



Press - Roundtable

Raising the Bar on Enterprise SD-WAN

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riverbed[®]
The Digital Performance Company

Riverbed Press - Roundtable

Session Agenda



Riverbed Introducing

- Riverbed SteelConnect EX
- Riverbed Steel Central NPN Update (AppResponse Cloud & NetIM 2.0)



Riverbed Digital Networking Portfolio

- SaaS Acceleration
- Network Visibility
- Cloud Migration



Riverbed Organisation Update

- Rich McBee has been named the new CEO

The Leader in Digital Performance

16x

Recognized as Leader
in Magic Quadrant

300+

Digital Performance
Patents

91%

Customers in
Forbes Global 500



INTRODUCING

SteelConnect EX Series

Raising the Bar on Enterprise SD-WAN

Your Network – As Viewed By CEO's

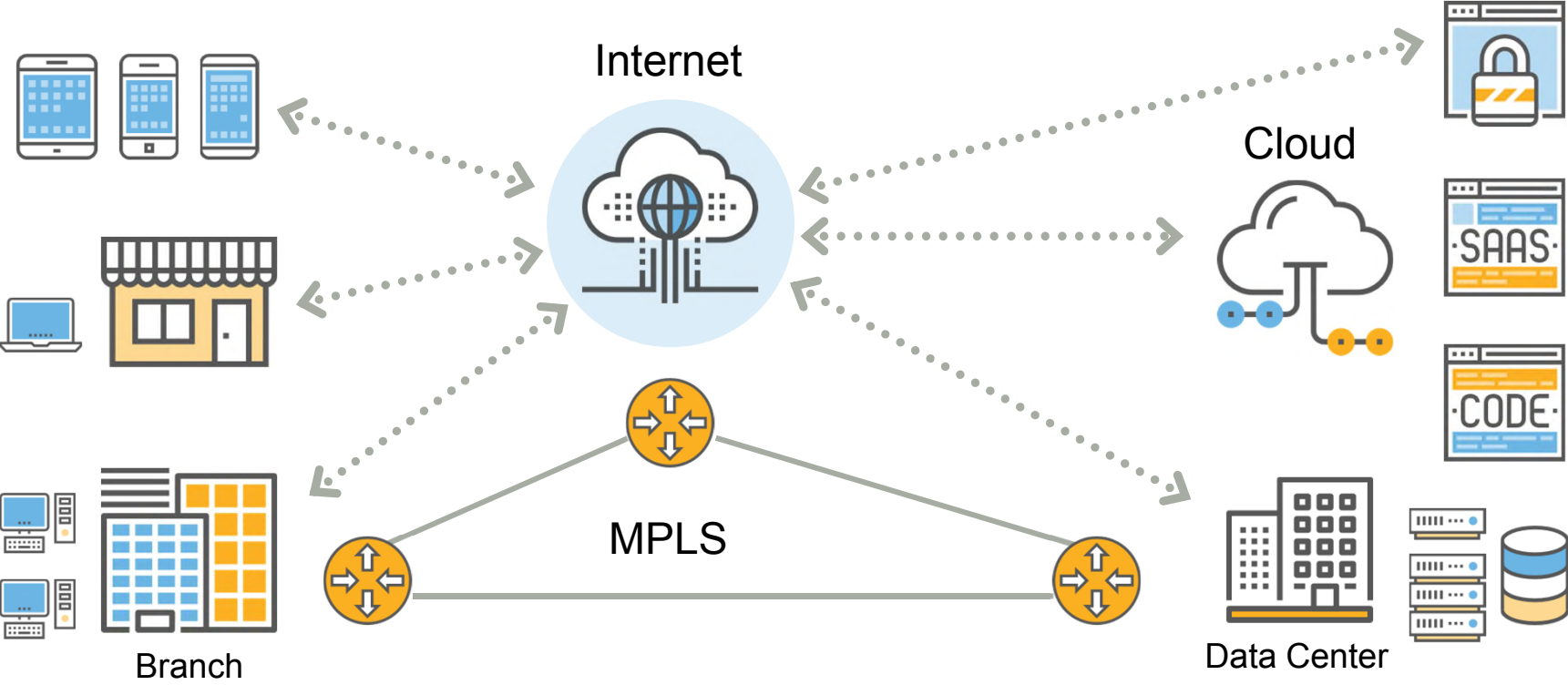


Users & Devices



Applications & Data

Customer Complex Network Reality




Users & Devices




Applications & Data

Three Fundamental Trade-Offs



Hybrid
Apps & IT



Hybrid WAN &
Internet-Only WAN



Untenable to
Manage



Reduce
Costs



Internet Broadband
& LTE



Unpredictable
Performance



Good
Experience



Direct
Branch-to-Internet



Less
Secure



Three Fundamental Trade-Offs



Hybrid Apps & IT
 Hybrid Apps & IT
 Hybrid WAN & Internet Only WAN



Unable to
 Manage



Reduce
 Costs



Internet Broadband
 & LTE



Unpredictable
 Performance



Good
 Experience



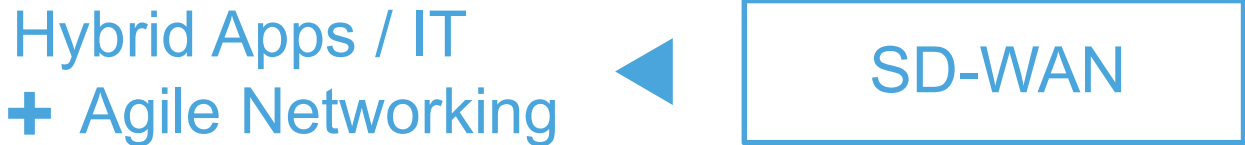
Direct
 Branch-to-Internet



Less
 Secure



Three Fundamental Trade-Offs



Reduce Costs + Cost Effective + Fast Internet Broadband & LTE



Predictable Performance



