



MERAKI SOFTWARE-DEFINED WAN

Simple, Secure, Optimized Connectivity



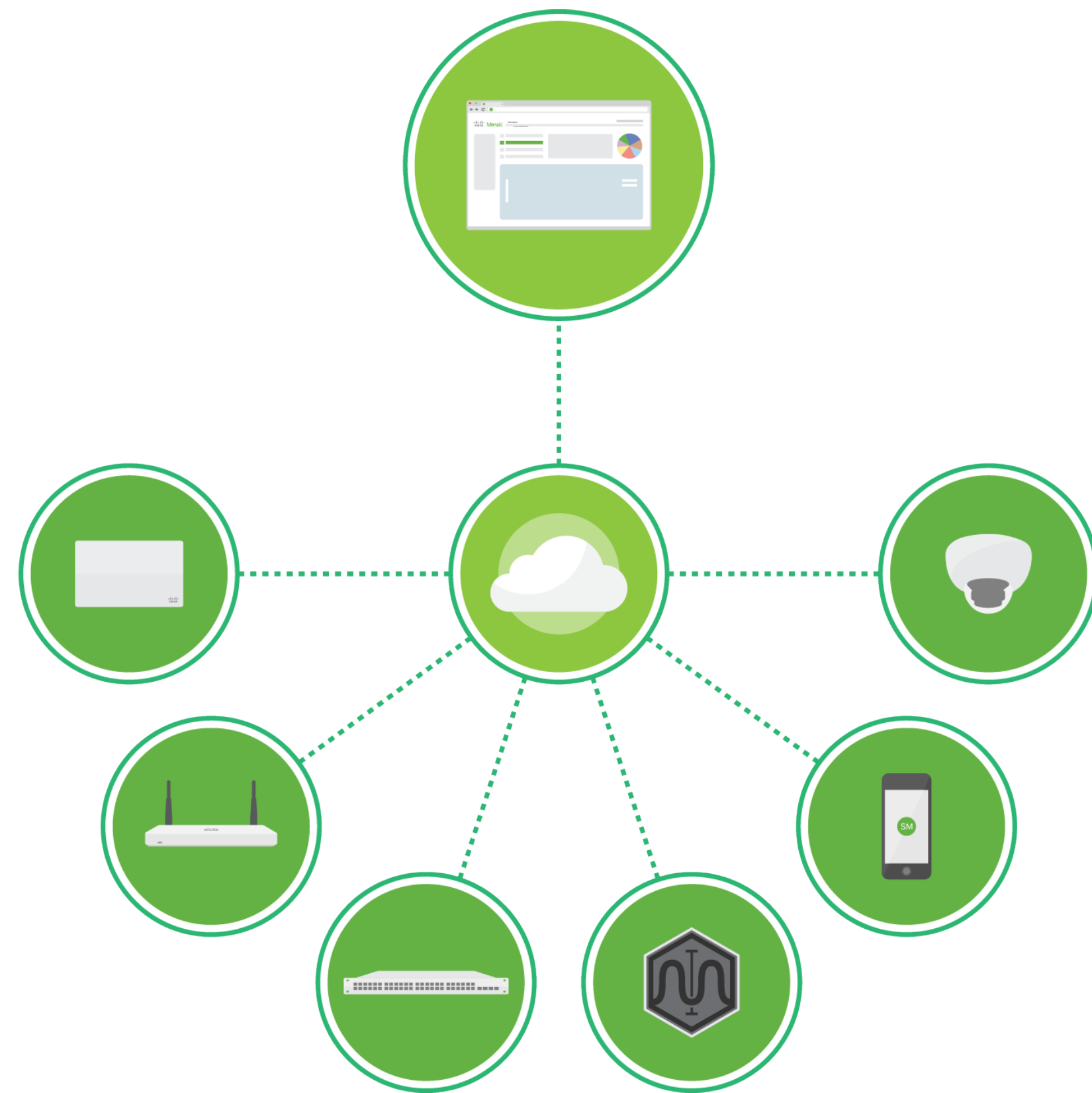
December 18, 2018

About Meraki

Simplifying powerful technology to free
passionate people to focus on their mission

TECHNOLOGY THAT SIMPLY WORKS

Simplifying across IT with Cloud Management



A complete cloud managed IT solution

Wireless, switching, security, SD-WAN, intelligent network insights, endpoint management, and security cameras

Integrated hardware, software, and cloud services

Leader in cloud-managed IT

Among Cisco's fastest growing portfolios

350k+

Unique customers

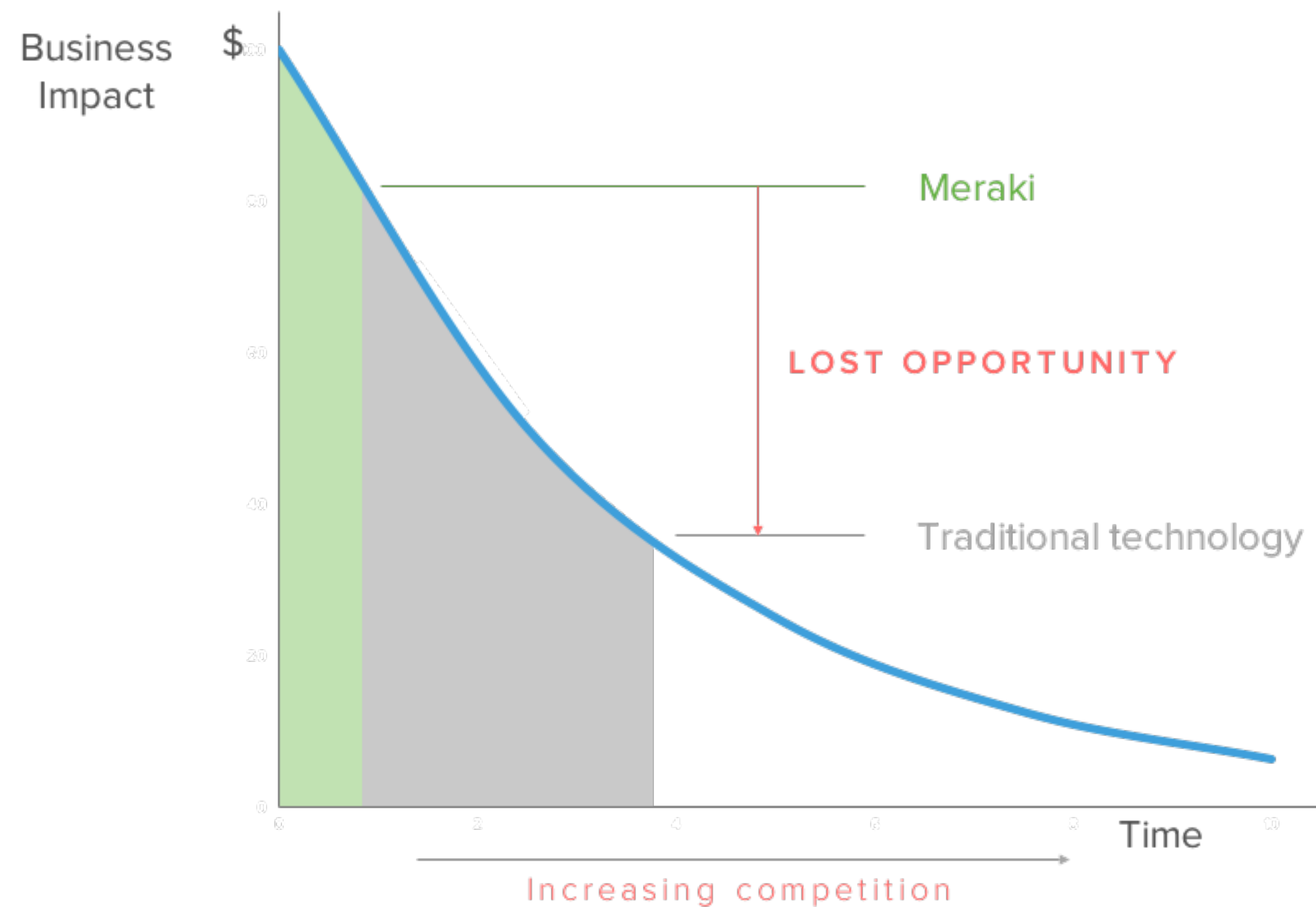
4.5M+

Meraki devices
online

23M+

API calls
per day

Disrupt or be Disrupted



Organizations of every size and industry risk fundamental disruption because of new technologies, new players, and new ways of doing business

The business impact of a new (digital) initiative will diminish over time as more competitors enter the space

Organizations that are the first to apply a new digital initiative will capture the lion's share of the opportunity

Meraki cloud managed IT devices allow businesses to rapidly lay a digital foundation to roll out a digital initiative to



Grow revenue



Reduce cost



Mitigate risk

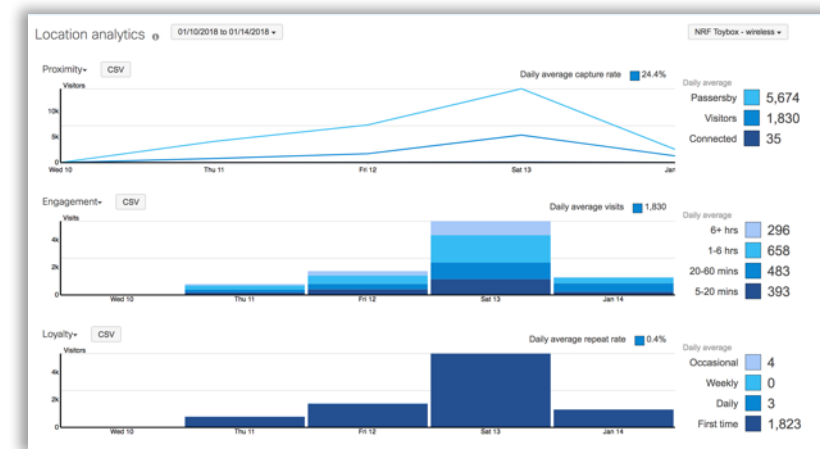
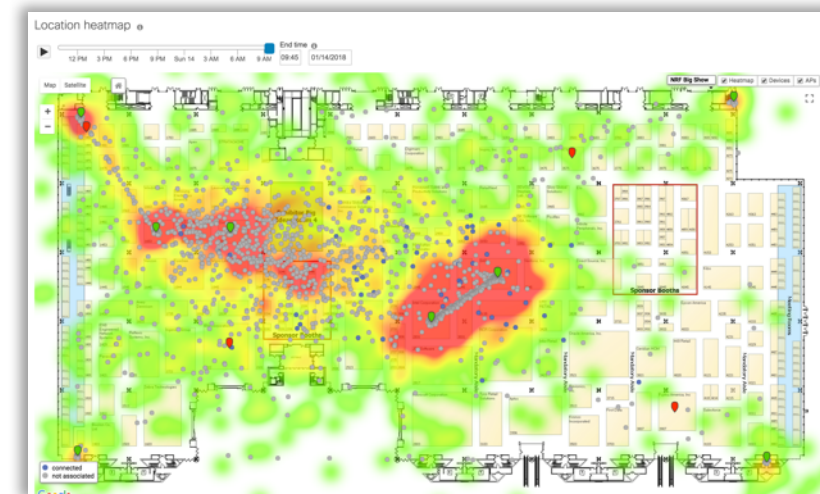
Beat the competition to implement digital initiatives

Futureproof with Immediate Impact

OPTIMIZED WITH BUILT-IN ANALYTICS

90%

Typical customers save in the region of 90% on operating costs with Meraki compared to traditional architectures

