

July, 2020

aruba

a Hewlett Packard
Enterprise company

Aruba ESP

Automate. Unify. Protect.

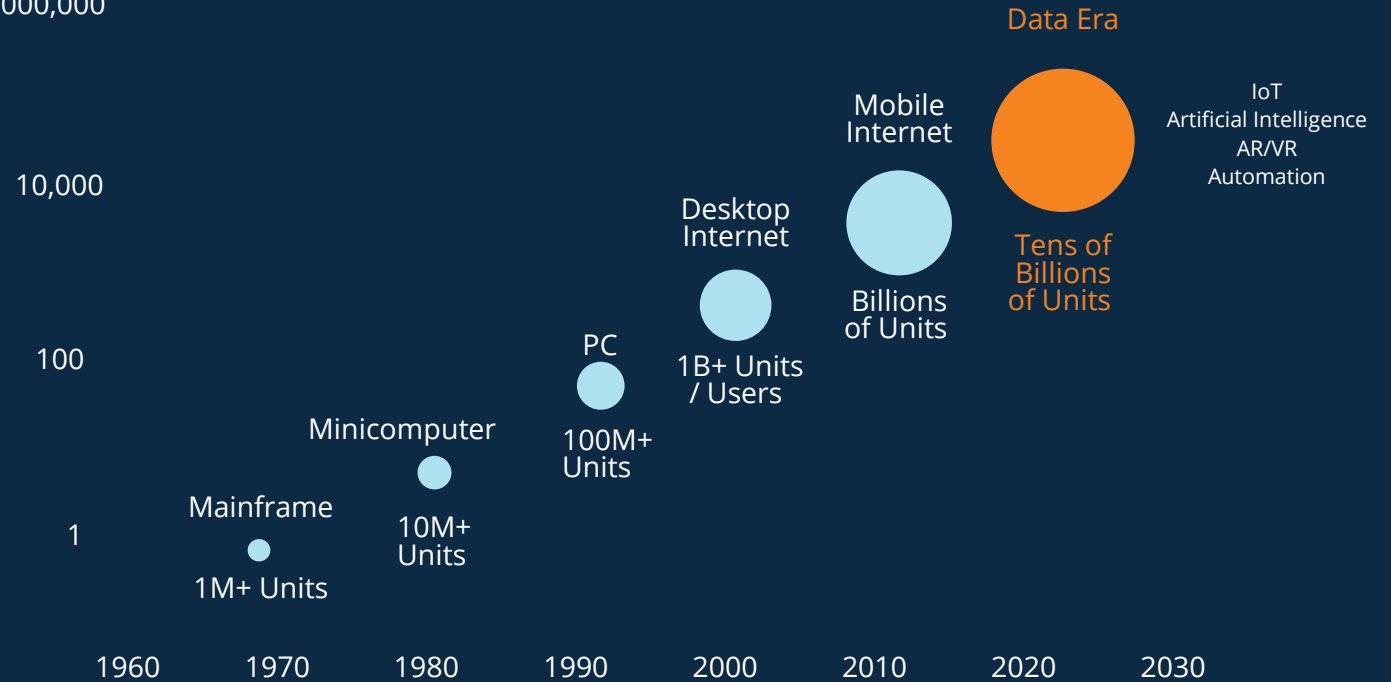


DATA DRIVES THE NEXT DECADE OF TRANSFORMATION

Source: Morgan Stanley Research

COMPUTING CYCLES OVER TIME, 1960S - TODAY

Devices / Users
(MM in Log Scale)
1,000,000



50% of data will be created and processed outside the traditional data center or cloud¹
- Gartner

