

Fortinet Wi-Fi Info Byte

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Agenda

1. Fortinet Secure Wireless – Controller/Integrated/Cloud
2. Fortinet FortiAP's Roadmap
3. Fortinet Wireless New Features - Controller/Integrated/Cloud
4. Fortinet Cloud/Integrated/Controller Demo's

FORTINET SECURE WIRELESS

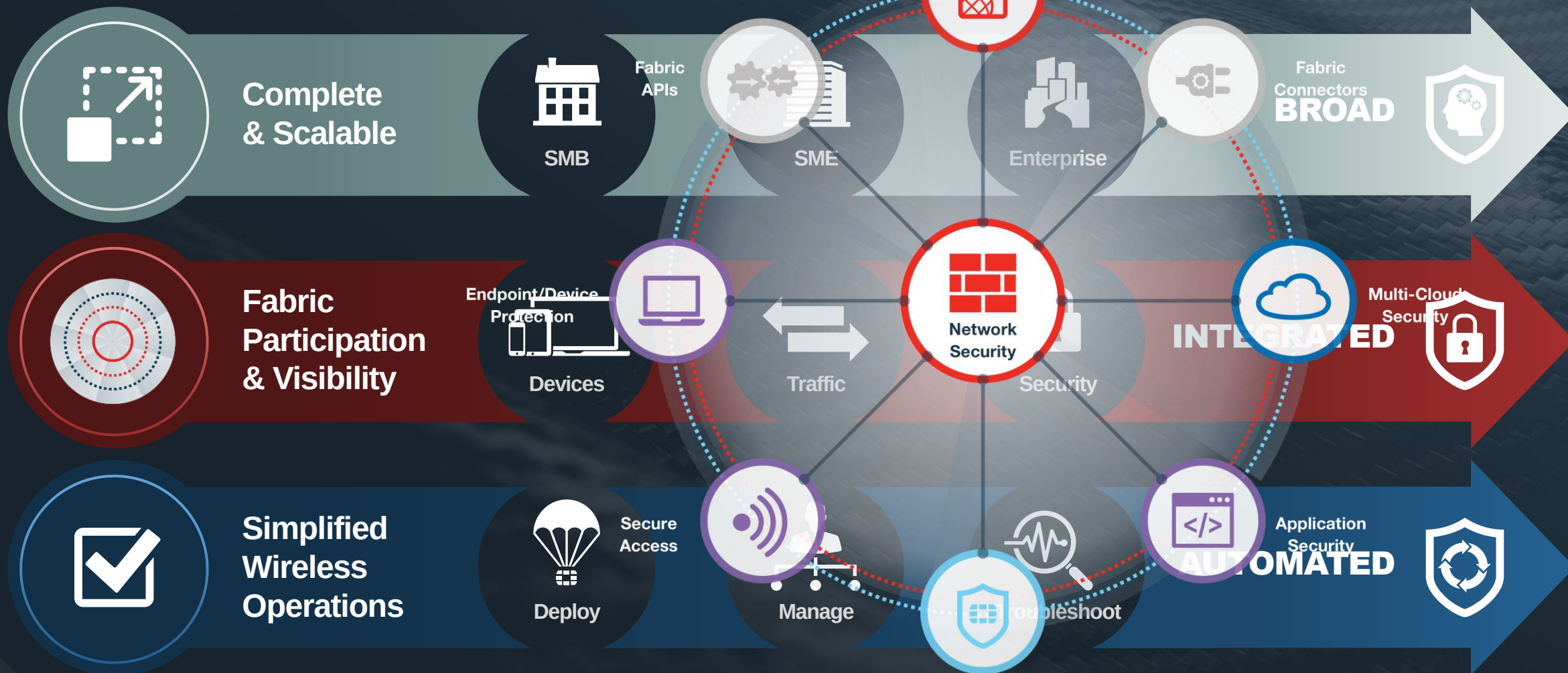
Fortinet **Wireless**

Woven in the Fabric

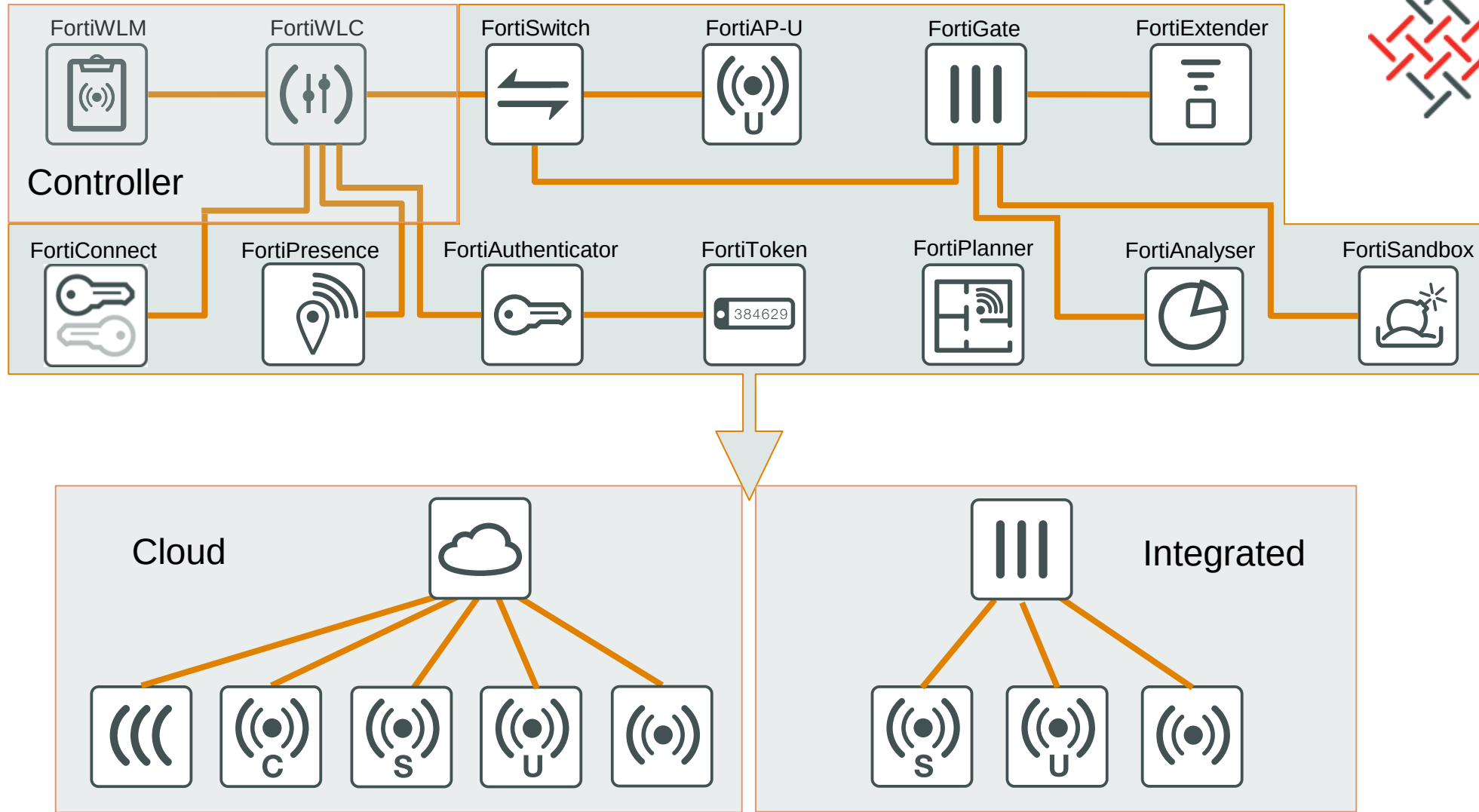


Fortinet **Security Fabric**

A Security Architecture that is:



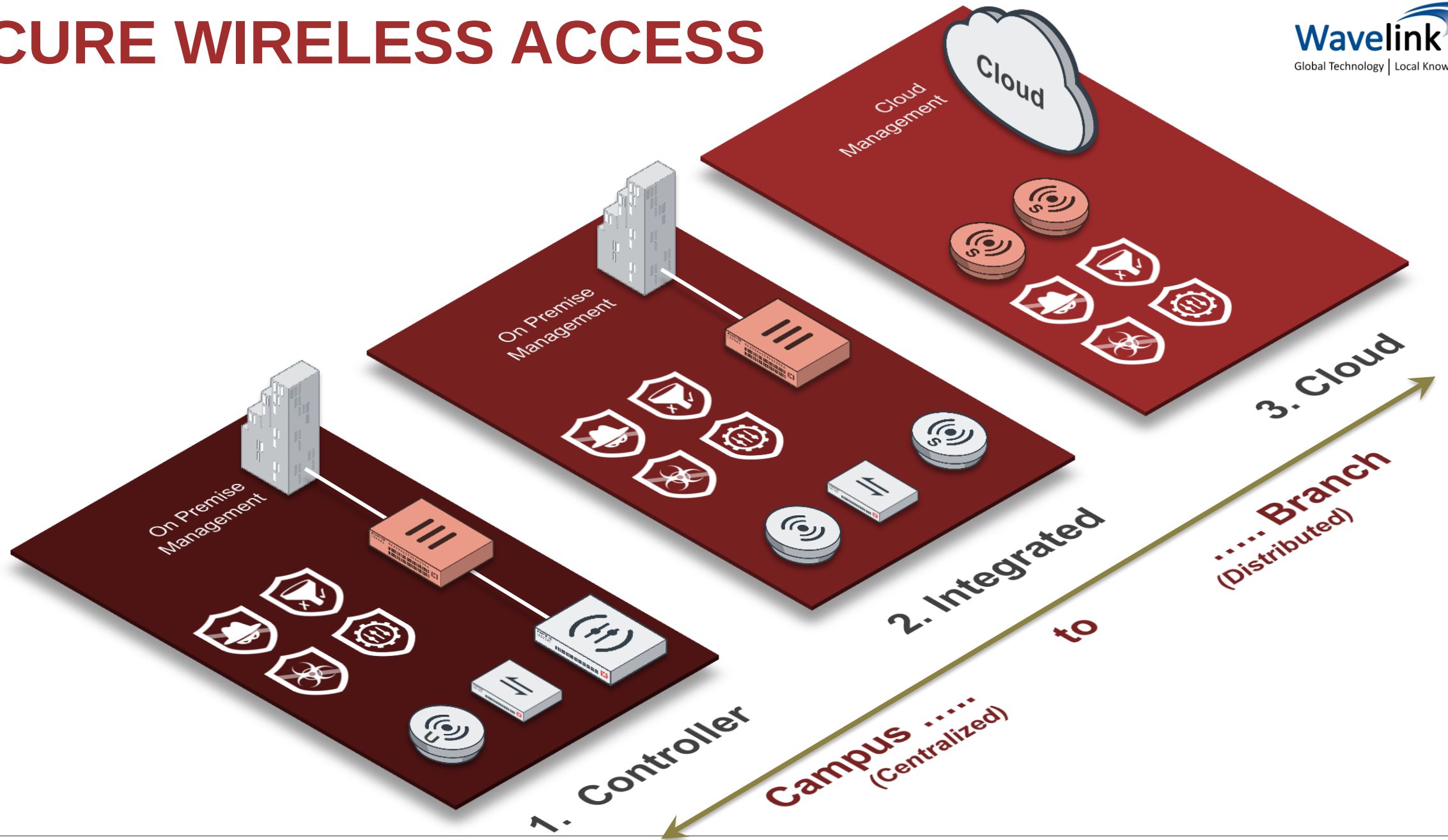
Part of the Fortinet Solution





FORTINET WI-FI MANAGEMENT OPTIONS

SECURE WIRELESS ACCESS



INFRASTRUCTURE WLC

Why Forti-WLC?

- Superior density, scalability, and mobility
- Single pane of glass to manage both Security and Wireless
- Simplified deployment and capacity expansion - No licenses to manage, just plug and go