Good Experience

Direct Branch-to-Internet



Three Fundamental Trade-Offs

Hybrid Apps / IT
+ Agile Networking



SD-WAN

Cost Effective
+ Fast



Acceleration



Good Experience + Best Experience + Secure Direct Branch-to-Inter



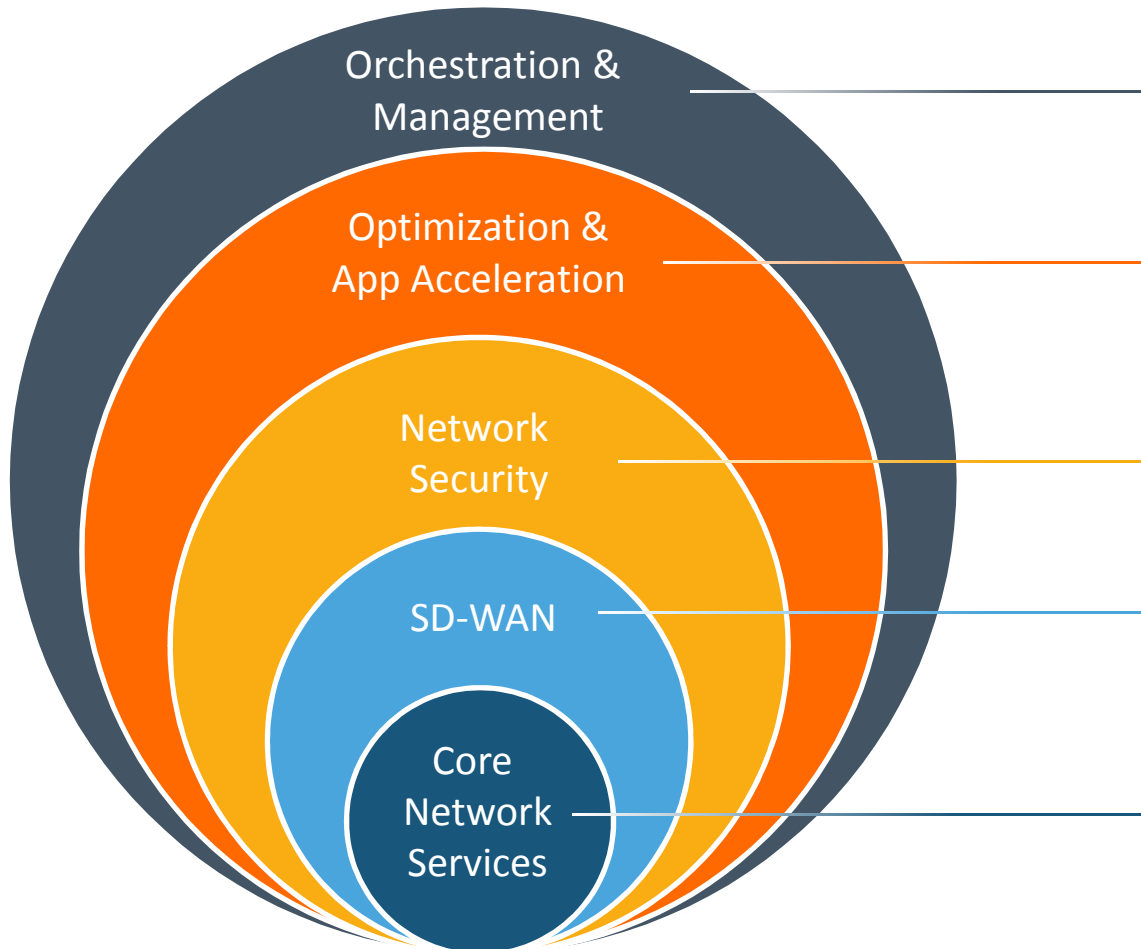
Security

re



SteelConnect EX Series

The Full Stack for Enterprise SD-WAN



Orchestration & Management			
Templates	NETCONF & API	Visibility	Air Gapped

Optimization & App Acceleration			
TCP / UDP	SSL / HTTPS	SaaS / IaaS	Mobile
Deduplication	Compression	File / Email	Video

Advanced Security			
NG-FW	DDoS Prevention	IPS-IDS	SSL Proxy
URL Filtering	Malware Protection	Anti-Virus	User Auth.

SD-WAN Key Capabilities			
IPSEC/VxLAN overlay	Packet Racing	Flow/Packet LB	LTE modem
Application SLA	ZTP	FEC	WiFi

Core Network Services			
Enterprise Routing	Multicast	VRRP	Enterprise QoS
Dual Stack IPv4/IPv6	Segmentation	MP-BGP	PPPoE

Competitive Differentiation

SteelConnect EX Series

riverbed

 viptela

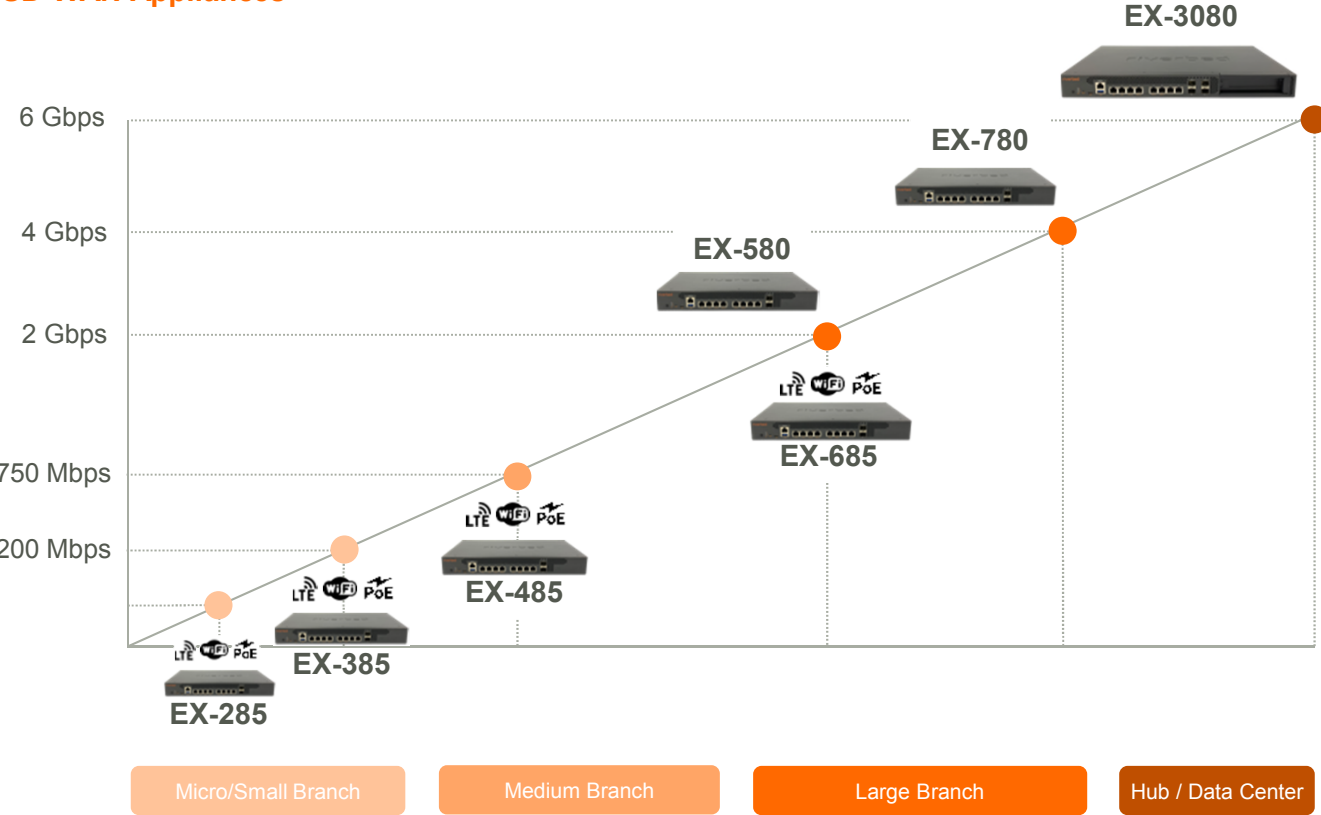
velocloud

 silver peak™

Application Acceleration	●	●	●	●
Integrated Security (NGFW+UTM)	●	●	●	●
Market Fit	SP & Large Enterprise	SP & Large Enterprise	MSP & SME	MSP & SME
Support for SD-WAN in Mesh, Hub-and-spoke or both	●	●	●	●
Historical Analytics	●	● Cloud only	●	●
Multi-Tenant and segmentation	●	●	●	●
Air Gap solution	●	●	●	●
Multicast	●	● Only on vEdges, not ISR	●	●
Solution can host VNFs	●	●	●	●
IPV6 Support	●	● Limited	●	●
Ease of Installation	●	●	●	●
TCO for SD-WAN + Security	\$\$\$	\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$

