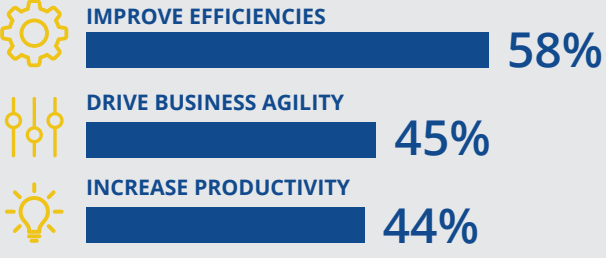# SD-WAN: A DRIVER OF DIGITAL TRANSFORMATION

THE NETWORK MANAGER'S BALANCING ACT
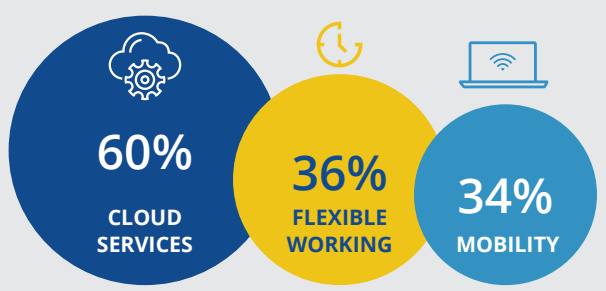
The WAN Needs to Support Business Outcomes
Q. What are the key business outcomes that your company's WAN should support?

- IMPROVE EFFICIENCIES **58%**
- DRIVE BUSINESS AGILITY **45%**
- INCREASE PRODUCTIVITY **44%**

Security and Cloud Connectivity Drive Requirements
Q. What are the key factors that will drive your company's network requirements over the next two years?

- SECURITY **59%**
- CONNECTING TO CLOUD PROVIDERS **42%**
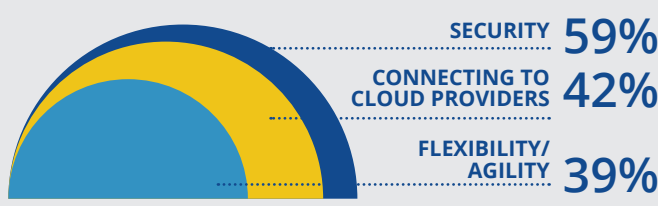- FLEXIBILITY/ AGILITY **39%**

New Technologies Force Change
Q. Which of the following technology areas will have the biggest impact on your company's WAN requirements in the coming years?

- **60%** CLOUD SERVICES
- **36%** FLEXIBLE WORKING
- **34%** MOBILITY

But Budgets Show Only Flat to Modest Growth
Q. How do you expect the budget for the WAN to change, if at all, in the next two years?

45% | **45%**

● Modest decrease ● No change ● Modest increase ● Strong increase

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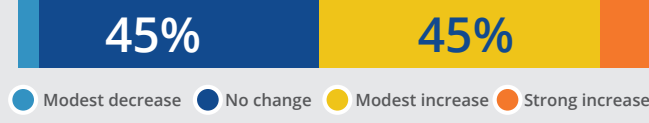
THE ROAD AHEAD IS FULL OF BUMPS

Challenges Are Many, But Security is Key
Q. What do you see as the biggest challenges for your company's WAN in the coming two years?

- SECURITY THREATS **59%**
- REGULATORY COMPLIANCE OR DATA PROTECTION (e.g., GDPR) **36%**
- INCORPORATING NEW/EMERGING TECHNOLOGIES **32%**
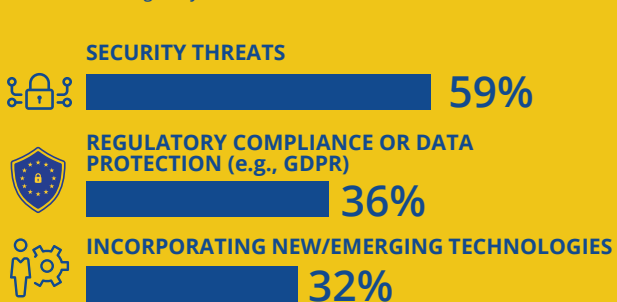
Regular Tasks Are Not Easy For Many
Q. How easy do you think it is to do each of the following on your company's current WAN? (% responding "challenging/very challenging")