Superior Performance

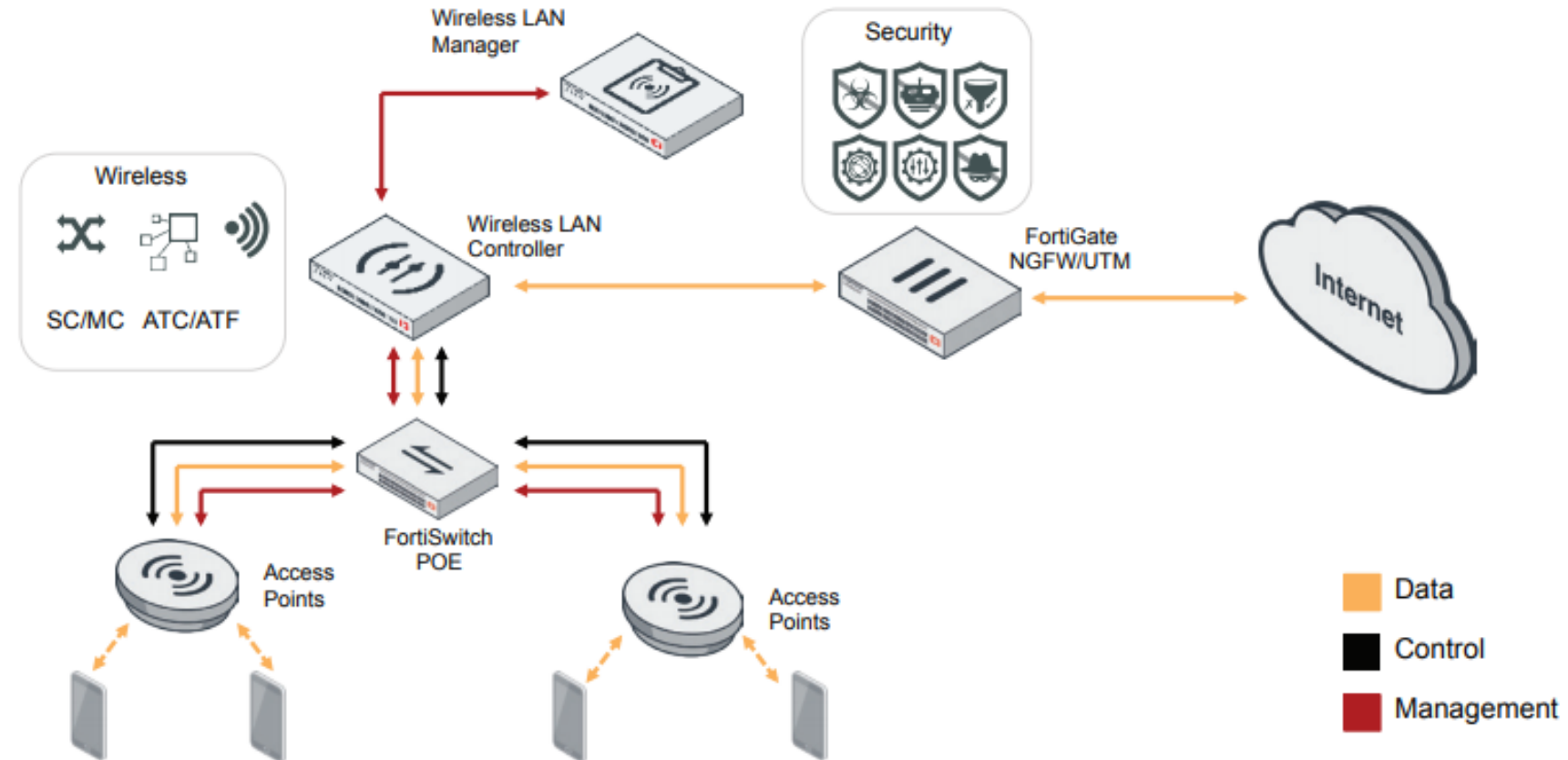
- 802.11ac Wave 2, client steering to 5 GHz radios and Application control services all combine to deliver the highest level of performance and user experience.

Resilient

- Automatic radio provisioning makes sure that APs are always using the best channels, and multiple FortiWLCs can be configured to allow for hitless failover should the connection to one controller be lost.

Multiple RF Technologies

- Allows for traditional channel plan deployments or Fortinet's unique technology that manages spectrum utilization to overcome the interference-related deployment barriers commonly encountered in high density environments.

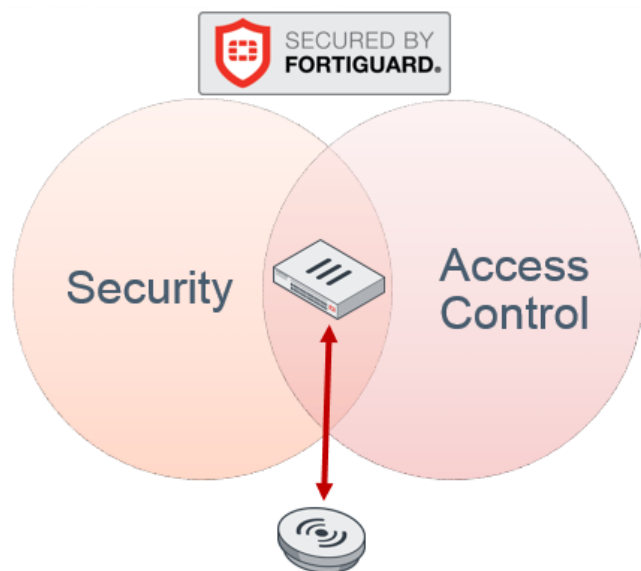


INTEGRATED WIRELESS

Secure access solution that provides security and access control in one box

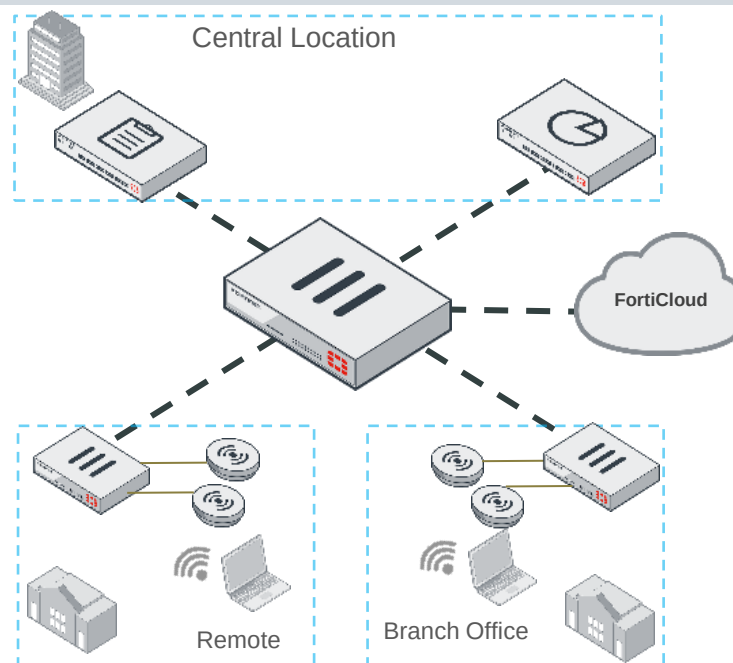
Why Integrated?

- Industry's most integrated secure wireless offering
- Single pane of glass to manage both Security and Wireless
- Fit for those wanting an integrated Wi-Fi and Security offering in one box



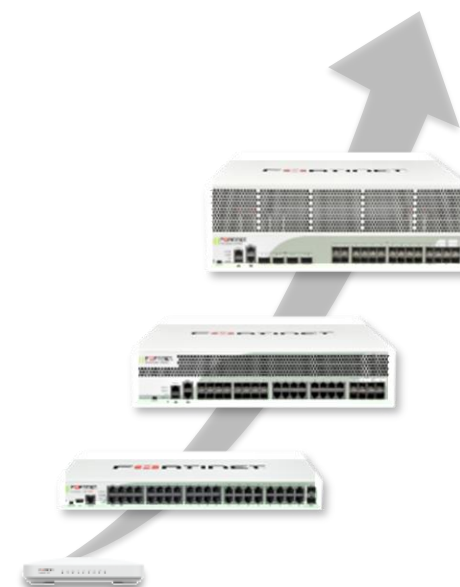
Integrated

- Security appliance and access control in one box with WLAN controller built in



Unified Management

- Single pane to manage switches, access points, security appliances, and more



Scalable

- Scalable to enterprises of all sizes
- Full line from large to small secure access appliances

CLOUD

Cloud WLAN solution to provide simplified management

Why Cloud?