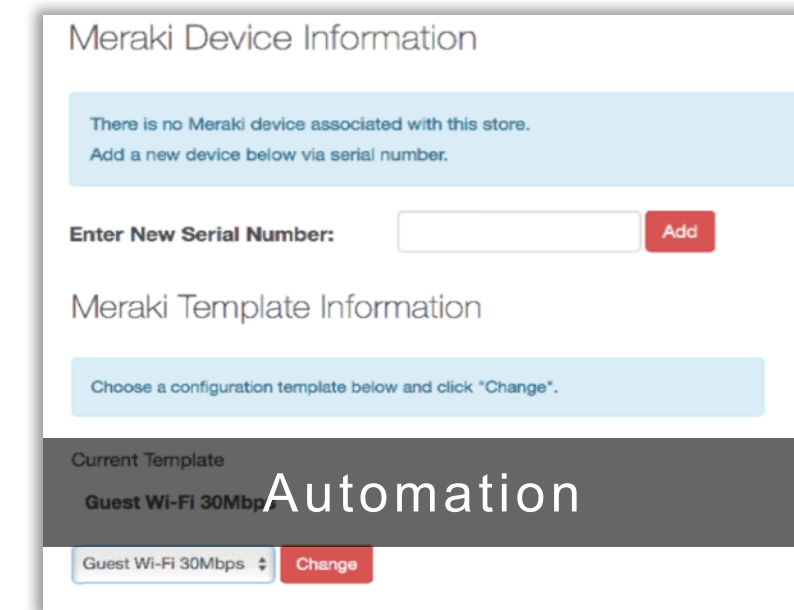


Explore Meraki total cost of ownership at meraki.cisco.com/TCO

THE FUTURE BUILT-IN

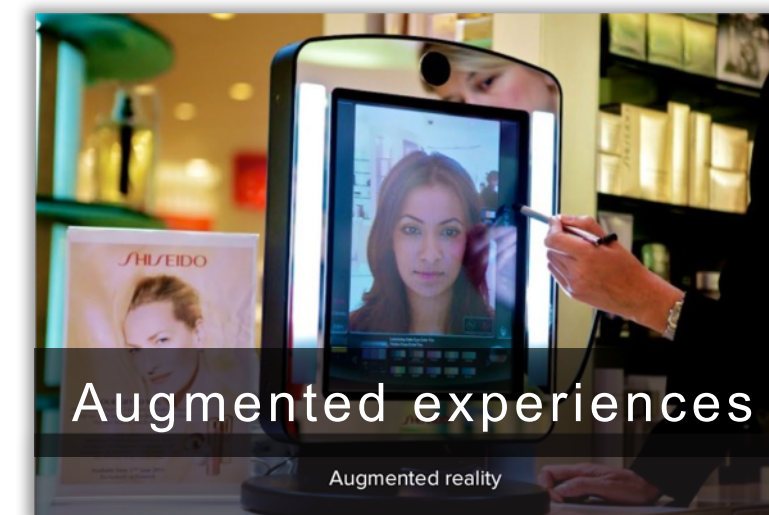


Marketing



Automation

API



Augmented experiences



Custom analytics

Explore Meraki API solutions at create.meraki.io/solutions

The SD-WAN Rocket Ship

Business SaaS Trends



AVG. NUMBER OF SaaS APPS PER ORGANIZATION



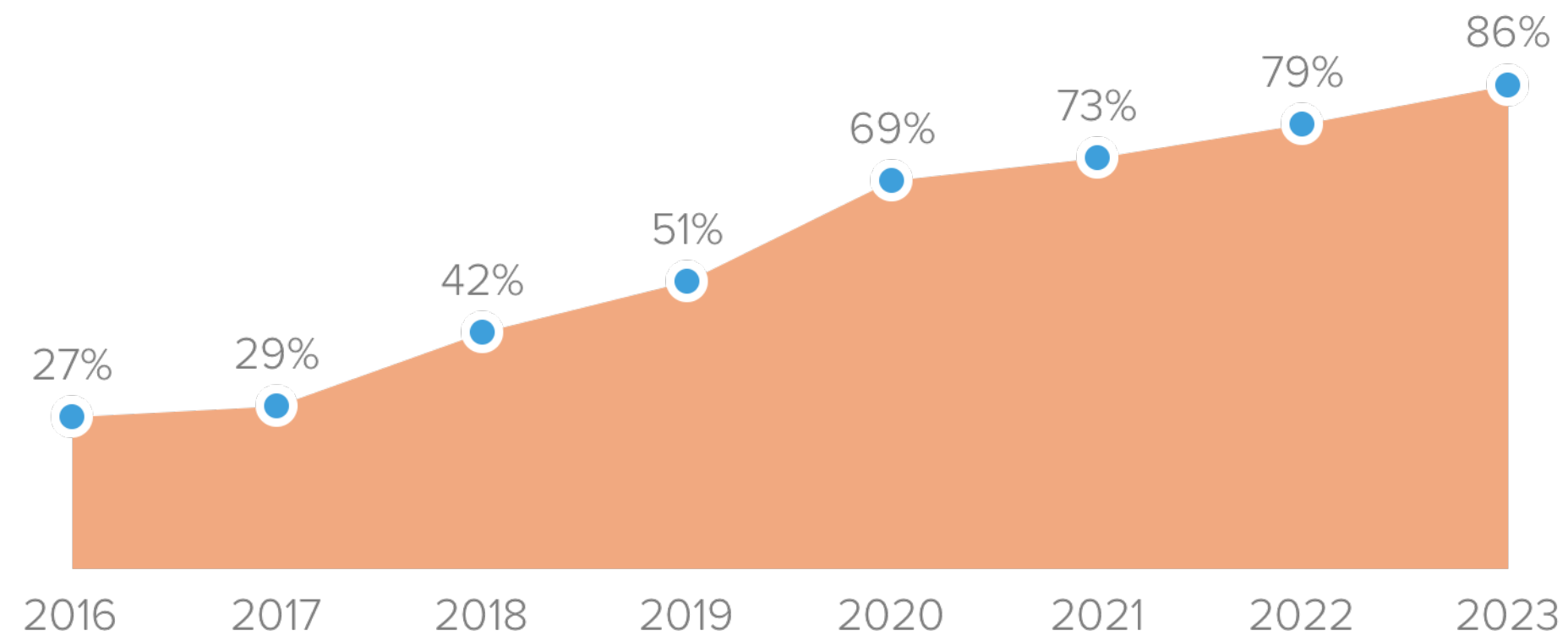
[Source: BetterCloud 2017 State of the SaaS-Powered Workplace]

SaaS SPENDING FORECAST, 2016 – 2020

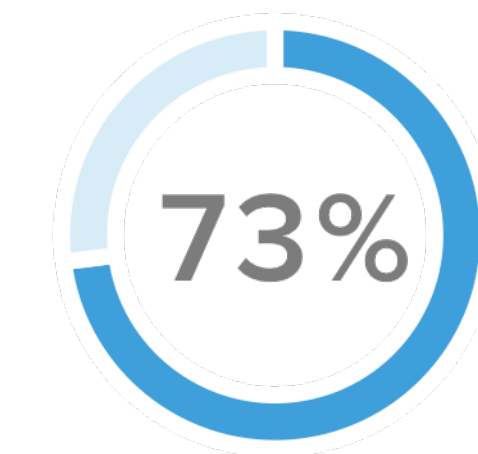
95% Global SaaS spending is forecast to increase by **INCREASE** over 95% to **\$75.7B**

[Source: Gartner, 2017]

PERCENTAGE OF ENTERPRISES ESTIMATING WHEN 80% OF THEIR BUSINESS APPS WILL BE SaaS



[Source: BetterCloud 2017 State of the SaaS-Powered Workplace]

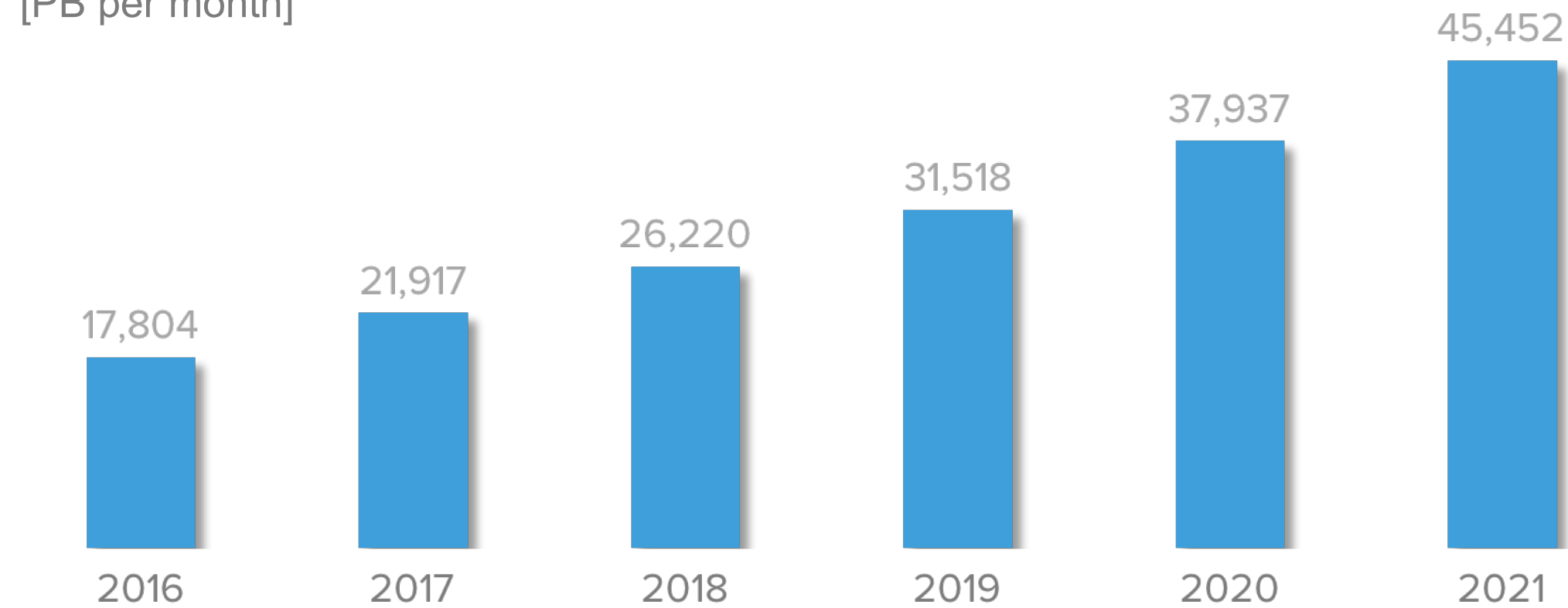


Percentage of enterprises (1,000+ employees) estimating the majority of their apps will be SaaS by 2021

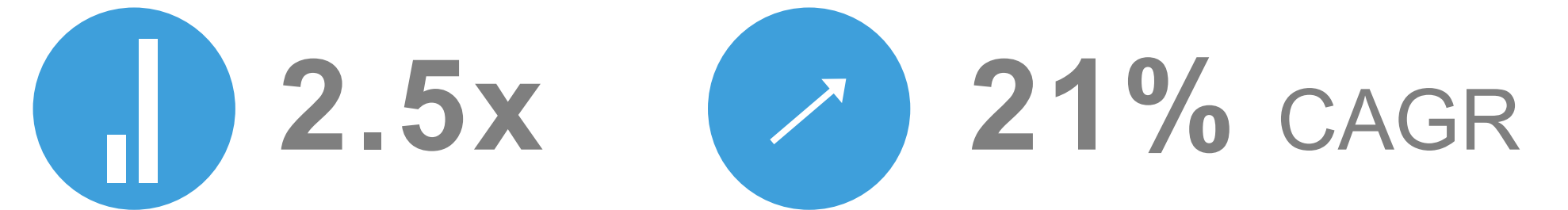
Business Traffic

GLOBAL BUSINESS IP TRAFFIC

[PB per month]

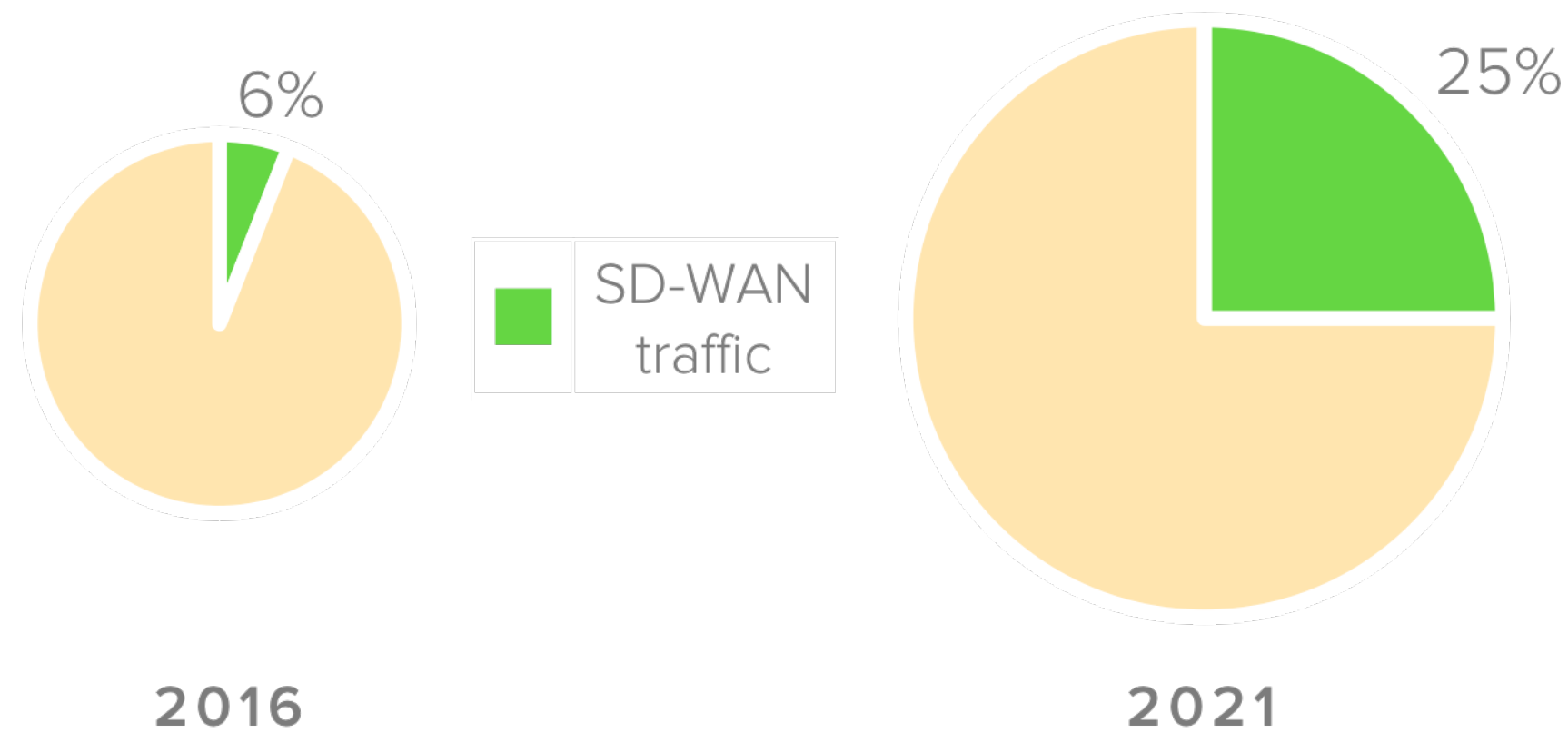


[Source: Cisco VNI, 2017]



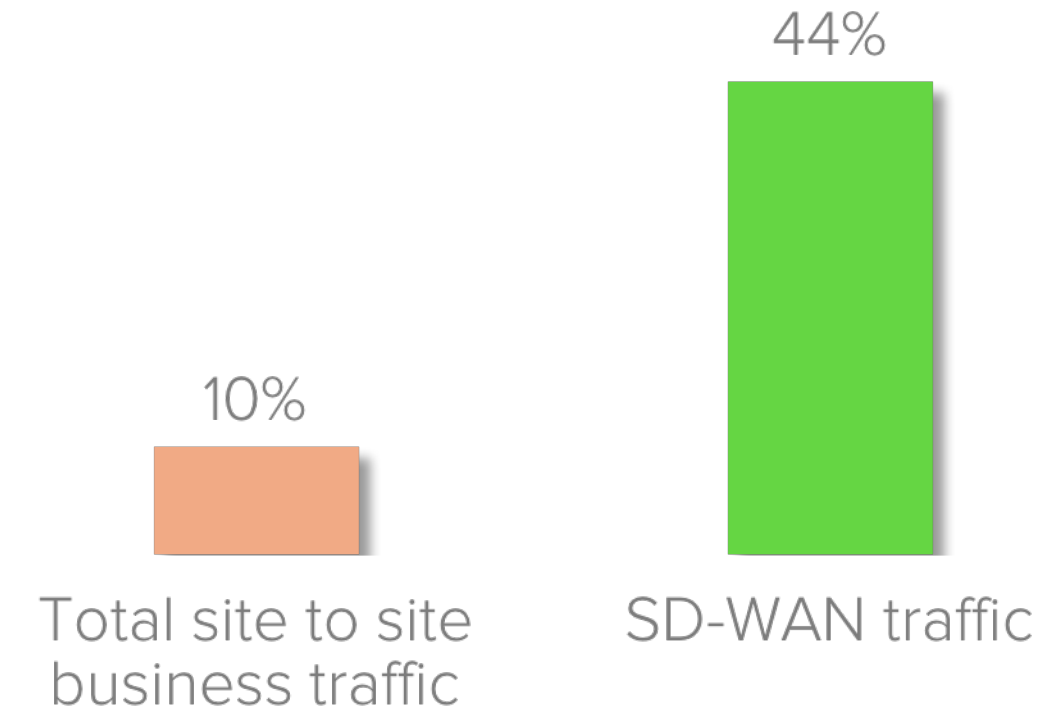
Globally, Business IP traffic is predicted to grow 3-fold from 2016 to 2021 at a compound annual growth rate of 21%

