



5 Key Trends Driving Enterprise Networking and How Telcos Can Capitalize

Brandon Butler

Senior Research Analyst, Enterprise Networks

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Agenda

- Digital Transformation Requires Network Transformation
- 5 Key Trends Impacting Enterprise Networking
- The Teleco Opportunity: How SPs can Enable Advanced Networking
- Essential Guidance for Selling to the Enterprise

Digital Transformation Journey

New Technologies & Delivery Model

"IT Access @ Scale"

- Cloud
- Mobile
- Social
- Big Data

EXPERIMENTATION

Platforms & Communities

"Innovation @ Scale"

- AI
- IoT
- Blockchain
- Natural Interfaces

MULTIPLIED INNOVATION

We
Are
Here

AUTONOMY

Autonomous Systems

"HyperComplexity @ Scale"

- Exponential AI
- Quantum Computing
- BioDigital Integration

2007

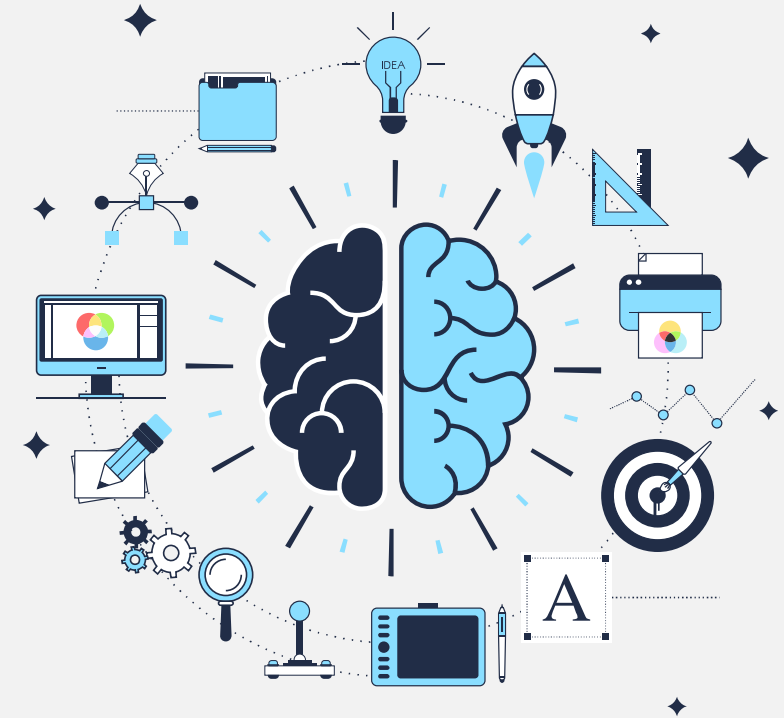
2015

2023

...

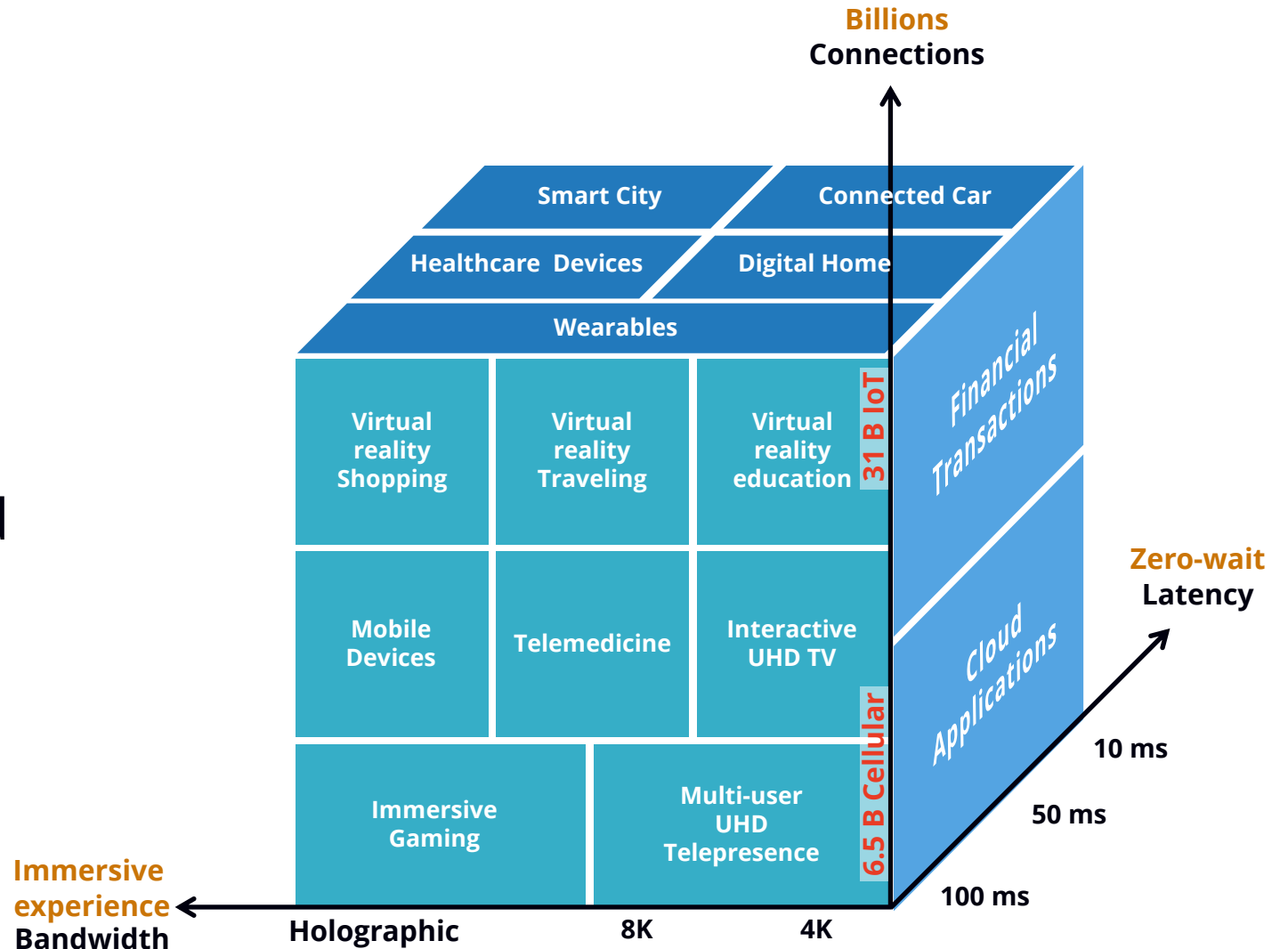
IT Transformation Requires Network Transformation

Network is a foundational layer for enabling secure, scalable and efficient use of Cloud, Edge and IoT Applications



