

Simplify and Enhance Multi-Cloud Applications with Fortinet Secure SD-WAN

Executive Summary

Most organizations today work with multiple cloud providers for a host of benefits, including disaster recovery, global coverage, avoiding vendor lock-in, and leveraging best-of-breed solutions. But this diversity of public and/or private clouds increases the complexity of both network and security infrastructure, which in turn slows down operations. A secure software-defined wide-area networking (SD-WAN) solution can help enable multi-cloud adoption by simplifying infrastructure at the network edge, eliminating performance bottlenecks for cloud-originated traffic, and reducing connectivity costs.

Fortinet Secure SD-WAN delivers both networking and security capabilities in a unified solution. It supports application performance, consolidated management capabilities, and advanced protection against threats. As a first-of-its-kind innovation, Fortinet Secure SD-WAN provides the best in infrastructure support for communications within multi-cloud environments.

Traditional WAN Infrastructure Inhibits Multi-Cloud Capabilities

Most enterprises by now are familiar with the benefits that multi-cloud can bring to today's businesses, but solving the complexities of managing and securing an assortment of different private and public cloud services remains a problem for many. Multi-cloud deployments suffer from lack of visibility across all environments, disjointed tools for management and control, and subsequent security issues.

To address operational complexity with using multi-cloud, customers connect multiple clouds at their on-premises data-center WAN edge. But traditional WAN relies on multiprotocol label switching (MPLS) links, which carry a premium price for connectivity. They are also built on an outdated "hub-and-spoke" architecture that funnels cloud application traffic back to an on-premises data center for filtering and security checks. As cloud application workloads continue to increase, this bottleneck chokes network bandwidth and creates performance problems for users across the organization.

Fortinet Connects and Secures Traffic Between Clouds

The Fortinet approach to SD-WAN infrastructure uniquely offers a secure and effective infrastructure for maximizing the benefits of enterprise multi-cloud strategies.

Fortinet Secure SD-WAN for Multi-Cloud automates deployment of a seamless overlay network across different cloud networks. It offers visibility, control, and centralized management that unifies functionality across multiple cloud environments. It secures cloud traffic without necessarily backhauling through the data center and intelligently selects connections based on awareness of the specific application—improving performance and reducing dependence on costly MPLS links.



Multi-cloud adoption is nearly ubiquitous—93% of enterprises already have a multi-cloud strategy in place.¹



The global cloud Infrastructure-as-a-Service (IaaS) market is projected to grow at a compound annual growth rate (CAGR) of nearly 28% to reach \$101.56 billion by 2023.²

Simplicity, Performance, and Cost Savings—Plus Security

Fortinet Secure SD-WAN provides a unified solution for SD-WAN networking and security that addresses the critical challenges that enterprises face when architecting an effective multi-cloud strategy. Consider the following benefits:

- **Simplicity:** Fortinet Secure SD-WAN consolidates WAN infrastructure and provides unique integrations that optimize cloud-to-cloud connectivity.
- **Performance:** Fortinet Secure SD-WAN eliminates performance bottlenecks by automatically routing traffic based on the specific application and defined business policies over a high-speed encrypted transport.
- **Cost:** Fortinet Secure SD-WAN reduces both capital (CapEx) and operational (OpEx) expenses by providing an all-in-one solution with centralized management and the ability to safely use more cost-effective internet connections (versus MPLS).

Above all, the Fortinet solution ensures cloud security across all the disparate parts of a distributed and dynamic multi-cloud environment. Fortinet Secure SD-WAN combines advanced FortiGate next-generation firewall (NGFW) protection with sophisticated SD-WAN networking features. It helps enterprises maintain their part of the shared responsibility model for cloud security and maintain compliance with data regulations and industry standards.

Key Benefits: Fortinet Secure SD-WAN for Multi-Cloud

Fortinet Secure SD-WAN allows enterprises to go beyond the limits of virtual private network (VPN) connections. The Fortinet solution—an industry first—enables SD-WAN infrastructure to be easily deployed across cloud networks using a variety of cloud-native tools, widely adopted frameworks, and the FortiOS application programming interface (API). Deployments are repeatable, with broad support for public cloud, cloud-native, and software-defined network (SDN)/software-defined data center (SDDC) integrations.