GLOBAL SITE-TO-SITE BUSINESS TRAFFIC



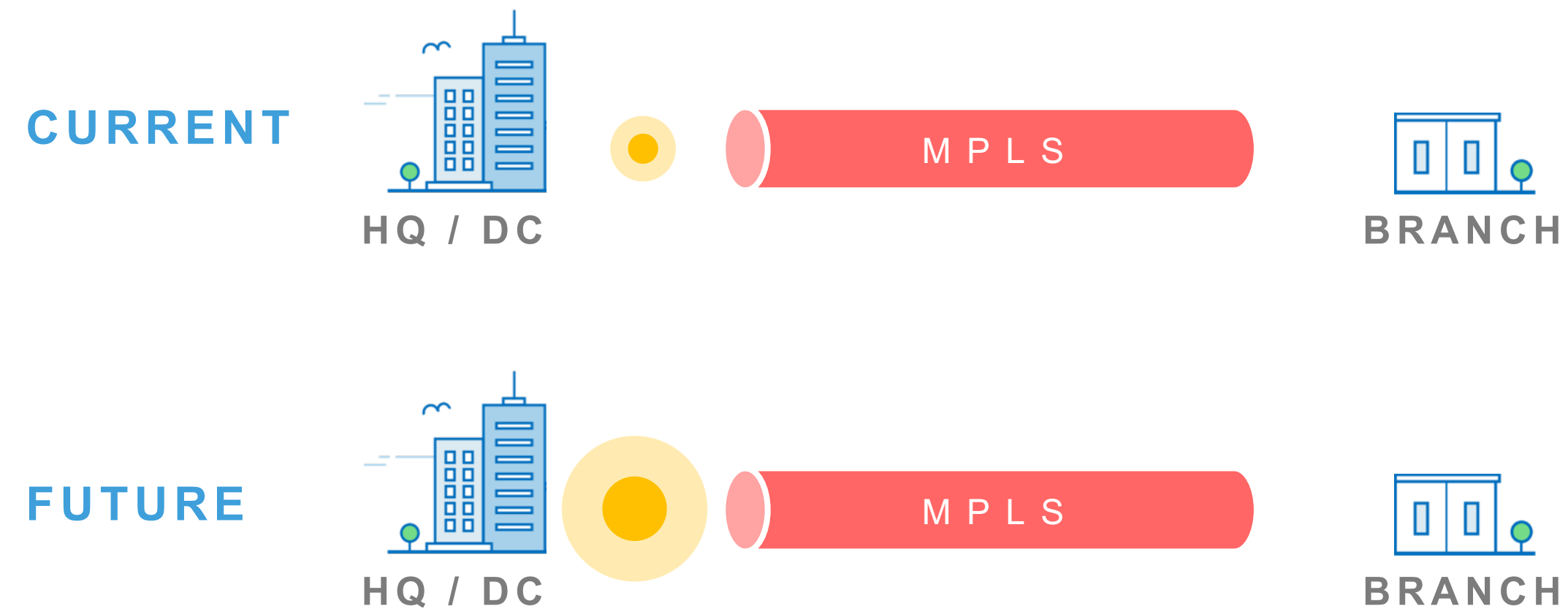
[Source: Cisco VNI, 2017]

CAGR

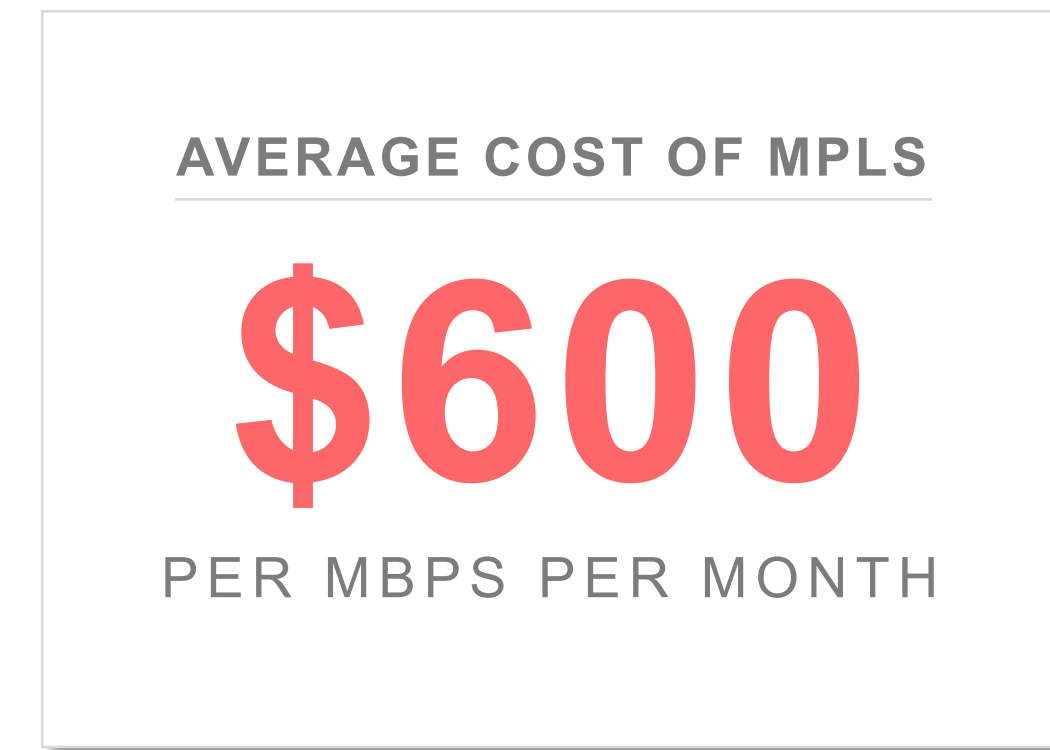


Global SD-WAN traffic growth outpaces site-to-site business traffic growth

Strained Premium WAN Links



- business critical
- non-critical

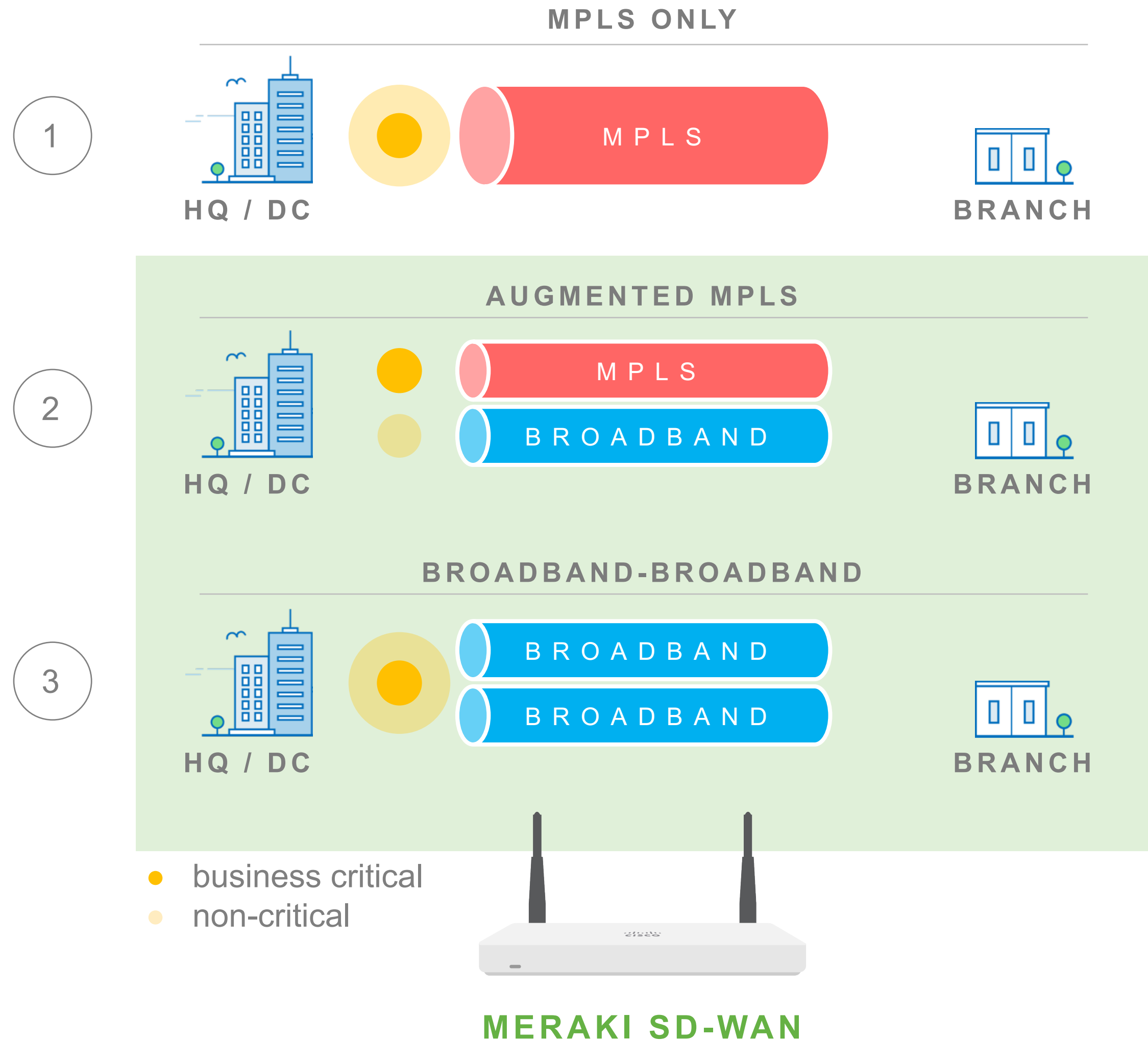


[Source: Network World, Next-Generation Enterprise WANs, 2012]

Legacy premium WAN links are coming under increasing strain as a result of growing business SaaS and site-to-site traffic

Increasing the capacity of private WAN links is a cost prohibitive option for most organizations

Future WAN Options



REDUCING COST

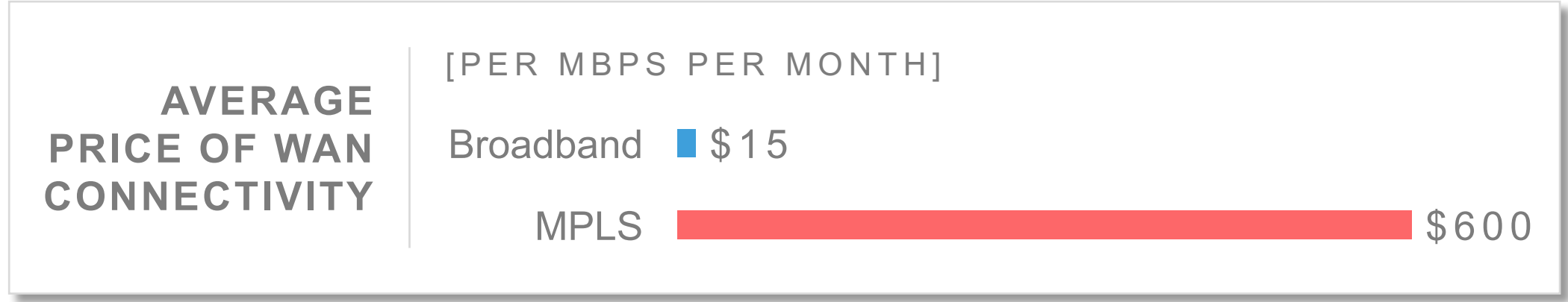
Increase the capacity of an existing MPLS network

Supplement an existing MPLS network with broadband for increased bandwidth

Offload critical traffic from MPLS to broadband with policy based routing dynamic path selection

Dual high speed broadband connections

Load balance business critical traffic based on policy or link performance





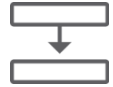


[Source: Network World, Next-Generation Enterprise WANs, 2012]

Meraki SD-WAN

Delivered by Powerful Hardware

Hardware highlights across all MX models

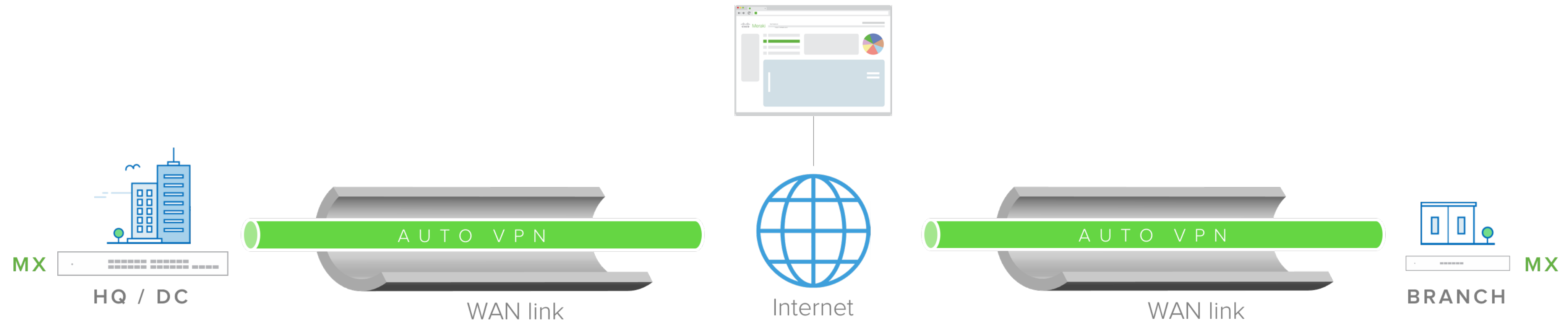
-  ×2 WAN ports
-  3G / 4G / LTE USB as single-WAN or failover
-  Additional Ethernet ports with PoE/PoE+ options
-  Models with embedded LTE modem
-  High availability mode



MERAKI MX SD-WAN & SECURITY APPLIANCES

AUTOMATIC WAN FAILOVER

Securely Built on Site-to-Site Auto VPN



Meraki Auto VPN

The ability to configure site-to-site, Layer 3 IPsec VPN tunnels in just two clicks in the Cisco Meraki dashboard over any WAN link

