



a Hewlett Packard
Enterprise company

Network Management & Zero-Touch Provisioning

(activate)

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Agenda

- Activate
 - What is it and how use it
- AirWave 8.2.7
 - New switch monitoring and configuration snippets
- Central
 - Recent additions & What's coming

Activate

What is Aruba Activate

- A zero-touch provisioning system for all HPE Aruba devices
- An inventory repository of all HPE Aruba devices
- A firmware repository for HPE Aruba devices

Customer Activate Account Creation

Activate accounts are never created automatically.

➤ Account creation steps

1. Register for an account at activate.arubanetworks.com and provide device or PO details
2. 'Activate' Support reviews the request
3. If user represents a new customer, support creates the customer and user account
4. User receives an email with login credentials

Welcome to Aruba Activate

aruba
NETWORKS

Username:

Password:

Login

[Request a Login](#) [Reset my password](#)

Aruba Activate Login Request

User Name:

Organization:

First Name:

Last Name:

Email:

Validation:
Input a valid Serial/MAC combination or Purchase Order Number to Validate Access

Serial Number: MAC:

or

Purchase Order:

Done Cancel

Aruba Activate Login Request

User Name:

Aruba Activate Login Request

Thank you for requesting access to Aruba Activate.

You will receive an email once the validation process is complete. It will be less than 2 business days.

If access is granted there will be an activation URL embedded in the email allowing you to set your password.

If clarification or additional data is needed, a follow up message will be sent to your email address.

OK

Purchase Order:

Done

Cancel

Device Assignment

- Activate receives:
 - Sell-Out/PoS Reports from distribution for indirect sales
 - Sell-Out records from HPE for direct sales
- The devices are moved to customer accounts in 'Activate' based on the **'end_customer_name'** field reported
- The reported end-customer name must be an exact match to the 'Activate' customer name
- A name mismatch will result in devices being in the Aruba Factory Stock account and not moved to the right customer account

When Activate fails to assign devices, it is almost certain that the reason is because there is a name mismatch

In case of missing devices

- Contact support to manually move devices by opening a TAC case and specifying that Activate assistance is needed
 - Request for Activate support and provide customer name, order number and SN of any one device on the order for TAC

- Request support to create aliases in Activate
 - If it is expected that the Activate customer 'ABC Co' will sometimes be identified as 'ABC Inc' in a sell-through record, request support to create an alias to ensure a match on request. Send the main customer name and a list of possible names that need to be added as an alias. This will ensure that future orders for the customer are mapped correctly

Activate and Central

- Currently for devices to be automatically placed in a customer's Central inventory:
 - An Activate account must be created per the process detailed in this deck
 - The customer must enter their 'Activate' credentials in their 'Central' account
 - Activate must match the end customer name in the device sell-through record with the customer's Activate account name
- Following 'Activate' account creation, 'Central' customers will manage devices through 'Central' and typically do not need to log into 'Activate' at all

Activate and Central Details

- When a device is in the *default* folder of the customer's Activate account, and that account is linked to a Central account, the device will appear as an unlicensed device in the customer's Central inventory
- When the device is licensed in Central, it moves to an automatically created folder in the Activate account called *Athena-f-xxxxxx*
- The relationship between an Activate account and a Central account is 1:1
- A single Activate account can manage a customer's Central deployment and Airwave deployment simultaneously
- When a customer manually adds a device to Central, and the Central account is associated with an Activate customer, the device will be placed in that Activate customer account
- When a customer manually adds a device to Central, and the Central account is not associated with an Activate customer, or the Central account is not a paid account, the device is placed in a system folder in Activate called "one_central_eval"

AirWave 8.2.7

Airwave Key Objectives

Switching Enhancements

- Management enhancements
- Monitoring features
- Solution

New Aruba Devices

- New switches, APs, controllers
- New OS versions
- New product features – 11ax, Dynamic Segmentation

