



SD-WAN

Enabling the Enterprise to Overcome
Barriers to Digital Transformation

An IDC InfoBrief Sponsored by Comcast

SD-WAN Is Emerging as an Important Driver of Business Results

The increasing need for anywhere, anytime access to applications requires more from enterprise networks than ever before. Distributed enterprises, including those with multiple branches, multiple site types, and remote workers, need to transform their Wide Area Networks (WANs) to service this critical need.

This ongoing transformation is governed by six key principles of today's business-enabling WAN:

1. Hybrid WAN is common in today's enterprise
2. WAN connectivity is an essential building block for Digital Transformation (DX)
3. Cloud applications demand more from the WAN than ever before
4. The WAN must become an asset to DX success
5. Adept use of WAN drives positive business results
6. SD-WAN offers new capabilities for enterprise connectivity, and with it come potential benefits

MPLS and Other Technologies Form Increasingly Complex Environments

More and more, enterprises are adding additional communication technologies alongside MPLS to provide interoffice connectivity using hybrid WAN.

MPLS Pros

- Any-to-any routing
- Class-of-service
- Performance guarantees

Cons

- Expensive
- Complex configuration
- Long installation lead times

87%



of enterprises take a hybrid WAN approach today.

Enterprises expect MPLS growth to wane over next 2 years

60%

of companies increasing MPLS next year

and that number dropping to

40%

THE YEAR AFTER



BANDWIDTH
is second in importance only to
SECURITY



WAN managers must control costs without compromising security or connectivity.

WAN Connectivity Is an Essential DX Building Block

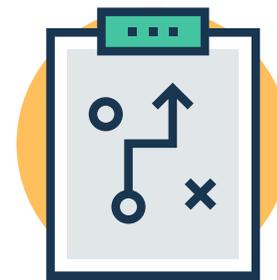
DX: The What and Why

DX creates

- value
- growth
- competitive advantage

by digitizing

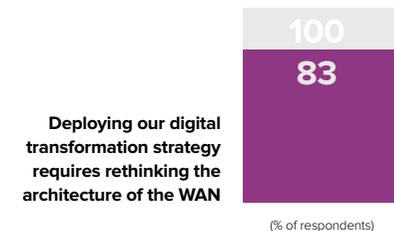
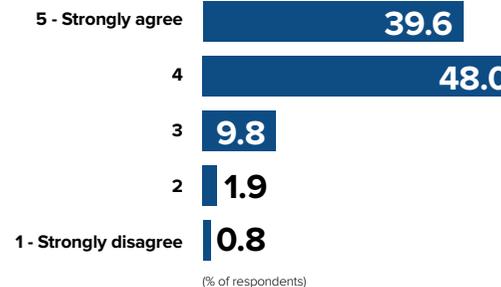
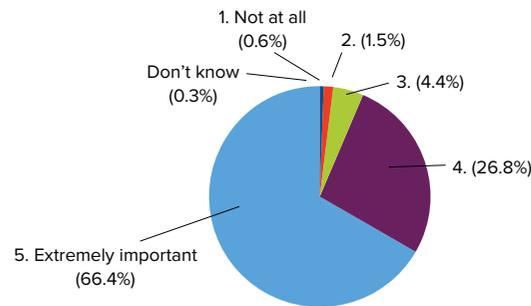
- offerings
- business models
- business relationships



94%

of enterprises have a DX initiative planned, underway, or complete

Infrastructure teams identify WAN connectivity as essential to successful DX initiatives.



93% consider WAN highly or extremely important to business objectives.

88% strongly believe DX will increase bandwidth needs.

83% expect DX to require WAN re-architecture.

