



FAST. SECURE. GLOBAL.



# Fortinet Secure Access Architecture – mehr als WLAN

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- Entwicklung & Markttrends WLAN
- Einordnung der Secure Access Architecture in die Fortinet Security Fabric
- Fortinet Secure Access Architecture im Detail
- Detaillierter Ausflug in die Fortinet Infrastructure Lösung

# History & Evolution of Enterprise Wi-Fi



1. Hot Spot – Began about 12 years ago 11b
2. Widespread – Began about 9 years ago 11g/a
3. Pervasive – Began about 5-6 years ago 11n
  1. First started out as “I’ve got a signal everywhere” –
  2. Next phase was “I can send/receive data everywhere” –
  3. Final phase was “I can send/receive most anything everywhere”
4. Mission Critical – Began about 1- 2 years ago – Users say “I EXPECT Wi-Fi working well everywhere!!
5. Fault tolerant 11ac – is where we are today – Users have NO TOLERANCE for Wi-Fi not working always and effectively
6. What about IoT Are your networks ready for the future ??

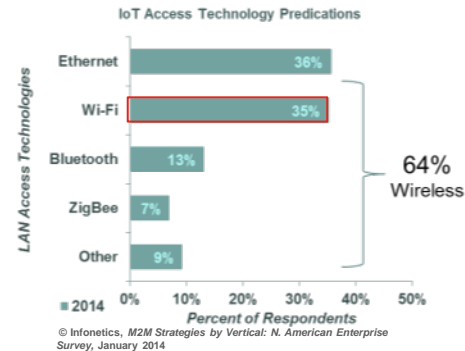
# MARKET TRENDS

# 33

Billion endpoints  
by 2020\*

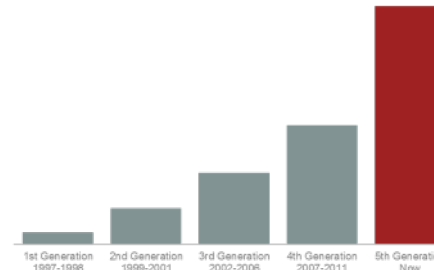
\*Gartner

## DEVICES GOING WIRELESS

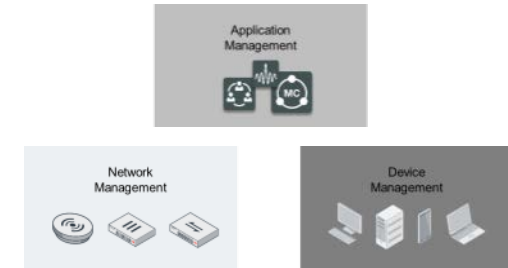


## MORE SPEED REQUIRED

WIFI standard evolution

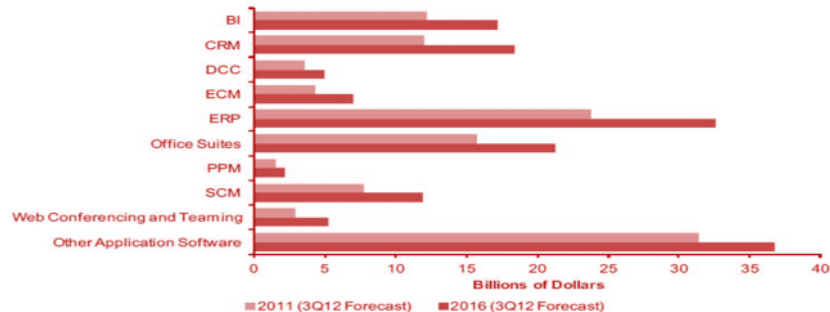


## UNIFIED NETWORK OPERATIONS SIMPLIFIED



## MORE APPLICATIONS TO SUPPORT

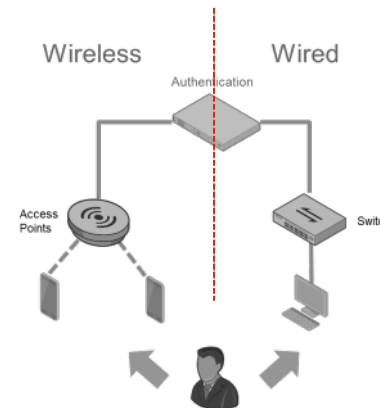
Enterprise Application Software Forecast Comparison by Segment, Total Software Revenue, Worldwide, 2011 and 2016



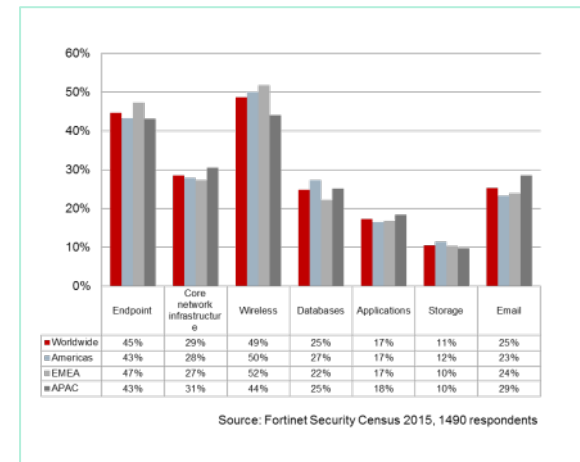
DCC = digital content creation  
ECM = enterprise content management  
PPM = project and portfolio management

Source: Gartner (October 2012)

