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INFOGRAPHIC

MODERN SD-WAN MANAGEMENT: AN ANSWER FOR AN INTERNET-CONNECTED WORLD

Digital Transformation
Is Changing the WAN

The evolution of IT technologies has altered traffic flows within distributed organizations. To keep up, enterprises are greatly expanding their use of public cloud and the internet to fast-track business growth and transformation.

In 2019, analysts predicted:

75%

By 2020, 75% of organizations would expect to experience business disruption due to infrastructure and operations skills gaps.[1]

27B

Connected devices would grow to nearly 27 billion.[2]

2X

Bandwidth demand would continue doubling every two years due to IoT and video consumption.[3]

WAN Transformation – From Plumbing to Platform

Previously, few organizations recognized the link between an enterprise's IT infrastructure and its ability to achieve its business goals. But because of digital transformation, IT leaders must now support enterprise innovation and mission-critical cloud applications to run continuously and perform well. This has elevated the WAN to a strategic delivery platform for business outcomes.

Today, IT leaders are asking themselves:

- How do I expand bandwidth to support increasing cloud traffic?

- How do I handle the rapidly increasing complexity of our network?

- How do I prepare my network for edge computing and IoT?

- How do I overcome the skills gaps in networking and cloud?

- How do I ensure data security across the enterprise?

Traditional MPLS Networks Are Outdated

Network infrastructure has long been considered the backbone of an organization's daily operations. But traditional MPLS networks that transmit branch traffic to a centralized data center **can't offer high-performance access to cloud applications.** These changing traffic flows require additional security, operational management, and bandwidth – thus **increasing operational costs** for many organizations.

48%

of all traffic at branch offices and remote sites can be traced to cloud applications.

92%

of enterprises will grow their overall WAN bandwidth over the next two years, mainly due to cloud adoption.

74%

of enterprises are increasing their use of the internet as the primary WAN connection point.[4]

The Quest for a More Agile, Secure WAN

Rapidly changing business requirements underscore the need for **greater network agility.** Application experiences in branch offices – **where most customer experiences take place** – need to offer the same performance and robustness as the company headquarters or data center.

Other IT initiatives within organizations, like hybrid cloud and connected devices – or the Internet of Things (IoT) – make it clear that cloud technology is a major influence on WAN modernization.

According to IT leaders, the top technical initiatives influencing their WAN strategy are as follows: [5]

Security

37%

Hybrid Cloud

25%

Internet of Things

23%

Multi-Cloud Architecture

18%

Complexity Remains a Challenge

But cloud connectivity also increases security complexity, network complexity in the WAN, and network complexity in the public cloud. More than anything else, enterprises are **struggling with network complexity associated with managing distributed infrastructures.**