Cloud Applications Demand More from the WAN Than Ever Before

Cloud computing provides many advantages to DX

- » Flexibility
- » Agility
- » Efficiency
- » Low up-front costs



20% of today's WAN traffic comes from cloud applications

DX increases adoption of 3rd Platform technologies including:

- Big data/ analytics
- Mobile
- Social
- Machine learning/AI
- Internet of Things

All require cloud as a foundation to succeed

These applications bring heightened requirements for

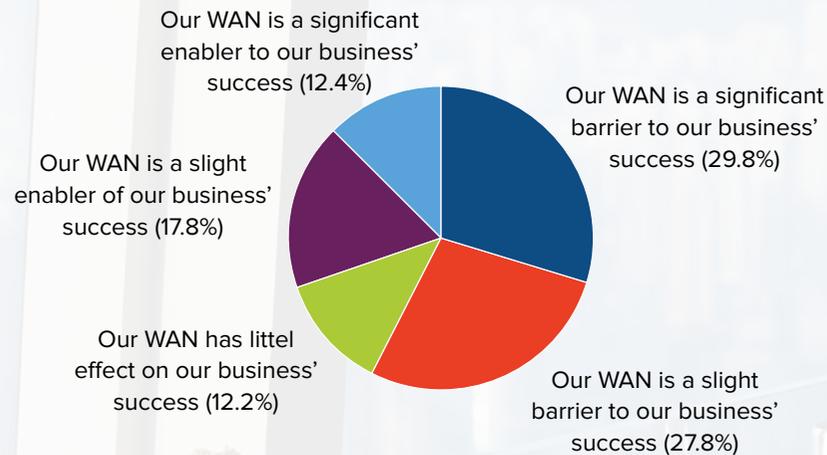
- » Performance
- » Security
- » Reliability
- » Availability
- » Traffic throughput

The WAN Must Become an Asset to DX Success

The top pain points for today's WAN are

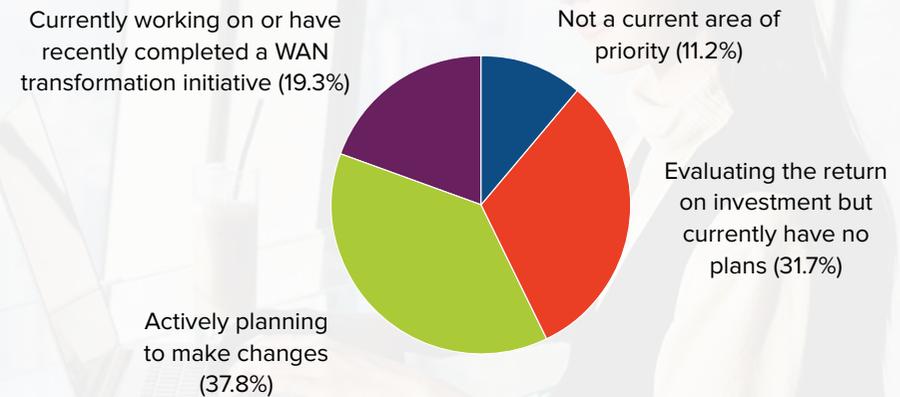
- Service level consistency
- Cost of growing the network
- Provisioning speed

 **57%** of executives view their WANs as barriers to success today



Enterprises are responding

89% of enterprises have, are planning, or are evaluating WAN transformation initiatives