55B devices will be connected worldwide by 2022

- IDC



**INCREASE
REVENUE**



**DATA WILL
DRIVE BUSINESS
OUTCOMES
AT THE EDGE**

Experience's

Enriched experiences
New revenue streams
Faster innovation

Efficiencies

Predictive operations
Increased profitability
Workplace social distancing

**DECREASE
COSTS**



Networking Challenges at the Edge



**Technology Siloes
Hinder Agility**



**Lack of Network
Automation & Visibility**



**Security Threats
Rising**



**Economic & Resource
Headwinds**

Networks Must Do More



THE JOURNEY TO EDGE INNOVATION

CONNECTING THE DOTS
FROM CONNECTIVITY TO

DATA



ARUBA ESP

AI-POWERED EDGE SERVICES PLATFORM



REMOTE/WFH



BRANCH OFFICE



CAMPUS



DATA CENTER

ARUBA CENTRAL

SERVICES



Onboarding



Provisioning



Orchestration



Artificial Intelligence



Location



Management

DYNAMIC SEGMENTATION

POLICY



PEF



CLEARPASS
ACCESS
MANAGEMENT

UNDERLAY

INFRASTRUCTURE



Wi-Fi6



ARUBA CX



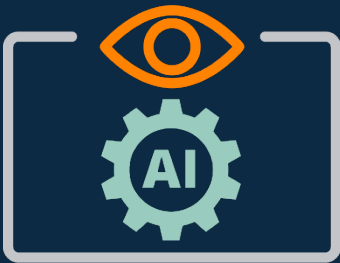
GATEWAY



INTRODUCING ARUBA ESP

AIOPS

AI Insights | User Insights



UNIFIED INFRASTRUCTURE

Wi-Fi | Switching | SD-WAN | 5G | IOT



ZERO TRUST SECURITY

Dynamic Segmentation | Device Insight



Financial and Consumption Flexibility

HPEFS | Managed Connectivity Services





AIOPS

ARUBA AIOPS FEATURES



AI Insights.

Automated anomaly detection, recommendations and peer-based network optimization



AI Search.

Natural Language Processing-based queries



AI Assist.

Automated, event-driven trouble ticket generation





AIOPS

ARUBA AIOPS REDEFINING IT OUTCOMES

React and Resolve Issues Quickly

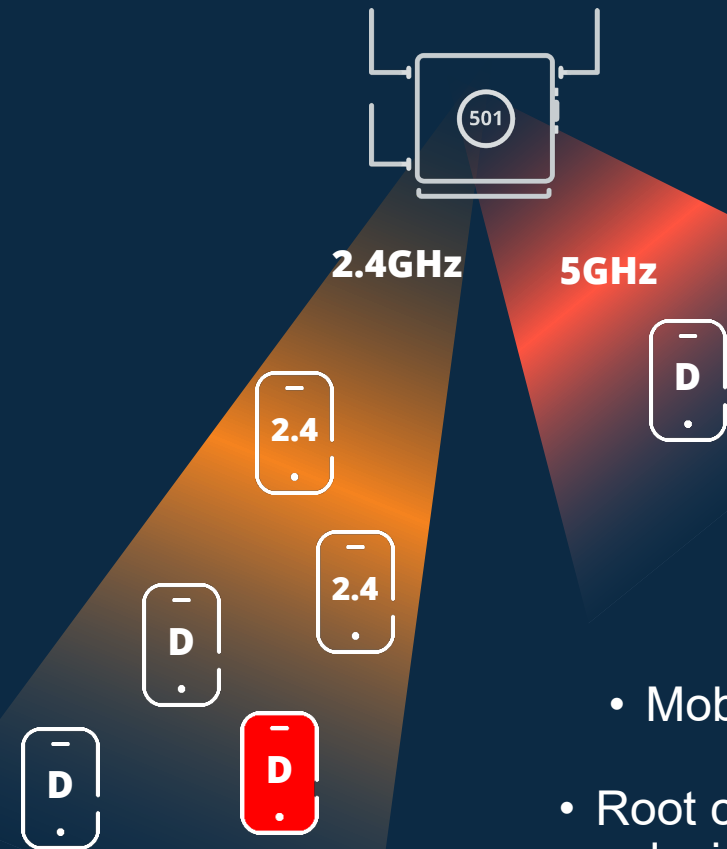
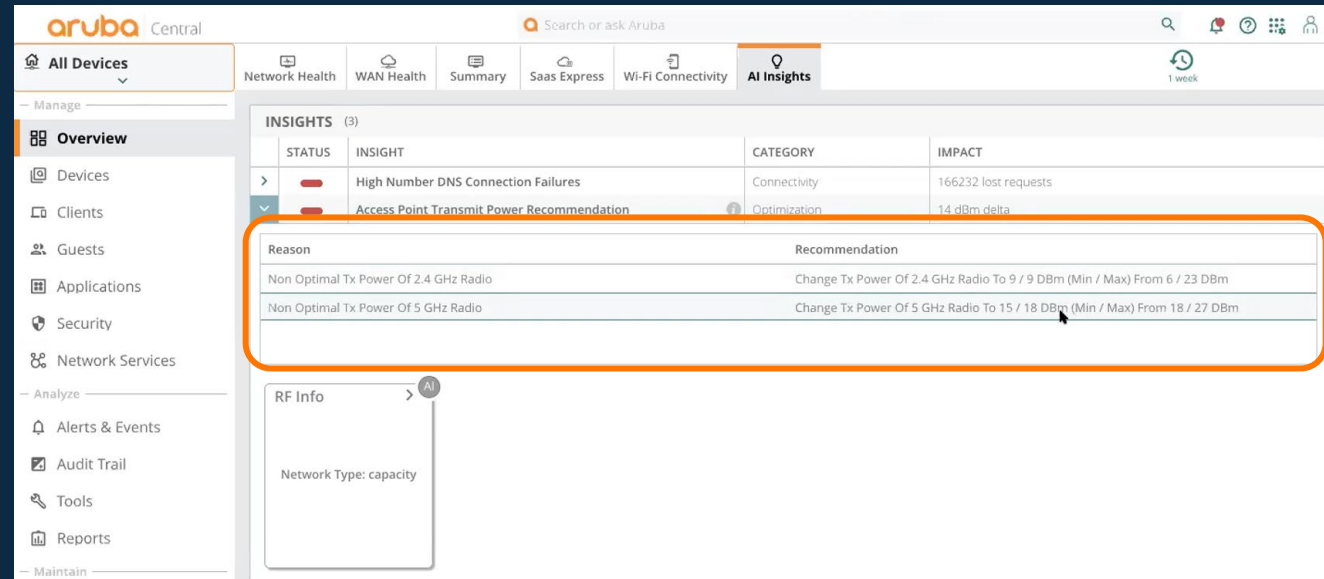
Predict and Preempt issues before they impact users or the business

