

# **Meraki**

## **Cloud Managed IT**

**박 문 환 수석부장**

**Meraki - Cloud Networking Group**



# Agenda

- Meraki History
- Meraki Technology
- Meraki Product
- Summary



# Stanford Univ. “Blue Box” Router



**Len Bosack**  
**Sandy Lerner**

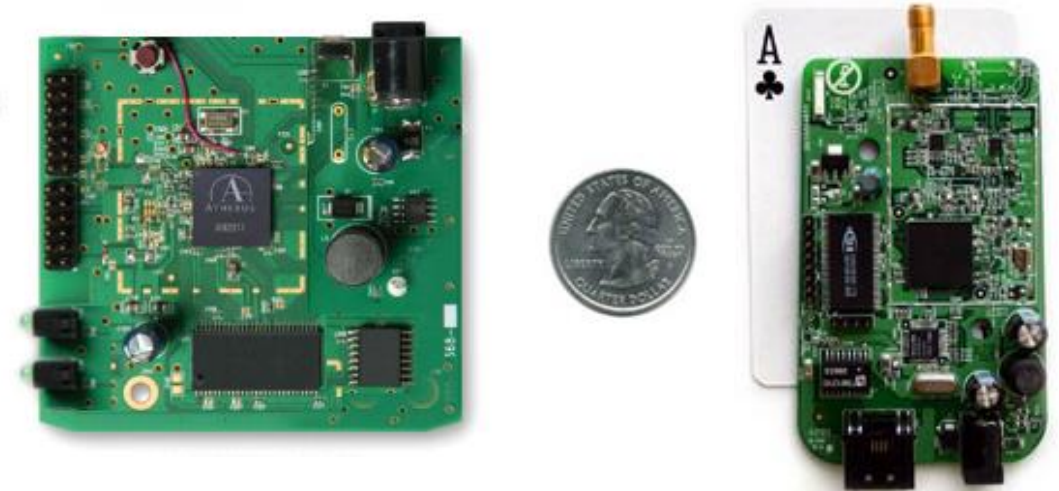
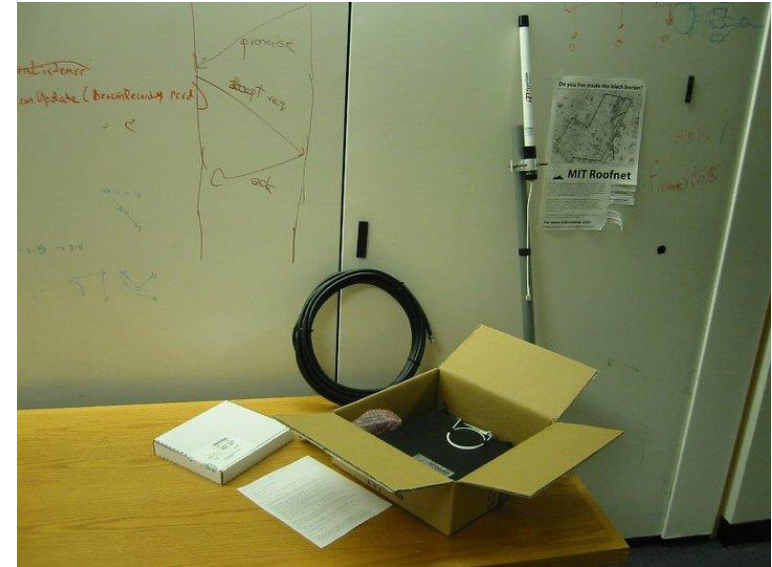
## Cisco 1<sup>st</sup> Product AGS Router : 1984