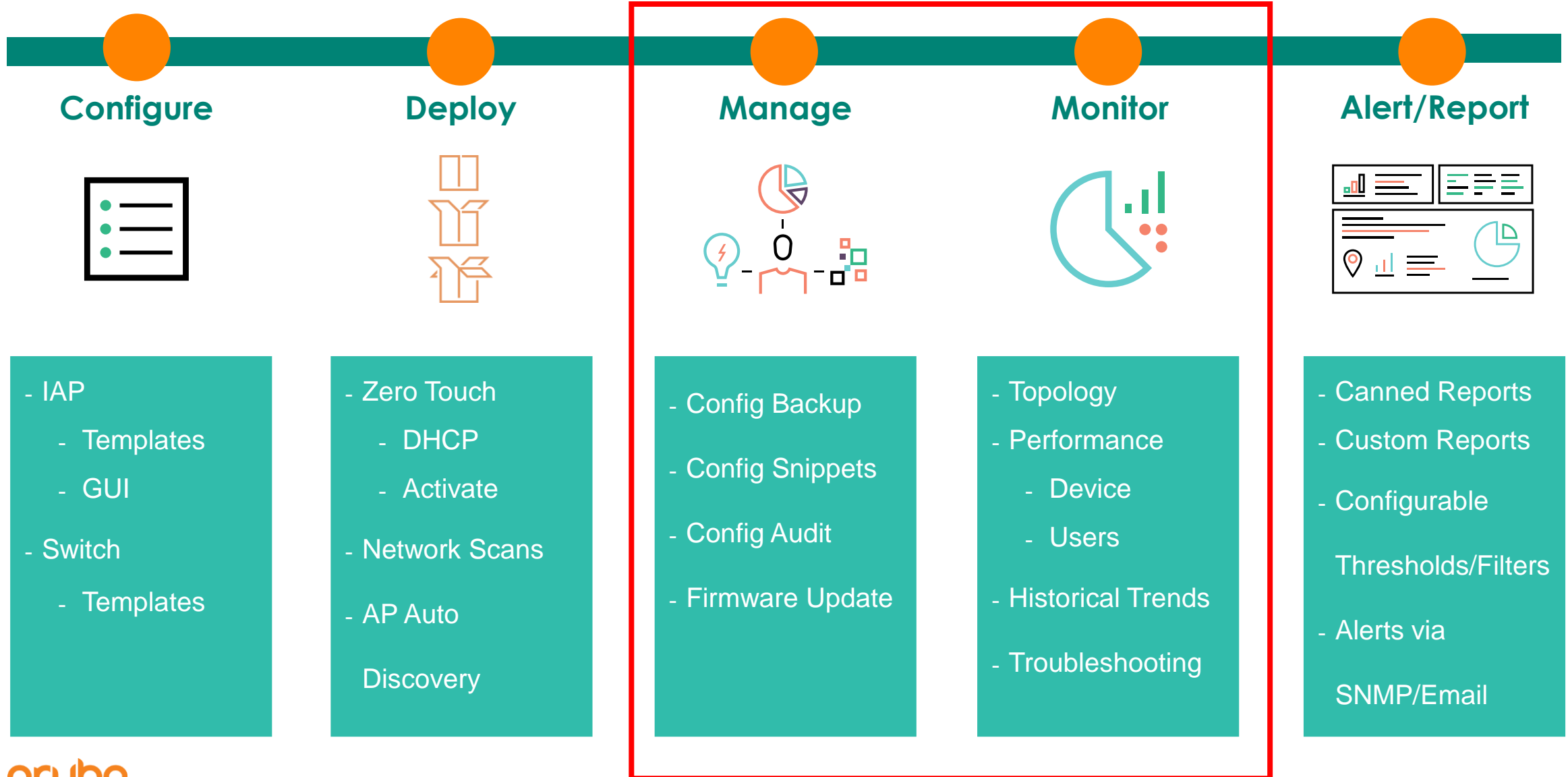
Federal Certifications

- Security enhancements for federal certifications
- Common Criteria
- DoD ACPL

AW10

- Brand new AirWave platform
- Scale, performance, redundancy

Network Management Workflow



Airwave v8.2.7 – Switch Monitoring Enhancements

1

Summarized device information, including port & hardware status

2

Port details, PoE, VLAN, neighbor connections, power trends and alerts

3

Visualize details for individual and stacked switches

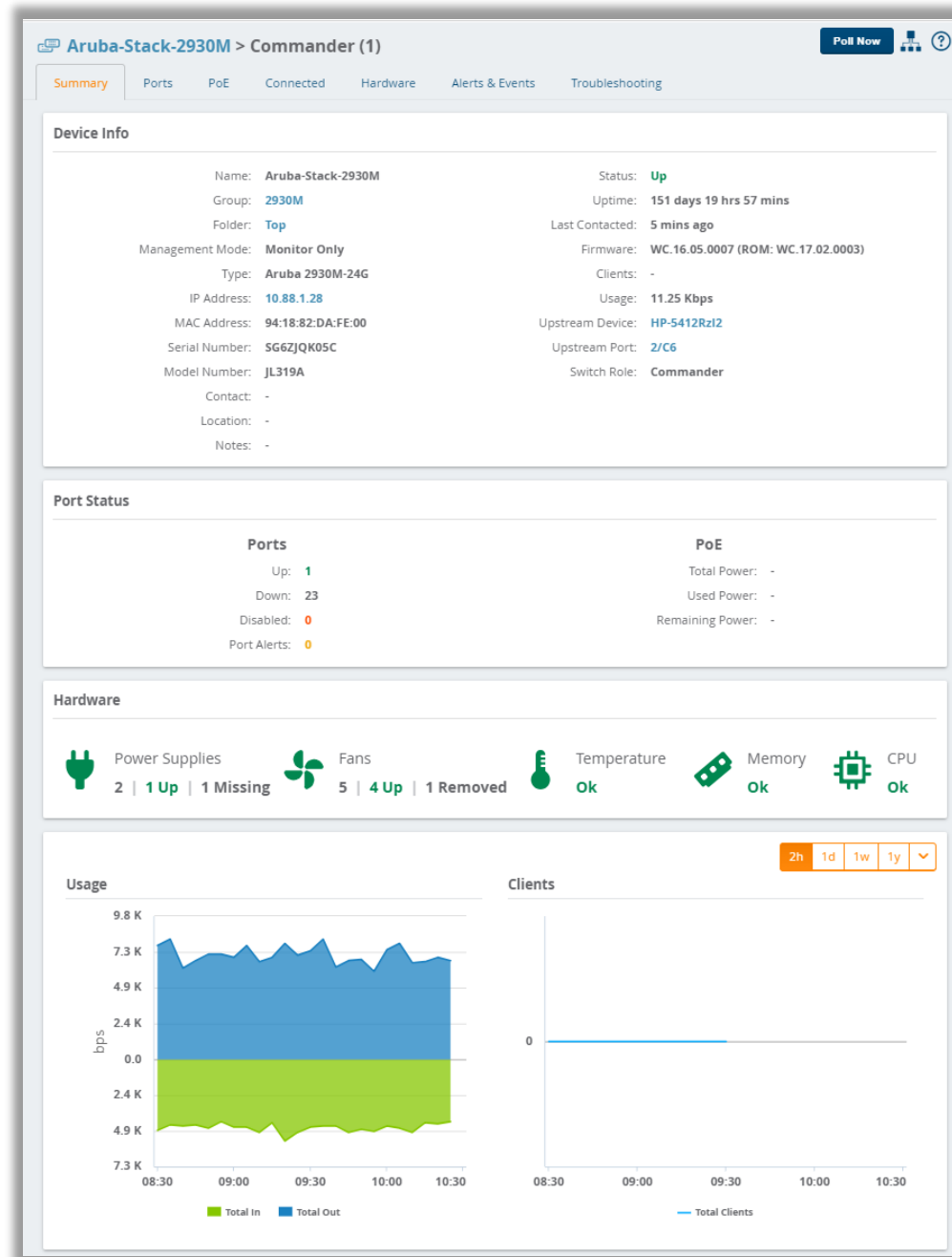
4

Integrated monitoring, alerts and troubleshooting

AirWave 8.2.7

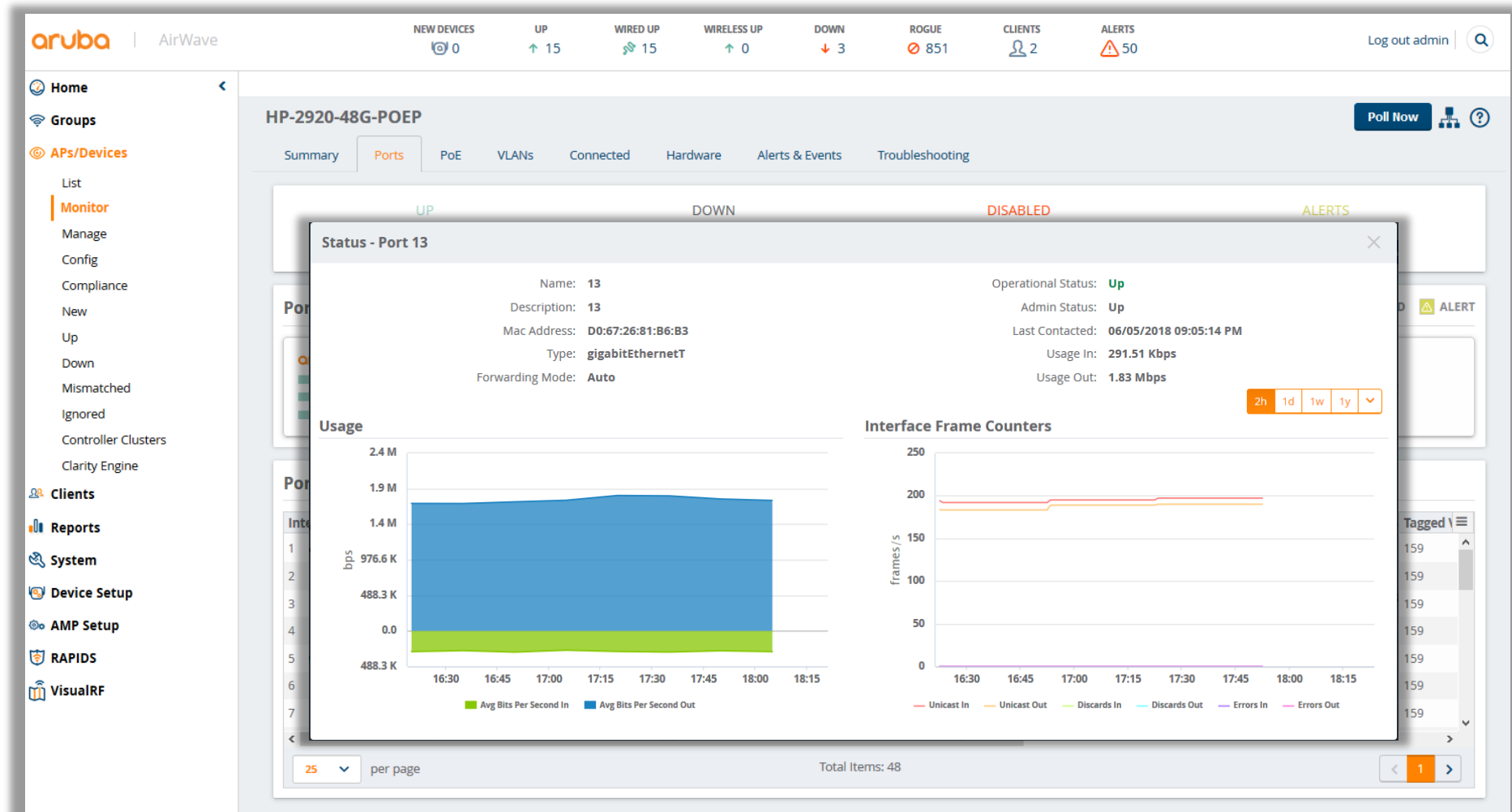
Switch Monitoring - Summary

- Device Info
- Port Status
- Hardware
 - Power, Fans, Temperature, Memory & CPU
- Usage
 - In/Out
- Clients



AirWave 8.2.7

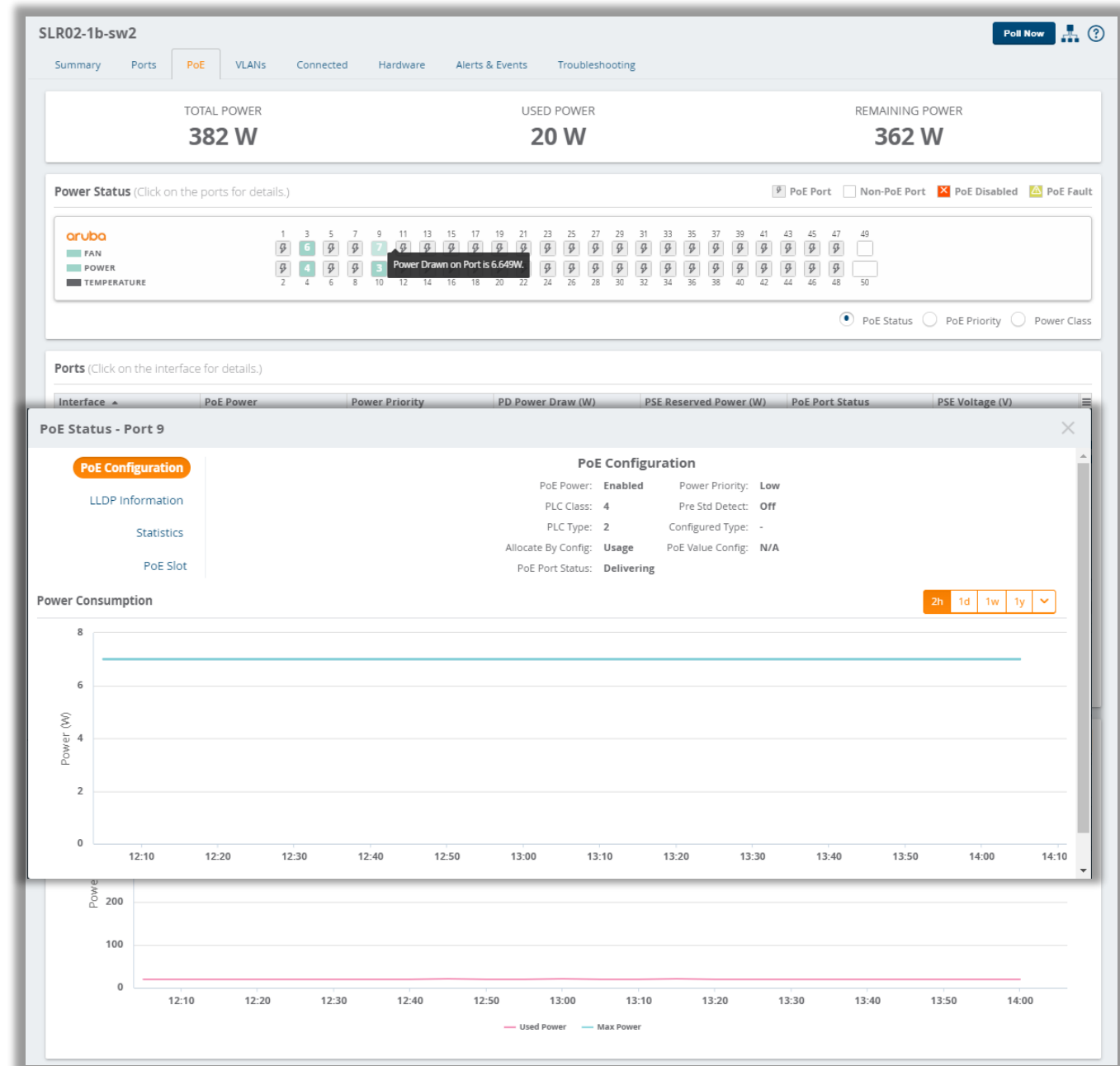
Switch Monitoring - Ports



AirWave 8.2.7

Switch Monitoring - PoE

- Summary
 - Total Power
 - Used Power
 - Remaining Power
- Power Status Device panel
 - PoE Ports
 - PoE Disabled
 - PoE Fault
- PoE Port table
 - Details of PoE status and consumption
- Power Consumption Graph
 - Over all power usage vs max power



AirWave 8.2.7

Switch Monitoring - VLANs

- VLANs on Device
 - Click row and highlights on VLAN View
- VLAN View
 - Tagged and untagged membership
- Trunks
- Virtual Interfaces table

SLR02-1b-sw2 Poll Now ?

Summary Ports PoE **VLANs** Connected Hardware Alerts & Events Troubleshooting

VLANs (Click on row to highlight tagged, untagged and trunk ports in faceplate)

VLAN Name	VLAN ID ▲	Untagged Ports	Tagged Ports
DEFAULT_VLAN	1	17-48,50,Trk1	-
VLAN10	10	-	Trk1
VLAN350	350	1-8	Trk1
VLAN755	755	9-16	Trk1

Total Records: 4 (Selected Items: 1)

VLANs View Tagged Port Untagged Port

aruba

FAN POWER TEMPERATURE

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50

Trunks

Name ▲	Ports	Type
Trk1	49	LacpTrk

Total Records: 1

Virtual Interfaces

Interface ▲	Description	IP Address	IPv6 GLOBAL Unicast ...	Admin Status	Operational Status	Interface Labels	Action
DEFAULT_VLAN	DEFAULT_VLAN	-	-	Up	Up	-	⚙
VLAN10	VLAN10	10.5.2.72	-	Up	Up	-	⚙
VLAN350	VLAN350	-	-	Up	Up	-	⚙
VLAN755	VLAN755	-	-	Up	Up	-	⚙
lo0	lo0	-	-	Up	Up	-	⚙
lo1	lo1	-	-	Down	Down	-	⚙
lo2	lo2	-	-	Down	Down	-	⚙
lo3	lo3	-	-	Down	Down	-	⚙
lo4	lo4	-	-	Down	Down	-	⚙
lo5	lo5	-	-	Down	Down	-	⚙

AirWave 8.2.7

Switch Monitoring - Connected

- Summary
 - Connected Device & Neighbors
- Mimic showing connected devices
- Connected Devices
 - Authenticated and Rouge devices connected to the switch
- Neighbors
 - Discovered via SNMP, CDP or LLDP to be connected to the switch

Aruba-Demo-2930Ms > Commander (3)

Summary Ports PoE **Connected** Hardware Alerts & Events Troubleshooting

CONNECTED DEVICES: 1 NEIGHBORS: 2

Connected Devices (Mouse over on the highlighted ports to see the connected devices.) Up Down Disabled Alert

aruba

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 A1 A3 S1

2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 A4 S2

Connected Devices: 1

1. Compal Communications, Inc.-C1:4F:C8

Connected Devices

MAC	Port	Username	User Role	IP Address	Authn Type	Name	Type	Action
00:16:D4:C1:4F:C8	3/37	host/PC5.hpnuk.hpn...	-	10.88.1.158	Dot1x	Compal Communicati...	Compal Communicati...	

