

# Introducing Central Next Generation

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PA  
Integra One Con 2024

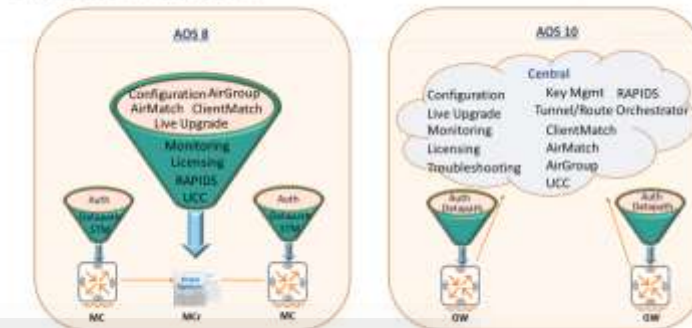


# Most of us think about the Network and Management Systems as Infrastructure...

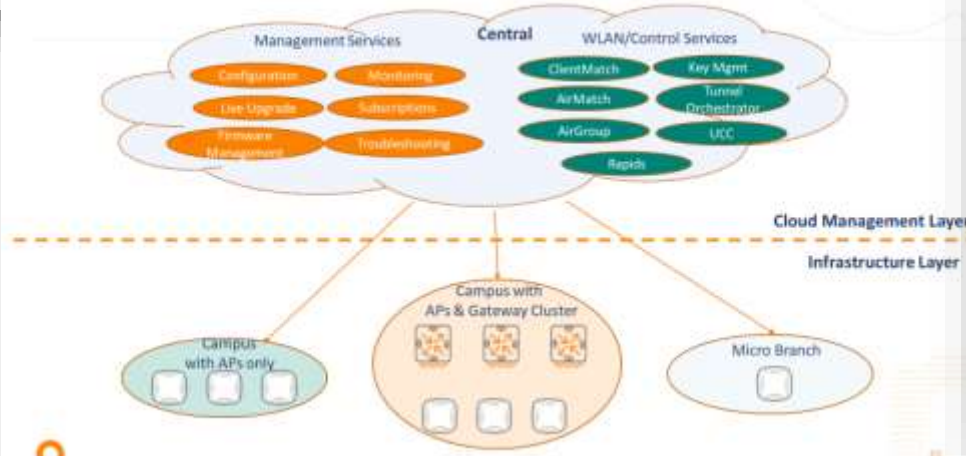
## A Complete Enterprise Access Point Portfolio



## Difference from AOS 8



## AOS 10 Architecture



# Aruba Central ... is really a Network Services Platform

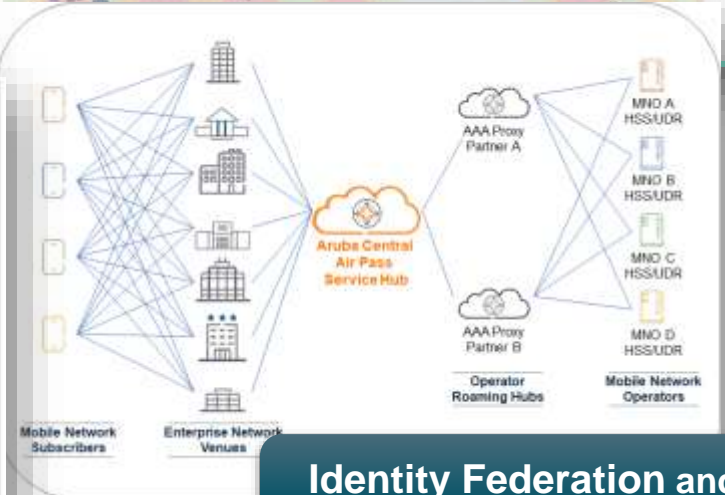
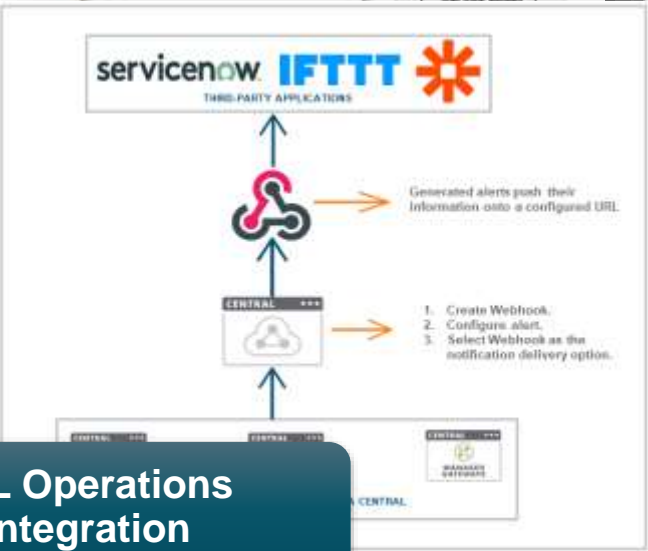
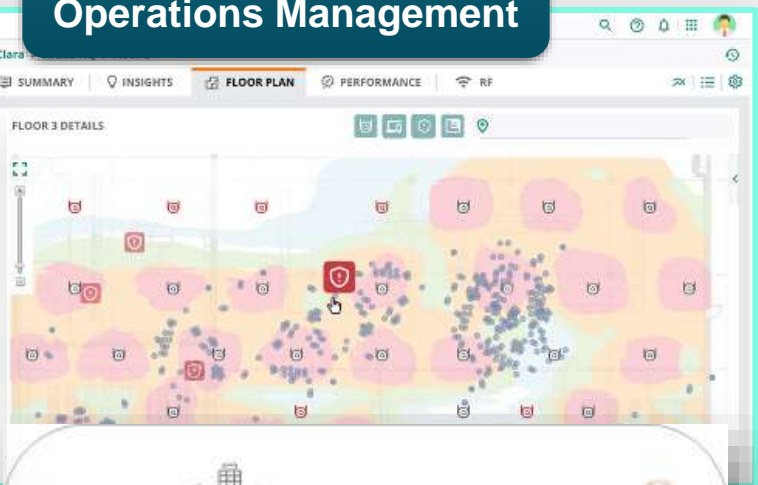
Day 2 Network  
Operations Management

Network Configuration  
Orchestration

Identity Federation and  
RAN Access Control

IoT Edge-to-Cloud  
Systems Integration

ITIL Operations  
Integration



# AI Ops For Improved Troubleshooting And Issue Resolution

Automation Reduces MTTR, Increases IT Efficiency

## POWERFUL FEATURES

### AI Search

Natural language queries for fast onboarding & troubleshooting

### Network Insights

Proactive network anomaly detection and optimization

### AI Assist

Automated Aruba TAC trouble ticket generation

### Client Insights

Accurate IoT profiling to drive capacity planning & security policies

### Application Insights

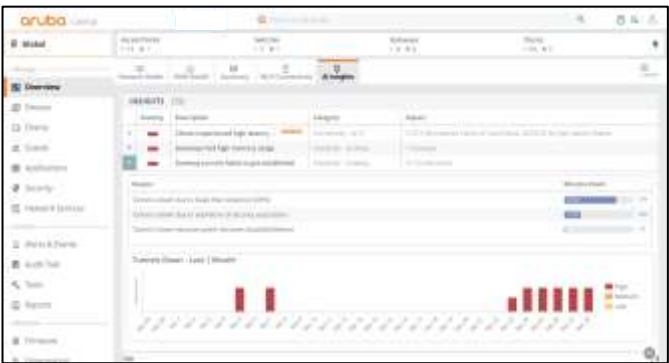
Automated application-level performance monitoring

Wi-Fi, Wired, WAN Infrastructure:  
Planning, Setup, Troubleshooting & Optimization

