

atmosphere'23

BELGIUM

Introducing Central Next Generation

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19 October 2023

ENTERPRISE CHALLENGES TODAY



WORK FROM ANYWHERE



AVAILABILITY



COLLABORATION



BUSINESS NEEDS



**NETWORK
OPERATIONS**



SECURITY

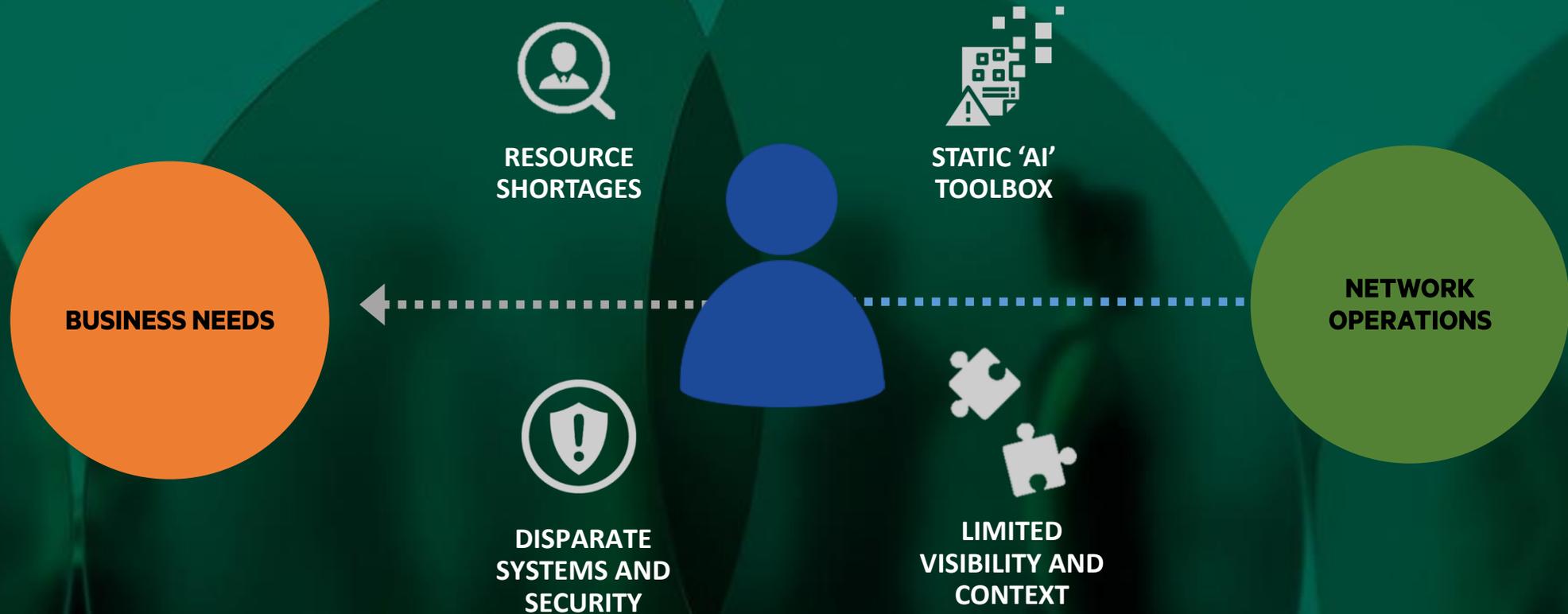


INCREASE IN USERS
AND DEVICES



SERVICE QUALITY AND
PERFORMANCE

ENTERPRISE CHALLENGES TODAY



ENTERPRISES NEED INTELLIGENT AND RESILIENT NETWORKS FOR TRANSFORMATIVE BUSINESS SUCCESS

EVOLUTION OF CENTRAL

A Decade of Customer-Driven Innovation

MOBILE FIRST ARCHITECTURE

2014

200+ devices
10K+ clients

- First cloud-based platform, primary lens for on-prem or cloud-managed devices
- Aruba acquires Rasa Networks and Niara

UNIFIED EDGE SERVICES

2020

300K+ devices
10M+ clients

- Single Platform ESP
- Cloud-native AI/ML platform

NEW CENTRAL with ADAPTIVE INTELLIGENCE

2023

2.5M+ devices
200M+ clients

- Design an experience that unlocks the value of data
- 'Future-ready' platform

ARUBA CENTRAL
ORCHESTRATION
FOR IT EFFICIENCY

FROM
IS IT WORKING?



TO
OUTCOMES THAT
JUST WORK

INTRODUCING NEXT-GENERATION CENTRAL

HPE Aruba networking Central Intelligent Edge Platform

Acme Store 019334
Network and connectivity information about this site.

Health

2 applications are unreachable.
Configuration deployment issue affecting 12 devices.
Suboptimal wireless coverage on Floor 3.

Device Type Health

Access Points	1	3	5
Switches	1	1	1
Gateways	1		1
Client Type Experience	1	3	2
Wireless		1	2
Wired		1	2
Remote			1

Usage

Throughput Clients

Properties

Location
701 Boston Post Rd E Marlborough, MA 01752
United States

Type
Branch

Time Zone
America/New_York (UTC-05:00)

Network: Fair, 13 Devices

Clients: 10

Applications: 26

Security: Risk

Alerts: 8

Events

Occurred	Category	Event
Today at 13:56	Connectivity	Client PoE re-negotiation
Today at 10:25	Connectivity	Client 802.1x RADIUS timeout
Today at 8:52	RF	Radio interference
Today at 8:03	Security	Client DHCP timeout
Yesterday at 23:34	Infrastructure	Device restarted

