

aruba

a Hewlett Packard
Enterprise company

TECH TALK

**Aruba Solutions For
Public Sector**

DRIVING EXPERIENCES AT THE INTELLIGENT EDGE



WORKPLACES



RETAIL



INDUSTRIAL



GOVERNMENT
PUBLIC SECTOR
ORGANIZATION



STADIUMS



HEALTHCARE



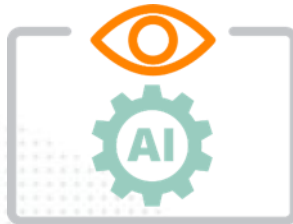
HOSPITALITY

ARUBA EDGE SERVICES PLATFORM (ESP)

The foundation for digital transformation

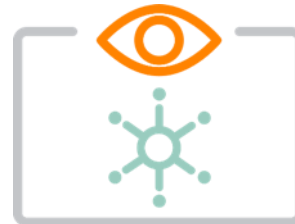
AIOPS

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



PUBLIC SECTOR

Understanding Networking Requirements

CAMPUS NETWORKS
Refresh/New

DATACENTER
State DCs, PSUs

PUBLIC HOTSPOTS
Digital India Initiatives

DISTRIBUTED OFFICES
Branch Transformation

MANAGEMENT
On-Premises

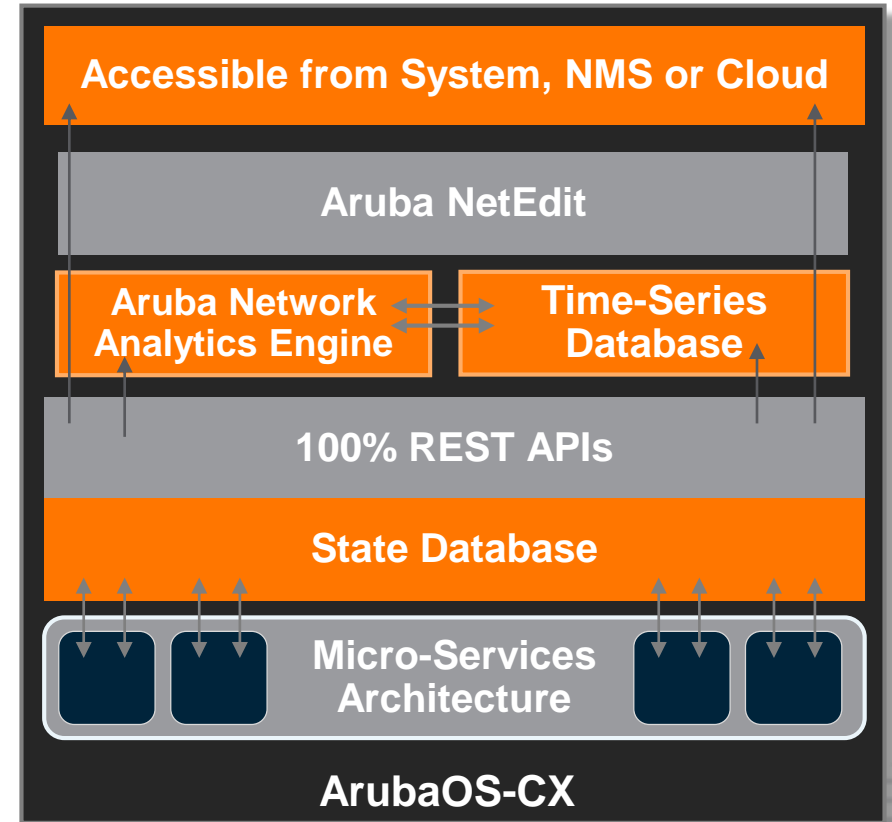
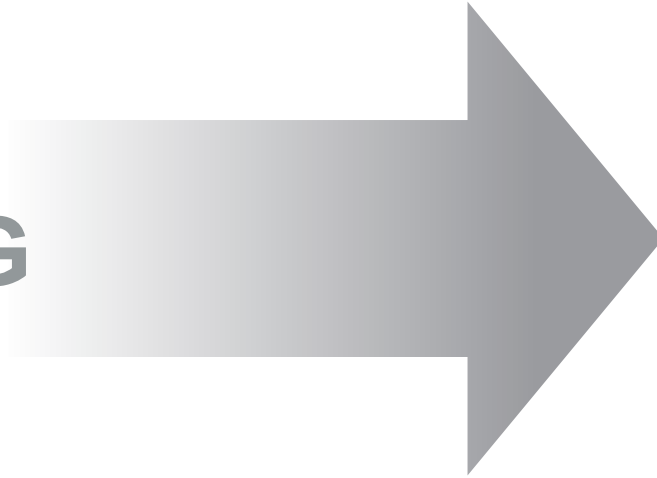
BUSINESS CONTINUITY
Access from Anywhere

SECURITY
Encryption, Segmentation



Heart of Aruba's Next-Gen Switching Products

AOS-CX
NETWORK AS
AN OPERATING
SYSTEM



Modular OS | Full Programmability | Elastic Network | Resiliency as Design Principle



ARCHITECTURE MATTERS

ARUBA GEN7 ASIC



Faster Innovation

Tight integration between hardware and software gets new capabilities to market faster



Non-Blocking Performance

High-performance VOQ capability prevents head-of-line blocking, optimizing use of all ports



