



CONNECTING WITH CONFIDENCE

THE FUTURE OF NETWORKING THROUGH SD-WAN



Quantum
SD-WAN



AGENDA

- What is SD-WAN, and what are the drivers for SD-WAN adoptions?
- Quantum SD-WAN features and functionality
- Quantum SD-WAN roadmap highlights
- Q&A

WHAT IS SD-WAN?

SOFTWARE-DEFINED WIDE AREA NETWORKING

Abstracts the networking logic from the physical network links

SUPPORTS MULTIPLE WAN LINKS

e.g. broadband, wireless, MPLS

SUPPORTS MULTIPLE LOCAL ISPs/MNOs

with failover between them

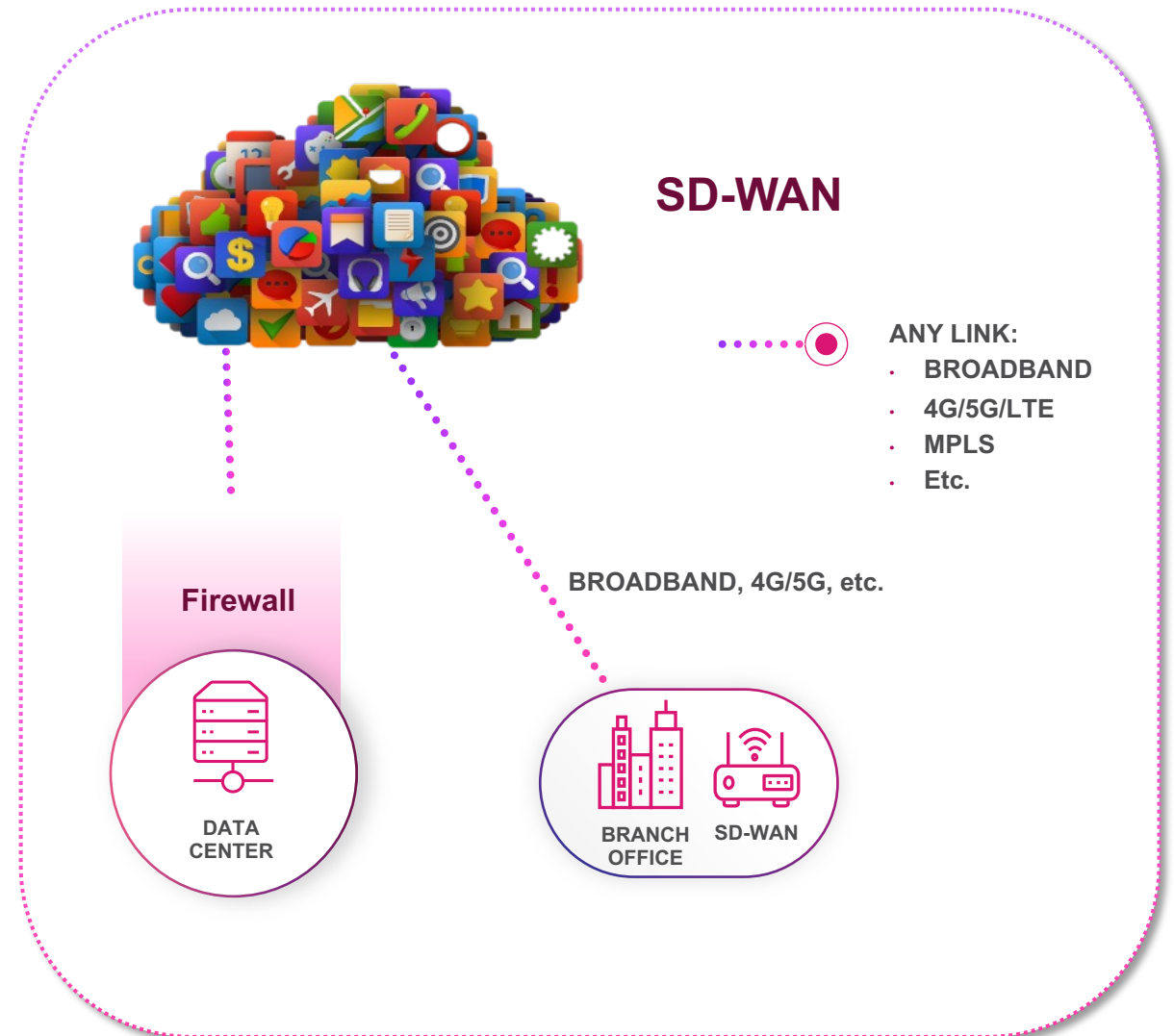
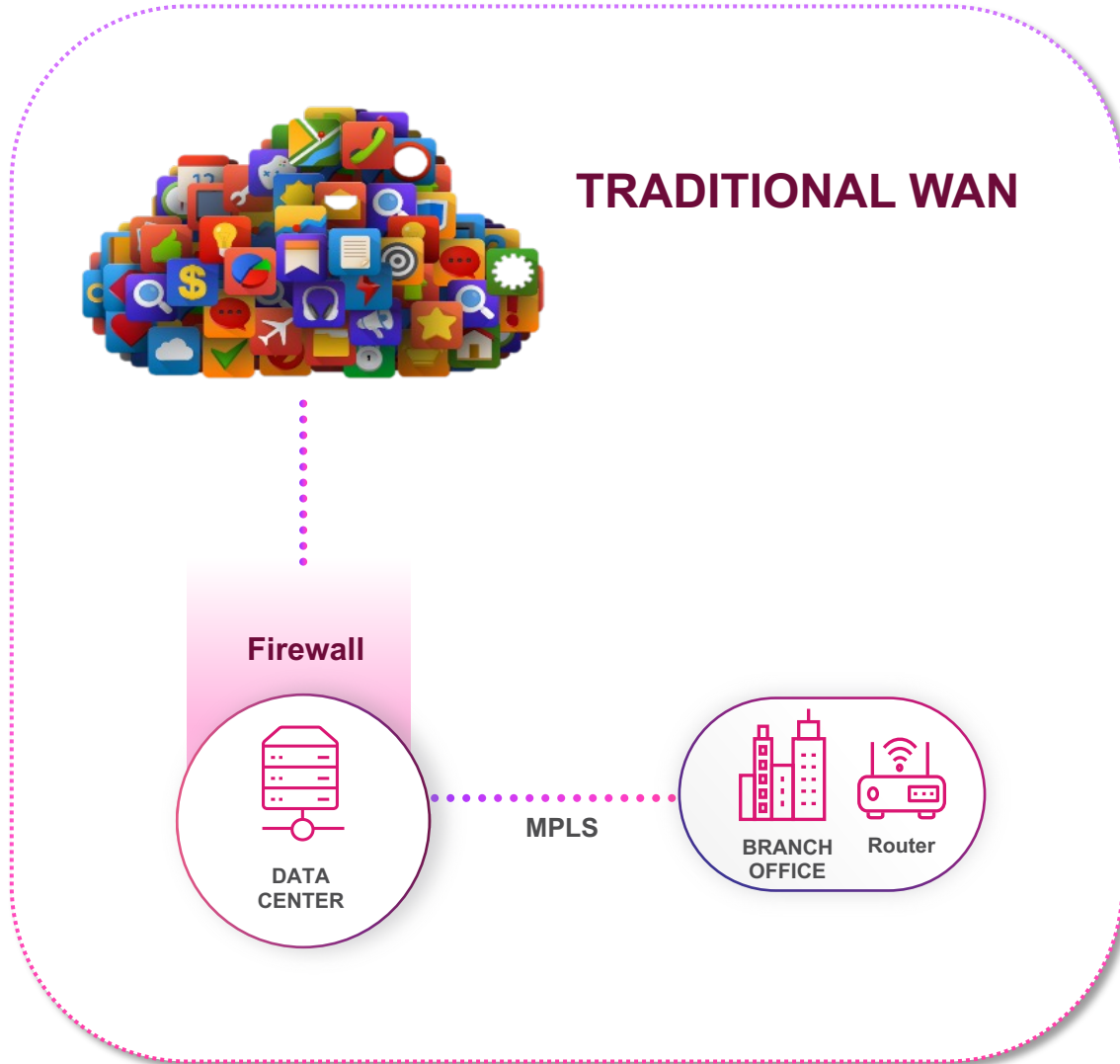
OPTIMIZES ROUTING