## UNIFIED USER ACCESS EXPECTED



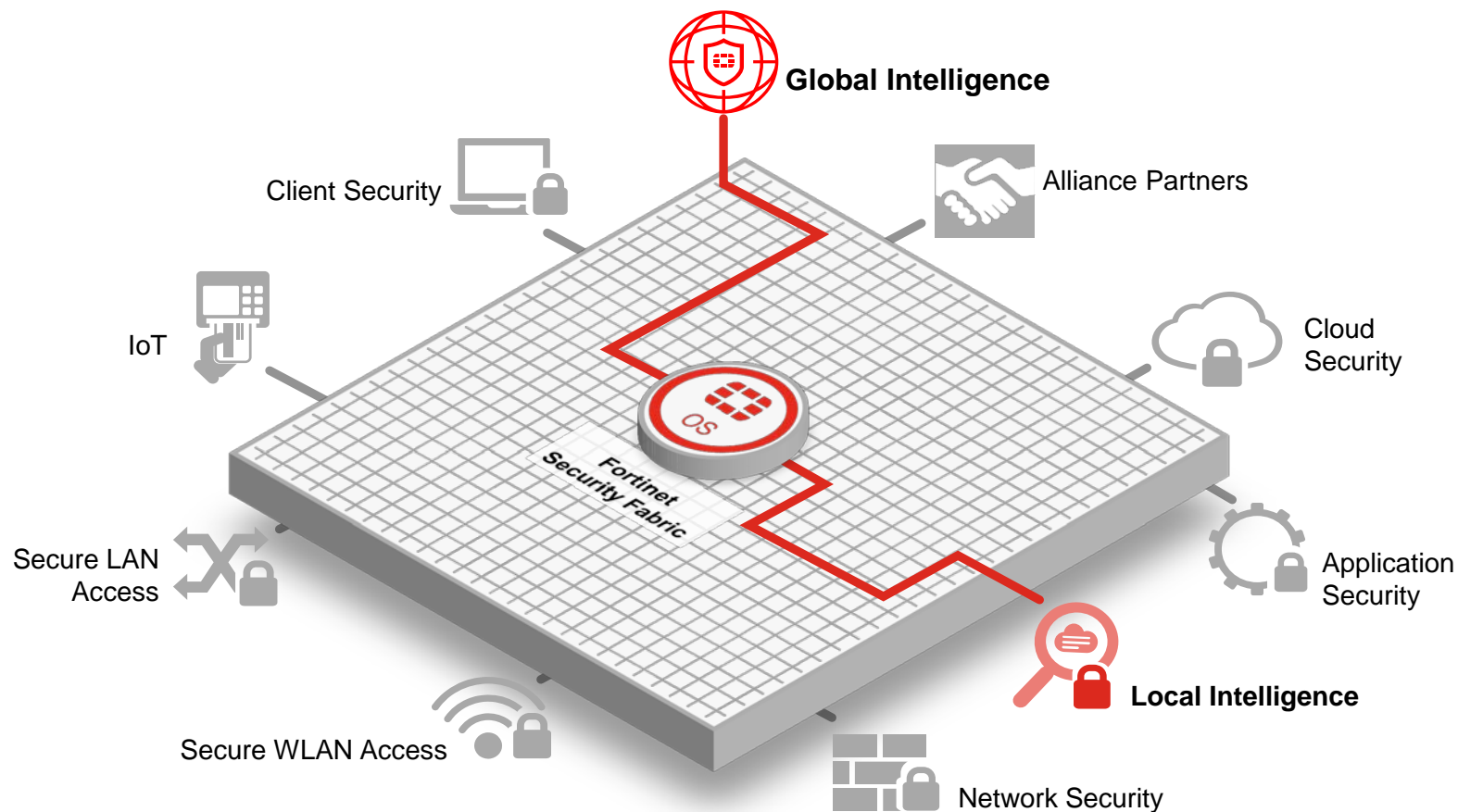
## WLAN RANKED AS THE MOST VULNERABLE



Gartner says there will be 33 billion connected devices by 2020. Cisco says there will be 50 billion, Intel says it will be 200 billion, and the IDC says 212 billion. In any case, these are all really big numbers

# Einführung der *Fortinet Security Fabric*

- skalierbar
- bewusst
- sicher
- umsetzbar
- erweiterbar



Single Pane of Glass  
(Management)