Continuously Optimize to ensure SLAs are met



ARUBA AIOPS IN ACTION

REACT AND RESOLVE ISSUES QUICKLY

| STATUS | INSIGHT | CATEGORY | IMPACT |
|--------|--|--------------|----------------------|
| High | High Number DNS Connection Failures | Connectivity | 166232 lost requests |
| High | Access Point Transmit Power Recommendation | Optimization | 14 dBm delta |

| Reason | Recommendation |
|---------------------------------------|--|
| Non Optimal Tx Power Of 2.4 GHz Radio | Change Tx Power Of 2.4 GHz Radio To 9 / 9 DBm (Min / Max) From 6 / 23 DBm |
| Non Optimal Tx Power Of 5 GHz Radio | Change Tx Power Of 5 GHz Radio To 15 / 18 DBm (Min / Max) From 18 / 27 DBm |

Problem

- Mobile user complains Wi-Fi experience poor
- Root cause: Too many dual-band devices connected to 2.4GHz



Solution

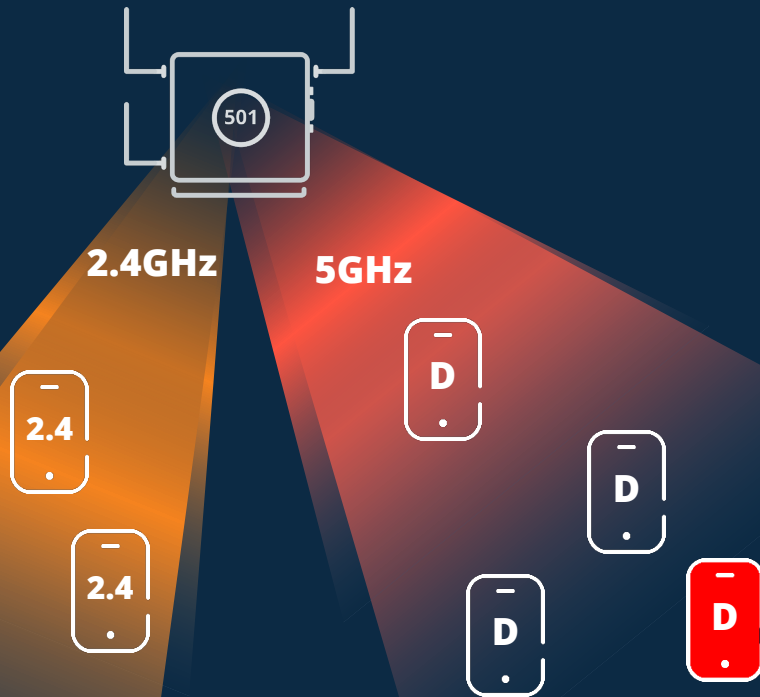
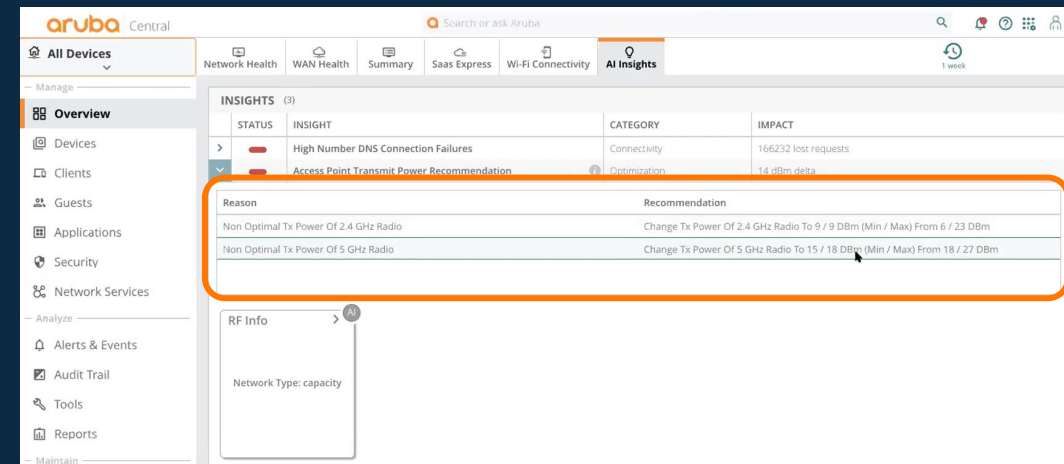
- AI Insight: AP Transmit Power
- Determine # of 2.4 & 5GHz clients
- Determine potential interference
- Determine optimal power settings