for applications and users

CENTRAL MANAGEMENT

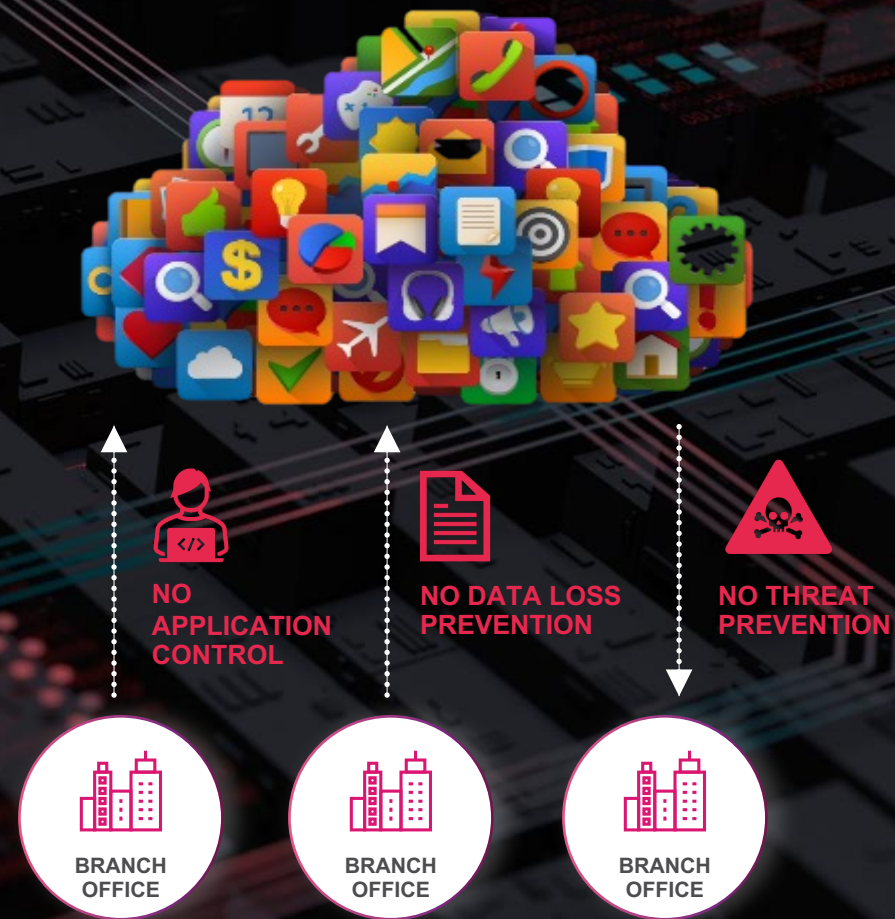
for all sites and branches

Traditional WAN vs. SD-WAN



SD-WAN SECURITY CHALLENGES

NO BRANCH-LEVEL SECURITY STACK



Switching to SD-WAN saves up to 80% in monthly costs

MPLS Solution

- MPLS Ethernet (100Mbps) at \$1000/mo.

\$1,000

Total per site/month

Broadband + SD-WAN Solution

- ISP1 – 1 Gbps broadband internet for \$80/mo.
- ISP2 – 1 Gbps broadband internet for \$80/mo.
- SD-WAN service starting from \$13.5/mo. (1530 Spark)

\$174

Total per site/month



Lower costs

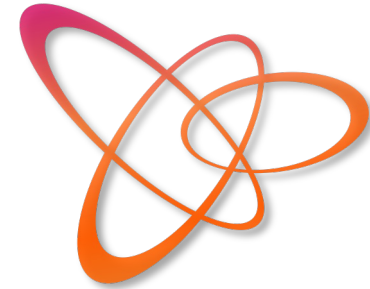


Faster connectivity



Automated steering

TRENDS



Cloud Migration Drives SD-WAN Adoption

- Faster connections
- Lower costs

Security is key in adopting SD-WAN

- Customers are prioritizing security over other features
- Check Point offers proven, superior security

Adoption of SD-WAN is Growing

- SD-WAN market estimated to reach \$2.8B in 2023, growing at 26% CAGR
- Adoption to reach 60% by 2026