Automatically configured VPN parameters

The Cisco Meraki dashboard uniquely acts as a broker between MXs in an organization, negotiating VPN routes, authentication and encryption protocols, and key exchange automatically to create hub-and-spoke or mesh VPN topologies

Redundancy built-in

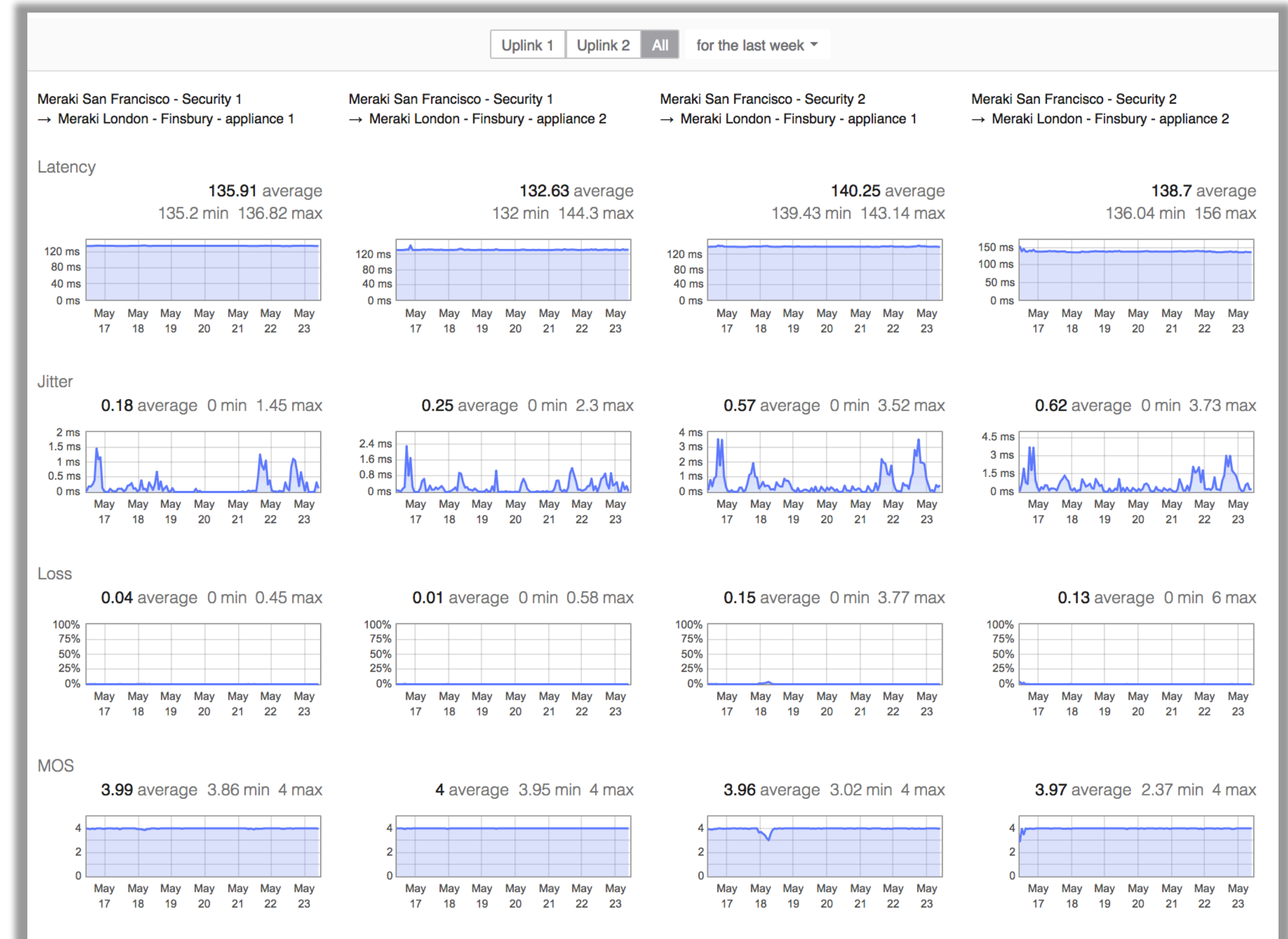
MXs with two uplinks will automatically self-heal to re-negotiate VPN tunnels if a primary uplink goes down

Driven by Real-Time VPN Performance Monitoring

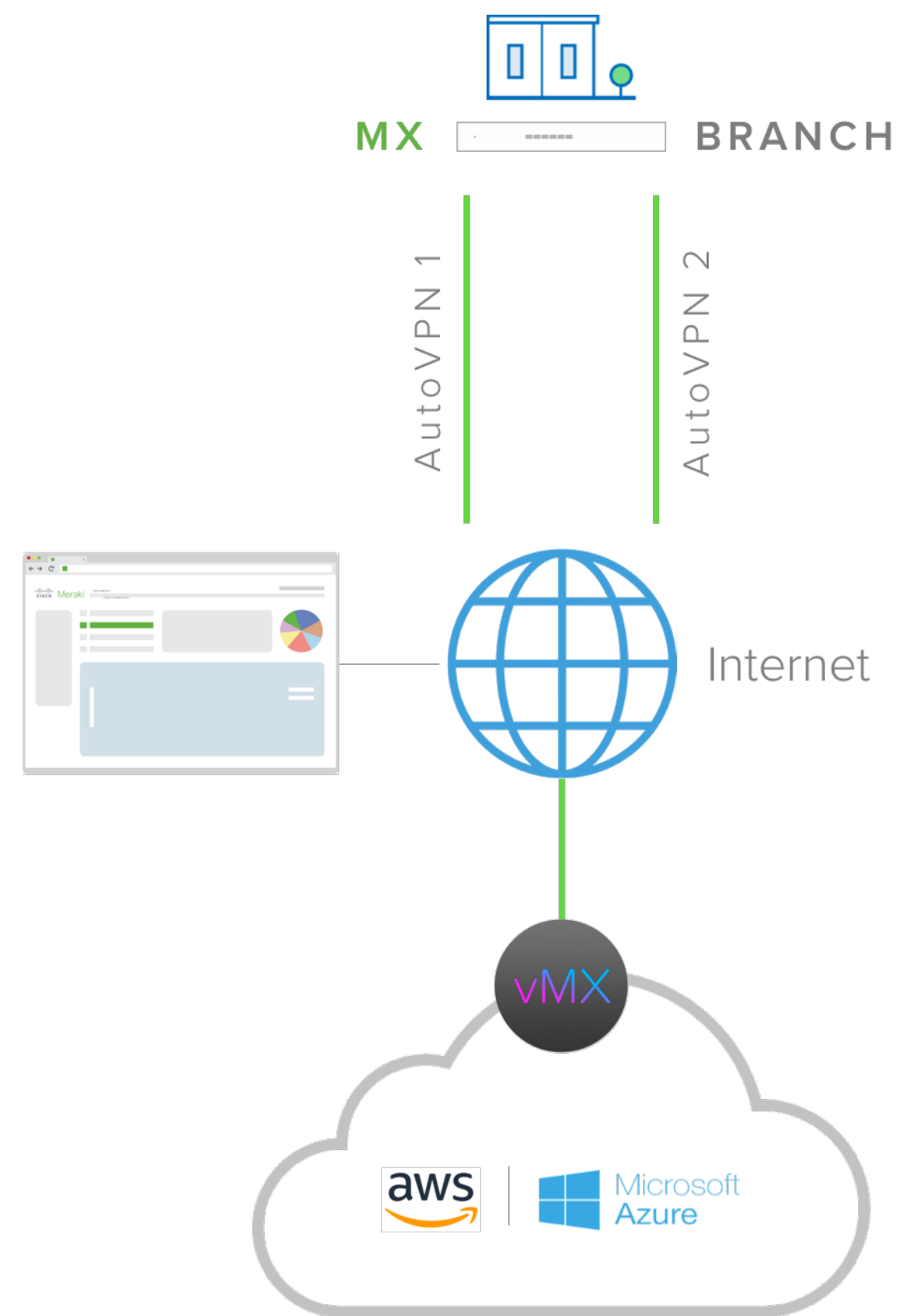
Performance metrics of all site-to-site VPN routes are monitored and logged approx. every second

- Latency
- Jitter
- Loss
- MOS

This data is used to make intelligent decisions about WAN connectivity



Extension to Public Cloud Services



Extend MX deployments to IT services located in AWS or Microsoft Azure with site-to-site auto VPN to a virtual MX (vMX)

Leverage SD-WAN on vMX the same way as a physical MX for optimal path selection to IT services hosted in AWS or Azure

vMX is managed just like any other physical MX in the dashboard once deployed on an AWS EC2 instance or an Azure VM

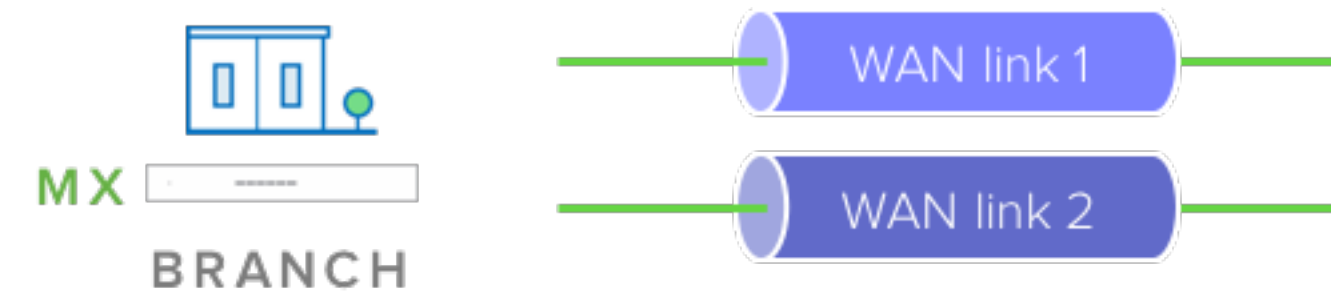
Up to 500Mbps VPN throughput

Only license required

Smart WAN Paths to Suit Your Business

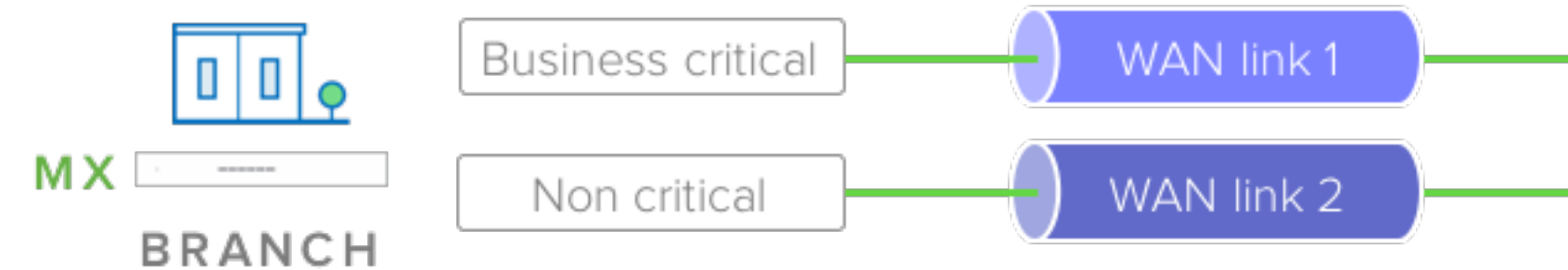
Dual active VPN

Load balance your VPN traffic over two WAN links



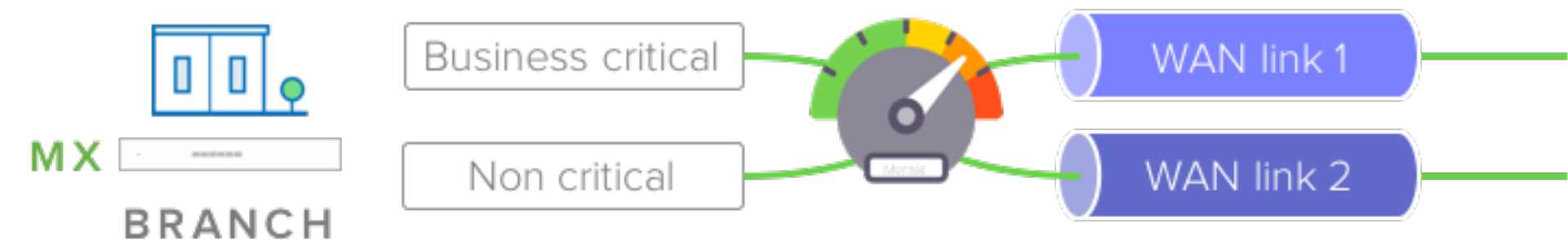
Policy-based Routing (PbR)

Select the preferred path for traffic based on protocol, port, source and destination IP, or even application