Network Requirements Continue to Expand

- Fast, and adaptive
- Capacity, on-demand
- Edge-to-Cloud Latency
- Network-level security
- Analytics capable of yielding new insights and driving DX
- Bridge cloud and telco domains
- Global reach



5 Key Enterprise Networking Trends

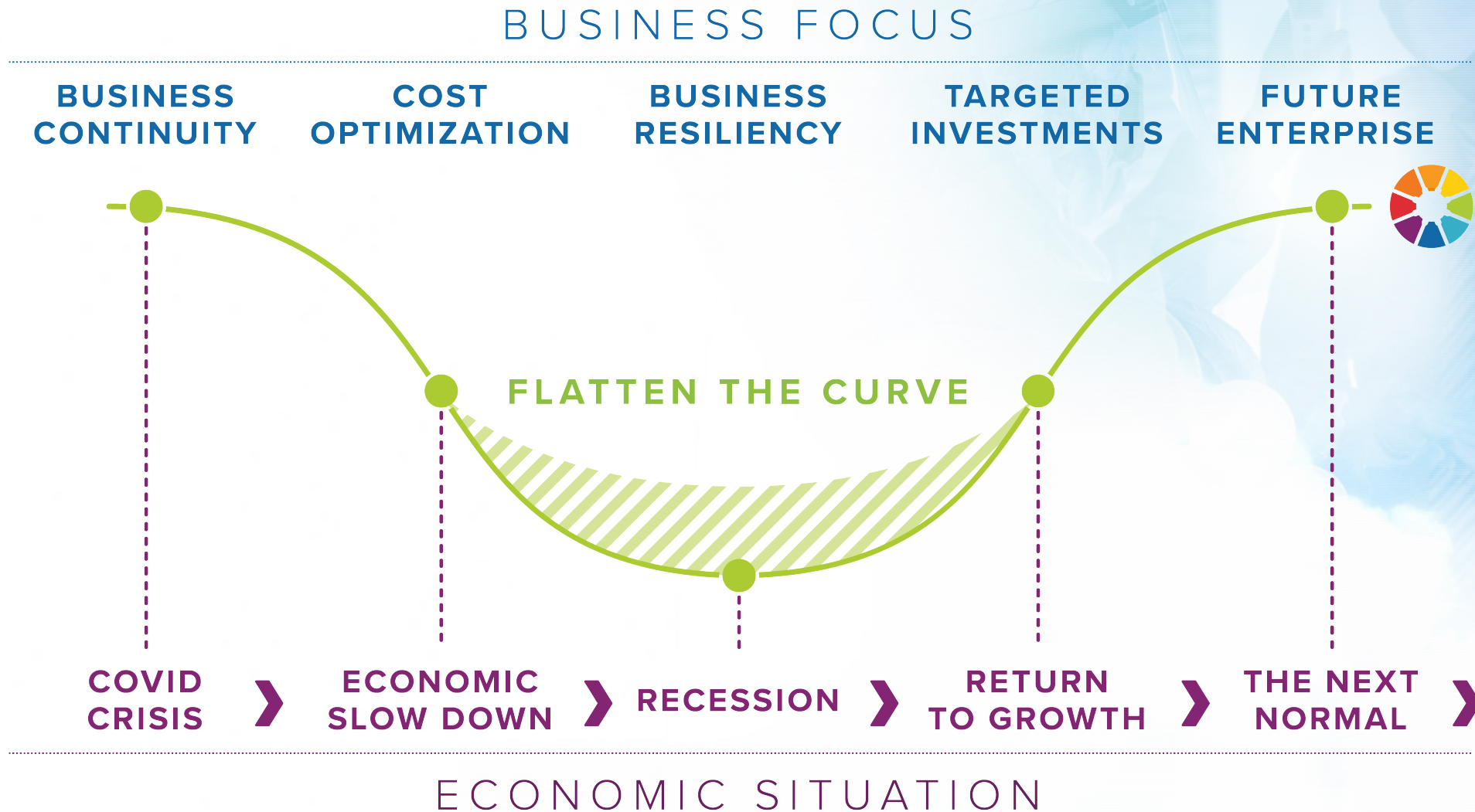


- 1 COVID-19 & Enterprise Networking: Signs of Optimism
- 2 Growth of cloud-managed enterprise networking, and the teleco opportunity
- 3 SD-WAN continues rapid adoption as evolution to SD-Branch begins
- 4 Network Visibility & Analytics become foundational to optimize user/application experience
- 5 ML & AI enhance advanced network automation

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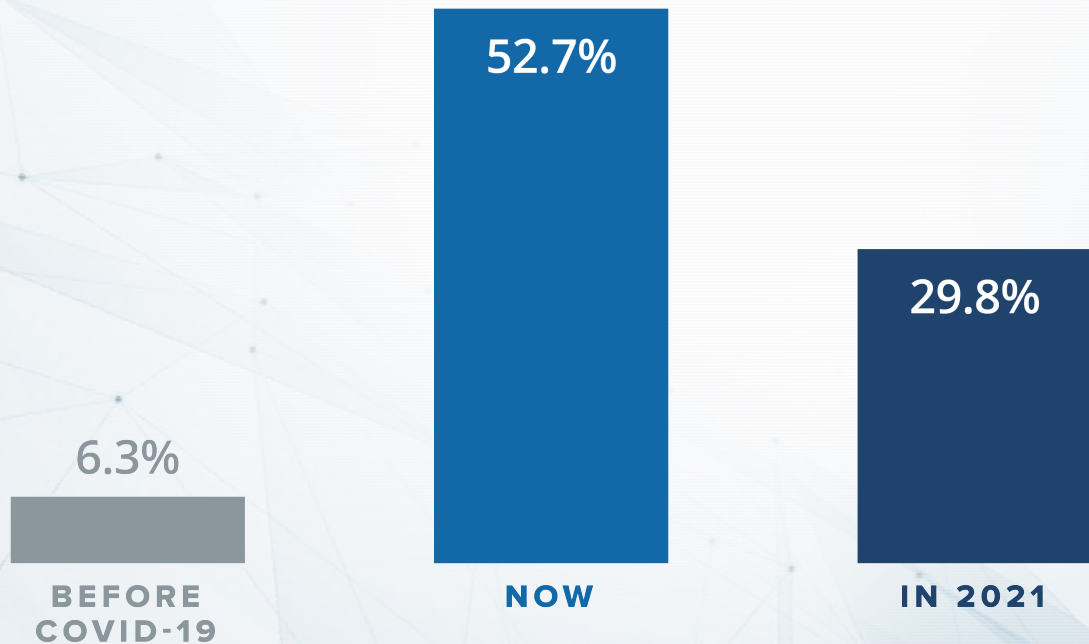
Flattening the Curve