Total Records: 1

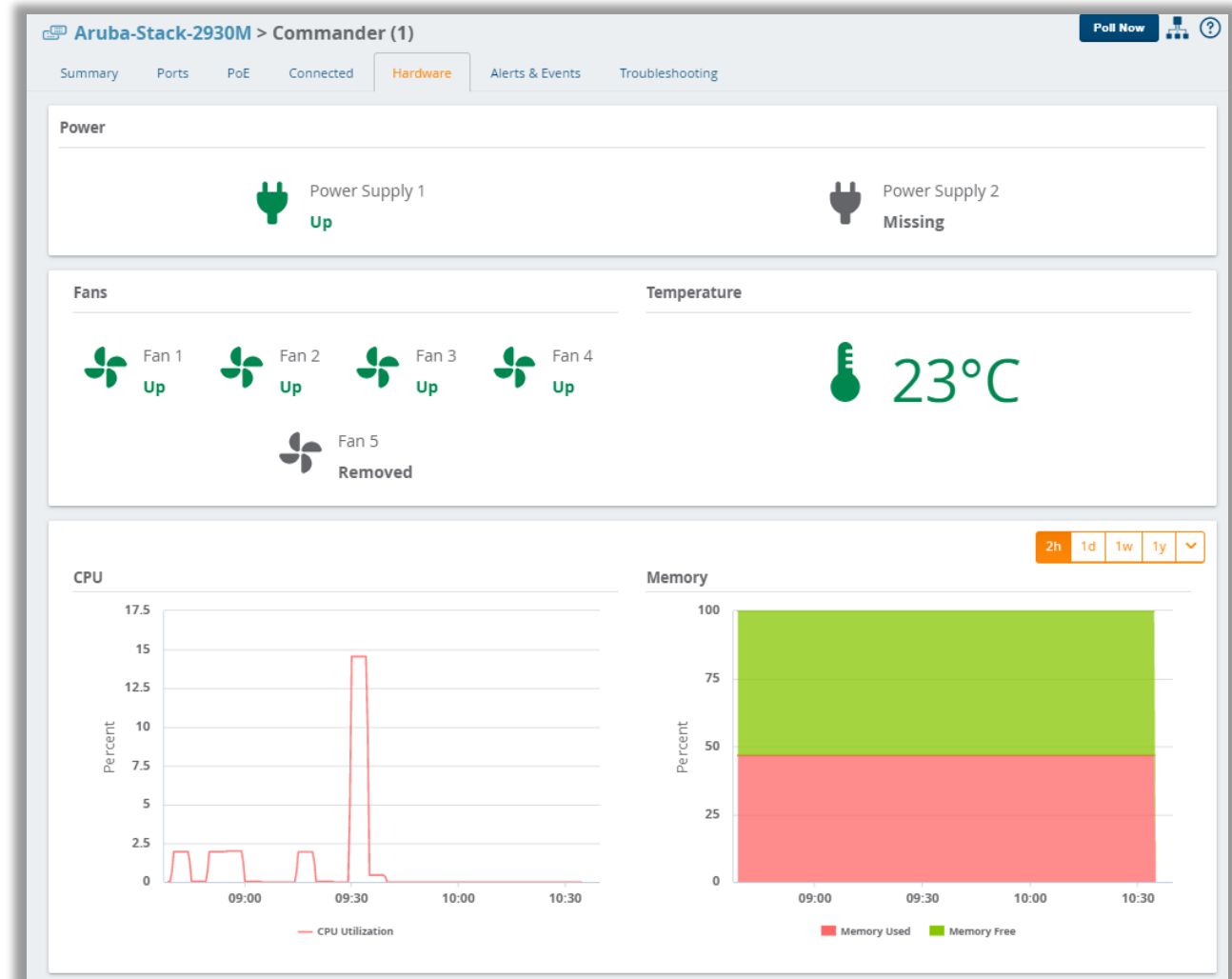
Neighbors

MAC Address	Local Port	Remote Port	Neighbor IP Address	SysName	Description	Capabilities
00:15:60:F4:4E:00	3/1	B14	10.88.69.20	Comms5406	HP J8697A Switch 5406zl, r...	Bridge/Router
XFF	3/33	LAN port	10.88.70.102	regDN 1002,MITEL 5330 DM	regDN 1002,MITEL 5330 D...	Bridge/Phone

AirWave 8.2.7

Switch Monitoring - Hardware

- Power Supplies
- Fans
- Temperature
- CPU
- Memory



AirWave 8.2.7

Switch Monitoring - Alerts

- Alerts
 - Based on triggers
- Device Events
 - Sent from Device
- AMP Device Events
 - eg Status or Config change
- Audit Log

SLR01-1B-sw1

Summary Ports PoE VLANs Connected Hardware Alerts & Events Troubleshooting

Poll Now

Alerts

Trigger Type	Trigger Summary	Time	Severity	Details
Interface Usage	Usage >= 100000 Kbps for 15 min...	Mon, 10 September 2018, 21:55:24	Warning	-
Interface Usage	Usage >= 100000 Kbps for 15 min...	Mon, 10 September 2018, 21:50:24	Warning	-
Interface Usage	Usage >= 100000 Kbps for 15 min...	Mon, 10 September 2018, 21:50:24	Warning	-

Total Records: 3

Device Events

No data available

AMP Device Events

No data available

Audit Logs

Time	User	Event
Sat Sep 1 10:52:41 2018	masharma	ap_group (id 18): Show Device Settings for: '2' => '0'
Tue Aug 14 13:47:46 2018	dcomfort	ap (id 762): Folder: 'Top > Aruba HPE > SLR switches', Group: '...

Total Records: 2

AirWave 8.2.7 Switch Monitoring – Trouble Shooting

Easily run predefined troubleshooting commands

The screenshot shows the 'Troubleshooting' tab for switch SLR01-1B-sw1. The interface includes a top navigation bar with tabs for Summary, Ports, PoE, VLANs, Connected, Hardware, Alerts & Events, and Troubleshooting. A 'Poll Now' button and a help icon are in the top right. Below the tabs, there's a 'Commands' section with a 'Cable Test' link. A dropdown menu is open, showing two categories: 'Power Over Ethernet' with options 'show power-over-ethernet' and 'show power-over-ethernet brief'; and 'L2 Loop Prevention' with options 'show vlans', 'show spanning-tree', 'show spanning-tree detail', and 'show smart-link group all'. To the right of the dropdown, there's an 'Auto Run' checkbox, 'Run Every' and 'For' dropdowns (set to 15 seconds and 15 minutes respectively), and a 'Run' button. The main content area below is empty, displaying 'No data available'.

AirWave 8.2.7

Switch Monitoring - Stacking

DEVICES LIST

Default View: Devices [Total Row Count: 14]

DEVICE	STATUS	CONFIGURATION	CONTROLLER	FOLDER
10504-IRF	Up	Error	-	Wired
2930F-VSF	Up	Good	-	Wired
2930F-VSF-2	Up	-	-	Wired
2930F-VSF-3	Up	-	-	Wired
2930F-VSF-4	Up	-	-	Wired
5412R-VSF	Up	Mismatched	-	Wired
5412R-VSF-2	Up	-	-	Wired
7503-IRF	Up	Error	-	Wired
AS1-3810	Down	In Progress	-	Wired
Cisco-6509-1	Down	Error	-	Wired
Cisco-6509-2	Up	Error	-	Wired
DS1-3800-stack	Down	Verifying	-	Wired
DS1-3800-stack-2	Down	-	-	Wired
DS1-3800-stack-3	Down	-	-	Wired

2930F-VSF Poll Now

Summary Ports PoE VLANs Connected Hardware Alerts & Events Troubleshooting

Stack Info

Name:	2930F-VSF	Status:	Active
Group:	Geneva CIC	Members:	4 4 Up
Folder:	Top > Wired	Last Contacted:	5 mins ago
Management Mode:	Monitor Only	Firmware:	WC.16.04.0008 (ROM: WC.16.01.0003)
IP Address:	10.12.5.21	Clients:	-
Contact:	Vincent Giles	Usage:	941.47 Mbps
Location:	IT Room	IMC:	Intelligent Management Center
ID:	2930		
Topology:	Ring		

Port Status

Ports	PoE
Up: 12	Total Power: 1110 W
Down: 124	Used Power: 0 W
Disabled: 0	Remaining Power: 1110 W
Port Alerts: 0	