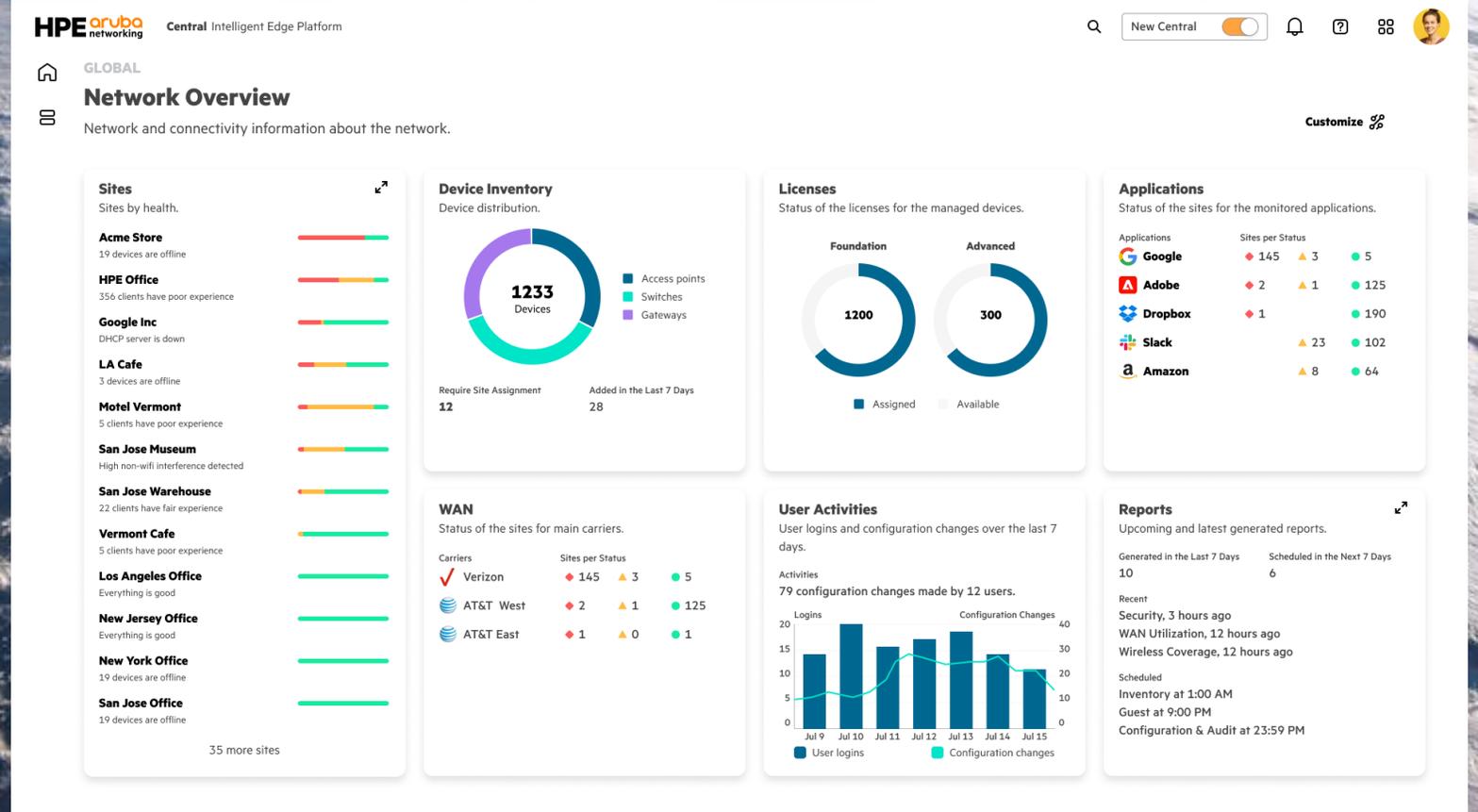
Intelligent Network Command Center

Directing Attention with a Powerful 'Cockpit' View

Unified network view for swift site health, application assessment and more

Intelligent indicators highlight immediate-attention issues

Optimized 'to-do' list for efficient network operation





Acme Store 019334

... ☆



SOLAR SYSTEM

ELEMENT-ORIENTED VISIBILITY



Core 1



Core 2



Aggregation 1



Core 1



Aggregation 2



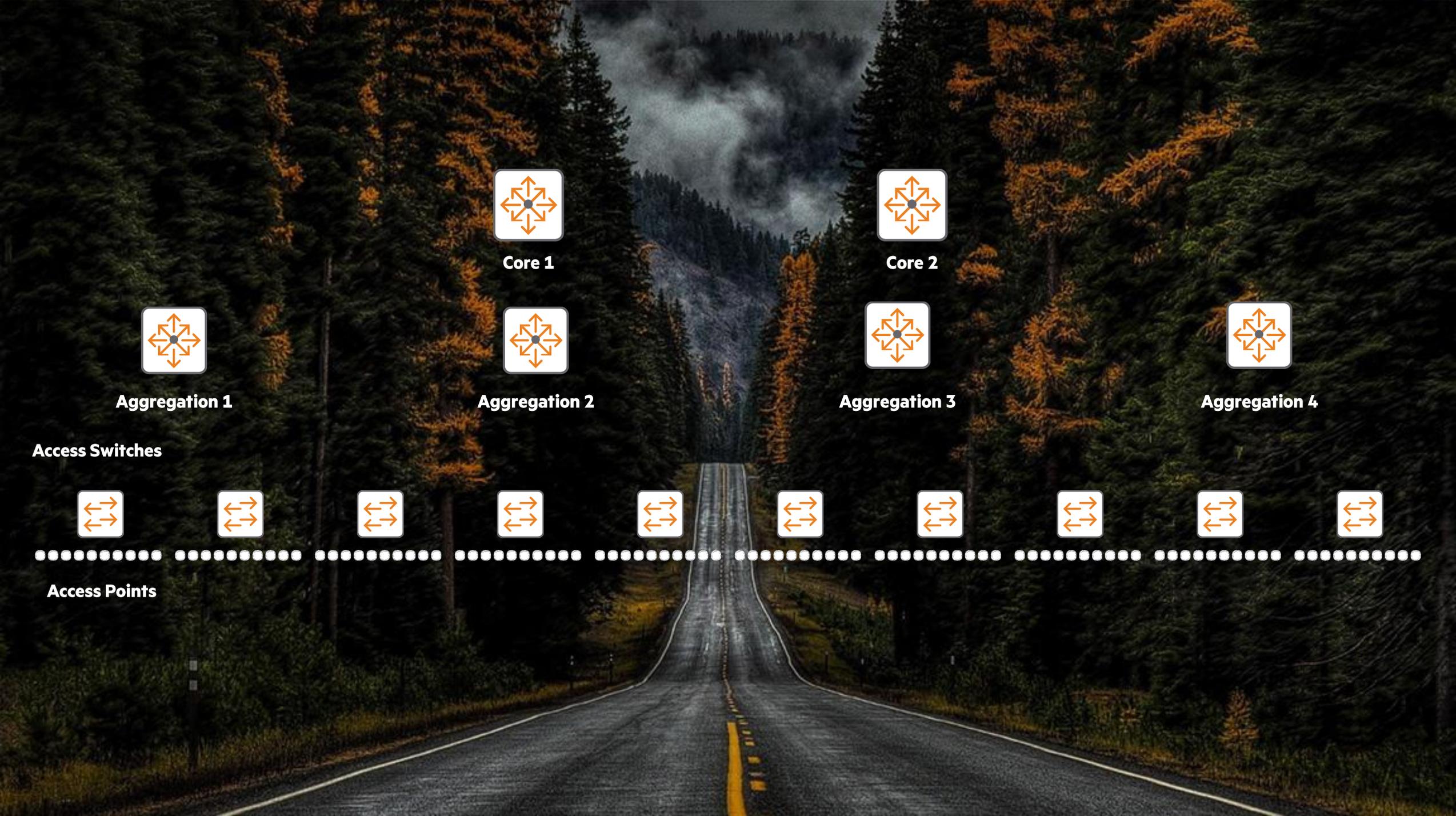
Core 2



Aggregation 3



Aggregation 4



Core 1



Core 2



Aggregation 1



Aggregation 2



Aggregation 3



Aggregation 4

Access Switches