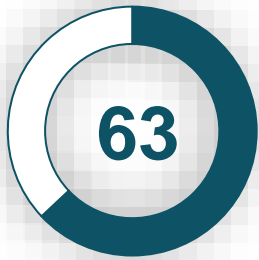
Security:  
Profiles / Behavior

User:  
Application / Connectivity

## POWERFUL RESULTS

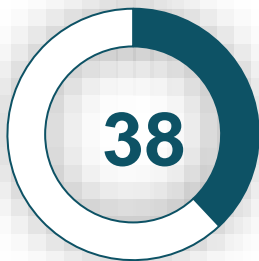


### Faster MTTR



Of surveyed customers resolve network or user issues at least **50% faster**

### Fewer Support Tickets

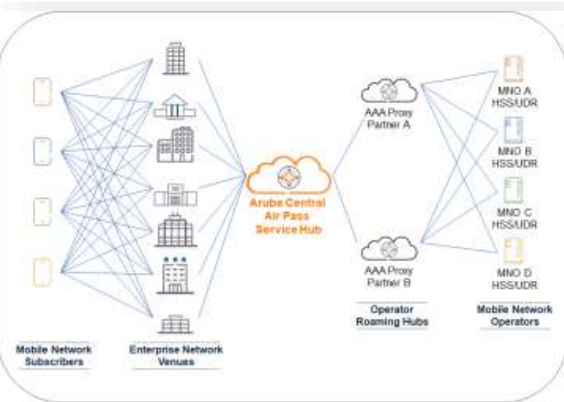


Of surveyed customers have reduced IT trouble tickets by at least **50%**



# Aruba Central for Secure Network Services

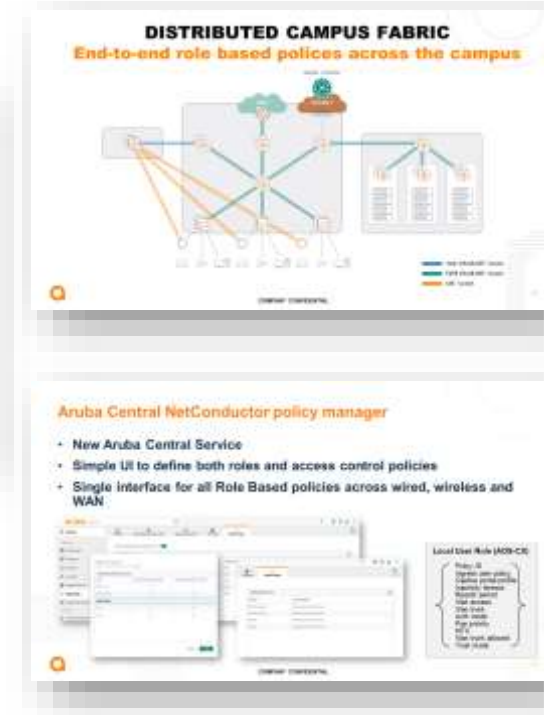
## Identity Federation Air Pass RAN Access



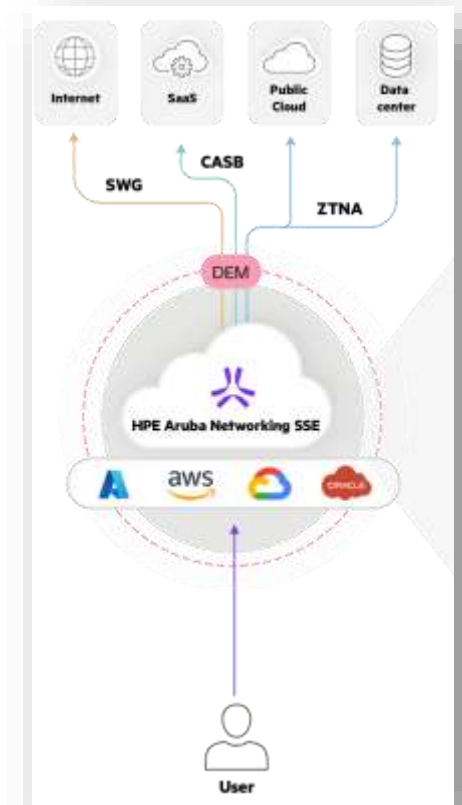
## Cloud Auth



## End-to-end Secure Connection Policy



## Next Gen VPN 3<sup>rd</sup> Party App Access



# Central Programmability

## REST APIs

APIs to configure, monitor across all device types

## Streaming

Live monitoring. Topics available for:

- Monitoring
- Audit
- Location
- Presence
- Security
- Applications

## Integrations

- IoT
- Zebra
- SD-Branch to cloud (Axis, zScaler, Palo...)
- ServiceNow
- Splunk

## Automated workflows

In built Automation workflows:

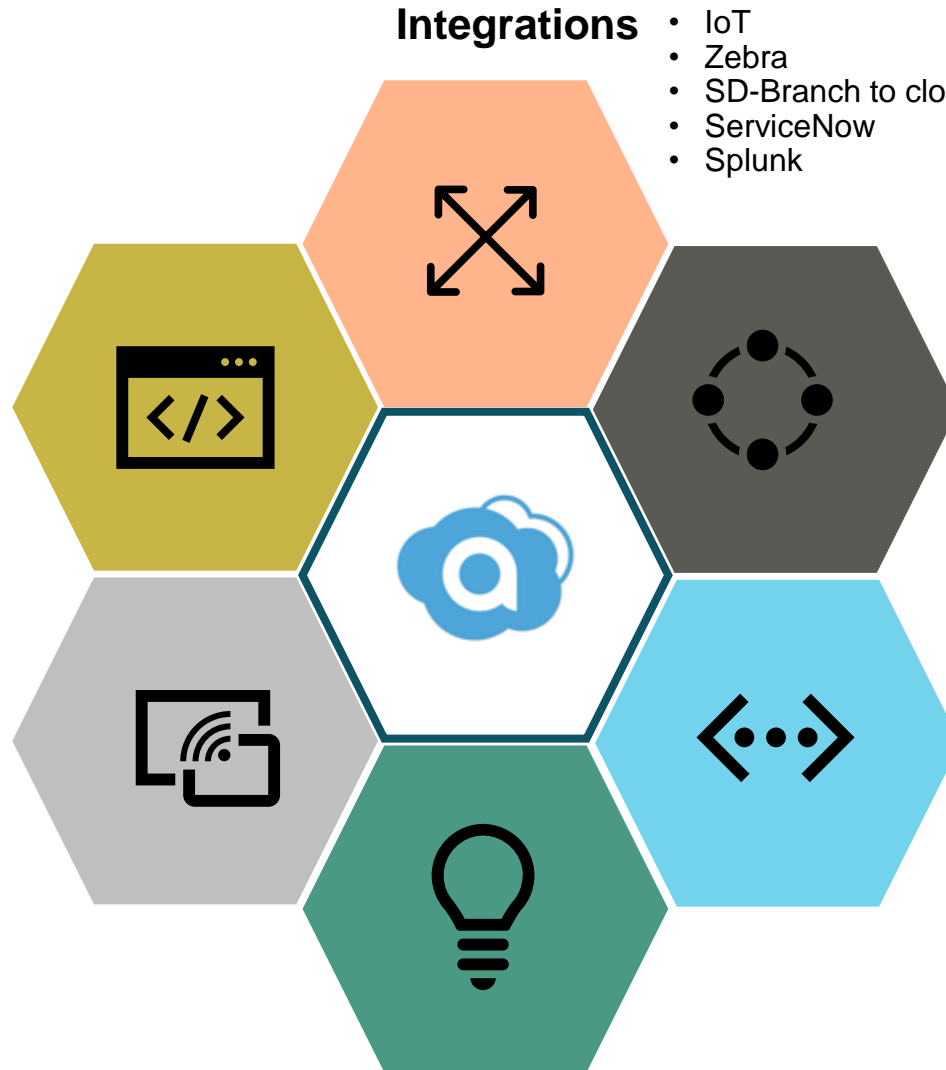
- Policy orchestration
- Device detection and allocation

## Webhooks

Event Monitoring:

- User
- Connectivity
- Gateway
- Switch
- Access Points
- Audit

## AI Ops



# Evolution Of Central

## A Decade of Customer-Driven Innovation

Aruba ESP  
2020

### MOBILE FIRST ARCHITECTURE

**200+** sensors  
**10K+** clients

- **2014** - Cloud-managed Wi-Fi
- First cloud-based platform, primary lens for on-prem or cloud-managed devices
- Aruba acquires Rasa Networks and Niara
- New services such as Cloud Guest, Presence Analytics, UCC
- Adaptive Radio Mgmt.
- Support for ArubaOS switches

### UNIFIED CONSUMPTION OF SERVICES

**300K+** devices  
**10M+** clients

- Management and orchestration of SD-Branch and Aruba CX switches
- Cloud-native AI/ML platform
- Device-agnostic service assurance with UXI
- Cloud-native **AOS 10**
- Hybrid work services, IoT operations
- Security and network configuration services (Client Insights, Cloud Auth, Policy manager, Fabric wizard)
- Central on HPE GreenLake
- Subscription-based licensing

### DATA-DRIVEN INTELLIGENT EXPERIENCE

**4.5M+**  
devices

**1.5B+** clients

- Evolve for exploding volume and variety of data sets
- Design an experience that unlocks the **value of data**
- **'Future-ready'** platform



# Goals for Next Generation Central

## Redefining Aruba Central for the Best Operator Experiences

### Monitoring, Reporting & Troubleshooting



Industry-Leading AI Efficacy

(Minimize False positive/negatives)



Streamlined Data Processing

(Unified Telemetry Pipeline)



Actionable Insights

(Profiling, Behavioral analysis, Risk Scores, RCA, Assurance metrics/SLA)



Simplified Operator Experience

(Proactive Analysis, Simple UI, Time Travel)



Seamless Integrations

(100% API Support)

### Onboarding, Provisioning & Configuration



Unified Config

(Simple, Flexible, & Programmable)



Smart Provisioning

(Fully Automated Deployment and RMA lifecycle)