Hardware

Power Supplies 4 4 Up	Fans 8 8 Up	Temperature -	Memory Ok	CPU Ok
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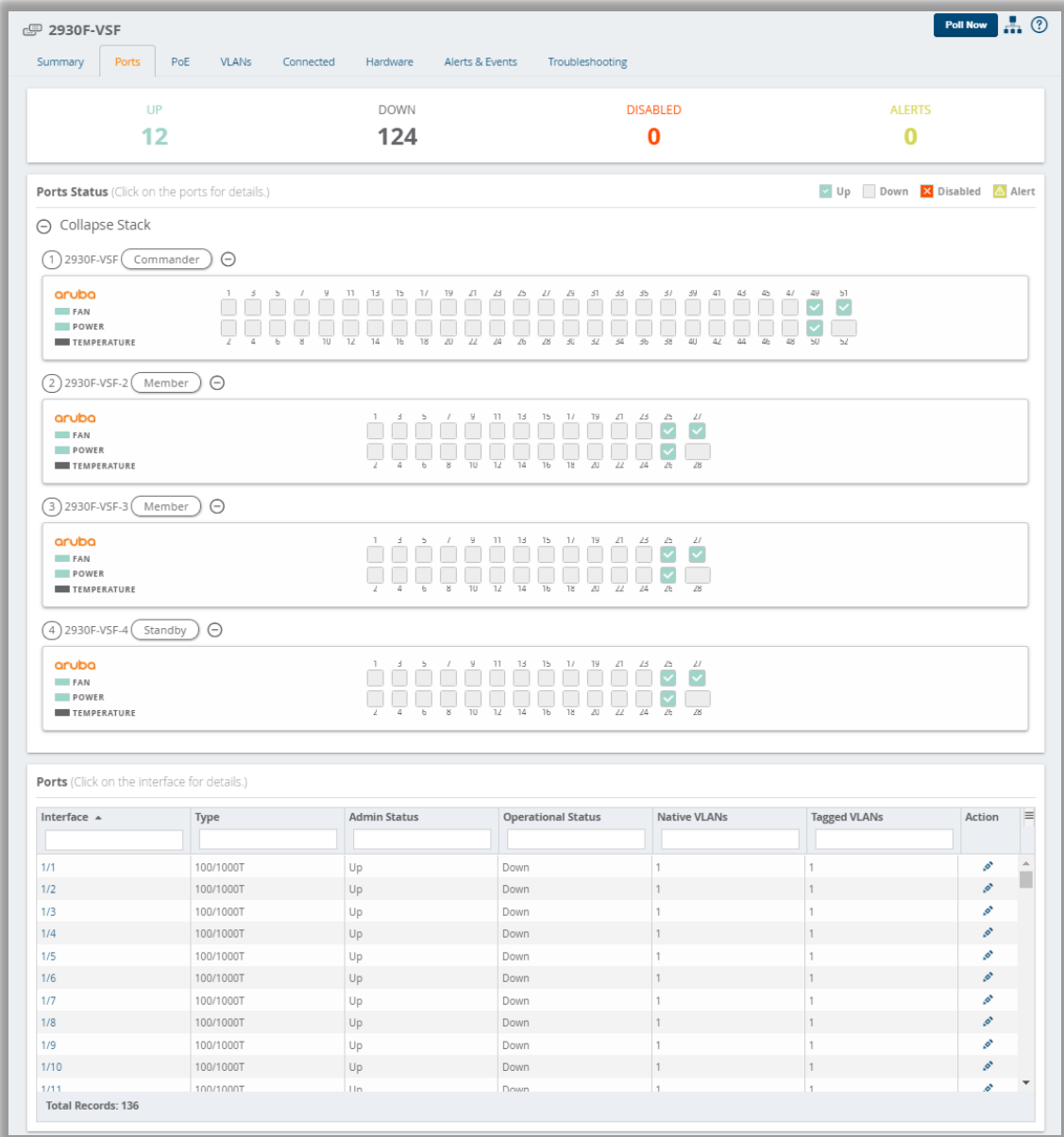
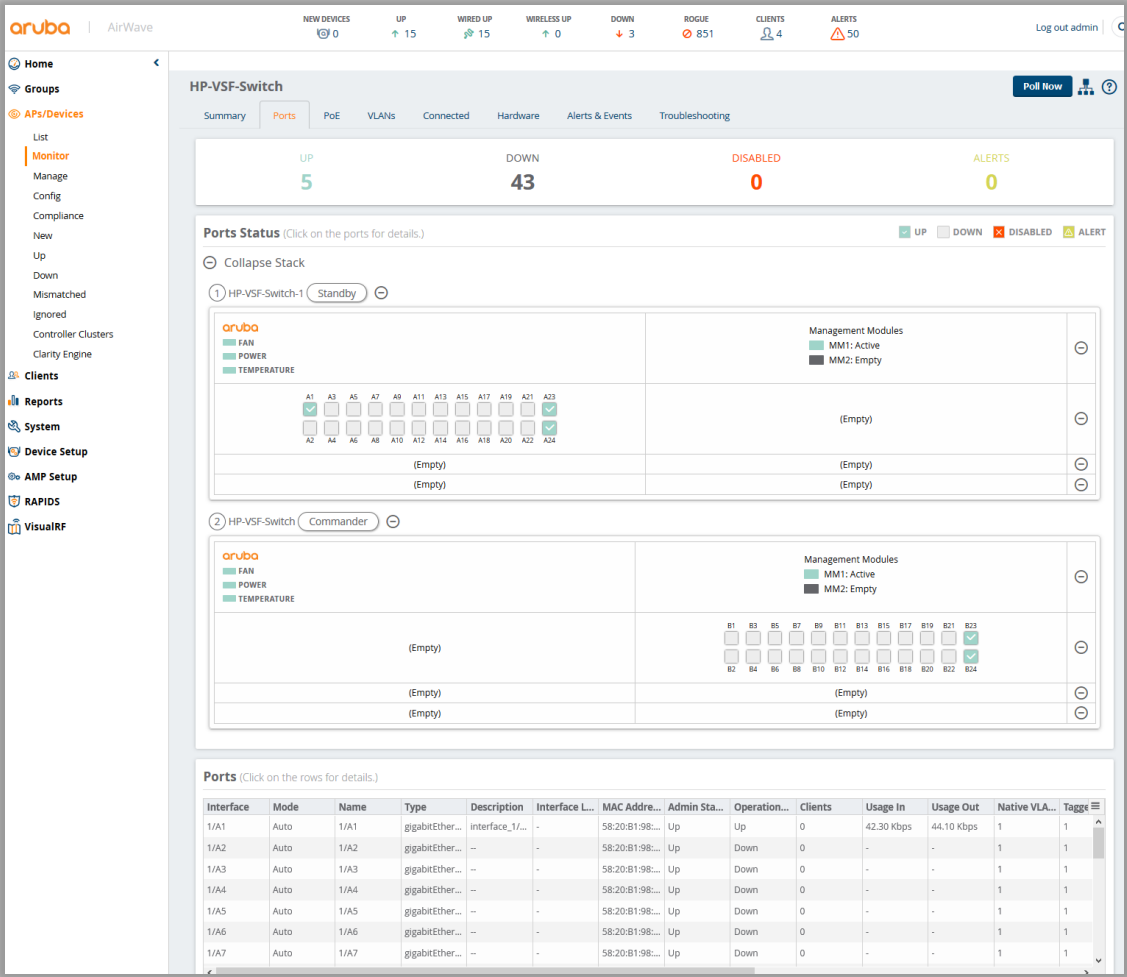
Stack Members

Name	Member ID	Role	Status	Priority	MAC
2930F-VSF	1	Commander	Up	200	00:FD:45:82:46:80
2930F-VSF-2	2	Member	Up	150	94:18:82:C8:A1:80
2930F-VSF-3	3	Member	Up	100	94:18:82:C8:E2:E0
2930F-VSF-4	4	Standby	Up	128	94:18:82:60:D9:A0

Total Records: 4

AirWave 8.2.7

Switch Monitoring – Stacking & VSF



Configuration Snippet – Add an IOT VLAN Across Switches



Config Job ×

① Config Command ② Select Device ③ Schedule ④ Confirm

Job Name *

IOT Camera VLAN

Job Description

This config was pushed to create an IOT VLAN

Device Type *

☐ Aruba Controllers ☒ Aruba Switches ☐ Comware Switches

Config Snippet *

```
vlan 500
name IOT_VLAN
```

Next

1

Ability to push subset of CLI commands

Configuration Snippet – Devices on which the snippet is applied



Config Job ×

1 Config Command

2 Select Device

3 Schedule

4 Confirm

<input type="checkbox"/> DEVICE	STATUS	IP ADDRESS	TYPE	FIRMWARE
<input type="checkbox"/> TME-NMS-MDF-Aruba3810...	↑ Up	10.70.89.2	Aruba 3810M-40G-8SR-PoE...	KB.16.05.0007
<input checked="" type="checkbox"/> TME-NMS-ACS-Aruba2930F-1	↑ Up	10.70.89.3	Aruba 2930F-8G-PoE+-2SFP+	WC.16.05.0007
<input checked="" type="checkbox"/> Aruba-2930F_2	↑ Up	10.70.89.4	Aruba 2930F-8G-PoE+-2SFP+	WC.16.05.0007

Total Items: 3

Back

Next

1

Ability to push subset of CLI commands

2

Choose devices for config snippet push

Configuration Snippet – When to push the snippet?



Config Job ×

1 Config Command 2 Select Device 3 Schedule 4 Confirm

Schedule Job

Run Now ☐

Schedule Job

Please select a date

MAY 2018						
MO	TU	WE	TH	FR	SA	SU
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Back **Next**

- 1 Ability to push subset of CLI commands
- 2 Choose devices for config snippet push
- 3 Schedule the config push

Configuration Snippet – Confirming Push



Config Job

1 Config Command

2 Select Device

3 Schedule

4 Confirm

Job Name

IOT Camera VLAN

Schedule Time

2018-05-31 17:11:00

Job Description

This config was pushed to create an IOT VLAN

Config Snippet

vlan 500
name IOT_VLAN

Hide selected devices (Total selected devices - 3)

DEVICE	STATUS	IP ADDRESS	TYPE	FIRMWARE
TME-NMS-MDF-Aruba3...	↑ Up	10.70.89.2	Aruba 3810M-40G-8SR-...	KB.16.05.0007
TME-NMS-ACS-Aruba2...	↑ Up	10.70.89.3	Aruba 2930F-8G-PoE+-...	WC.16.05.0007
Aruba-2930F_2	↑ Up	10.70.89.4	Aruba 2930F-8G-PoE+-...	WC.16.05.0007

Total Items: 3

Back

Confirm

- 1

Ability to push subset of CLI commands
- 2

Choose devices for config snippet push
- 3

Schedule the config push
- 4

Confirm config push

Configuration Snippets

- Ships with example snippets
- Need to replace variables
 - You are not prompted
- Can use Template Options as Variables
 - User defined Variables are roadmap

The screenshot displays the Aruba AirWave management console. The top navigation bar includes the Aruba logo, 'AirWave' text, and various system status indicators (NEW DEVICES, UP, WIRED UP, WIRELESS UP, DOWN, ROGUE, CLIENTS, ALERTS). The left sidebar contains a menu with options like Home, Groups, List, Config Jobs, Devices, Clients, Reports, System, Device Setup, AMP Setup, RAPIDS, and VisualRF. The 'Config Snippets' link is highlighted in the top navigation bar, and the 'Config Jobs' link is highlighted in the left sidebar. The main content area shows a table of existing configuration snippets.

Name	Device Type	Creation Time	Config Commands	Description	Action
Add Syslog Server	Aruba Switch	8/17/2018, 4:02:11 PM	logging <ipaddress>	Enable Logging Syntax : logging [IP-...	
Remove Syslog Server	Aruba Switch	8/17/2018, 4:02:11 PM	no logging <ipaddress>	Disable Logging Syntax : no logging...	
Enable SNMP Trap	Aruba Switch	8/17/2018, 4:02:11 PM	snmp-server enable traps <option>...	Enable SNMPv1/v2 Traps Syntax : s...	
Disable SNMP Trap	Aruba Switch	8/17/2018, 4:02:11 PM	no snmp-server enable traps <opti...	Disable SNMPv1/v2 Traps Syntax : ...	
Enable STP	Aruba Switch	8/17/2018, 4:02:11 PM	spanning-tree enable	Enable spanning-tree	
Disable STP	Aruba Switch	8/17/2018, 4:02:11 PM	spanning-tree disable	Disable spanning-tree (default)	
Configure NTP server	Aruba Switch	8/17/2018, 4:02:11 PM	ntp server <ipaddress>	Configure a NTP server to poll for t...	
Remove NTP server	Aruba Switch	8/17/2018, 4:02:11 PM	no ntp server <ipaddress>	Remove NTP server not to poll for t...	
Enable Interface	Aruba Switch	8/17/2018, 4:02:11 PM	interface <port_number> enable	Enable the Interface Syntax : interf...	
Disable Interface	Aruba Switch	8/17/2018, 4:02:11 PM	interface <port_number> disable	Disable the Interface Syntax : interf...	
Enable DLDAP	Aruba Switch	8/17/2018, 4:02:11 PM	dldap enable	Enable DLDAP	

A modal window titled 'Config Snippet' is open, showing the configuration details for a new snippet:

- Name ***: Configure SNMP Read Community
- Description**: Setting Read community. MIB variables cannot be set, only read.
Syntax : snmp-server community [ASCII-STR] [manager | operator] restricted
- Device Type ***: ☐ Aruba Controller ☒ Aruba Switch ☐ Comware Switch
- Config Commands ***: snmp-server community <community_string> <user> restricted

At the bottom of the modal are buttons for 'Reset', 'Cancel', and 'Update'.