Dynamic path selection

Select the best VPN tunnel for traffic automatically based on performance



Auto VPN tunnels

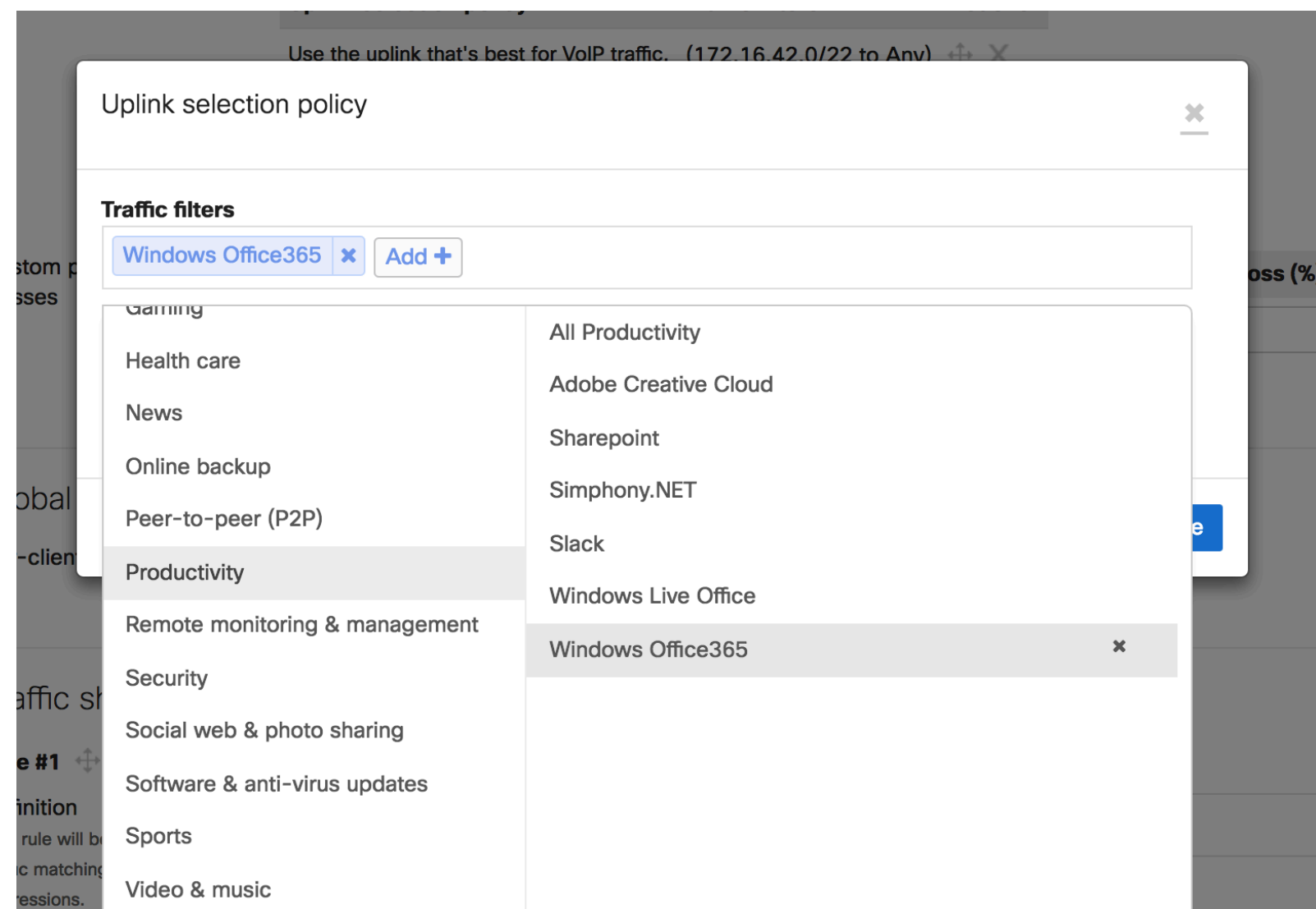
Simply Express Intent

1. Define acceptable performance thresholds

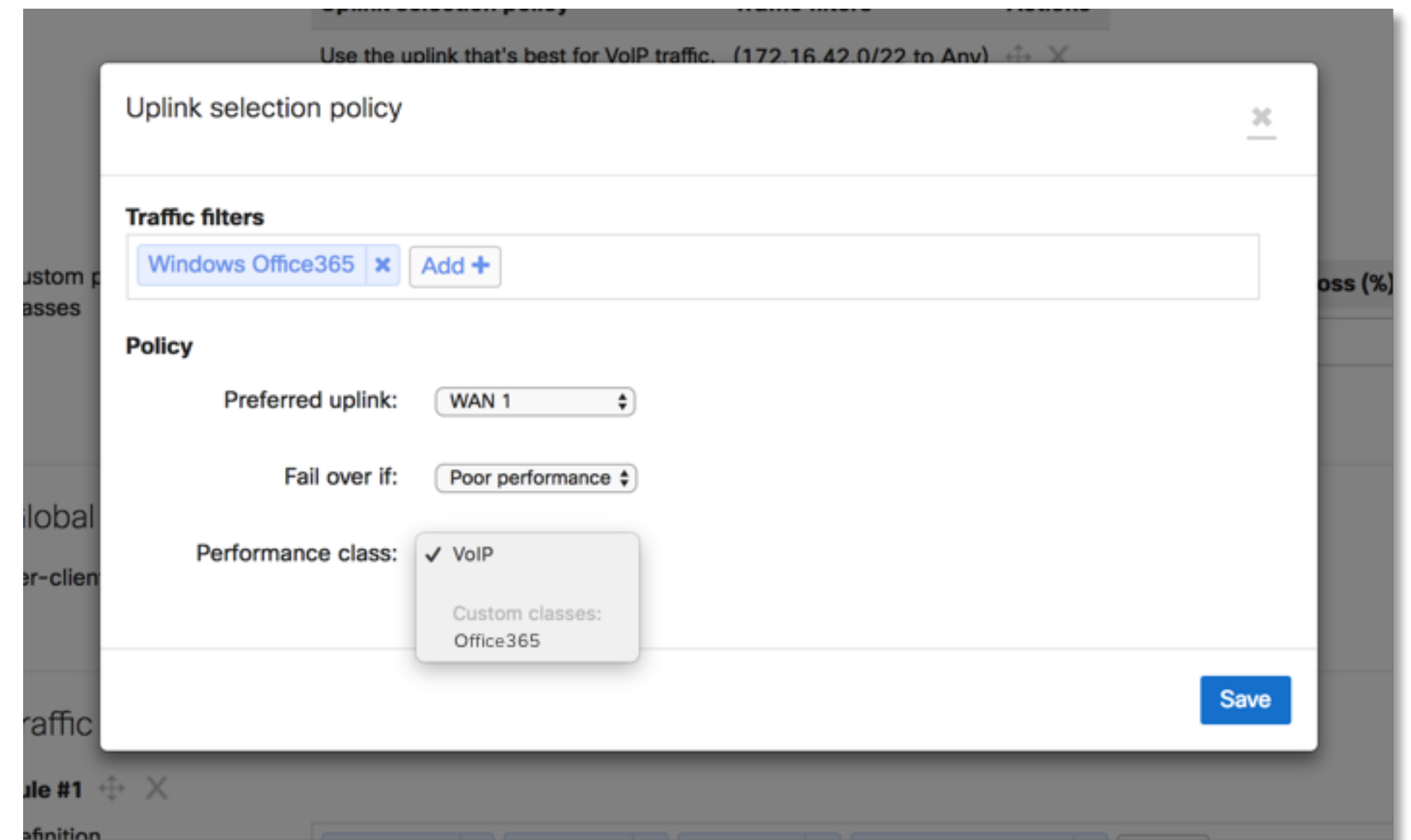
Custom performance classes	Name	Maximum latency (ms)	Maximum jitter (ms)	Maximum loss (%)	Actions
	Office365	10	10	10	X

[Create a new custom performance class...](#)

2. Select from built-in Layer-7 categories and applications



3. Choose preferred uplink and when fail over should occur

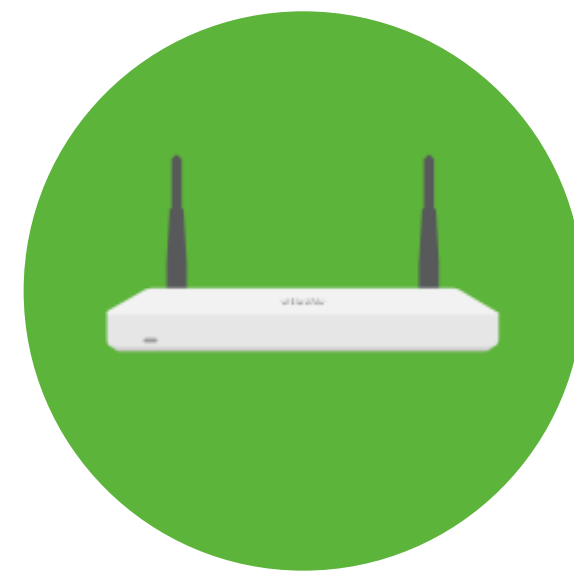


Tell the network what you want to accomplish,
not what to do and how to do it

Simple, All-Inclusive Licensing



Enterprise license



Hardware

1:1 ratio of licensing and hardware

1, 3, 5, 7, and 10 year durations available

Centralized management with network-wide visibility and remote troubleshooting tools

Over-the-web firmware and security updates

24/7 enterprise support and warranty

All features included as standard, no per-feature licensing

MX Appliance Licensing



Enterprise License

Full SD-WAN feature set and functionality

Site-to-site Auto VPN

Branch routing

Link bonding and failover

Application control

Web caching

Client VPN

Stateful firewall



Advanced Security License

All enterprise features, plus:

BrightCloud content filtering (with Google SafeSearch)

Cisco Advanced Malware Protection

Snort IPS / IDS

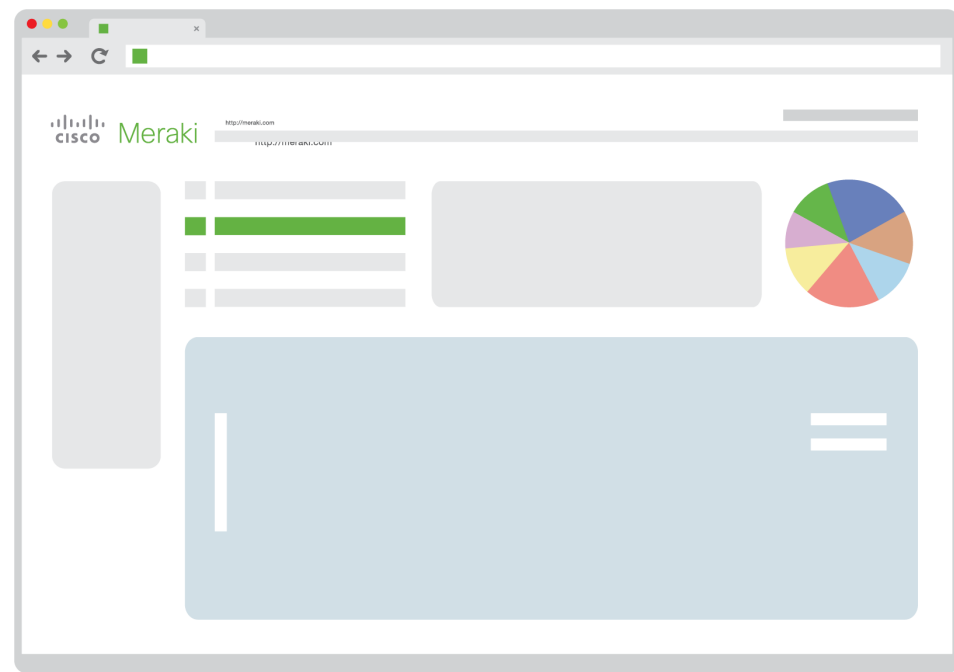
Geo-IP based firewall rules

[Note: No license required for HA MX Appliance]

Demo

Why Meraki SD-WAN

Zero Touch Provisioning



One-time remote, web-based configuration
Configuration templates simplify large multi-site deployments