- UPDATE NETWORKING OR SECURITY POLICIES/SETTINGS **62%**
- PROVISION NEW NETWORK FUNCTIONS **67%**
- ADD OR CHANGE A CONNECTION TO A PUBLIC CLOUD PROVIDER **69%**

Few Organizations Feel That Staff and Network Are Ready for the Future
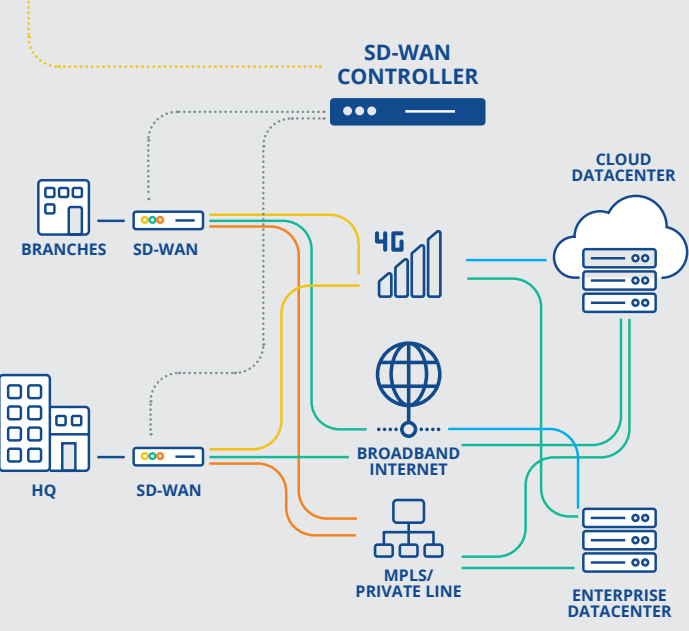
40%
48%

Q. Do you feel that the staff at your company have the right skills to drive the evolution of its WAN? (% responding "Yes")

On a scale from 1 to 5, where 1 is not at all ready and 5 is completely ready, how ready is your company's network to meet growing requirements and deliver these business outcomes? (% responding "4/5")

NETWORK CHANGES CAN IMPROVE PERFORMANCE

Doing Nothing is Not an Option as Requirements Are Accelerating
Q. What changes have you made or are you planning to make to your company's WAN to respond to these changing requirements?

- IMPROVE NETWORK SECURITY **68%**
- IMPROVE NETWORK PERFORMANCE MONITORING **49%**
- INCREASE NETWORK BANDWIDTH **41%**
- NO CHANGE **0%**

Architectural Change Can Improve Performance
Q. Does your company use any of the following in its WAN solution?

- ACTIVE-ACTIVE ARCHITECTURE WITH MULTIPLE CONNECTIONS PER SITE **49%** | **32%**
- LOCAL INTERNET BREAK-OUT **45%** | **37%**
- PRIVATE CONNECTIVITY TO KEY PUBLIC CLOUD PROVIDERS **42%** | **43%**

● YES ● NO, but planning to within 12 months

Organizations Are Increasingly Adopting Intelligent Services
Q. Does your company use any of the following intelligent WAN services?

- REAL-TIME MONITORING/VISIBILITY **67%** | **23%**
- APPLICATION PERFORMANCE MANAGEMENT **44%** | **43%**
- WAN OPTIMIZATION **37%** | **34%**

● Yes ● No, but planning to within 12 months

...But Few Are Leveraging the Power of Predictive Analytics to Optimize the Network
Q. What is your company's approach to using network intelligence to optimize the network?

- **16%**
- **11%**

● Automated optimization based on predictive analytics ● Manual optimization based on predictive analytics