# Roofnet Project - MIT CSAIL



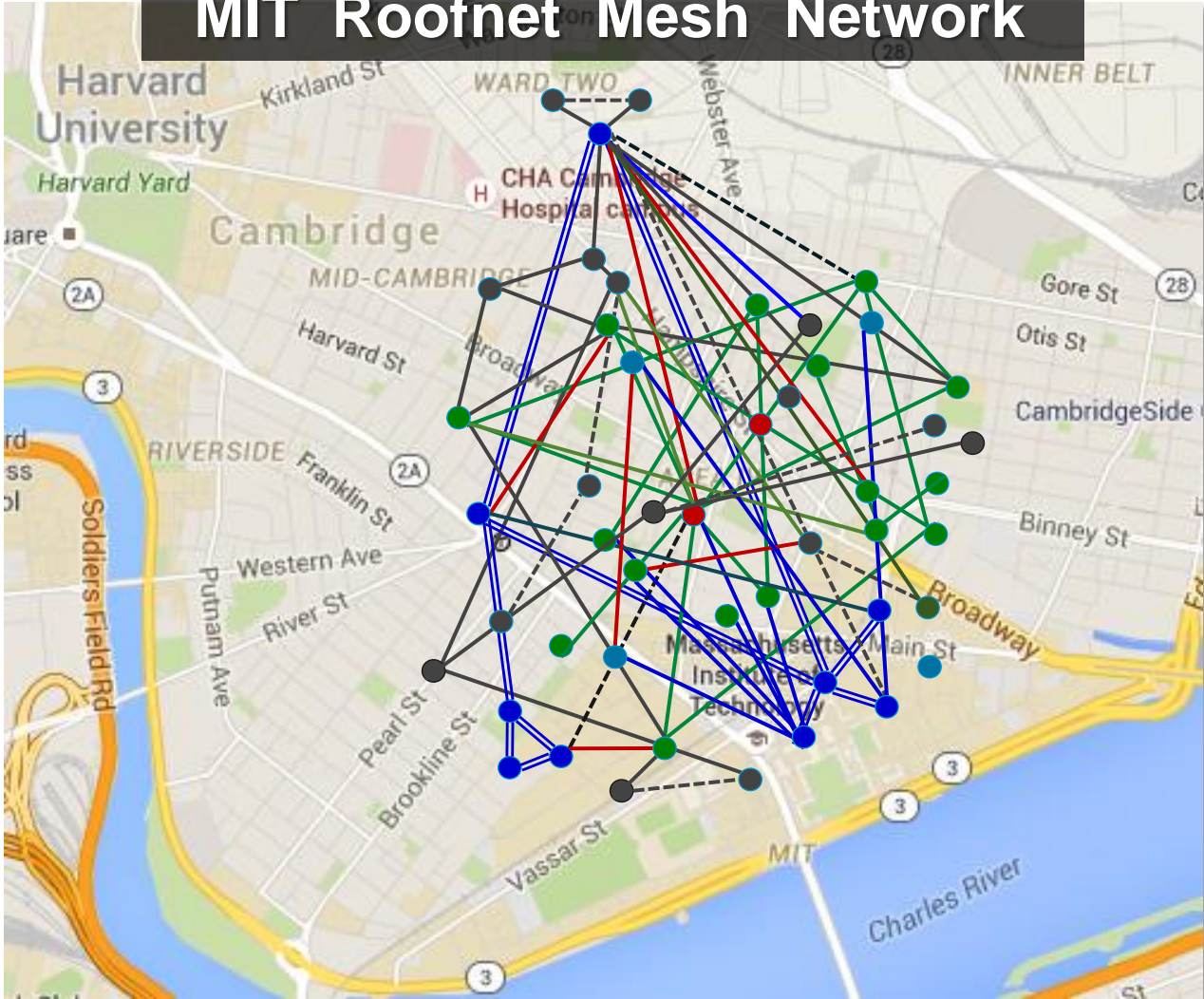
**Sanjit Biswas**  
**John Bicket**  
**Hans Robertson**