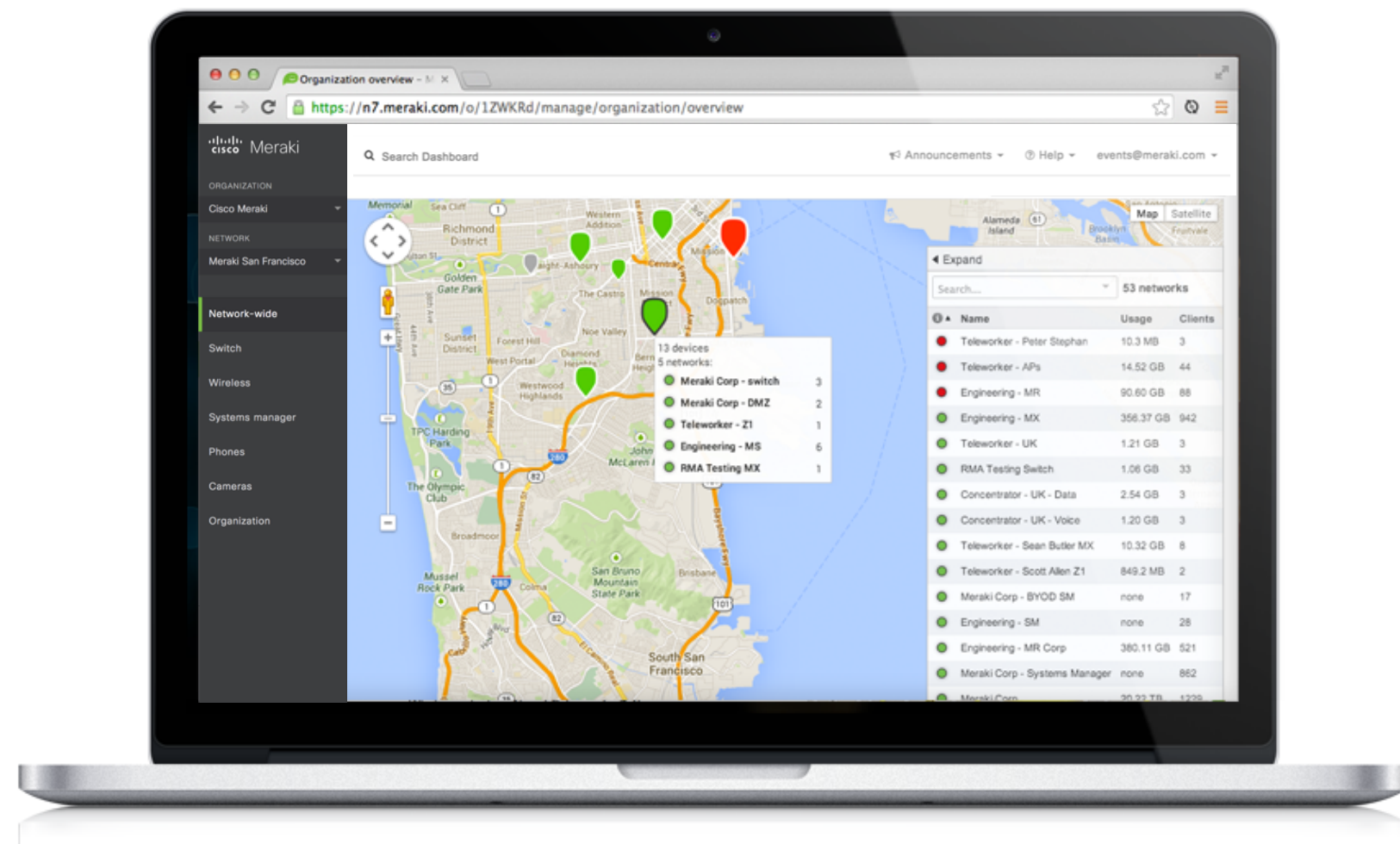


No pre-staging
No onsite configuration



Unbox and plug in MX appliances at required locations

Centralized Management



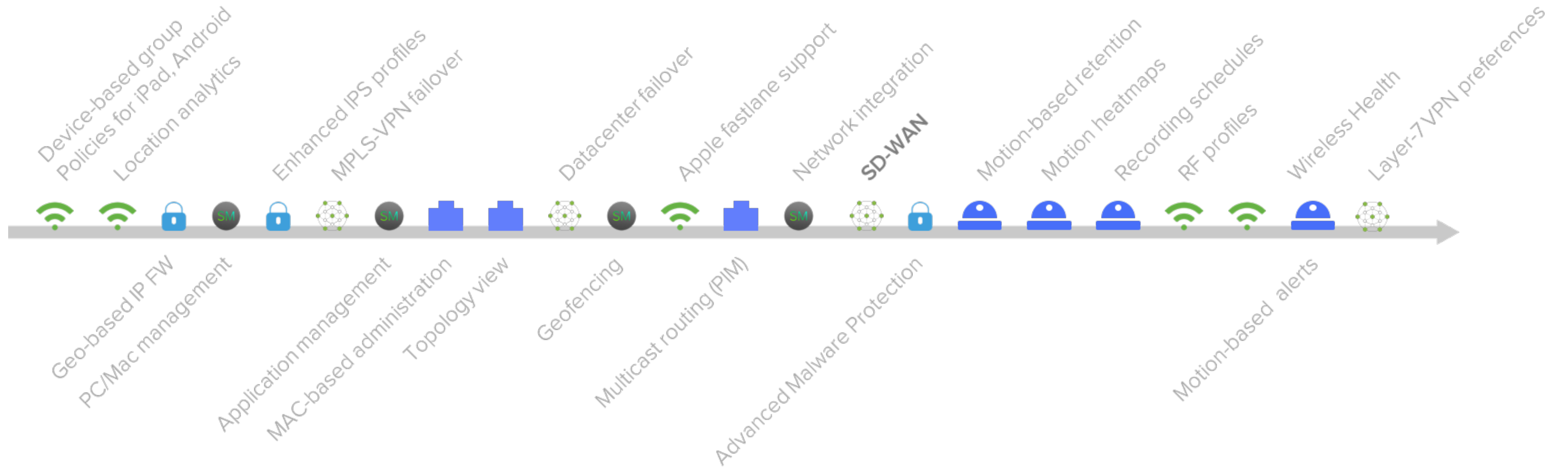
MANAGEABILITY

SCALABILITY

COST SAVINGS

Turnkey installation and management
Integrated, always up to date features
Scales from small branches to large networks
Reduces operational costs

Future Proofed Initial Investment



Over-the-web feature delivery with quarterly updates
Granular control over firmware versions

More Than Just SD-WAN

IPS Snort IDS / IPS, updated every day

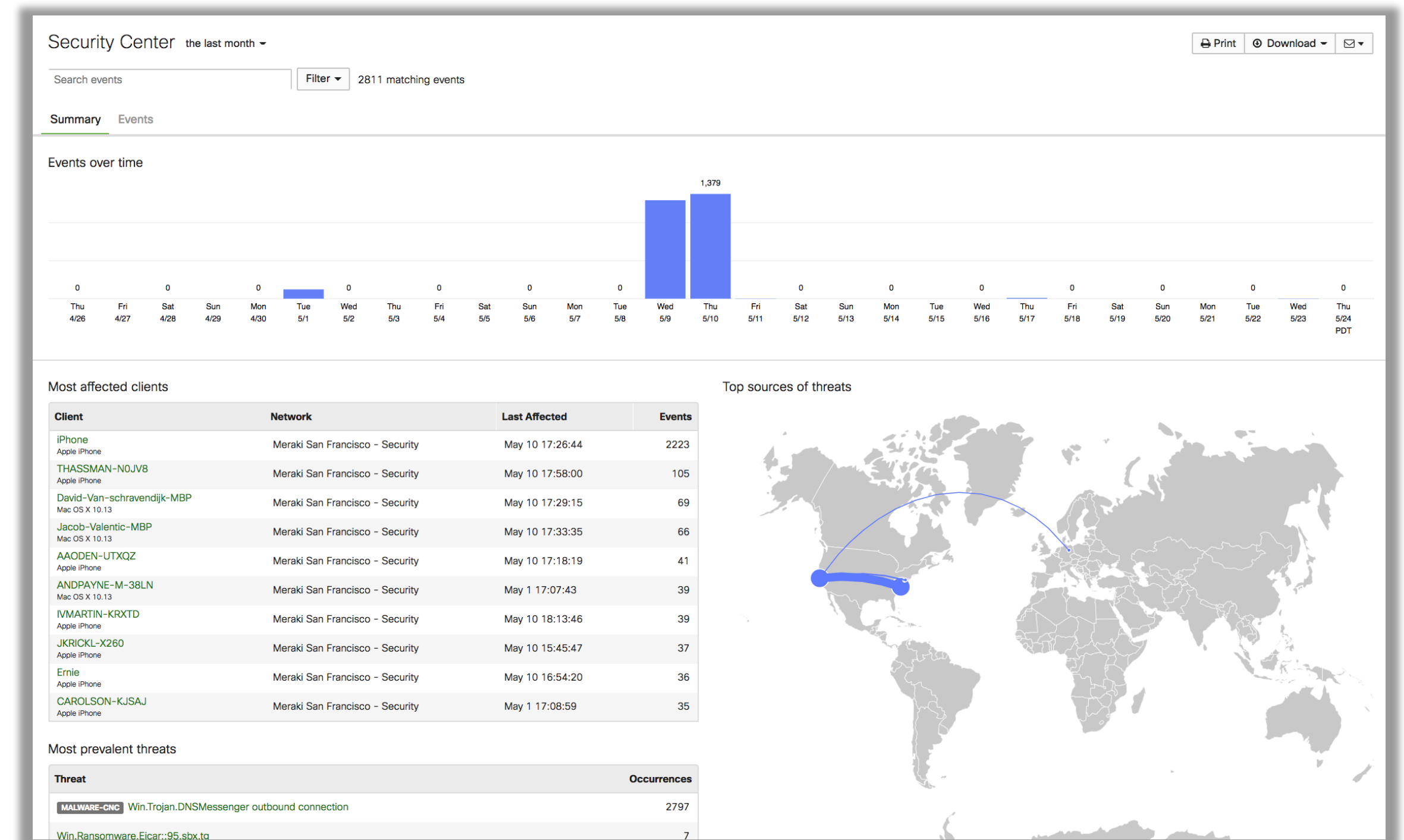
Content Filtering BrightCloud - 4+ billion URLs, updated in real-time

Geo-based security Block traffic sourced from selected countries

Malware Protection AMP with Threat Grid
ThreatGrid based sandboxing

Automatic Updates Software and security updates delivered from the cloud

PCI compliance PCI 3.2 certified cloud-based management

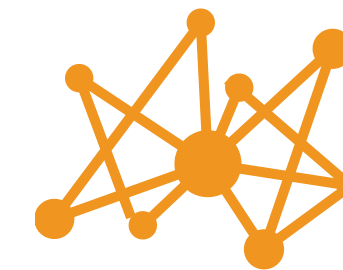


Industry leading security built-in with no additional hardware required

Supported by Cisco Talos Threat Intelligence



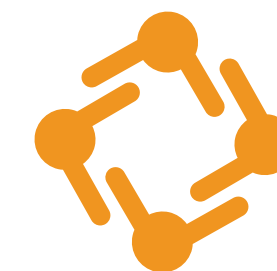
Over 250 full time threat researchers



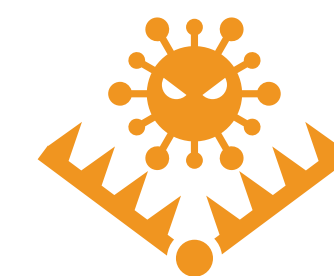
Millions of telemetry agents



4 global data centers



Over 100 threat intelligence partners



Over 1,100 threat traps

Visibility and Analytics

View historical latency, jitter, loss, and MOS for VPN links

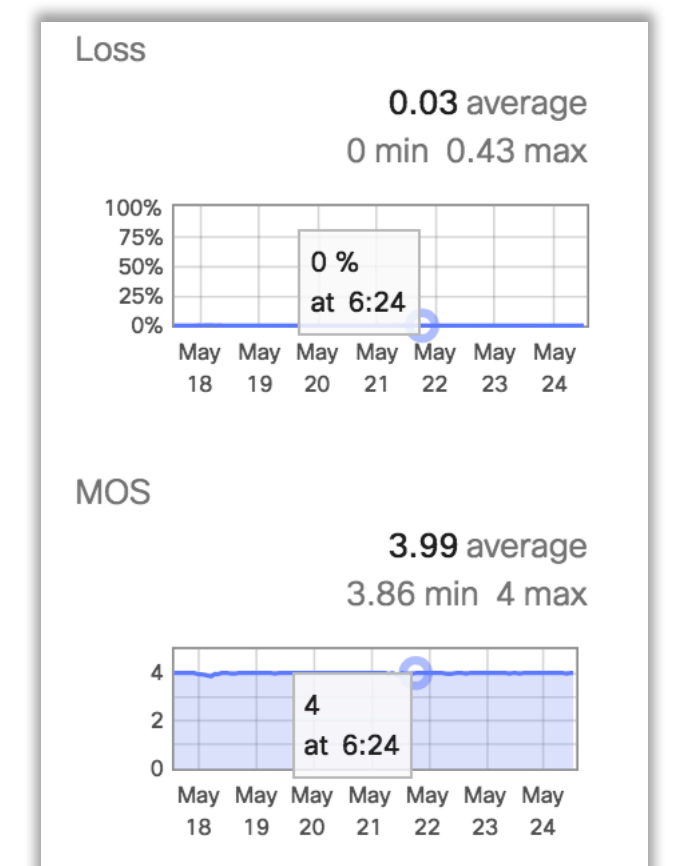
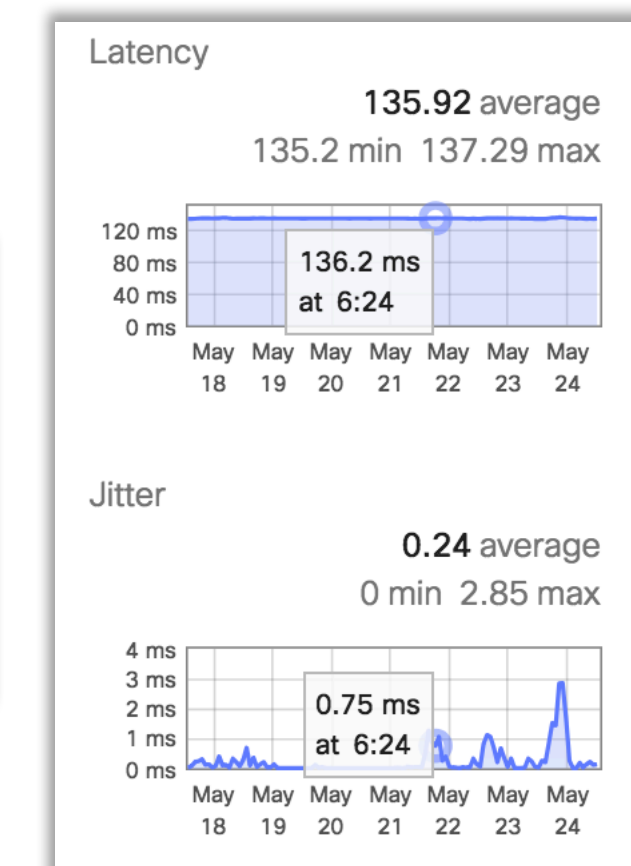
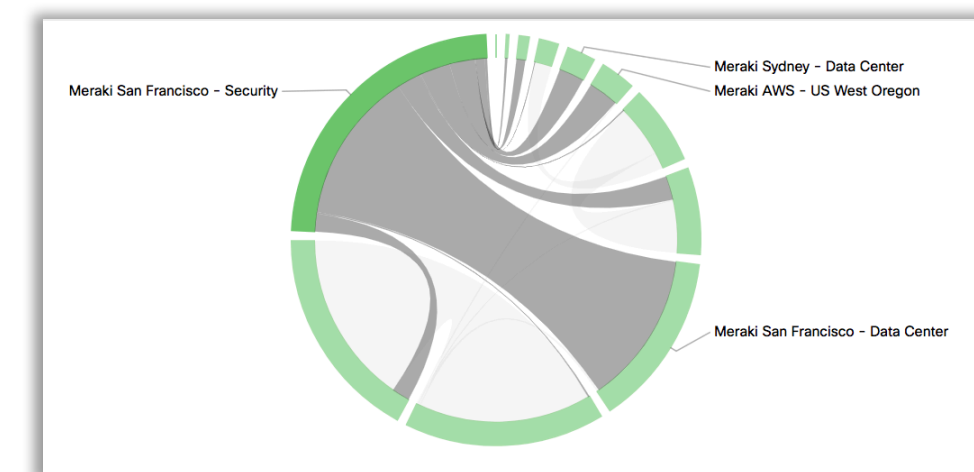
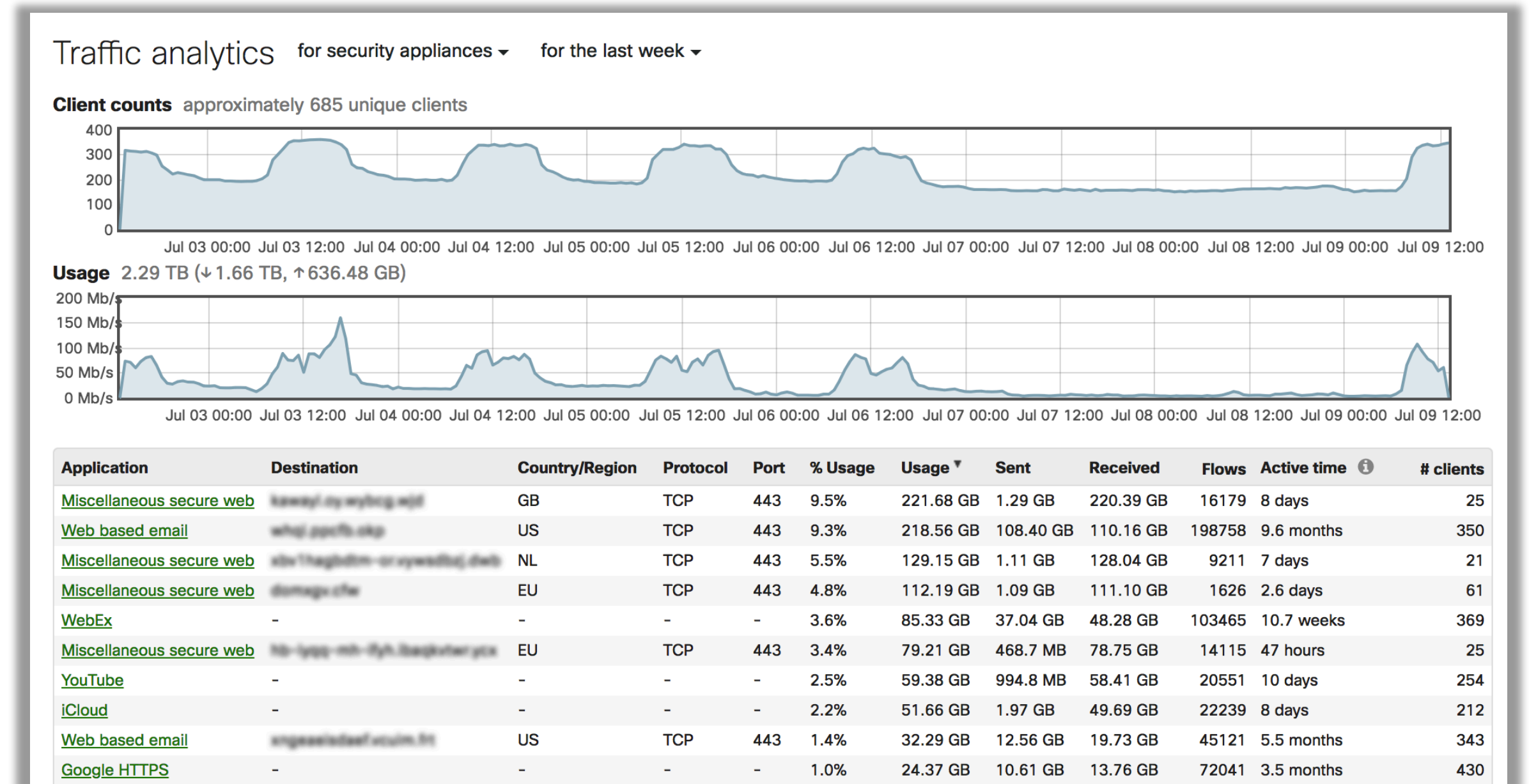
Visual representation of VPN status