Access Points



Aggregation 1



Core 1



Aggregation 2



Core 2



Aggregation 3



Aggregation 4

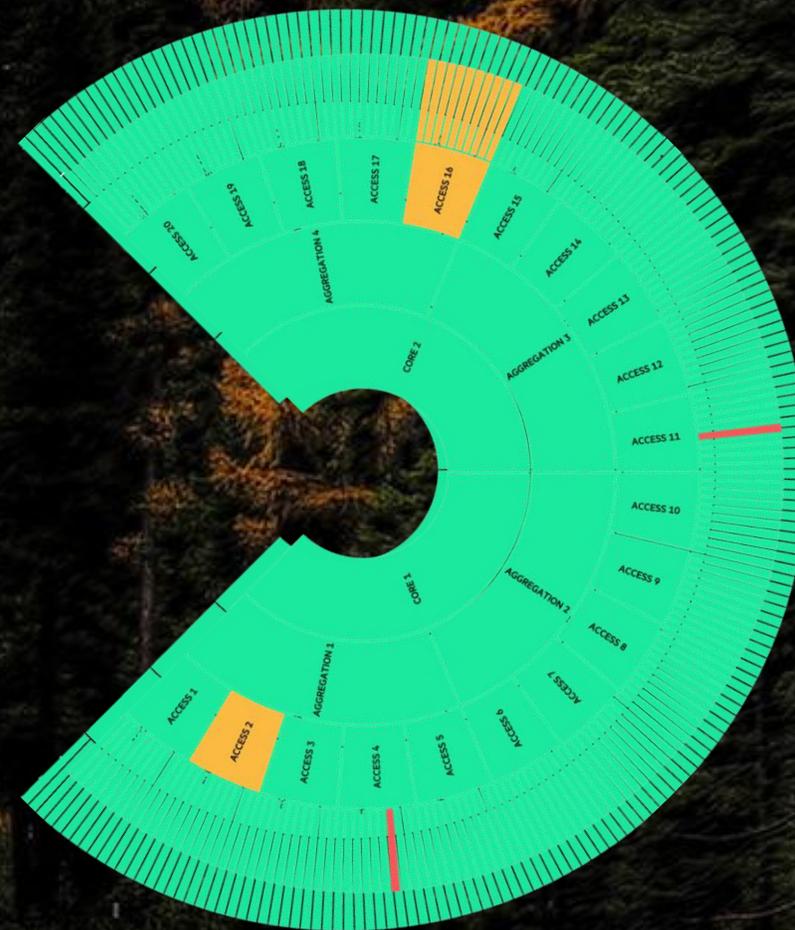


SUNBURST VIEW

A MODERN APPROACH WITH DEPTH



VS



PROGRESSIVE 'SUNBURST' TOPOLOGY VIEWS

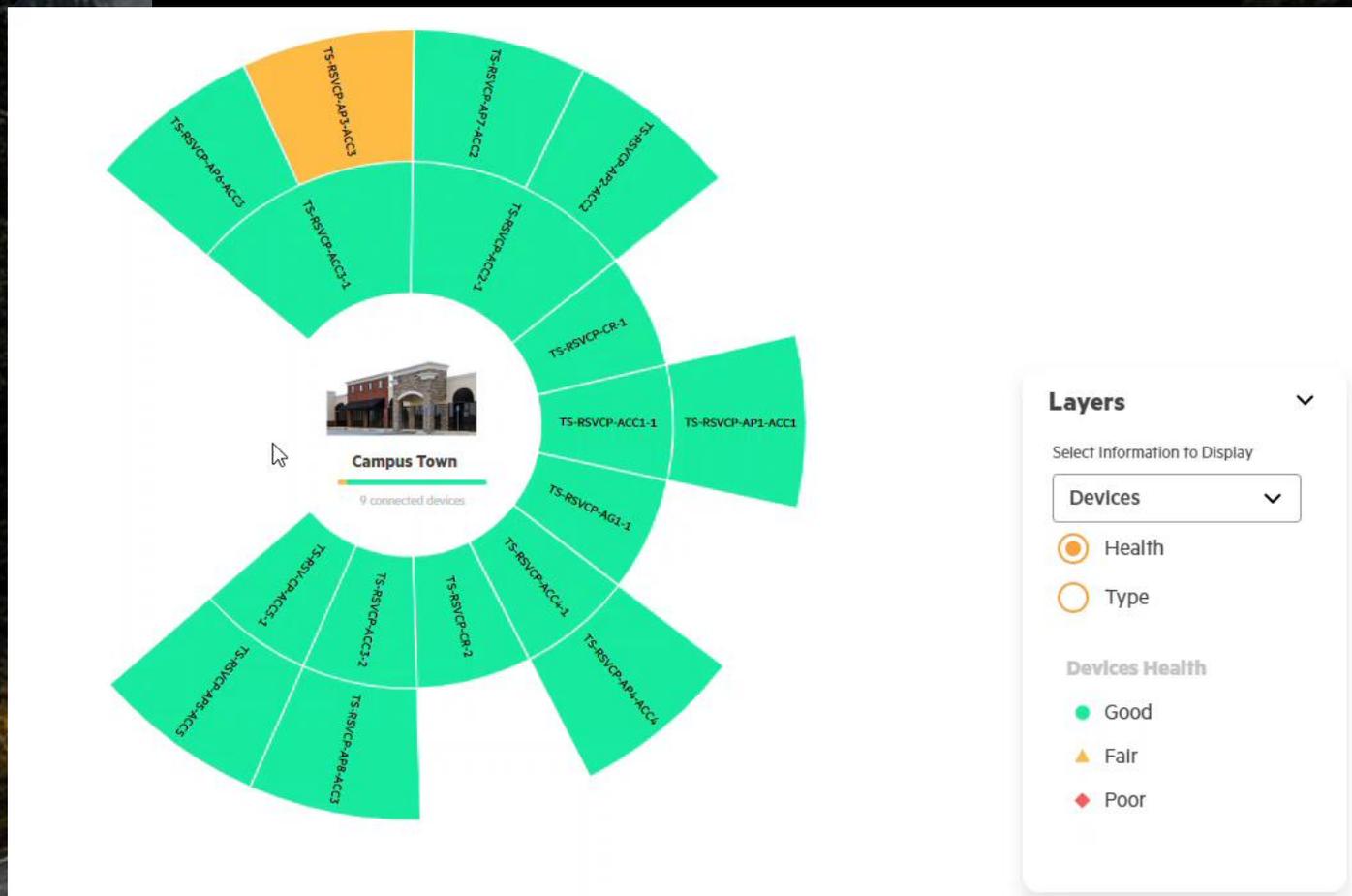
ENHANCE TROUBLESHOOTING AND ANALYSIS WITH A BIRD'S EYE VIEW

Intuitive
data views

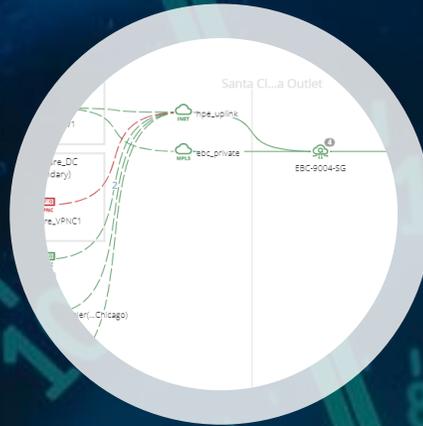
Intelligent visualization of physical
and logical network connectivity

Simplifies large network
visualization, overcoming node and
link overload

Robust filters and adjustable
reference points for enhanced
network exploration



- TROUBLESHOOTING HISTORICAL ISSUES