This complexity is exacerbated by a lack of technical on-site staff who can support tasks that require physical proximity, such as installation and certain aspects of network troubleshooting.
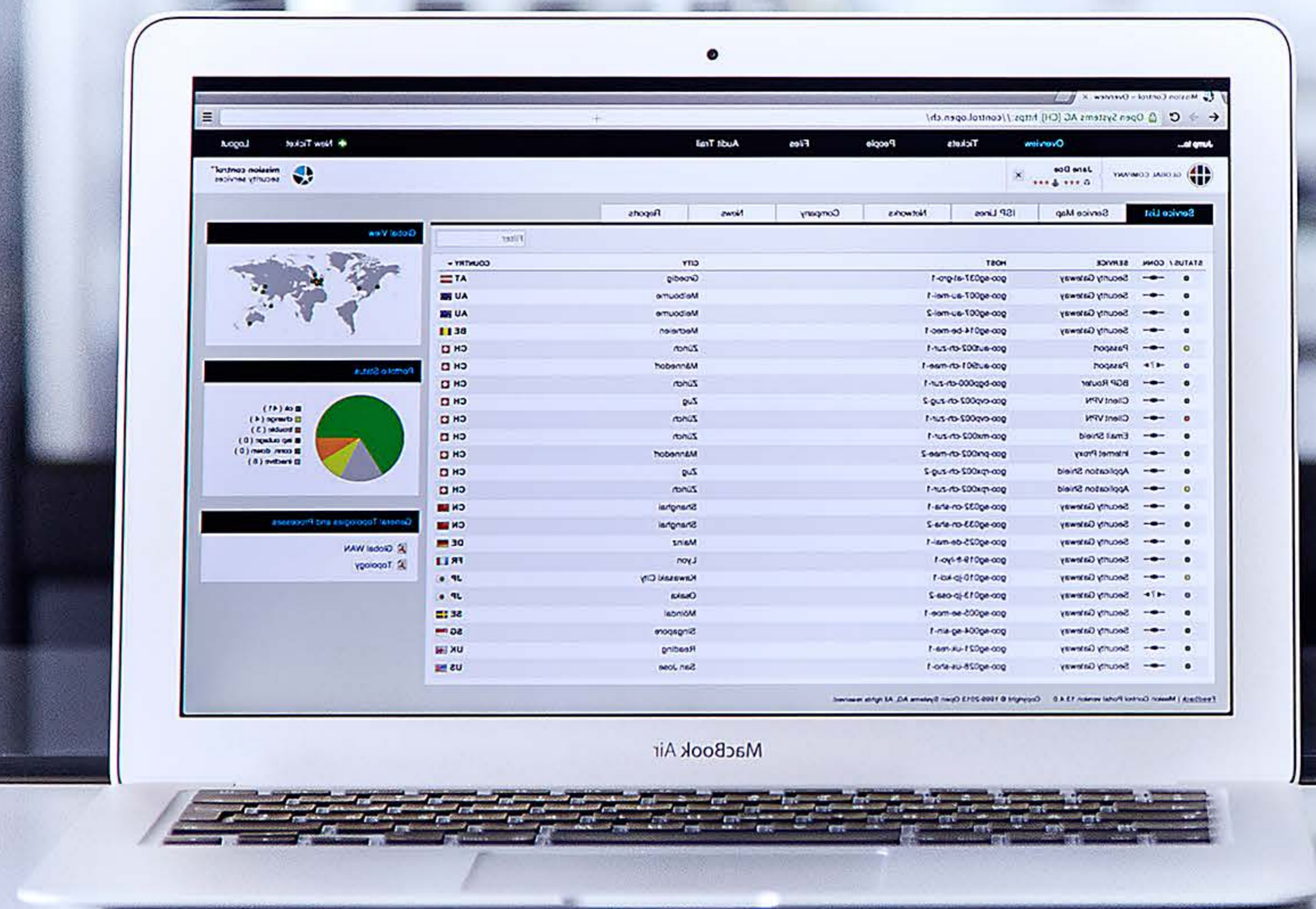
Leaders say these are their top technical challenges to WAN success: [6]

28%

Network complexity from distributed infrastructure management

26%

Bandwidth constraints

27%

Cloud migration complexity

26%

Network complexity from multiple-transport management

SD-WAN:
WAN Transformation in Action

Today's converging business and technical challenges have spurred transformation of the modern WAN through a software-defined networking (SDN) architecture that previously was seen only in the data center.

Software-defined WAN, or SD-WAN for short, is at the leading edge of software-based networking deployments. It uses software and cloud-based technologies to simplify delivery of WAN services to branch offices.

