SOLUTION BRIEF

Fortinet and Cubro Integrated Security Solution

Failsafe Devices for Fortinet FortiGate and Secure SD-WAN for Improved Network Service Continuity

Executive Summary

Software-defined wide-area networking (SD-WAN) allows organizations to capitalize on multiple service provider options and build redundancy in internet connectivity. It also creates multiple network perimeters to secure and requires an equally resilient solution for customer premises equipment to realize maximum benefit. FortiGate both enables and secures the SD-WAN network border while Cubro provides redundancy and high availability of the Fortinet Secure SD-WAN appliances.

Challenge

Simple hub-and-spoke architectures have been the traditional basis for enterprise WAN connectivity, however, with the oncoming digital transformation (DX), this venerable design is failing to keep up with the pace of modern business. Forcing all branch traffic through a single data center and centralized security stack is increasingly inadequate in the face of increasing bandwidth demands, proliferation of cloud-based services, and an evolving, sophisticated threat landscape. SD-WAN addresses the speed and latency issues of the traditional hub-and-spoke network architecture. Fortinet FortiGate delivers fast, scalable, and flexible Secure SD-WAN for cloud-first, security-sensitive, and global enterprises.

Joint Solution

Cubro and Fortinet have partnered to deliver an industry-leading security solution to address these challenges of SD-WAN implementation. The integration of the Cubro EX400 Advanced Bypass Switch product and Fortinet FortiGate Next-Generation Firewall (NGFW) and Secure SD-WAN, enabled through the Fabric-Ready Program in the Fortinet Open Fabric Ecosystem, delivers high availability, load balancing, and enhanced serviceability for the Fortinet in-line security infrastructure across branch offices and network data centers.

Joint Solution Components

- Cubro's EX400 Advanced Bypass Switches
- Fortinet FortiGate and Secure SD-WAN

Joint Solution Benefits

- Reduce operating expense through increased serviceability and downtime mitigation
- Enhance performance through load balancing during normal operations
- Secure branch offices with class-leading redundant security architecture
- Gain network resilience and drastically mitigate maintenance and recovery windows
- Device failover while retaining full throughput of SD-WAN connections

FORTINET FABRIC-READY

Bypass switches can be implemented as internal (for example as part of packet broker) or external (like the Cubro EX400 Advanced Bypass Switch). An external bypass can have as much as 5x greater mean time between failures (MTBF) than a complex network device with extensive software features. Additionally, a tool with an internal bypass can fail if it becomes overloaded due to a traffic burst or responding to an actual attack. The Cubro EX400 Advanced Bypass Switch reduces network downtime and enhances network serviceability, and drastically mitigates maintenance and recovery windows.

Cubro compliments the Fortinet Secure SD-WAN solution by providing fail-safe redundancy and high availability with its series of Bypass Switches and Network Packet Brokers. While Fortinet Secure SD-WAN accelerates and protects your network, Cubro guards the FortiGate appliance with instant failover to standby devices while retaining all routes and full throughput to all WAN circuits. Cubro's EX400 enables high availability for large enterprise networks by allowing multiple FortiGate appliances to share the network load and security functions. The EX400 additionally reduces the need for maintenance window requirements as devices can be removed and replaced without network downtime.

Joint Solution Components

The Cubro EX400 Advanced Bypass Switch

The Cubro EX400 Advanced Bypass Switch provides a fail-safe access port for in-line active security appliances such as an intrusion prevention systems (IPS), NGFWs, and more. The Bypass device is deployed between the network and security appliances, providing a reliable separation point between the network and security layers. It can load balance network traffic across multiple appliances to provide additional service resilience to an appliance failure.

Fortinet FortiGate Next-Generation Firewall

Fortinet NGFWs reduce cost and complexity by eliminating point products and consolidating industry-leading security capabilities. These include secure sockets layer (SSL) inspection (including TLS 1.3), web filtering, and IPS to provide full visibility and protection for any edge.