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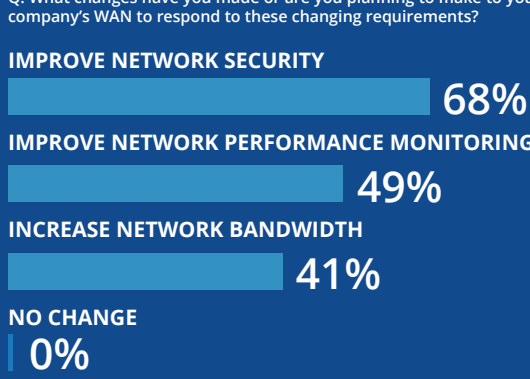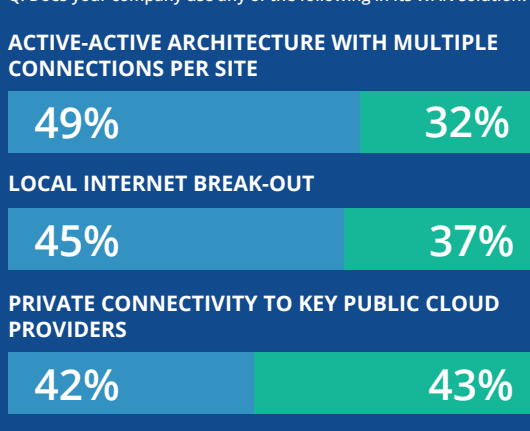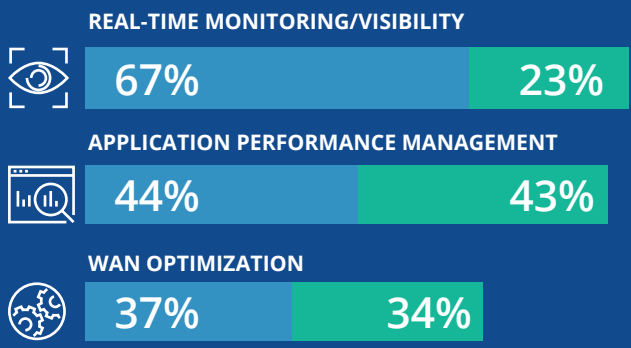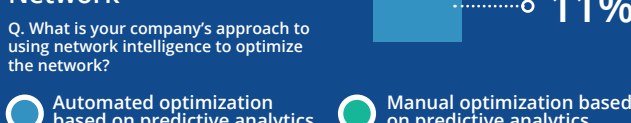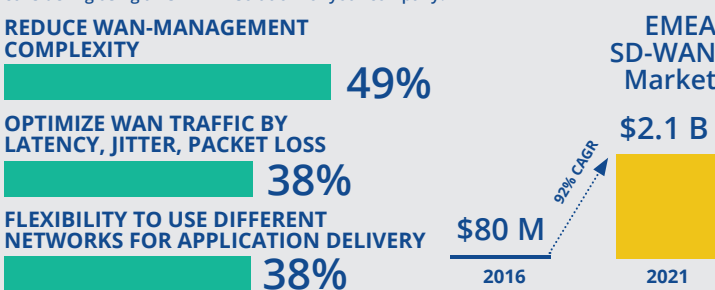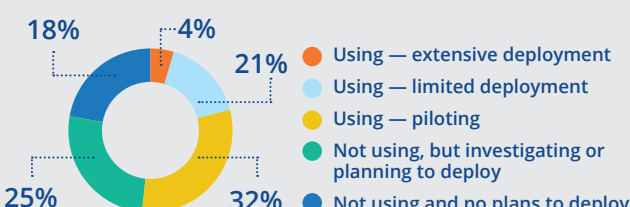## SD-WAN DRIVES NETWORK EVOLUTION

SD-WAN ELEMENTS
- Leverage hybrid networks
- Centralized, application-based policy controller
- Application and network performance monitoring
- Software overlay that abstracts and secures underlying networks
- Dynamic path selection to optimize the WAN based on application requirements

SD-WAN CONTROLLER

BRANCHES SD-WAN 4G CLOUD DATACENTER

HQ SD-WAN BROADBAND INTERNET

MPLS/ PRIVATE LINE ENTERPRISE DATACENTER

SD-WAN Delivers a Range of Advantages
Q. What are the most important reasons for using or considering using an SD-WAN solution for your company?

