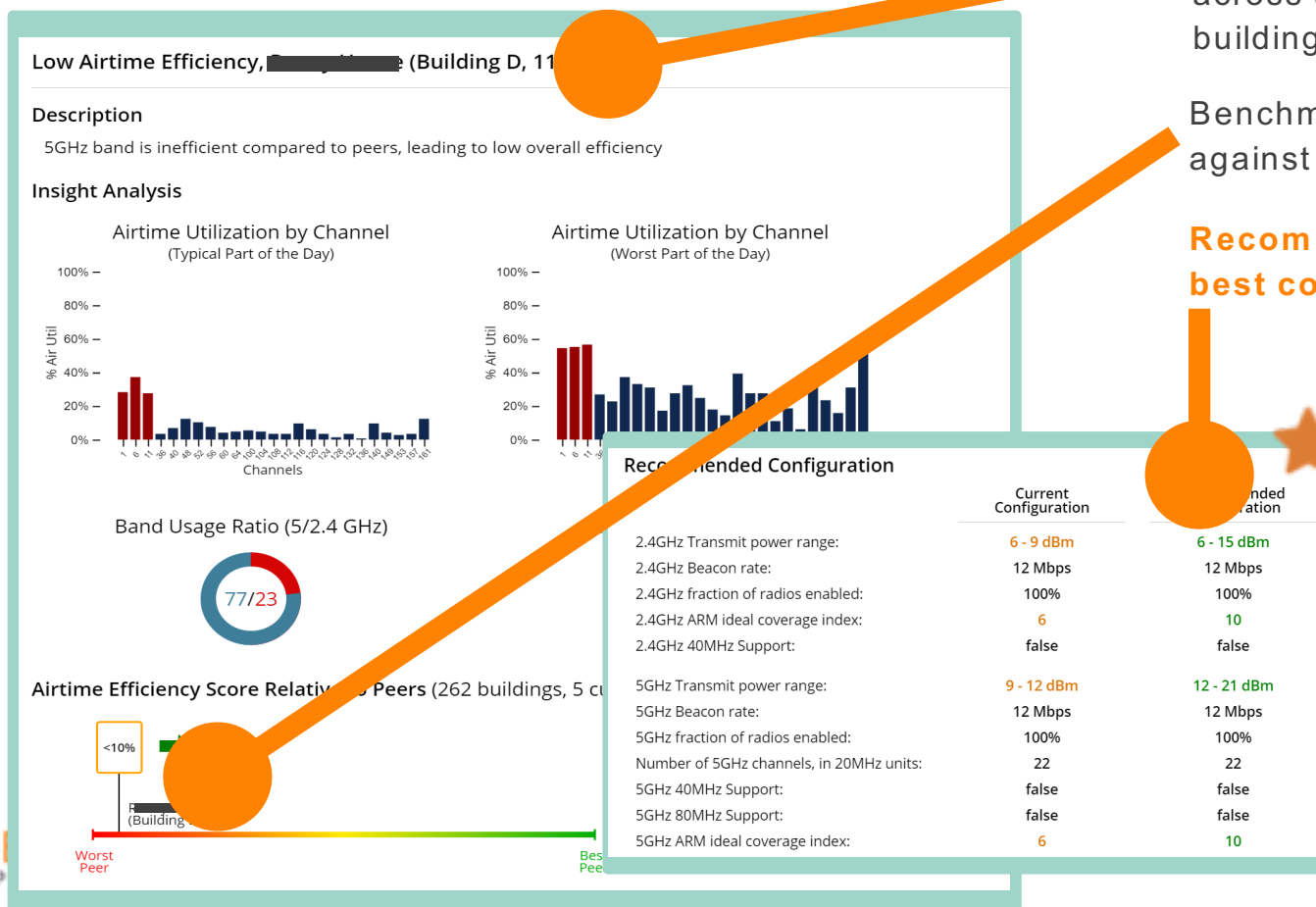
Analyzed applying Machine Learning & Aruba expertise

Automated Insights,
Rootcauses & Recommendations

Key Capabilities of NetInsight



Take the guess work out of Wi-Fi configuration



Automated Wi-Fi profiling across all locations, buildings & floors

Benchmarking against similar networks

Recommendations for best config

Only solution that measures Wi-Fi characteristics per individual AP for accurate benchmarking