Supported Aruba Switches

AOS-S

- 2530
- 2540
- 2620
- 2920
- 2930F
- 2930M
- 3800
- 3810
- 5400R
- 5406zl
- 5412zl

AOS-CX

- 8400
- 8320



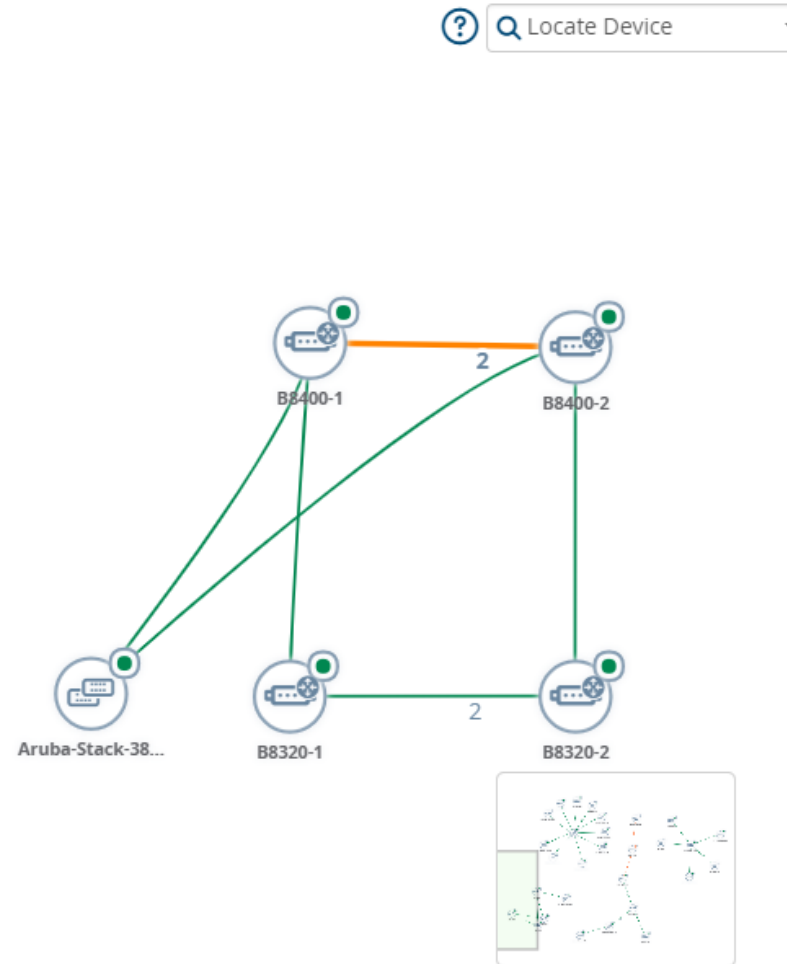
8400 / 8320 Support

– Single device

- Discovery & Topology ✓
- No new switch monitoring ⚠
- Configuration Backup and Baselining ✓
 - Restore is not supported currently ⚠

– VSX

- Discovery and Topology ✓
- No new switch monitoring ⚠
- No Configuration backup and Baselining ⚠



View	Filter	Actions	Details
1/1/1 - 1/1/1			
Source: LLDP			
1/1/1			
Device: B8400-1			
MAC: 94:F1:28:EF:C2:00			
Description: 1/1/1			
Type: ethernetCsmacd			
Admin Status: Up			
Forwarding Mode: Access			
Operational Status: Up			
Bandwidth In: 1.0 KB			
Bandwidth Out: 1.9 KB			
IP: 10.88.1.2			
Spanning Tree Details:			
1/1/1			
Device: B8400-2			
MAC: 94:F1:28:EF:C3:00			
Description: 1/1/1			
Type: ethernetCsmacd			
Admin Status: Up			
Forwarding Mode: Access			
Operational Status: Up			
Bandwidth In: 1.9 KB			

8.2.7.1

- Early Nov time frame
 - Tied to the AoS 8.4 release
- Dynamic segmentation phase 1
 - Visibility of PUTN & PPTN
- Fix some FlexNetwork device support
 - No longer Office connect
 - Topology
 - Still no Configuration Backup / Restore
- Ekahau Support in visual RF
- Support for Switch release 16.07

The screenshot displays the 'Connected' tab in the Aruba network management interface. At the top, there are tabs for Summary, Ports, PoE, VLANs, Connected (active), Hardware, Alerts & Events, and Troubleshooting. Below these, there are two main sections: 'CONNECTED DEVICES' with a count of 1, and 'NEIGHBORS' with a count of 2. The 'Connected Devices' section features a port status grid with columns for FAN, POWER, and TEMPERATURE, and rows for ports 1 through 48. A tooltip is visible over port 13, showing details for a connected device: Username: 005056879034, Role: authenticated (testrole), IP Address: 192.168.60.201, and Tunneled Controller: Aruba7005. Below the grid, there is a table titled 'Connected Devices' with columns for MAC, Port, Username, User Role, IP Address, Authen Type, Notes, and Action.

MAC	Port	Username	User Role	IP Address	Authen Type	Notes	Action
00:50:56:87:90:34	13	005056879034	authenticated (testrole)	192.168.60.201	Tunneled-User-MAC	-	

AirWave 8 Switch management

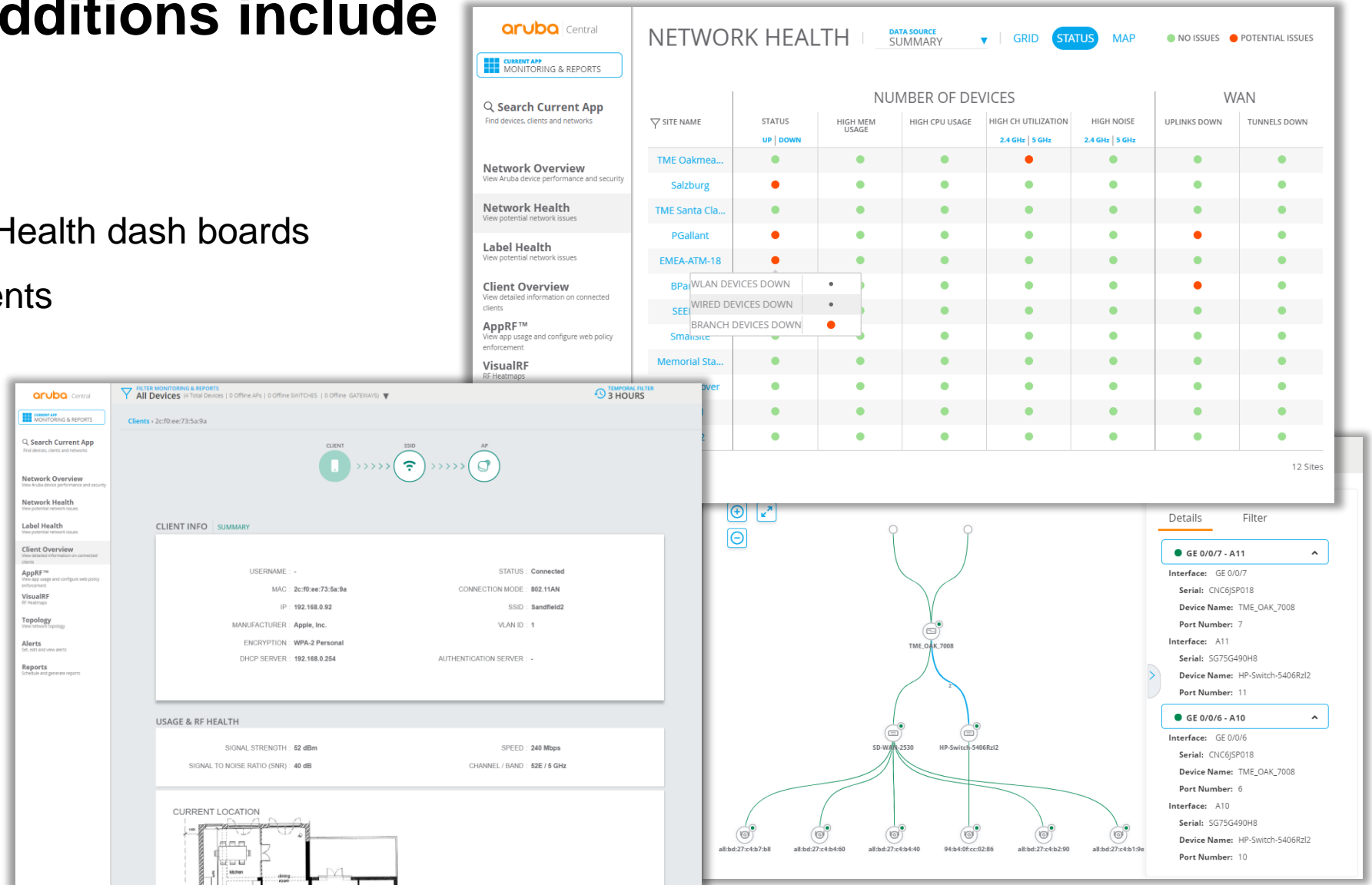
Getting there....

- ZTP ✓
- Configuration Backup and Baselineing ✓
- SW upgrades ✓
- Topology ✓
- Improved monitoring ✓
- Reusable Config Snippers (templates in IMC speak) ✓

Central

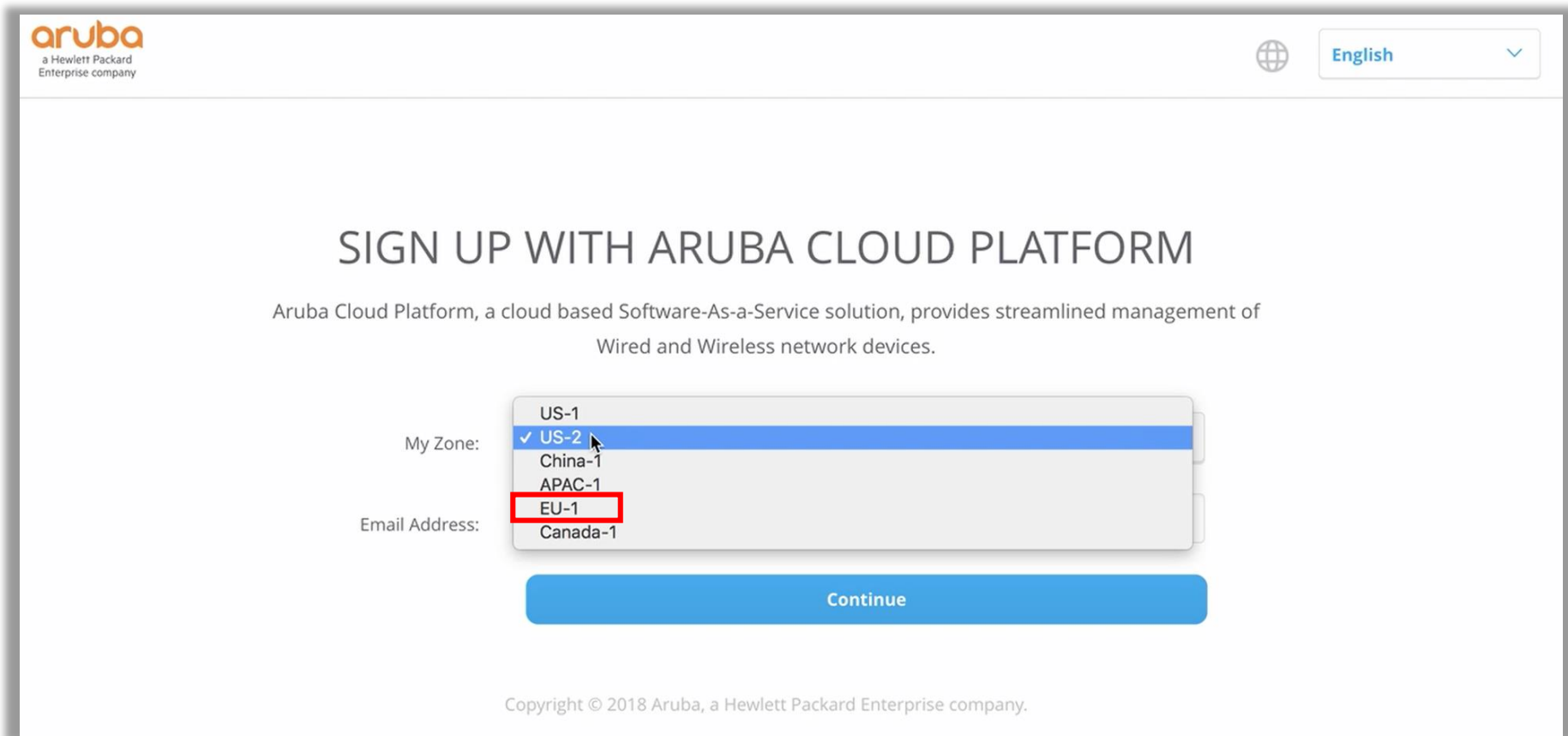
Central recent additions include

- SD Branch
- Network Health & Label Health dash boards
- UI / Workflow improvements
- Install Manger (in beta)
- Topology View
- Client Details
 - New look & structure



Central

Sign up to the EMEA Cluster for improved performance



The image shows a web form for signing up to the Aruba Cloud Platform. At the top left is the Aruba logo with the text "a Hewlett Packard Enterprise company". At the top right is a globe icon and a language dropdown menu set to "English". The main heading is "SIGN UP WITH ARUBA CLOUD PLATFORM". Below this is a descriptive sentence: "Aruba Cloud Platform, a cloud based Software-As-a-Service solution, provides streamlined management of Wired and Wireless network devices." The form has two input fields: "My Zone:" and "Email Address:". The "My Zone:" dropdown menu is open, showing a list of regions: US-1, US-2 (selected with a blue bar and a checkmark), China-1, APAC-1, EU-1 (highlighted with a red rectangle), and Canada-1. Below the dropdown is a large blue "Continue" button. At the bottom of the page is a copyright notice: "Copyright © 2018 Aruba, a Hewlett Packard Enterprise company."

aruba
a Hewlett Packard
Enterprise company

English

SIGN UP WITH ARUBA CLOUD PLATFORM

Aruba Cloud Platform, a cloud based Software-As-a-Service solution, provides streamlined management of
Wired and Wireless network devices.

