WHITE PAPER

Evolving the WAN

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A new approach to WAN with the benefits of MPLS, but none of the drawbacks

1 Introduction

This paper outlines a new approach to wide area networking (WAN). Software-Defined WAN (SD-WAN) delivers the benefits of Multi-Protocol Label Switching (MPLS) while overcoming its limitations and disadvantages.

2 It's time to unshackle the WAN

For years, Multi-Protocol Label Switching (MPLS) has been a foundational enterprise WAN technology.

It became the de-facto standard for private networking primarily because it took a significant leap from technologies such as Frame Relay.

But although MPLS is private, backed by SLA, and delivered as a managed service, until recently it was simply all there was.

MPLS costs are high, implementing new connections can take months, changing or redeploying resources is time-consuming and labour-intensive, and integrating Internet and public cloud access can be challenging.

Quality of Service (QoS) is not native, requiring additional investment and management to achieve, at most, a best efforts service in one direction.

Additionally, users and enterprise boards are becoming more demanding, and the nature of IT is changing. The explosive growth of public cloud services in recent years, in both the consumer space and the enterprise space, means that users increasingly expect new services to be available within days or even hours, not weeks or months.

Meanwhile, the board is increasingly looking for a better return on more tightly controlled investment, and with users flexing their IT decision-making muscles via the app stores, CTOs must find ways of retaining and solidifying the IT department's influence, by delivering new value to the enterprise.

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The rise of the cloud

Integrating cloud access with a traditional MPLS-based WAN is challenging and expensive. Cloud services are here to stay, though, and enterprises can secure significant competitive edge by making effective use of them. Users are familiar with cloud apps and services, and increasingly expect to be able to use the same tools at work that they use on their own devices.

Changing expectations

The enormous success of the app store approach to application and service delivery in the consumer sector has dramatically changed expectations among consumers, and therefore enterprise employees, customers, suppliers and other stakeholders, all of whom are also consumers. While a decade ago weeks or months were the acceptable norm for the provision of new or amended services, today's expectations are significantly more challenging.

The need to cut costs

Pressure from the board to cut costs and do more with less is relentless. WAN connectivity has always been a key component in the enterprise IT budget. Traditionally, though, with MPLS circuits the only realistic connectivity option, there has been little that could be done to reduce outgoings in this area.

As this paper will show, this is no longer the case, and significant, on-going cost savings can now be made, while maintaining and even improving the quality, performance, reliability and resilience of IT services.

The need for flexibility

MPLS services typically come not only with a substantial price tag, but also with substantial and inflexible contractual commitments. As enterprises seek to be nimbler, reacting more quickly to changing market conditions, moving more swiftly to capitalise on opportunities as they arise, and addressing customer concerns and needs more promptly, such rigid commitments are increasingly unhelpful.

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The need for more bandwidth

Compounding general WAN traffic growth, VoIP and video conferencing are both adding significant additional traffic as their popularity, among users and consumers alike, mushrooms. Video and audio are driving the need not only for substantial additional bandwidth but for higher quality connections, to avoid lag and choppiness. With the high cost of MPLS and long commitment, investing for future bandwidth needs is becoming punitively expensive.

Taking these diverse factors into account, MPLS is looking expensive, inflexible, and restrictive. For many enterprises, the key reason to stay with MPLS been that there is no viable alternative.

That's no longer the case, though. Software Defined WAN (SD-WAN) now offers the benefits of MPLS at a fraction of the cost and with none of the downsides. It's time to unshackle your WAN. This paper explains how.

3 SD-WAN from Evolving Networks: a typical roll-out

Working quickly, responsively and with exceptional attention to detail, this is how Evolving Networks undertakes a typical implementation.

1 We work closely with you to undertake a comprehensive review of your requirements (in particular bandwidth and traffic/data types) and the connectivity available (Leased Line, FTTx, ADSL, 4G, 5G) at each site.

2 At each site, we create a resilient, bespoke, SD-WAN connection using a mix of connectivity types appropriate to your needs, vectoring traffic through diverse platforms and networks.