-Source: Gartner

INTRODUCING

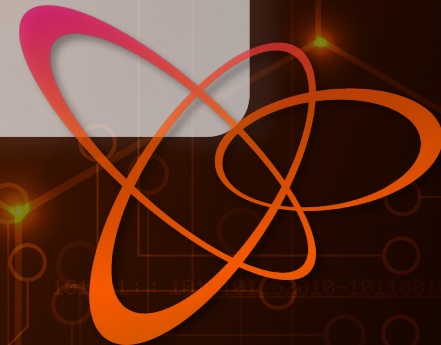


Quantum






SD-WAN

New software blade in Quantum Gateways

Unifying best security with optimized internet
and network connectivity



ACTIVATE SD-WAN BLADE FROM YOUR QUANTUM GATEWAYS

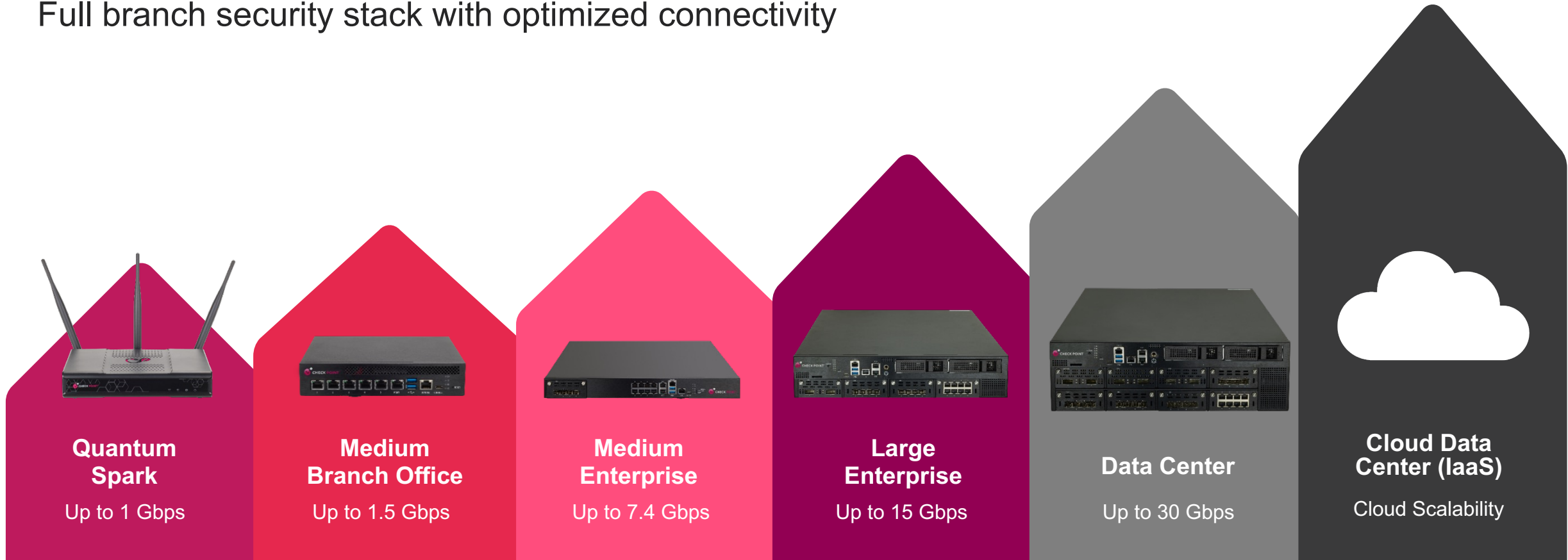
Next Generation Firewall	Next Generation Threat Prevention	Sandblast - Gen V Threat Prevention	Quantum IoT	Quantum SD-WAN
				
Next Generation Firewall +	Next Generation Threat Prevention +	Next Generation Threat Prevention +	IoT discovery IoT threat prevention	Application prioritization Connectivity monitoring Automated link failover Bandwidth aggregation
Firewall VPN Application-Control IPS	Anti Virus Anti Bot URL Filtering Anti Spam Advanced DNS Security ★	Threat Emulation Threat Extraction Zero Phishing ★		
		R81.20 required	R81.20 required	R81.20 required
12 Blades – Best Security			IoT	SD-WAN