Single point of  
Security Updates

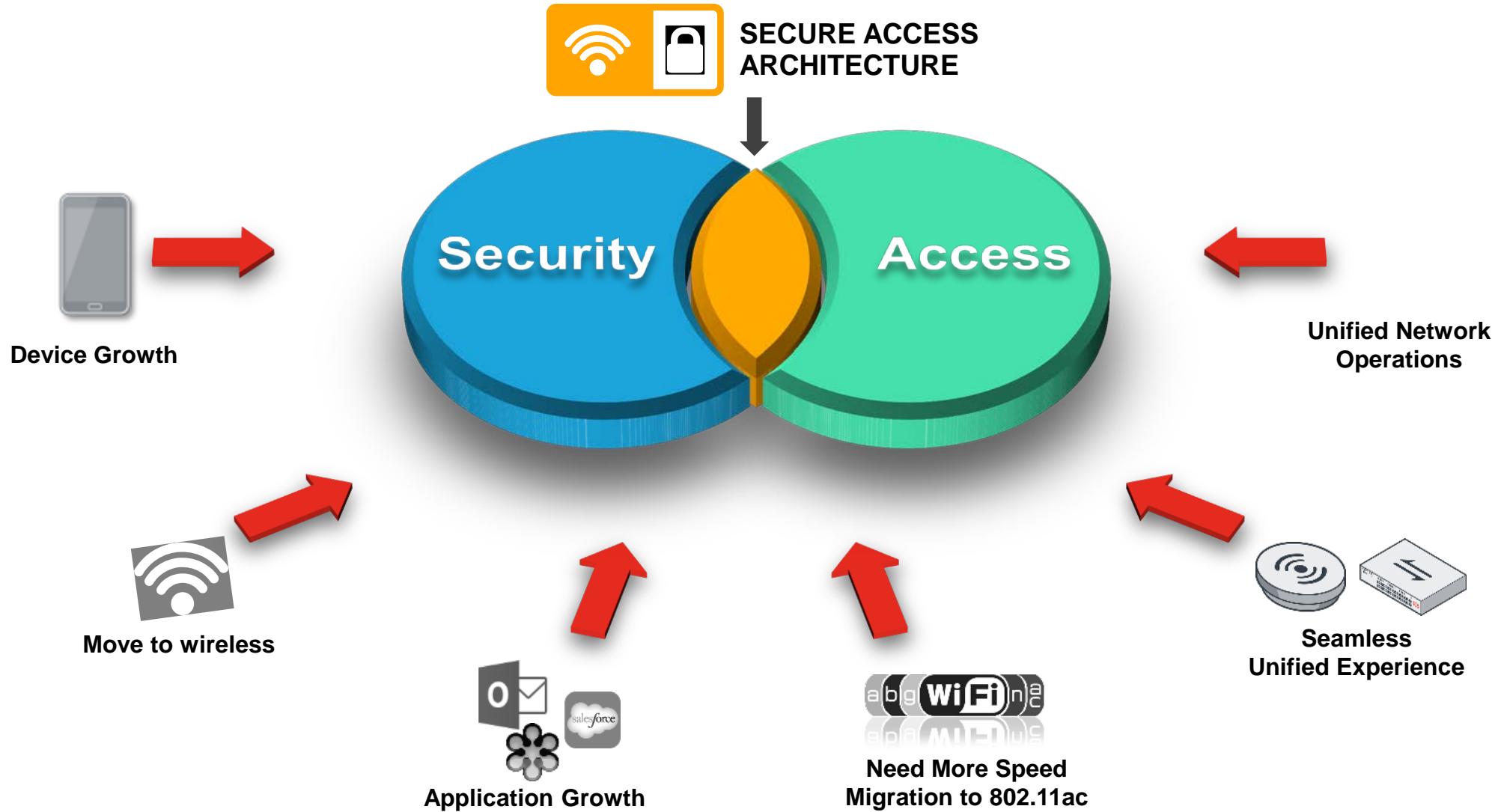


Single Network  
Operating System



Single point of  
Authentication  
and SSO












# Secure Access Architecture

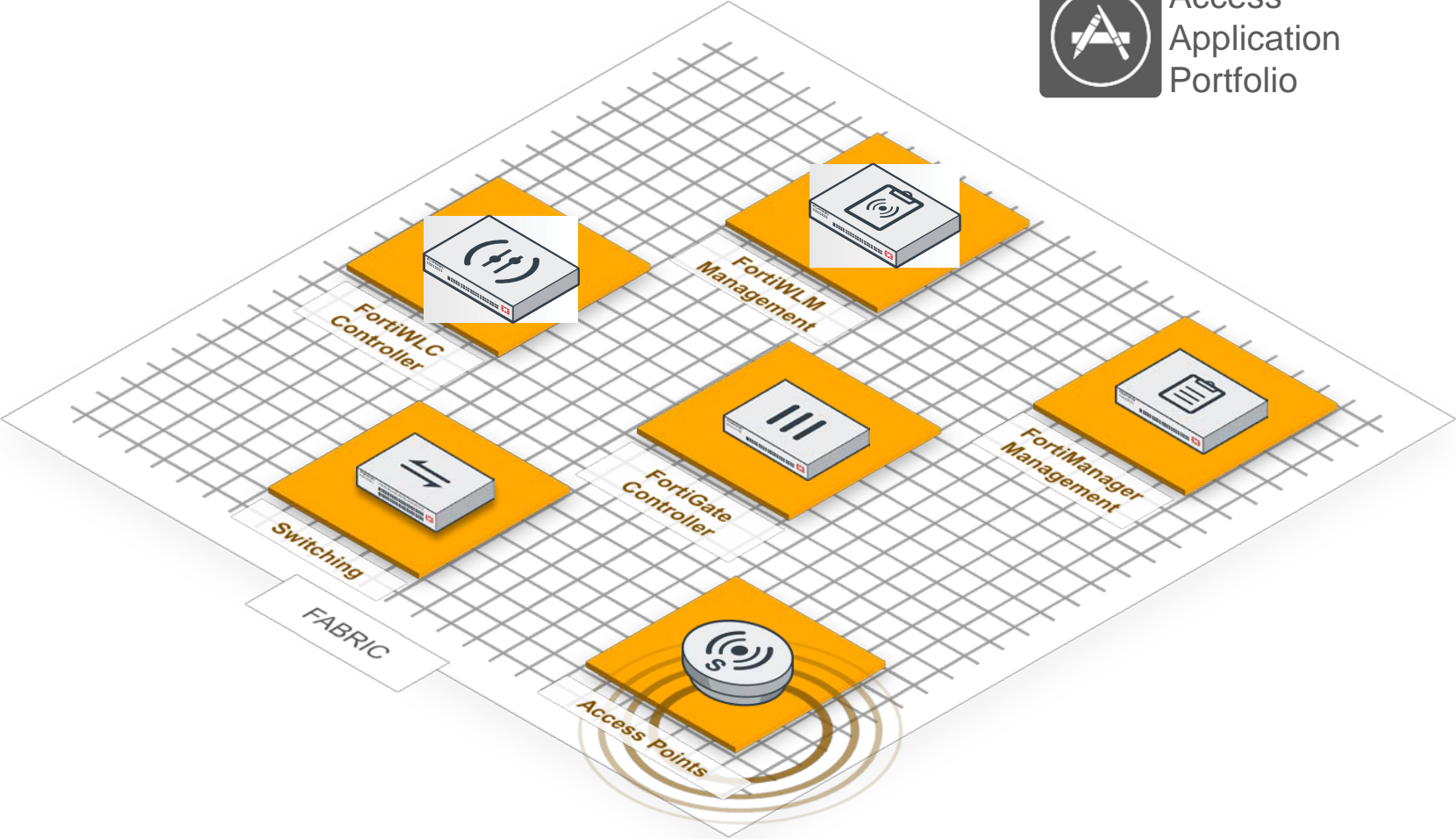




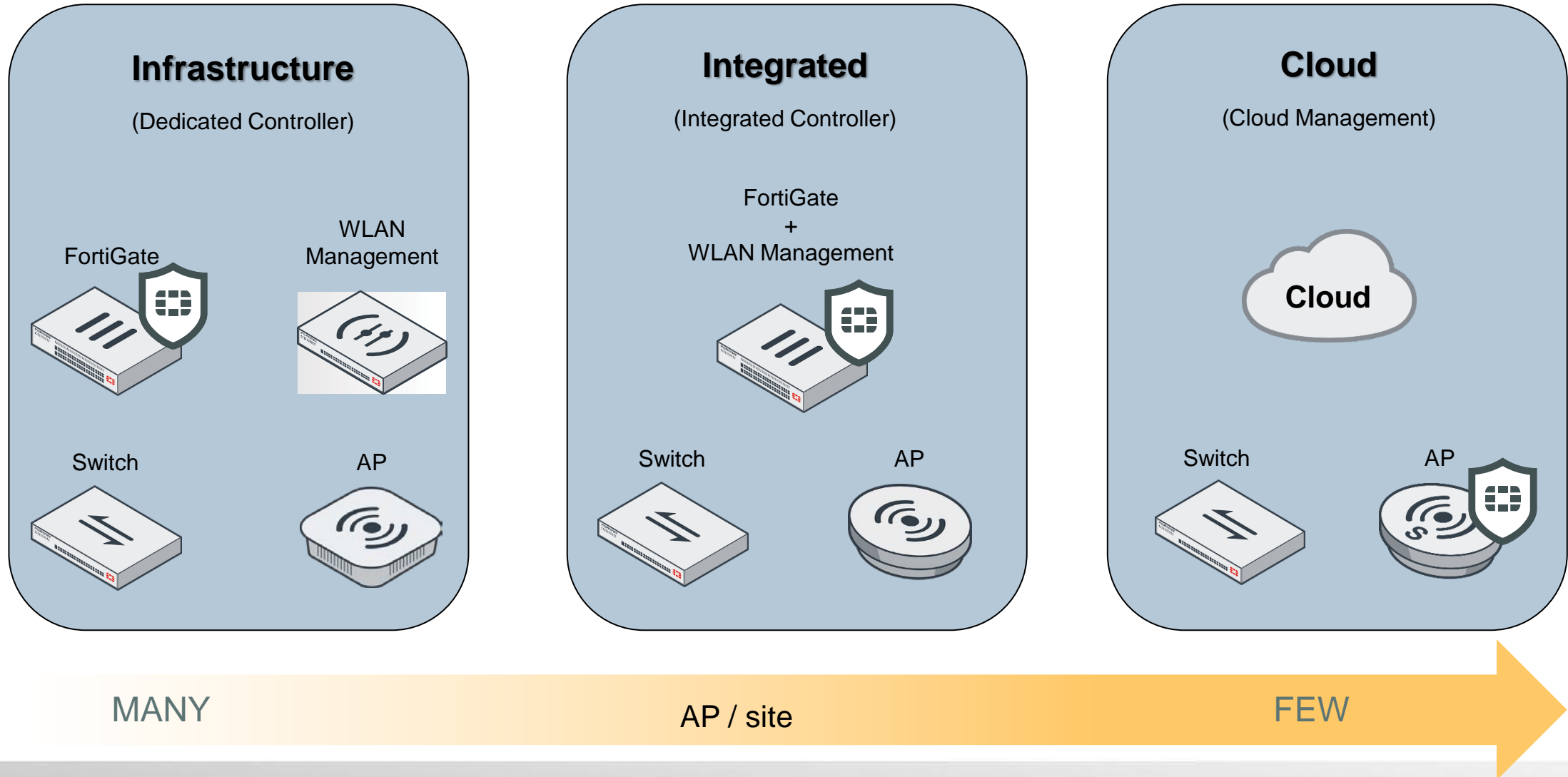


SECURE ACCESS  
ARCHITECTURE

 FortiPresence	 FortiAuthenticator
 FortiManager	 FortiWLM
 FortiClient	 FortiWiFi
 Fortinet Controllers	 FortiN
 FortiExtender	 
 FortiSwitch (POE)	 FortiAP

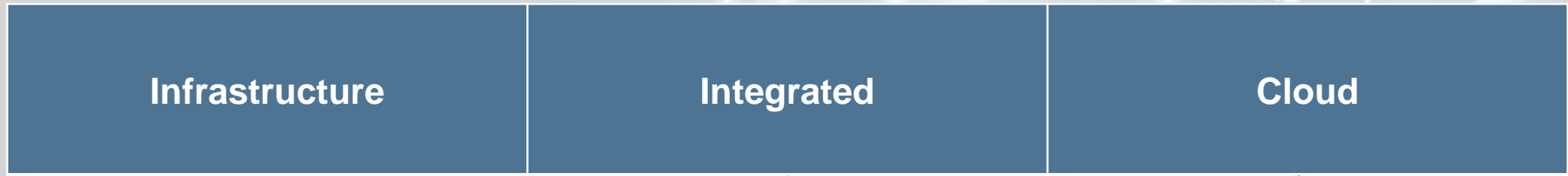


# Secure Access Architecture





# Wireless Access Points



FAP-U

FAP

FAP-S

FAP-C

Universal

Smart

Connectivity

Technology Generation Update (802.11ac wave 2)



300Mbps

1.3Gbps

3.47Gbps

n