ARUBA AIOPS IN ACTION

REACT AND RESOLVE ISSUES QUICKLY

Outcome

- ✓ See exact root cause/recommendation
- ✓ 95% 5GHz clients move to 5GHz
- ✓ >15% increase in client throughput
- ✓ Resolved in <3 hrs (90% savings)

| STATUS | INSIGHT | CATEGORY | IMPACT |
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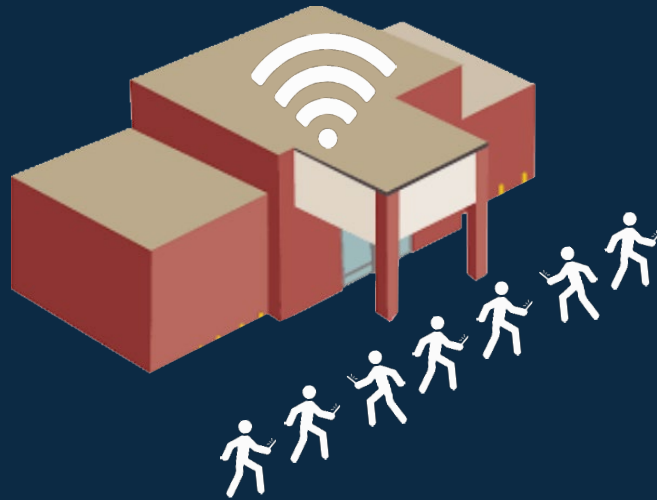
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ARUBA AIOPS IN ACTION

PREDICT & PREEMPT ISSUES, CONTINUOUS OPTIMIZATION

Problem

Passerby Connections
Dragging Down
Network Performance



Solution

- Determine difference between legitimate & illegitimate users
- Increase the SNR Probe Threshold



Outcome

- ✓ Illegitimate users reduced by 95%
- ✓ Network capacity increased 25% w/out new hardware