SteelConnect EX Series – Product Family

SD-WAN Appliances



Software Services

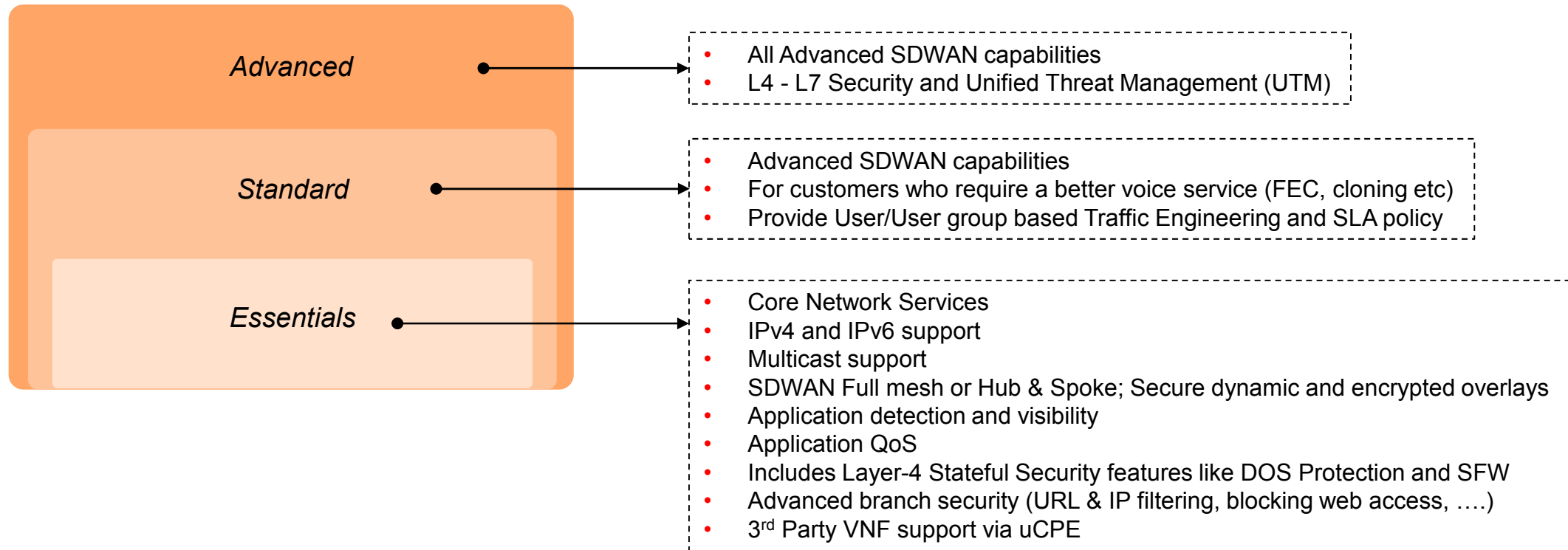
- ✓ Core Network Services
- ✓ SD-WAN
- ✓ Application Acceleration
- ✓ Network Security
- ✓ Centralized Management