Intent Driven Automation

(Smart and Simplified)



Change Management

(Plan, Validate, Deploy, Rollback, Backup and Restore)



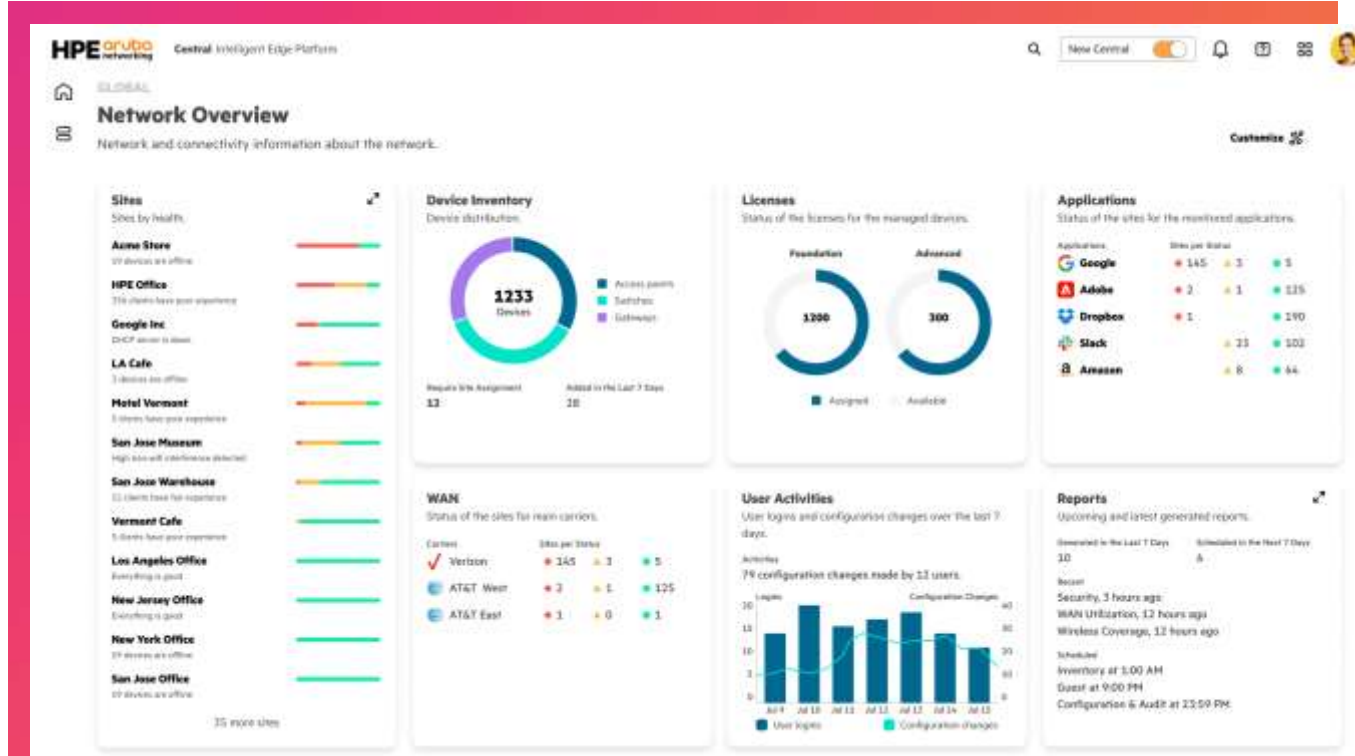
Extensible

(ServiceNow, Splunk, vCenter, others coming soon)



# Network operations Center dashboard

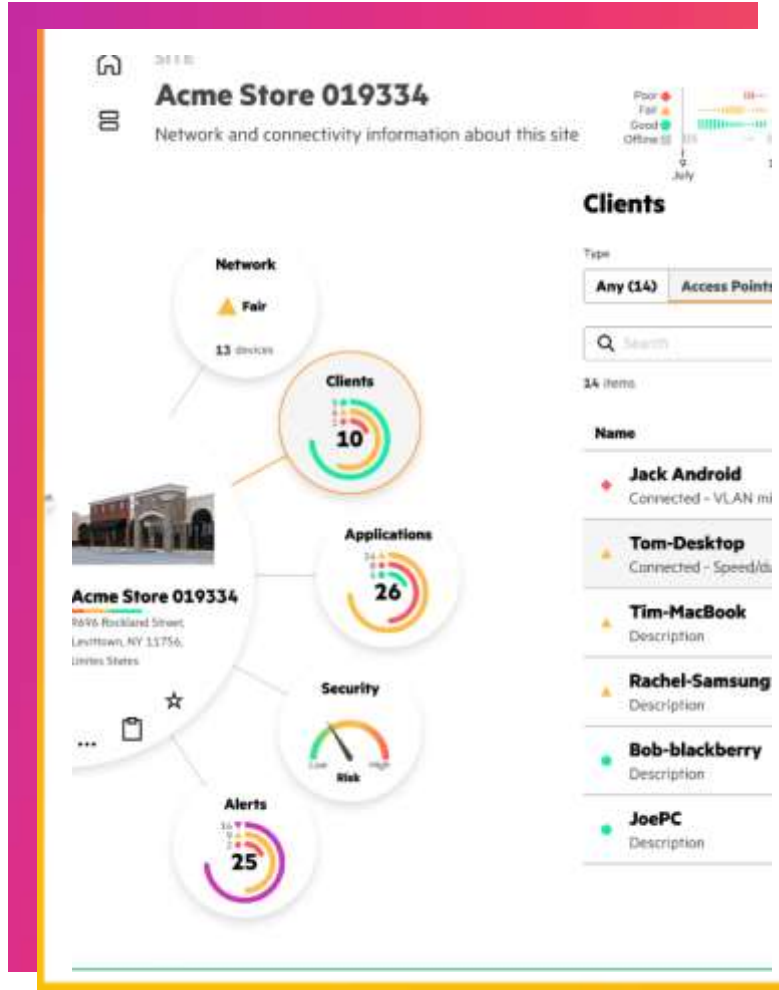
## Powerful *command center* view to direct operator attention



- Unified view of the network for quick assessment of site health, application experience, device inventory, and more
- Optimizing the ***to-do list*** of a network operator
- Blended indicators highlight issues requiring ***immediate attention***

# Entity-centric *Solar System* view

Reduce navigation clicks and minimize manual correlation



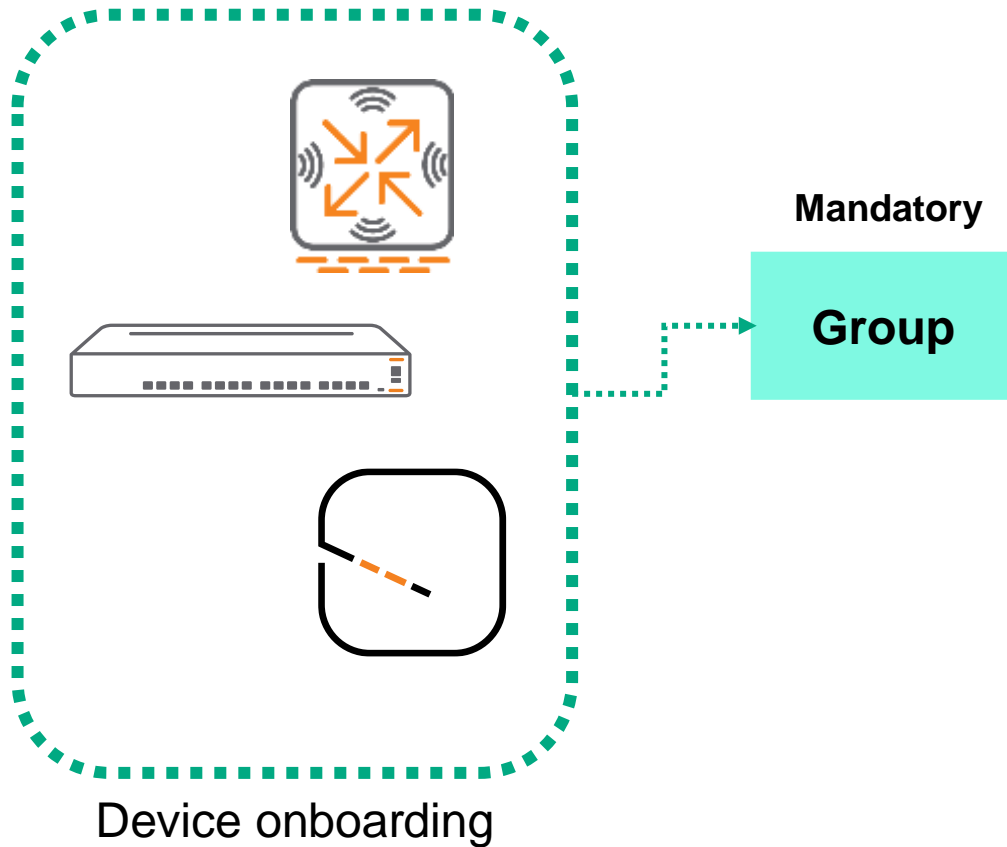
- Promotes **quicker discovery** without navigating across several screens and tables
- **Proactive summarization** with *blended* indicators
- Seamless switching between site, network devices, clients, applications, etc.
- Access to unified network device and client lists