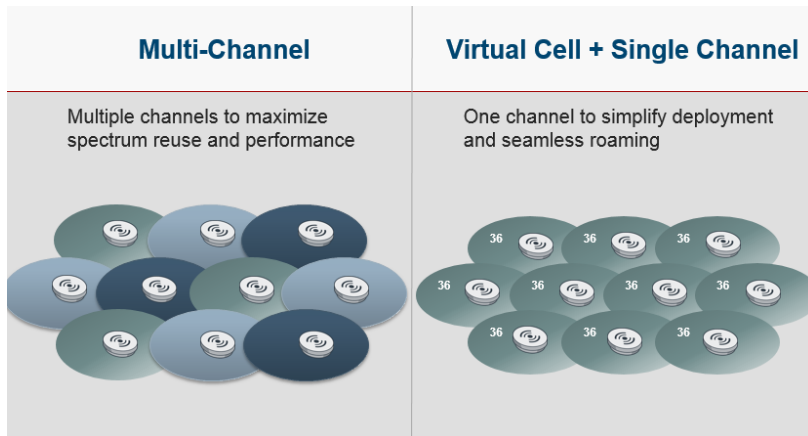
ac wave 1

ac wave 2

# Infrastructure - Secure access solution that provides flexibility

## Why Infrastructure?

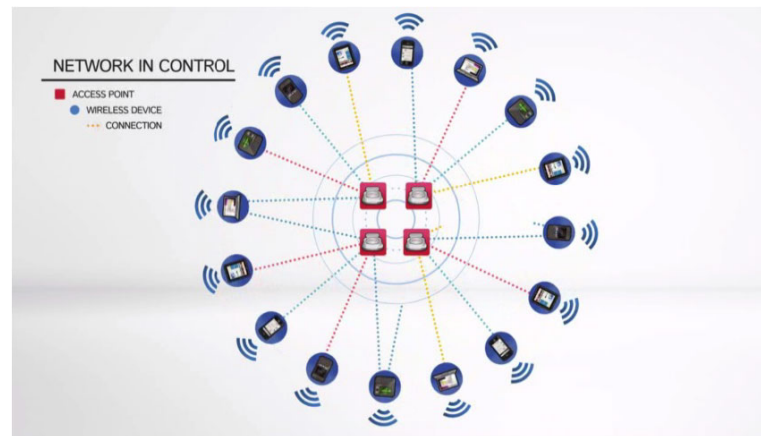
- **Flexibility:** Channel planning flexibility to shorten site survey and deployment times
- **Mobile:** Fit for highly mobile and scalable deployments where low latency and roaming support matter
- **Choice:** Able to separate access infrastructure purchase decision from security purchase



### Channel Planning Flexibility

- Reduce site survey planning
- Reduce deployment times

Large Deployment



### Mobility / Roaming / Scale

- Supports highly mobile environments
- Lowest latencies for video and voice traffic