Centralized Management

- ✓ SteelConnect EX Director
- ✓ SteelConnect EX Analytics

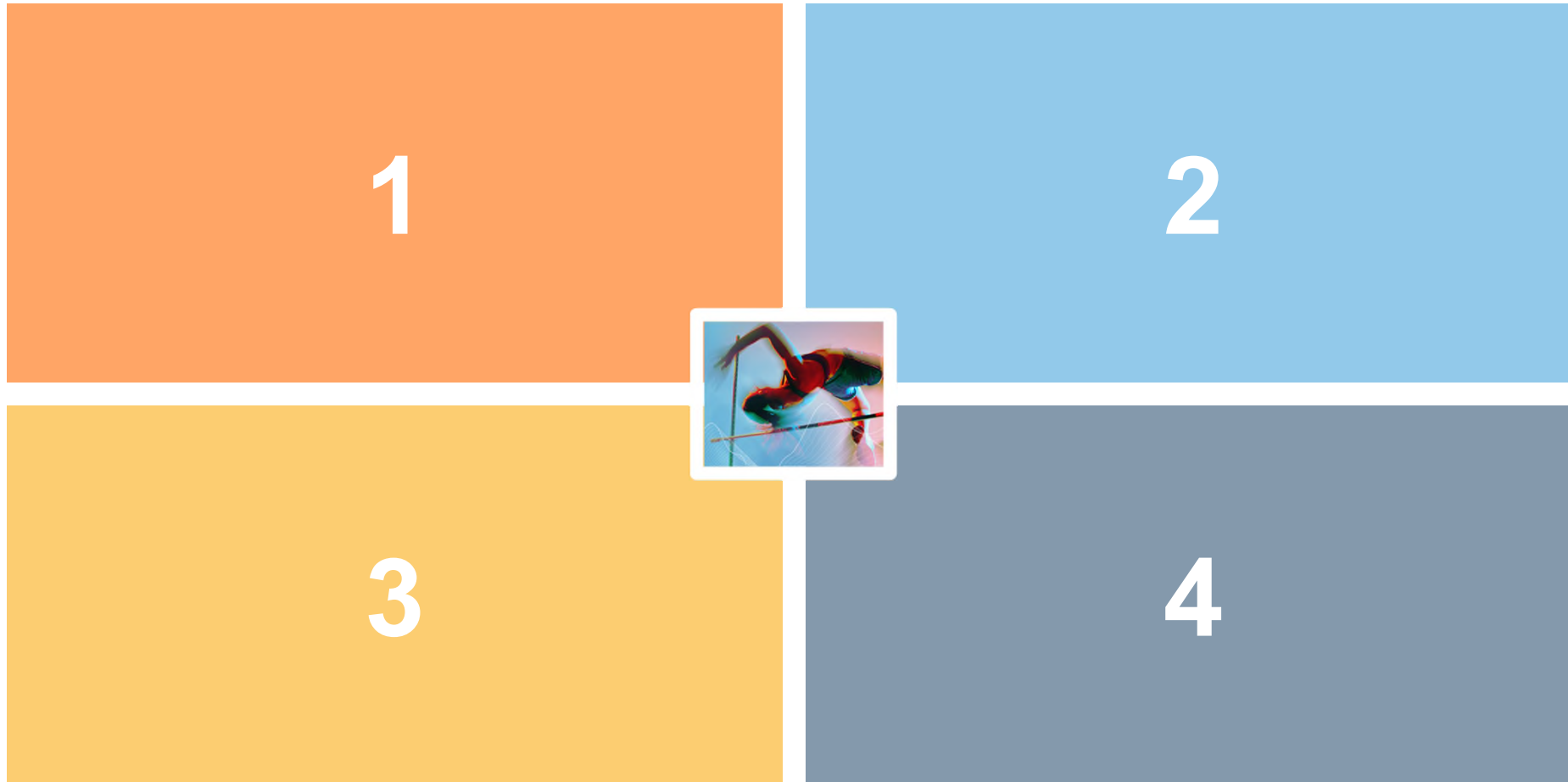
SteelConnect EX Software

Secure SD-WAN License Tiers



Raising the Bar on Enterprise SD-WAN

Overcoming common barriers to enterprise SD-WAN adoption

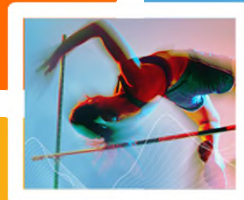


Raising the Bar on Enterprise SD-WAN

Overcoming common barriers to enterprise SD-WAN adoption

Increase capacity
without compromise.

Eliminate tradeoffs between
security & performance.



Navigate brownfield
deployments unscathed.

Retain visibility with
hybrid & policy-driven IT.

Raising the Bar on Enterprise SD-WAN

Overcoming common barriers to enterprise SD-WAN adoption

Increase capacity
without compromise.

2

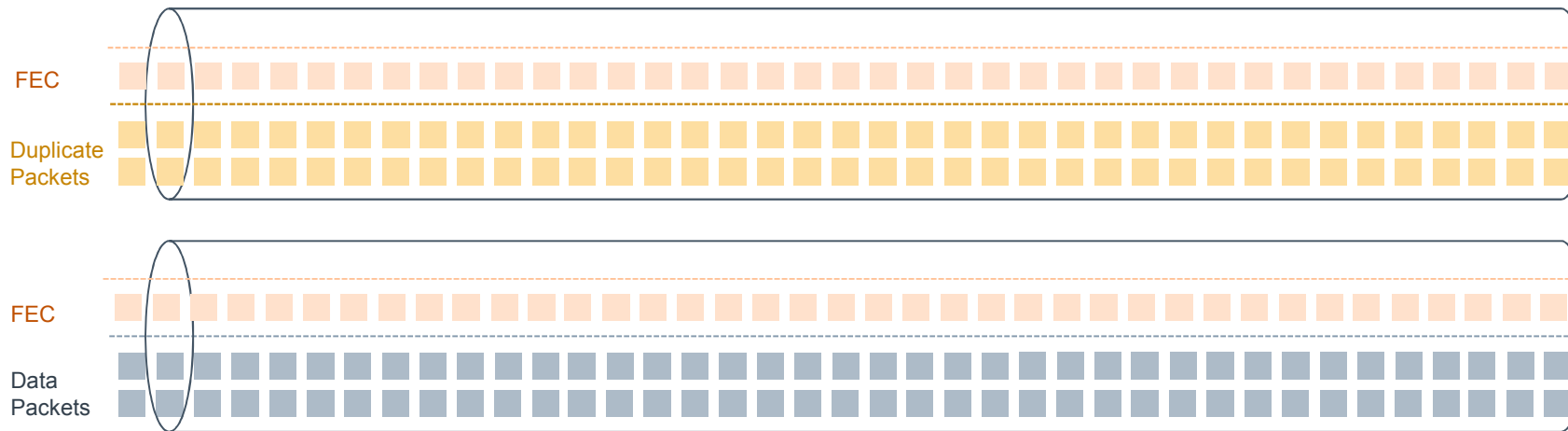


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4

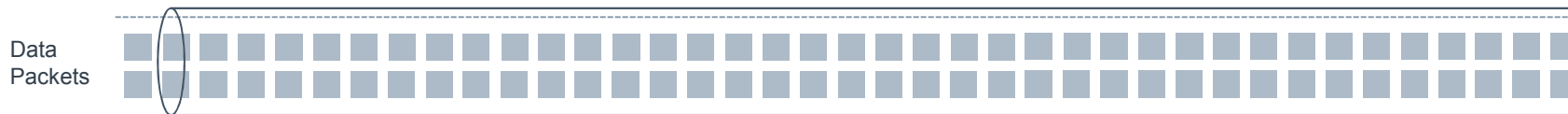
Increase capacity without compromise

Internet Broadband: Less Expensive (+), Higher Capacity (+), Lower Quality (-)



- Internet Broadband can cost-effectively increase capacity.
- But it may not deliver the quality, reliability or performance needed to meet SLAs.
- Techniques like packet duplication & forward-error correction improve quality and/or reliability, but they eat away at the gains in available capacity.
- What if you could dynamically and selectively enable these techniques only when needed?

MPLS: More Expensive (-), Lower Capacity (-), High Quality (+)

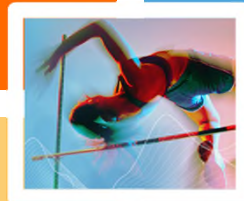


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3

4

Eliminate trade-offs between performance & security

Backhauling vs. Direct Branch-to-Internet Breakouts

Backhaul Through Data Center / Hub

Security → **Good**

Centralized protections +

Performance → **Bad**

Increased latency (“tromboning”) -

Centralized bottleneck -

App Acceleration

- ✓ SaaS Acceleration
- ✓ Cloud Acceleration

Direct Branch-to-Internet Breakout

Performance → **Good**

Less latency +

No centralized bottleneck +

Security → **Bad**

Wide threat perimeter -

Branch Security Services

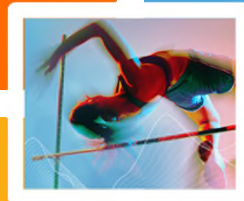
- ✓ Advanced Native Security
- ✓ 3rd Party Service Chaining

Raising the Bar on Enterprise SD-WAN

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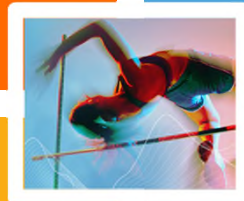
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Raising the Bar on Enterprise SD-WAN

Overcoming common barriers to enterprise SD-WAN adoption

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Navigate brownfield
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Retain visibility with
hybrid & policy-driven IT.

NPM Requirements in the Cloud & Digital Era

By the numbers...



1. Reach

Breadth & Depth...