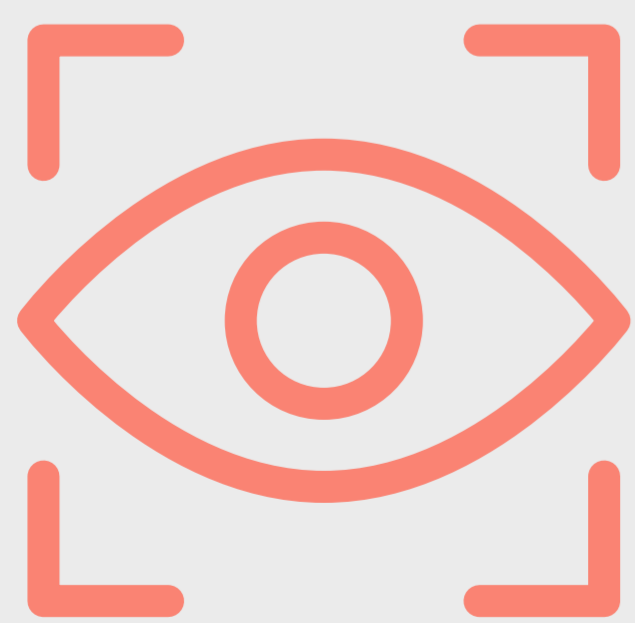# Software-based virtualization enables functionality:
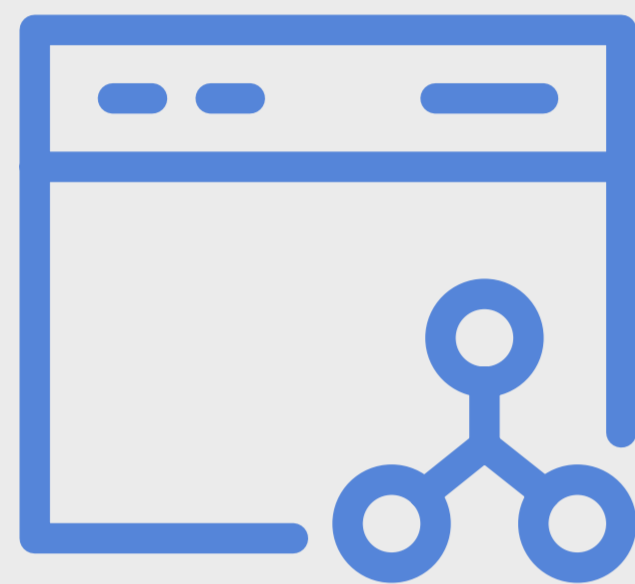
Network abstraction
Network abstraction results in simplified network operations.

Quick deployment
SD-WAN increases agility, allowing for quick deployment of internet-based connectivity (high bandwidth, low costs) that improves performance, quality, reliability, and security.

Visibility and control
SD-WAN provides deep visibility into network devices, users, and performance for easier management and control.

Security First

But because a direct Internet connection can amplify risks, **SD-WAN solutions must put security first.** In fact, 37% of IT leaders report that SD-WAN security is the top technical initiative influencing their WAN strategy.[7]

6 Months

The average time it takes to detect a security breach.[8]

When searching for a secure SD-WAN solution, experts advise to look for:

☑ A transport-independent design

☑ Policy-driven direct access to cloud applications and cloud data centers

☑ A highly available architecture enhanced by distributed cloud-hosted options

☑ A secure and encrypted overlay

☑ Advanced next-generation firewall capabilities

Secure, Unified SD-WAN

To avoid burdensome DIY security, many IT leaders are opting for fully integrated security and SD-WAN services in a unified platform.

When searching for the right solution, make sure to look for these capabilities:

|	
A provider with a proven ability to execute	**Service-level agreements for availability, incident resolution, and application quality**
A true single point of contact who responds quickly to your needs – not contractors	**A predictable cost model**

The Modern WAN Is Secure and Software-Defined

SD-WAN is the modern WAN management answer to an internet-connected world. It provides the agility, simplicity, scalability, and security to enable digital growth anytime, anywhere.

To learn more:

Request an assessment

Open Systems designs, builds, and operates a Secure SD-WAN that enables:

- Confident growth and transformation while minimizing security risk

- Increased business-level visibility, flexibility, and control over your network