# Roofnet Project - MIT CSAIL



MIT Roofnet Mesh Network



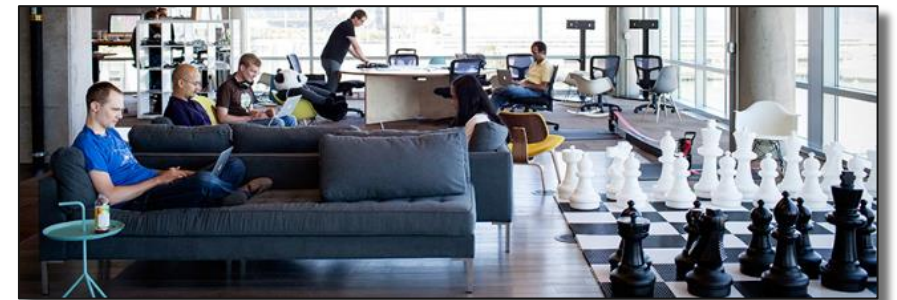
# Meraki in Mountain View in CA : 2006



meraki® 

  
**free  
the net**  
with meraki

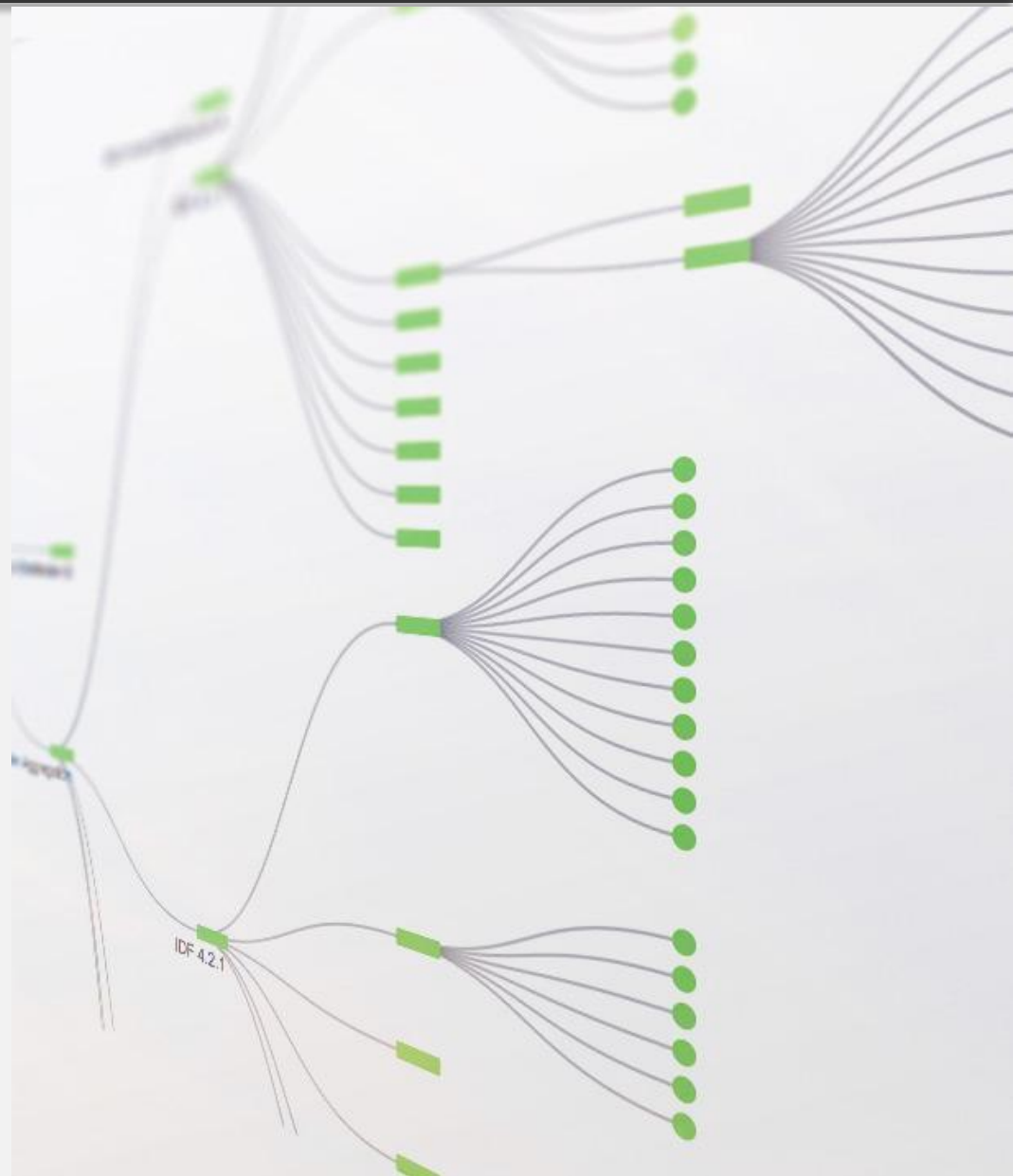
# Meraki – Cisco Cloud Networking Group



# Meraki : Cloud-managed Networking & IT

**Meraki** makes  
**Cloud-Managed**  
Networking & IT  
Easy to ;

- **Deploy**
- **Manage**
- **Monitor**
- **Scale**





# On-Premise vs. Cloud-Managed



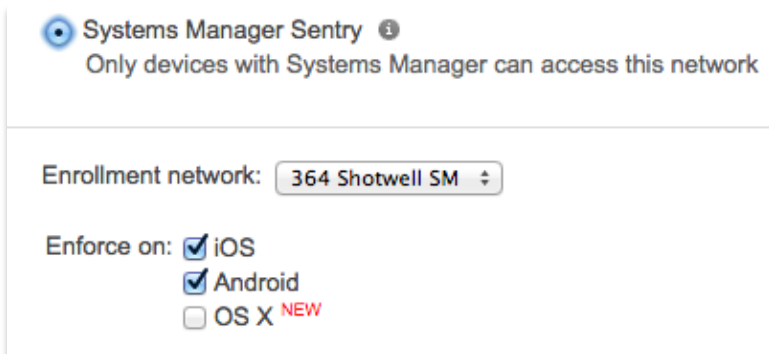
**Meraki  
Cloud License  
(1,3,5 YR)**



- **Lean, Fast IT**
- **Multi Branch**
- **Multi National**
- **Public WiFi**
- **Outdoor**