How Tech Builds Business Resiliency and Enables Agility



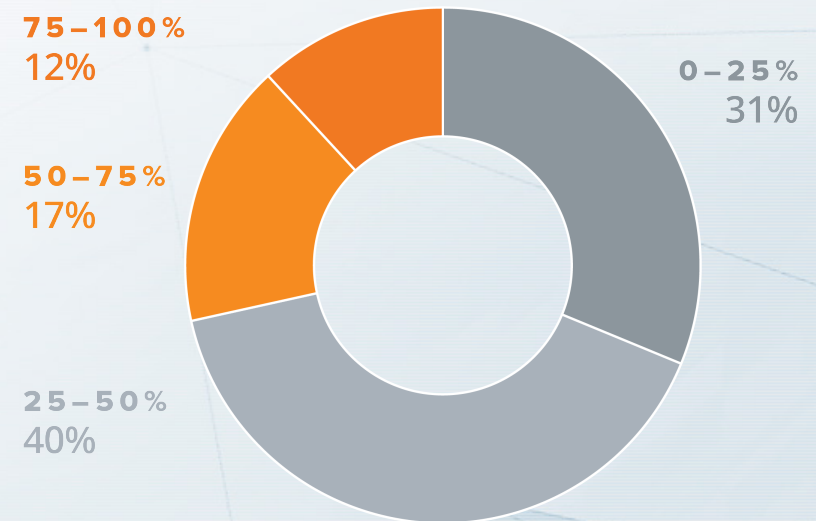
COVID Sent More Than Half of Workers Home; Almost 1/3 Will Stay At Home in 2021

What percentage of your employees were working from home **before COVID**, what percent are **working from home now**, and what percent **do you anticipate** will be working from home in 2021?



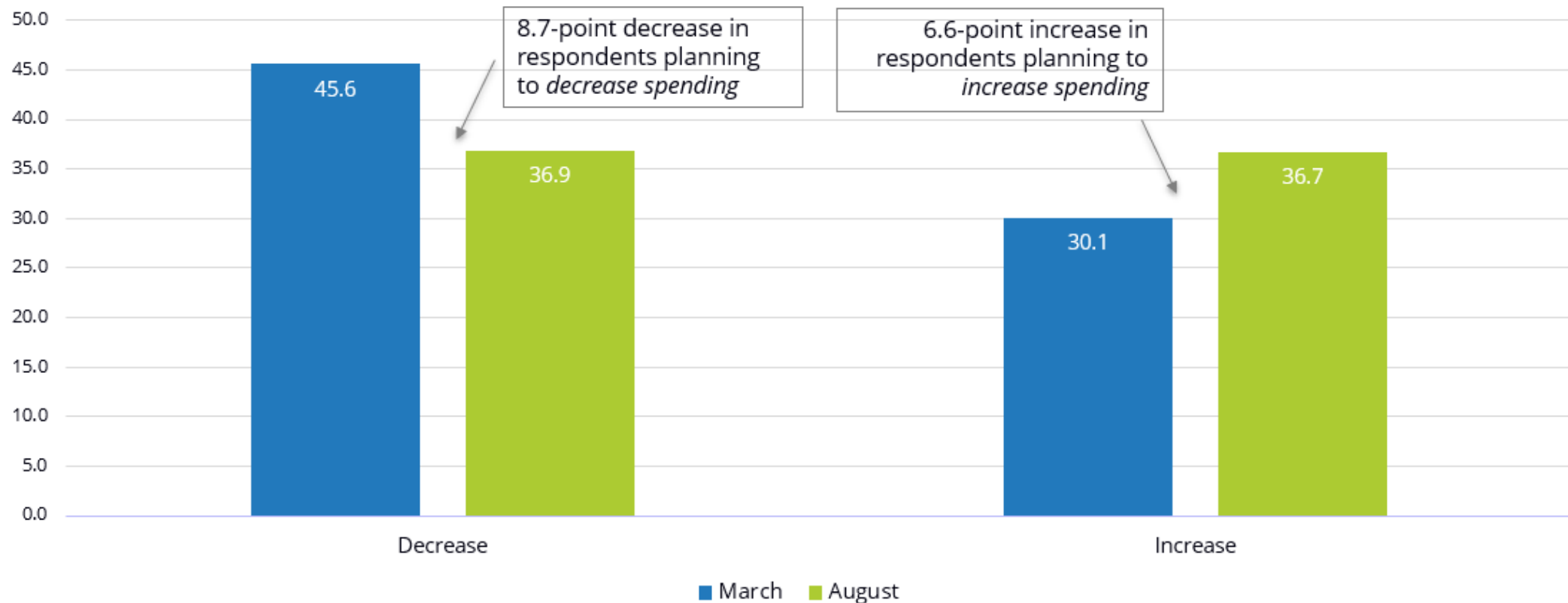
But 70% of organizations say less than half of employees are using VPN

What % of WFH employees are using VPN?



COVID-19: Enterprise networking buyers become more optimistic on investment plans

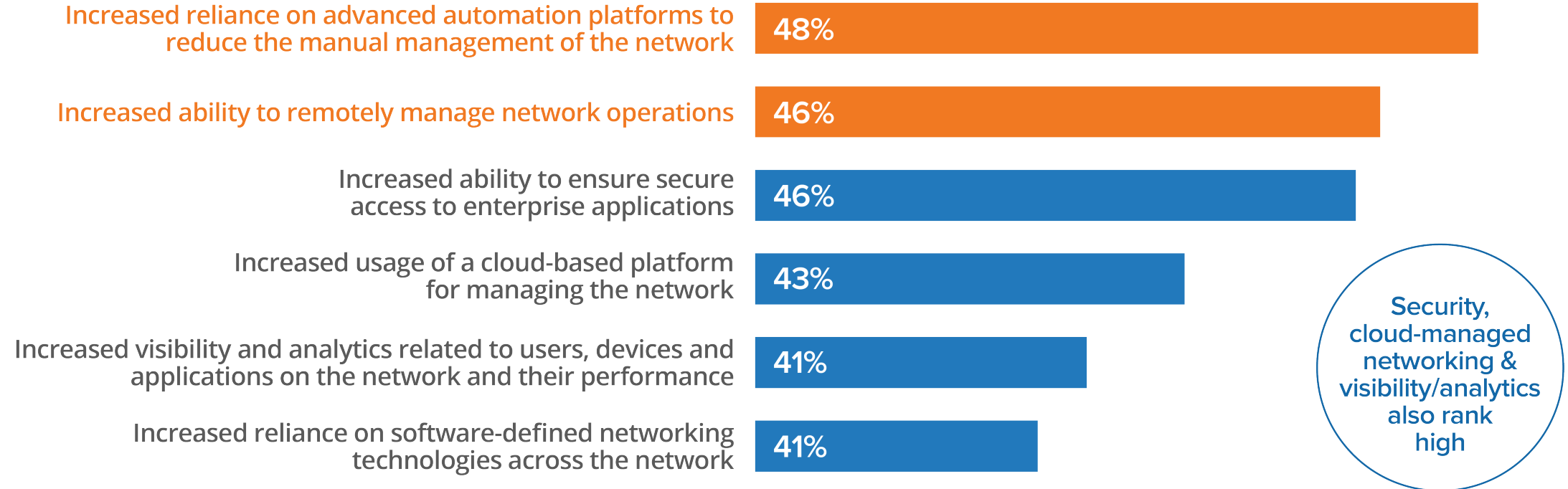
Q. Compared to your original plans, in 2020 how do you think your organization's actual spending on network equipment products and services will be affected due to COVID-19?