Supported in a broad range of Quantum Gateways

Full branch security stack with optimized connectivity



Quantum
SD-WAN

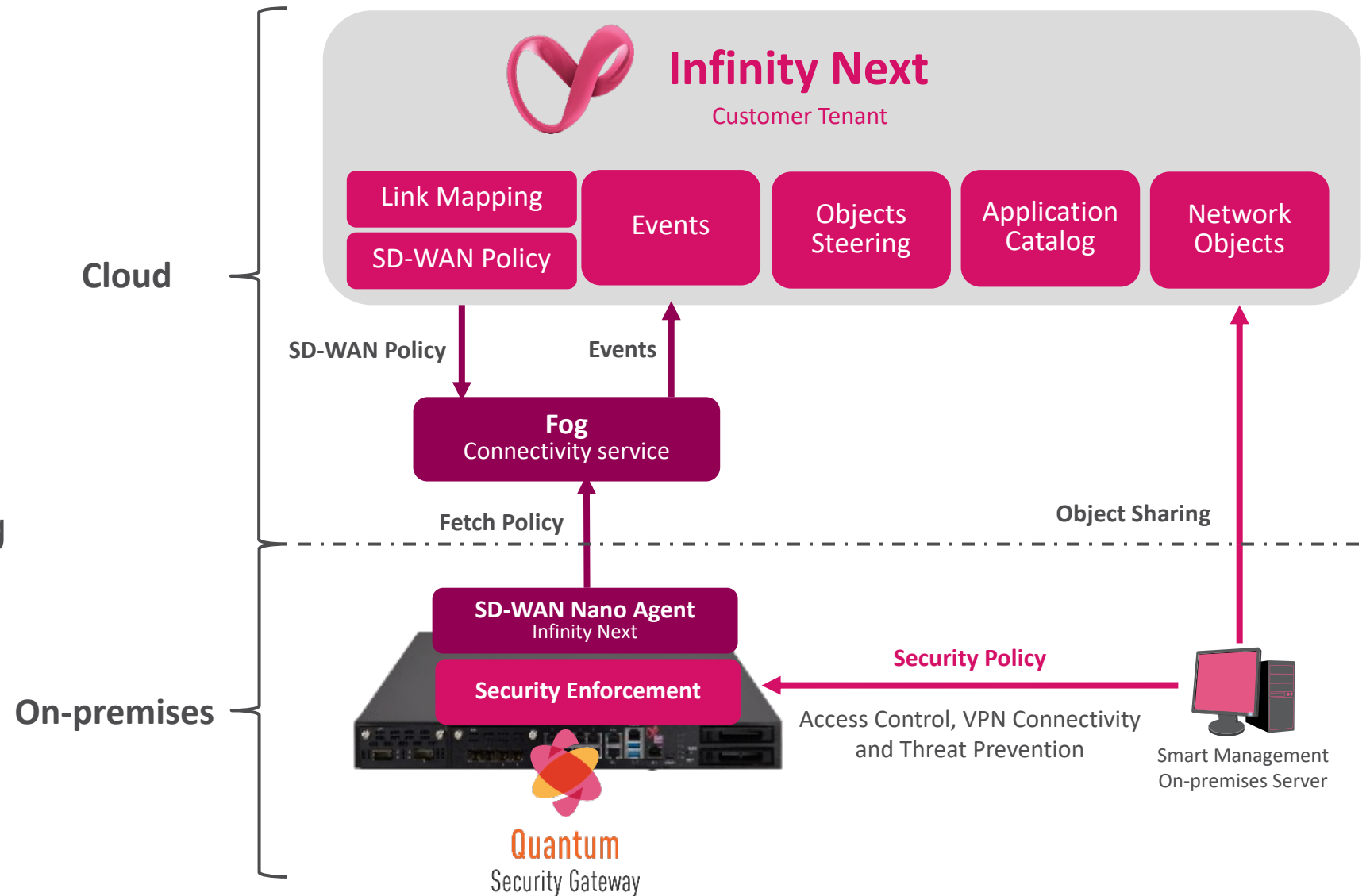


*** Supporting all appliances models compatible with R81.20**

**** Supporting Spark and Spark Pro starting R81.10.05**

Quantum SD-WAN Architecture

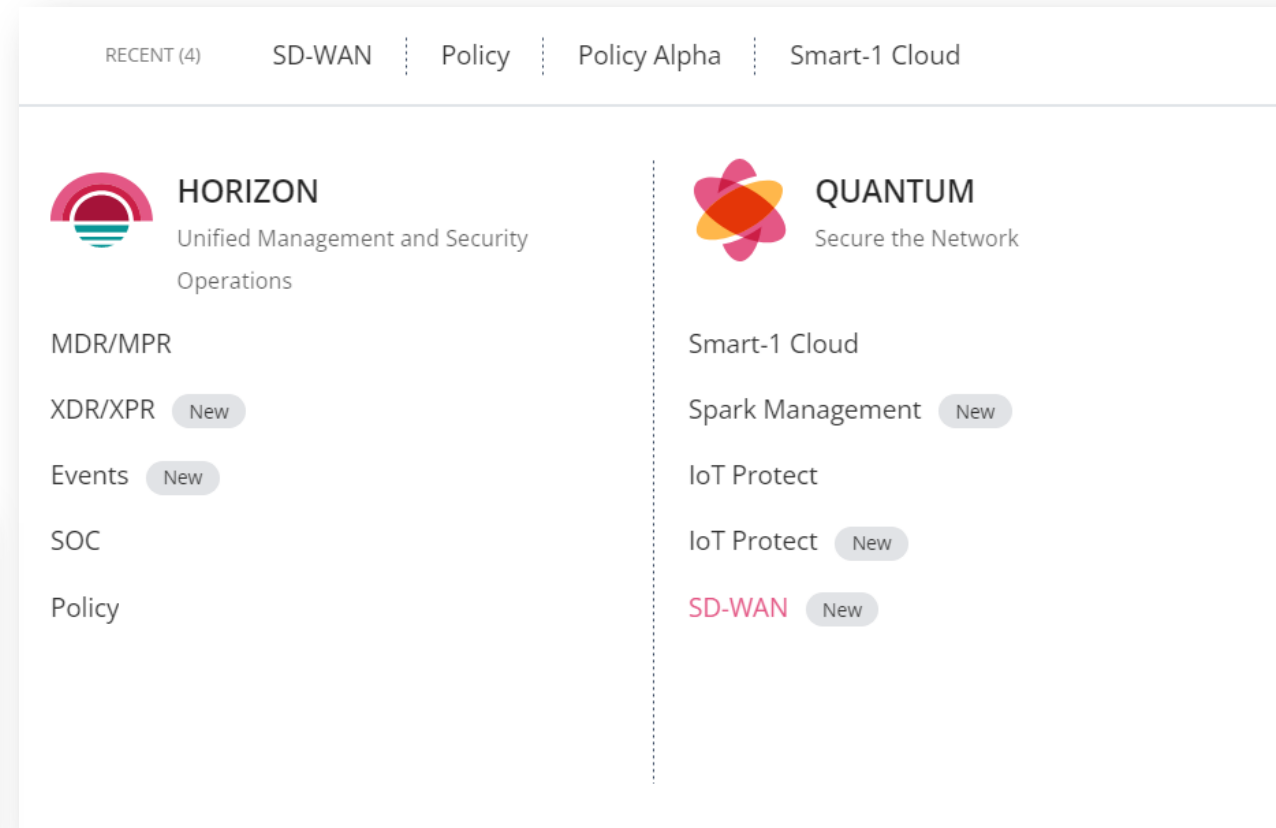
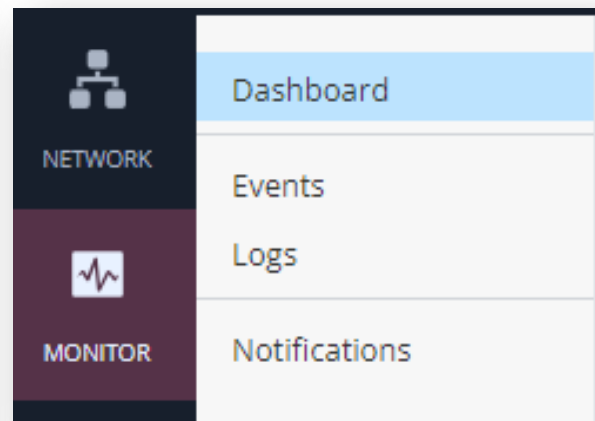
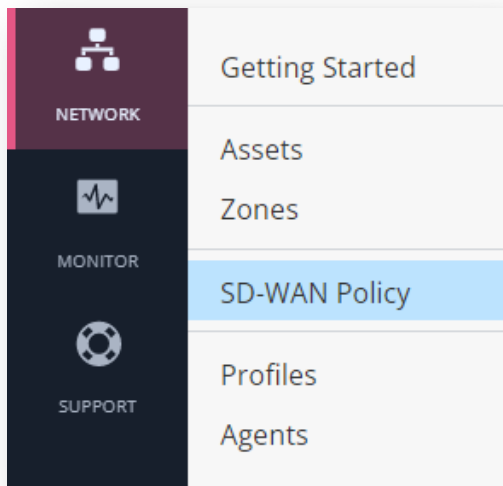
- Smart Management
 - Proven security
 - Smooth deployment
- Infinity Next
 - Synching objects
 - Granular traffic steering
- Nano Agent
 - Low footprint
 - Seamless deployment