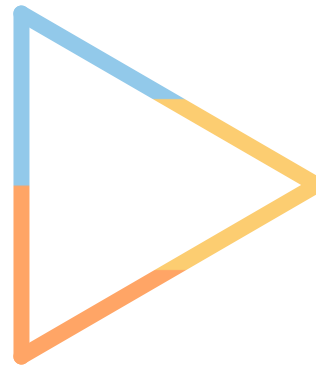
- ✓ Branch, DC, Cloud & SaaS.
- ✓ Physical & Virtual.



2. Telemetry

Fidelity & Scale...

- ✓ Flows, Packets & Devices.
- ✓ Realtime & Complete History.



3. Insight

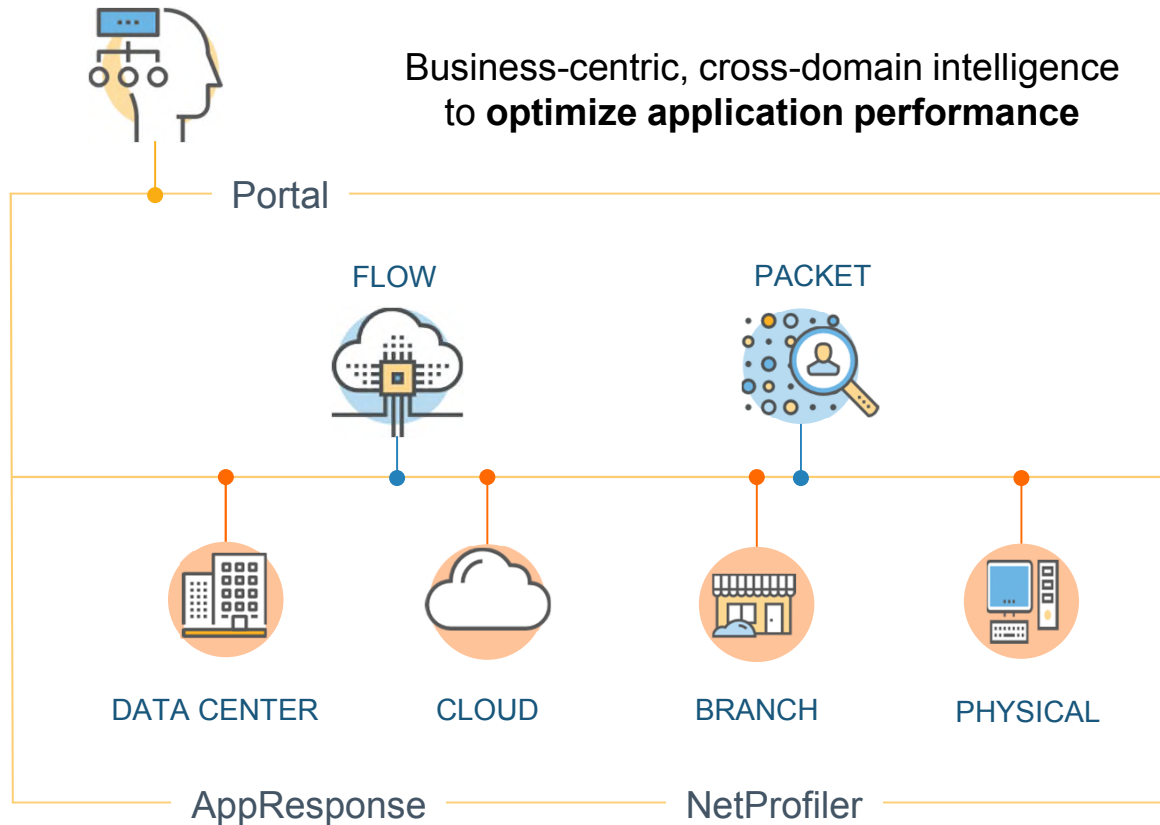
Actionable intelligence...

- ✓ Streamlined Troubleshooting
- ✓ Cross-Domain Correlation
- ✓ Predictive Analysis

Riverbed SteelCentral NPM

Unified Network Performance Management

New Updates!



AppResponse Cloud

- ✓ **Multiple Cloud Environments**
 - Fall, 2018 – AWS
 - NEW – Azure & AWS GovCloud
- ✓ **Rich Telemetry**
 - Fall, 2018 – SteelCentral Agent, IXIA, Gigamon, Cisco Cloud Services Router
 - NEW - AWS Traffic Mirroring, Azure Virtual TAP

NetIM 2.0

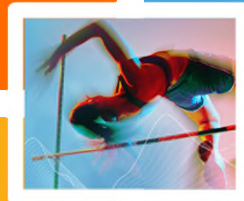
- ✓ **New Containerized Software Architecture**
- ✓ **Built for Cloud**
- ✓ **New High Availability Modes**
- ✓ **3x More Scale**

Raising the Bar on Enterprise SD-WAN

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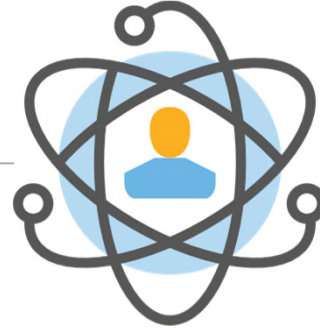
Summary of Updates



Enterprise SD-WAN

Network modernization is necessary to propel business in the digital and cloud era. But realizing the benefits of SD-WAN in larger enterprises is been difficult.

SteelConnect EX is a powerful and complete SD-WAN platform that addresses the challenges of enterprise adoption.



Network Performance Management

Visibility is more important and yet also more difficult with the rise of the hybrid and software-defined IT landscape.

SteelCentral NPM brings all the pieces together to propel network performance management into the digital era.

Cloud-First Simplicity

Hybrid Enterprise Flexibility



SteelConnect CX

- Simplified Policy-based Management
- Broadband-centric Topologies
- Basic Routing (BGP, eBGP)
- Cloud-centric Security
- Zone-based Segmentation

SteelConnect EX

- Advanced Configuration Templates
- Mixed MPLS, Hybrid & Broadband-based Topologies
- Advanced Routing (Multicast, IPv6, ...)
- Advanced Native Security & On-Prem Service Chaining
- VRF-based Segmentation / Overlapping IPs

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The Digital Performance Company