- MULTIPLE TOUCHPOINTS REQUIRED

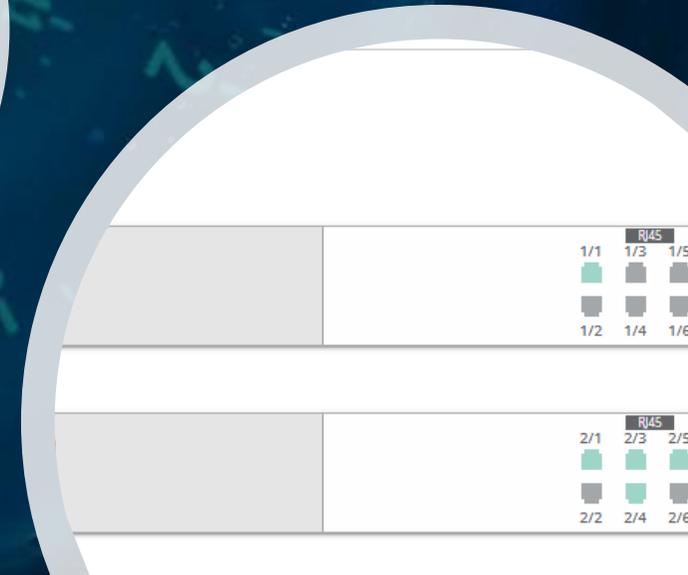
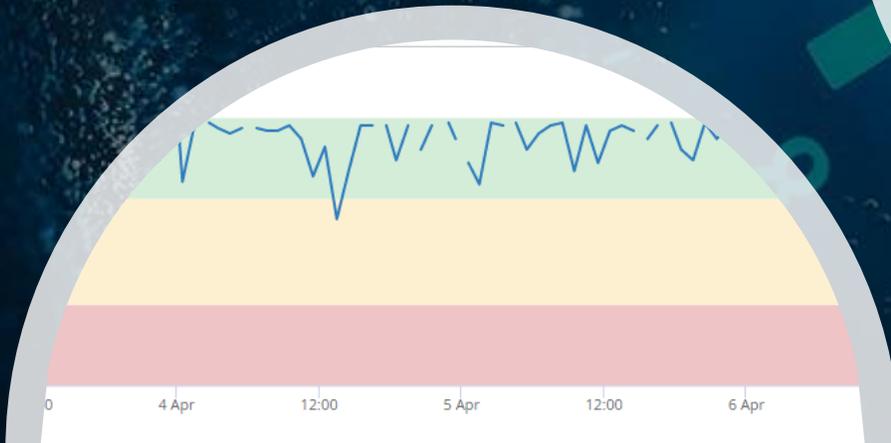
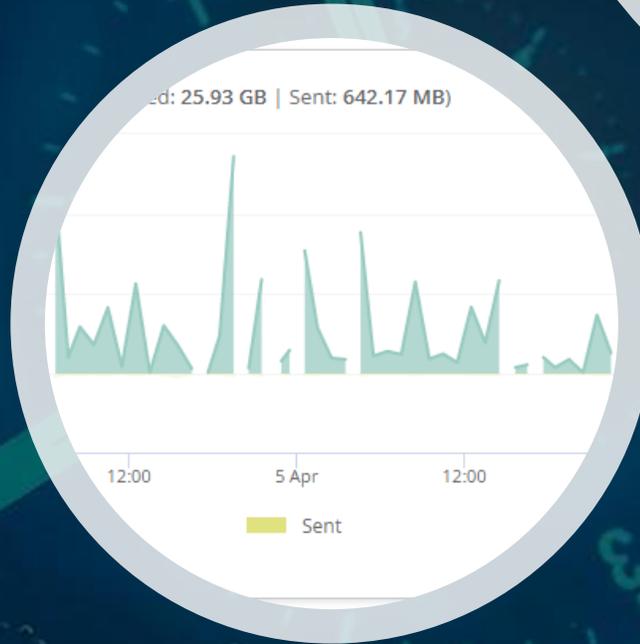


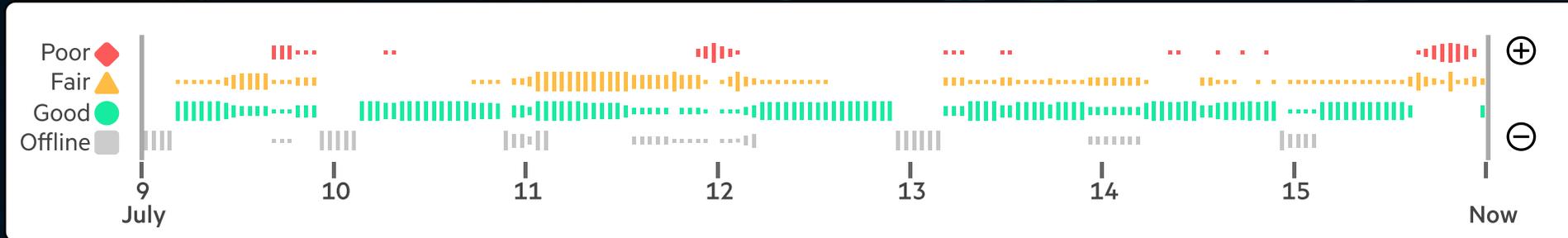
Search or ask Aruba

CLIENTS | AP

All 6 Connecting 0 Connected 4 Failed 1 Offline 1 Blocked 0 Wireless 6

Client Name	Status	IP Address	VLAN	AP Name
20:4c:03:4f:43:e3	Failed			EBC-14-WK...
uxi01	Connected	10.200.22.37	22	EBC-14-WK...
ebscg-workshop	Connected	192.168.102.157	102	EBC-14-WK...
uxi01	Connected	10.200.22.57	22	EBC-14-WK...
KTOP-KP2F0FK	Connected	192.168.102.195	102	EBC-14-WK...
...t.k	Offline	10.200.22.119	22	EBC-14-WK...