Quantum SD-WAN Infinity Portal

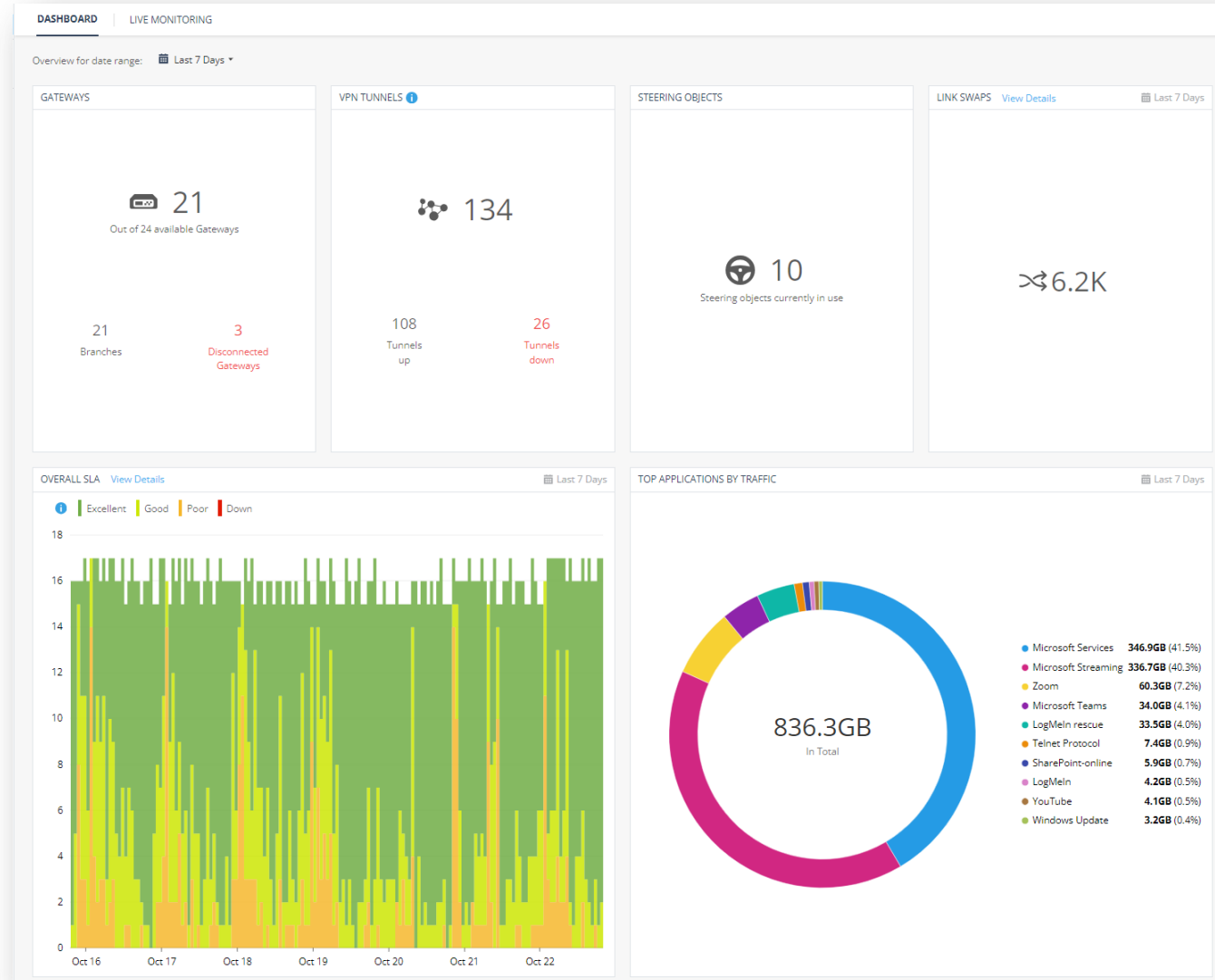
Accessing SD-WAN Application

- <https://portal.checkpoint.com/>
- Quantum -> SD-WAN
- Network -> SD-WAN Policy
- Monitor -> Dashboard