# Visualize Large Complex Networks

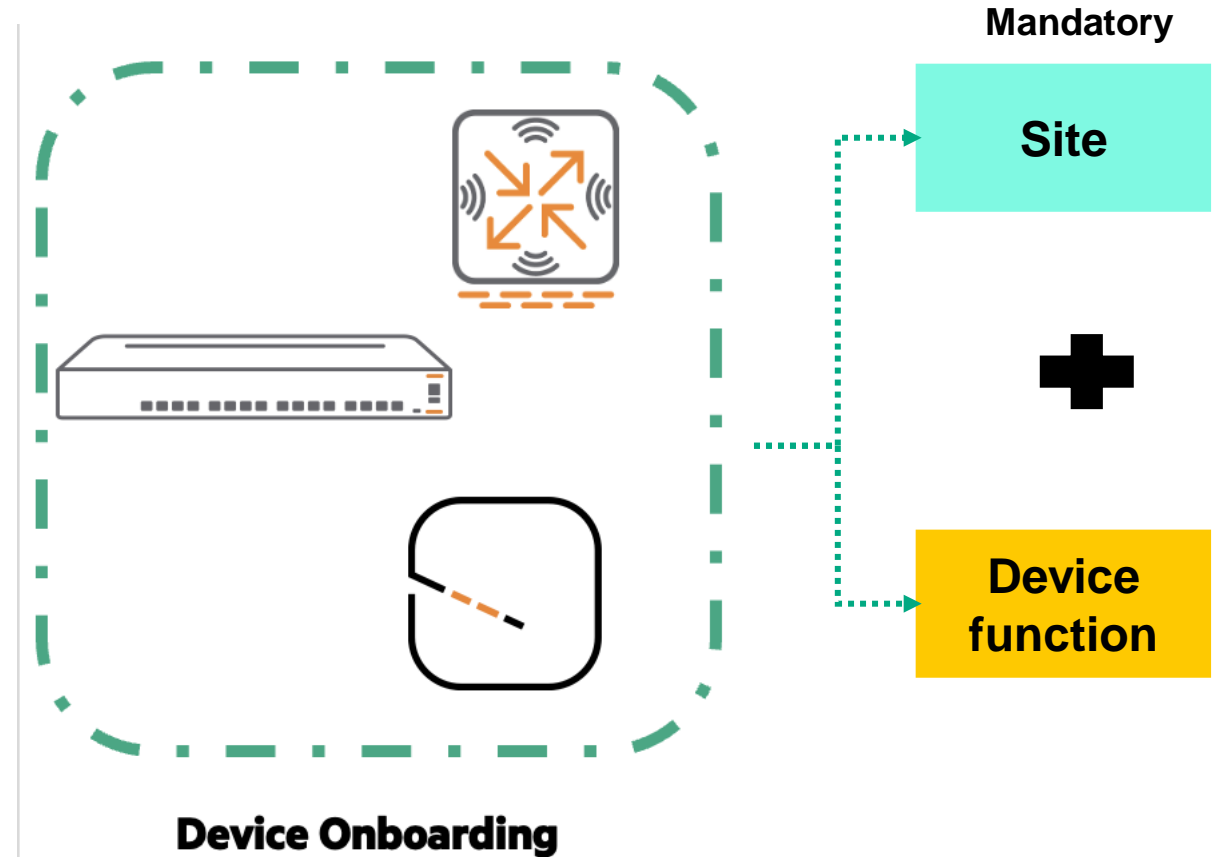


# Classic Central vs. new Central constructs

## Classic Central



## New Central



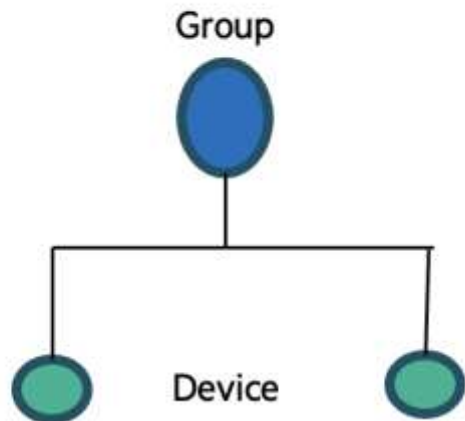
# Expanding the configuration hierarchy

**Multi-level hierarchy** offering **granular** control to model complex configurations

Five scopes that include global, site collection, sites, device groups, and devices