ARUBA AIOPS IN ACTION

PEER COMPARISONS AND THE VALUE OF THE CLOUD

Problem

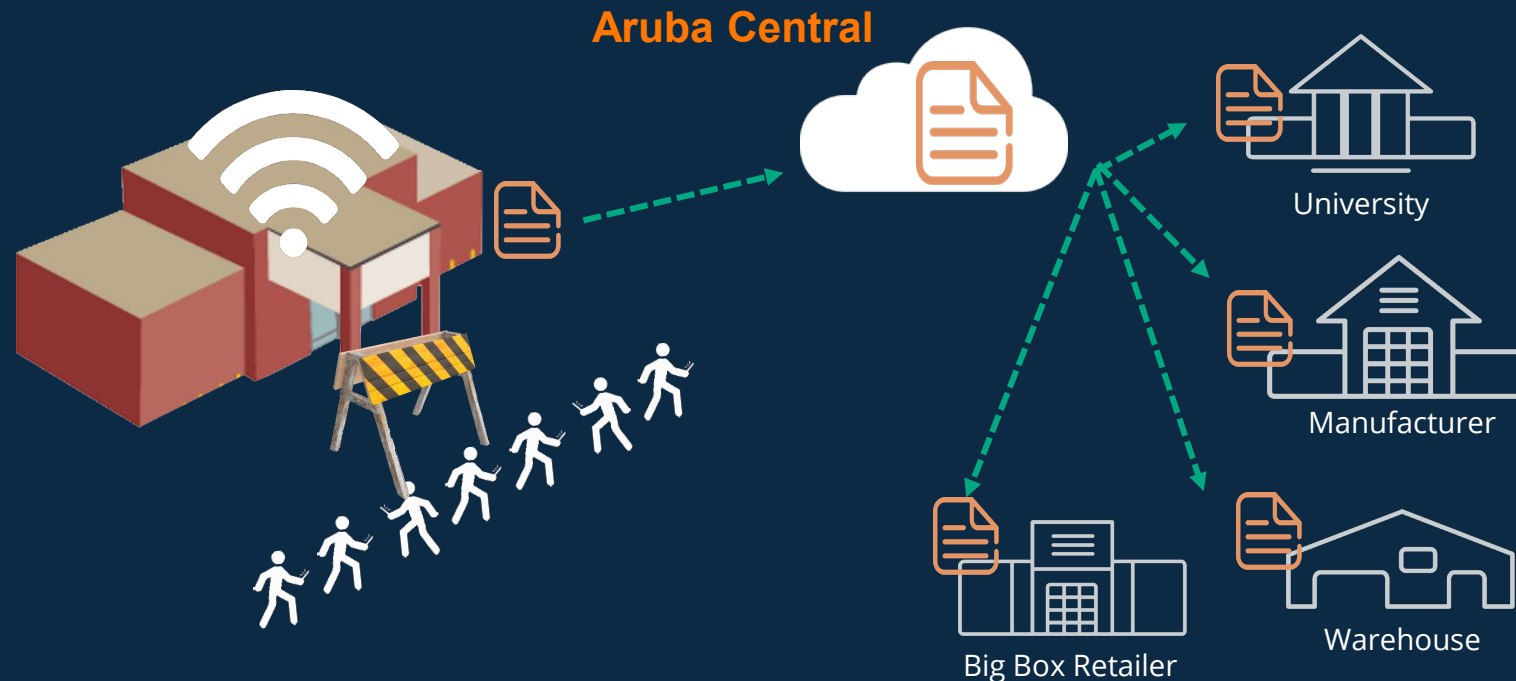
Peer type networks suffer from same Passerby issue