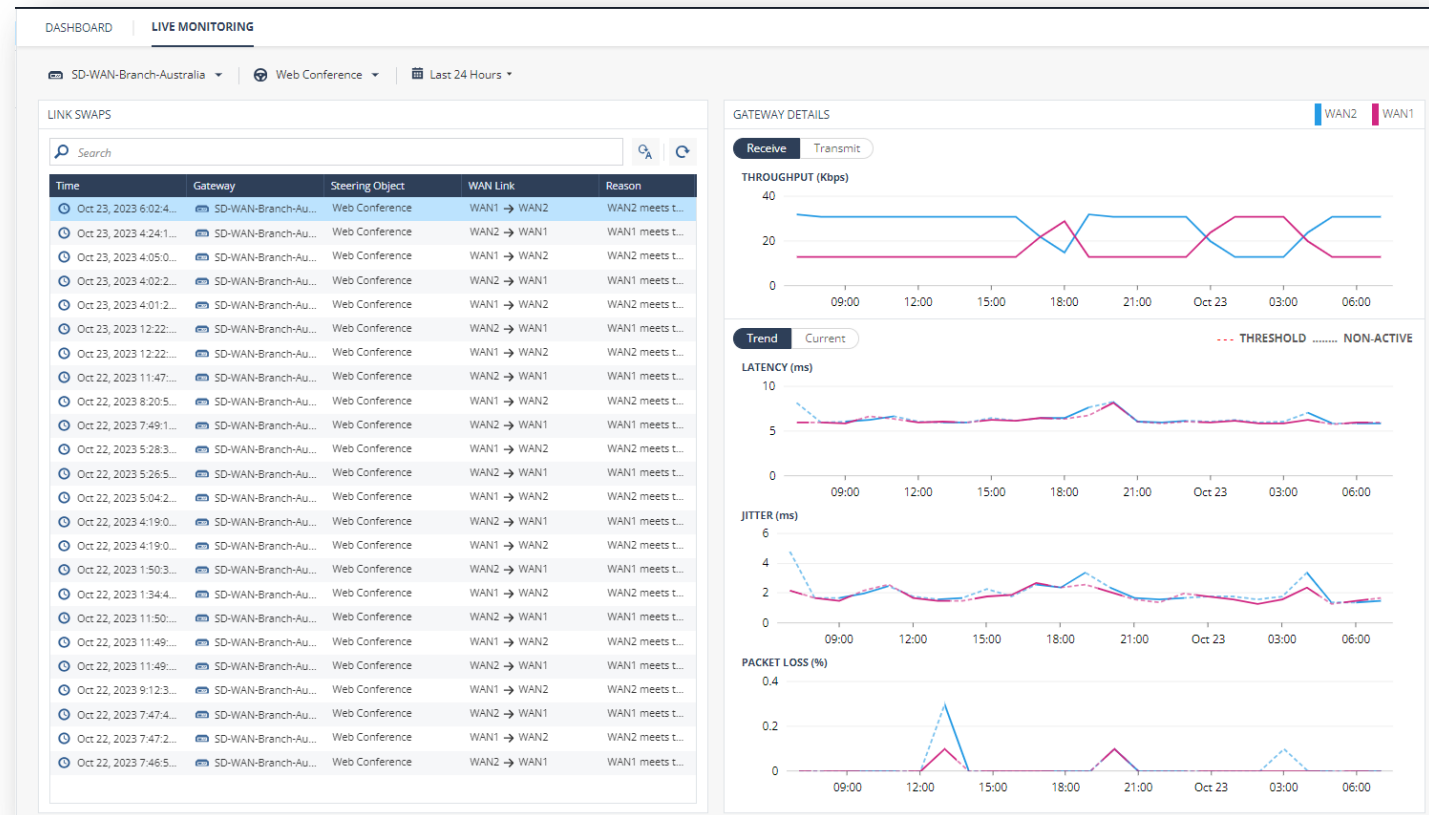
Quantum SD-WAN Monitoring - Dashboard

- Providing the user immediate understanding about the environment status
- Allowing the operator to take immediate actions, investigating any event



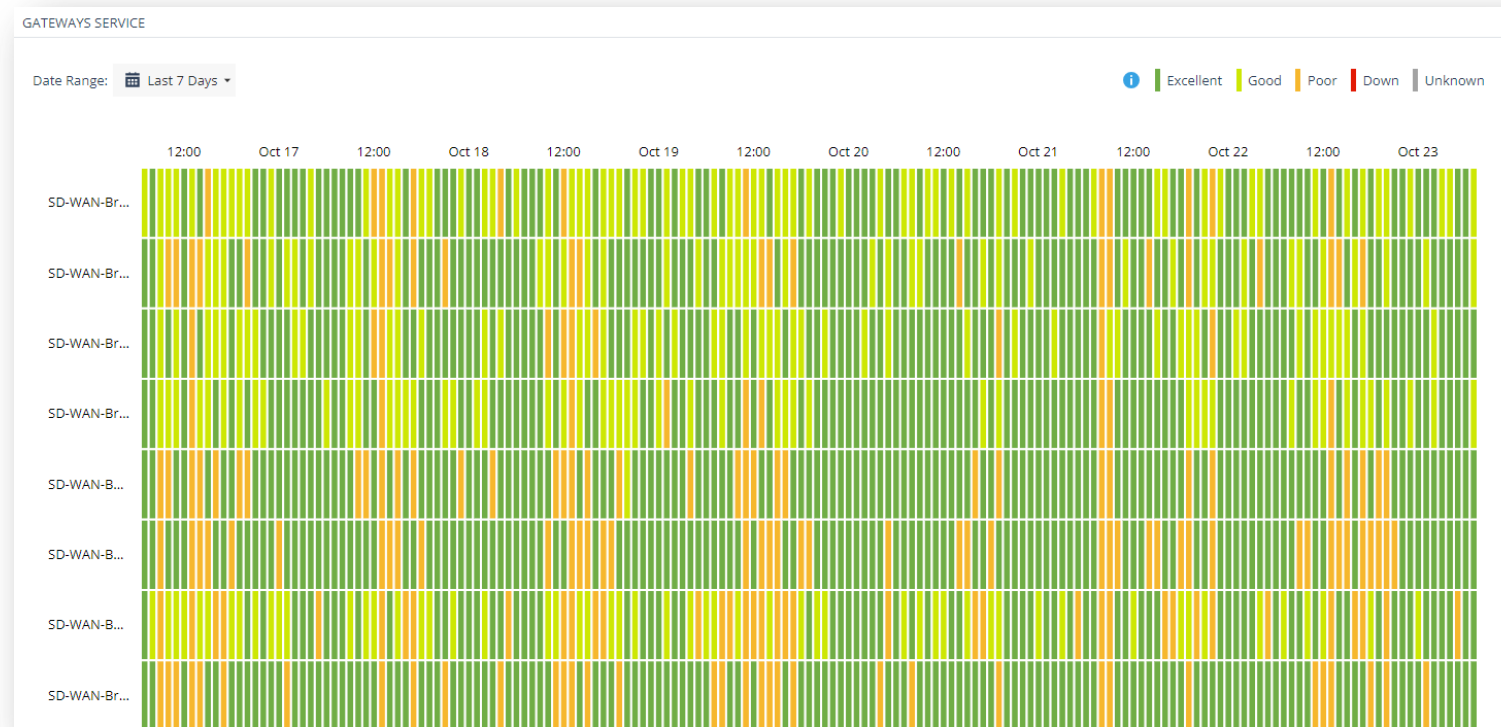
Quantum SD-WAN Monitoring - Live monitoring

- View connectivity conditions for every branch and steering object
- View all related “link swap” events and understand its root cause

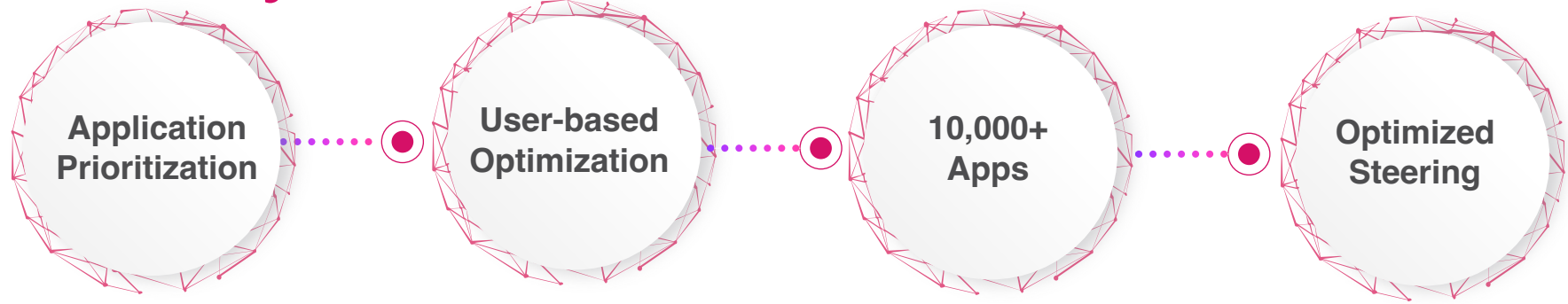


Quantum SD-WAN Monitoring - Overall SLA

- View in one location all branches connectivity conditions
- Immediately take action to solve connectivity issues