Network Investment Priorities: Automation and Remote Management

Q. In which of the following areas, if any, will your organization increase investments as a result of new business operations that are required because of COVID or in a post-COVID world?

% Respondents Increasing Investments due to COVID-19



2 Cloud-managed enterprise networking & the teleco opportunity

Cloud-based & Crowd-sourced

Improve Day 1
Implementation

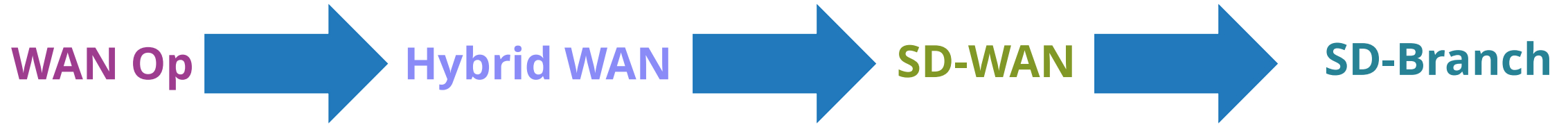


Improve Day 2 Operations

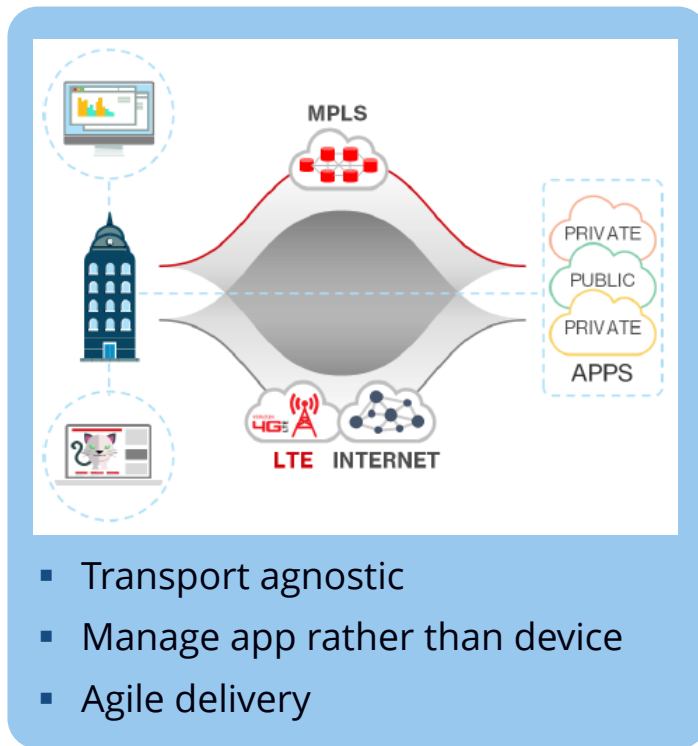
LAN, WAN, WLAN, IoT Edge

- Cloud-managed networking benefits for enterprises:
 - Full lifecycle management
 - Dynamic scalability
 - Faster access to new features
 - Shift to Networking as a Service (NaaS)
- Cloud provides opportunity for telcos to cohesively manage bundle services
 - SD-WAN + LAN (wired and wireless) + Security
 - Value-added services, such as location-based geo-mapping
 - Enables multi-tenancy, increasing scalability