On Boarding Capability and Services

Fortigate



WLAN Management



### Choice

- Security and access unbundled
- Ability to pick and choose best options

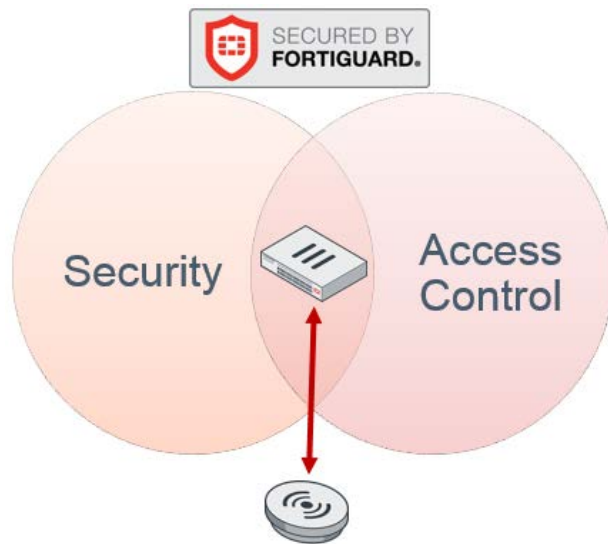
Secure Access Management

# Integrated

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

## Why Integrated?

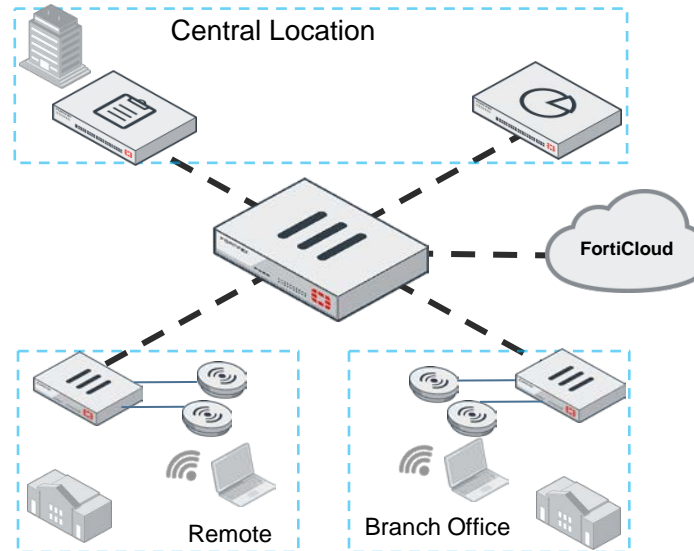
- **Integrated:** Industry's most integrated secure access offering
- **Unified Management:** Single pane of glass to manage both security and access.
- **Scalable:** Scalable to support enterprises of all different sizes



### Integrated

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

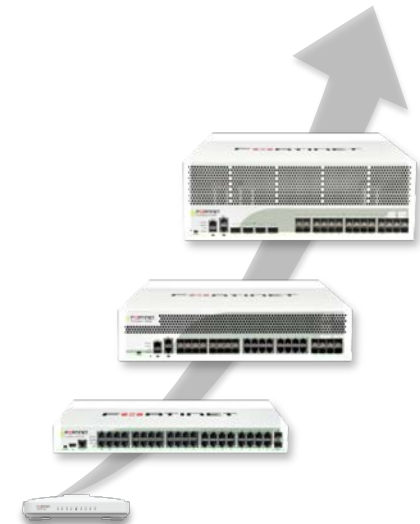
Consolidation



### Unified Management

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

Consistency



### Scalable

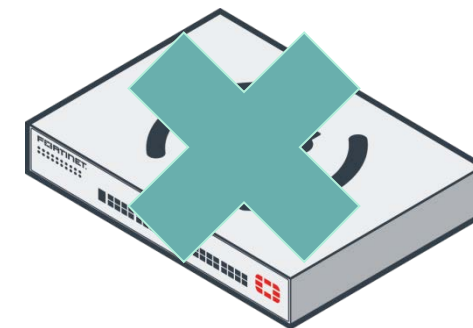
- Scalable to support enterprises of all sizes
- Full line from large to small secure access appliances

TCO

# Cloud Secure access solution that provides security at the edge with simplified management

## Why Cloud?

- **Secure:** Industry's only NGFW/UTM + AP solution
- **Cloud:** Roll out remote sites in minutes - not hours and days
- **Controller-less:** Wi-Fi without the complexity of on premise controllers



### Secure

- Industry's only NGFW/UTM + AP in one
- Award winning FortiGuard Services built into to every Smart AP (AP-S)

On Boarding Security &  
Easy deployment

### Cloud Management

- Simple roll out and provisioning of secure APs
- Management via the cloud
- Security and Wireless
- Multi-Tenancy

Cloud Management

### Controller-less

- Eliminate the need for on premise controllers

TCO

# Wireless Portfolio Summary

- Flexible management choice:
- On premise, public & private cloud
- All-in-one appliance
- Wave II Ap's

- World class UTM protection
- FortiGate, Smart-AP
- Rogue AP control
- In-House Security Experts



- Tier-1 Competitive product portfolio
  - Simple to buy, No AP Licenses
- One GUI to learn, Less devices to manage

# Infrastructure Network Applications



## Connect

A software platform for onboarding guest and employee devices.



## Spectrum Manager

Detects and classifies sources of wireless interference



## FortiPresence

Presence and positioning analytics, customer engagement tools and influence Engine for retail customers



## Personal Bonjour



Minimizes Bonjour broadcast storms of Apple related devices across unified networks