Ensure your changes make a difference

Impact Validation

- Close monitoring after config/firmware/ARM changes
- Tracked criteria: Traffic, Client Uplink SNR, Airtime Utilization, Power Distribution, Connectivity Attempts



BEFORE

AFTER



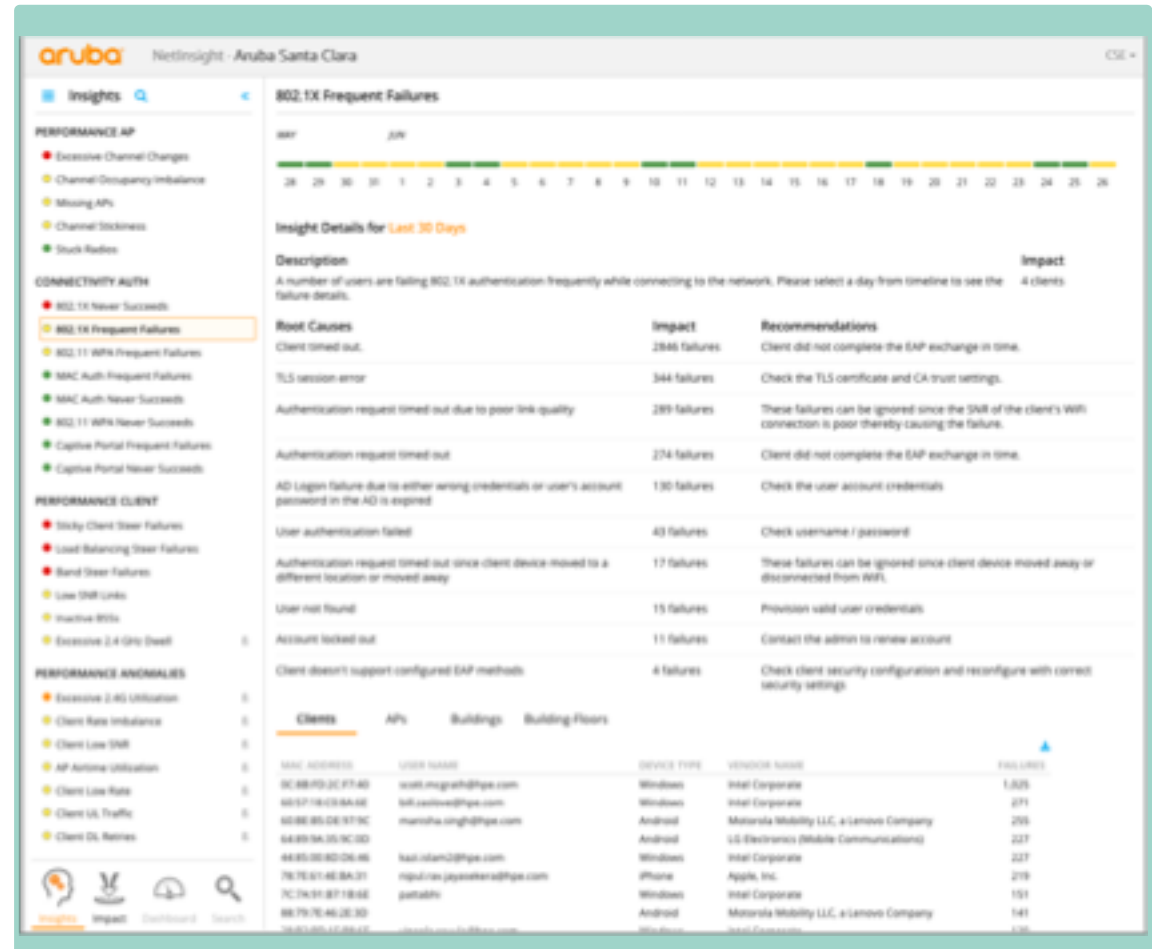
Find & eliminate problems that truly impact user experience

User Experience Insights

- Proactive connectivity monitoring with rootcause & recommendations



Automatic elimination of irrelevant failures with
**Aruba's unique
Mobility Analyzer**



DID YOU KNOW?