View bandwidth usage by application or by client

Highlight an application or a client to see their portion of total network bandwidth

See a client's active time for specific applications

Easily create policies to limit bandwidth for problematic users or applications



The Cherry on Top...

Meraki Insight



Also delivered by the Meraki MX

Web Application Experience

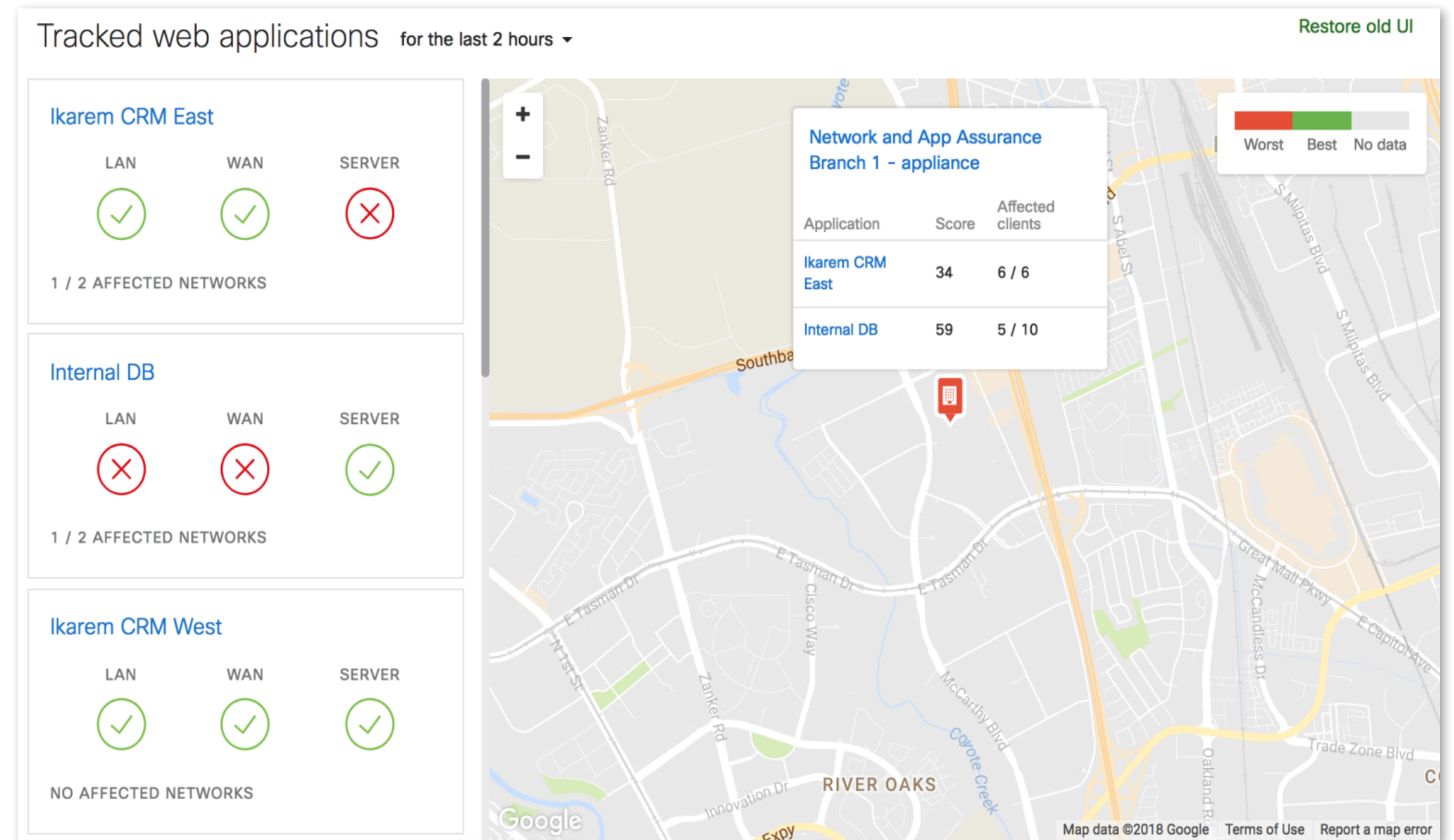
Monitor performance for apps travelling via VPN or public Internet

End-to-end visibility for SaaS application experience

Network performance analytics and troubleshooting, including the LAN, WAN, servers and domains

Accelerate IT and reduce time-to-resolution

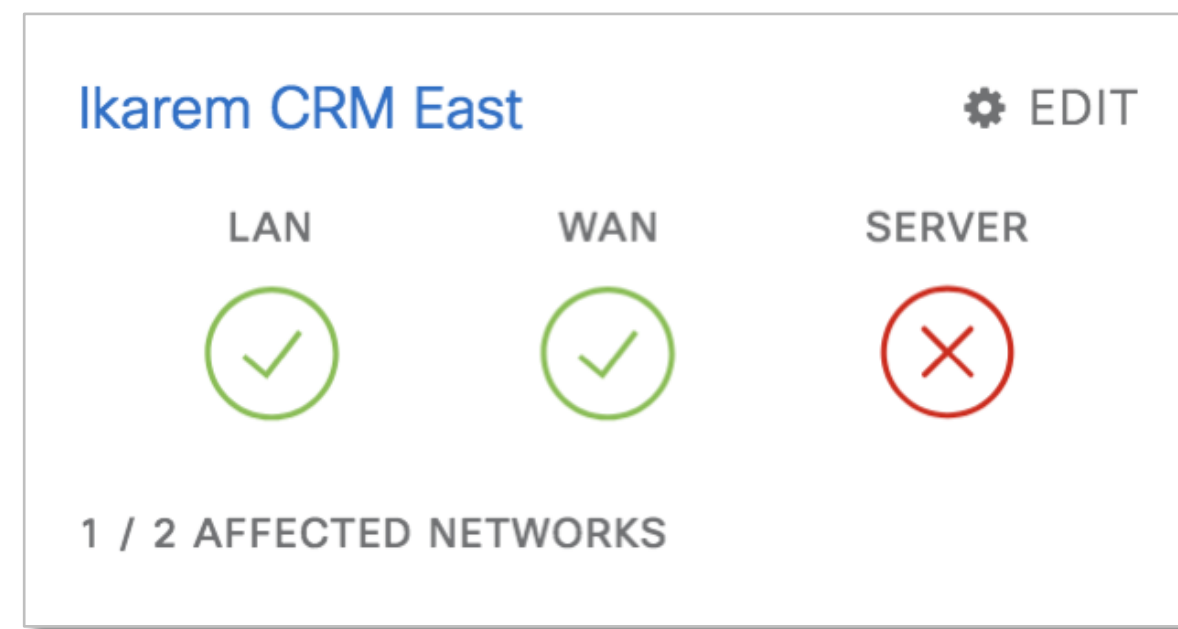
End-to-end network intelligence at work



Ease migration to SaaS with simplified troubleshooting

Pinpoint App Performance Issues in Minutes

Where's the issue and so who should be contacted?



Using MI an IT admin can immediately tell which point in the network is failing and causing degradation

What's the exact reason and where's the evidence?



Within 2 clicks, an IT admin can understand the exact reason and drill down to generate specific evidence for the poor performance

Insight even suggests the root cause of performance issues

WAN Health

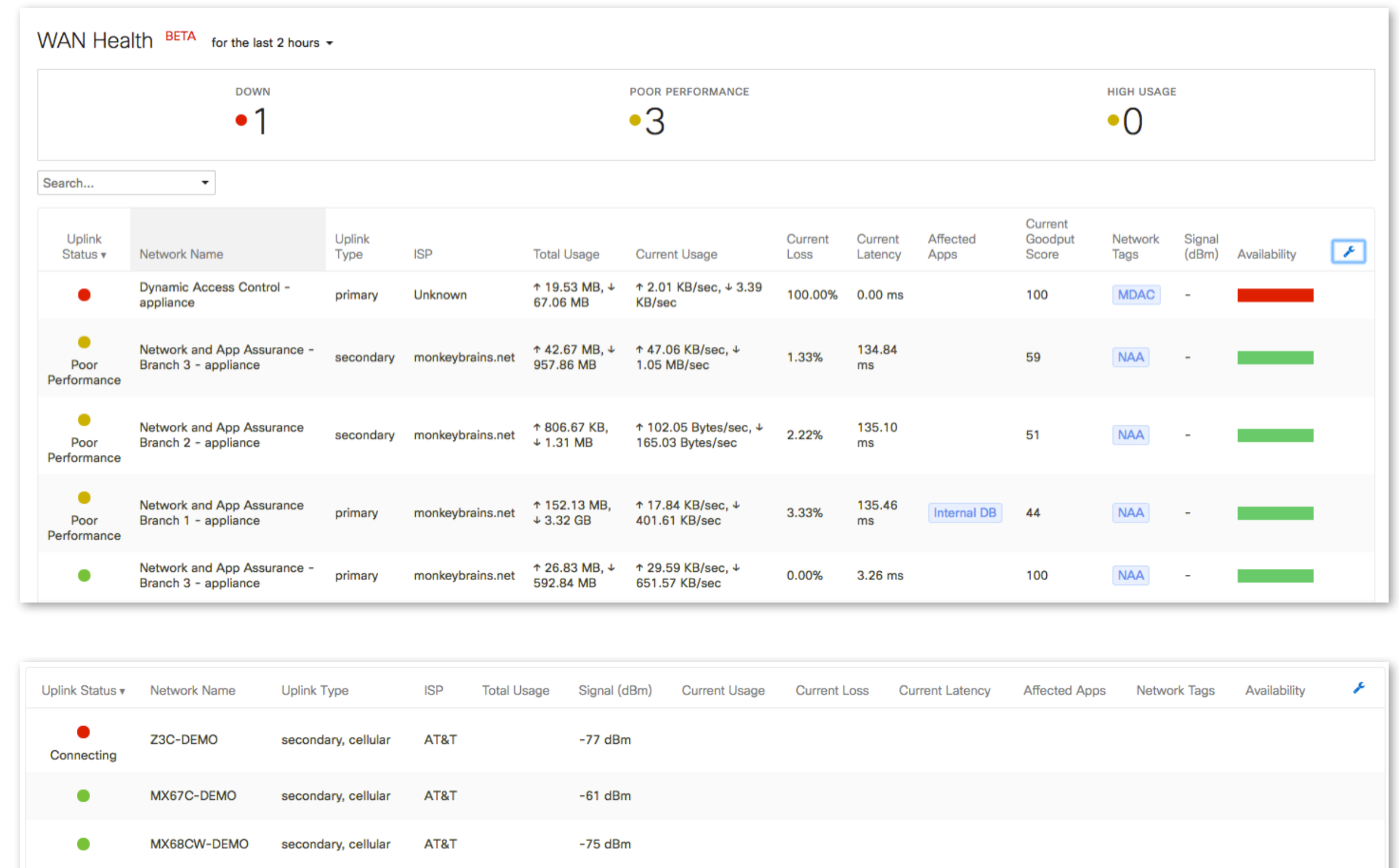
At-a-glance health of all MX uplinks across all sites

Quickly identify downed uplinks, including cellular across all sites

Easily monitor signal strength for cellular uplinks across all locations

Quickly isolate sites with underperforming uplinks to make the case for switching ISP or adding cellular as failover