## Network Manager

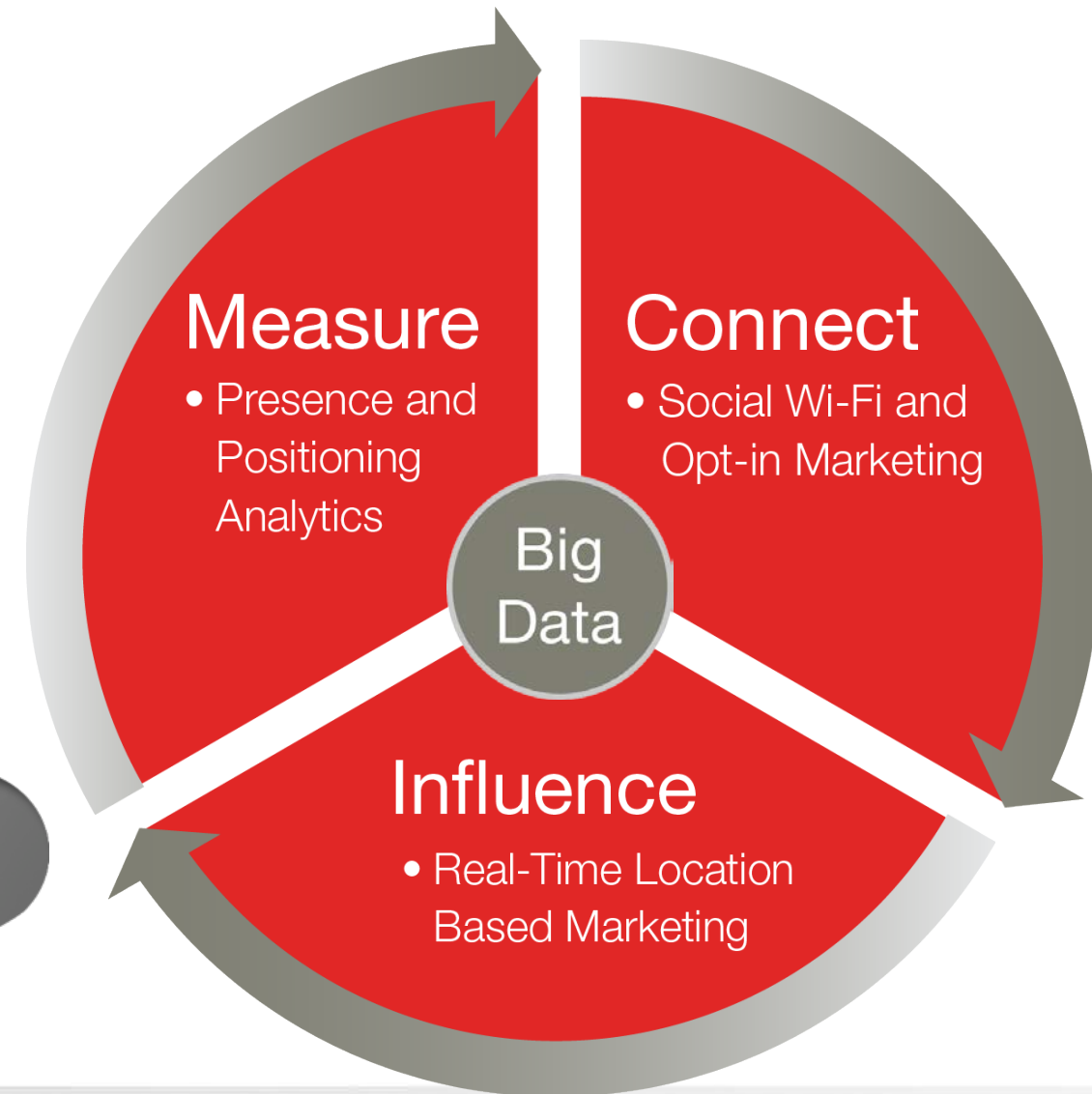
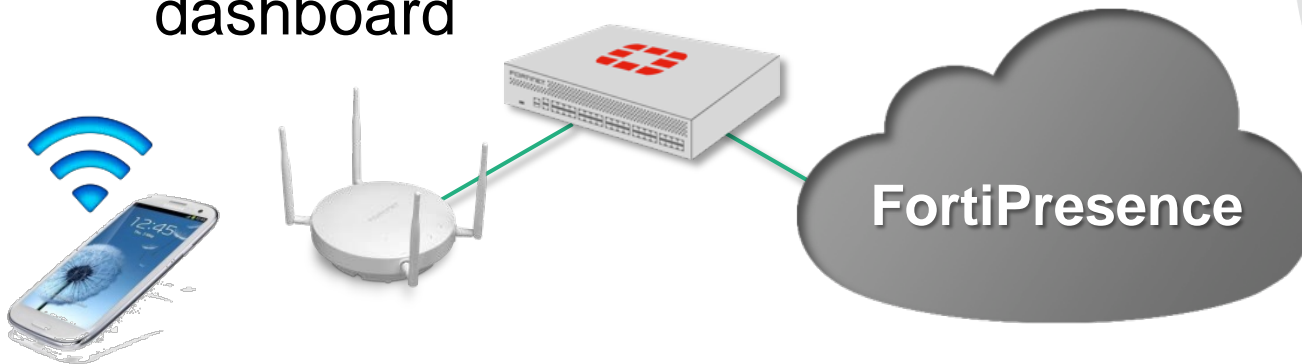
Single-pane, centralized Network management & configuration



# FortiPresence Solution Overview

## ■ Components:

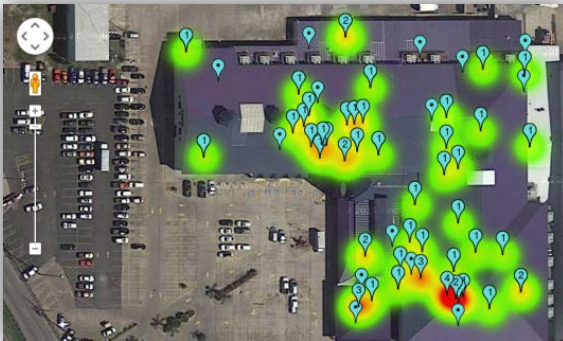
- » **FortiAP or FortiWiFi:** Detects Wi-Fi signal from smartphones
- » **FortiGate:** Aggregates signal information from multiple APs
- » **FortiPresence:** Processes data and presents analytics on dashboard



# FortiPresence: Measure. Connect. Influence

## ■ Measure

- » Total/New/Repeat
- » Dwell time duration
- » A/B store comparison
- » VIP Alert
- » Real-time Heat maps
- » And more...



## ■ Connect

- » Social Wi-Fi Login
- » Marketing Opt-in
- » Push coupon



## ■ Influence

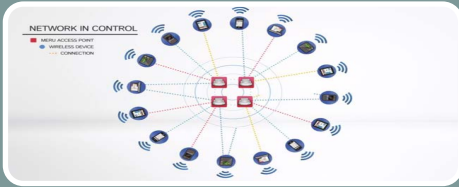
- » Analyzes Wi-Fi traffic
- » Detect product search
- » API can trigger:
  - » Smart digital signs
  - » Instant price cuts
  - » Push Coupons