Our World Has Gone Digital

60%+

of global GDP will be digitized by 2022

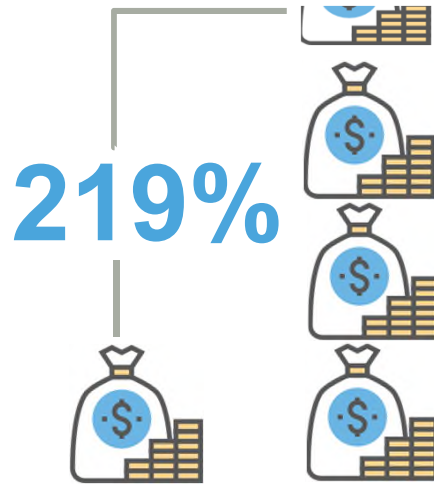
\$5.9T

Spending on digital transformation by 2021

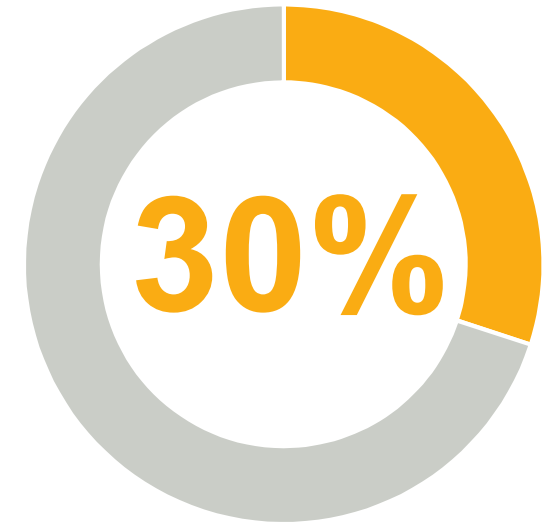
Digital Performance = Business Performance

2x

Early adopters of digital capabilities are growing twice as fast as competitors



Stock prices of companies investing in user experience outperform others by 219%



Of companies will lose a point of growth due to declining digital experience

1. McKinsey: <https://www.mckinsey.com/industries/high-tech/our-insights/grow-fast-or-die-slow>
2. Wharton: <https://knowledge.wharton.upenn.edu/article/user-experience-reimagining-productivity-and-business-value/>
3. Forrester: <https://www.fourquadrant.com/forresters-tech-predictions/>