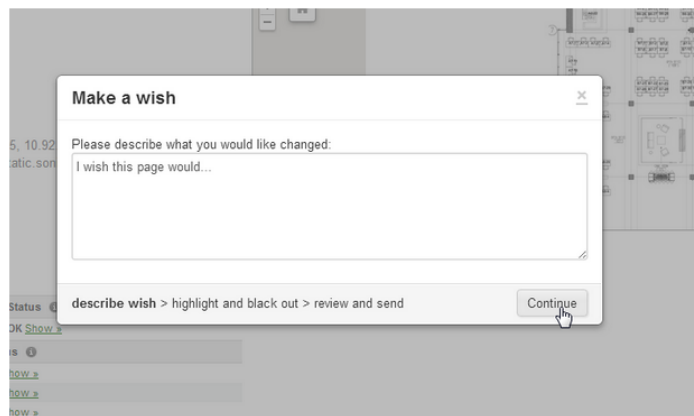
# Meraki Development Philosophy

## Technology Disappear



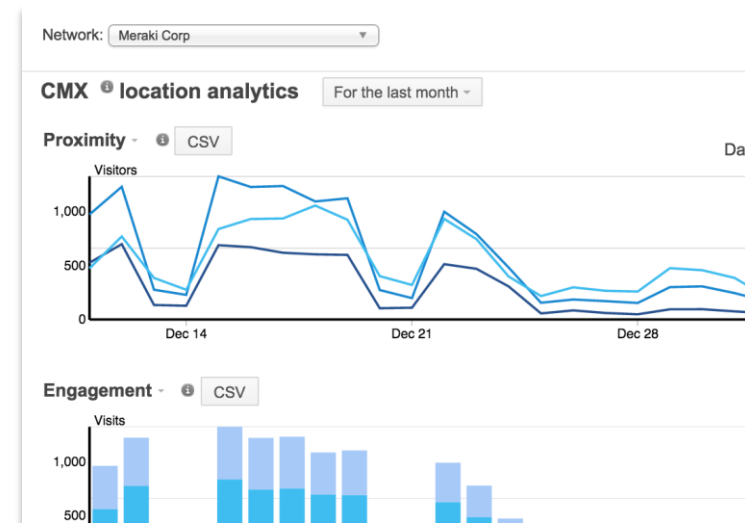
Make it  
Simple, Simpler, Simplest

## Customers, Not Competitors



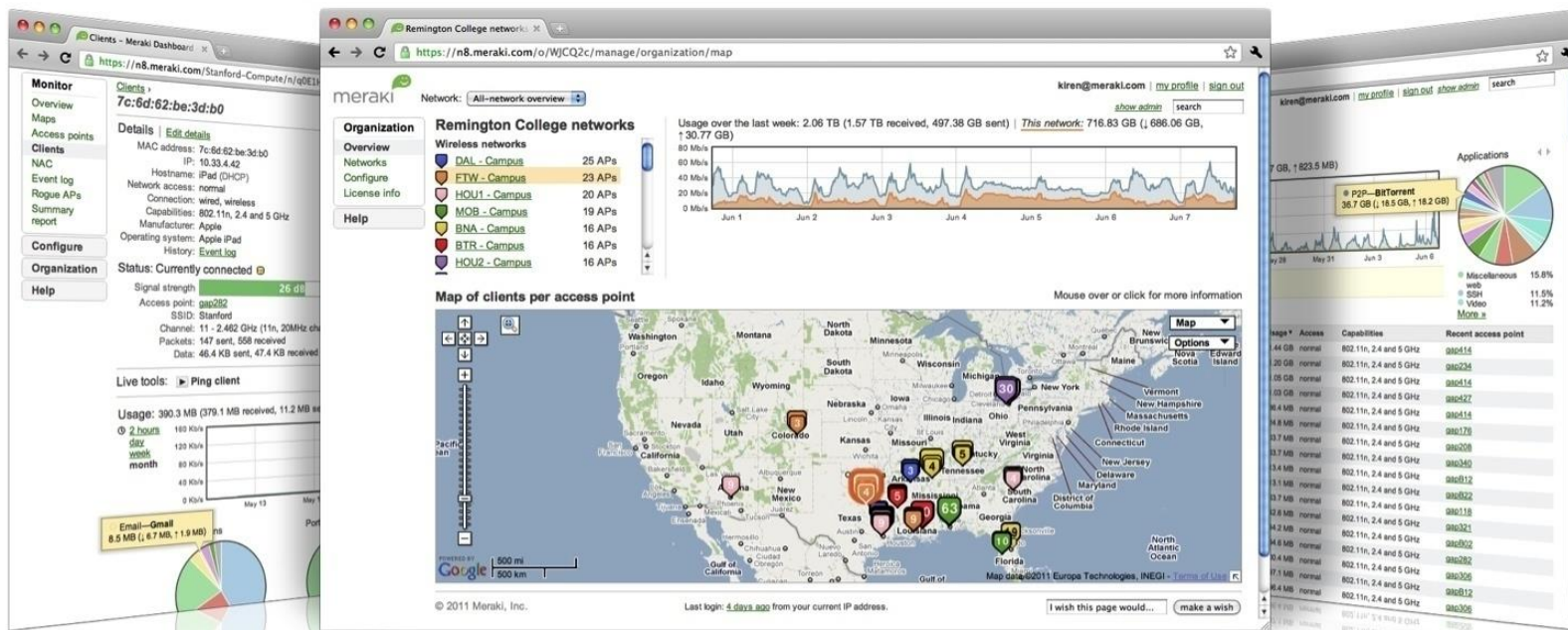
Customers > R&D

## 80/20 Rule



80% : Dashboard  
20% : API & Expansion

# Cisco Meraki Vision : 100% Cloud - based IT



Cloud Managed WiFi  
(2006)



Meraki MR  
Wireless

Cloud Managed Network  
(2010 - 2011)



Meraki MS  
Switching



Meraki MX  
Security & Routing

Cloud Managed IT  
(2014 - )