My Zone:

Email Address:

- US-1
- ✓ US-2
- China-1
- APAC-1
- EU-1
- Canada-1

Continue

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Central 2.4.5 includes

- Import configuration template from a Switch
- Download and upload variables from CSV
- Per day usage limits on guests
- Support for Aruba 5400R stacks
- Support Aruba Instant 8.3.0.2
- Webhook through the UI
- SD-WAN Gateways
 - Simplified workflow Apply Policies
 - Enhancement to VLANs page
 - Support for WAN availability reports
- MSP enhancements

ADD TEMPLATE

ⓘ If templates/variables for a aruba switch are modified the entire configuration will be pushed and switch will be rebooted.

Template Name

Device Aruba Switch

Model ALL

Version ALL

Select a device to import configuration 2930F-Demo2 Import Template

ⓘ Importing configuration from a device will replace the existing template

Template

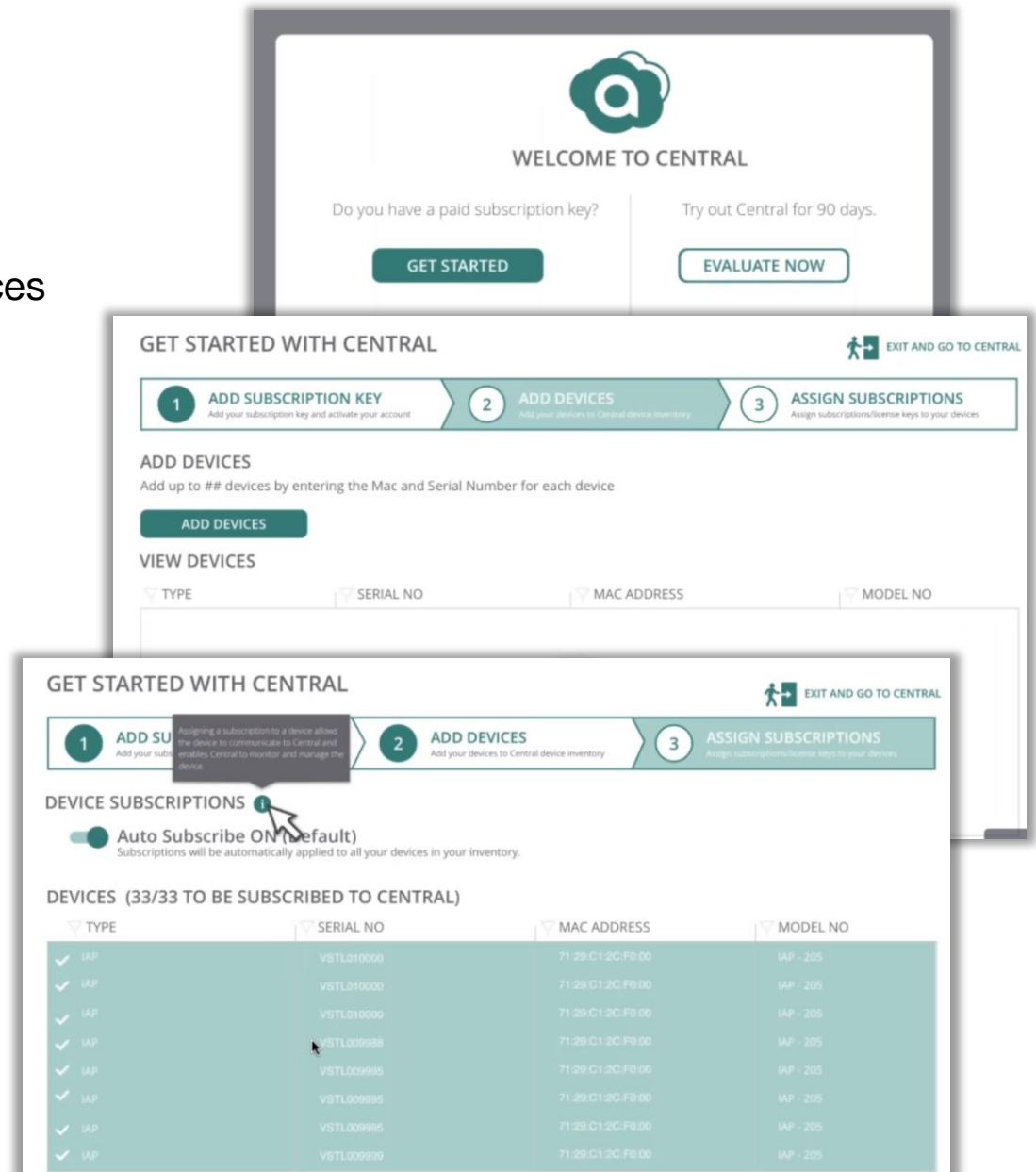
1

Save Cancel

http://help.central.arubanetworks.com/2.4.5/documentation/online_help/content/public_cloud/whats_new/whats_new.htm

What is coming

- Simplified getting started and on boarding
 - Includes removing the 32 device limit manually adding devices
- Improved switch support
 - Monitoring and Configuration coming in phases
 - LAG/Trunk and STP Configuration
 - UI make over will be introduced
- Controller support
 - H1CY19
- Start rolling in from 2.4.6 to 2.4.9
 - Central releases every 4 to 6 weeks.



Central – New Switch monitoring mock-ups – may change

MONITORING

NOV VIEW

NETWORK DETAILS

CLIENTS

DEVICES

APPLICATION VISIBILITY

CLARITY

VISUALRF

TOPOLOGY

AIRGROUP

PRESENCE

GUEST

FILTER MONITORING site-name-001

SWITCH HEALTH 85%

HEALTH STATUS

85%

DEVICE HEALTH

Good

SWITCH INFO

VIEW INSTALL PHOTO

MODEL: [STACK]

MAC: a1:56:1e:9a:6a

IP: 10.12.54.123

UPLINK: 2 Days 12 Hours

LAST REBOOT: Aug 11 2018 01:47:13 (This is a reboot reason sta...)

CONFIG STATUS: Dirty Diff (This is a dirty diff statem...)

LAST CONFIG CHANGE: Jul 14 2018 18:12:23

HOSTNAME: blr-main-stack-01

GROUP: aruba_india_devices-01

LAST STATS RECEIVED: Aug 16 2018 18:12:23

HARDWARE

POWER SUPPLY: 14 Total, 11 Up, 3 Down, 0 Missing

FANS: 14 Total, 12 Up, 2 Down

CPU: GOOD, MEMORY: GOOD

TEMPERATURE: 2 OFF RANGE

NETWORK INFO

IP ADDRESS: 10.12.54.123

STACK: 4

STACK TOPOLOGY: RING

UPLINK: aruba-india-switch01 (PORT 14)

VLANs

NAME	ID	TAGGED
vlan_name_01	1	1, 3, 5, 7, 9
vlan_name_02	2	4, 15, 19-28
vlan_name_03	3	7, 14, 19
vlan_name_04	4	1, 8, 19, 34
vlan_name_05	5	2, 5, 6, 7, 12, 19, 24, 25, 2

PORTS FOR vlan-01

Check tagged or untagged port for a VLAN

Switch	Port	Status
aruba-switch-001	1	UP
aruba-switch-002	4	UP
aruba-switch-003	4	UP
aruba-switch-004	1	UP

HARDWARE

ID	NAME	UP
1	aruba-switch2930-01	3
2	aruba-switch2930-02	2
3	aruba-switch2930-03	1
4	aruba-switch2930-04	3

POWER SUPPLIES

NAME	STATUS
Power Supply - 1	UP
Power Supply - 2	UP
Power Supply - 3	DOWN
Power Supply - 4	UP
Power Supply - 5	MISSING

FANS

NAME	STATUS
Fan - 1	UP
Fan - 2	UP
Fan - 3	UP
Fan - 4	UP
Fan - 5	UP

CPU

CURRENT CPU UTILIZATION: 67%

MEMOR

CURRENT MEMORY UTILIZATION: 27%

INTERMEDIATE DEVICES

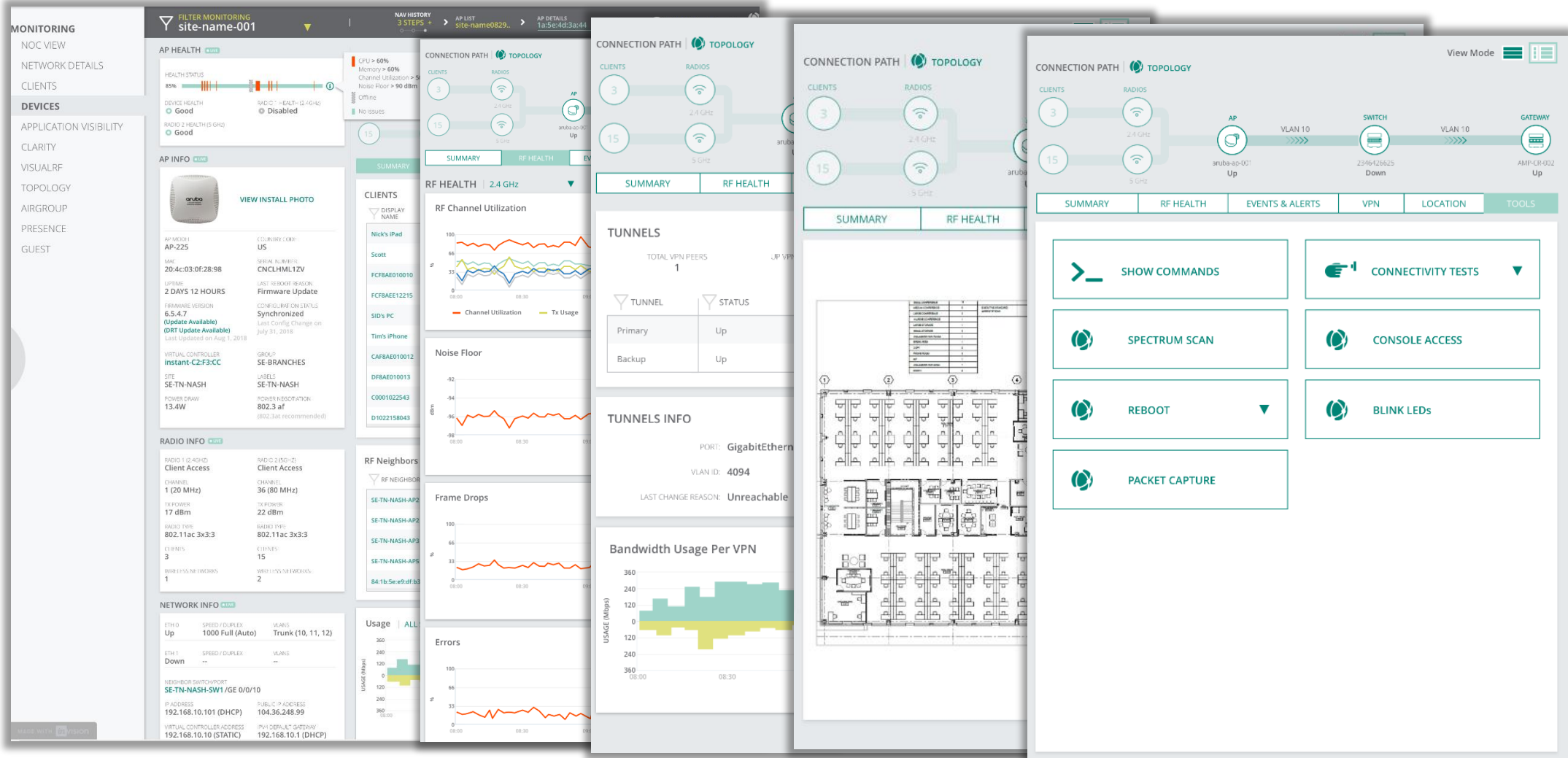
MAC	NAME	TYPE	IP	STATUS	DESCRIPTION
71:a3:ff:ad:45:21	GigabitEthernet0/2/3	10.233.13.255	--	None	Cisco IOS So...
71:a3:ff:ad:45:21	GigabitEthernet0/2/4	10.233.13.255	--	None	Cisco IOS So...
71:a3:ff:ad:45:21	GigabitEthernet0/2/5	10.233.13.255	--	Bridge	Cisco IOS So...
71:a3:ff:ad:45:21	GigabitEthernet0/2/6	10.233.13.255	--	Bridge	Cisco IOS So...
71:a3:ff:ad:45:21	GigabitEthernet0/2/7	10.233.13.255	--	Bridge	Cisco IOS So...
71:a3:ff:ad:45:21	GigabitEthernet0/2/8	10.233.13.255	--	None	Cisco IOS So...
71:a3:ff:ad:45:21	GigabitEthernet0/2/9	10.233.13.255	--	None	Cisco IOS So...
71:a3:ff:ad:45:21	GigabitEthernet0/2/10	10.233.13.255	--	None	Cisco IOS So...