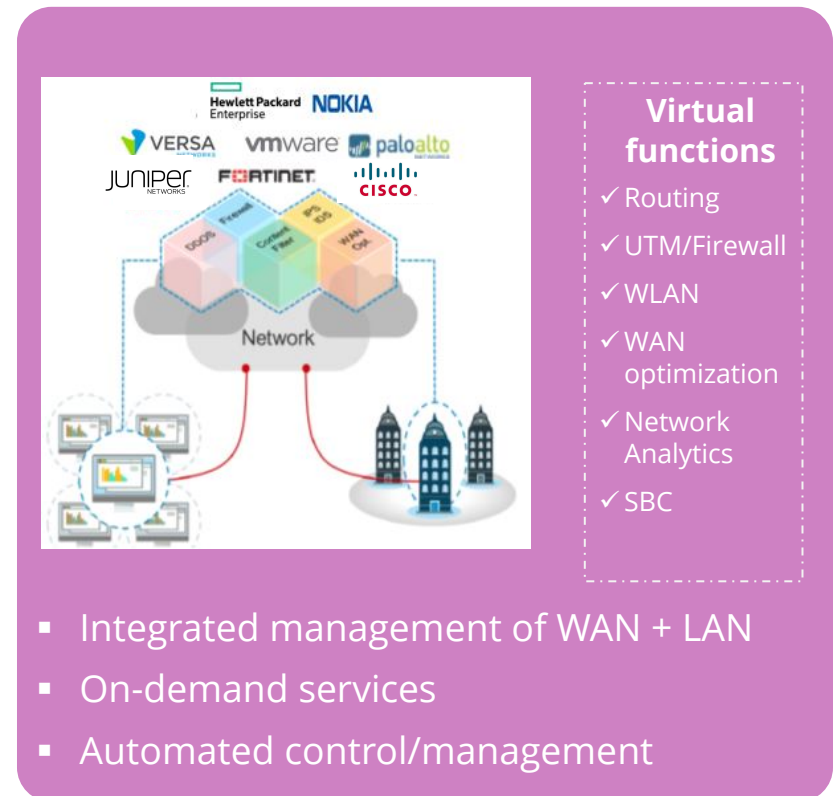
3 SD-WAN Evolution to SD-Branch Begins



SD-WAN

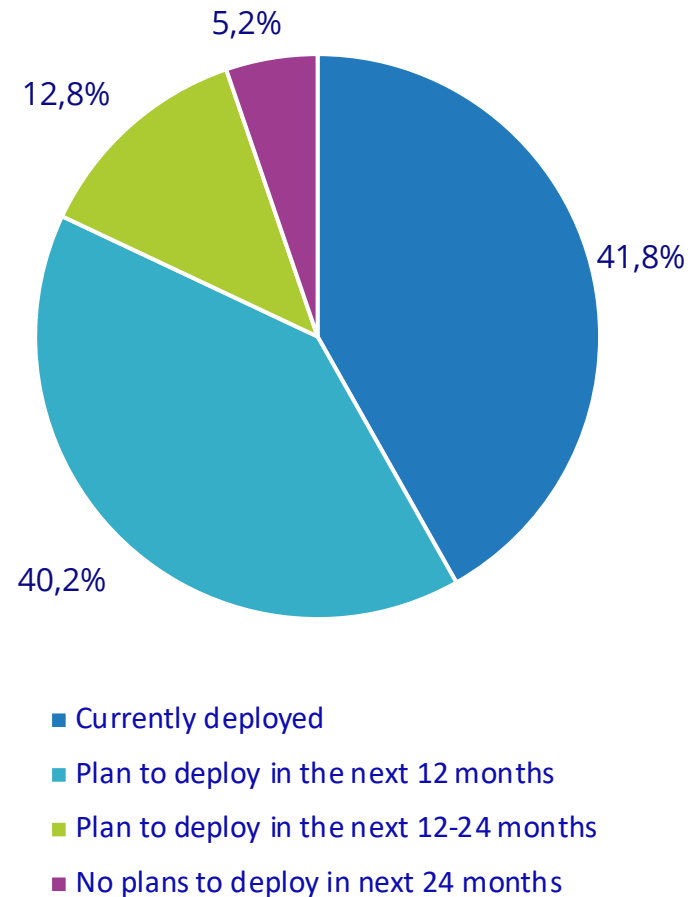


SD-Branch

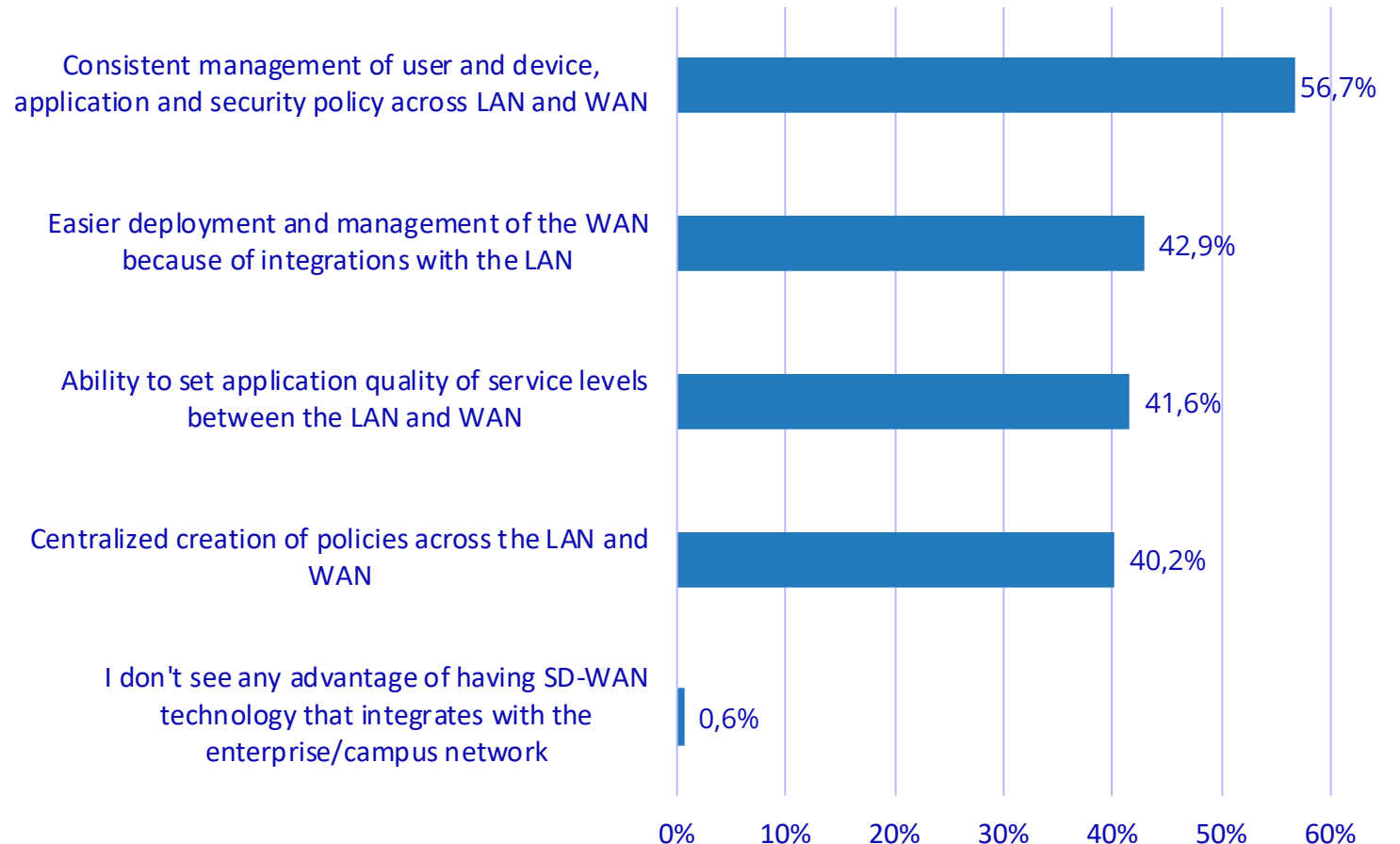


95% Will Deploy SD-WAN; Positive perceived benefits of WAN + LAN Management

Q. Does your organization currently use or plan to use SD-WAN technology solutions?