Solution

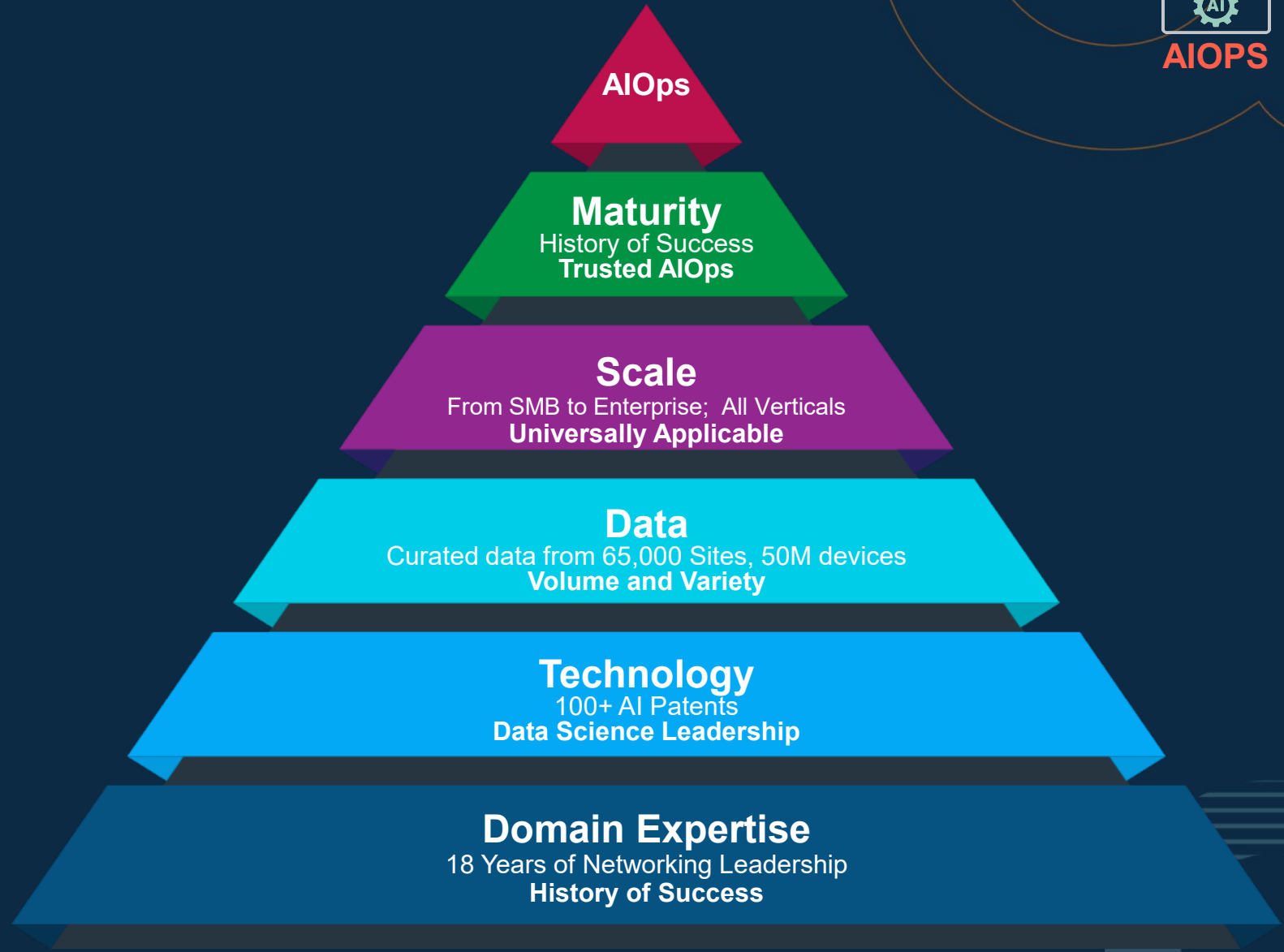
- Share Passerby AI Insight
- Preempt issue before they realize problem

Outcome

- ✓ All effected businesses achieve ~25% capacity increase
- ✓ No prior knowledge or significant time required



GREAT AIOPS STARTS WITH GREAT AI



SIMPLIFY DAILY OPERATIONS WITH A UNIFIED INFRASTRUCTURE

Bringing the Cloud Experience to the Edge

Aruba Central provides single pane of glass for Aruba ESP

Single architecture for Wi-Fi, Wired, WAN; campus, branch, data center and remote worker

Controllerless cloud-native operations at Enterprise scale

CX Series and User Experience Insight now managed by Central

User Experience Insight Integration



VPN Client



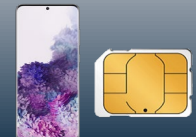
UXI Sensor



Core/Aggregation

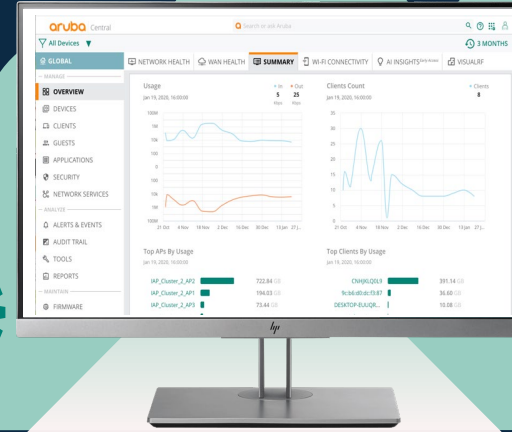


Top of Rack



Air Pass (Wi-Fi onramp to 5G)

