



An SD-WAN Overview: Issues and Prospects

EXECUTIVE SUMMARY

Software-defined wide-area network (SD-WAN) is an overlay running on top of existing networks of multiple kinds (Multiprotocol Label Switching [MPLS], digital subscriber line [DSL], cable, wireless, etc.) and providers. This overlay facilitates much more extensive use of lower cost broadband internet service, among other things. It also promises many other general benefits, including increased management agility, application awareness, and hybrid networking. SD-WAN adoption is stimulated by the combination of intensifying bandwidth demands generated by cloud applications, Internet of Things (IoT), video, mobility, and more, all to a proliferating number of branch offices as MPLS costs continue rising.

While numerous organizations want to keep using MPLS for critical applications, many common very high bandwidth applications such as, for example, video over YouTube (or otherwise), do not require hub-and-spoke-based MPLS through a central location. Traffic can be redirected locally and much less expensively to branch offices with SD-WAN or another internet-based high bandwidth solution. However, for the customer to do the latter without SD-WAN places the onus on already typically overworked IT staff. This issue helps point toward SD-WAN, whether managed or self-managed (do it yourself [DIY]), as easier to adopt. In the longer run, SD-WAN will largely take the place of much of wide-area networking.

Meanwhile, SD-WAN contributes significantly to the key imperatives of cloud connectivity and heightened branch office automation as customers try access the multi-cloud and software as a service (SaaS) applications more efficiently. SD-WAN will increasingly be at the nexus of branch connectivity between end users and cloud-based applications.

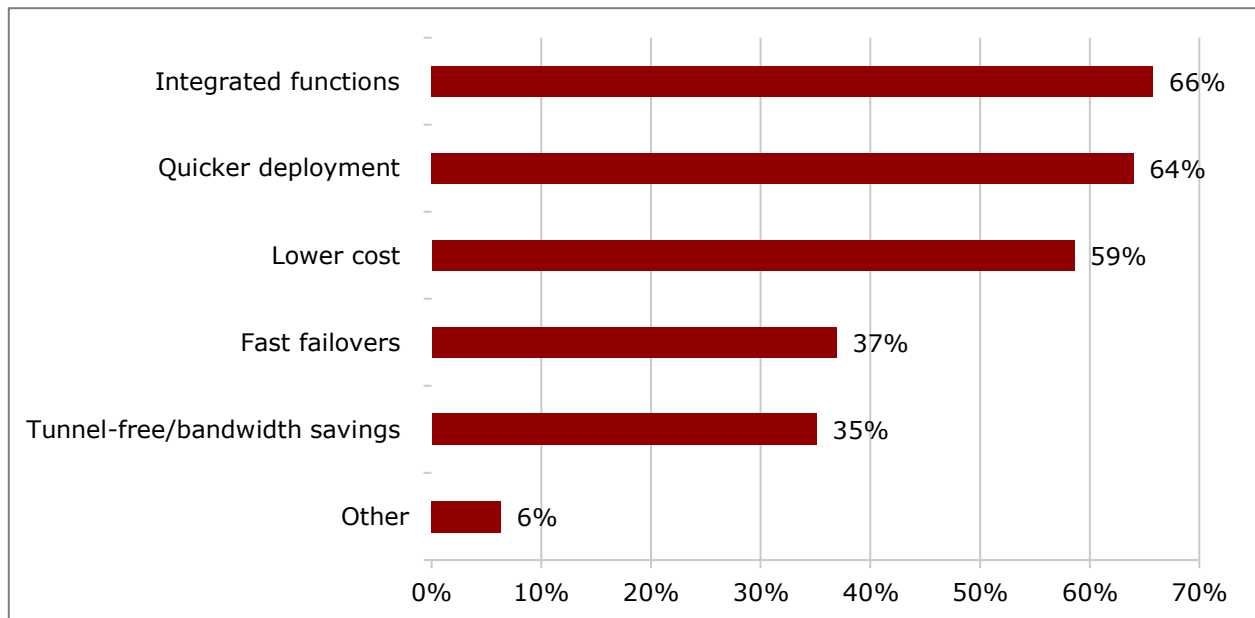
There will be great demand beyond basic SD-WAN for a growing multiplicity of functions in the branch office – and whatever may be newly defined as the branch office – including enhanced security and other virtual network functions (VNFs). Many more, and more loosely defined, branch offices will be developed. A large share of them will use SD-WAN connectivity as organizations become increasingly able to spin up branches wherever convenient for the cloud and growing bandwidth demands.

The SD-WAN Overview Report reviews significant issues in relation to the emergence of SD-WAN. It looks at the meaning of SD-WAN, its major drivers and benefits, and the structure of the market and its participants – especially between software and hardware vendors and service providers (SPs). The report also projects the market outlook and assesses issues, including the growing importance and demands of the branch and increased demands for security. It then profiles several significant U.S.-based SD-WAN market

participants.

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Figure 1: Preferred Differentiation Features for Operators



Source: 2018 SD-WAN Strategies Survey, Co-sponsored by 128 Technology, Aryaka, Infovista, Nuage, and Versa

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