20%
of IT time is
spent on chasing
irrelevant Wi-Fi
failures

Anomaly Detection

- Automatic baselining of “normal” performance
- Identification of real problems via machine learning



AI-POWERED ANALYTICS AND ASSURANCE



Cape Networks

Acquired in March, 2018

Active (synthetic) Testing

For SaaS, application, and
network service
assurance—for any network



SOFTWARE AS
A SERVICE



SERVICE ASSURANCE
SENSOR

Low RSSI ▪ Low Bit Rate ▪ High Packet Retry Rate ▪ High Channel Utilisation ▪ Access Point missing or unavailable ▪

Failure to roam between Access Points ▪ Access
point congestion ▪ Adjacent Channel Interference ▪

“The Wi-Fi is down...”

High DNS response time ▪ DHCP server unavailable ▪ DHCP

lease pool exhausted ▪ DHCP server misconfiguration ▪ IP address conflict ▪ Rogue DHCP servers ▪ Routing

misconfiguration ▪ Packet filtering misconfiguration ▪ QoS configuration for VoIP ▪ Queue length congestion ▪

Power over Ethernet port failure ▪ Incorrect VLAN assignment ▪ Gateway unreachable ▪ High WAN latency ▪ No

connectivity beyond gateway ▪ Large packet size ▪

unavailable ▪ High DNS response time ▪

Where to start...? 🤯

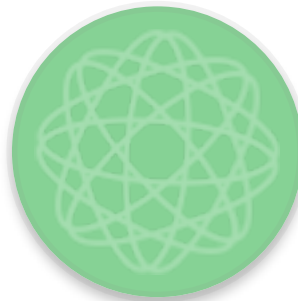
Captive portal unreachable ▪ Captive portal timeout ▪ High page load time for captive portal ▪ High load on

captive portal server ▪ AAA server offline/unreachable ▪ High load on AAA server ▪ Expired SSL certificates ▪

Networking issues are becoming too complex for people to troubleshoot alone.



Device Explosion



Network Complexity



Business-Critical SaaS

Enterprise IT managers can't prove they are doing a good job

Harder
troubleshooting



Anecdotal
complaints



Less
tolerance



Mission

Cape Networks provides a user perspective for analytics and service assurance for enterprise networks