Flexible Programmability

Dynamic programming of network resources for use case optimization

30+

Years of IP

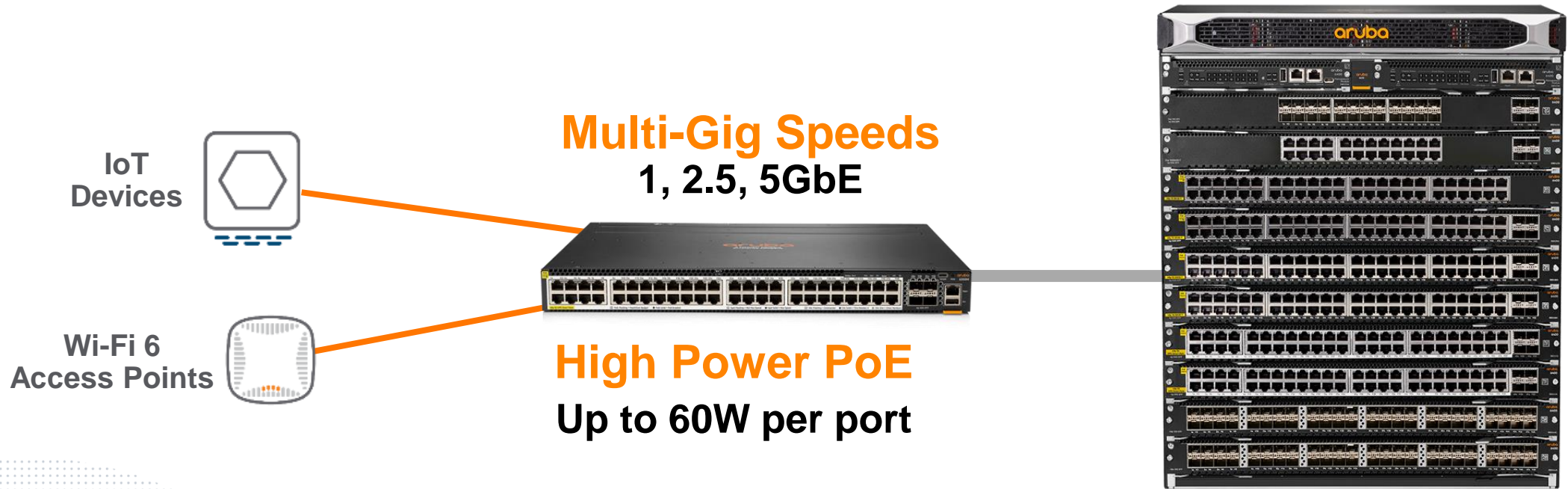


7th

Generation Architecture

FUTURE-READY POWER AND SPEED

FOR THE ACCESS LAYER



Wi-Fi 6 Ready

Use existing cabling

Always-on PoE



AOS-CX KEY FEATURES

SHRINKING MAINTENANCE WINDOWS, SECURITY, WI-FI 6

VSX Live Upgrades



Extended to Access

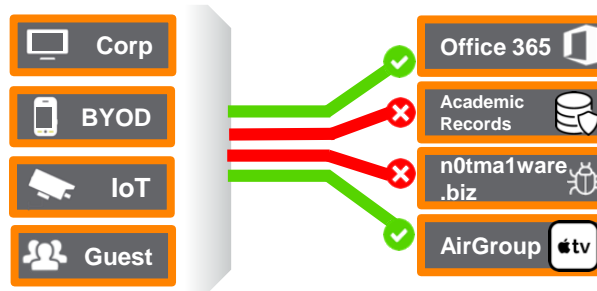
Dual control and data planes with improved performance to bring live upgrades to modular access

Always-on PoE



Enable APs, healthcare devices, sensors, and IoT devices to keep power during upgrades

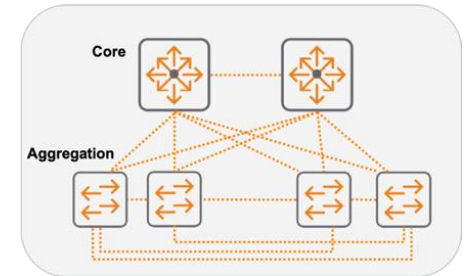
Dynamic Segmentation



Extended to Access and AOS-CX

Secure, unified access across wired and wireless for users and IoT, enabled by policy-based automation

VXLAN with MP-BGP EVPN



Industry-standard segmentation that scales and provides consistent architecture across campus and data center

VRF

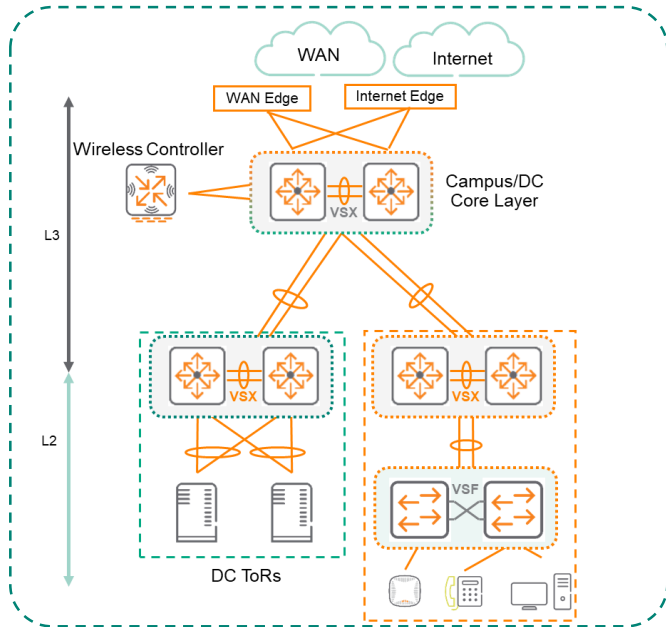


AOS-CX for routing segmentation

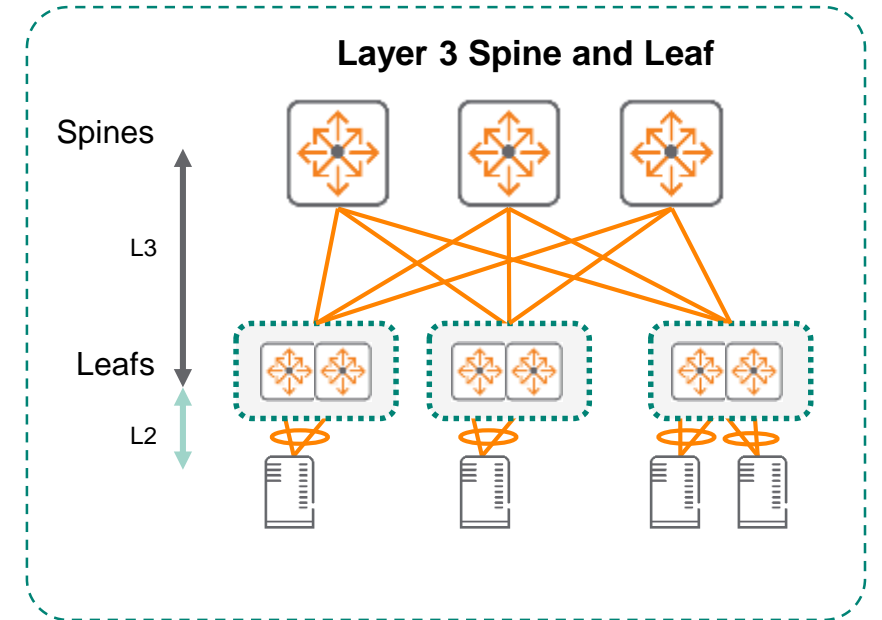
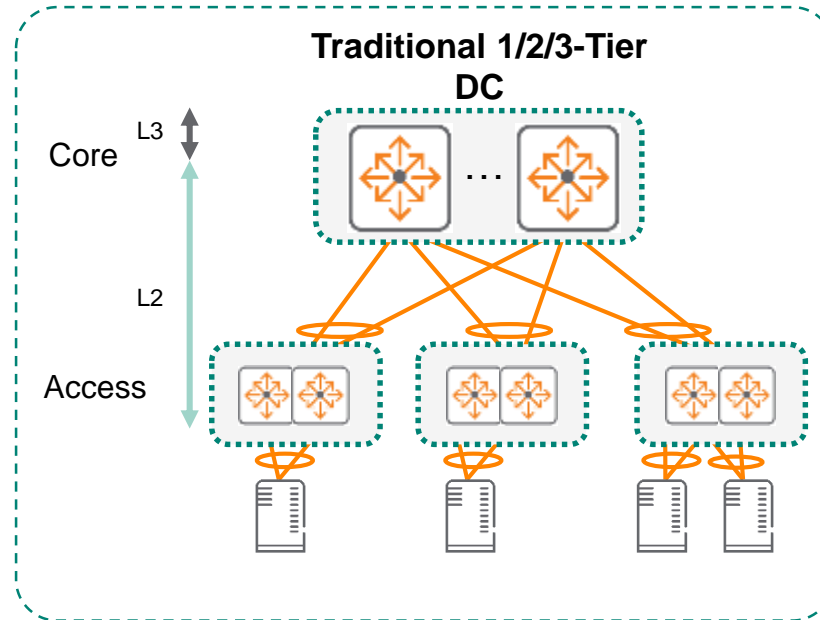