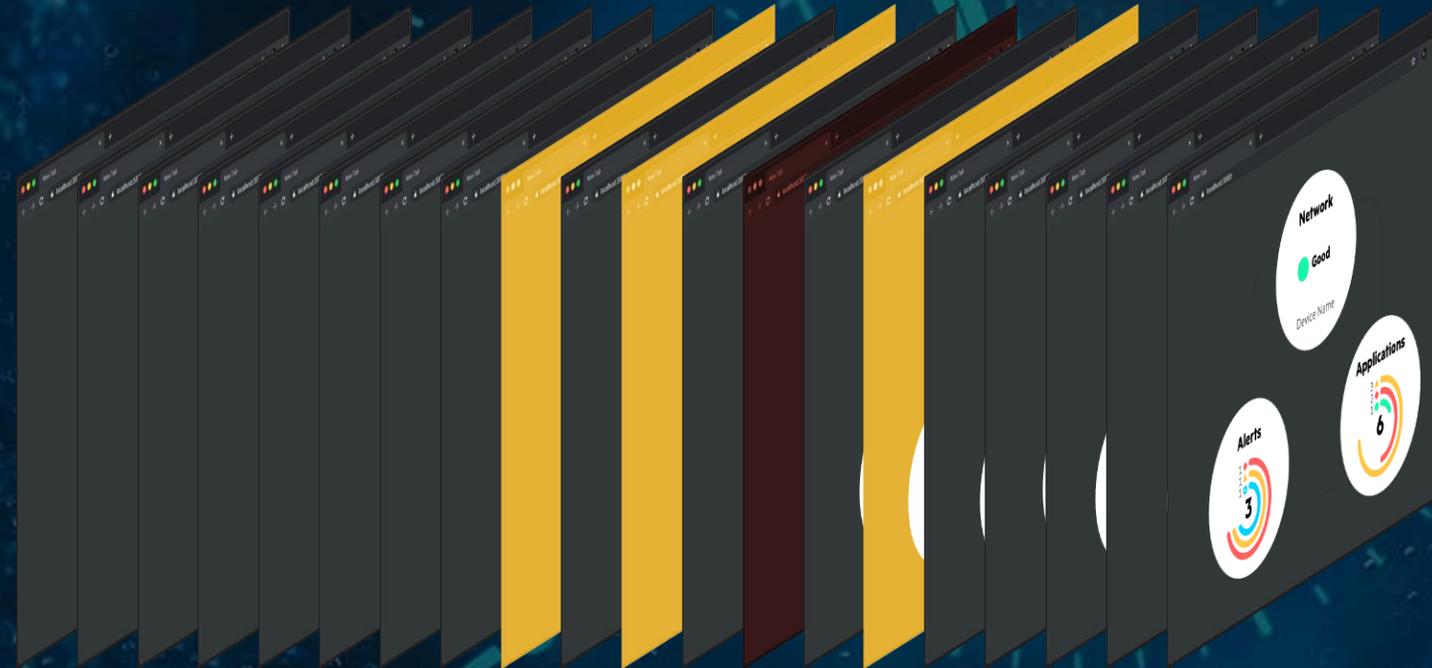
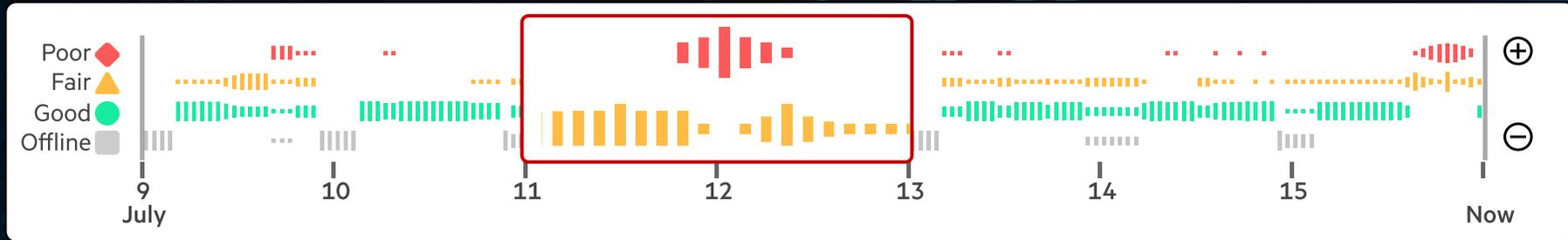