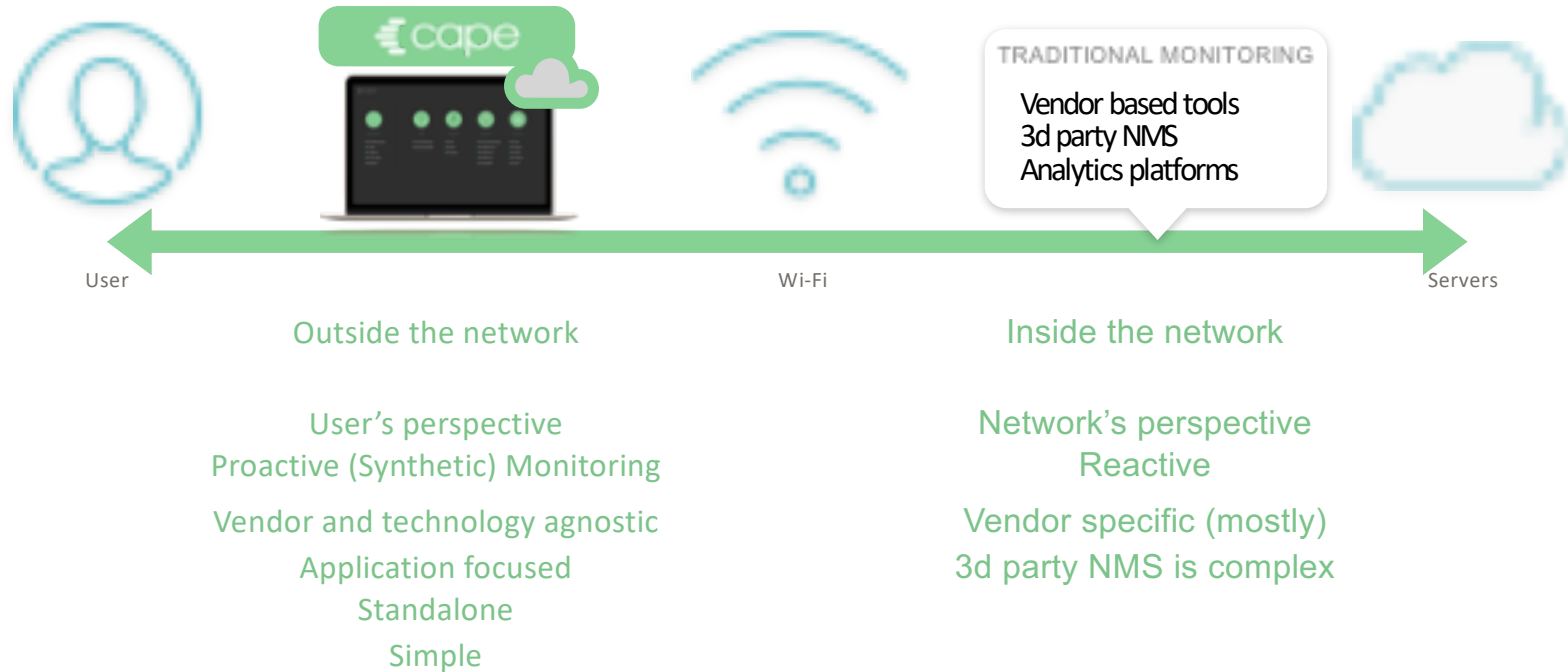
TODAY'S TOOLS DON'T SEE ENT-TO-ENT

Internal monitoring when implemented alone:

- Limited in scope (Not end to end)
- Itself impacted by network issues (fails with the network)
- Challenging in multi-vendor environments
- Reactive

CAPE NETWORKS CLOSES THE LOOP ON SERVICE ASSURANCE

AI powered analytics and service assurance





Sensor

- Simple, Zero config
- Test WiFi 24x7
- Backup Cellular
- No Cable Run
- PoE or Plugin Wall

WiFi

- SSID Visible?
- Can Associate
- RF env.