Aruba CX Datacenter Architectures

Campus Attached



Dedicated Data Centers



Full Data Center Feature Set

Unique orchestration capabilities with NetEdit

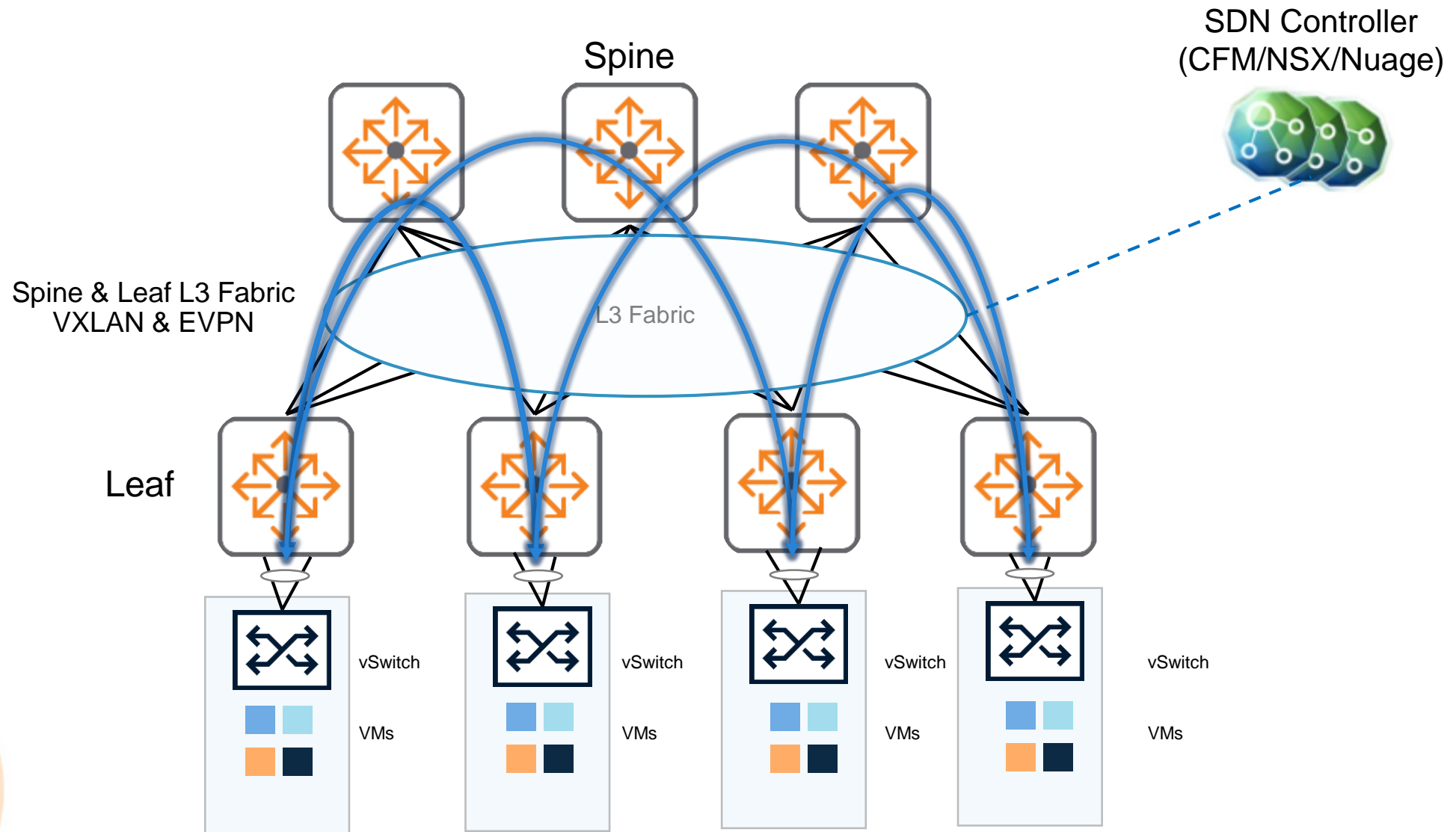
Robust DIY Automation with Ansible/Python