# Infrastructure Wireless



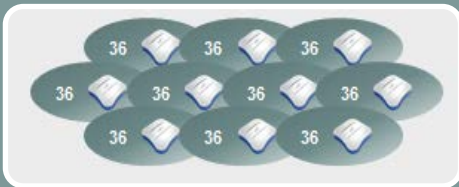
# Advantages in Summary



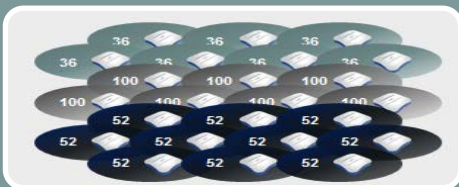
***Air Traffic Control***



***Air Time Fairness***



***Single Channel***

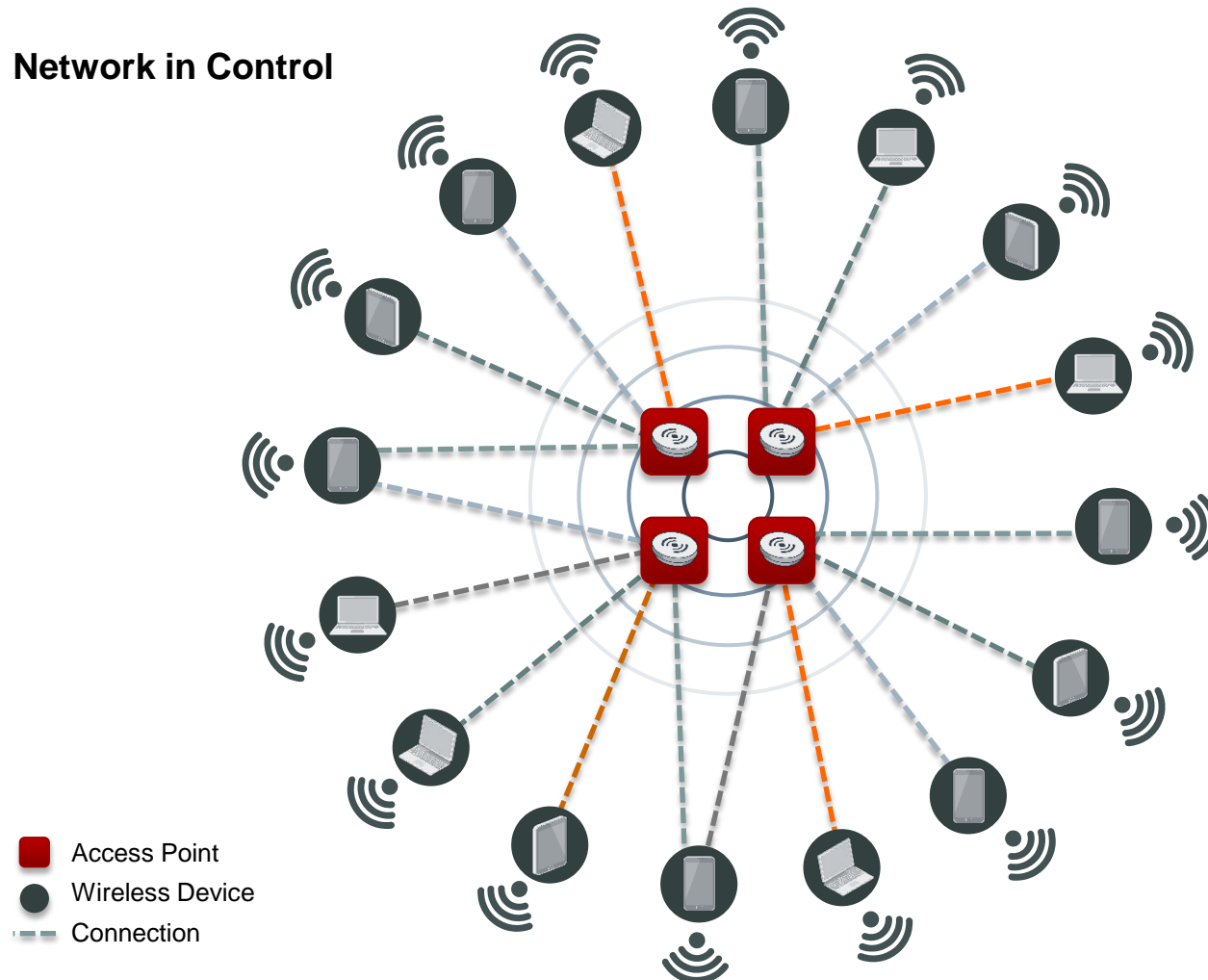


***Channel Layering***

# Infrastructure Wireless



## Network in Control



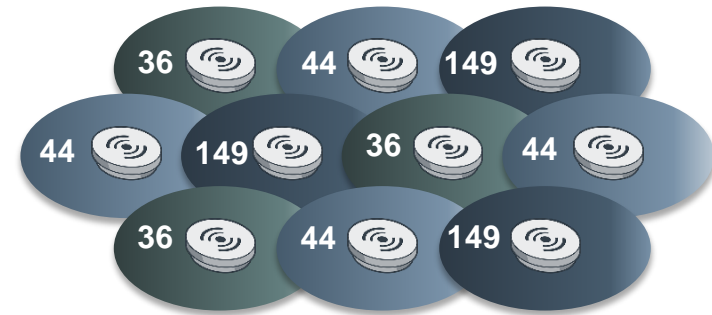
**Mobile:** Fit for highly mobile and scalable deployments where low latency and roaming support matter

- Supports highly mobile environments
- Lowest latencies for video and voice traffic