Digital Transformation for Enterprise Branch

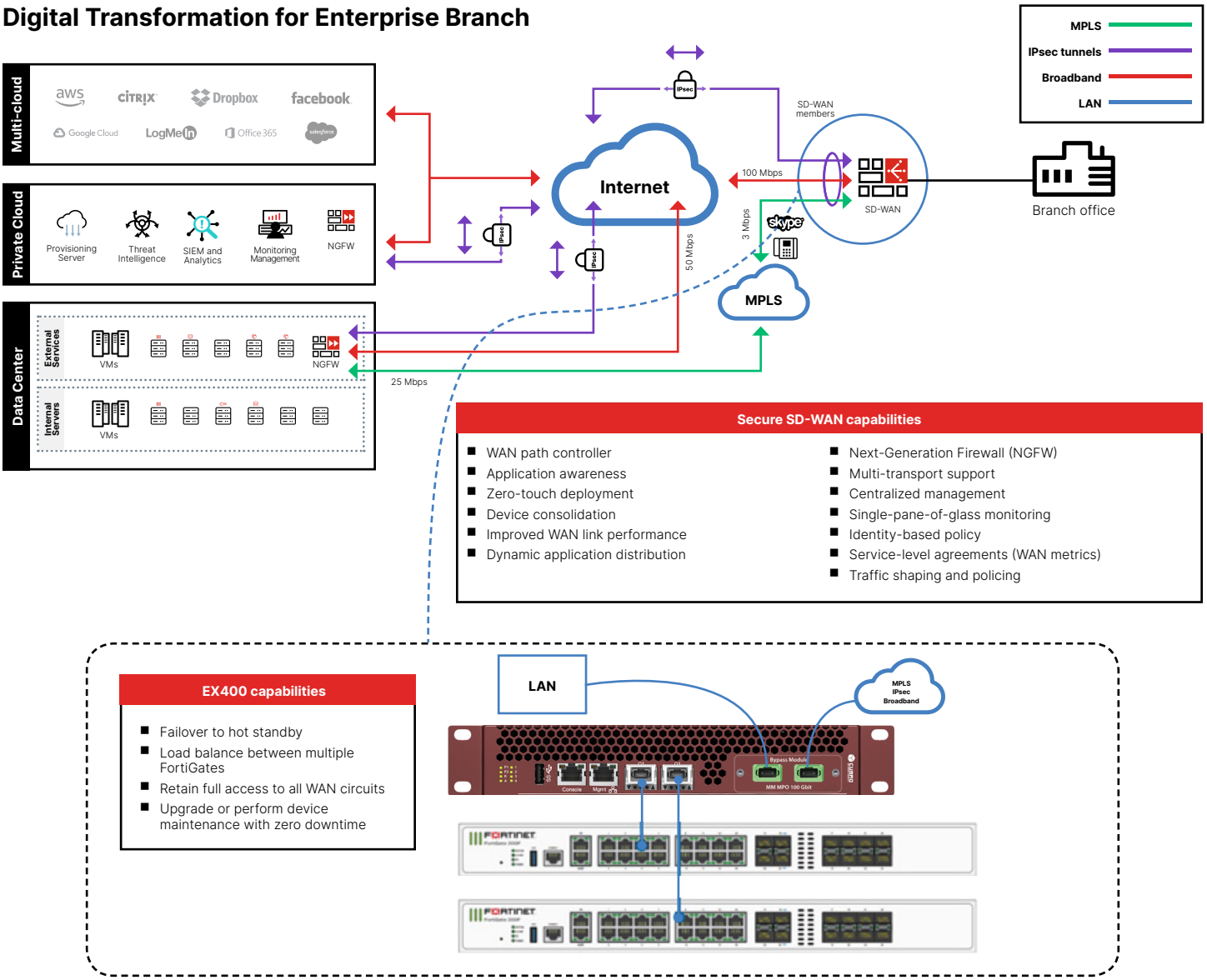

Figure 1: EX400 is connected to each SD-WAN circuit and provides failover of a FortiGate appliance to a standby device. Alternatively, the EX400 can load balance the traffic between multiple FortiGate units.

Use Cases

Use case 1: Load balancing and high availability for a global enterprise SD-WAN

A global enterprise uses the Fortinet FortiGate Secure SD-WAN to connect its branch offices to HQ and cloud-based applications via private multiprotocol label switching and multiple internet-based virtual private network links. The Cubro EX400 provides load balancing and automatic failover capability to multiple FortiGate appliances at each branch.

Use case 2: Reduced maintenance windows for software or configuration updates

A large retailer uses multiple Fortinet FortiGate Secure SD-WAN appliances to network its stores. During upgrades of FortiGate operating software, or to pilot changes to NGFW configuration rules, the network load is redistributed to backup appliances without the recabling of WAN or internet circuits, or software reconfiguration.

About Cubro

Cubro is a world-leading manufacturer and supplier of network visibility products like Network TAPs, Network Packet Brokers, Bypass and Probes that provide network monitoring, security and analytics visibility solutions for Service Provider and Enterprise organizations. Cubro delivers innovative solutions which will assist you in bringing your network performance and security monitoring efforts to their peak level.

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