- REDUCE WAN-MANAGEMENT COMPLEXITY **49%**
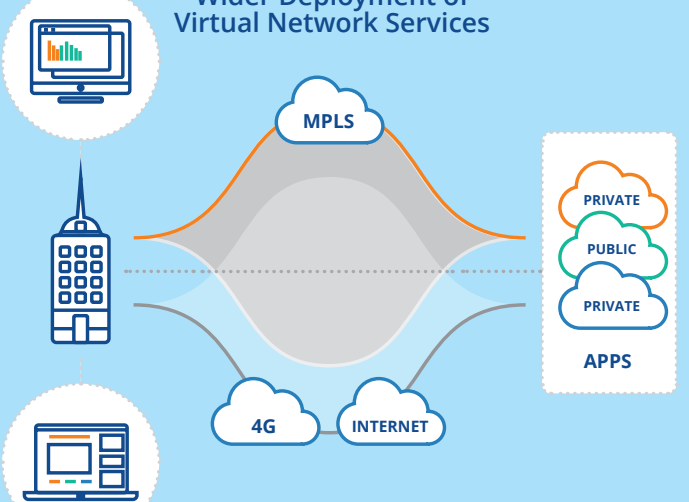- OPTIMIZE WAN TRAFFIC BY LATENCY, JITTER, PACKET LOSS **38%**
- FLEXIBILITY TO USE DIFFERENT NETWORKS FOR APPLICATION DELIVERY **38%**

EMEA SD-WAN Market
2016 **$80 M** — 2021 **$2.1 B**
90% CAGR

Demand for SD-WAN is Accelerating
Q. Which of the following best describes your company's adoption, plans, or awareness of SD-WAN?

18% | 4% | 21% | 32% | 25%

● Using — extensive deployment
● Using — limited deployment
● Using — piloting
● Not using, but investigating or planning to deploy
● Not using and no plans to deploy

SD-WAN IS THE FIRST STEP TOWARD NETWORK-AS-A-SERVICE

SD-WAN
SD-WAN Should be a Stepping Stone Towards a Wider Deployment of Virtual Network Services

MPLS
4G INTERNET
PRIVATE PUBLIC PRIVATE APPS

- Transport agnostic
- Manage app rather than device
- Agile delivery

NaaS

FIREWALL SD-WAN DDoS WAN OPT APM

NETWORK

VIRTUAL FUNCTIONS
- Routing
- SD-WAN
- Firewall
- WAN optimization
- APM
- WLAN, etc
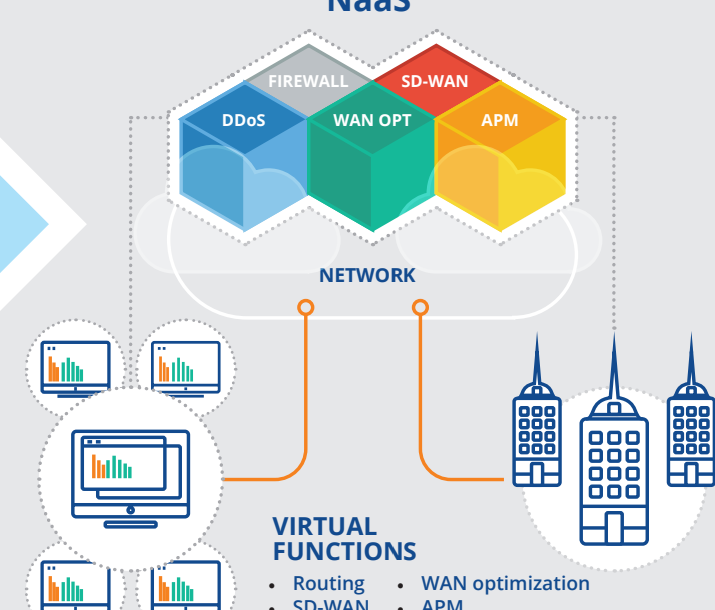
- Replace expensive HW appliances
- On-demand services
- Automated control/management

...Unlocking Further Benefits for the Organization
Q. What do you see as the top benefits that virtual network services can bring to your company?

- IMPROVED SECURITY **59%**
- FASTER PROVISIONING **38%**
- REDUCED MANAGEMENT COMPLEXITY **36%**

ESSENTIAL GUIDANCE

- Manageability
- Flexibility
- Cost Effectiveness
- Security
- Scalability

DIGITAL TRANSFORMATION
- ASSESS YOUR CURRENT NETWORK AND ITS DESIRED STATE
- PREPARE A GRADUAL MIGRATION PATH
- OPTIMIZE YOUR USE OF AUTOMATION AND INTELLIGENCE
- EXPLORE WHAT SD-WAN CAN DO FOR YOUR BUSINESS
- INVESTIGATE HOW A WIDER USE OF NETWORK VIRTUALIZATION CAN HELP YOU REAP FURTHER BENEFITS

To assess the state of your WAN and find out how you can prepare for the future, go to NTT's Next-Generation WAN Advisor

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IDC Analyze the Future