Remote Office Networks Pose Business and Reliability Risk
A Survey of IT Professionals
August 2019
Executive Summary

This research finds that nearly every company suffers direct business impact from network service interruptions. 3 out 4 companies surveyed experience network outages several times a year or even more frequently. Nearly half of the companies stated they need 3 or more hours to resolve an outage. Today more than 9 out 10 companies manage their network operations centrally. But network professionals cite the top challenges of distributed network management is lack of on-site personnel and difficulty managing remote locations.

This report reveals that more than 7 out of 10 companies will be utilizing SD-WAN, with broad deployments covering not only remote locations, but corporate offices, and data centers as well as connectivity between them. The move to SD-WAN is driven by the need for increased operational flexibility and efficiencies. It appears that current centralized operational models today are delivering substandard network reliability, but the adoption of SD-WAN will enable new operational models and provide answers to current reliability challenges.
Key Findings

Current Network Reliability Issues Drive Business Loss

• 99% of businesses suffer business impact from network interruptions
• 75% experience network interruptions several times a year or more frequently
• 49% of companies require 3+ hours to resolve remote office network outages

Remote Office Networking Proves Challenging

• Remote location security and lack of on-site personnel lead distributed network challenges

SD-WAN Adoption Growing

• 71% have or plan to deploy SD-WAN
• SD-WAN adoption driven by operational improvements and flexibility
• 65% using SD-WAN between the data center and remote locations
DETAILED FINDINGS
99% of Businesses Suffer Business Impact from Network Interruptions

At your company, what is the business impact of network interruptions?

- 44% Minor impact, have to work around it
- 44% Moderate impact, business actions are delayed
- 9% Major impact, business is put at risk
- 3% Severe impact, significant business is put at risk
- 1% No business impact
At your company, how often do remote locations experience network interruptions?

- 75% Experience Network Interruptions Several Times a Year or More Frequently
- 2% Experience Daily
- 7% Experience Weekly
- 17% Experience Monthly
- 49% Experience A few times year
- 25% Experience Once a year or less
49% of Companies Require 3 or More Hours to Resolve Remote Office Network Outages

On average, how long does it take to restore network operations at remote offices once there has been an interruption?
91% Utilize Centralized Network Management Today

How is the network managed for your company’s remote locations?

- We manage it from a corporate IT location: 91%
- We have a network professional at each remote location: 23%
- We have a contractor on call: 18%
What are the key challenges when managing a highly distributed network with numerous remote locations?

- Network security at remote locations: 55%
- Keeping all network devices properly updated and configured: 55%
- No personnel on site at remote locations: 48%
- Too few resources to manage the network: 43%
- Comprehensive network visibility across corporate and remote locations: 43%
- Network security at corporate offices: 33%
- Lack of management capabilities for equipment located at remote locations: 29%
- Lack of budget: 28%
- Regulatory compliance and reporting: 28%
- Network solution and equipment incompatibilities between remote and...: 20%
In your experience, what type of services are needed to manage a network successfully at remote locations?

- DHCP: 83%
- Authoritative DNS: 66%
- Recursive DNS: 35%
- IPAM: 33%
65% Backhaul DNS and DHCP back to Corporate IT Locations

In general, how are DNS and DHCP provided at remote locations?

- Local on-site solution: 35%
- Backhaul to corporate IT location (data center): 65%
In your experience, for remote locations, which devices types are better for managing local networks (DHCP, DNS)?

- Virtual devices: 59%
- Physical devices: 35%
- It is not necessary to manage remote location networks: 6%
How often is an employee sent to a remote location to resolve a networking issue?

- 1% Daily
- 8% Weekly
- 15% Monthly
- 41% A few times a year
- 29% Once a year or less
- 6% Never

65% State Employees Are Routinely Sent to Remote Locations to Resolve Networking Issues
Has your company deployed an SD-WAN solution?

- 28% Yes, it is deployed in multiple locations
- 10% Yes, it is deployed in a single location
- 33% No, but we are planning on deploying SD-WAN
- 29% No plans for SD-WAN at this stage
Where is your company using or planning to use SD-WAN?
What motivated your company to adopt SD-WAN?

- More flexible: 67%
- Increased resiliency: 66%
- Easier to manage: 54%
- Less costly: 30%
SECURITY IMPLICATIONS
93% Secure Remote Locations with a Centralized Approach

How is network security managed for your company’s remote locations?

- We manage it from a corporate IT location: 93%
- We have a contractor on call: 15%
- We have a security professional at each remote location: 10%
Numerous Issues Make Remote Office Security Difficult to Manage

Why has remote office network security become more difficult to manage?

- Increased user device internet access: 68%
- Growing attack sophistication: 65%
- Lack of centralized visibility across the enterprise (corporate and remote offices): 55%
- Difficult to coordinate remote and corporate office security: 52%
- Increased attacks: 52%
- Local office network complexity: 43%

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Nearly 2/3rds Fear SD-WAN will Affect Their Security Posture

In your opinion, does SD-WAN impact your security posture?

- Yes: 62%
- No: 38%
METHODOLOGY AND PARTICIPANTS
**Research Goal**
The primary research goal was to understand the current practices of managing and securing networks at remote locations and connectivity to corporate offices. Additionally, the research sought to capture current challenge and SD-WAN adoption plans.

**Methodology**
IT professionals that were responsible for operating, designing or security networks at companies with remote office were invited to participate in a survey on their company’s approach to securing and managing networks.

The survey was administered electronically, and participants were offered a token compensation for their participation.

**Participants**
A total of 243 participants that have networking, security or architectural responsibilities completed the survey. Participants were from North America.
Companies Represented

Number of Employees

- More than 5,000: 31%
- Less than 1,000: 30%
- 1,000 – 5,000: 39%

Number of Physical Locations

- Less than 10: 24%
- 10 – 50: 42%
- 50 – 100: 15%
- 100 – 500: 12%
- More than 500: 7%
Companies Represented

Industry

- Technology: 19%
- Financial Services: 13%
- Education: 11%
- Healthcare: 11%
- Government: 10%
- Manufacturing: 9%
- Services: 7%
- Energy and Utilities: 4%
- Telecommunications: 3%
- Retail: 3%
- Food and Beverage: 3%
- Transportation: 2%
- Media and Advertising: 2%
- Non-Profit: 1%
- Hospitality and Entertainment: 1%
- Other: 3%
Individuals Represented

**Role**
- Executive: 26%
- Frontline or Admin: 26%
- Team Manager: 48%

**Department**
- Security: 25%
- Networking: 30%
- Architecture: 45%
Individuals Represented

Responsibilities

- Security: 87%
- Networking: 75%
- Architecture: 72%
- Server and database infrastructure: 64%
- Operations: 63%
- Public cloud management: 42%
- Software development: 31%
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