**Network engineer, advanced**  
Building a scalable, distributed configuration spanning multiple sites

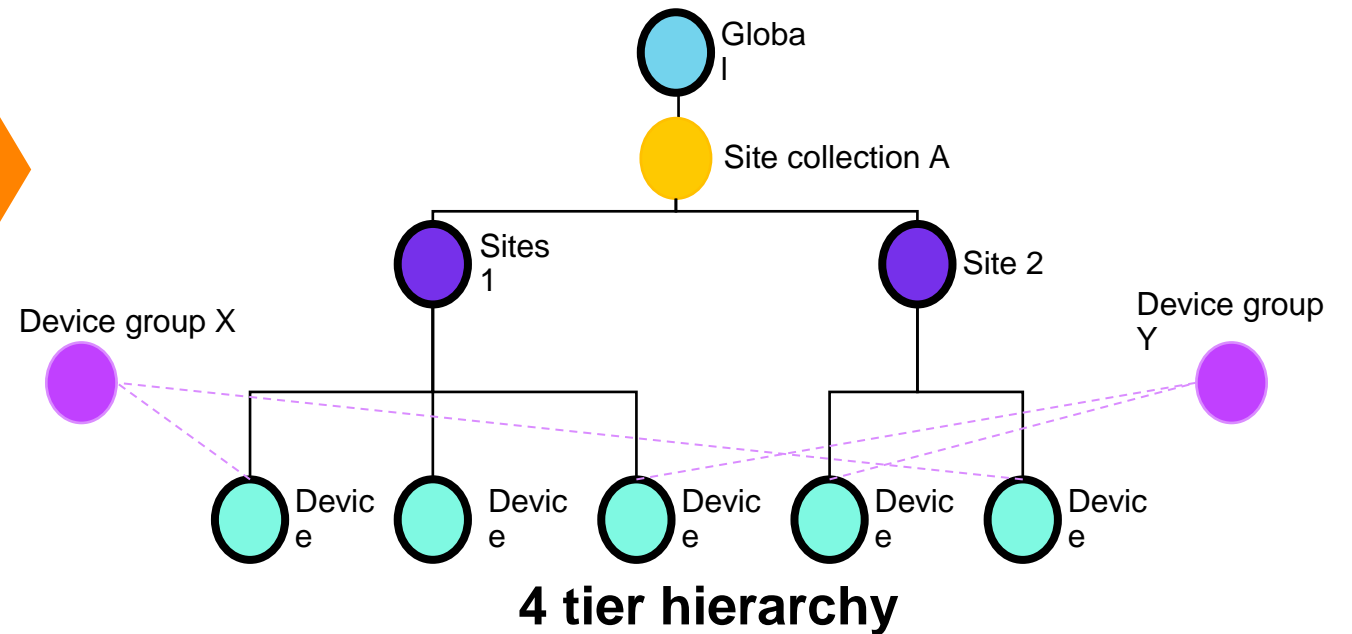
## Classic Central



**2 tier hierarchy**



## New Central

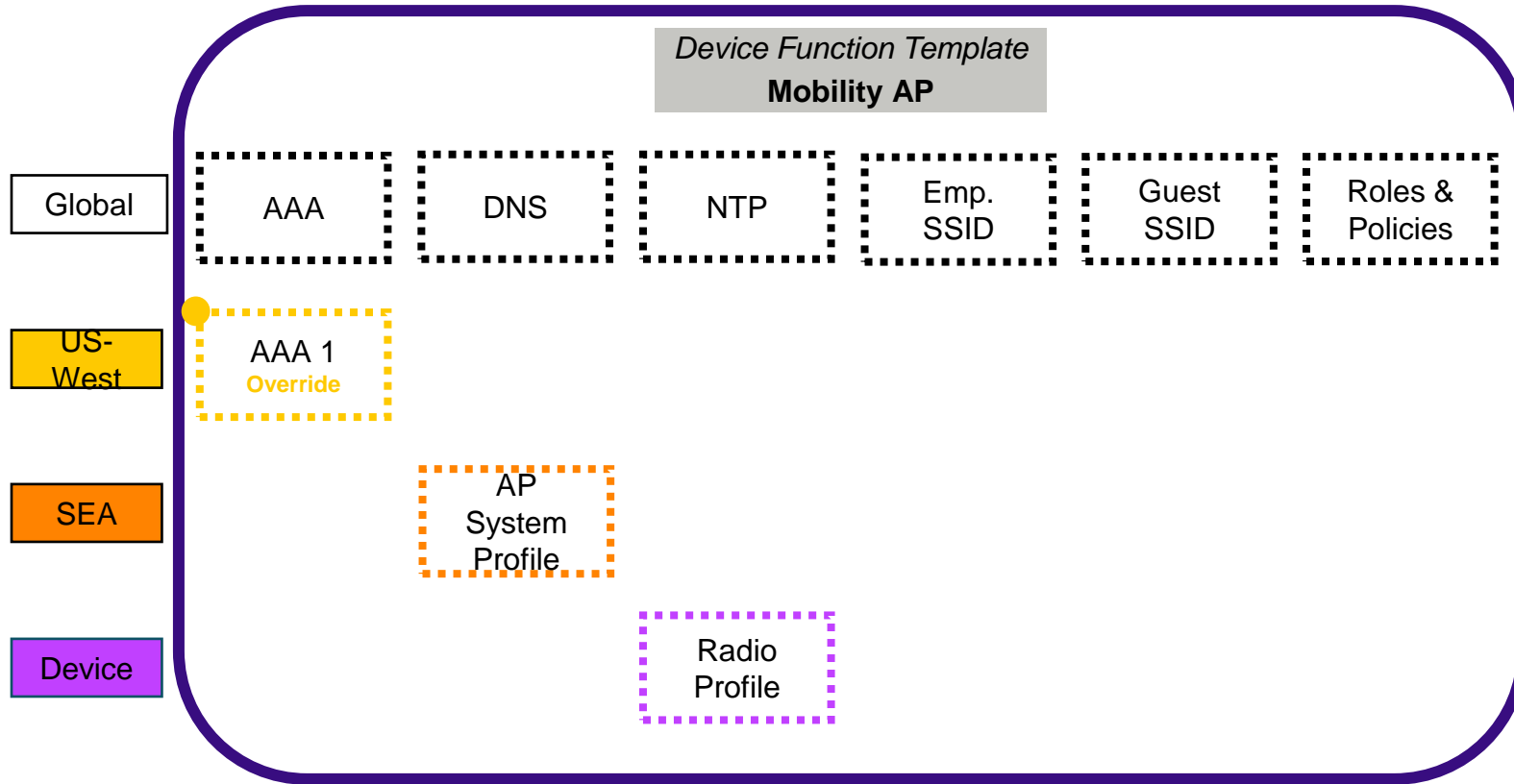


**4 tier hierarchy**

○ Black outline circles are mandatory hierarchy levels



# Building Device Config with Scopes and Device Function

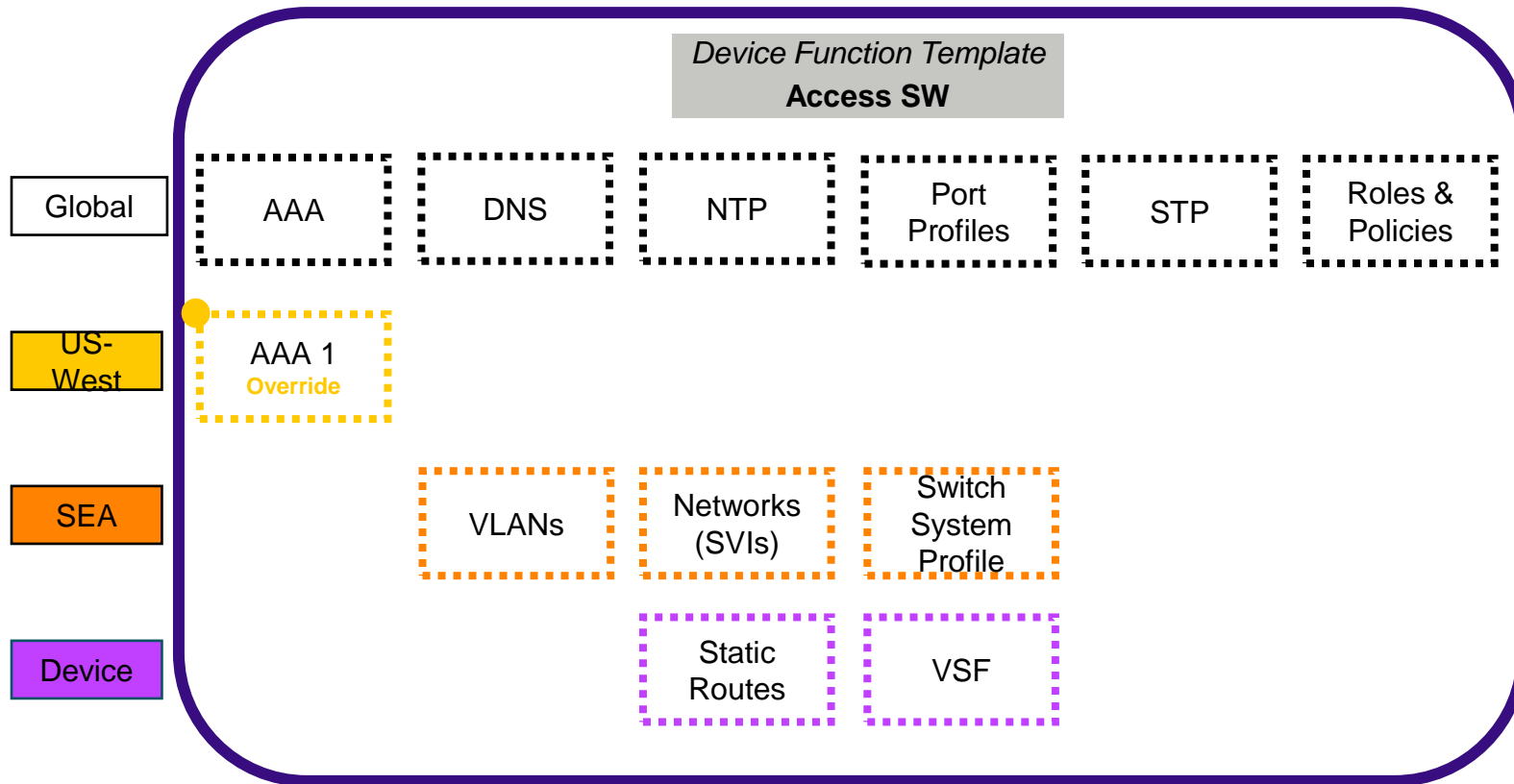


- User builds a hierarchical config template for each device function in a deployment
- We support the parent- child inheritance and overrides
- Config Priority is Device > Device Group > Site > Site Collection > Global



AP-xx01

# Building Device Config with Scopes and Device Function



Access  
Switch xx01

- User builds a hierarchical config template for each device function in a deployment
- We support the parent- child inheritance and overrides
- Config Priority is Device > Device Group > Site > Site Collection > Global

# Device Details Page

Home

SWITCH

CP-DFW-AGSW01

Information about the device.

Site

Dallas / Ft. Worth (DFW) - Campus

Network

Good

Clients

0

Security

Low Risk

Alerts

0

CP-DFW-AGSW01

Online - Good Performance

...

...

Health

Online with Good Performance

Uptime: 2d 11h 48m

Configuration Status: Synchronized

Last Restart Reason: Reboot requested by user, Version: GL.10.13.1010

Last Configuration Change: September 25, 2024 12:22 AM

Properties

Model: CX-8325

MAC Address: bc:d7:a5:32:66:00

IP Address: 172.31.0.46

Deployment Mode: Standalone

Manufacturer: Aruba

Serial Number: TW23KM00J9

Software Version: GL.10.14.1010

Connectivity Performance

Good Performance

Usage: 17.8 GB (0 B of Uplink usage)