RUN COMMANDS

- PING TEST
- CABLE TEST
- POE BOUNCE
- INTERFACE BOUNCE
- LED CHASSISLOCATE
- PACKET CAPTURE

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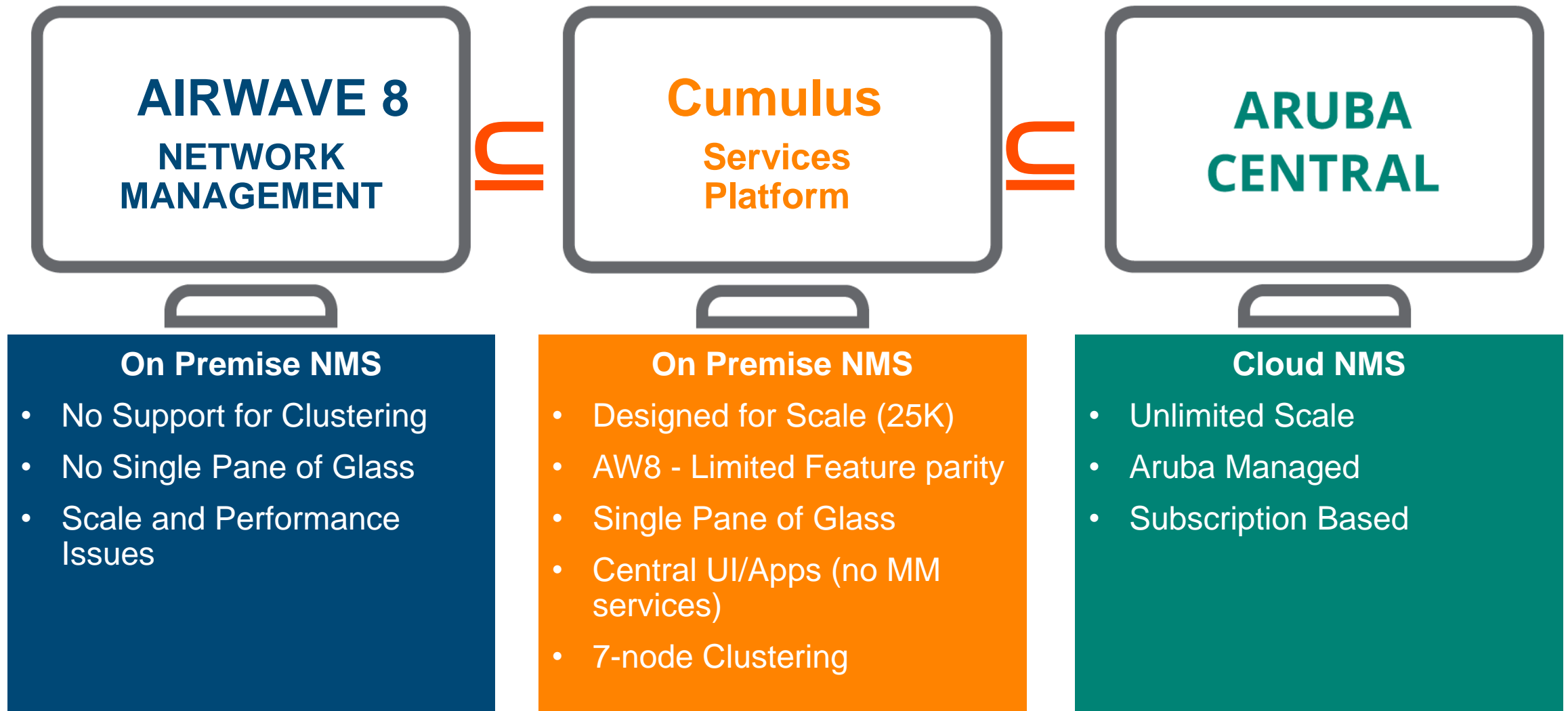
Central – New AP Health mock-ups – may change



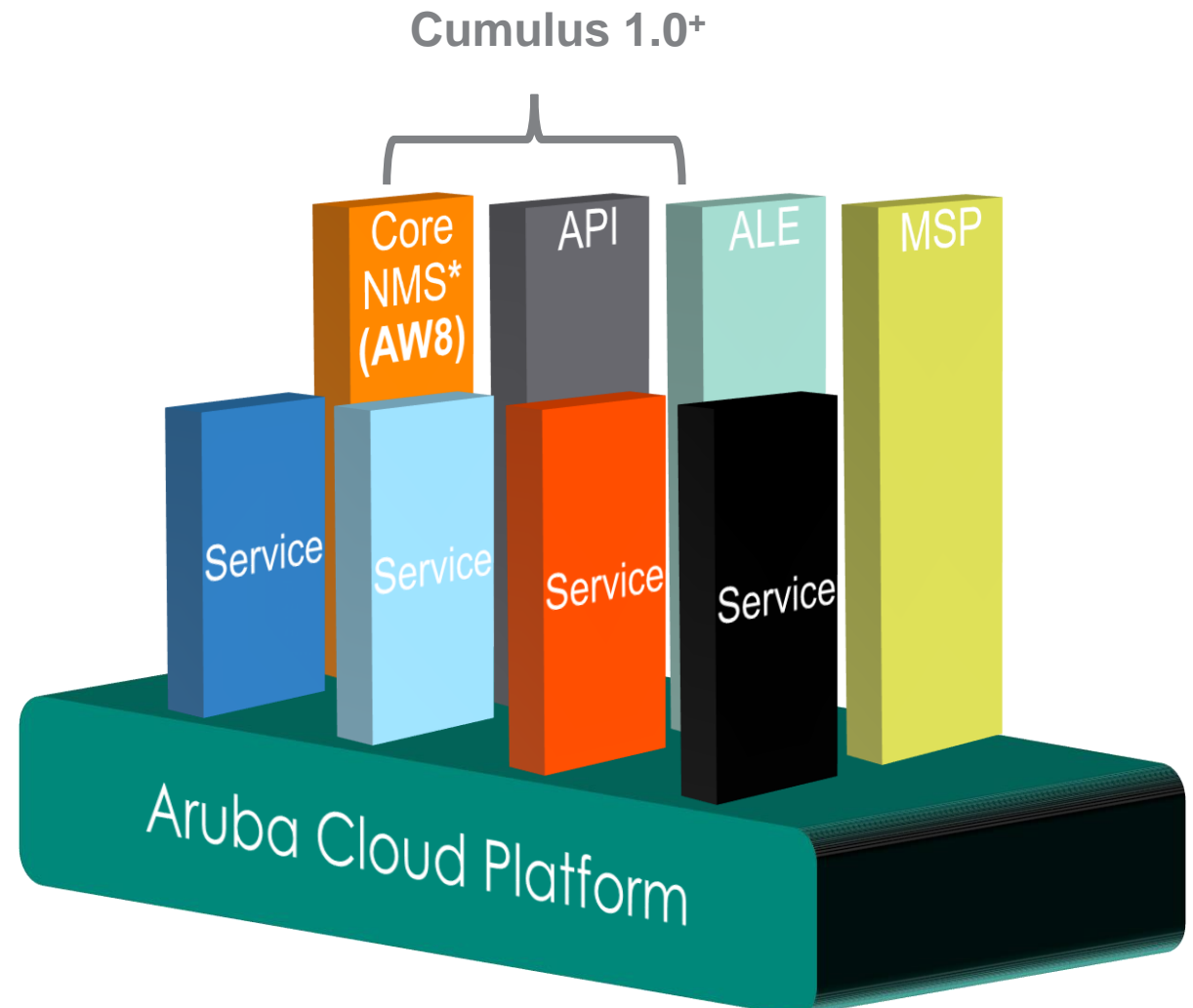
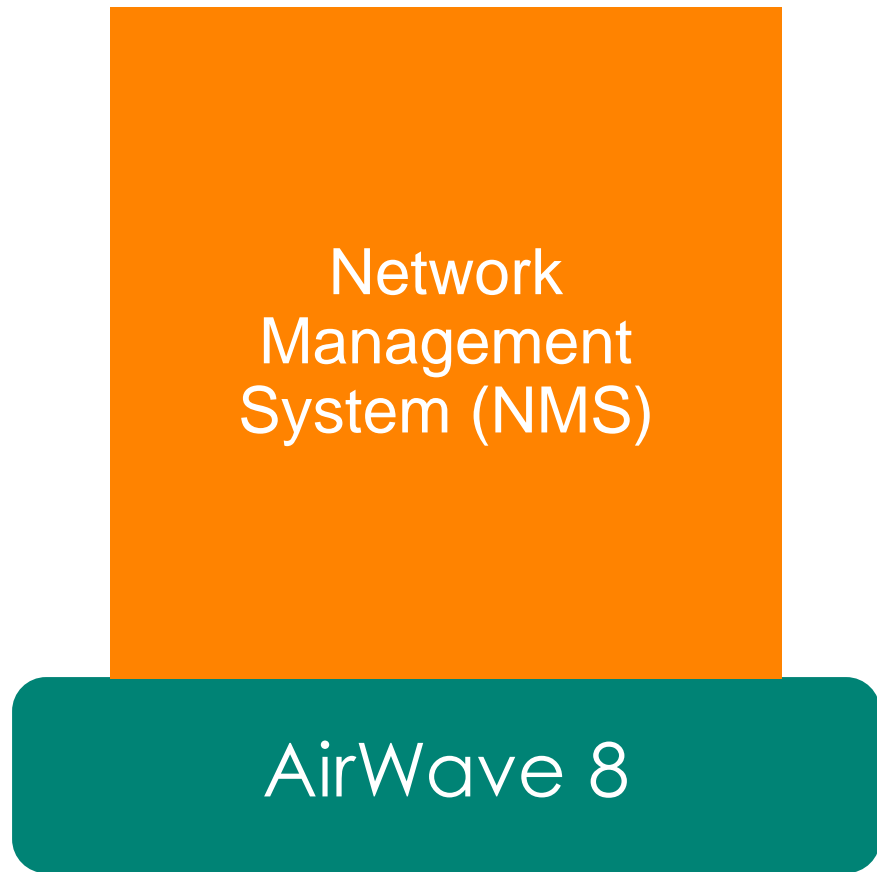
Thank you !
Who's hungry?