Challenges Impacting Digital Performance



Heightened User Expectations



Greater IT Complexity



Loss of Visibility and Control

EVEN A 1-SECOND DELAY CAN RESULT IN A

7% REDUCTION IN CONVERSIONS

60% OF DIGITAL INITIATIVES WILL BE UNABLE TO SCALE DUE TO A LACK OF STRATEGIC IT ARCHITECTURE

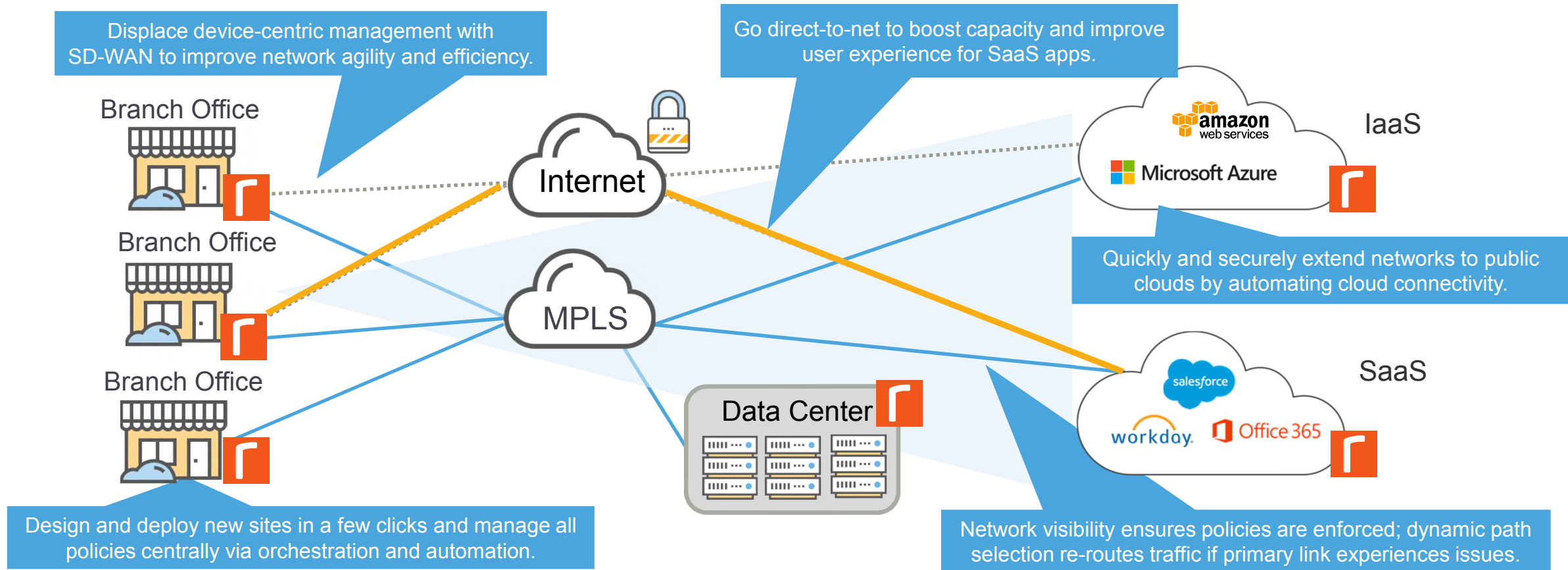
90% IT EXECUTIVES SAY

USERS STRUGGLE WITH BUSINESS TECHNOLOGY PROBLEMS THAT COMPANY HAS NO WAY TO DETECT



Riverbed Use Cases

Enable Network Transformation



8.8x

Capacity Increase

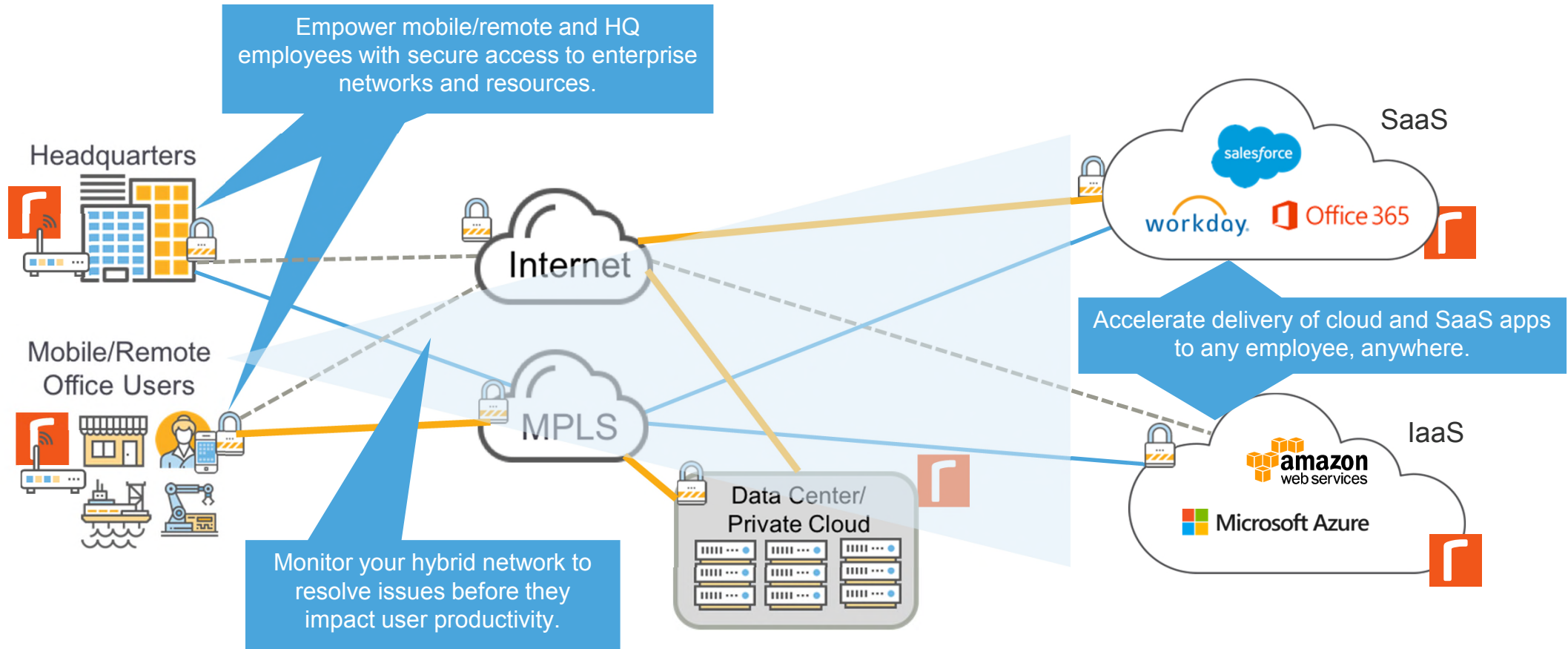
4.4x

IT Productivity Gains

6x

5-year ROI

Increase Workforce Productivity



10%