In the latest NSS Labs NGFW group test, FortiGate delivered 99.3% security effectiveness and 100% evasions blocking.³



In direct comparison to other solutions on the market, Fortinet Secure SD-WAN delivered the lowest TCO per Mbps based on real-life scenarios in NSS Labs SD-WAN group testing.⁴

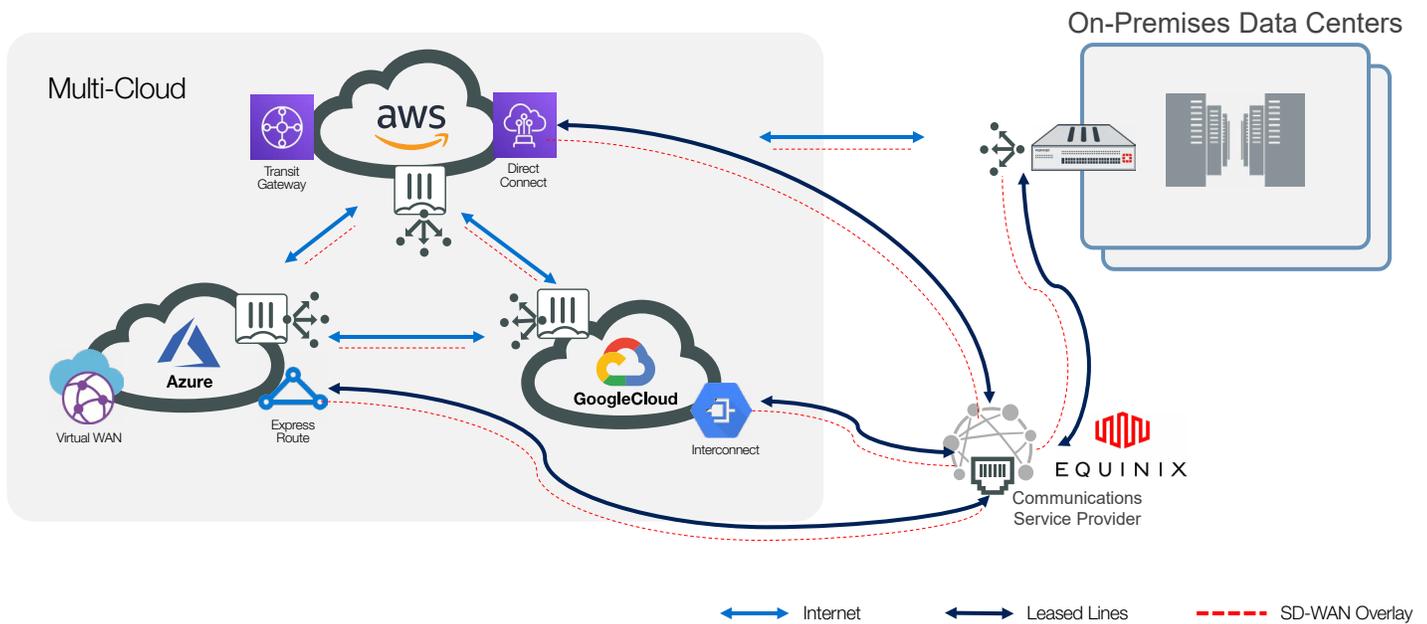


Figure 1: Fortinet Secure SD-WAN for multi-cloud. Connecting applications and workloads on multiple clouds.

Dynamic path selection based on application awareness intelligently steers application traffic to maximize performance and reduce connectivity costs. Fortinet Secure SD-WAN can route application traffic as dictated by business policies over internet links or a cloud provider’s direct connection. This ensures delivery of a better application experience with flexible prioritization schemes at reduced cost to the organization.

Increasing agility of application deployments helps enterprises improve business productivity and accelerate time to revenue. At the same time, Fortinet fabric connectors, elastic scalability, centralized management, and automated workflows help reduce operational expenses and provide outstanding total cost of ownership (TCO).