Network

- Authentication
- DNS, DHCP ?
- Fast and reliable

Captive Portal

- Redirect?
- Auth. Options
- Billing Gateway?
- Internet Access

Services

- Youtube, Facebook?
- Enterprise App.?
- Bottleneck?
- Throughput

Aruba Service Assurance

Proactive troubleshooting
and support

Intelligent network & app
performance analysis

Visual Setup and
Validation from anywhere



- 1 Easy to setup
sensors where
users are most
active



- 2 Simple way to test
the network and
apps from user
perspective

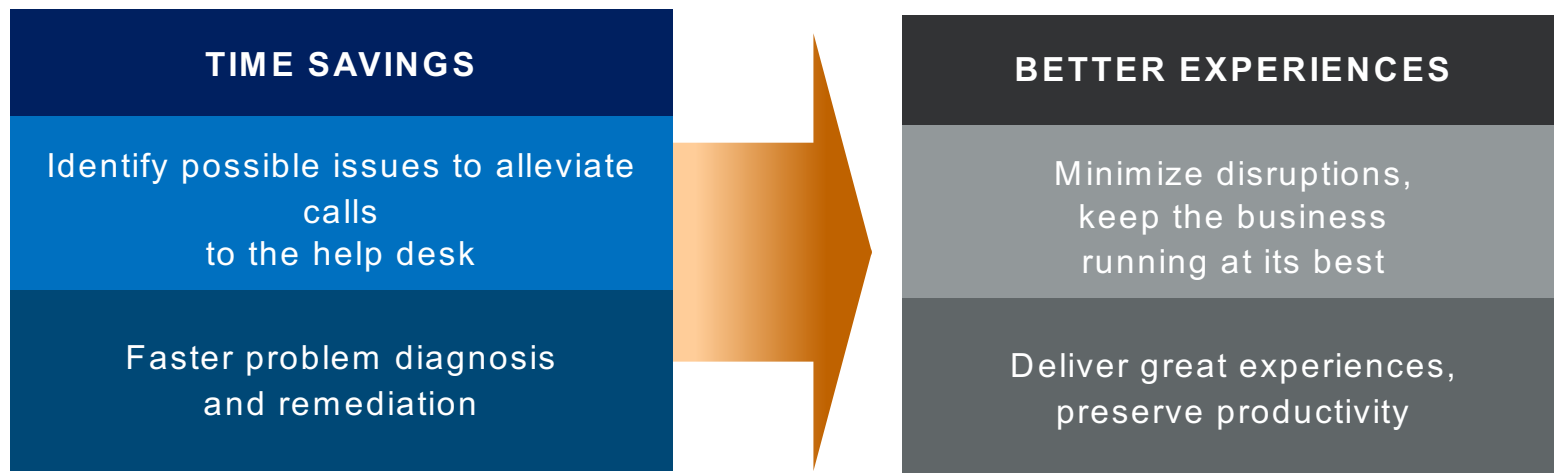


- 3 Proactive alerts and
troubleshooting
help

Intuitive 1-Click Drilldown and Visibility



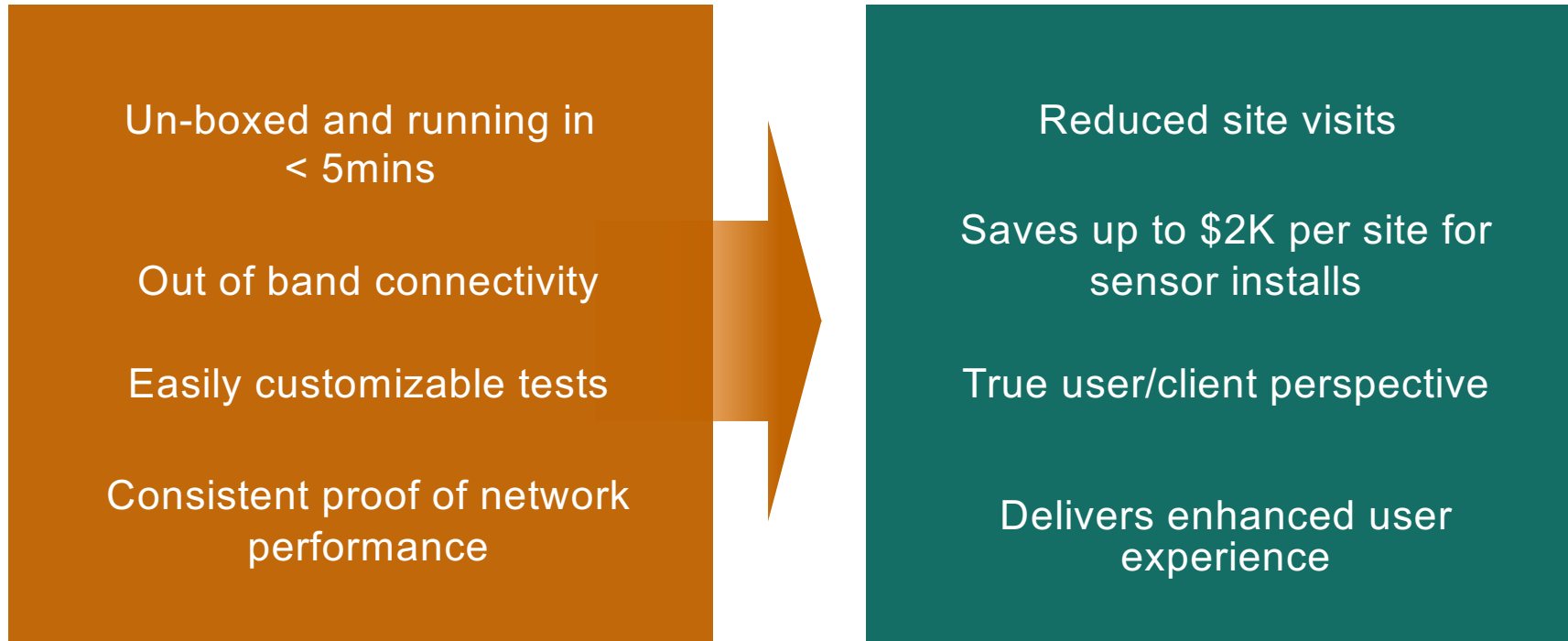
Customer Outcome Example



57%

of the time users
detect issues before IT

Value Proposition





Thank You