Uplink Utilization: No uplink detected

Connected Clients: 0

Hardware

CPU: Good

Fans: 12 up of 12

Power Consumption: 163.73 W

Memory: Good

Power Supplies: 2 up of 2

Connectivity

0 clients

CP-DFW-AGSW01

Port 1/1/1

CP-DFW-EGSW01

Port 74

Internet

classification

X

New

Poor

Fair

Good

Today

Now

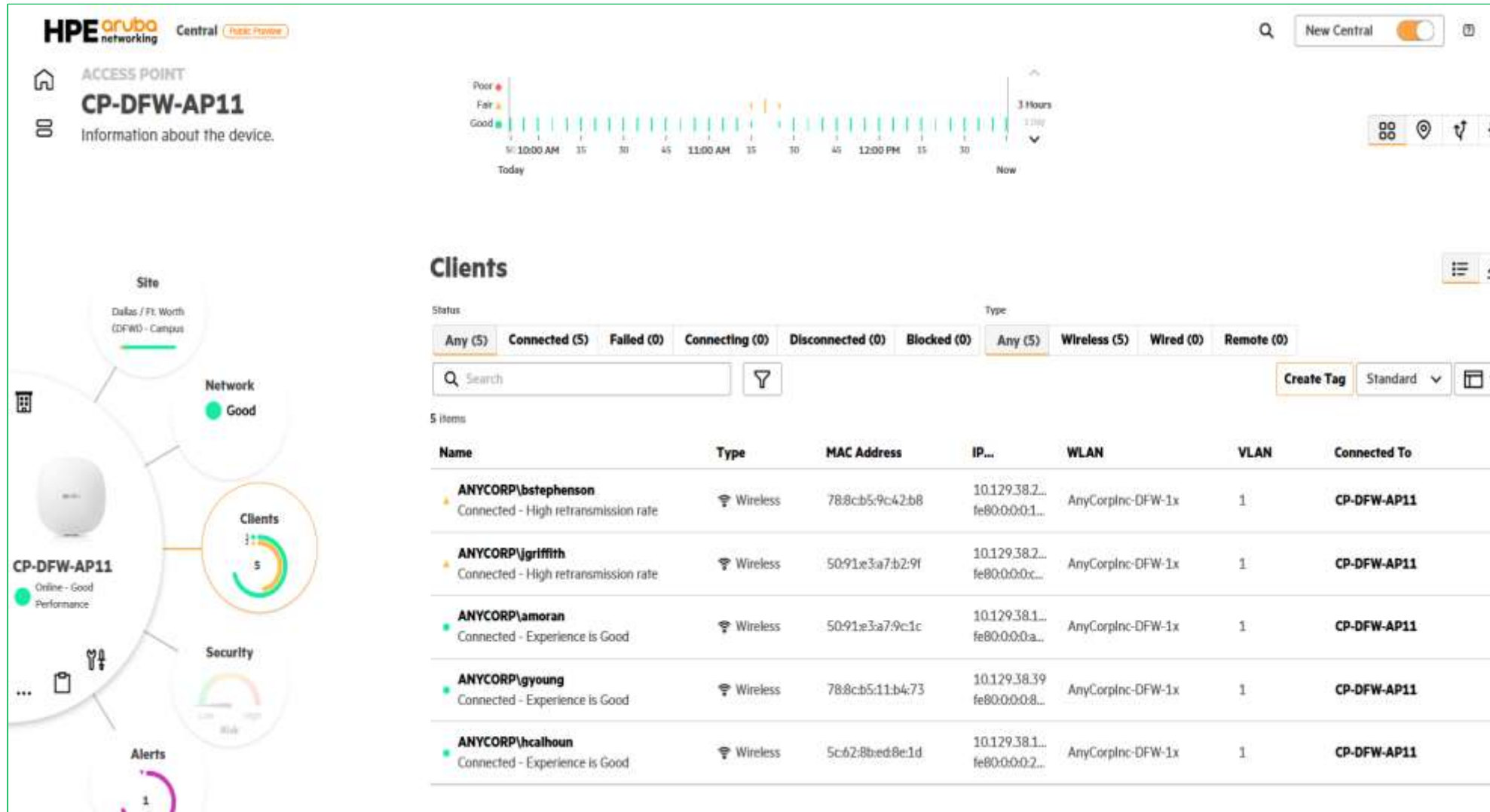
3 Hours

9 Days

Confidential | Authorized

27

# Easy to See Endpoint Client Status



# Industry-first network *Time Travel*

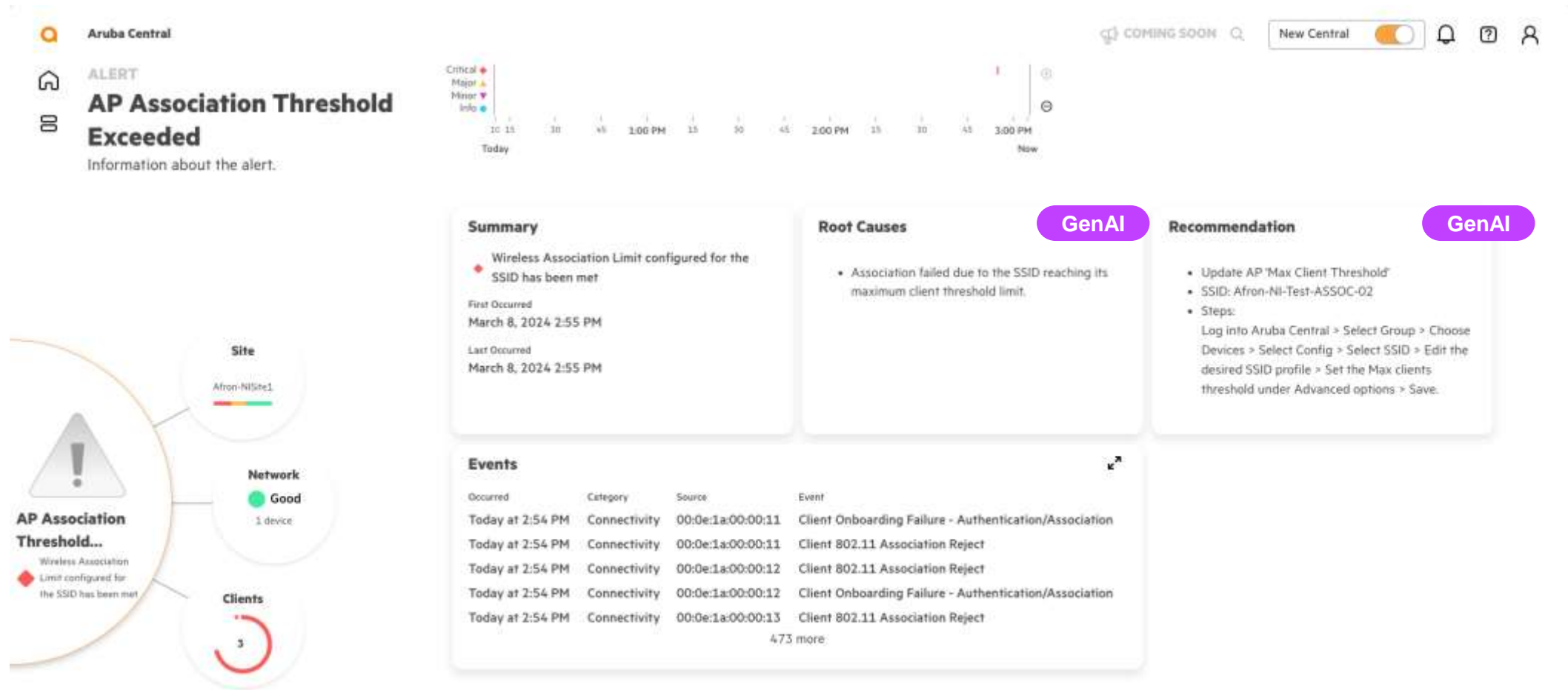
Helping IT teams answer *What changed? When? Why?*



