Forrester®

A Custom Technology Adoption Profile Commissioned By Riverbed

The Future Of The WAN Is Software-Defined

Software-Defined WAN Gives Network Managers Better Control Over Their Networks To Ensure Security, Reliability, And Cost Efficiency

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What Is The Future Of The WAN?

The adoption of cloud resources, coupled with increased bandwidth requirements to support rich media, interactive communications, and other bandwidth-heavy applications, has created interest in deploying hybrid WAN topologies at remote locations (e.g., a combination of MPLS, Internet, LTE, etc.). While multiple transport technologies increase capacity and reliability, they also increase complexity and create new challenges for network managers. Software-defined WAN solutions can help to alleviate these challenges, enabling organizations to capitalize on the benefits of hybrid WANs while increasing overall agility and operational efficiency of the network.

In January 2016, Riverbed commissioned Forrester Consulting to explore the software-defined WAN adoption and drivers among US companies with 500 or more employees. Forrester used data from its Global Business Technographics[®] Networks And Telecommunications Survey, 2015, and created an auxiliary custom survey to create this profile.

19% 22% 17%

Mix of company sizes with a minimum of 500 employees

- 500 to 999
- 1,000 to 2,499
- 2,500 to 4,999
- 5,000 to 19,999
- 20,000 or more

THE CUSTOM SURVEY INCLUDED:



105 network technology decision-makers in the US who work for companies with 500 or more employees



70% in a director-level role or higher within their IT department



50% with more than ten offices/branches

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Adoption Of Cloud, Support For Rich Applications, And Mobile Users Are Top Strategic Priorities

To compete in the digital age, businesses depend on technology solutions to deliver high-quality, differentiated services to customers and internal users. This reality has accelerated the adoption of many bandwidth-heavy applications, creating new imperatives for network managers. Over the next 12 months:

- > Higher capacity at branch offices is a priority. Three out of four firms surveyed (77%) seek to improve capacity in the next year.
- Cloud usage will continue to rise. Adoption or expansion of cloud applications is a top strategic objective for 66% of firms.
- Mobility support for employees is key. Sixty percent of the firms surveyed see mobility support as a top strategic priority.

To support cloud initiatives and employee mobility, companies are investing in ways to increase capacity.



Which of the following initiatives are likely to be your company's top strategic network and telecommunications priorities during the next 12 months?



Base: 174 IT network/telecom technology decision-makers in the US Source: Forrester's Global Business Technographics® Networks And Telecommunications Survey, 2015

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Hybrid WAN Architectures Increasingly Dominate Today's Network Topologies

To connect to distributed assets, enterprises often leverage four or more connection technologies, with the resultant network being a heterogeneous mesh between multiple remote offices, cloud deployments, software-as-a-service (SaaS) applications, data centers, and mobile workers.

Three in four firms (77%) use multiple types of network connections, creating hybrid WAN topologies for network managers to support.

Firms favor newer connection technologies over legacy ones.

What are your firm's plans to adopt the following wired/ landline data/IP network connection technologies?

Number of connection technologies currently implemented (out of eight):



Firms that have implemented each connection technology:



Base: 174 IT network/telecom technology decision-makers in the US Source: Forrester's Global Business Technographics® Networks And Telecommunications Survey, 2015

Telecommunications Survey, 2015

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Current WAN Architectures Don't Meet Top Technology Priorities

Network managers place high importance on security, high bandwidth capacity, and reliability, but their current WAN architectures fall short of the ideal. Compounded with legacy challenges, network managers reported that hybrid WAN architectures exacerbate the problem of ensuring consistent security and performance in a cost-efficient manner. Deploying new applications and delivering highly available connectivity are also key challenges.

Security, reliability, and high bandwidth are network technology necessities, but 40% to 55% of firms struggle to deliver secure, reliable performance cost efficiently.

Regarding your corporate data network/telecom technology (WAN, LAN, WLAN), how important are the following?



Base: 174 IT network/telecom technology decision-makers in the US (chart shows percentage rated 4 or 5, where 5 = "very important") Source: Forrester's Global Business Technographics® Networks And Telecommunications Survey, 2015 What are your organization's top challenges in network/WAN management at branch office locations? (Select all that apply)

Maintaining security across
public and private connections5Managing cost of increased
bandwidth requirements5Ensuring performance of
business-critical applications4Delivering reliable and/or
highly available connectivity4Deploying new applications
and services cost efficiently4



Base: 105 network/telecom technology decision-makers in the US Source: A commissioned study conducted by Forrester Consulting on behalf of Riverbed, January 2016

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Users Seek A Solution For Centralized Provisioning, Management, And Monitoring

As network managers juggle a variety of new applications, cloud deployments, and connection technologies, they seek new WAN management capabilities to combat their challenges. To create a more secure, reliable, and cost-efficient WAN, they want to be able to centrally monitor WAN links, manage traffic between link types, and remotely provision branch offices. Remote provisioning will ensure that remote branch office networks are launched with standard configurations, using best practices to achieve consistent performance.



About half or more network managers seek the ability to centrally monitor, manage traffic, and remotely provision their WAN.



In addition to centralized management, application acceleration and data deduplication/caching are key requirements.

What kinds of features or capabilities are you interested in to help manage your WAN? (Percentage rated "very interested")

Centrally monitor WAN links, dependencies, anomalies

Manage traffic between different link types

Remotely provision/configure branch office networks

Ability to deploy WAN services on commodity computing

Latency mitigation and application acceleration

Deduplication/caching data to optimize bandwidth utilization

56%
51%
47%
45%
43%
42%

Base: 105 network/telecom technology decision-makers in the US Source: A commissioned study conducted by Forrester Consulting on behalf of Riverbed, January 2016



4%

6%

11%

15%

24%

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Ninety Percent Of Network Managers Are Looking To Evolve Their WAN Using A Software-Defined Approach

A software-defined WAN (SD-WAN) solution refers to one that provides the ability to consolidate and virtualize remote WAN connections and functions into a single abstracted layer, with centralized policies to ease the complexity of deploying and managing complex WAN topologies.

Network managers see many potential benefits from softwaredefined WAN, including:

- > Lower total cost of ownership.
- > Increased flexibility and agility.
- > Improved utilization of WAN resources.
- Increased security.

Adoption of SD-WAN is set to rise to 50% by next year.



What are your organization's plans for adopting softwaredefined WAN solutions?

- Implemented
- Expanding implementation
- Planning to implement in the next 12 months
- Interested but no plans to implement within 12 months
- Not interested
- Don't know

Base: 105 network/telecom technology decision-makers in the US Source: A commissioned study conducted by Forrester Consulting on behalf of Riverbed, January 2016

40%

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As network managers struggle to maintain security, reliable performance, and costs within their hybrid network topologies, they are looking for new capabilities that offer greater control over WAN environments. Software-defined WAN solutions are highly appealing for their efficiency, flexibility, and security benefits. Our survey showed that although still emerging, software-defined WAN solutions are integral in shaping the future of WAN management.

METHODOLOGY

- > This Technology Adoption Profile was commissioned by Riverbed.
- > To create this profile, Forrester used data from its Global Business Technographics Networks And Telecommunications Survey, 2015. Forrester Consulting supplemented this data with a custom survey among network/telecom decision-makers and influencers at US firms with 500 or more employees.
- > The auxiliary custom survey was completed in January 2016.
- For more information on Forrester's data panel and Tech Industry Consulting services, visit forrester.com.

Software-defined WAN offers many benefits for hybrid WAN environments. Our survey showed that firms will invest in software-defined WAN solutions to address their challenges.



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ABOUT FORRESTER CONSULTING

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