DELL EMC POWEREDGE VRTX WITH SILVER PEAK UNITY EDGECONNECT SD-WAN

Use Case: Branch Optimization

As organizations add office locations or expand into new geographies they must extend their enterprise network, often over greater distances. The Dell EMC and Silver Peak EdgeConnect solution connects branch offices to the SD-WAN quickly - often in a matter of hours - with very little manual intervention. Unity Orchestrator creates and manages network overlays that implement business policies governing path selection, QoS, security and other attributes.

For applications which require increased performance over distance, EdgeConnect supports Silver Peak's best-in-class WAN Optimization technology through optional Boost licenses.

Use Case: Hybrid WAN – Transition at your own pace

As organizations transition to support more cloud-based applications and digitization, they often leverage a hybrid WAN approach where two or more links (MPLS, broadband, LTE) are used to gain more agility and faster response time to business needs.

The combined Dell EMC and Silver Peak solution optimizes the hybrid WAN architecture by enhancing bandwidth capacity and network availability, increasing application performance and reducing overall operational cost.

As the speed of business continues to increase, shifting application consumption models and increased bandwidth requirements are stressing conventional WAN architectures, making it more difficult to deliver IT services quickly to branch and remote offices.

The Dell EMC PowerEdge™ VRTX converges server, storage and networking functionality into a single, office-optimized chassis. Integrated, pretested and certified, VRTX delivers a complete technology platform that users can deploy smoothly and operate confidently, bringing unprecedented simplicity, efficiency and versatility to any office environment. With VRTX, choose two-socket, half-height PowerEdge M630 server nodes and four-socket, full-height M830 server options that offer massive internal shared storage or connect with external M1200 and MD120 JBODs, keeping you ahead of the pace of data growth. Easily deploy, monitor, update and maintain your VRTX infrastructure through a unified browser-based console that covers servers, storage and networking.

A challenge remains, however, when users in remote and branch offices need to communicate with one another, with centralized data centers and with cloud services over a Wide Area Network (WAN). These challenges include rigid and complex WAN architectures, inflexible management, long deployment times and poor performance quality. These issues can negatively impact business goals by lowering employee productivity and jeopardizing strategic initiatives like migration to Software as a Service (SaaS) applications and offsite data replication.

Dell EMC has partnered with Silver Peak to provide a complete solution for interconnecting remote offices using Dell PowerEdge VRTX and the Silver Peak Unity EdgeConnect software defined WAN (SD-WAN) solution.

Reduce cost and complexity with the Silver Peak SD-WAN solution

The EdgeConnect SD-WAN solution enables enterprises to reduce the cost and complexity of building a WAN by leveraging broadband to connect users to applications. It includes the following core components:

- **Unity EdgeConnect:** Deployed as a virtual machine in VRTX providing secure, virtual WAN overlays. EdgeConnect provides the flexibility to use any combination of underlying transport technologies without compromising network or application performance. Built-in capabilities like dynamic path control, secure WAN hardening, path conditioning and cloud intelligence are some of the functions to ensure best user experience and improve business productivity.

- **Unity Orchestrator:** Provides a centralized management and control of EdgeConnect virtual devices. It allows IT to create and automate business intent overlay policies for applications and users to secure, segment and control all WAN traffic. A zero-touch provisioning model allows IT to add new sites without requiring specialized expertise at the branch. Orchestrator also provides real-time monitoring and historical reporting.

- **Unity Boost:** Boosts application performance by mitigating latency of TCP and other protocols, and data reduction via compression and deduplication of all traffic.

Figure 1

IT Lifecycle Services for Networking

Experts, insights and ease
Our highly trained experts, with innovative tools and proven processes, help you transform your IT investments into strategic advantages.

Plan & Design
Let us analyze your multivendor environment and deliver a comprehensive report and action plan to build upon the existing network and improve performance.

Deploy & Integrate
Get new wired or wireless network technology installed and configured with ProDeploy. Reduce costs, save time, and get up and running fast.

Educate
Ensure your staff builds the right skills for long-term success. Get certified on Dell EMC Networking technology and learn how to increase performance and optimize infrastructure.

Manage & Support
Gain access to technical experts and quickly resolve multivendor networking challenges with ProSupport. Spend less time resolving network issues and more time innovating.

Optimize
Maximize performance for dynamic IT environments with Dell EMC Optimize. Benefit from in-depth predictive analysis, remote monitoring and a dedicated systems analyst for your network.

Retire
We can help you resell or retire excess hardware while meeting local regulatory guidelines and acting in an environmentally responsible way.
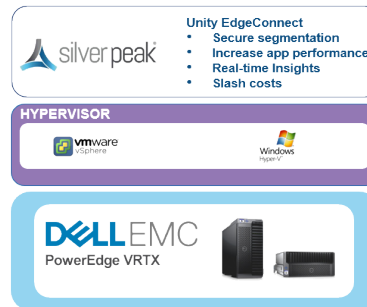
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Deploying Silver Peak EdgeConnect with the PowerEdge VRTX solution

EdgeConnect is deployed on VRTX as a virtual appliance running on any standard hypervisor, including VMware ESX and Microsoft Hyper-V. Performance scales with the underlying hardware resources, and systems provisioned with the optional Boost license can deliver up to 1 Gbps of WAN optimization. The full EdgeConnect feature set is supported in VRTX, including multiple WAN uplinks with dynamic path control, and interworking with security appliances and services. The Silver Peak Unity Orchestrator management system can run on a dedicated server or as a virtual machine on a VRTX compute node.

Silver Peak EdgeConnect virtual appliances are required on all ends of a WAN connection as illustrated in the multisite VRTX deployment shown in Figure 2, below.
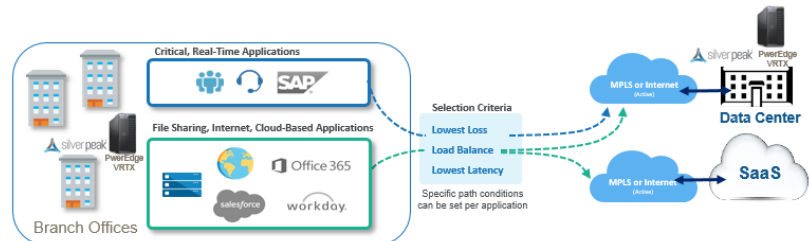

Figure 2

Benefits of the Joint Solution

Easy to deploy and manage — The combination of Silver Peak EdgeConnect virtual appliances and the Dell PowerEdge VRTX platform makes it easy for end-users, channel partners and service providers to deploy SD-WAN in small branch and remote office environments. The VRTX platform can be installed in any office environment, and Silver Peak's Unity Orchestrator software makes it simple to manage the SD-WAN end-to-end.

Reduces CAPEX and OPEX — The EdgeConnect / VRTX joint solution enables organizations to run all traffic types (including voice and video) and applications over cost-effective broadband networks, on a multi-purpose VRTX chassis, saving up to 90% in WAN costs. Additionally, with up to 85% improvement in effective bandwidth, you can avoid or delay costly bandwidth upgrades.

Scalable and future-proof — Dell EMC and Silver Peak offer a highly scalable solution that grows with your WAN requirements, from a few Mbps to multiple Gbps of aggregate WAN capacity.

Dell EMC PowerEdge VRTX brings the capabilities of your data center into your branch office. Combined with the Silver Peak Unity EdgeConnect SD-WAN solution, connecting users to applications is fast, reliable and secure across any WAN transport service.

For a free trial, visit silver-peak.com/register-your-free-unity-edgeconnect-trial or contact your local Dell EMC or Silver Peak representative.

Learn more at Dell.com/PowerEdge