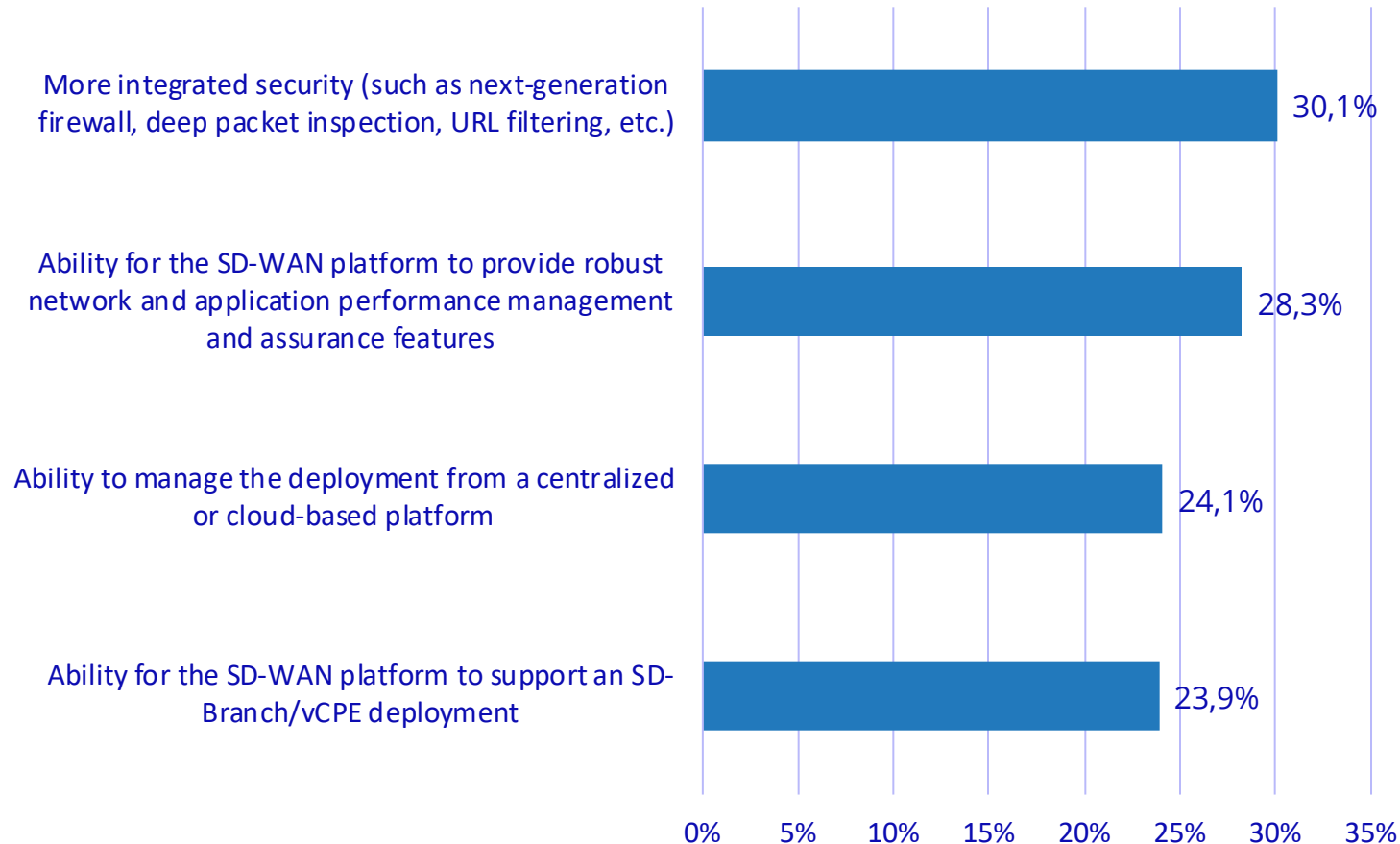


What advantages, if any, do you see with SD-WAN technology that integrates with enterprise networking needs (wired and/or wireless)?



Strong Interest in SD-WAN + Security

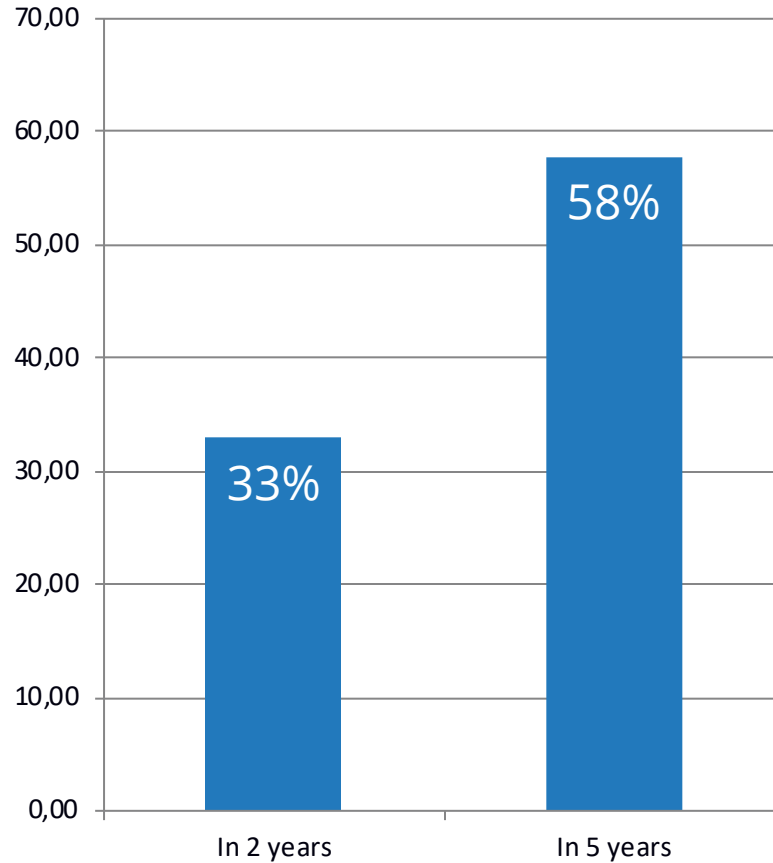
Q. What features do you believe are required of a next-generation, or second-generation SD-WAN 2.0 platform?