- Industry's most secure cloud wireless offering
- Roll out remote sites in minutes - not hours and days
- Wi-Fi without the complexity of on-premise controllers

Free Service Option

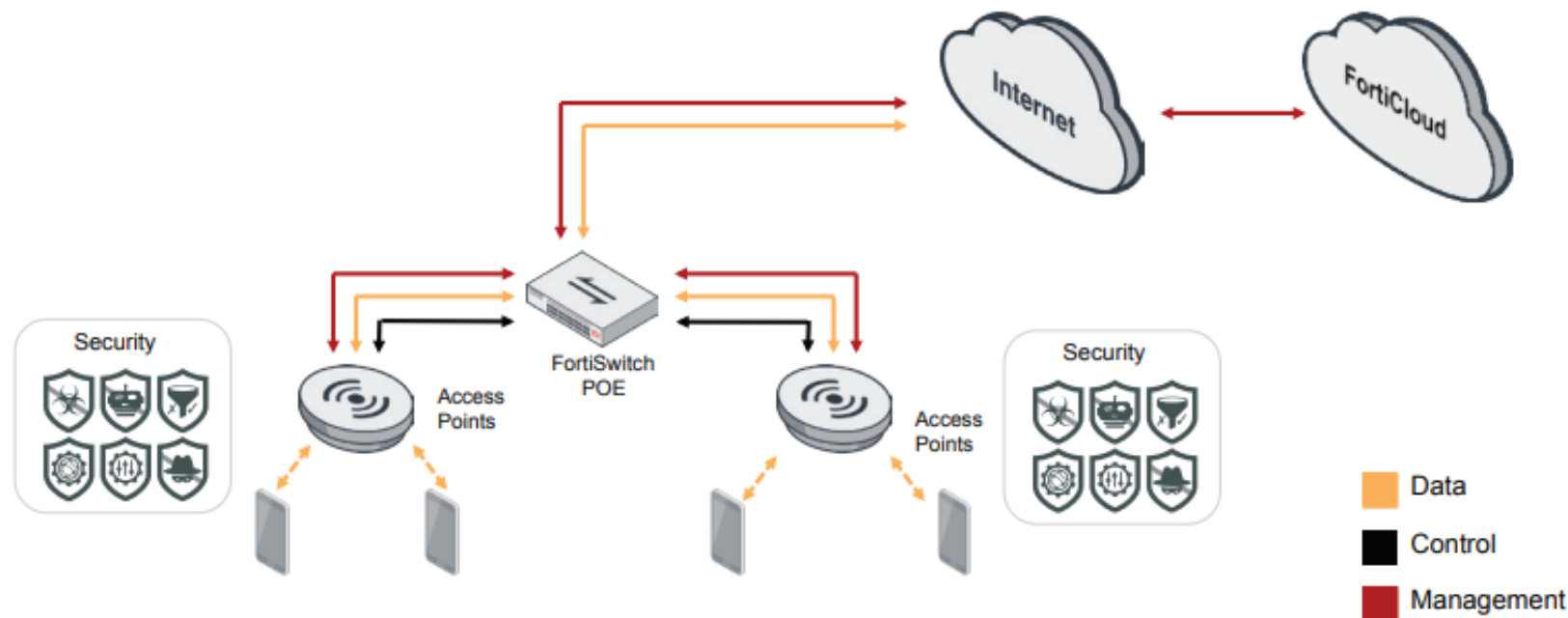
- FortiGate Cloud offers a free tier which allows deployment and visibility of FortiGates. Data retention is limited to 7 days

Provisioning

- Simple deployment included with zero-touch options
- Thousands of devices provisioned with a single FortiCloud key

Multi-Tenancy

- Single license enables multi-tenancy for many customers
- Read Only customer accounts
- Unique Customer logo on reports
- Simple Central visibility and access



FORTINET FORTI AP

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The purpose of this document is to provide a statement of the current direction of Fortinet's product strategy and product marketing efforts.

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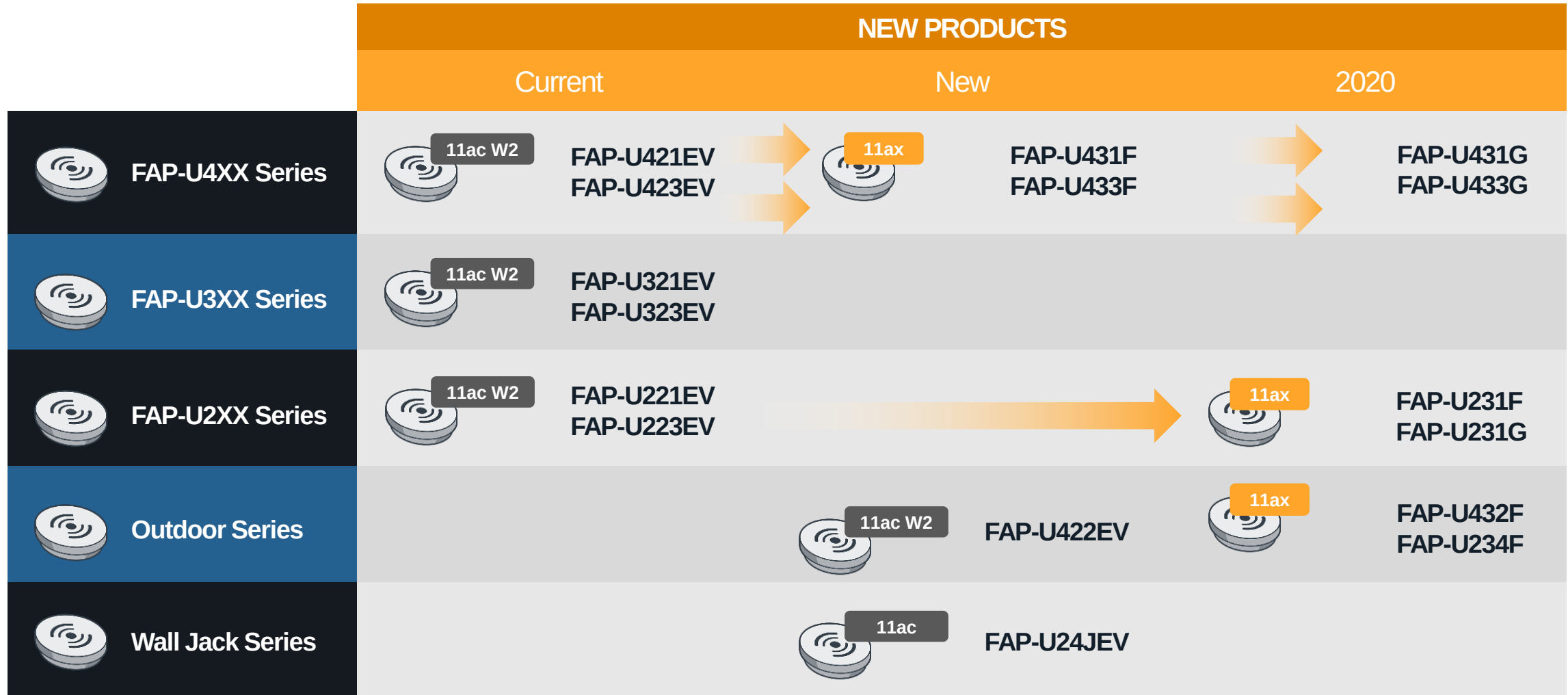
Transitioning to 802.11ax/Wi-Fi 6...