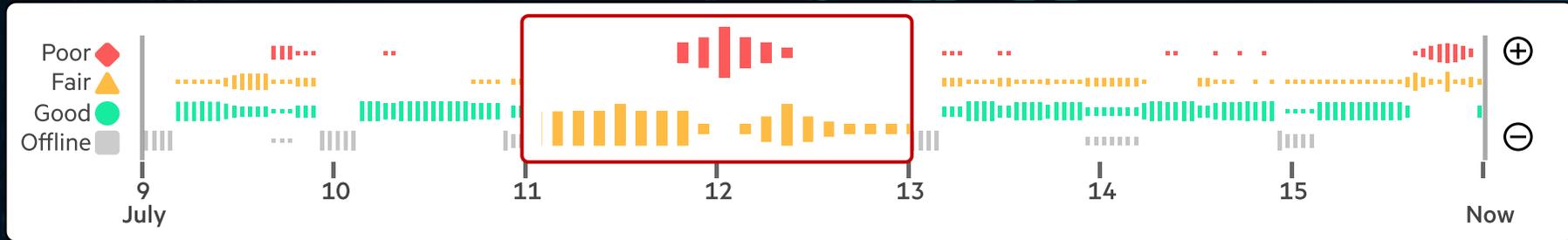


TIME TRAVEL ISSUE FORENSICS

HelpDesk



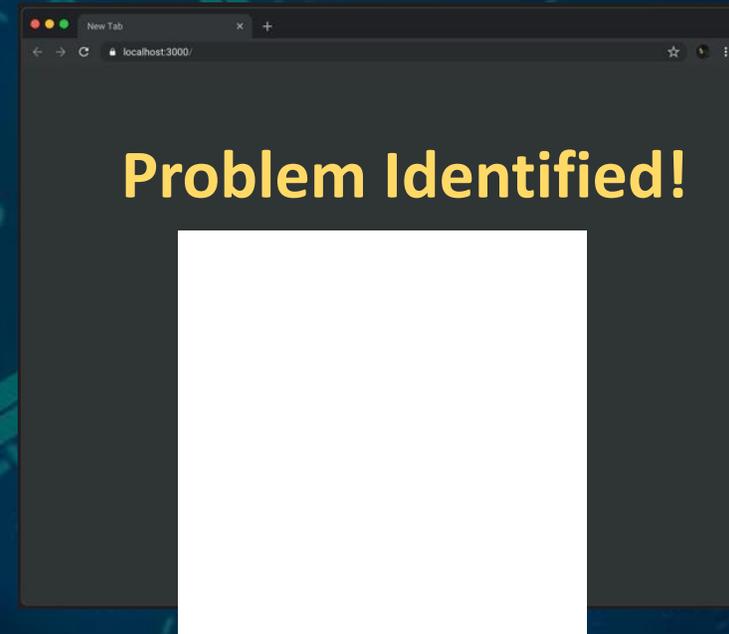




COMPLETE NETWORK SNAPSHOT

7 DAY PLAYBACK

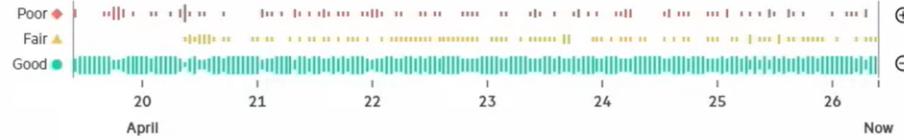
1 MINUTE GRANULARITY





SITE MIA

Network and connectivity information about this site.



ALERT

Client did not Receive an IP Address from DHCP Server

Client Failed to obtain an IP

Active Since
Today at 8:55 AM

Root Causes

- DHCP Server (10.21.36.165) was not reachable.

Recommendation

- Check DHCP Server Health
- Check if DHCP Server configuration is correct
- Check PCAP for deeper analysis

Impact

Clients: 5
 Devices: 1 Access Point

[Go to Alert](#)

Alerts

Severity

Any (35) Critical (20) Major (4) Minor (4) Info (7) **Any (35)** Active (35) Cleared (0)

Status

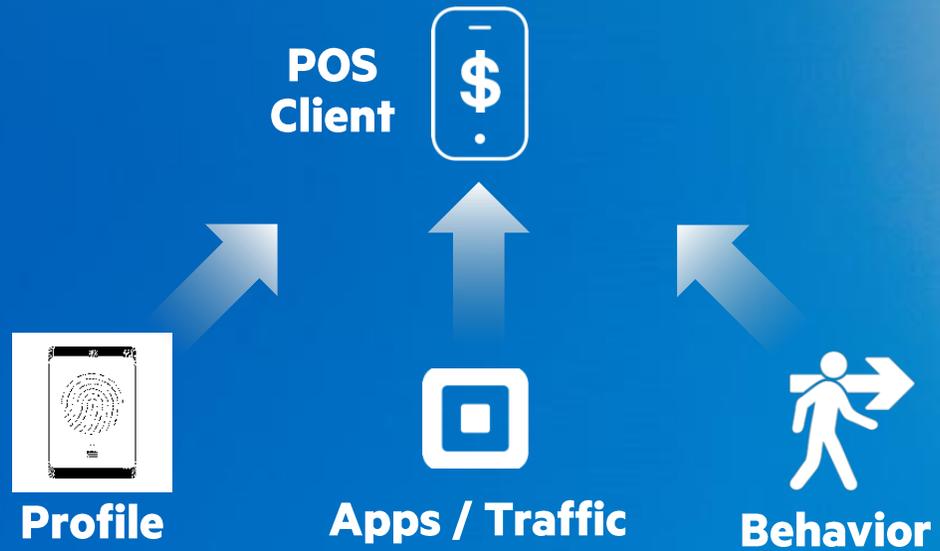


35 Items

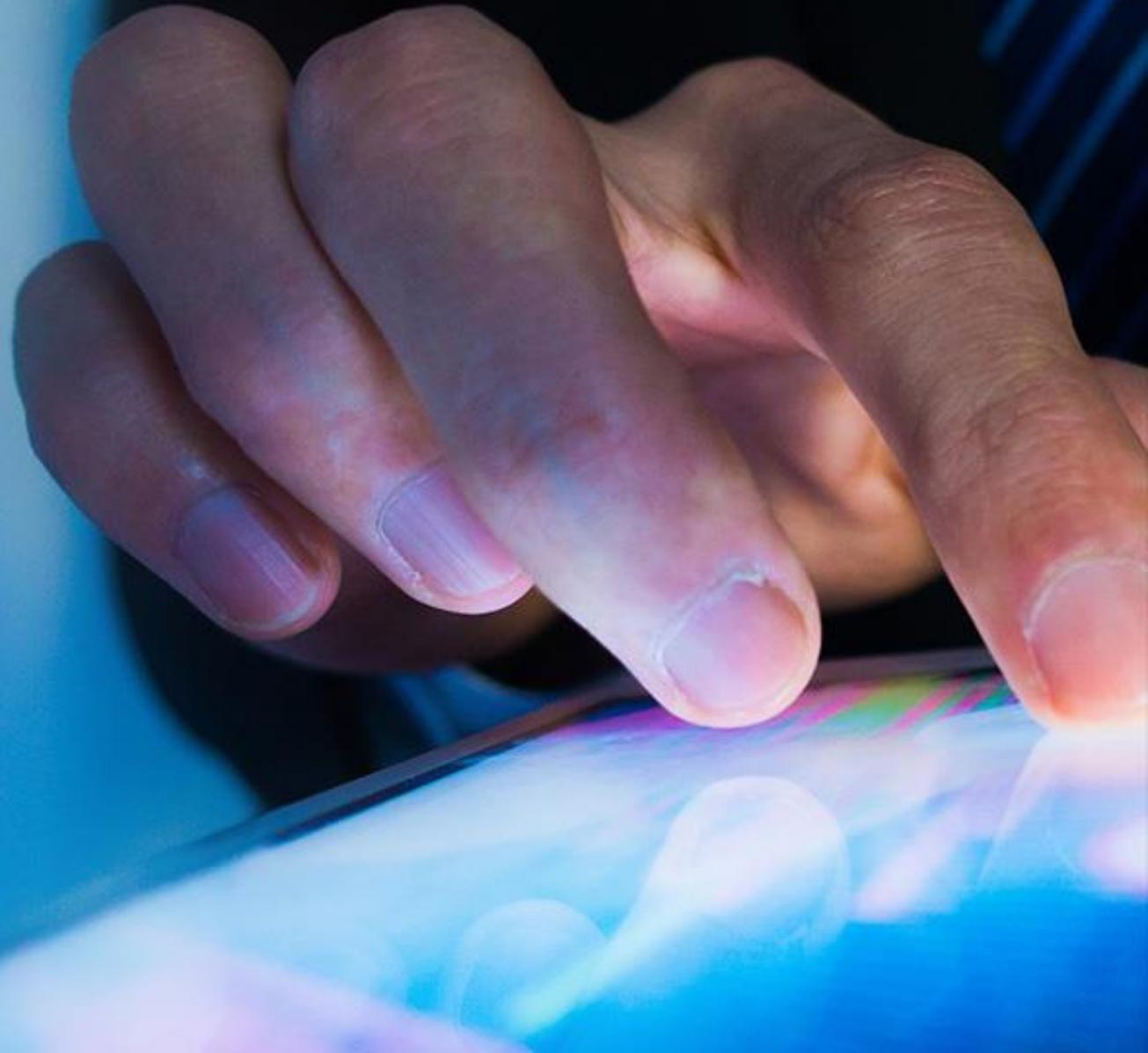
Description	Occurred On	Category	Status
AP Association Threshold Exceeded Info - The maximum number of WI-FL...	04/26/2023, 8:55:00 AM	ASSOCIATION	Active
Link MTU Mismatch Critical - The Max Transmission Unlt...	04/26/2023, 8:55:00 AM	SWITCH	Active
Client did not Receive an IP Address... Minor - Client Failed to obtain an IP	04/26/2023, 8:55:00 AM	DHCP	Active
URL Name Resolution Failed Major - DNS Server failed to lookup the...	04/26/2023, 8:55:00 AM	DNS	Active
Client(s) WPA Passphrase Is Incorrect Info - 4-Way Handshake Failed for WPA...	04/26/2023, 8:55:00 AM	AUTHENTICATION	Active
Client did not Receive an IP Address... Minor - Client Failed to obtain an IP	04/26/2023, 8:55:00 AM	DHCP	Active