Application Workflows using Aruba CFM*



DC Network Dynamic Overlay

Distributed VXLAN Control Plane



Aruba NetEdit

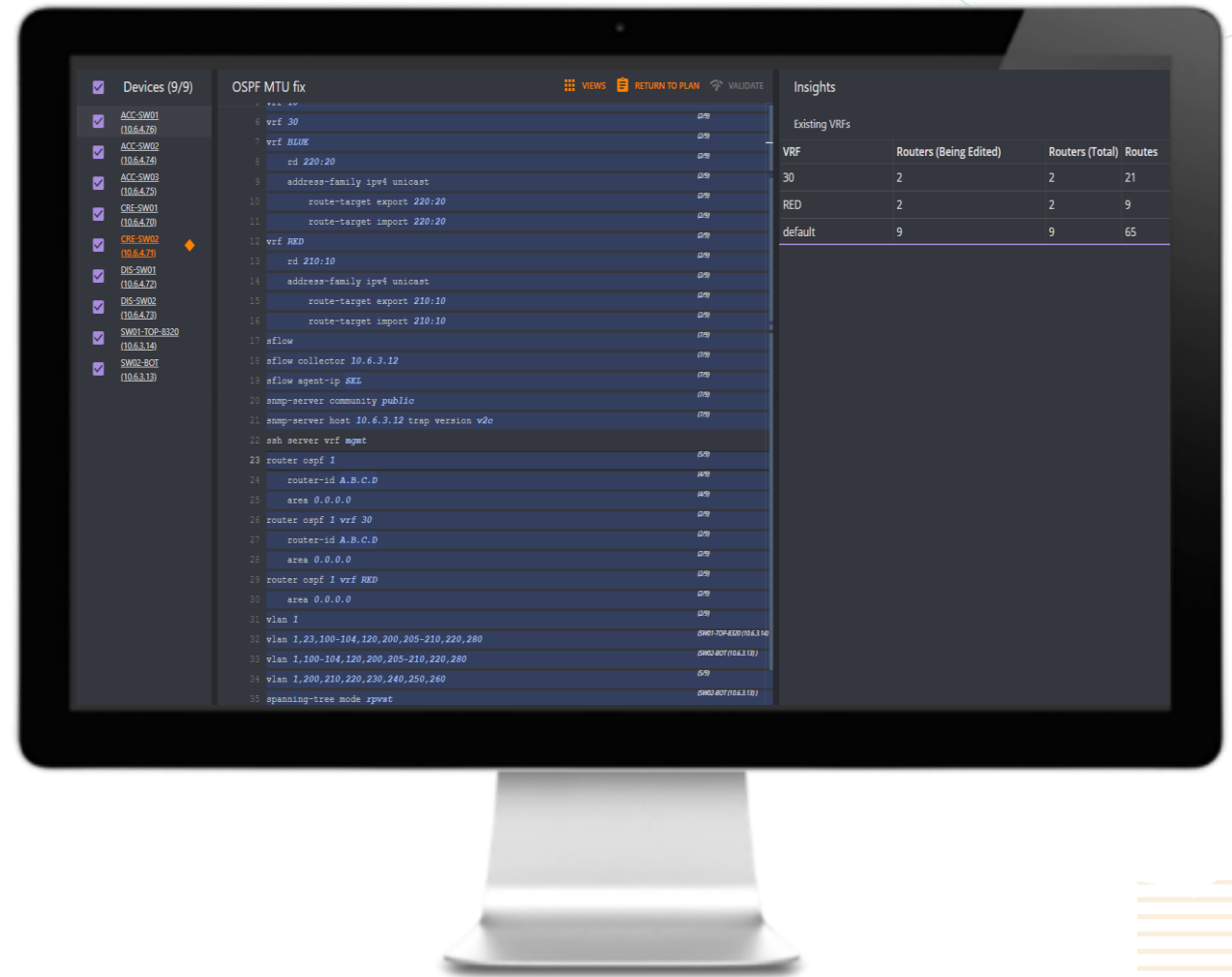
Orchestration Using The CLI

- No knowledge of scripting required
- Easily track changes
- Searchable configuration
- Tagging devices based on location or role
- Configuration consistency across the network



CX MOBILE APP

Quickly deploy, provision and update switches



Network Analytics Engine

24x7 Network Technician Inside the Switch



An end user reports an issue

- IT Ticket is Generated

IT needs to pinpoint the root cause

- Determine Service Impact and Time, Pull logs

Deploy fix

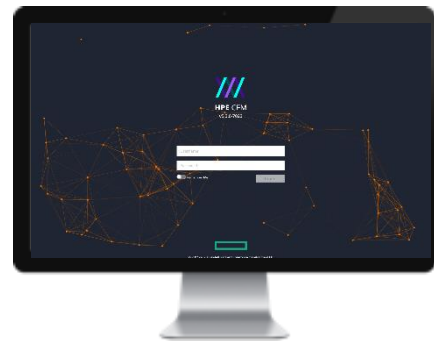
Monitor

- Prevent issue from occurring again



Aruba CFM*

Application-aware Network Provisioning

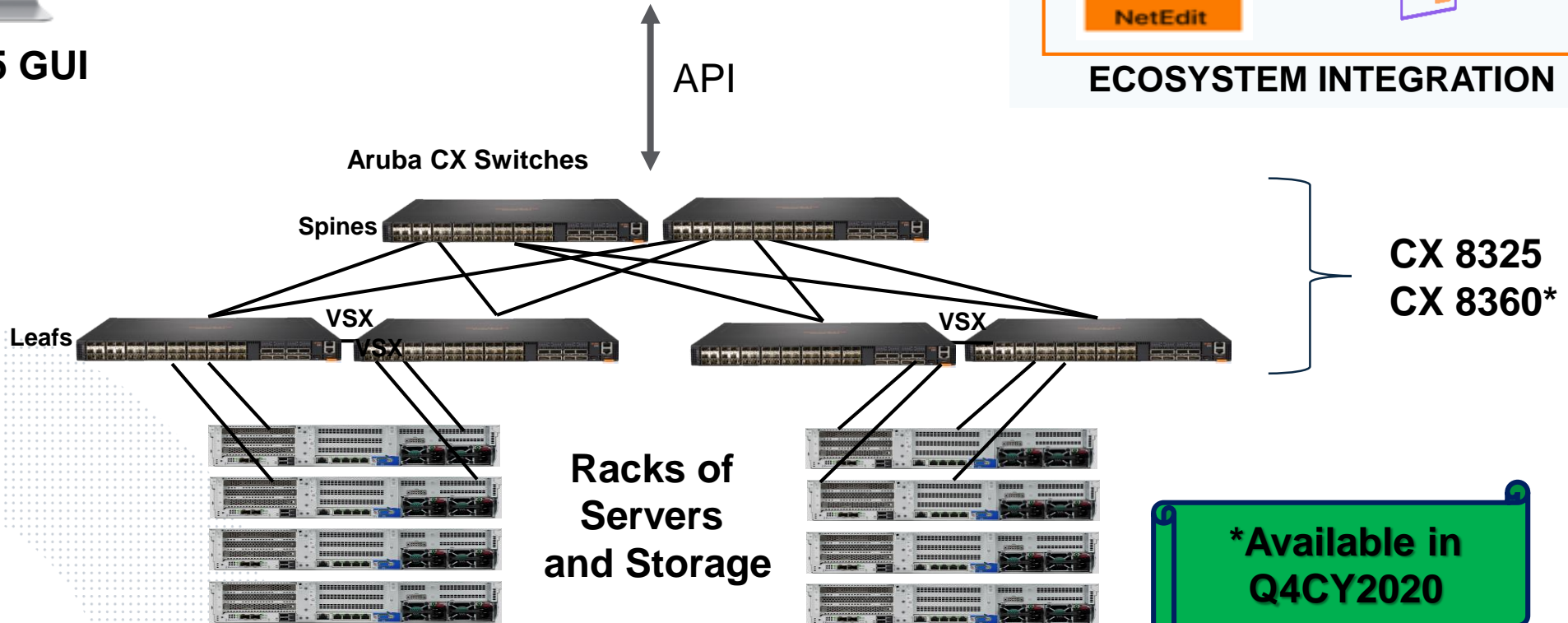


HTML5 GUI



ECOSYSTEM INTEGRATION

vmware®
NSX
NUTANIX™
iLO Amplifier Pack
aruba NetEdit
vmware NSX
Hewlett Packard Enterprise SimpliVity
HPE OneView



***Available in Q4CY2020**



ARUBA WI-FI 6



**ARUBA 500
SERIES**



**ARUBA 510
SERIES**



**ARUBA 530
SERIES**



**ARUBA 550
SERIES**



**ARUBA 560/570
SERIES**



- Smart PoE
- BLE & Zigbee Radio
- ClientMatch
- AirMatch
- Air Slice
- WPA3
- AI and Green AP
- Live Upgrade



WPA3

THE FUTURE IS
UNPREDICTABLE



TECHNOLOGY
HAS ADVANCED

OPPORTUNISTIC
WIRELESS ENCRYPTION
(OWE)

SIMULTANEOUS
AUTHENTICATION OF
EQUALS
(SAE)

DEVICE PROVISIONING
PROTOCOL
(DPP)