Quantum SD-WAN Policy - Integrated management from the Infinity Portal



USER, GROUP OR NETWORK

DESTINATION

OVER 10,000 APPLICATIONS

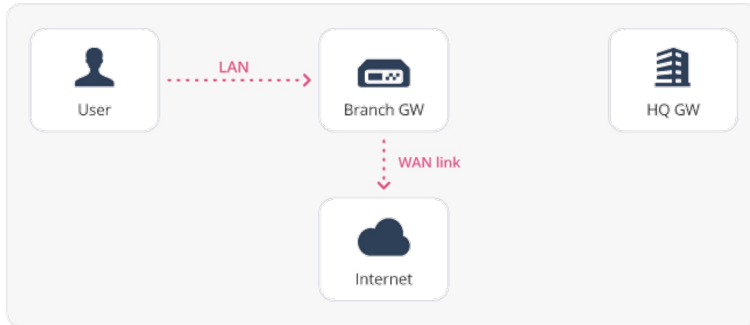
STEERING BEHAVIOR

Name	Source	Destination	Services & Applications	Behavior
Optimized Web Conferencing	Branch +	Internet +	<ul style="list-style-type: none"> Cisco WebEx Meetings Microsoft Teams Zoom Zoom_Data_8801 	Uninterrupted Web Conferenc... +
Optimized Help Desk Connectivity	Help Desk +	Branch +	<ul style="list-style-type: none"> LogMeIn LogMeIn rescue 	Optimized Help Desk connecti... +

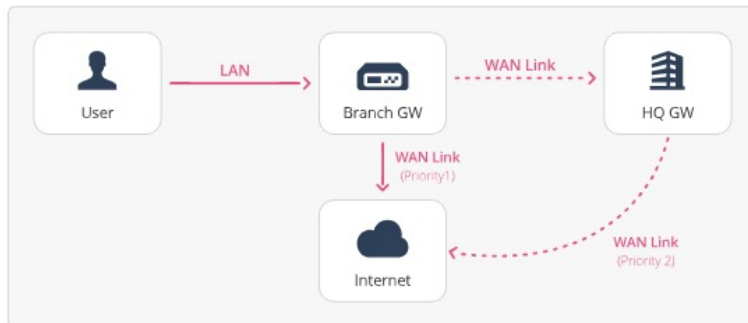
Quantum SD-WAN Policy- Basic Connectivity Flows

Connection Types

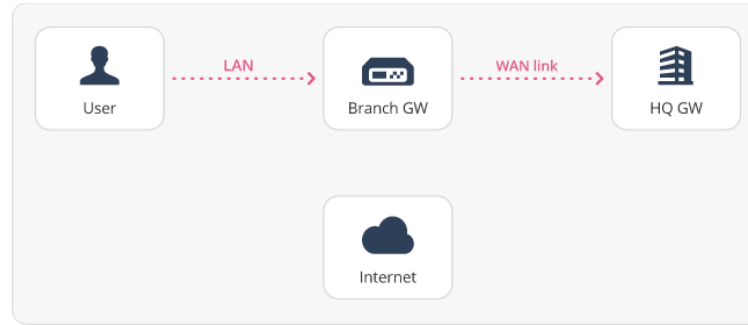
Local Breakout



Prioritize Local Breakout

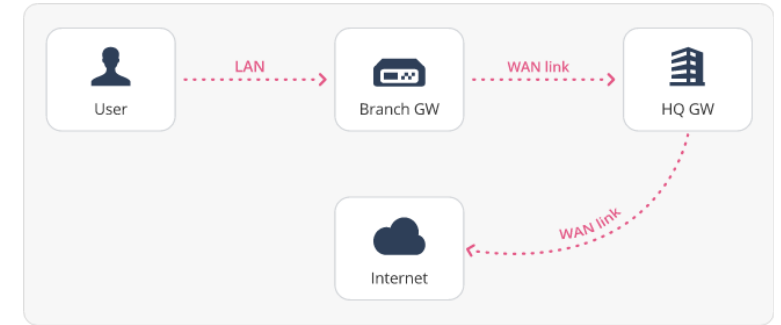


Overlay



Through VPN

Backhaul

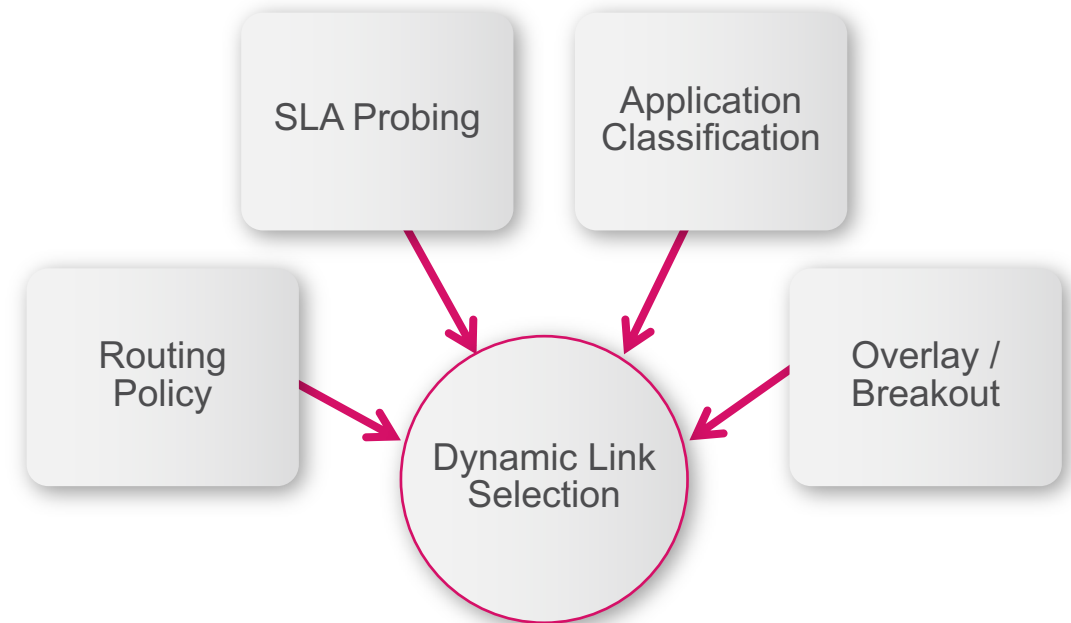


To internet through VPN

Quantum SD-WAN Policy - Dynamic link selection

Dynamic Link Selection Based on:

- Overlay (VPN/MPLS) vs Local Breakout (Internet)
- SLA Probing
 - Track destination service across participating links
 - Measuring packet loss, latency and jitter
- Real Time Application Classification
 - Destination IP Protocols
 - Application mapping by Updatable Objects
 - DNS learning
 - SNI
- Routing Policy (all the above and):
 - Identity
 - VPN Communities



Quantum SD-WAN Policy - Link utilization and probing

- WAN link utilization flexibility for every steering object based on:
 - Link aggregation
 - Priority based on tiebreakers based on link attributes or links manual order
- Links Quality Check- Probing based on ICMP/Ping

WAN Link Utilization

Link Aggregation - Use all WAN Links that meet the threshold

Prioritize - Select WAN Link based on tiebreakers i

Link attributes Manual order of WAN Links i

<input checked="" type="checkbox"/>	Priority	Attribute	Margin i
<input checked="" type="checkbox"/>	1	Packet Loss (%)	1
<input checked="" type="checkbox"/>	2	Latency (ms)	10
<input checked="" type="checkbox"/>	3	Jitter (ms)	3

Quality Check Methodology

Best practice Specific destination

Using: Ping

Host: * 8.8.8.8

Check interval: * 1000 ms

Quantum SD-WAN - Recent Enhancements

Scalability

- Management scalability to support up to 250 branches in star topology
 - Available in R81.20 Take 26
 - Available for on-prem Smart-1
 - Coming up soon for Smart-1 Cloud
- Major benefits:
 - Increasing Quantum SD-WAN scale capabilities in 60%
 - Allowing users to manage larger environments over single domain

* For further information about Quantum SD-WAN access [SK180605](#)

Quantum SD-WAN Roadmap highlights

Q2 2023 - Available

- **Support over R81.20 – June 2023**
- **Support CloudGuard IaaS (AWS, Azure, GCP) - June 2023**

Q4 2023

- Dynamic IP support for Local breakout, overlay and backhaul
- Passive probing support for local breakout
- Zero-Touch deployment for Quantum GWs

Q3 2023

- **Spark GA – July 2023 – R81.10.05 or higher**
- **Management Scalability support up to 250 branches in star topology**

Q1 2024

- Management Scalability support up to 500 branches
Star and Mesh topology
- Multi Domain support for single tenant
- Zero-Touch deployment for Spark
- Forward Error Correction (FEC)

Complete Security & Internet-access (SASE) solution

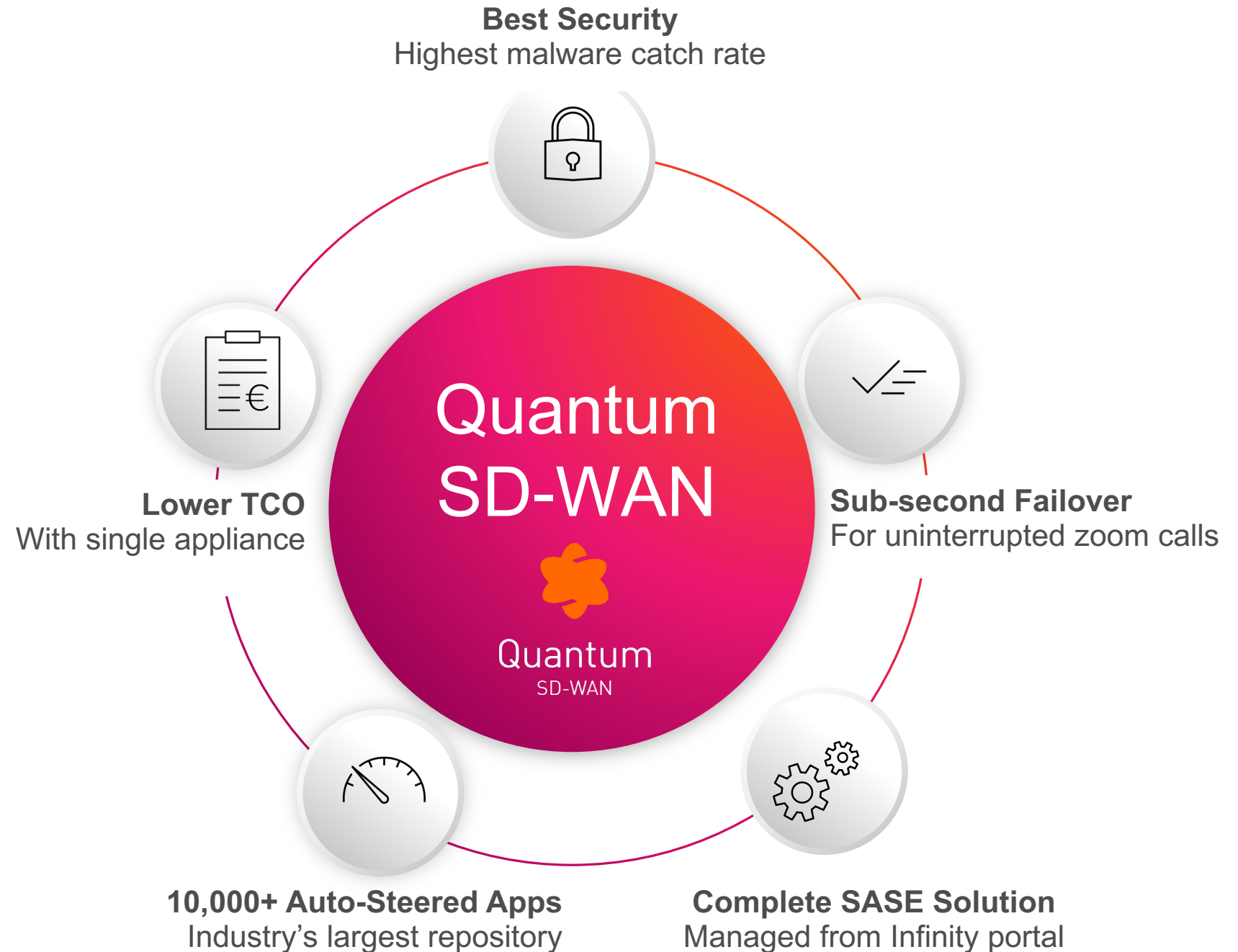


By 2026, 60% of new SD-WAN purchases will be part of a single-vendor secure access service edge (SASE) offering, up from 15% in 2023. **Gartner – Critical capabilities for SD-WAN, Sep-2023**

SUMMARY

Quantum SD-WAN
software blade
embedded in Quantum and
Spark Gateways

Optimized, secure
connectivity for
branch offices





Quantum
SD-WAN

Q&A

YOU DESERVE THE BEST SECURITY