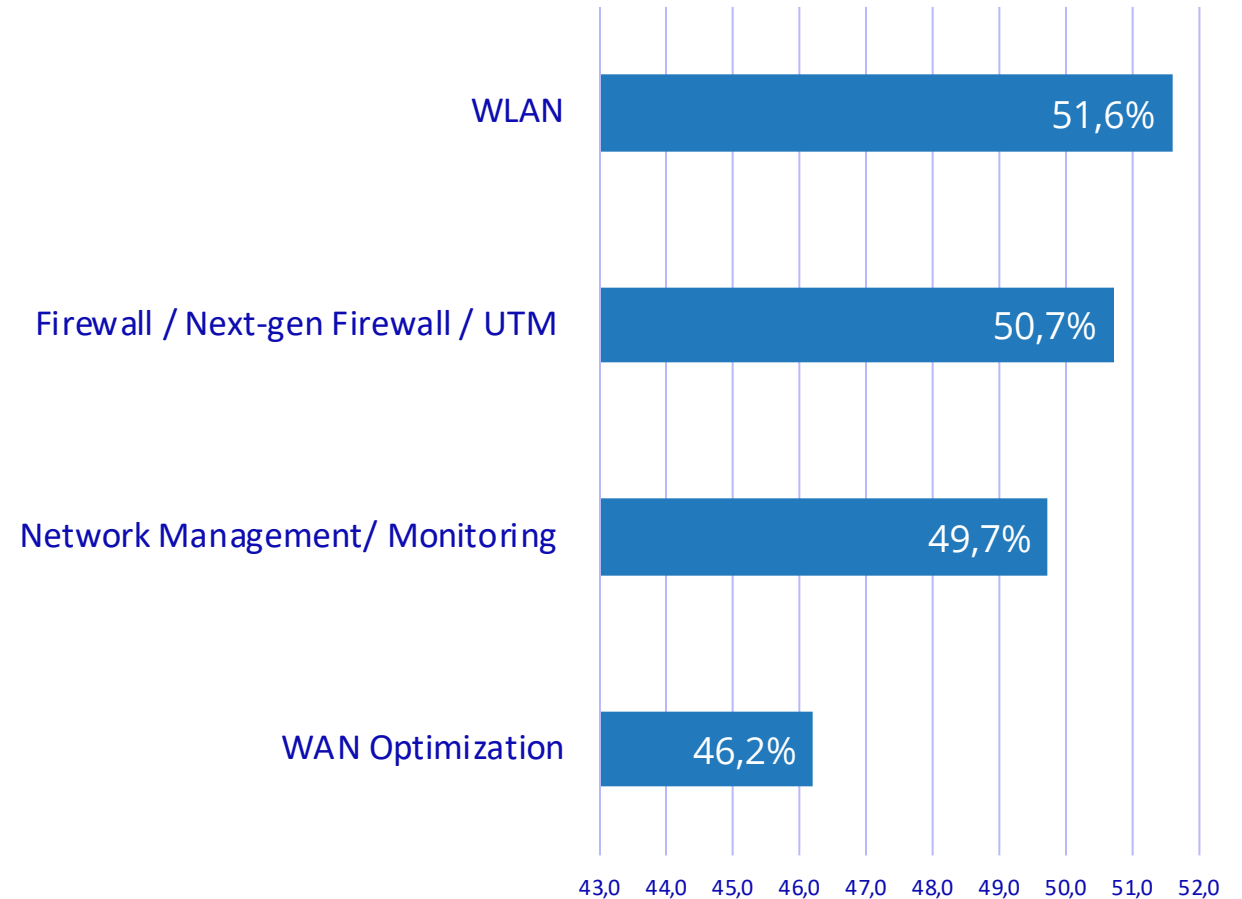
- As enterprises deploy SD-WAN, they're looking for security services to be bundled in directly
 - E.g. NGFW, DPI, IPS/IDS
- SD-WAN + Security = SD-Branch

Wireless, Security, Management/Monitoring are top functions bundled with WAN

What percent of your branch office networking and security functions will be virtualized in the future?



Does your organization use any of the following technology or value-add services that may be bundled with the WAN service?



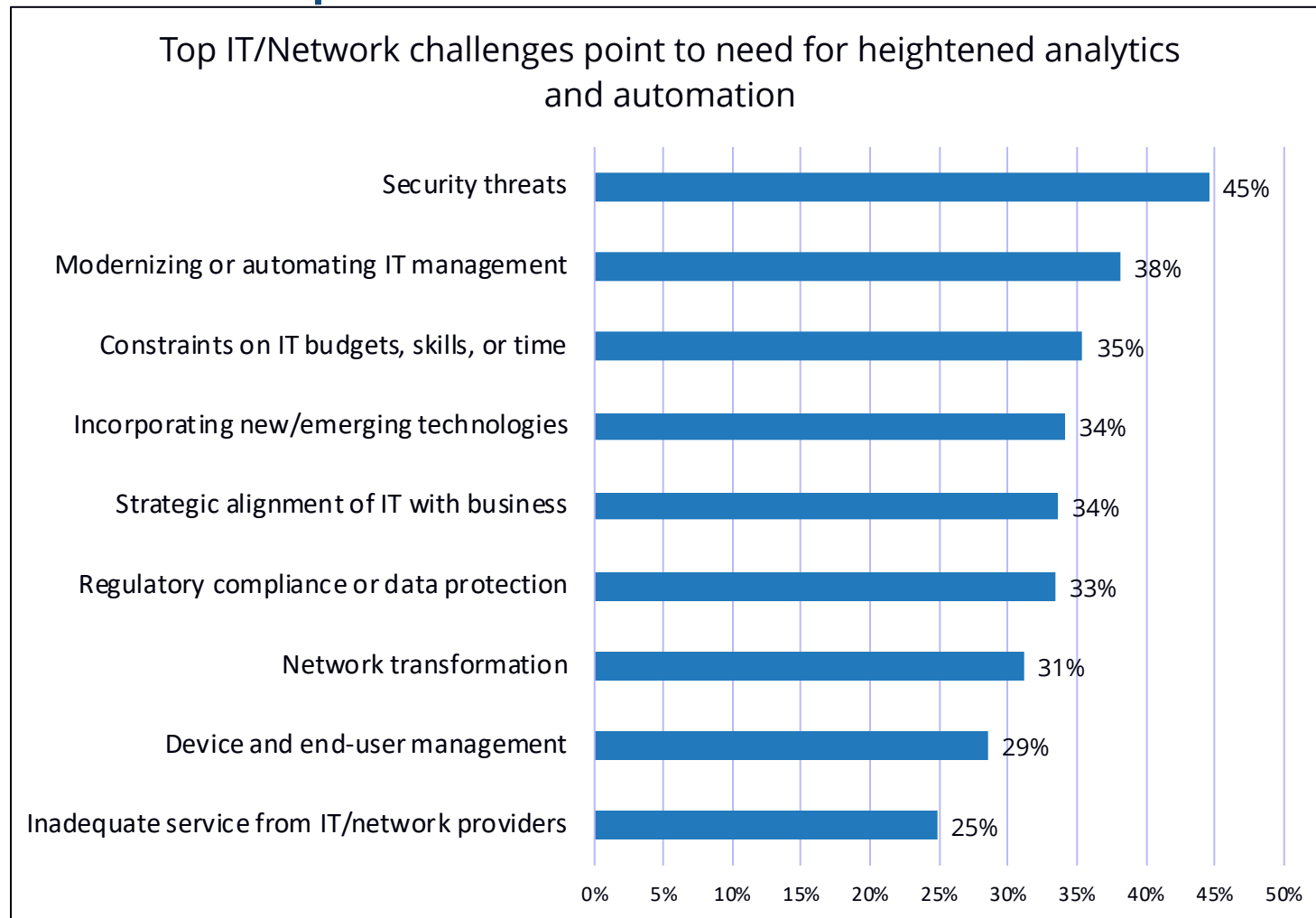
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Network Analytics & Visibility become foundational to optimize user/application experience

Network analytics and visibility are foundational for:

- *Assure end-user & app experience*
- *Quickly identify & remediate network performance or security issues*
- *Network architecture design*