Meraki SM  
MDM/EMM



Future

# Product Roadmap



**SM**  
MDM



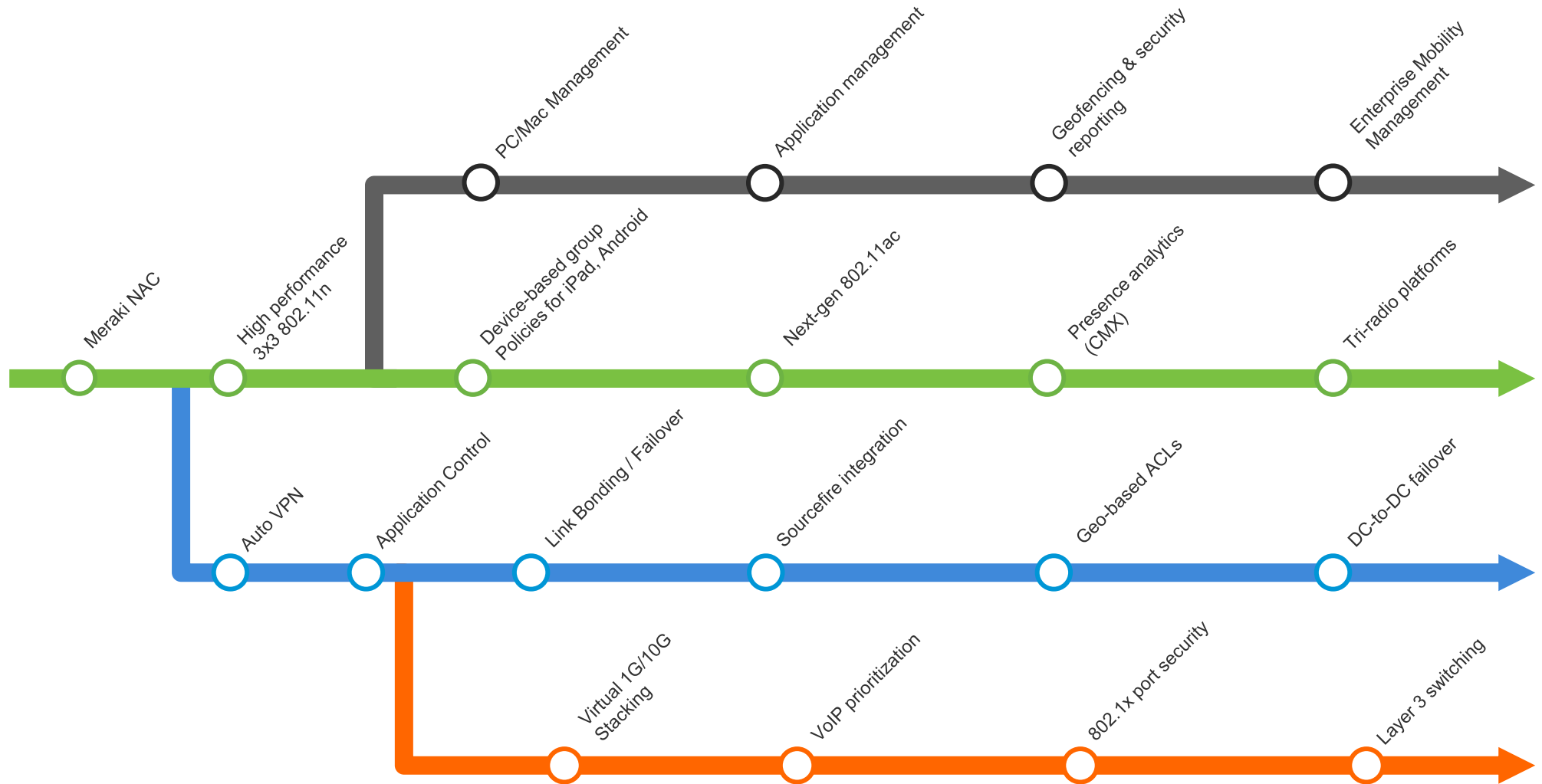
**MR**  
Wireless LAN

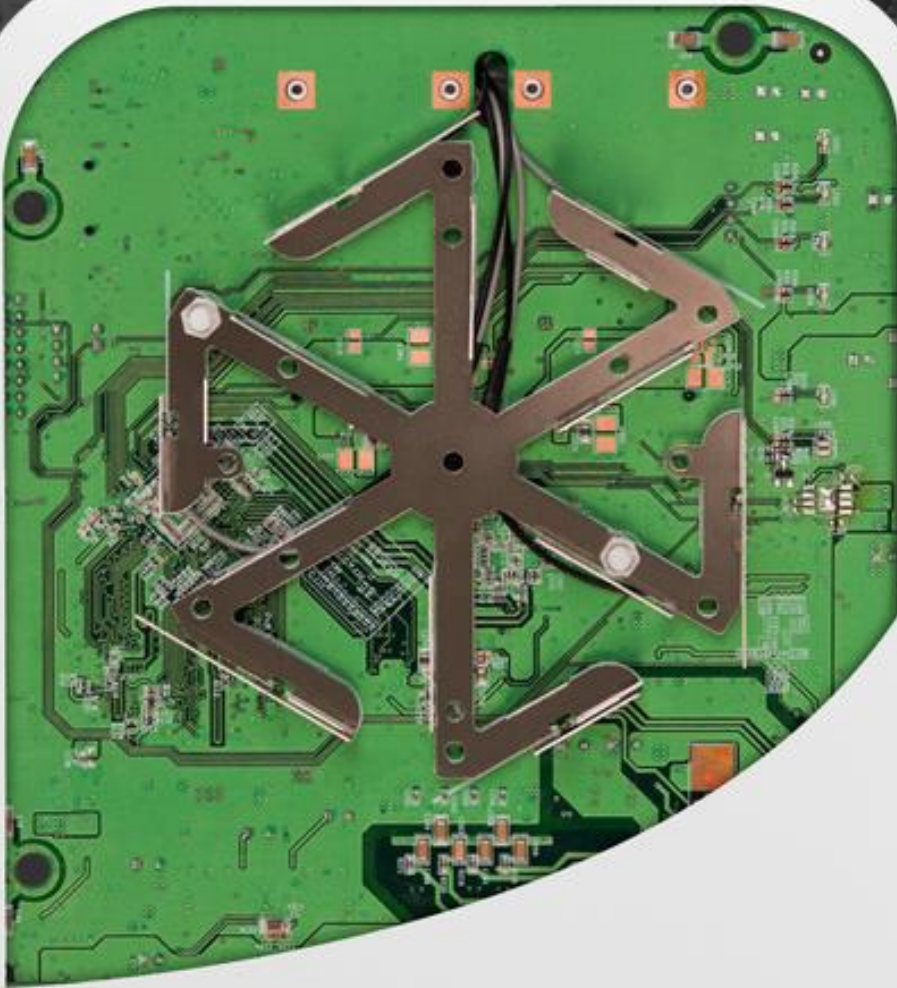


**MX**  
Security Appliances



**MS**  
Ethernet Switches





  
CISCO

# Meraki Product : MR Access Point

**BYOD Policy**

**Traffic Shaping**

**WIDS / WIPS (Air Marshal)**

**Location Service (CMX)**

**BLE (MR32, MR72)**



**Indoor AP x 4, Outdoor AP x2**

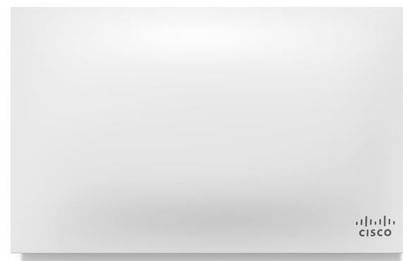
# Meraki Product : MR Access Point - Indoor



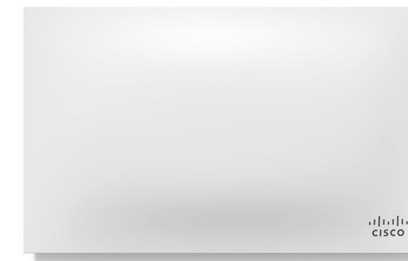
**MR18**



**MR26**



**MR32**





**MR34**

Usage	Performance 802.11n	High performance 802.11n	High performance 802.11ac	Maximum performance 802.11ac