Product Transition



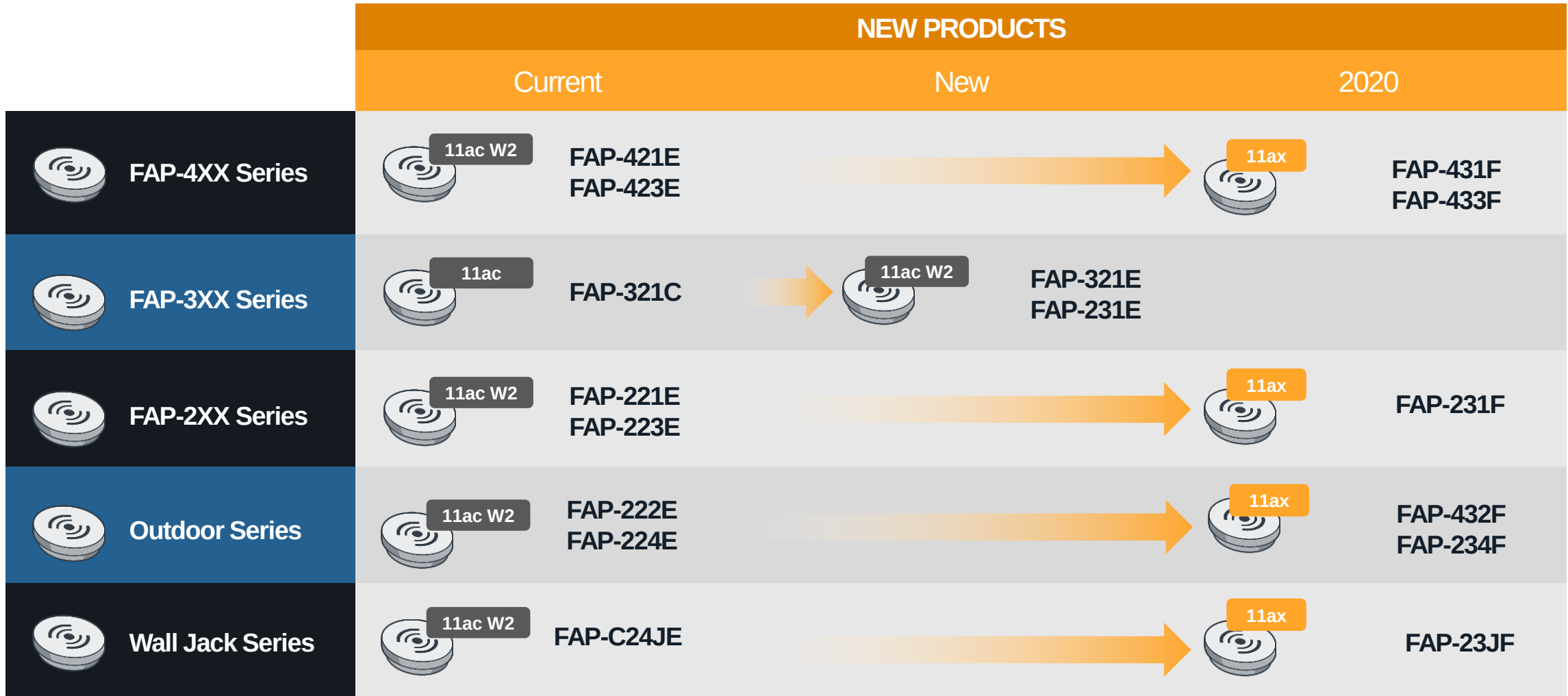
Product Transition

■ FAP-U Roadmap



Product Transition

■ FAP Roadmap



FortiAP Naming Convention

Rule of Thumb

Platform naming	Network
2 digit	Portable/Desktop
3 digits	Access Point

FAP-U431F

Series	Wireless Technology	Number of Radios	Style	Suffix
No Prefix = FAP	1= 1x1	1	0= Standard	B=11n or prior
U = Universal	2= 2x2	2	1= Round, int. antenna	C=802.11-wave1
S = Smart	3= 3x3	3	2= Outdoor, rugged	D= next gen 11n
C = Connectivity	4= 4x4		3= Indoor, external antenna	E= 802.11ac-wave2
	8= 8x8		4 = Wall Plate	F = 802.11ax
				V= Virtual Cell

The 3 Radio AP



■ Why 1 Radio AP's?

- Provide a service



■ Why 2 Radio AP's?

- Increase capacity
- Add another band - 5Ghz



■ Why 3 Radio AP's?

- Dedicated Scanning or BLE

Flexible Deployment Modes

- Modes of operation for 3 radio

	Radio-1	Radio-2	Radio-3
Mode-1	5 GHz-Full (4x4) Service	2.4 GHz (4x4) Service	2x2 Scanning
Mode-2	5 GHz-Low (4x4) Service	5 GHz High (4x4) Service	2x2 Scanning
Mode-3	5 GHz-Low (4x4) Service	5 GHz-High (4x4) Service	2.4 GHz (2x2) Service

FortiAP U24JEV Wall Plate AP

2x2 802.11ac Wave 1 AP



FAP-U24JEV

Specification

Use Case	Mid Density Indoor AP
Form Factor	Wall Jack
Rx / Tx	2x2 Single Band or 1x1 Dual Band (new technology)
Radio 1	2.4 GHz 802.11b/g/n 2x2, 2 stream (300 Mbps) 5 GHz 802.11b/g/n/ac 2x2, 2 stream (867 Mbps) 2.4 & 5GHz concurrent, 1x1 150Mbps
Radio 2	Radio 1 splits into two 1x1 radios
PoE	802.3 af/ 802.3at required for PoE out
Antennas	2x Internal
Ethernet Interfaces	4 Ethernet + 2 for telephone 3 x GE RJ45 front with one as PoE-PS 1 x GE RJ45 back with one as PoE-PD Additional 2 RJ45 for Phone line pass-thru

MSRP \$800 AUD

FortiAP U321EV/U323EV



FAP-U321EV



FAP-U323EV

3x3:3 802.11ac wave-2 AP

Specification	
Use Case	Medium/High Density Indoor AP
Form Factor	Wall / Ceiling Mount
Rx / Tx	3x3 MU-MIMO – 3 spatial streams
Radio 1	2.4 GHz 802.11b/g/n 3x3 MIMO, 3 streams, 40MHz wide (450 Mbps)
Radio 2	5 GHz 802.11a/n/ac 3x3 MIMO, 3 streams, 80MHz wide (1700 Mbps)
PoE	802.3at
Antennas	FAP-U321EV: 6 Internal / 1 BLE FAP-U323EV: 6 External (RP-SMA) / 1 BLE
Ethernet Interfaces	2 x GE RJ45