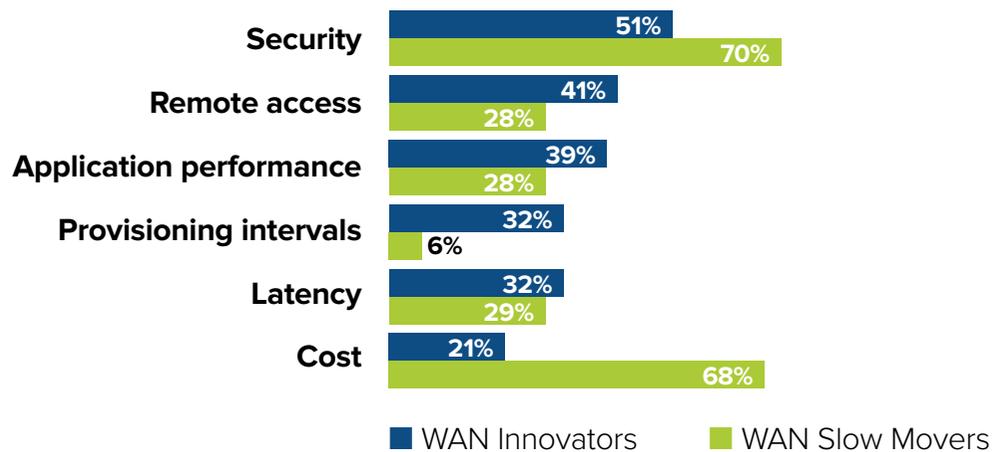


Adept Use of WAN Drives Positive Business Results

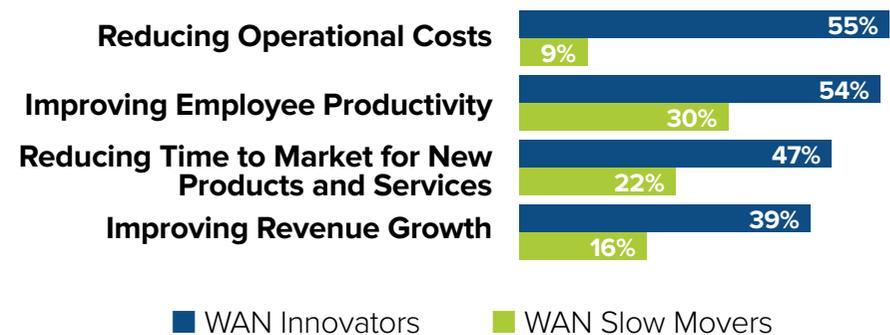
Investment Matters

Enterprises with mature WAN technology and management (“WAN innovators”) vastly outperform slow movers in WAN technology. These slow movers place great emphasis on cost and security when it comes to WAN technology. While WAN innovators also take security seriously, they place much less emphasis on cost than on key business capabilities like application performance, remote access, and speed to provisioning.

Key Challenges with Current WAN



% Improvement in Past 3 Years

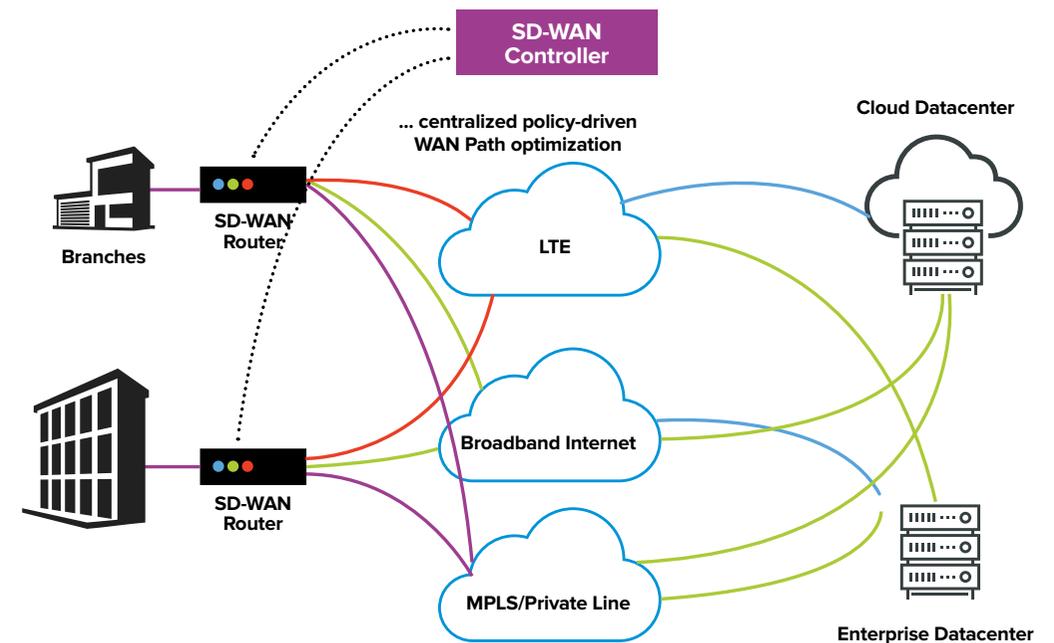


SD-WAN Offers Manageability and Control to Take the Complexity out of Hybrid WAN

SD-WAN is an all-network solution, able to control and manage all the different components combining to provide your network capability, including broadband. Broadband has emerged as an important alternative for today's enterprise, with cost-effective, secure options available at high bandwidth.