Discover which sites are most reliant on cellular as failover



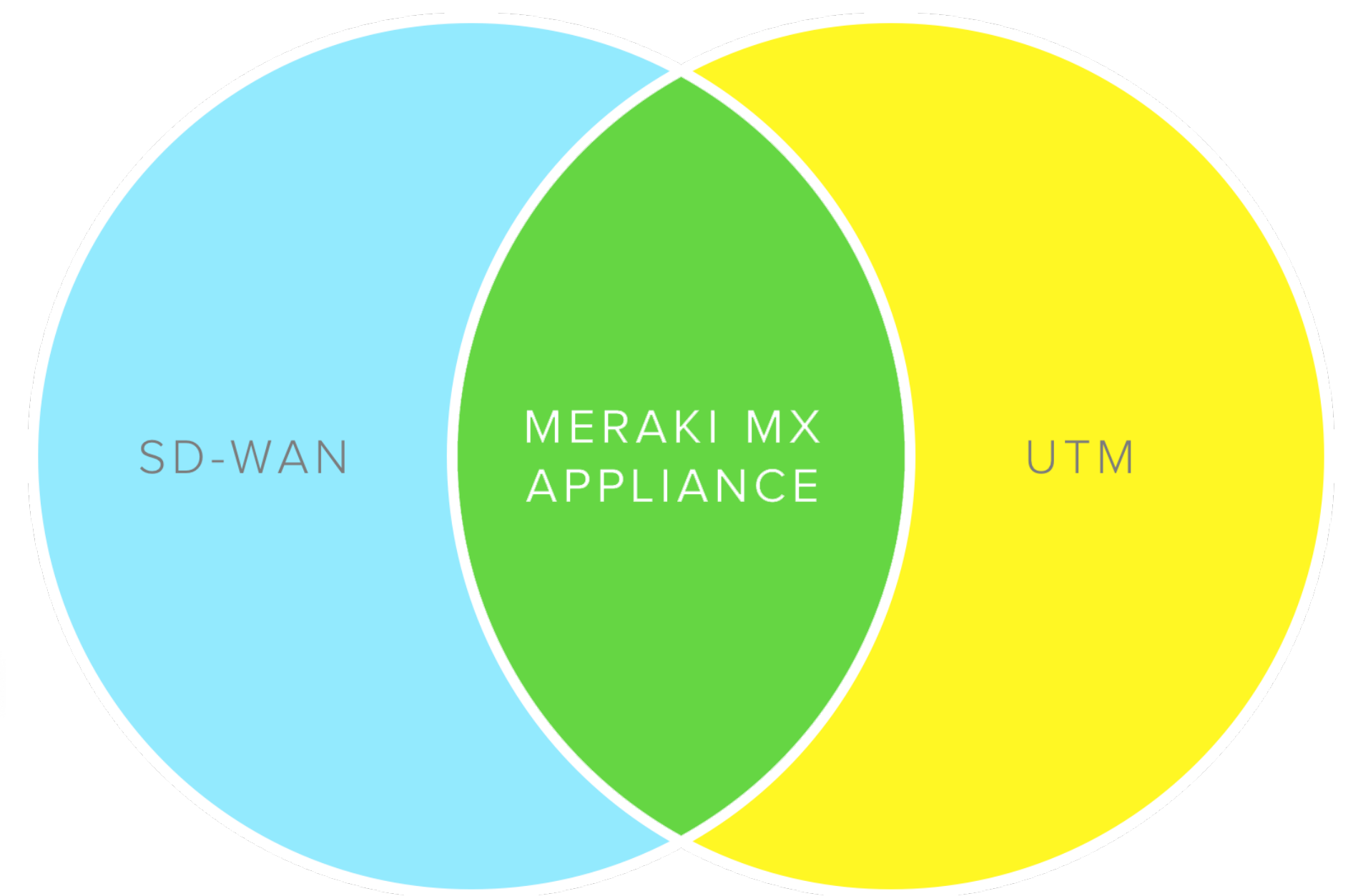
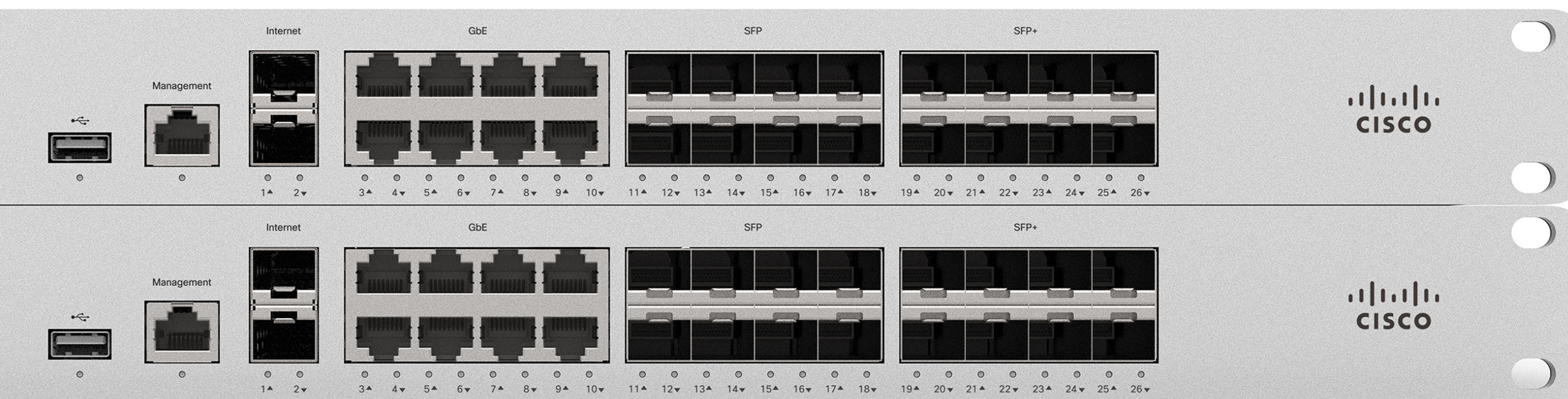
Monitor the health of all MX uplinks including cellular across all sites

PERFECT COMPANION FOR SD-WAN

Licensing

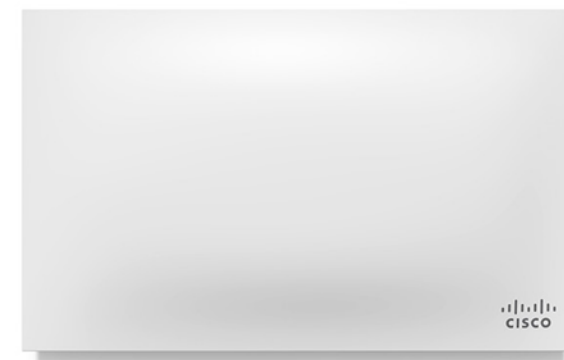
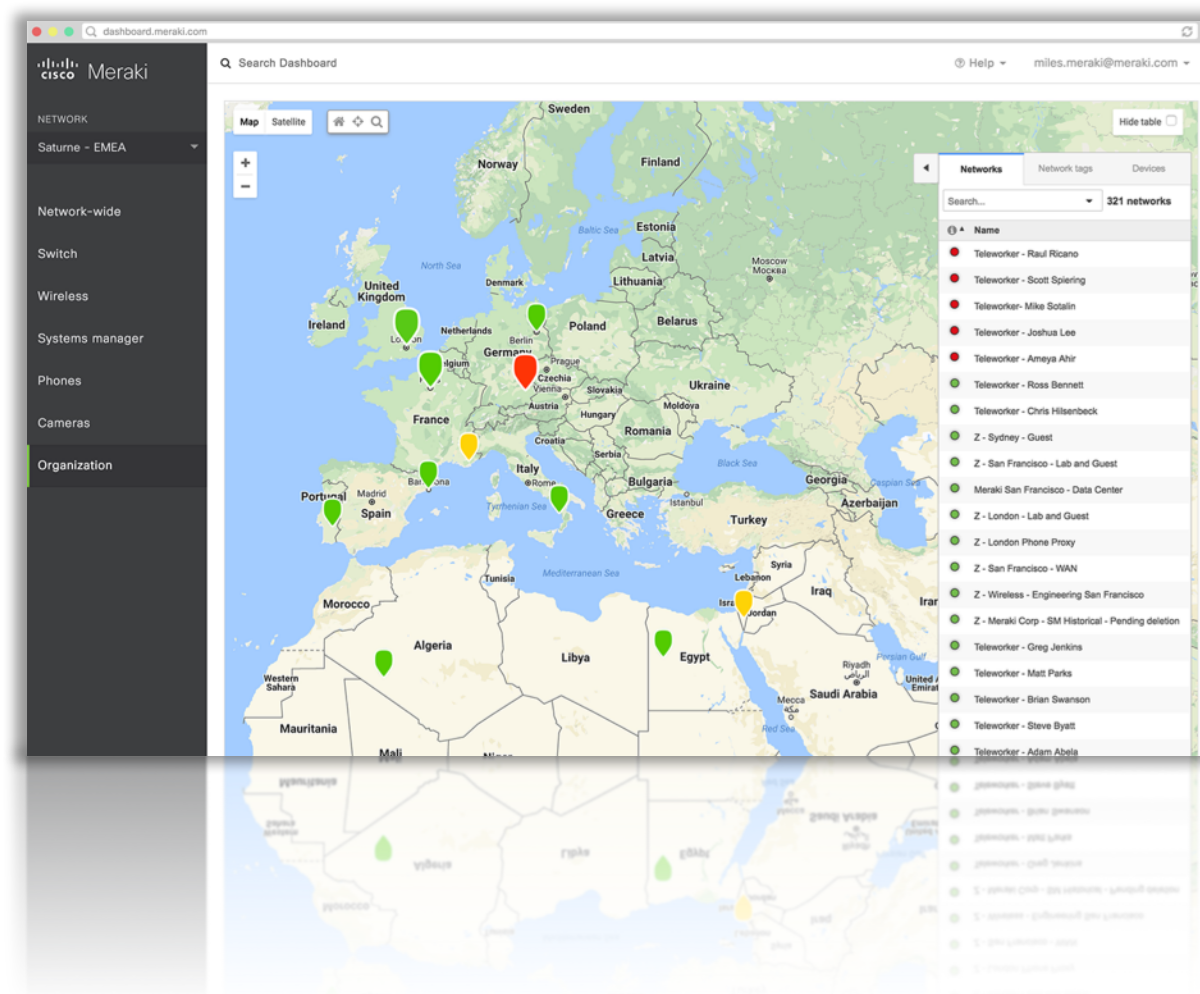
MX MODELS	LICENSE SIZE FW Throughput
MX6x Z3x	SMALL Up to 450 Mbps
MX84 MX100	MEDIUM Up to 750 Mbps
MX250 MX400	LARGE Up to 5 Gbps
MX450 MX600	EXTRA LARGE Up to 10 Gbps

Industry Leading SD-WAN Meets Industry Leading Security

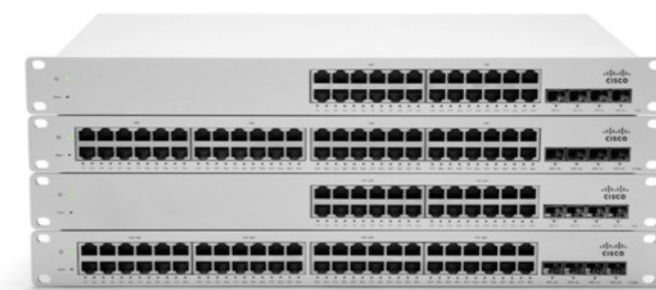


Product Families

The Meraki Full Stack



MR
Access Points



MS
Ethernet Switches



MX
SD-WAN & Security
Appliances



Systems Manager
Endpoint
Management



MI
Insight



MV
Security Cameras

A COMPLETE CLOUD MANAGED IT PORTFOLIO
SINGLE PANE OF GLASS MANAGEMENT

Next Steps

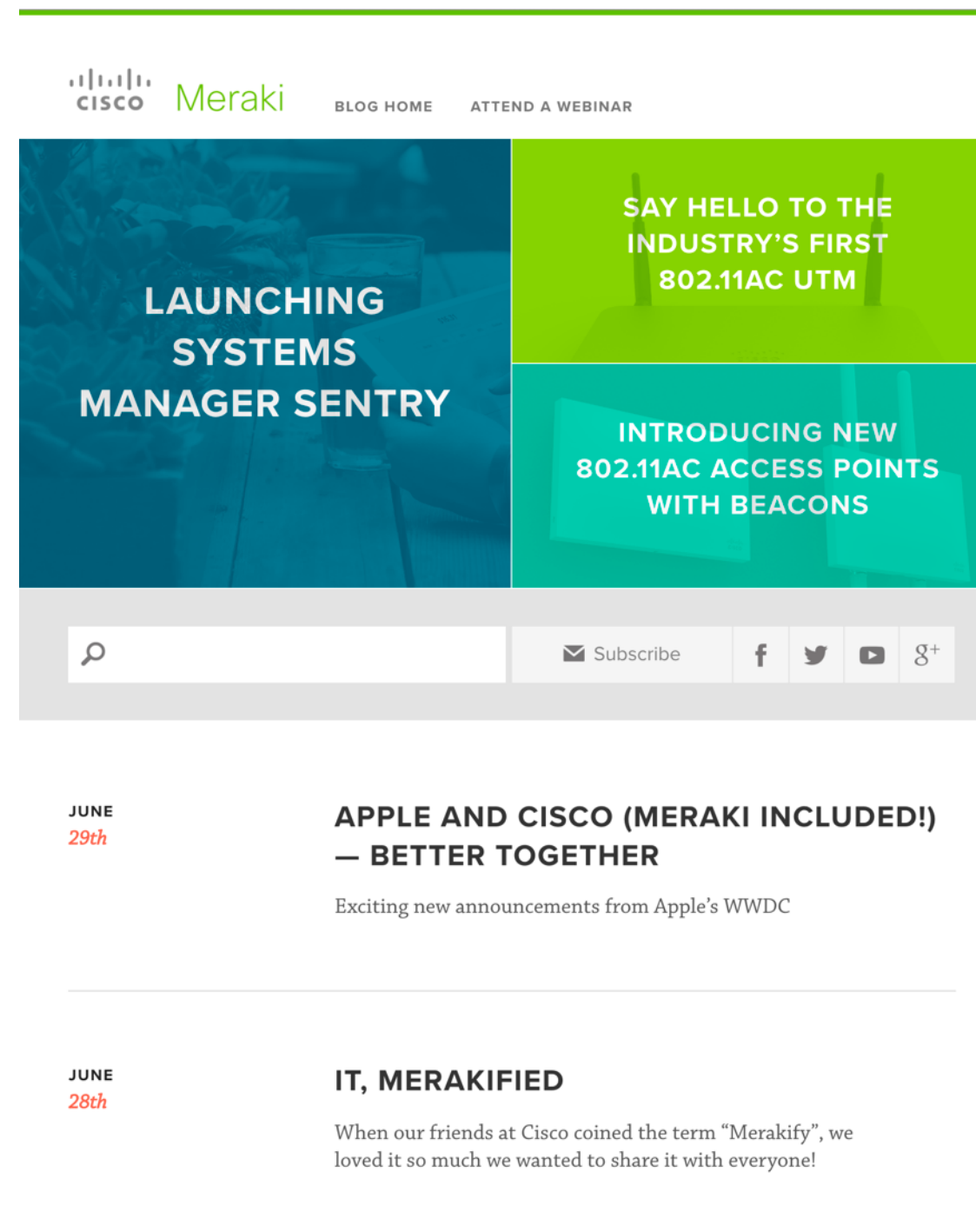
Risk-free evaluation

meraki.cisco.com/eval



Check out our website & blog

meraki.cisco.com/blog



Contact your Meraki rep

meraki.cisco.com/contact



Thank you



Meraki