Visibility & analytics give telcos the data to automate and optimize management of enterprise networks

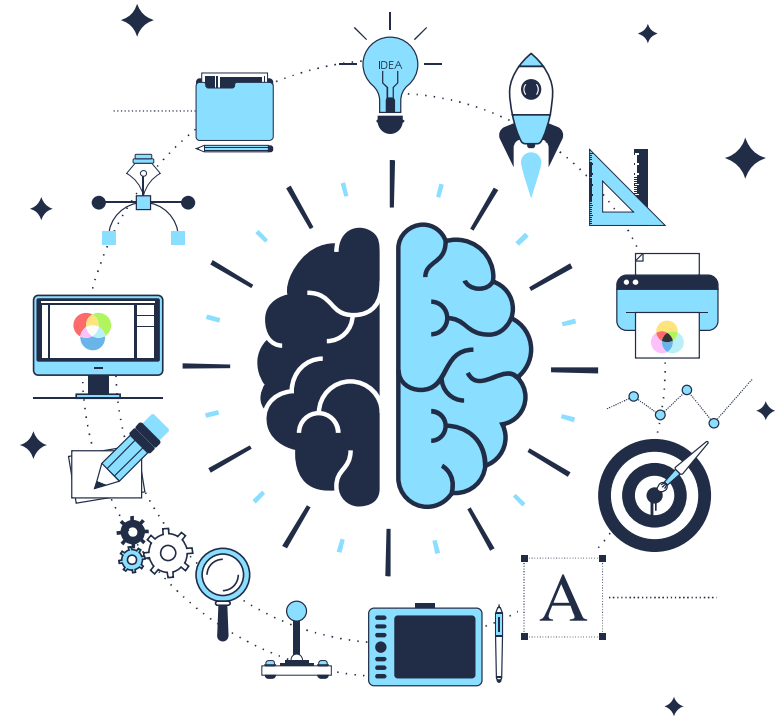


Source: IDC U.S. Enterprise Communications Survey, Sept. 2019

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Benefits of AI/ML-enhanced automation and intelligent network operations include:

- ✓ Automated provisioning and elastic scalability
- ✓ Closed-loop remediation of performance or security incidents
- ✓ Better alignment with business objectives & assuring outcomes



ML/AI-Enhanced Enterprise Network Operations Automation

Automated Troubleshooting



- AI-powered network operations create self-healing networks
 - System monitors operations
 - Detects performance degradations
 - Determines root cause
 - Automatically remediates the problem before it impacts users
-

Automated Helpdesk



- AI-powered Helpdesk Automation
 - User Interfaces leverage Natural Language Processing for queries
e.g. Q: Why is my Wi-Fi coverage weak on the fourth floor?
A: Switch to the 2.5Ghz Band
-

Automated Quality of Service



- Automated QoS and App Performance Guarantees
 - Operator specifies minimum quality of service levels, system automatically maintains those in real time
 - Resources are spun up to ensure and maintain service levels

The Teleco Opportunity

- **COVID:** Enterprises are making targeted investments to support “new normal” operations. Offer remote, outsourced management, with bundled support for remote workers
- **Cloud-managed networking:** Leverage cloud-managed multi-tenant platforms for delivering integrated services to enterprises.
- **SD-Branch:** Enterprises are looking to cohesively management network + security and integrated WAN + LAN services.
- **Network Analytics:** Visibility & Analytics assure performance, provide guaranteed SLAs; reduce time to identify, remediate issues.
- **ML/AI-Enhanced Management:** As complexity grows, manual management will not suffice. Rely on ML/AI automation to scale.



Essential Guidance for selling to the enterprise



Networking is a key enabler of DX, which is spurring Network Transformation. Align investments with business goals.



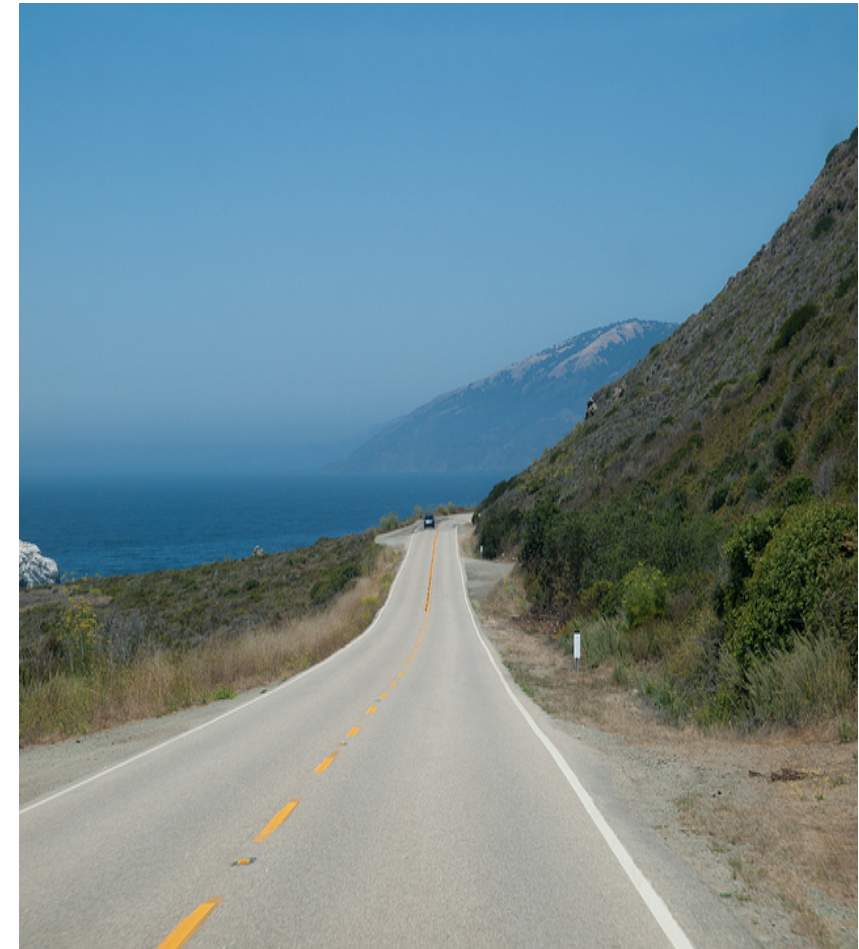
Enterprises are looking to more cohesively manage their networks across domains, especially WAN + LAN.



Cloud-managed, advanced automation and bundled value-add services are keys to ensuring teleco success.



Consider "as a Service"/Flexible Consumption models for delivering network services to enterprises.



Thank you



Brandon Butler

IDC Senior Research Analyst,
Enterprise Networks

BButler@idc.com

@BButlerIDC