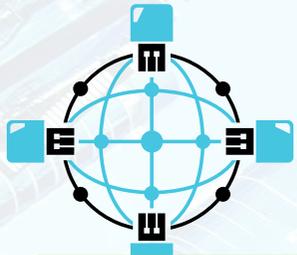
SD-WAN enables new technical capabilities:

- Application-defined intelligent path selection across WAN links (MPLS, broadband internet, LTE, etc.) based on policies defined on the SD-WAN controller
- Flexible and agile policy definition across all dimensions (security, performance, CoS, reliability, availability) for all apps
- Dynamic application policy and traffic management leveraging the central controller

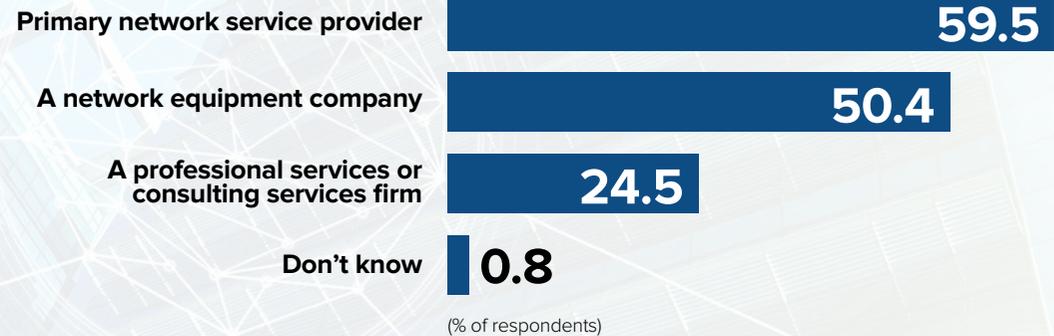


SD-WAN's Benefits Are Driving Rapid Adoption

87% of enterprises will use SD-WAN within 2 years



AMONG THOSE ADDING SD-WAN
60% will work with a primary network service provider for implementation



Potential Benefits of SD-WAN

1. Greater flexibility and efficiency by assigning bandwidth to applications based on importance
2. Improved branch IT and business agility and efficiency through automated and agile provisioning of services
3. Secure data traffic for all applications, including broadband internet and LTE in addition to MPLS
4. Reduced application delivery costs both today and accounting for future application traffic profile change and growth
5. Increased customer engagement owing to application reliability, availability, performance, and security

IDC Guidance

1

Adopt SD-WAN to accelerate Digital Transformation (DX)

Driven by 3d platform, DX requires flexible, secure and a high performance WAN infrastructure. SD-WAN enables the transformation from legacy implementation to software define architecture addressing the needs of DX.

2

Choose an SD-WAN solution that aligns with business needs

The choice of an SD-WAN solution and provider should not be based strictly on cost savings. Make sure it supports business priorities such as access to cloud applications, bandwidth demands, and security. And be confident your chosen architecture will be able to adapt and grow as your business evolves in scale and complexity.

3

Embrace connectivity choices besides MPLS to respond to bandwidth and security demands

A key advantage of SD-WAN is the ability to choose among multiple connectivity technologies, mitigating the need for expensive implementation of MPLS. Today's broadband connections are so much more capable, flexible, and cost effective than yesterday's that they are now a true option for the enterprise.

4

Consider an SD-WAN provider based on business model and not just technology

When choosing a networking alternative, make sure you're doing business with a provider that can service not just the needs of today but also where your business is growing. Look into the software capabilities vendors a can provide, SLAs, pay-per-use pricing models, and access to analytics.

Methodology

The findings in this infobrief derive directly from IDC's March 2017 study of

- ▶ the current state of enterprise WAN usage,
- ▶ key challenges businesses face today with their WAN,
- ▶ the impact of digital transformation initiatives on the WAN, and

key benefits of using software-defined WAN (SD-WAN).

For this study IDC surveyed 805 IT and telecom professionals who have strategic insight and knowledge of their enterprise WANs. Qualifying executives worked for U.S. midsize and large companies (with 250 or more employees and at least 10 locations). Respondents came from a mix of industries with emphasis on healthcare, retail, and banking.