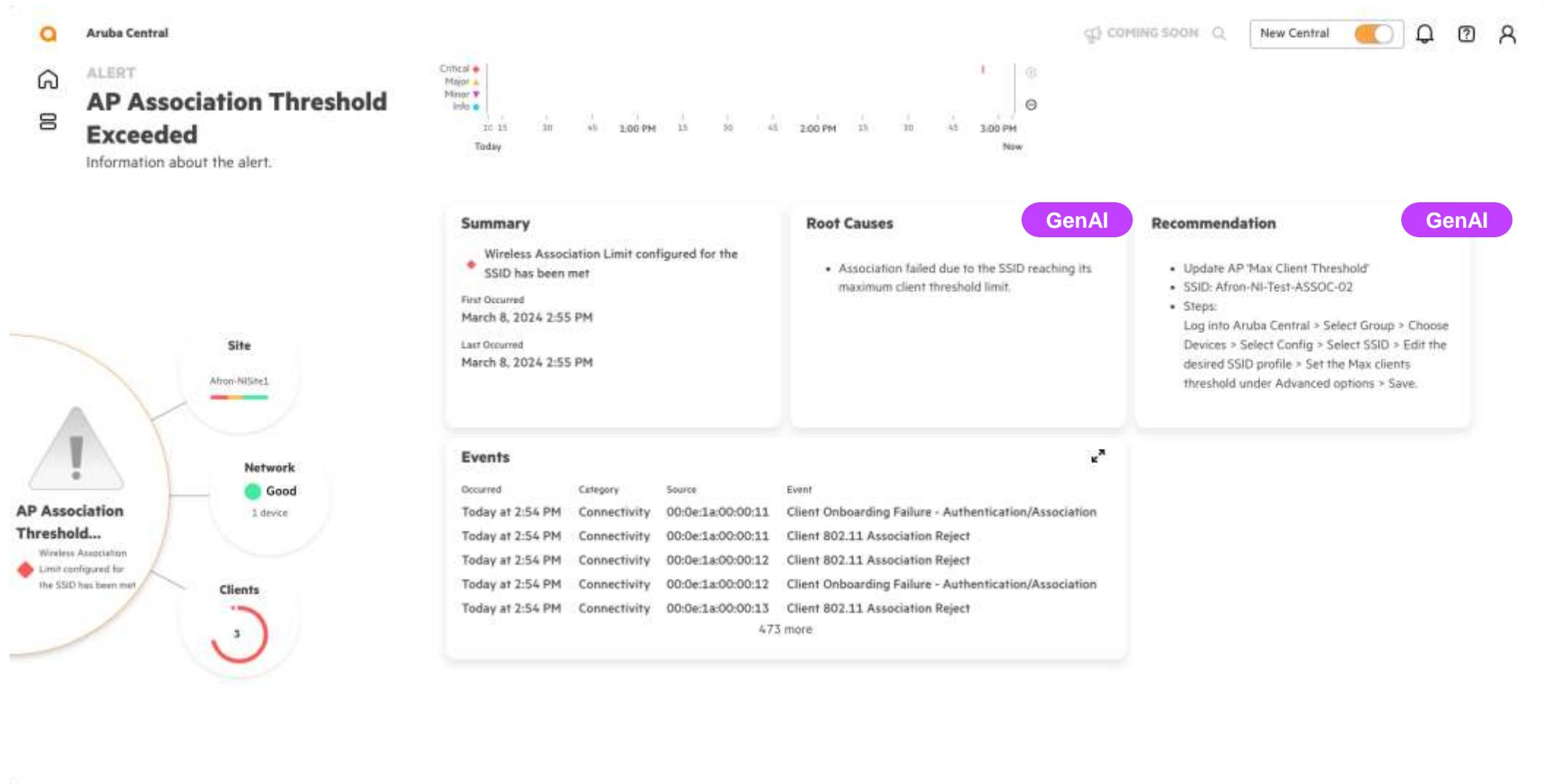
- Holistic **point in time** network snapshot to troubleshoot difficult issues
- Deep correlation that goes beyond manual analysis of event logs and packet captures
- Move back in time for up to **seven days**, with granularity of **one minute**
- On selecting a timestamp, all dashboard views reflect what the network looked like at that point



# GenAI Powered Root Cause & Recommendation

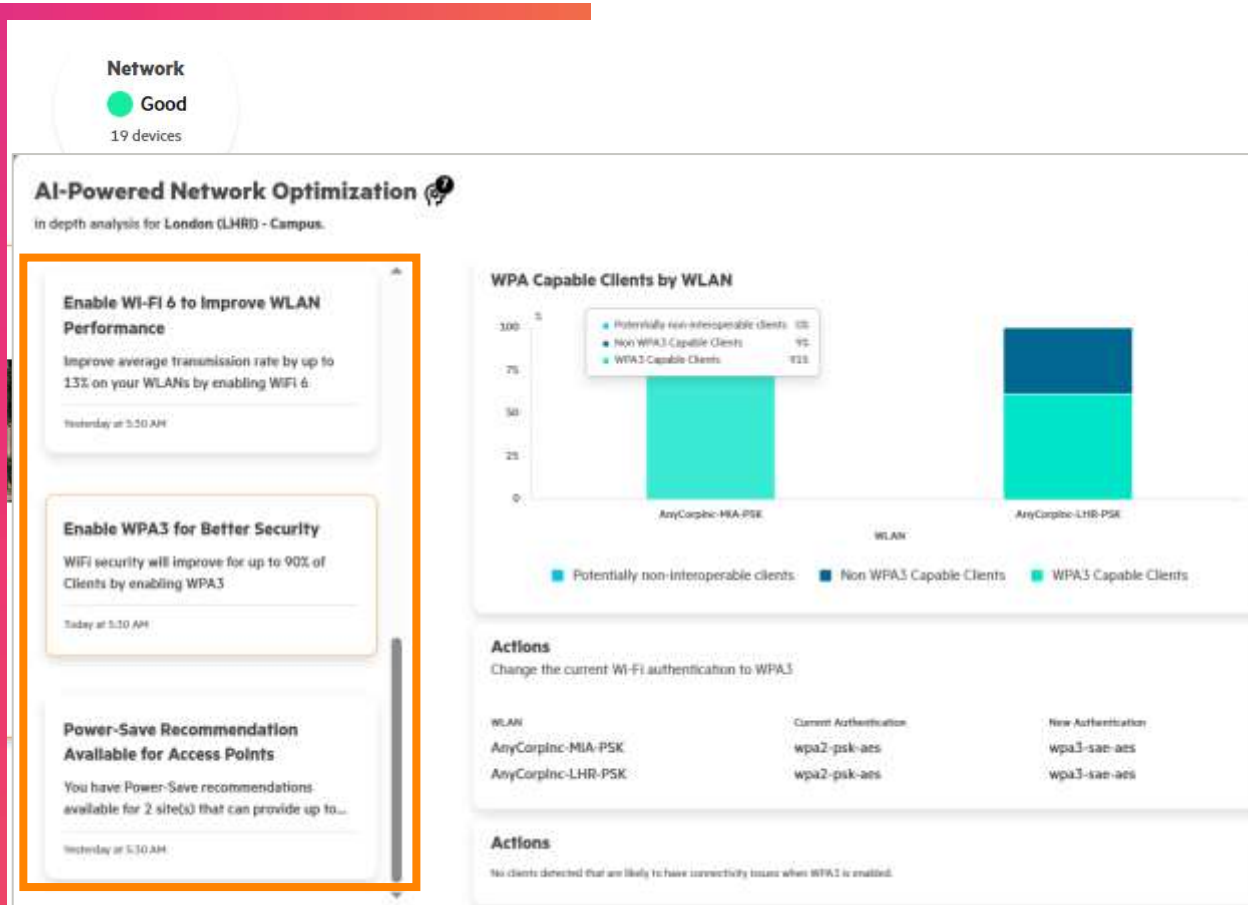


# GenAI Powered Root Cause & Recommendation



# AI-powered recommendations

Free up valuable IT cycles and reduce risk with proactive optimization insights



- **Custom, actionable recommendations** at a global/per-site basis
- AI/ML models trained and re-trained **weekly** on **data from anonymized peer groups** with similar environments
- **Examples**
  - Firmware Recommendations
  - Enable Wi-Fi 6 to Improve Wi-Fi Experience
  - Enable WPA3 for Better Security
  - IoT Policy Optimization
  - Large Data Upload/Download
  - New Country Upload Detected
  - Client Connection Times
  - Save Power Using AP Power Save
  - Improve Wi-Fi Performance using 6GHz
  - Probe Threshold Recommendation

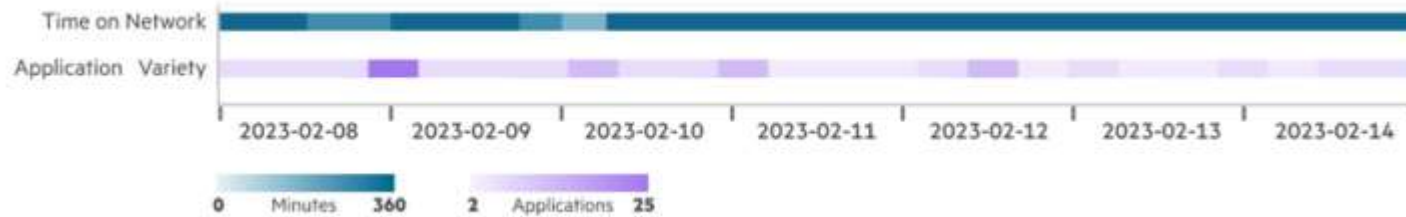
# AI-powered client insights in Central

- Profiles over 200M endpoints
- Accurate up to **99%** with **<5%** rate of unknowns
- **New** behavior analysis for IoT profiling and segmentation
- Included with Central licenses for immediate **ROI**



# AI-driven behavior analysis

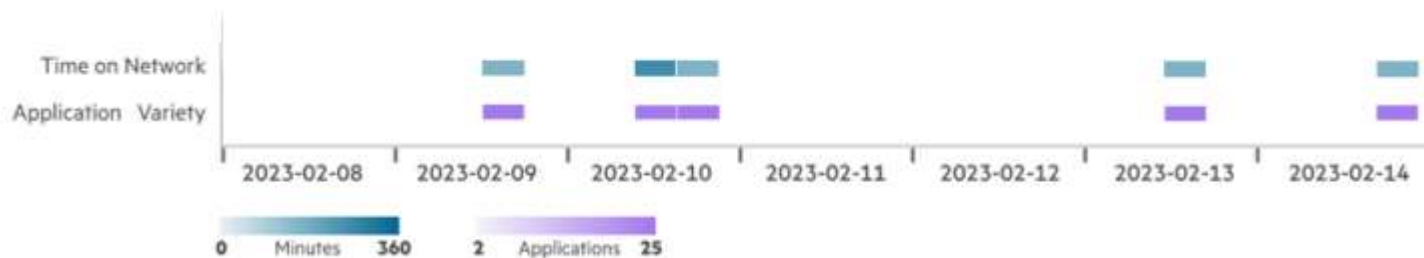
- Behavior of IoT clients like Zebra printers



Zebra printer is on the network 24/7 for the past week

Application usage is low and repetitive

- Behavior of non-IoT clients like Apple iPhones



Apple iPhone is seldom on the network indicating it is tied to a user

Infrequent but high application usage



# Gen AI-powered search

Enhanced with enterprise-grade LLMs for improved operator experience

The screenshot shows a search interface for Aruba Central. The search query is 'Catania'. The results are displayed in a table with columns: Name, Type, MAC address, IP Address, Model, and Serial Number. Two results are shown: 'GW-Catania-02-MB' (Gateway Cluster) and 'AP-Catania-01-LR' (Access Point Standalone). The search bar is highlighted with a purple box, and the search results table is highlighted with an orange box.