Link set to Half Duplex

AI-POWERED CLIENT INSIGHTS VIA **BEHAVIOR ANALYSIS**



ACCURACY FOR A TRUE IDENTITY!



ONE-STOP EXPERIENCE VIEWS

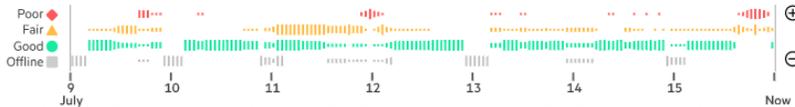
Aruba Central

🔔
👤

CLIENT

Jack-Android

Information about the client.



Site

Acme Store
019334

Network

Fair
sp-oakmead-01

Applications

3

Security

Low Risk

Alerts

3

Experience

Connected, has a communication issue with the network due to a missing VLAN in the datapath.

Connected Since
July 9 2021, 12:15

Properties

Host Name	User Name
Jack-Android	jack1234
MAC Address	Type
20:4c:03:4a:13:22	Wireless
IP Address	Access Role
10.1.50.4	admin

Connectivity Performance

Communication issue with the network.

Throughput	Retry Frames
0 bps	6 %
0 bps	3 %
Signal Quality	Transmit/Receive Rate
32 dB	144 Mbps
	54 Mbps

Classification

Manufacturer	Tag
Huawei	Mobile & Gadgets
Category	Family
Smart Device	Android
Type	Android

Connectivity



Events

Occurred	Category	Event
Today at 13:56	Connectivity	Client PoE re-negotiation
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Yesterday at 23:34	Infrastructure	Device restarted

3045 more items

ONE-STOP EXPERIENCE VIEWS

Aruba Central

CLIENT

Jack-Android

Info

Poor Fair Good

New Central

Connectivity

For Jack-Android.

Connection Path

Tx rate: 144 Mbps
Rx rate: 54 Mbps
Signal quality: 43 dB

802.11ac
Channel 42 (80 MHz)
Streams: 4*4/4

5 GHz
lower band

VLAN mismatch

Port E0
VLAN 12

Port 4

Port 25

Port 6

Port 11

Internet

Jack-Android
20:4c:03:4a:13:22
10.1.50.4

Acme Employees
9c:8c:d8:12:20:b0
WPA-Enterprise

AP-Oakmead-01
01:a6:32:a2:be:65
192.168.101.7

Oakmead-Backbone
24:77:03:92:f3:d0
fe80::56f5:748b:2f80:eea3
192.254.63.45

GW-Oakmead-Backup
dca6:32:0f:1f:62
10.1.50.3

Statistics

Over the last 7 days.

Total Time Connected
36h 45m 23s

Number of Connections
8

Average Connection Duration
4h 52m 41s

Connection Steps

For latest connection attempted at Mar 21, 2021, 8:53.

Step	Details	Completed In
● Association	Associated to Acme Employees on AP-Oakmead-01.	852 ms
● Authentication	Assigned to VLAN 12 by RADIUS server 168.10.112.16.	121 ms
◆ DHCP	No response.	-
■ DNS	-	-