Cumulus (aka Airwave 10)

Network Management

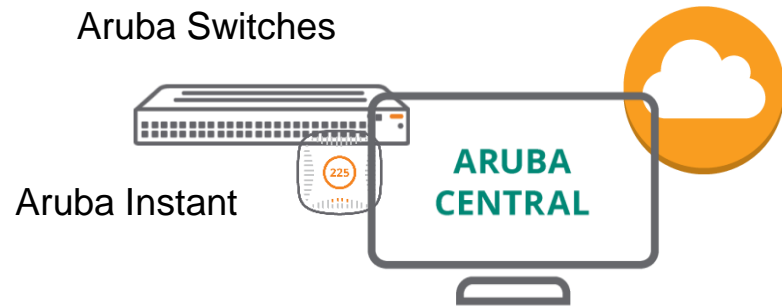


What is Cumulus?

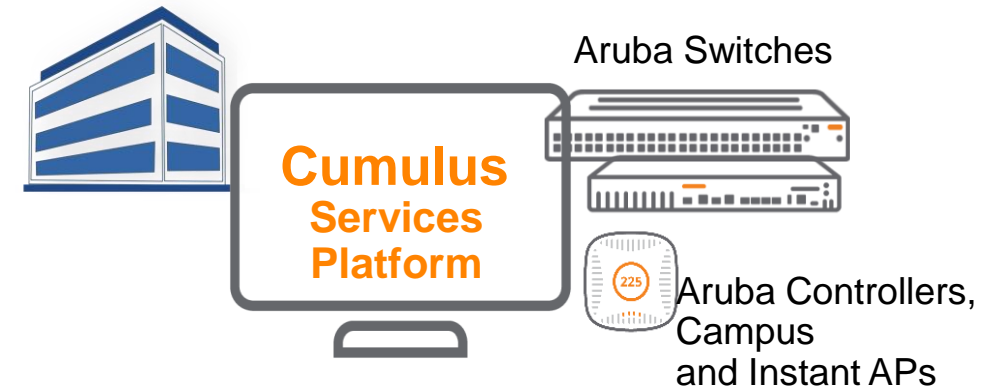


*Core NMS features written from Scratch
+Cumulus requires new hardware and AW8 cannot be upgraded to Cumulus

One Application, Two Deployment Models



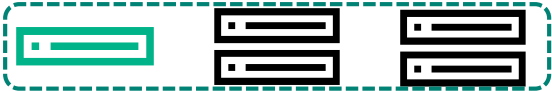
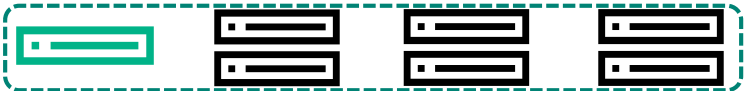


- Only solution that will support cloud
- Supports Aruba today
- Clarity, Presence and Guest options
- UCC support coming
- Scales via cloud architecture



- On-prem solution for all Aruba gear
- 4K to 25K devices per cluster
- Core NMS: monitoring, config, alerts
- Topology, VisualRF, RAPIDS
- Supports Clarity, UCC, AppRF...
- On roadmap: Multivendor, SA

Architecture – Cluster Capacity

Cluster (Appliance Only)		Device Limit	Redundancy
1 Node		4K	No Redundancy
3 Node		8K	N + 1 Redundancy
5 Node		16K	N + 1 Redundancy
7 Node		25K	N + 1 Redundancy

- These are high end server appliances
 - 256GB RAM, 4TB SSDs & 40 Cores
- Scale & Redundancy = comes at a COST with Cumulus
- ALE will require min x 2

AirWave 8 & Cumulus today

AirWave 8

- This as the main solution for Wired & Wireless
 - Add IMC if required
- Future proof new AW8 investments
 - New AW8 sku based on the Cumulus appliance planned
- Focus is on adding switch support and new APs etc
- Will still be developed
- Glass still being developed

Cumulus

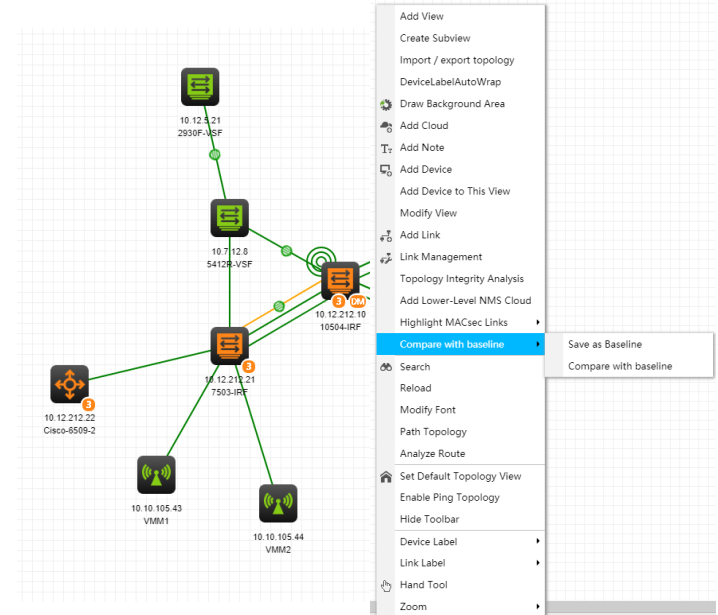
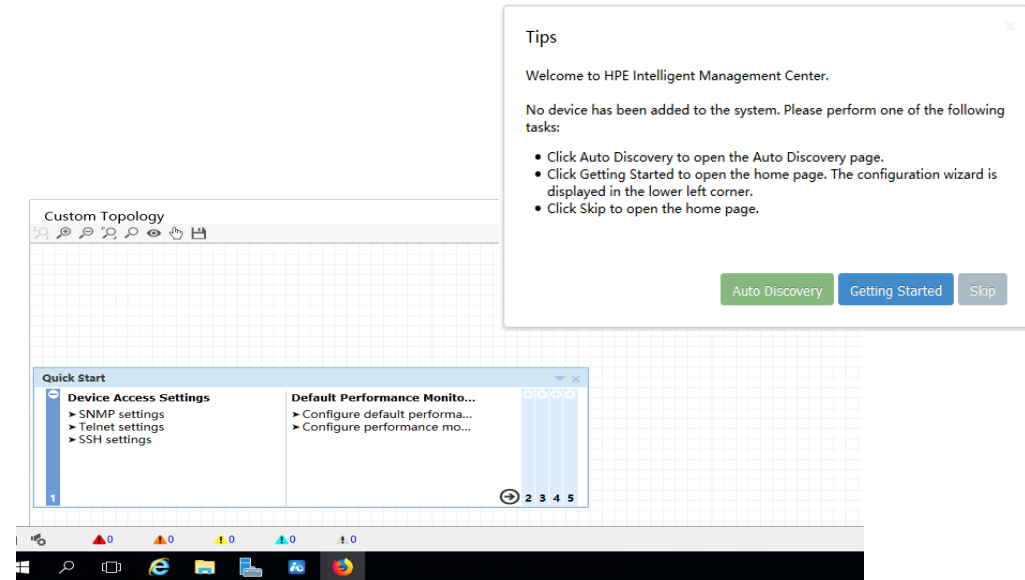
- Aimed at very large AP scale deployments - scale
 - Multiple AW8 today's > 4K APs
 - Clustering for scale and resilience
 - FCS end of CY18 currently
 - GA due early CY19
- Deploying cloud architecture On Prem will be ££££ !
 - Will not run on existing AW8 HW
 - Its NOT an upgrade
 - There will be migration and “aggressive” upgrade promotions
- Central working on catching up with switch management

IMC 7.3 - What's been happening ?

IMC 7.3 E0605

The Current Version

- Latest OS support
 - Windows Server 2016 & MS SQL 2016
- Simpler to install and evaluate
 - Embedded DB is MS Express 2016
 - Getting started wizard on first launch
- Aruba OS-CX support 8400 & 8320
 - Discovery Topology, Monitoring, Backup, Baseline SW upgrade, NTA etc
 - No support for VSX and Config Restore ⚠
- Smarter & Easier to use
 - Port Groups can be used widely for easier interface selection
 - Focus on the important alarms via Suppressing edge ports intermittent alarm
 - Quickly identify how the network has changed with Topology baselining
 - Thresholds dependant on interface speed
 - Repeat Alarm count highlights issues that need addressing



IMC 7.3 E0605 P04

Available Now

- Smarter Monitoring and Alerts
 - Supports 5 threshold levels for greater granularity
 - Rules based Alarm severity
 - Group based Default Monitored Settings
- Ease of use and efficiency improvements
 - Merged Templates
 - Re-Baselining from configuration change alert
 - SW upgrade efficiency improvements
 - Easier to see what's failed compliance checks
 - Auto Discover into Groups
- New custom report fields
 - Serial number
 - HW & SW versions
 - Product number

The image displays three overlapping screenshots of the IMC 7.3 E0605 P04 interface.

Modify Index Screenshot: Shows a table for configuring thresholds. A dropdown menu for 'Threshold Level' is open, showing options: Disable, Threshold 1, Threshold 2, Threshold 3, Threshold 4, and Threshold 5 (highlighted). The table has columns for Index Name, Interface Name, and Value 1.

Compliance Policy Check Results Screenshot: Shows a summary of a compliance check. Task Name: check 78, Creator: admin, Violating Devices: 3, Vulnerability Sum: 5. A circular gauge shows Violation Severity: Critical: 0, Info: 0, Warning: 0, Minor: 5. Below is a table of Compliance Policy Check Information.

Compliance Policy Name	Rules	Check Result	Violations	Violating Devices	Item
CL - Demo Compliance Policy	9	✗	5	3	
Check syscontact	1	✗	2	2	Minor
10504-IRF(10.12.150.5)		✗	1		
7503-IRF(10.12.150.1)		✗	1		
Check syscontact & location (A)	1	✗	1	1	Minor
2930F-VSF(10.12.5.21)		✗	1		

Alarm Level Configuration Screenshot: Shows the 'Alarm Level Configuration' dialog. Fields include Rule Name, Concerned Devices (All Devices), Concerned Alarms (All Alarms), Configuration Item (Alarm Duration), Configuration Item Value (Alarm Repetitions), and Alarm Level Configuration (Critical selected). An 'Add' button is at the bottom. A table at the bottom shows Configuration Item, Configuration Item Value, Alarm level, and Operations.

IMC 7.3 Other recent updates includes

Service Health Manager (SHM) 7.3 E0502P06

- Smarter & Simpler configuration and deployment of NQA and IP SLA
 - Creating an NQA instance now sets up everything on the Server/Client and Initiator/Responder
- IMC's SHM is the only solution for managing and reporting on AoS IP SLA other than the CLI

