

AT&T SD-WAN – Network Based



A dynamic, new, cost-effective way to connect your branch locations to corporate resources

SD-WAN is revolutionizing the business WAN space with its ability to bring network virtualization to the edge.

Historically, businesses have relied on site-to-site MPLS VPN links to connect corporate and branch locations. These links provide the highest level of service level guarantees for network availability, packet loss, congestion, jitter, and latency. Yet despite their performance and reliability they may not be the most cost-effective option in some cases. IP VPNs can be inexpensive alternatives when connecting branches to corporate resources, using tunneling protocols like IPsec to emulate a private network on

public infrastructure. However, IP VPNs may not deliver the performance and security businesses demand for their most critical applications.

By adding the ability to dynamically route traffic over multiple WAN connections based on pre defined policies and WAN link performance monitoring, Software-Defined Wide Area Networks (SD-WANs) combine the reliability offered by MPLS links with the cost-effectiveness of dual, single, or LTE broadband links to create hybrid networks delivering cost savings, network agility, optimized cloud connectivity, and enhanced application and performance visibility.

Key Benefits:

Provide your business with a solutions framework that is—

- Site-by-Site flexibility—SD-WAN and non-SD-WAN sites may be combined on the same network
- MPLS and Internet-based VPN services can be combined to create a single, dynamically-routed hybrid network
- Centralized management of business rules using a cloud-based orchestrator portal
- Rapid deployment of new branch locations
- Can help reduce network management time and costs



The AT&T SD-WAN Network Based service delivers a hybrid network unique in its ability to connect branch locations to critical business applications. Key to this service is the **AT&T FlexWareSM device**—a universal compact rack-mountable server installed at each edge location capable of hosting multiple virtual network functions (VNFs) including an SD-WAN VNF.

Supplementing MPLS Links with Broadband Connections

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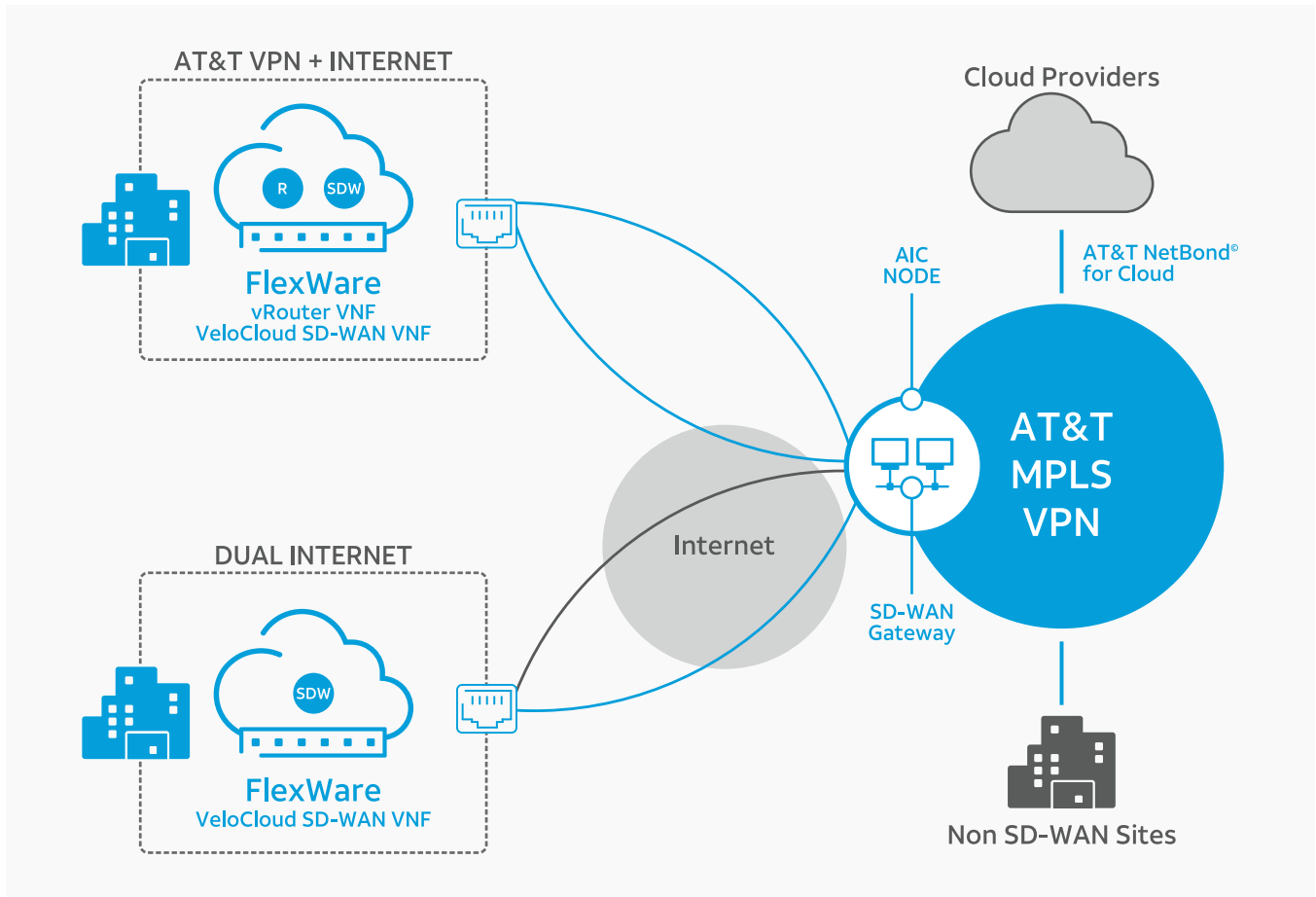
How traffic is directed to the correct network link is determined by business rules configured using a centralized cloud-based orchestrator. Based on these rules, your FlexWare device can decide to send non-critical traffic over an inexpensive Internet connection and send critical or sensitive data over the AT&T private VPN—retaining the core characteristics of MPLS-like Class-of-Service for the critical or sensitive data.

These dynamically-routed SD-WAN connections terminate in virtual SD-WAN gateways embedded in globally distributed AT&T Integrated Cloud (AIC) nodes, allowing SD-WAN traffic to travel over the highly secure, high performance AT&T MPLS backbone before reaching its destination. Primary and secondary AICs are assigned to each endpoint for built-in redundancy. The system will always choose the most appropriate route for each packet, based on your application and network policies as well as virtually real-time performance monitoring.

This integrated network-based approach allows for site-by-site flexibility. Customers don't have to deploy SD-WAN across their entire infrastructure all at once, providing the option to elegantly migrate to SD-WAN in phases with MPLS-only, IPsec-only, and SD-WAN sites coexisting on the same network. AT&T SD-WAN Network Based services are ideal for retail locations and remote offices, delivering a highly secure, consistent VPN experience.

Networking on a Global Scale

AT&T's SD-WAN - Network Based solution allows customers in more than 200 countries and territories (subject to conditions) to build a hybrid network that can help deliver greater network agility, unparalleled deployment flexibility, streamlined operational control, and improved total cost of ownership. It's a solution that meets the demands of a changing business environment, can help workers to be more productive, and provides the right mix of performance, security, and management options.



We are uniquely positioned to transform your business, from network to cloud to device, by helping you operate with true Edge-to-Edge IntelligenceSM.

For more information contact an AT&T Representative or visit www.att.com/sdwan.

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