Latency

LAN Latency	WAN Latency
69 ms	123 ms

Jack-Android

Connected - VLAN mismatch

3

Today, 13:45 Client 802.1X RADIUS timeout

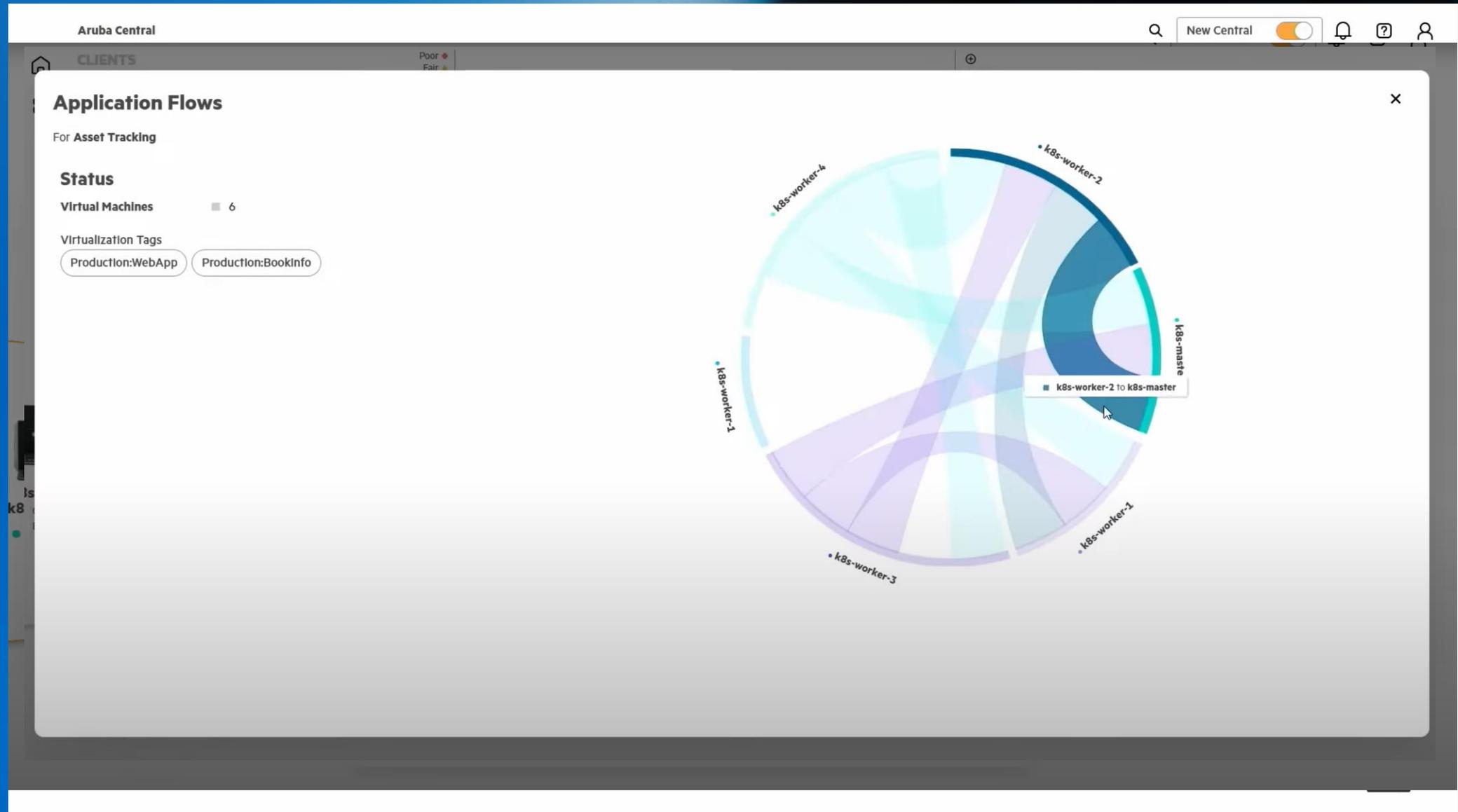
Yesterday, 11:13 Client EAP timeout

APPLICATION PERFORMANCE THAT'S EASY TO SEE

The screenshot displays the Aruba Central interface for a client named Jack-Android. On the left, a central hub shows the client's status as 'Connected - VLAN mismatch' and is surrounded by five performance metrics: Site (Acme Store, 019334), Network (Fair, sp-oakmead-01), Applications (3 items), Security (Risk level), and Alerts (3 items). The top right features a search bar, 'New Central' toggle, and notification icons. A performance chart at the top shows application status from July 9 to Now, with a legend for Poor (red), Fair (orange), Good (green), and Offline (grey). The main 'Applications' section includes a search bar and a table with 3 items:

Application	Category	Usage	Sent	Received
◆ Facetime Very high latency	104 MB	86 MB	193 MB	Streaming
▲ Zoom Very high latency	26.7 MB	512 KB	27.2 MB	Streaming
▲ Office 365 Poor experience	2 MB	131 KB	2.2 MB	SAAS

GIVING VISIBILITY INTO THE DATACENTRE



DEVICE-AGNOSTIC CONFIGURATION

AUTOMATING NETWORK CONFIG AT SCALE

Create a Policy ✕

Name

Description

Enabled

Applies to Device Functions*

2 device functions selected

Search Device Functions

- All Device Functions
- Branch Gateway
- Mobility AP
- Microbranch AP
- Mobility Gateway
- Switch

Create Rule ✕

Description

Source
Role

Role
Finance

Destination
Network

Use alias

Options

IPv4 Subnet
 IPv6 Prefix

IPv4 Subnet

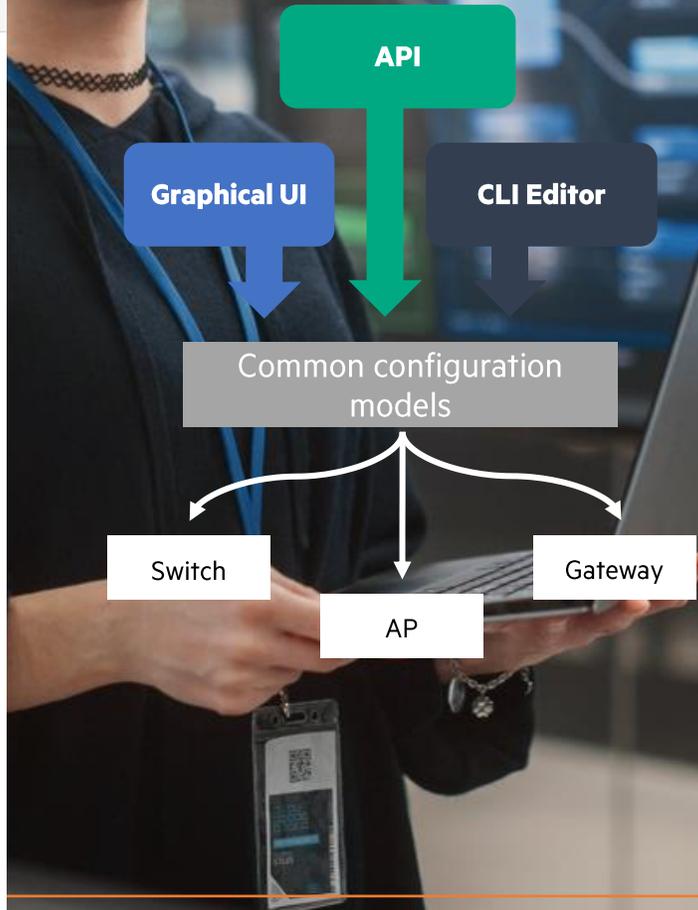
105.151.163.149/28

10.0.1.1/16

2.74.163.134/9

Service/Application
Any

Action
Allow



Standardized workflows that are designed to reflect business intent

Advanced data modelling to automatically generate device specific configurations

100% API support unified across device types

Network Engineer, Advanced

User with advanced automation skills, tasked with an automation framework including 3rd party integrations

The background features a vibrant, abstract design. It consists of overlapping, semi-transparent shapes in shades of purple, red, and white. Some shapes have a fine grid or dot pattern, while others are solid. The overall effect is a dynamic, layered composition.

Thank You