How do I create a Port Profile on AOS-CX using Aruba Central?

Summary:

### Configuring Port Profiles on AOS-CX using Aruba Central

Port Profiles enable group level configuration of interface-specific commands on AOS-CX devices. Aruba Central's **Port Profiles** page allows you to manage these profiles - create, apply, clone, modify, and delete. They can be configured on interface ranges, list of interfaces, wild cards, MCLAG, split, sub-interface, and management interfaces. Please note, the configuration should be complete when applying a profile to an interface. The new profile will overwrite the existing configuration.

#### Creating a Port Profile

1. Launch the **Aruba Central** app, and set the filter to a group that contains at least one switch.
2. Navigate to **Devices > Switches** under the **Manage** section.
3. Click on the **Config** icon to access the switch configuration dashboard.
4. Navigate to **Interfaces > Port Profiles**. Here you'll see a list of existing port profiles.
5. Click on the + sign in the Port Profiles table to create a new profile.
6. Provide a **Name** and a **Description** for your profile.
7. Configure in
8. Click **Save** to

#### Important Considerations

- The parent group
- Overlapping
- When creating
- Before applying
- Post application

Show more

Aruba Central

Search devices running 10.4

### Search Results

Search Scope: Catania

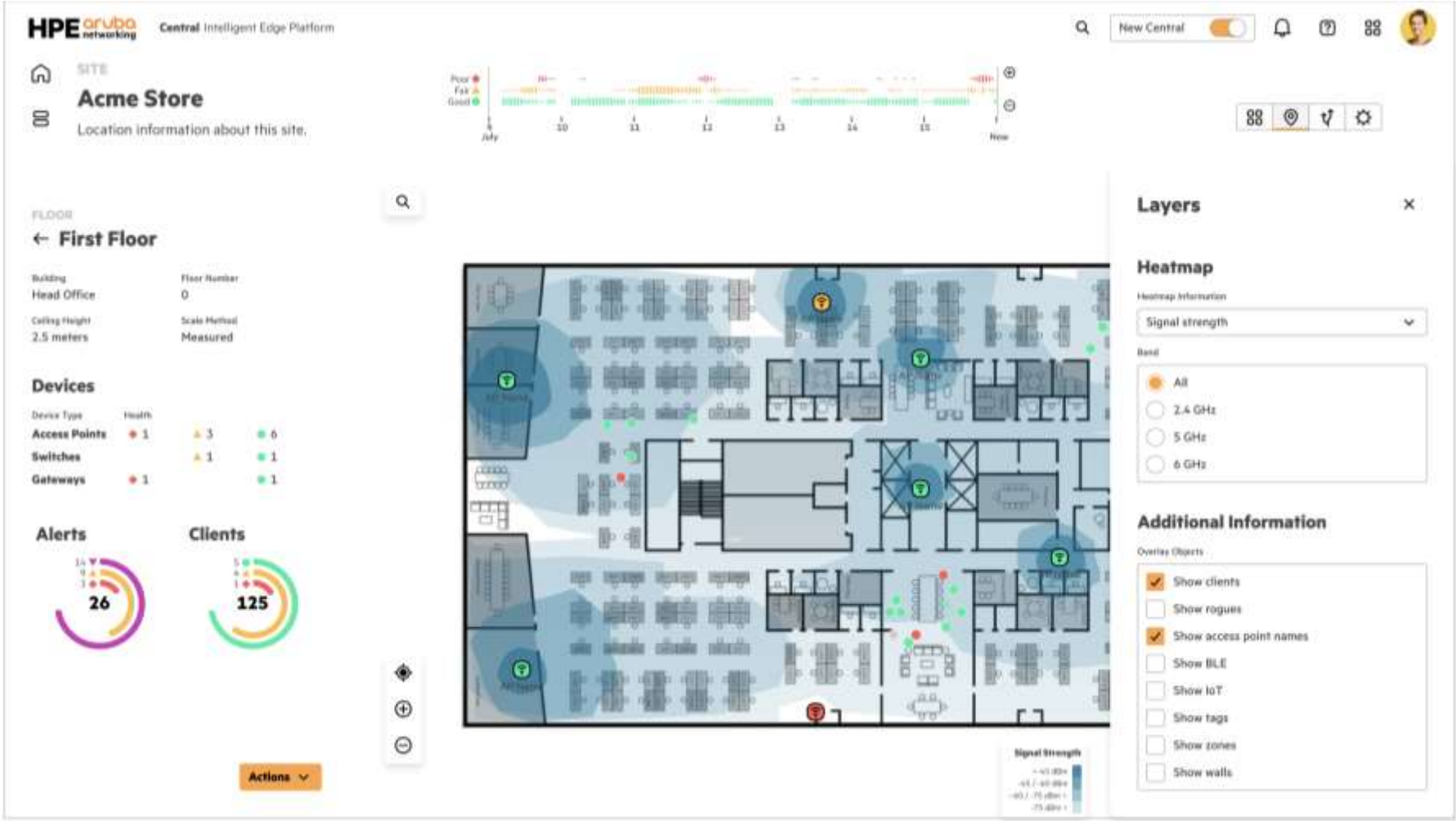
Devices Documentation

2 items

Name	Type	MAC address	IP Address	Model	Serial Number
GW-Catania-02-MB ONLINE	Gateway Cluster	20:4c:03:d3:11:f8	9.9.9.1	A9004	CNM0HKL8032
AP-Catania-01-LR ONLINE - Last seen -	Access Point Standalone	90:4c:81:e0:53:14	10.1.50.3	AP-345	CNPKYK310L2

- Trained and tuned on **multiple proprietary LLMs**, purpose-built for networking
- Pre-conditioned with three million network questions for improved performance and accuracy
- **Sub-second summarization** of latest 30k pages of VRDs and tech pub documents
- **Uncompromised security** with no external API interfaces, and no PII/CII shared beyond customer instance

# Enhanced Floorplan Manager



# Troubleshooting tools: Framework

- **Framework**

- Tests
- Sequence <sup>New</sup>
- Remote console
- History <sup>New</sup>



ID	Initial Context	Start Time	End Time	Username	Type	Test Results
45	AP-Aruba 123	2023-12-17, 14:30:09	-	tim@hpe.com	Tests	7 2
44	San Francisco	2023-12-17, 10:45:15	2023-12-17, 11:20:06	tim@hpe.com	Tests, Sequence	18 3
43	SW-6300 Frontdesk	2023-12-16, 16:02:20	2023-12-16, 16:03:33	john@hpe.com	Sequence	4 4

- **Visual** <sup>New</sup> and **CLI** representation of test r

- **Entry points** into the workflow

- Site Sun
- Device Sun (and Side panel)
- Clients
- Alerts <sup>New</sup>

## Results

```
*****Ping Test success*****
ping 1.1.1.1 repetitions 5
1.1.1.1 is alive, iteration 1, time = 2 ms
1.1.1.1 is alive, iteration 2, time = 2 ms
1.1.1.1 is alive, iteration 3, time = 2 ms
1.1.1.1 is alive, iteration 4, time = 1 ms
1.1.1.1 is alive, iteration 5, time = 8 ms
5 packets transmitted, 5 packets received, 0% packet loss
round-trip (ms) min/avg/max = 1/3/8
```

## Traceroute

Partially failed Today at 13:40:50.

Source: AP-Name ABC  
Destination: 192.168.10.5  
VLAN: 4000 (Employees)

Maximum Hops: 30

#	Hop	Latency
1	● AP-Name ABC	0.435 ms
2	● Sw-Access-345	0.165 ms
3	● SW-Core-987	0.301 ms
4	● 172.16.12.1	1.322 ms
5	◆ Request time out	-
6	● 192.168.10.5	43 ms
7	● 172.16.12.1	71 ms







# Thank You

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