Key Value Propositions

- Programmable Multi-Cloud SD-WAN connectivity
- Superior Application Experience
- Consistent Visibility and Control
- Streamlined Operations
- Cost Savings

Making the Most of Multi-Cloud’s Potential

Outdated WAN infrastructure and incomplete SD-WAN solutions cannot address the unique challenges of actualizing effective use of multi-cloud environments. These shortfalls leave many intended benefits untapped—while leaving organizations exposed to potential cyberattacks.

The Fortinet industry-first Secure SD-WAN for Multi-Cloud solution provides uniform deployment and consistent application experience across the diversity of cloud environments while reducing cost and complexity of infrastructure and operations. Best of all, it helps secure data wherever it exists in the distributed network infrastructure—even traveling between clouds.

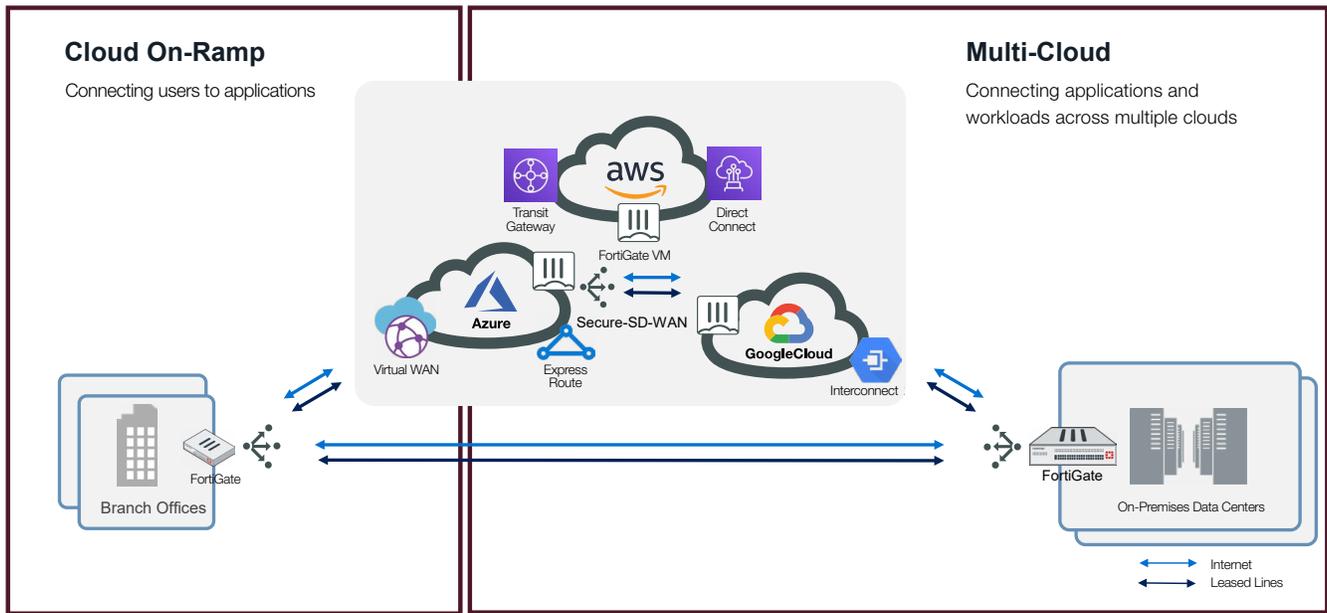


Figure 2: Fortinet Secure SD-WAN for cloud. Use cases for connecting users, applications, and clouds.

¹ Kim Weins, “Cloud Computing Trends: 2020 State of the Cloud Report,” Flexera, May 21, 2020.
² “Global Infrastructure as a Service (IaaS) Market 2019-2023,” Business Wire, October 23, 2019.
³ “Fortinet Receives Second Consecutive NSS Labs Recommended Rating in SD-WAN Group Test Report,” Fortinet, June 19, 2019.
⁴ Ibid.