Aruba Central



UNIFIED INFRASTRUCTURE



Access Point



Access Switch



Branch Gateway



Virtual Gateway



Headend Gateway

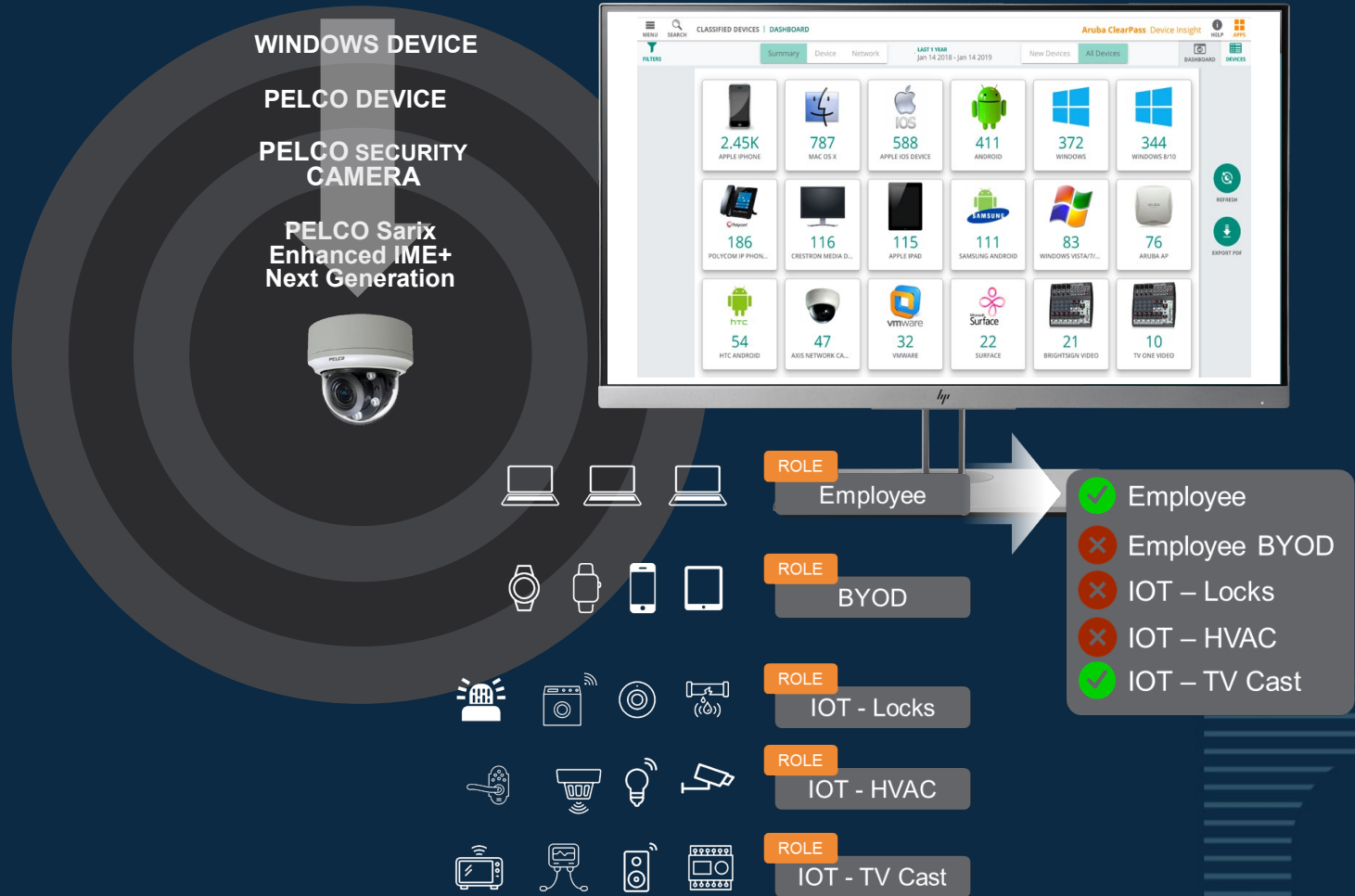




ZERO TRUST SECURITY

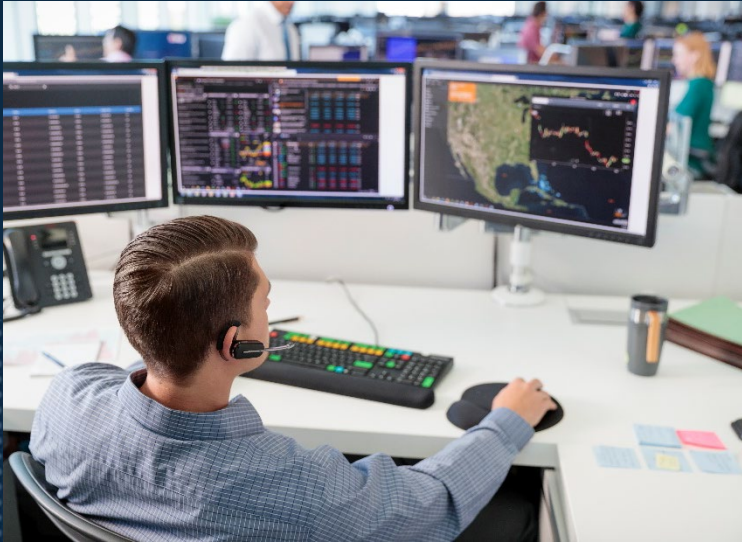
PROTECT WITH A ZERO TRUST NETWORK

- Machine learning-based Automated device discovery, profiling
- Role-based Policy
- Integrated with policy-based access control
- Dynamic Segmentation