# Infrastructure Wireless

## Multi-Channel

Multiple channels to maximize spectrum reuse and performance



## Single Channel - Virtual Cell Channel Layers

Multiple channels to segment Application traffic and add capacity

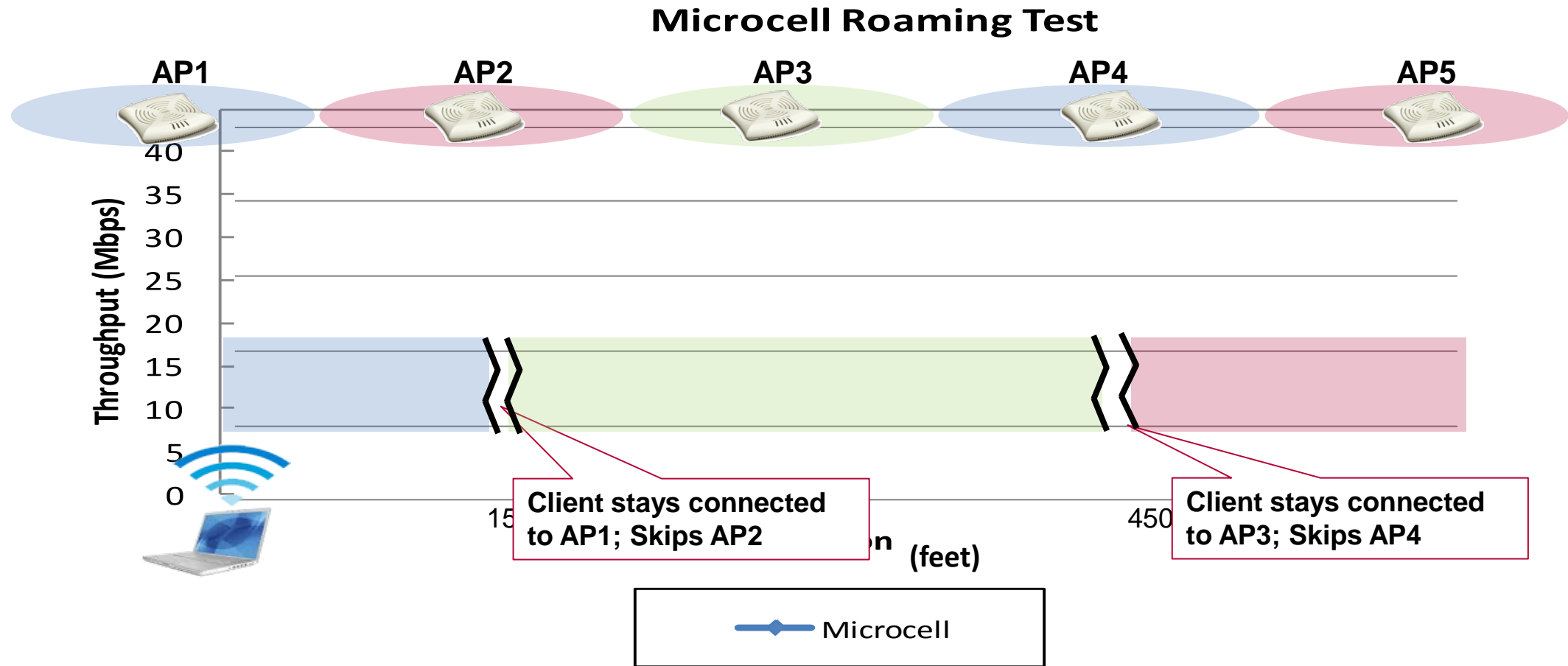


**Flexibility:** Channel planning flexibility to shorten site survey and deployment times

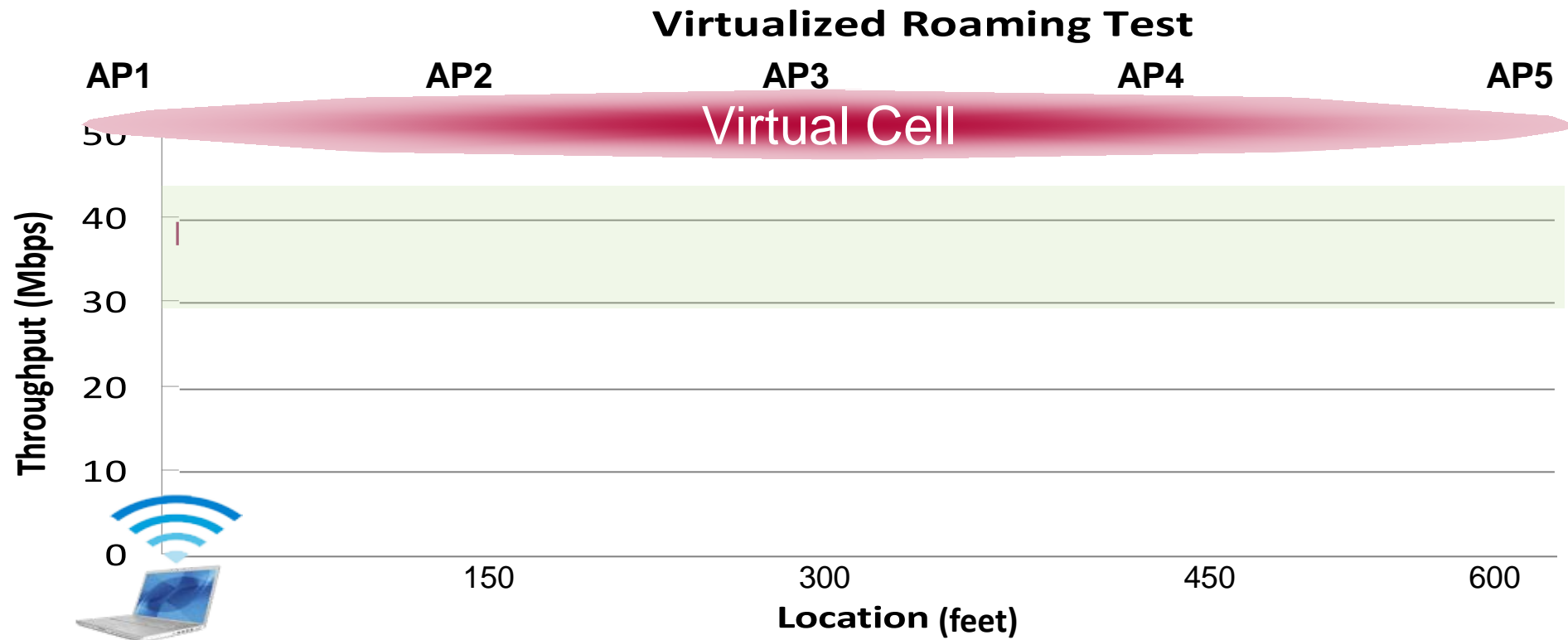
- Reduce site survey planning
- Reduce deployment times



# Microcell Roaming



# Single Cell Roaming



Virtualized



# Vorteile Infrastructure Solution



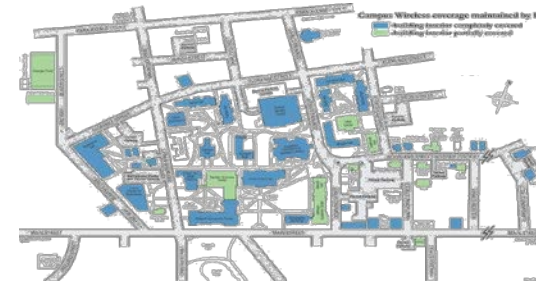
- Viele Endgeräte?



- Bandbreite Intensive Applikationen?



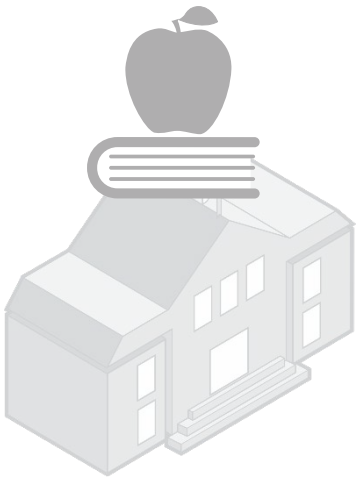
- Mobilitätsnachfrage?



- Anspruchsvolle Umgebungen?



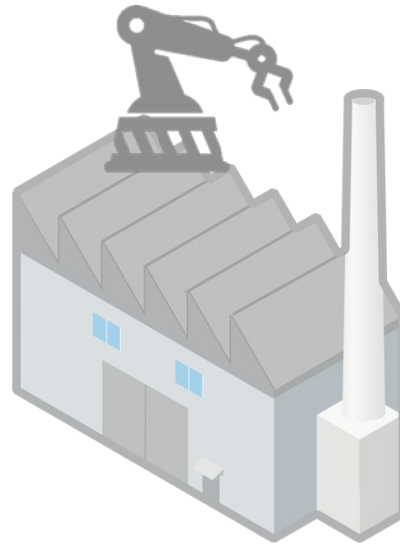
# SAA Benefits for different Verticals



K12/Schools



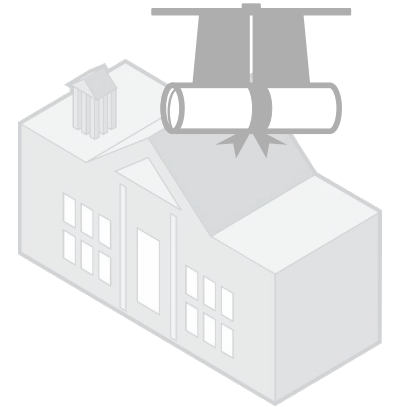
Healthcare



Production & Logistic



Large Public Venue



Higher Education



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Enhanced Technologies DACH  
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