Executive Summary

Designed to extend the agility and operational benefits of software-defined networking (SDN) security solutions, delivered from physical or virtual FortiGate security appliances, the integration enables customers to:

- Reduce OpEx
- Strengthen security
- Derive more value from their investments in HPE SDN and Fortinet Security

SDN: Making the Difference

With growth in compute virtualization and software-defined data centers (SDDCs), the network and network-based services such as security must also become software-defined to enable the agility and flexibility provided by the SDDC. SDN is the technology and framework that enables networks to be more agile, flexible, and cost efficient.

Security architecture, products, and solutions are expanding in scope and functionality to address the changes virtualization and SDN bring about in the way applications and data are delivered and consumed.

SDN allows security to be deployed and enforced in agile and dynamic environments with the same level of application, data, and user protection that traditional networking environments provide today. SDN and security work together to ensure that network security services can be dynamically deployed without limiting compute and applications’ agility and help ensure there are no performance penalties or bottlenecks.

SDN Security Automation

In an SDN environment, network security functions (NSFs) such as virus and malware protection, intrusion prevention, and application control are delivered by physical and/or virtual security appliances. Traffic to these appliances is determined by specific flows created through the interaction of FortiGate Connector application for HPE Virtual Application Network (VAN) SDN Controller, SDN switches, and Fortinet's security appliance.

The FortiGate Connector application enables support for delivery of NSFs in an HPE SDN environment with Fortinet's physical and/or virtual FortiGate firewalls.

The malware prevention use case example illustrates the usage of SDN for automation and efficient security enforcement. The use case highlights how you can achieve operational and business benefits by integrating your security infrastructure within an SDN deployment.
Prevention Use Case
1. The SDN controller defines all external users for security services delivered by the FortiGate firewall.
2. The attack is being launched by an external user.
3. FortiGate blocks the attack and informs the SDN controller to block the user.
4. The SDN controller instructs the switch to block the user.
5. The FortiGate resources are automatically and efficiently used and conserved. The cyber criminal is blocked at the edge of the network, eliminating the possible propagation of a threat.

Summary
Security is a fundamental consideration in IT and SDDC environments. SDN has the promise of relieving IT from current limitations in the areas of network configuration, change management, and deploying network-based services and aligning them with the rest of the networking infrastructure. Fortinet and HPE, leaders in security and SDN, bring together their expertise and products to provide an SDN solution with security fused in.

The HPE VAN SDN Controller and switches provide a complete SDN ecosystem for the data center and the enterprise edge. Fortinet FortiGate firewall technology provides best-in-class security with superior performance. Fortinet and HPE join forces to provide you with an SDN security solution to fully unleash the software-defined enterprise.

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