Enterprise-wide Productivity Gains

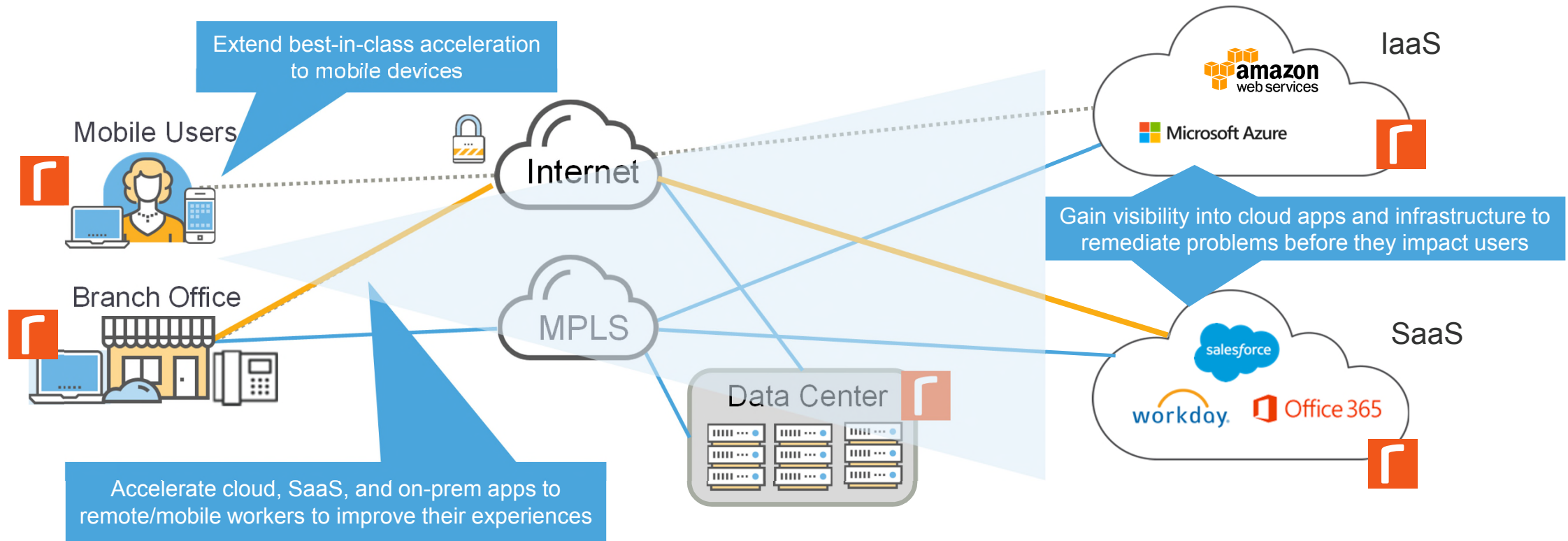
3.3 Hours

MTTR Reduction

10x+

Faster SaaS Apps

Enhance End-User Experience



10x+

Faster SaaS Performance

5x+

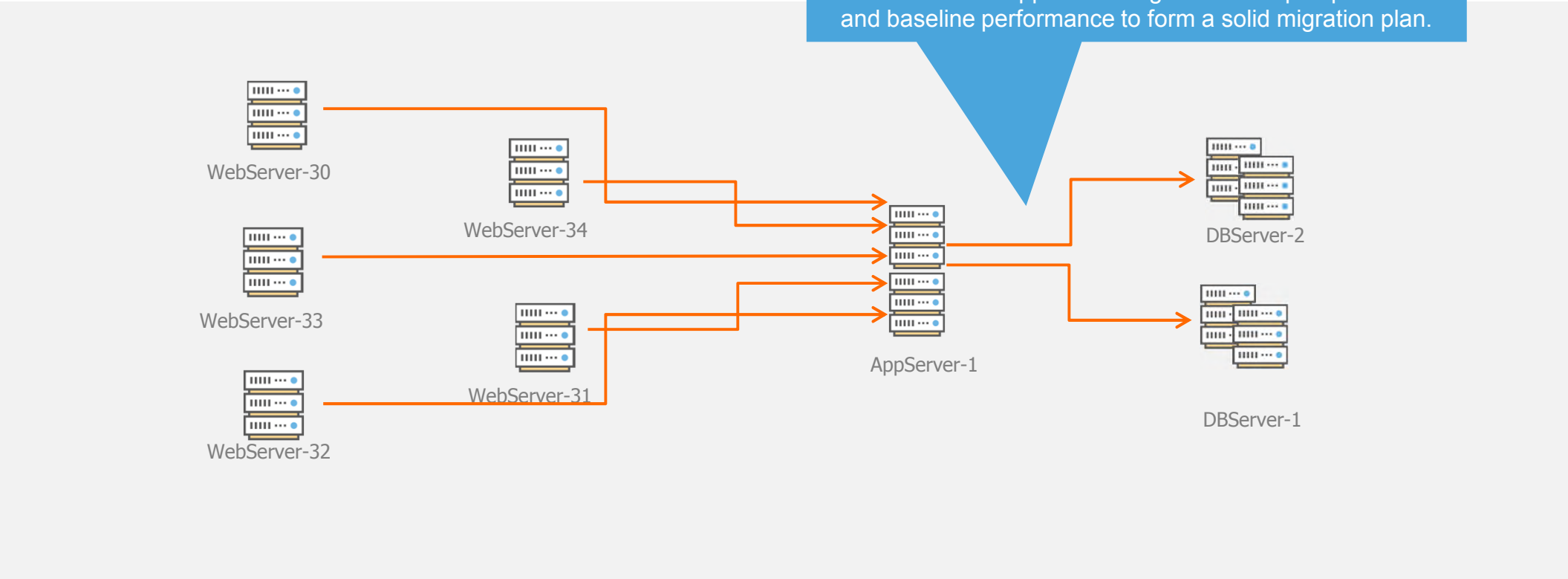
Faster MTTR

70%

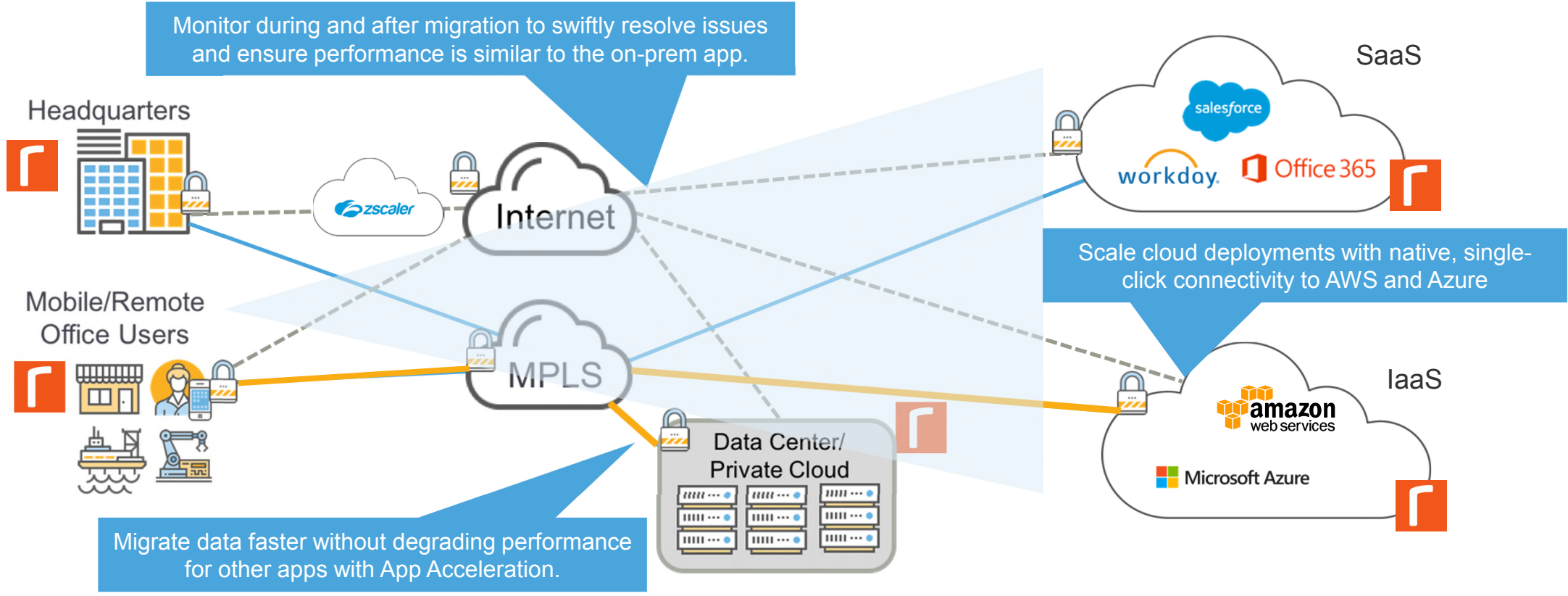
Less Network Downtime

De-Risk Cloud Migrations

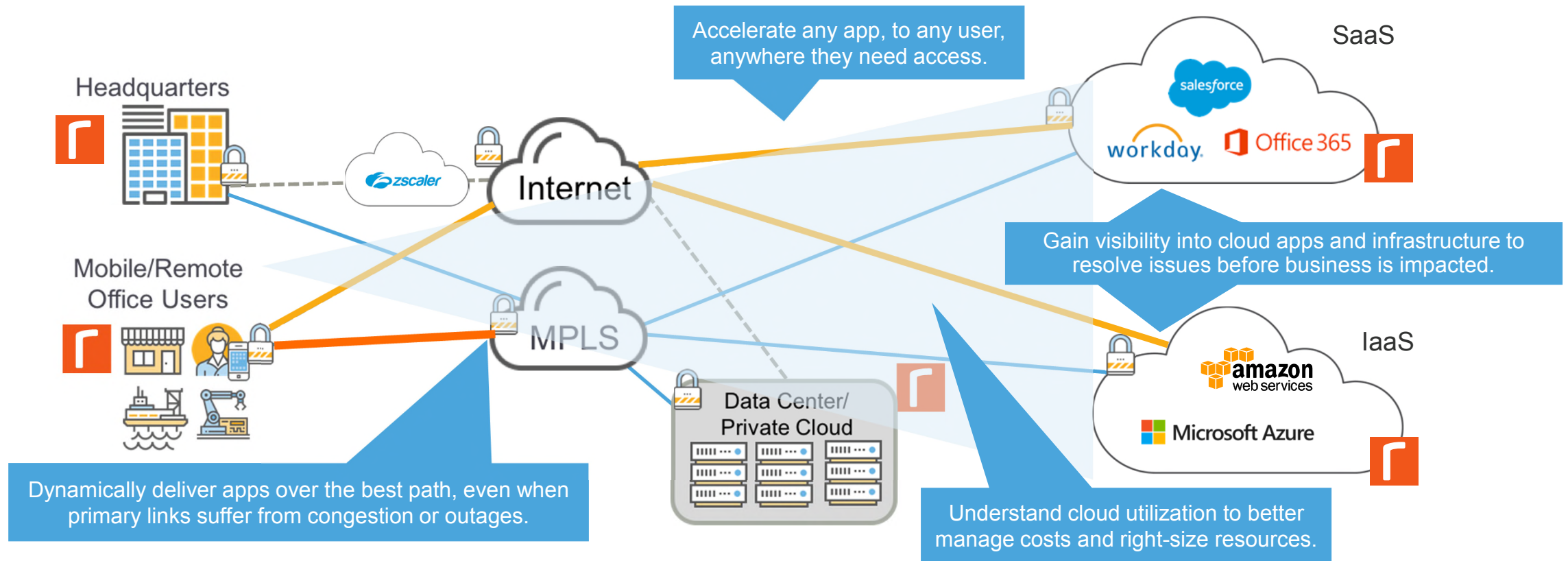
Use network and app monitoring tools to map dependencies and baseline performance to form a solid migration plan.



De-Risk Cloud Migrations



Manage Hybrid Cloud Performance



10x+

Faster SaaS Performance

Up to 100x

Faster IaaS Performance

95%

Bandwidth Reduction

Q&A

Thank You