Creating Business-Driven Networks with SD-WAN as a Managed Service

Infuse intelligence, security, and flexibility into the network so it can best support today’s high-performing applications and services that propel the business forward.

**EXECUTIVE OVERVIEW:**

The SD-WAN market continues to experience incredible growth. According to IDC, 75% of U.S. enterprises plan to adopt an SD-WAN solution in the next two years. This represents a tremendous opportunity for Managed Service Providers (MSPs) who can deliver services to enterprises at lower costs while improving security and reliability.

For the enterprise, an MSP delivered service can have a positive impact on CAPEX as well as OPEX and removes the burden of incremental IT staff and negotiations with multiple vendors. For MSPs it is important to provide a service that is differentiated to attract and retain customers. 128 Technology provides this differentiation with a tunnel-free solution that reduces overhead and improves application performance thereby reducing customer churn.

The 128T solution is built around the philosophy that networks need to be context-aware and service-centric so they can better support today’s business-driven applications and services. The solution utilizes an innovative session-oriented approach that centralizes control, simplifies deployment, introduces intelligent service routing with in-band signaling, provides fine-grained segmentation, and infuses security based on a Zero Trust Security model.

By offering a high-quality, differentiated SD-WAN solution in the marketplace, MSPs can benefit from numerous customer wins, better brand recognition, and increased revenues.

<table>
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<tr>
<th>Data Available Bandwidth</th>
<th>IPSec ESP Tunnel Mode</th>
<th>G.729 60 bytes</th>
<th>Voice Overhead 55%</th>
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128 Technology provides a tunnel-free solution that reduces overhead and improves application performance.
CHALLENGES:
Most SD-WAN solutions available today merely repackage legacy technologies along with abstraction, segmentation, analytics, and orchestration. While this approach may yield some business benefit, it does not provide an opportunity for MSPs to differentiate their service offering.

All SD-WAN solutions use two or more WAN transport networks by building an overlay network with encapsulation such as GRE, VXLAN, IPsec, DMVPN, or a proprietary tunneling technology. Overlays and tunnels attempt to mask network weaknesses and inflexibility by introducing wrappers that increase complexity. This causes costly overhead and prevents end-to-end networking, which hinders performance.

To deliver a differentiated service, MSPs require a new approach to SD-WAN, 128 Technology offers this approach.

128 TECHNOLOGY SOLUTION:
Free from legacy hardware-centric and overlay-based SD-WAN solutions

The 128T solution allows MSPs to utilize a low-cost appliance based on an x86 architecture to interconnect enterprise sites. Aside from eliminating the need for overlays and tunnels, this approach removes the need for automation tools, reduces complexity, improves network visibility, and maximizes savings for both the MSP and its customers.

Gain a Competitive Advantage with 128 Technology’s Secure, Service-centric Fabrics

- **Service-centric Performance**
  Accelerate performance for applications and your revenue – Unlike most SD-WAN overlays, Session Smart™ for SD-WAN has no packet overhead. Removal of IPSec or GRE encapsulations results in 30-50% more bandwidth for customers and bandwidth hungry applications. This drastically improves application performance in locations with poor connectivity. It also significantly reduces the end customer’s costs associated with bandwidth consumption in the cloud. This provides greater opportunity for revenue to the MSP and increases customer satisfaction overall.

- **Security Breakthroughs**
  Strengthen and differentiate your managed security offering with the only Zero Trust Security routing fabric – Because security and network segmentation is baked right into the network instead of just painted on with expensive perimeter firewalls, an MSP can differentiate service offerings with a better security posture for their customers, agile customer-friendly policy configurations and ultimately, a reduction in costs to deliver managed security.

- **Simplicity, Scale, and Automation**
  Simplify, automate, and scale service delivery and support – The network can be freed from the scaling constraints of clunky legacy overlay technologies and the complexity of vendor sprawl while being centrally managed and automated through simplified orchestration and business language-based policies. This means better margins for the MSP and a network as agile and scalable as the business demands.

- **Transformational & Strategic**
  Session Smart™ software is a solution for today, tomorrow, and beyond. As the end user organization and MSP customers grow, Session Smart™ can also be used to securely connect hybrid/multi-cloud environments as strictly network/cloud security solutions, in IoT environments, data center interconnect, and more! This can be a very versatile solution for an MSP toolbox.
Our Unique Advantages

**Session-centric IP Routing** creates symmetrical bi-flows that enable packets to be intelligently routed, sessions to be controlled, and traffic to be proactively analyzed. The solution can monitor network and session performance to proactively route traffic along paths that meet the SLA requirements for the application.

**Extensive Programming** provides the ability to stretch and slice networks end-to-end as a single routing scheme that can be used for any combination of private and public networks. The 128 solution operates as a distributed virtual router, inherently sharing tenancy and service information. Location independent routing ensures integrated load balancing and workload/device mobility for dynamic workload elasticity.

**Private-Public-Private Internetworking** offers end-to-end segmentation without tunnels and overlays. This capability eliminates complex stitching operations and removes the need for masking convolution with orchestration.

**Zero Trust Security** ensures each flow is encrypted and authenticated based on associated security policies. Large enterprises can have secure micro-segmented connections or individualized VPNs across different lines of business.

**Dynamic Session and Application Awareness** provides load balancing and traffic steering based on the session policies and status of the network.

**SUMMARY:**

Emerging cloud applications place unprecedented demands on the WAN. MSPs cannot rely on quick fixes that mask network issues by introducing automation alone. This strategy may offer some benefit such as ease of deployment and lower costs. However, it is not equipped to meet the needs of today’s enterprises.

It is imperative for networks to become application-aware with security at its core to provide unparalleled experiences and cost savings in the WAN. 128 Technology provides MSPs with a solution that goes above and beyond traditional SD-WAN offerings by solving underlying network issues and supporting mission-critical applications and services that drive enterprises as they compete in today’s fast-moving, data-driven world.