DEPLOY IT YOUR WAY

FLEXIBLE CONSUMPTION & FINANCING OPTIONS



**ARUBA CLOUD-NATIVE
SaaS**
Cloud or On-premises



**MANAGED SERVICE
PROVIDER**

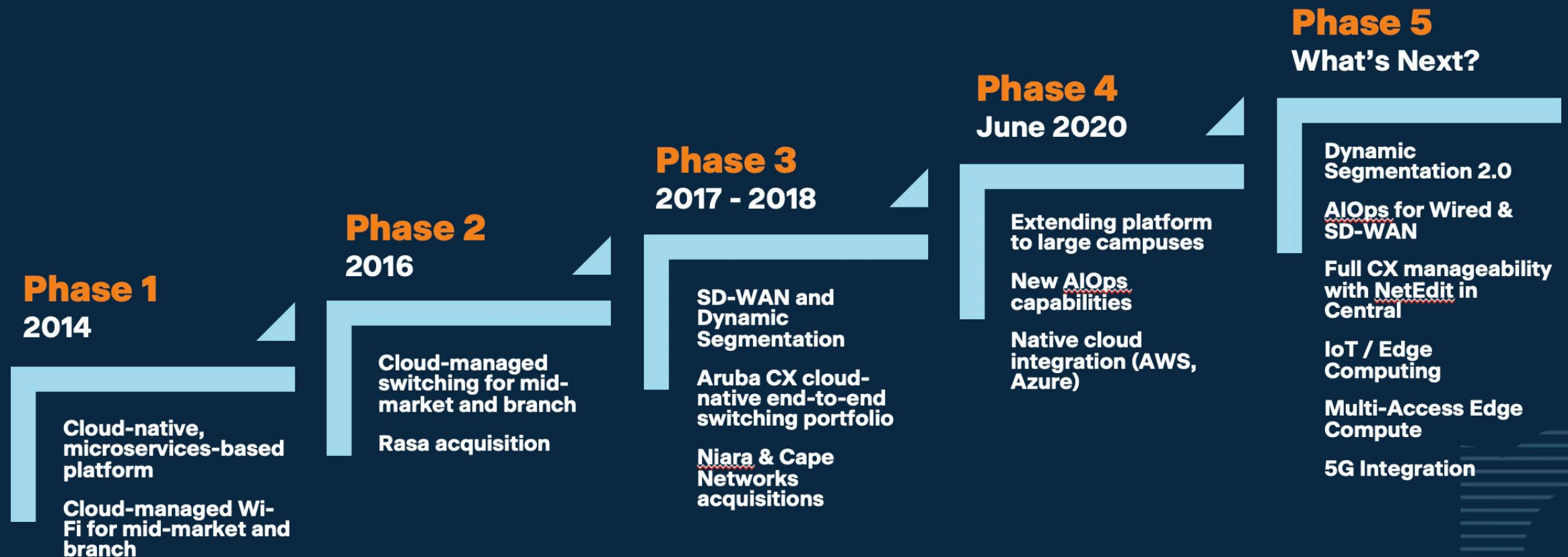


**HPE GREENLAKE
NaaS**

HPE FINANCIAL SERVICES
Flexible Financing Options



ARUBA ESP IS THE CULMINATION OF INVESTMENTS IN A CLOUD-NATIVE, AI-DRIVEN PLATFORM



SIMPLIFYING INTEGRATIONS WITH **ARUBA** **DEVELOPER** **HUB**

Rich APIs across portfolio

In-depth developer's
documentation

The screenshot shows the Aruba Developer Hub website. At the top left is the 'aruba Developer {HUB}' logo, and at the top right is a 'Log In' link. Below the header is a search bar with the text 'Aruba Developer Hub >' and a search icon. A dark grey banner contains the text 'Want to integrate with Aruba platforms? You've arrived at the right place!'. Below this is a section titled 'EXPLORE OUR PRODUCTS' with five product tiles: 'ArubaOS 8' (Wi-Fi icon), 'ArubaOS-CX' (network switch icon), 'Central' (gear icon), 'ClearPass Policy Manager' (lock icon), and 'User Experience Insight' (lightbulb icon). At the bottom of the page is a section titled 'STAY CONNECTED'.



Thank you