Radio Spec.	1 x 802.11b/g/n radio 1 x 802.11a/n radio 1 x WIDS/WIPS radio 600 Mbps 2x2 MIMO	1 x 802.11b/g/n radio 1 x 802.11a/n radio 1 x WIDS/WIPS radio 900 Mbps 3x3 MIMO	1 x 802.11b/g/n radio 1 x 802.11a/n/ac radio 1 x WIDS/WIPS radio 1 x Bluetooth radio 1.2 Gbps 2x2 MIMO	1 x 802.11b/g/n radio 1 x 802.11a/n/ac radio 1 x WIDS/WIPS radio 1.75 Gbps 3x3 MIMO
Interface	1 x Gigabit Ethernet port	1 x Gigabit Ethernet port	1 x Gigabit Ethernet port	1 x Gigabit Ethernet port
Power	802.3af PoE	802.3af PoE	802.3af PoE	802.3at/802.3af PoE
Performance features	2-stream, 2x2 MIMO H/W-accelerated encryption Band steering	3-stream, 3x3 MIMO Priority Voice, Power Save H/W-accelerated encryption Band steering	2-stream, 2x2 MIMO Priority Voice, Power Save HW-accelerated encryption Band steering	3-stream, 3x3 MIMO Priority Voice, Power Save HW-accelerated encryption Band steering

# Meraki Product : MR Access Point - Outdoor

## MR66

## MR72

<b>Usage</b>	Rugged/outdoor WLAN		Rugged/outdoor WLAN <b>Outdoor location services</b>	
<b>Radio Spec.</b>	1 x 802.11b/g/n radio 1 x 802.11a/n radio 600 Mbit/sec max rate 2x2 MIMO beamforming		1 x 802.11b/g/n radio 1 x 802.11a/n/ac radio 1 x WIDS/WIPS radio <b>1 x Bluetooth radio</b> 1.2 Gbit/sec max rate 2x2 MIMO beamforming	
<b>Interface</b>	1 x Gigabit Ethernet port		1 x Gigabit Ethernet port	
<b>Power</b>	802.3af Power over Ethernet		802.3af Power over Ethernet	
<b>Physical Design</b>	Rugged industrial design Water and dust sealed ( <b>IP67</b> rated)		Rugged industrial design Water and dust sealed ( <b>IP67</b> rated)	
<b>Temperature</b>	-20°C to 50°C		-40°C to 60°C	
<b>Performance features</b>	Priority Voice (802.11e/WMM) Hardware-accelerated encryption Band-steering		Priority Voice (802.11e/WMM) Hardware-accelerated encryption Band-steering	