MSRP \$1395 AUD

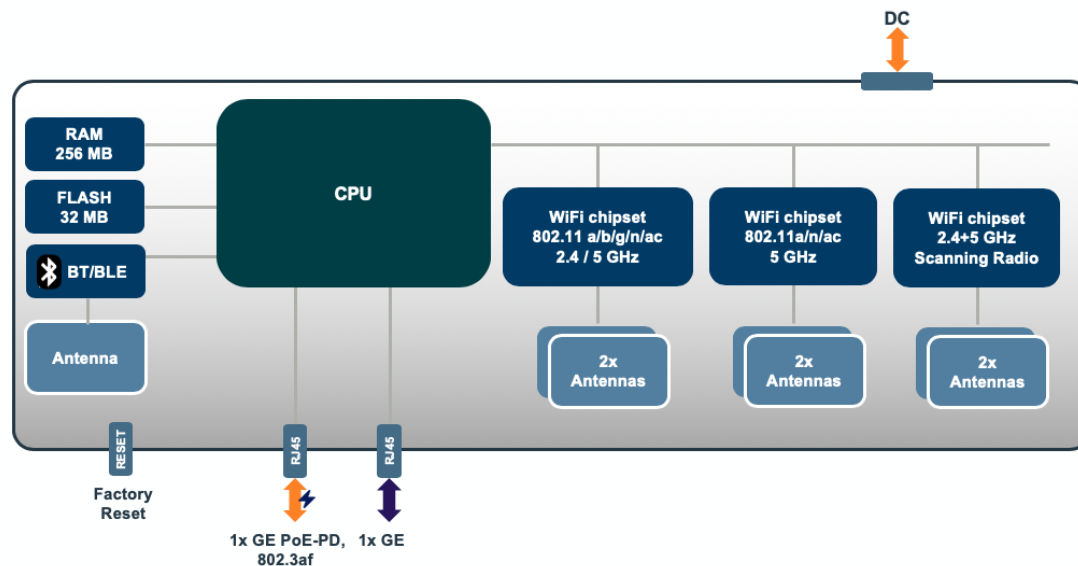
FortiAP 231E

■ Mid Range Indoor AP

Use Case	Medium Density Indoor
Form Factor	Wall or ceiling mountable
LAN Interfaces	2 x GE RJ45
Power Input	802.3af PoE, optional DC adapter



	FAP-221E	FAP-231E	FAP-231F
Schedule	Now	Now	Q3/20
WiFi	802.11ac W2	802.11ac W2	802.11ax/WiFi6
Max Wireless Perf.	866 + 400 Mbps	400 + 866 + 866 Mbps	573.5 + 1201 Mbps



2x2 802.11ac Wave2

MU-MIMO + BLE

WiFi



3 Radios
6 Internal Antennas

Hardware

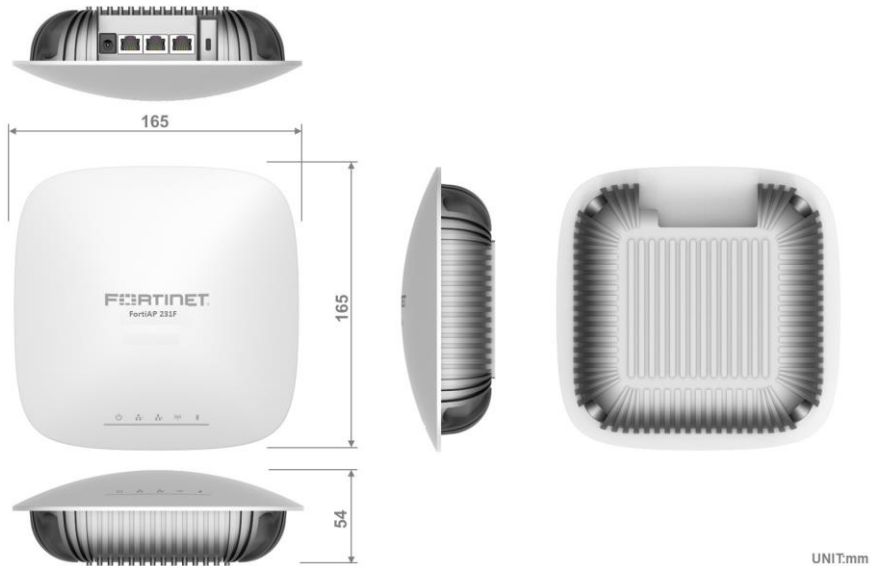
All 3 in service mode
Dual 5GHz capable

MSRP \$960 AUD

FortiAP U231F

■ Mid Range Indoor Universal-AP

Use Case	Medium density, Medium performance requirement
Form Factor	Same Fortinet ID
LAN Interfaces	2 x GE RJ45,
Power Input	802.3at PoE+, optional DC adapter



UNIT:mm



	N/A	FAP-U231F
Schedule	N/A	H1-2020
Wi-Fi	N/A	802.11ax/Wi-Fi6
Max Wireless Perf.	N.A	2400 + 2400 + 400 Mbps



2x2 802.11ax MU-MIMO
+ Zigbee/BLE 

Wi-Fi



3 Radios
6 Internal Antennas

Hardware

MSRP \$TBA

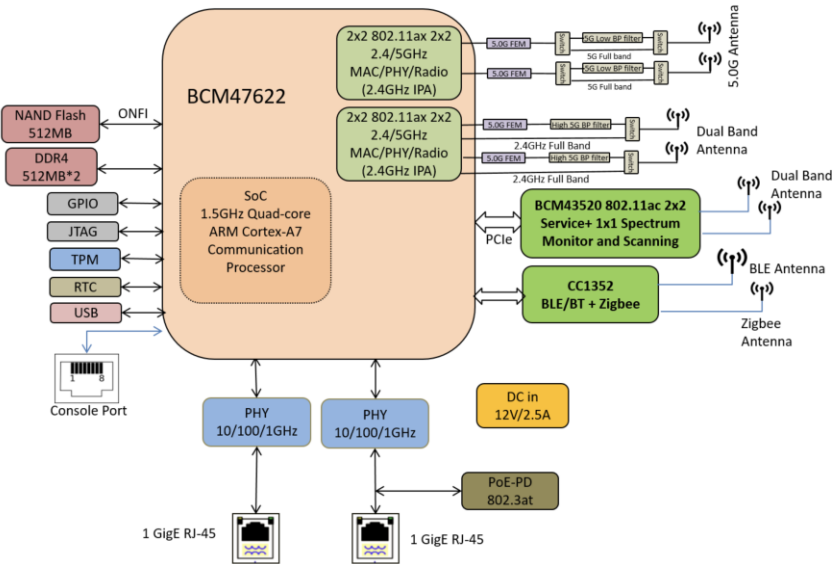
FortiAP U232F

Mid Range Outdoor Universal-AP

Use Case	Medium density, Medium performance requirement
Form Factor	Outdoor Built in Panel antenna – Sector/Patch
LAN Interfaces	2 x GE RJ45,
Power Input	802.3at PoE+, optional DC adapter