WPA3-Enterprise 192-Bit Mode—Brings **Suite-B 192-bit security** suite that is aligned with Commercial National Security Algorithm (CNSA) for enterprise network



Aruba AP-560/570/518

Outdoor and Ruggedized Access Points for Public Hotspots



WiFi 6[™]
CERTIFIED
Air Pass



DISTRIBUTED OFFICES

Branch Transformation

Security

SD-Branch = SD-WAN + SD-LAN

SD-WAN
Orchestration

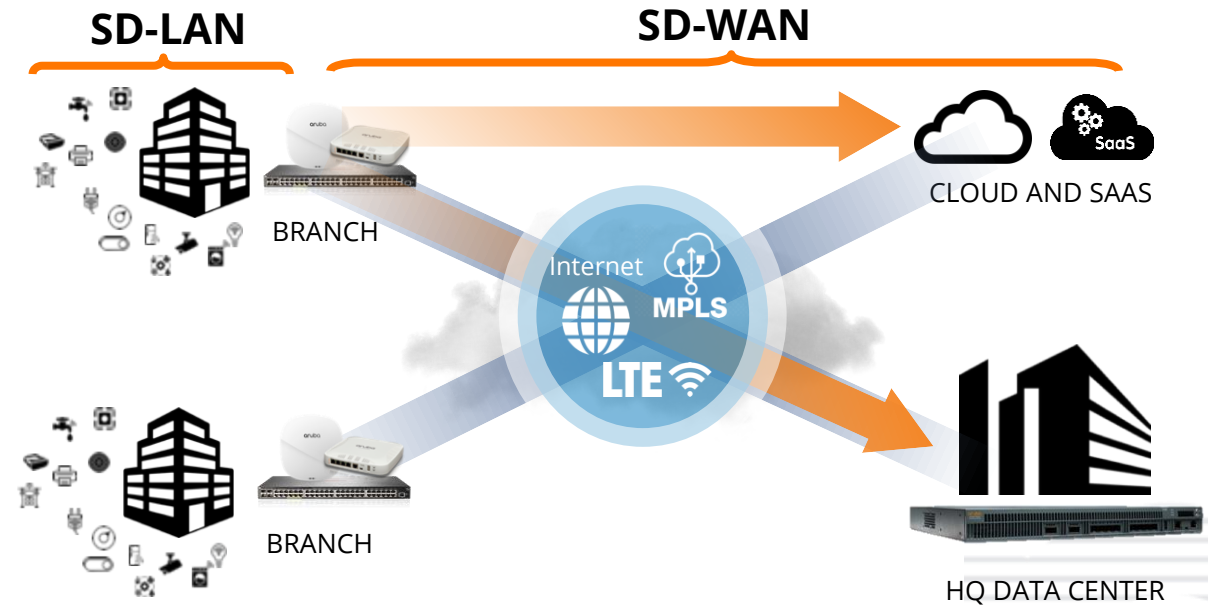
High-Performance
Gateways with ZTP

App-aware,
Dynamic Path
Steering, WAN
Optimization

Orchestrated
Connectivity

DPI
Stateful Firewall
End-to-end
Segmentation

SD-LAN & Dynamic
Segmentation



Networks without SD-WAN are...

Manual, Antiquated Routing Policy

Inability to Focus on the App

Insecure, Misunderstood Security

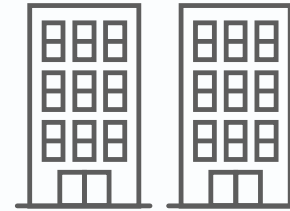
No Automation, Line by Line Configuration

Days

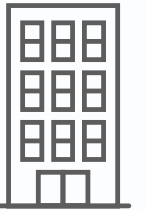
83



Deploy application to 1,000 locations



1,000+ locations



Schedule changes @ 1,000 locations

2

Hours Per Site

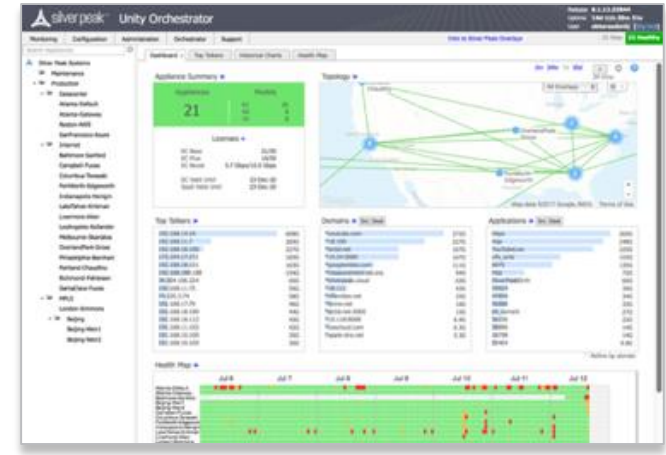
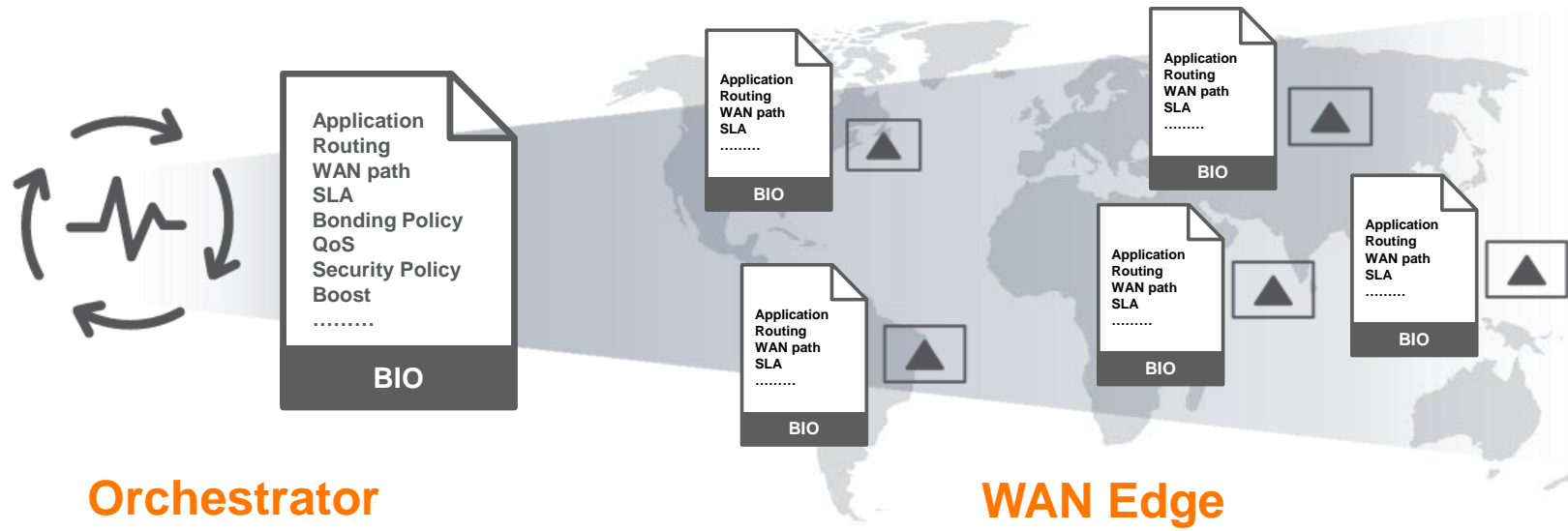
Router #
Login