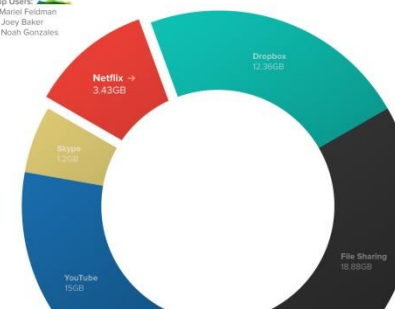


# Meraki Product : MS Switch

Cloud Managed  
Physical/Virtual Stacking  
Layer 7 Visibility  
Layer 3 Scalability  
Network Topology



Usage in the last 24hrs  
90% of total network traffic  
Top Users



# Meraki Product : MS Switch

**MS220-8**



**MS220-48**



**MS320/350-48**



**MS420-48**



**MS220-24**



**MS320/350-24**



**MS420-24**



	Layer 2 Access Switch			Layer 3 Access Switch		Aggregation Switch	
Model	MS220-8 MS22-8P	MS220-24 MS220-24P	MS220-48 MS220-48LP MS220-48FP	MS320/350-24 MS320/350-24P	MS320/350-48 MS320/350-48LP MS320/350-48FP	MS420-24	MS420-48
Port #	8x1Gb	24x1Gb	48x1Gb	24x1Gb	48x1Gb	24x10Gb	48x10Gb
Uplink	2 x SFP Gb	4 x SFP Gb (shared)	4 x SFP Gb	4 x SFP+ 10Gb	4 x SFP+ 10Gb	SFP+/SFP	SFP+/SFP
PoE	- 124W	- 370W	- 370W 740W	- 370W	- 370W 740W	-	-
Power	Rack-mounted, remote power supply			Hot-swappable, redundant power supply (with integrated fans)		Field-replaceable fans	

# Meraki Product : MX Security Appliance



## Security

- NG Firewall
- SourceFire IPS
- Client VPN
- Site to Site VPN



## Networking

- NAT/DHCP
- iWAN
- Active-Active VPN



## Application Control

- Traffic Shaping
- Content Filtering
- Web Caching

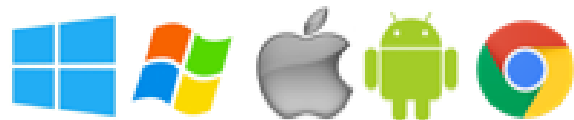


# Meraki Product : MX Security Appliance



	~ 50 Users		~ 500 Users		~ 10,000 Users	
Model	MX64	MX64W	MX84	MX100	MX400	MX600
Interface	5x GbE 1 x USB 3G/4G	5 x GbE 1 x USB 3G/4G 2 x 802.11ac/n WiFi	5 x GbE 1 x USB 3G/4G	8 x GbE 1 x USB 3G/4G 2 x GbE (SFP)	8 x GbE 1 x USB 3G/4G 8 x GbE (SFP) 4 x 10GbE (SFP+)	8 x GbE 1 x USB 3G/4G 8 x GbE (SFP) 4 x 10GbE (SFP+)
Firewall	250 Mbps	250 Mbps	500 Mbps	750 Mbps	1 Gbps	1 Gbps
VPN	100 Mbps	100 Mbps	250 Mbps	500 Mbps	1 Gbps	1 Gbps

# Meraki Product : Systems Manager



**Enterprise Mobility Manager**  
Cloud Managed Mobility Management



**Automated  
Provisioning**



**Scale up 100,000  
Globally**



**Auto-tagging  
Security compliance**



**Integrate with  
Cisco network**

# Summary



**Meraki** = Cloud-managed IT

= Full Stack Networking + MDM

## **Meraki Cloud**

- Controller : WLAN Configuration
- Location Services
- L3~7 Security
  - Client
  - Network
  - Application
- SourceFire IPS
- Analytics/Report
- Monitoring

**See & Try**



me·ra·ki *noun* [Greek]  
Something done with soul,  
creativity, or love.



Meraki