	N/A	FAP-U232F
Schedule	N/A	H1-2020
Wi-Fi	N/A	802.11ax/Wi-Fi6
Max Wireless Perf.	N.A	2400 + 2400 + 400 Mbps



 **2x2 802.11ax MU-MIMO**
+ Zigbee/BLE 
Wi-Fi

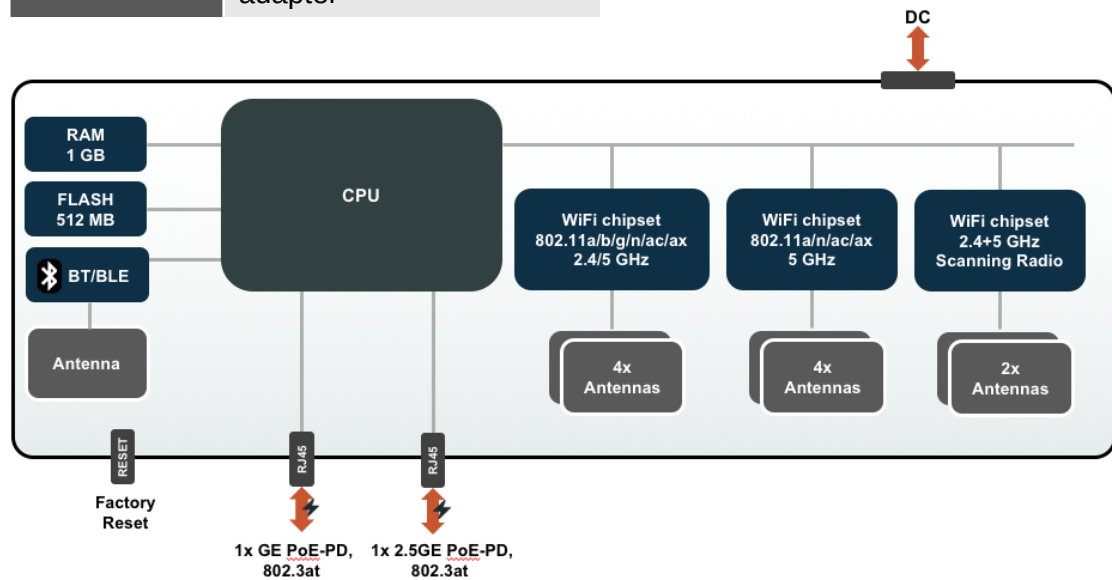
 **3 Radios**
6 Internal Antennas
Hardware

MSRP \$TBA

FortiAP U431/3F

■ Flagship Enterprise Indoor Universal-AP

Use Case	High density, high performance requirement
Form Factor	Wall or ceiling mountable
LAN Interfaces	1x GE RJ45, 1x 2.5GE RJ45
Power Input	802.3at PoE+, optional DC adapter



	FAP-U421EV	FAP-U431F
Schedule	Now	Q2 / 19
Wi-Fi	802.11ac W2	802.11ax/Wi-Fi6
Max Wireless Perf.	800 + 3460 Mbps	4804 + 4804 + 400 Mbps



**4x4 802.11ax MU-MIMO
+ BLE**

Wi-Fi



**3 Radios
10 Internal Antennas**

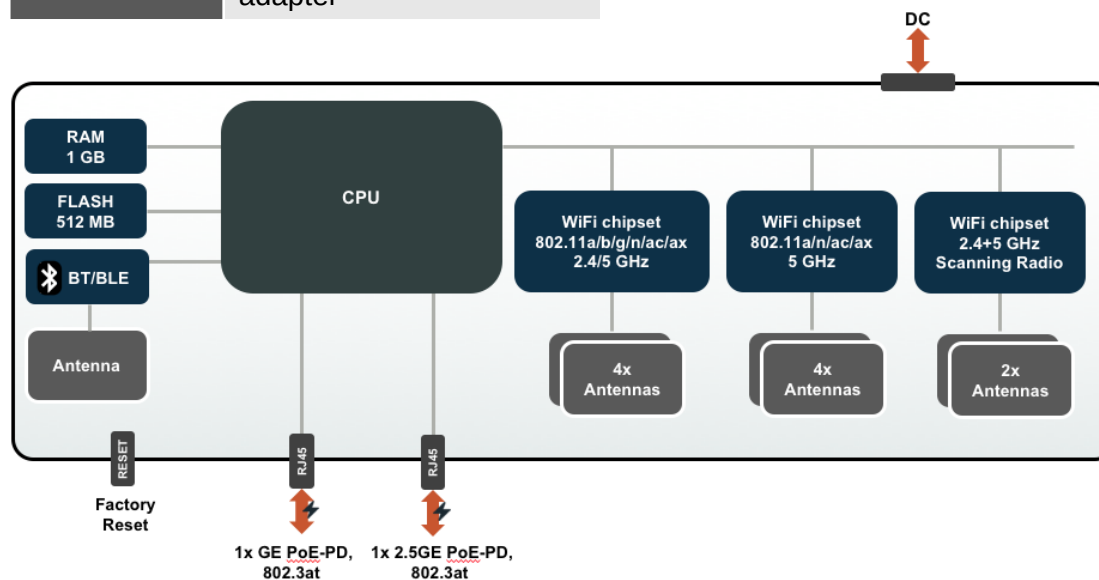
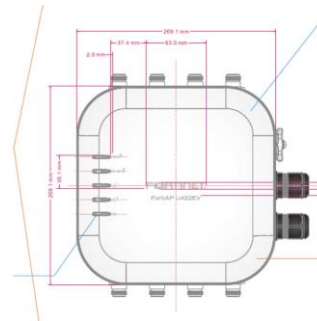
Hardware

MSRP \$1659 AUD

FortiAP U432F

■ Flagship Enterprise Outdoor Universal-AP

Use Case	High density, high performance requirement
Form Factor	Outdoor, N Connectors
LAN Interfaces	1x GE RJ45, 1x 2.5GE RJ45
Power Input	802.3at PoE+, optional DC adapter



	FAP-U421EV	FAP-U432F
Schedule	Now	H1-2020
Wi-Fi	802.11ac W2	802.11ax/Wi-Fi6
Max Wireless Perf.	800 + 3460 Mbps	4804 + 4804 + 400 Mbps

 **4x4 802.11ax MU-MIMO
+ BLE**
Wi-Fi

 **3 Radios
10 Internal Antennas**
Hardware

MSRP \$TBA

Add Security at the Edge

Implemented at the access layer edge – security before it hits the wire.