Router # Config T
Router # Configure ACL
Router # Setup QoS
Router #
Define routing, security
Router # Hundreds of
lines of configuration

Router #
Validate changes
are working

AUTOMATE EVERYTHING

Top-down approach, automating business intent policies



1 Create Business Intent Overlay (BIO)

2 Push and Maintain Policies Globally

3 Unified Single Point of Management



With SD-WAN, Deploying a new application is easy

Drag + Drop Easy Routing

Application Focused Approach

Templatized, Easy Security

Fully Automated

Minute

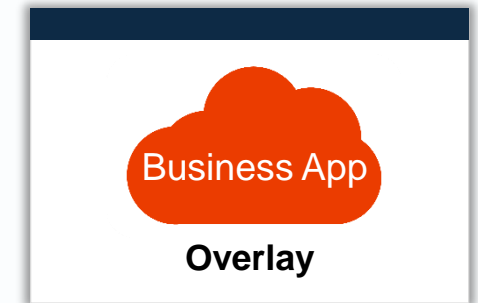
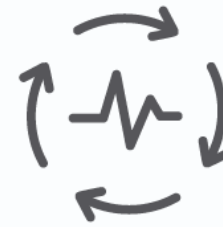
1



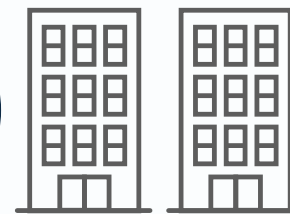
Deploy application to 1,000 locations



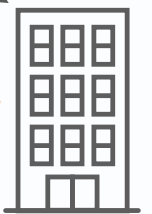
Orchestrator



0

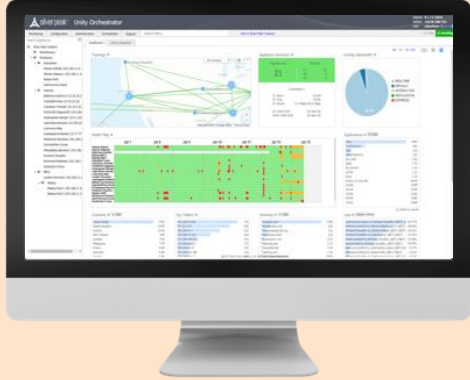


1,000+ locations



Minutes Per Site

SD-WAN BRANCH EDGE PLATFORM



Orchestrator

Orchestrated across thousands of appliances, through a single pane of glass, driven by simple business intent policies.

Using Any Circuit Type
(Broadband, DIA, MPLS, LTE)

VRF/Segmentation

Network Analytics

Internet QoS, WANOP

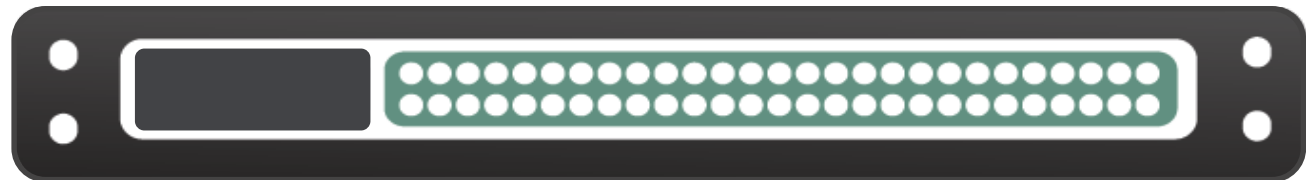
First Packet Visibility

Ecosystem Integration

WAN Routing (BGP/OSPF)

Business Intent Routing

Secure Internet Breakout



Zone Based Firewall

LAN Routing (OSPF/BGP)

VRF/VLANs/Segmentation

DHCP

WAN

LAN



Secure VPN with Aruba VIA™

- Seamless corporate access on-the-go
- IPsec/SSL VPN
- Centrally managed and configured
- Unified access policy
- Supports **Suite B military-grade encryption**



Extending Your Enterprise with Remote APs



- Light up a remote office with simple plug-and-play
- Extends corporate Wi-Fi, wired, VPN and firewall
- Unified access policy, virtual office at home
- Easily connect printers and power VoIP phones
- Enhanced failover options with a 2nd ISP or cellular handoff



Adaptive Policy Using Device Ownership

Enterprise Laptop

Personal Device

1. Uses same identity store and EAP type
2. Leverages profiling and owner data
3. No need for separate SSIDs/Network
4. Works at the office and over VPN