- Secure, high-performance connections from the branch to the cloud

- Improved customer experience at the edge, and more
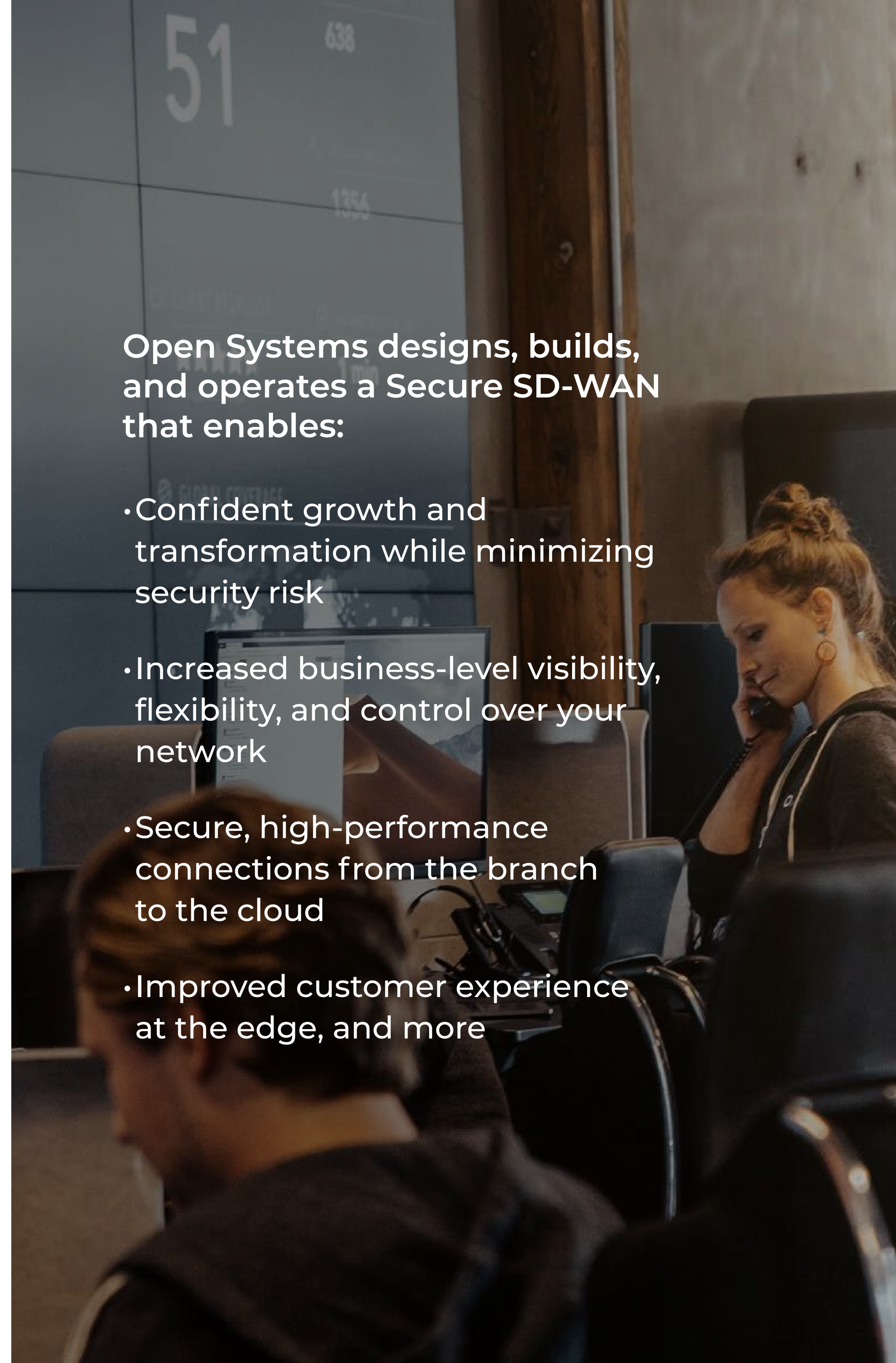
Sources

[1] Gartner, "Gartner Says I&O Skills Gaps Will Cause 75 Percent of Organizations to Experience Visible Business Disruptions by 2020," March 27, 2018

[2] Statista, "Internet of Things (IoT) connected devices installed base worldwide from 2015 to 2025 (in billions)"

[3] Fiber Broadband Association, What Fiber Broadband Can Do for Your Community, Fall 2017

[4] EMA, "Wide-Area Network Transformation: How Enterprises Succeed with Software-Defined WAN," December 2018

[5] Ibid.

[6] Ibid.

[7] Ibid.

[8] Ponemon Institute, Study on Malware Detection, March 2016

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