FAP-U

- Add Web Filtering
- Add IPS
- Add Botnet
- Add App Control
- Add Anti Virus



FortiGuard

- Security Driven Networking
- Driven by FortiGuard Labs
- Per AP, Per Year, Subscription

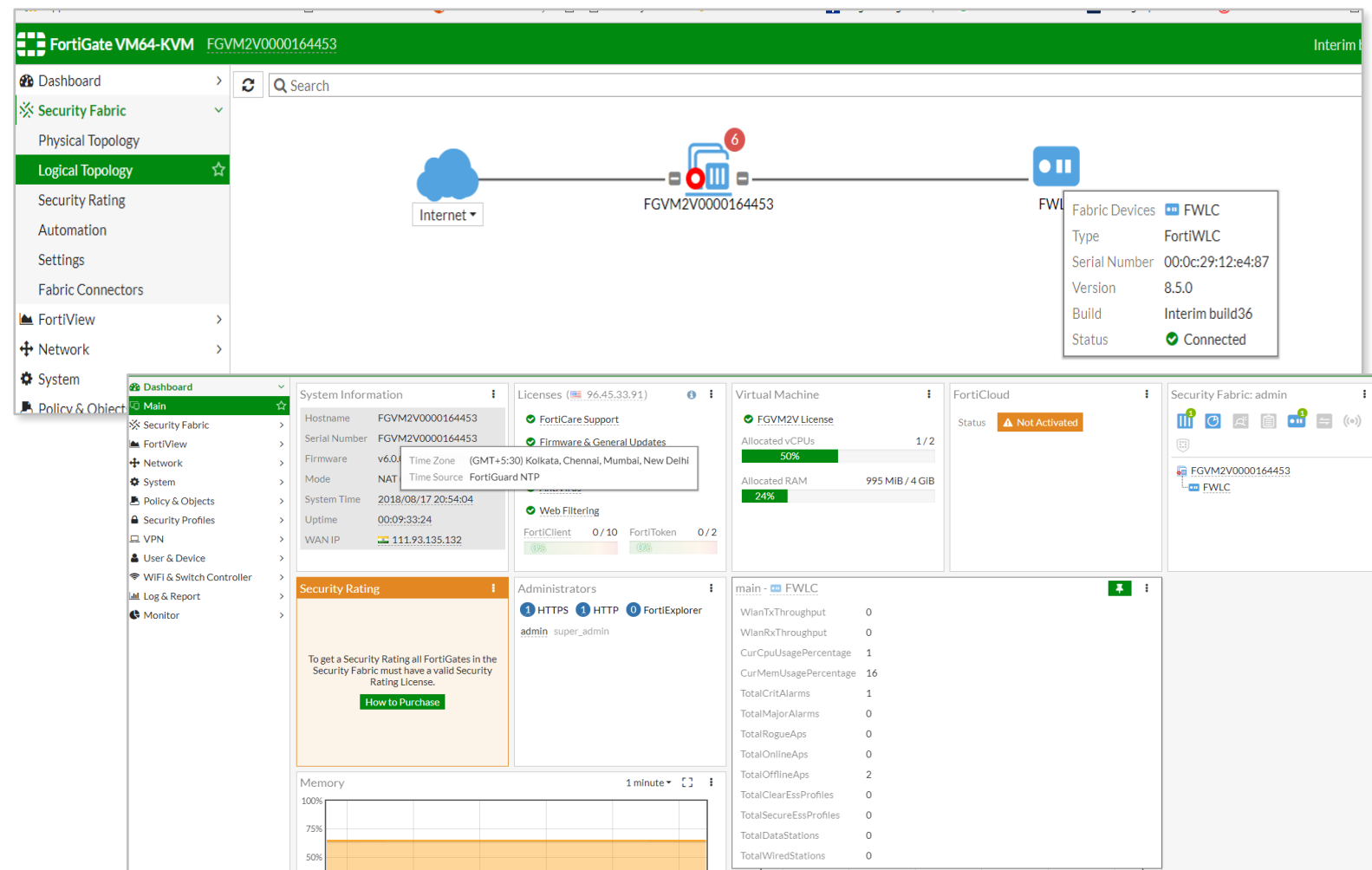
FORTIMLC ROADMAP – 8.5/8.6

8.5 Security Fabric Integration

Visibility

FOS 6.2

- Integration into Topology View
- Uses JSON REST API
- WLC Stats added to dashboard
- Stations, AP's, Rogues AP's.
- Customisable widgets for graphical representation of stats.



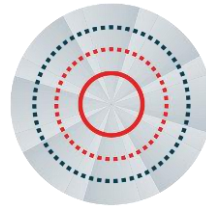
8.5.1

Highlights



Scalability

- Path MTU Support
- Jumbo Frame Support
- MPSK Bridge Mode Enhancements



Security Fabric & Alerts

- WPA 3 support



Deep Analysis

- CEF output of Station Logs

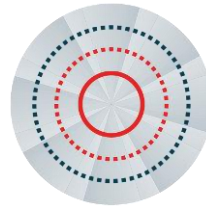
8.6

Highlights



GUI & User Experience

- WLC GUI Refresh – align with WLM/FortiOS
- FortiView Topology (Logical/Physical)
- Default AP Settings Review
- Auto change RF settings on Environment trigger



Security Fabric & Alerts

- Security Audit
- FortiView Topology (Physical/Logical)
- Client VLAN Isolation based on trigger from FOS
- Temporary Blocking of Clients based on Authentication Failure, Authentication Failure Limit & Alert



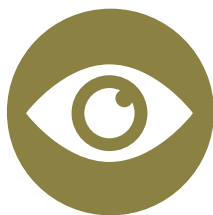
Additional Features

- Filter Broadcast traffic
- 4096 VLAN Support
- Hitless Fail Over

INTEGRATED (FGT/FAP/FAP-U) WIRELESS

Integrated FAP 6.2.x

Release plan



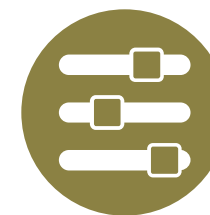
Visibility

- QoS Marking based on Application Type
- FAP Uplink and Speed



Functionality

- GRE Tunnel support
- L2TPv3 Tunnel Support
- IPv6 Support
- Captive Portal in Bridge Mode

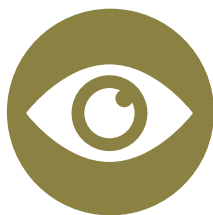


Ease of use

- Region Code from FortiAP Cloud
- Channel Utilization on by Default
- Enable LLDP by Default
- MPSK Schedule

Integrated FAP 6.4

Release plan



Visibility

- DAARP Improvements
 - » Scheduling of Scans
 - » Include None Wi-Fi Inteference
- Spectrum Analysis
- VLAN Probe Tool in GUI



Functionality

- L3 Roaming Support
- Config Rollback in case of Controller disconnection



Certifications

- FIPS 140-2 & CC

Integrated FAP-U

Universal Features



Background Scanning

- WIDS
- DOS Attack Prevention



Functionality

- Probe Response Suppression
- 160Mhz channel width
- Zero Wait DFS
- U43xF support

FORTIAP CLOUD WIRELESS

FortiAP Cloud 4.4

Release Plan



Look & feel

- New GUI – Based on Cloud portal Guidelines
- Easy Drilldown Dashboards
- Easy trouble shooting tools
- Easy to Demo



Functionality

- Enhanced API calls
- WPA3
- GRE Tunnel Settings

Questions?