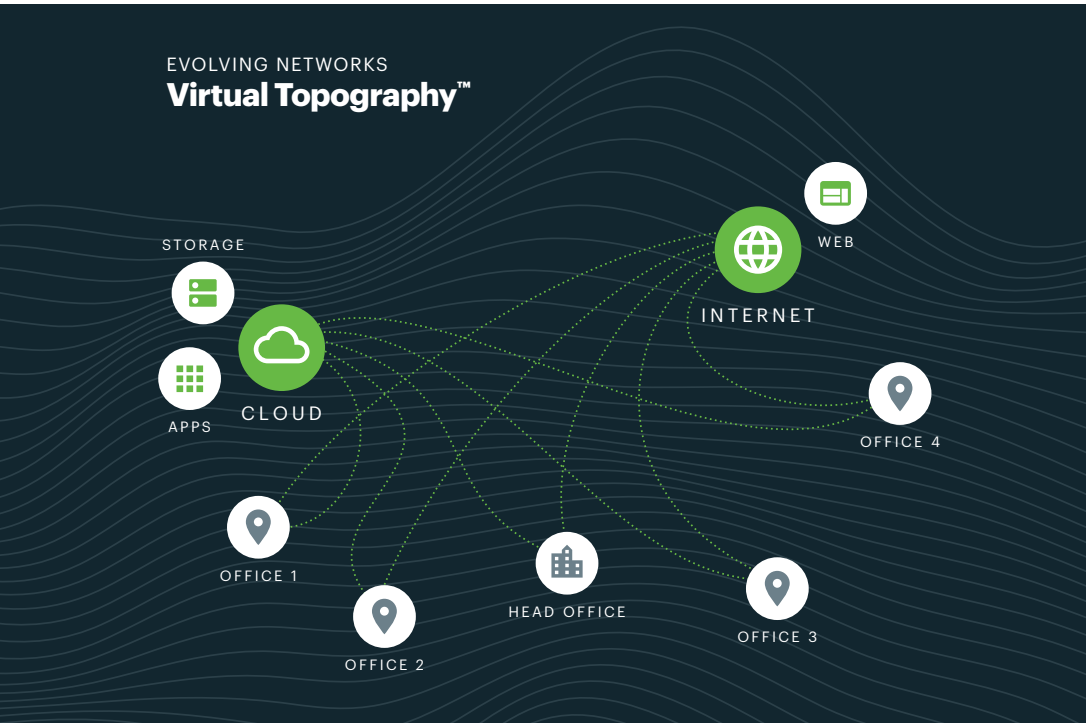
3 We put in place Evolving Networks INF technology, to intelligently route WAN traffic between sites.

4 We create a bespoke QoS profile to route critical data such as VoIP and Remote Desktop Protocol (RDP) intelligently and dynamically, ensuring high quality connections free from lag or drop-outs.

5 Where required, we integrate Internet and cloud access.

6 We put eView Live analytics in place, boosting network performance and ensuring performance remains optimal.

We work closely with you to undertake a comprehensive review of your requirements



The powerful Intelligent Network Fabric software creates links between offices, data centres and the internet, connecting users to applications, wherever they are

4 SD-WAN as a service: the benefits

SD-WAN as a Service from Evolving Networks offers diverse benefits to the enterprise.

- Deployment can be made disruption-free and usually completed in days, rather than the months required for MPLS installations.
- A single-site installation may be put in place, allowing the IT team to test the solution over a period of time before rolling out more widely.
- Since the solution runs on diverse underlying connectivity types, it can be used in almost any location.
- The solution delivers exceptionally stable low latency connectivity, rivalling that of MPLS.
- Improved connection stability and throughput delivers a dramatically enhanced user experience, boosting productivity and cutting helpdesk call volumes.
- Dramatically enhanced scalability, flexibility and adaptability, enabling IT teams and the enterprise to react to opportunities, threats and changing conditions much more nimbly.
- Cloud and Internet integration are quick, easy and straightforward.
- SD-WAN and the underlying connectivity services are provided together, as a single service offering, giving the enterprise one point of contact for all enquiries, and no need to liaise with separate carriers and WAN providers.
- The solution offers substantial, permanent cost reductions as compared with MPLS.

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5 Next steps

To find out how SD-WAN as a service could work in your environment, contact Evolving Networks: 0330 55 55 333, sales@evolving.net.uk, evolving.net.uk.

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