Authentication

SSID

EAP-TLS

Authentication

EAP-TLS

CORP-SECURE

SSID

CORP-SECURE



ORACLE

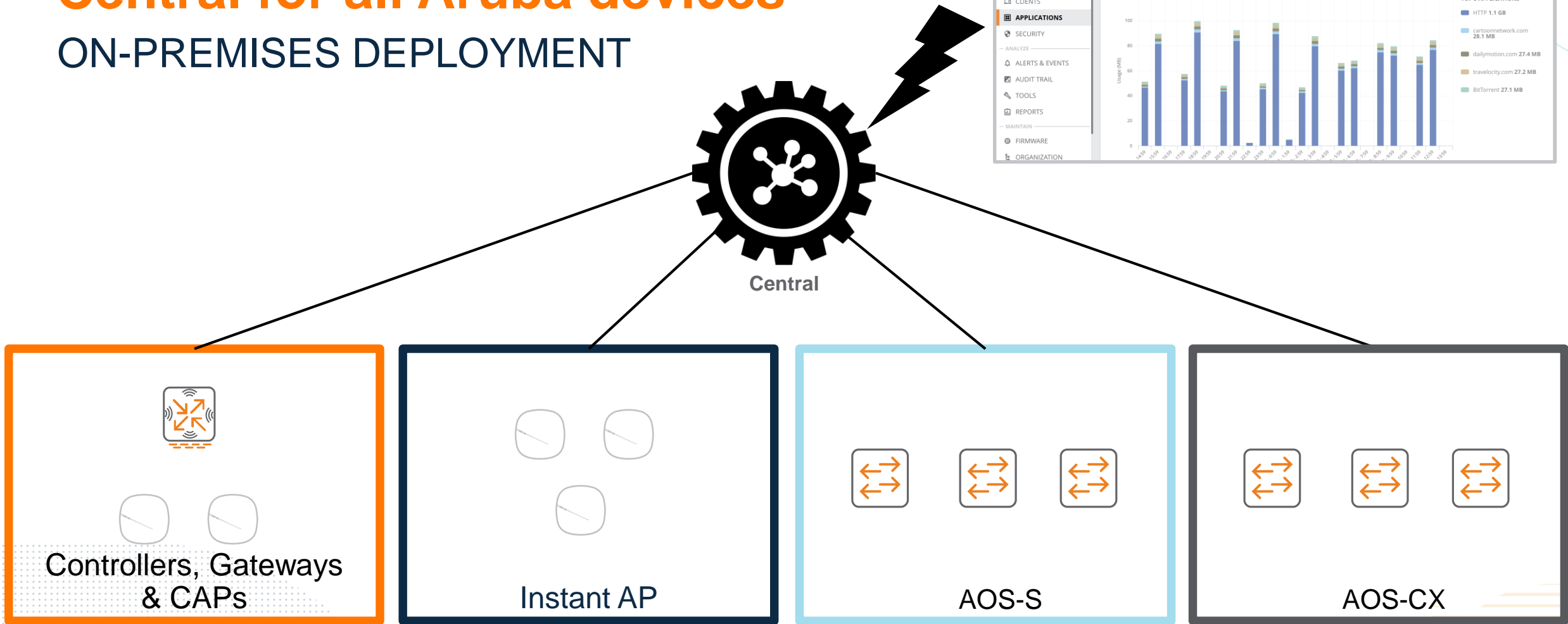


Exchange



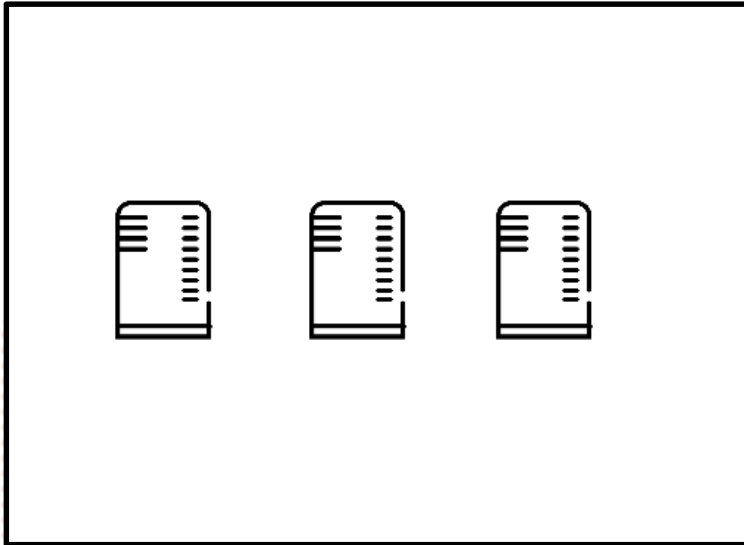
Central for all Aruba devices

ON-PREMISES DEPLOYMENT

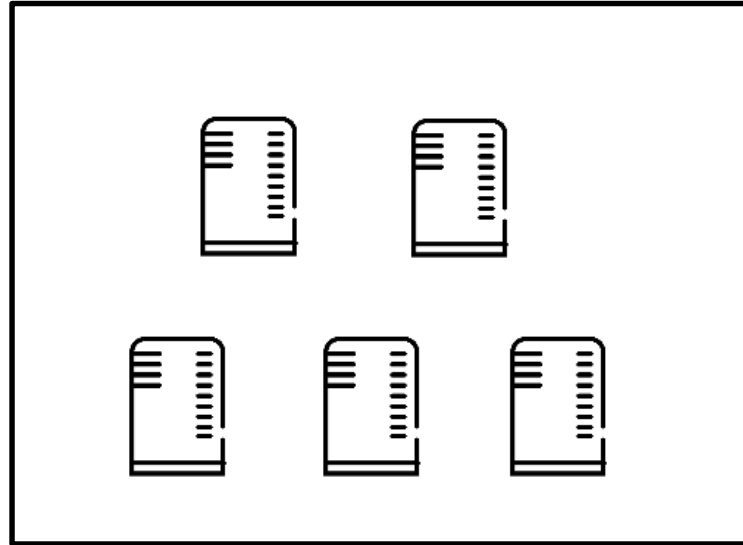


Central On-Premises Architecture

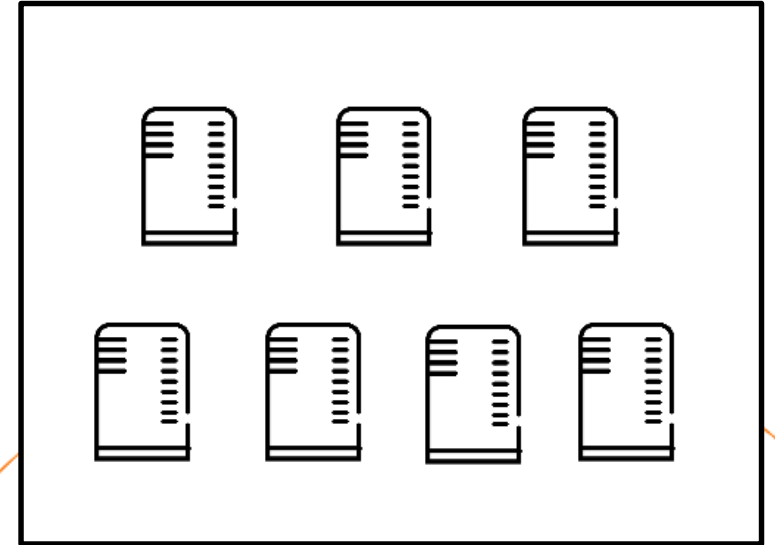
SCALE AND FEATURES



8K Net Operations
Redundancy
APIs



16K Net Operations
Redundancy
APIs
AI Connectivity

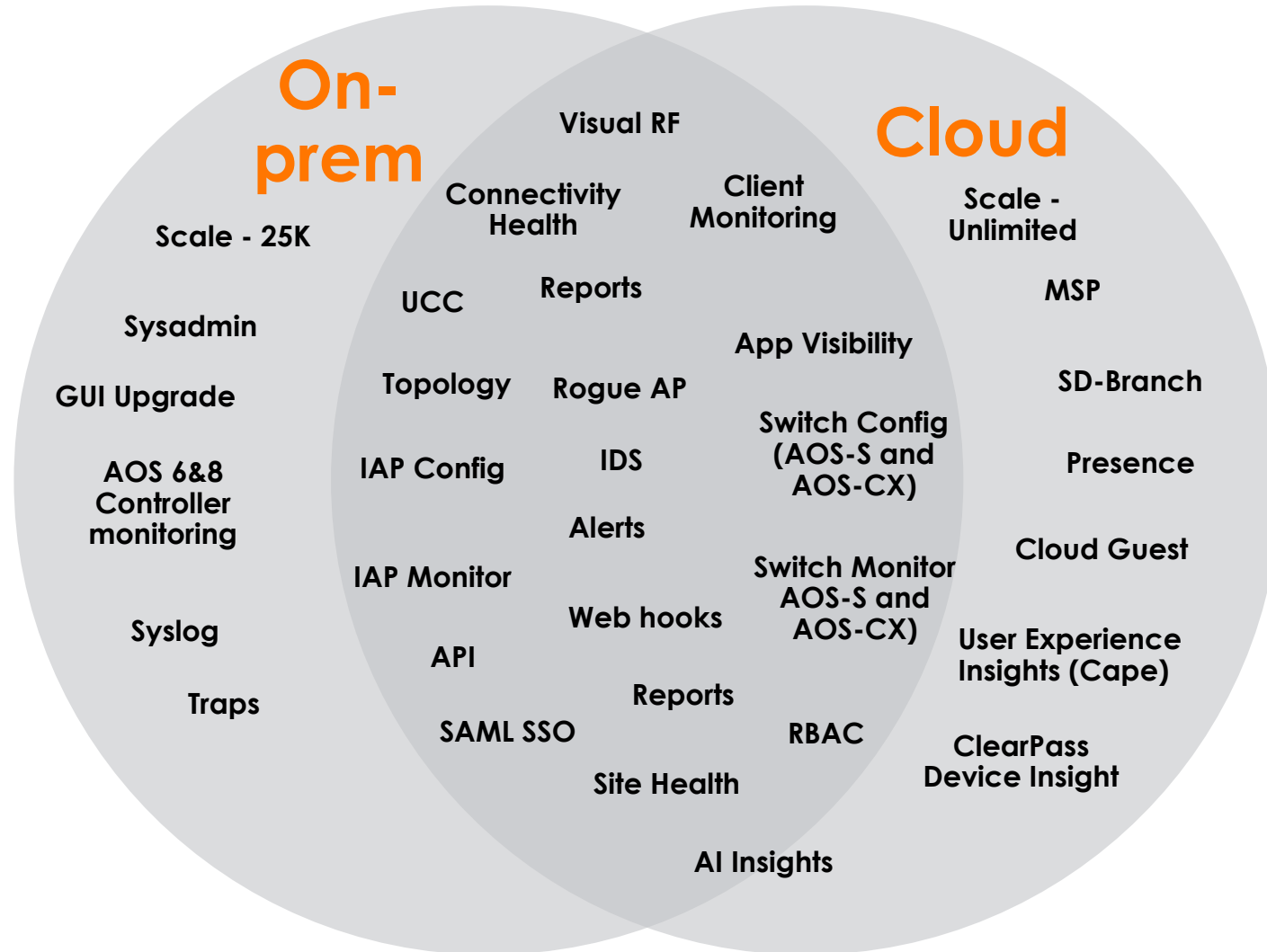


25K Net Operations
Redundancy
APIs
AI Connectivity

*Single appliance support planned for late 2020



CENTRAL DEPLOYMENT OPTIONS



The services you can access should not depend on which network you connect from.

WHAT IS A “ZERO TRUST” FRAMEWORK?

All access to services must be authenticated, authorized and encrypted.



ARUBA ZERO TRUST PROTECTION



SECURE CONNECTIVITY

AUTOMATED, CLOSED-LOOP



A large industrial robotic arm, primarily white with yellow accents, is positioned in a factory environment. The background shows various industrial components and machinery. The scene is dimly lit, with a dark blue overlay on the right side of the image.

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WHY ARUBA

INFORMATION ASSURANCE VALIDATIONS

- FIPS 140-2 Level 2 for ArubaOS
- FIPS 140-2 Level 1 for ClearPass Policy Manager, Airwave, VMC
- Common Criteria NDcPP + Authentication Server (ClearPass)
- Common Criteria NDPP+VPN Gateway + Firewall (AOS controllers)
- Common Criteria WLAN PP (AOS controllers and APs)
- Wi-Fi Alliance Certified for IEEE802.11ax (Wi-Fi6, all models)
- Common Criteria VPN Client PP – VIA
- Common Criteria NDPP for Switches (AOS & OS-CX Switches)
- Commercial Product Assurance (CPA) as an IPsec Security Gateway (U.K.)
- DoD Directives 8100.2, 8500.1, 8420.1 Compliant
- Authority To Operate (ATO) for all Military Health System facilities
- Non-China/TAA Compliant SKUs for active components

Aruba Central is First All-in-One Network Solution to Attain Formal “In Process” Designation from FedRAMP (<https://www.fedramp.gov/>)

Aruba Central becomes the first AI-powered solution for unified WLAN, switching, VPN, and WAN cloud infrastructure to undergo FedRAMP certification



ARUBA AND SILVER PEAK COMBINED LEADERSHIP

Gartner Magic Quadrant
Wired and Wireless LAN Access



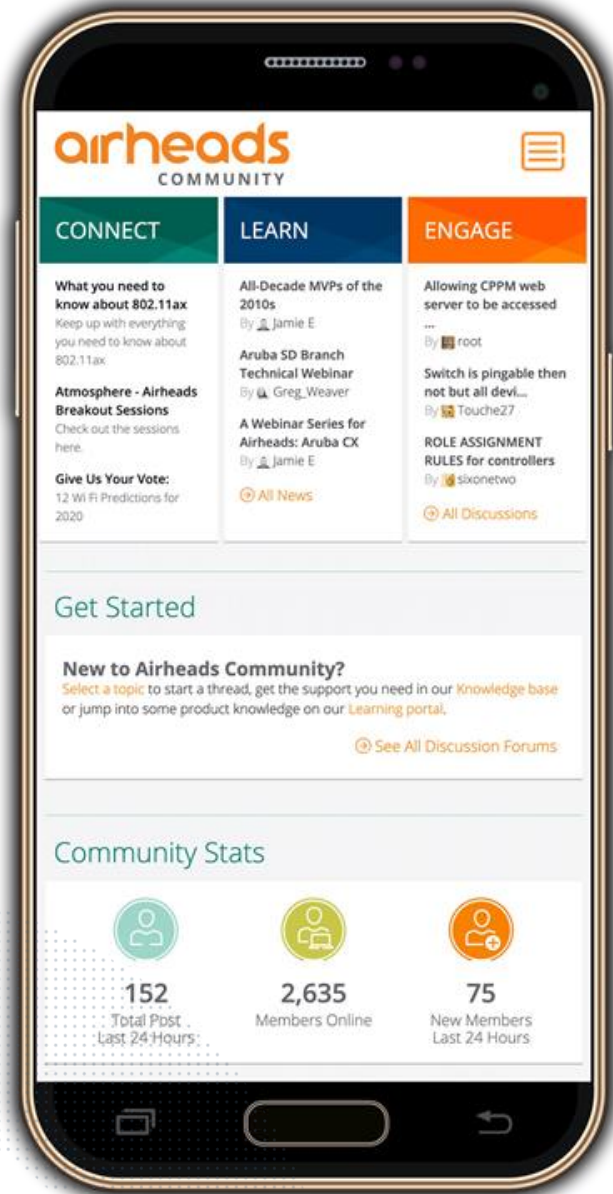
MARKET LEADER
14 YEARS RUNNING



Gartner Magic Quadrant
WAN Edge Infrastructure



MARKET LEADER
3 YEARS RUNNING*



airheads

COMMUNITY

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Thank You