

Nominee: Silver Peak

Nomination title: Silver Peak Unity EdgeConnect SD-WAN solution

As geographically distributed businesses migrate applications and infrastructure to the cloud, legacy wide area network (WAN) architectures are proving inefficient and ineffective in connecting users to applications. While reliable when applications were hosted in the data centre, legacy router-centric WAN architectures are costly and complex to manage and impair application performance and user productivity due to the inefficiencies of consuming WAN bandwidth to backhaul cloud destined traffic through the data centre. WAN reliability is crucial when embracing cloud or SaaS applications, which is why software-defined WAN (SD-WAN) technologies are increasingly being labelled as the future of enterprise networking. An SD-WAN connects users to applications with the flexibility to leverage any combination of underlying transport – including MPLS, LTE or broadband – enabling businesses to dramatically simplify their branch WAN architecture, without compromising network or application performance, while reducing connectivity costs.

The Silver Peak Unity EdgeConnect SD-WAN solution

Delivered in both virtual and physical appliances, the Silver Peak Unity EdgeConnect SD-WAN solution, dramatically reduces the cost and complexity of building a WAN by providing the flexibility to use any combination of transport technologies, including broadband, to connect users to applications. In March 2017, Silver Peak announced new advancements to EdgeConnect that enable enterprises to realise the advantages of a thin branch office. With its latest software release, EdgeConnect becomes the industry's first fully integrated SD-WAN solution to integrate high-performance SD-WAN, WAN optimisation, routing and stateful firewall network functions, displacing the need for conventional branch routers and infrastructure. This simplifies and consolidates branch office infrastructure, shifts the WAN edge towards being application-driven and enables secure, direct internet connectivity to Software-as-a-Service (SaaS) and trusted web-based applications directly from the branch office.

Key Unity EdgeConnect features include:

- Zero-touch provisioning – EdgeConnect can be centrally orchestrated and deployed at a branch office in minutes, automatically connecting to users to applications in the data centre and cloud
- First-packet iQ – This advanced feature automatically identifies more than 10,000 applications and 300 million web domains based on the first packet received. It enables



enterprises to securely connect branch office users directly to cloud applications from the branch office, providing the highest levels of application awareness and intelligence available

- **Integrated stateful firewall for secure internet breakout** – EdgeConnect incorporates a stateful firewall, supporting foundational firewall and security capabilities for branch office locations that don't host applications
- **Seamless routing interoperability** – EdgeConnect supports industry-standard BGP and OSPF routing protocols for seamless interoperability between the SD-WAN and conventional router-centric WAN architectures, enabling customers to transition to a thin branch without sacrificing WAN performance, security and reliability
- **Tunnel bonding** – Configured from two or more physical WAN transport services, bonded tunnels form a single logical overlay connection, aggregating the maximum performance of the underlying links. If an underlying link fails, the remaining transport links will carry all traffic to maintain application availability
- **Path conditioning** – EdgeConnect provides private-line performance over public internet and overcomes the effects of dropped or out-of-order data packets that are common with broadband and MPLS links
- **Dynamic Path Control (DPC)** – Real-time traffic steering over any broadband/MPLS link based on company-defined business intent policies. With outages/brownouts, DPC automatically fails-over to a secondary connection in under a second, maintaining application availability and performance
- **WAN hardening** – Data is secured edge-to-edge via 256-bit AES encrypted tunnels. This secures branch offices without the appliance sprawl and operating costs of deploying and managing dedicated firewalls
- **Cloud intelligence** – Real-time updates on the best performing path to reach hundreds of SaaS applications, connecting users to applications in the fastest, most direct path available
- **Bandwidth cost savings reports** – Documents the cost savings for moving to broadband connectivity

Included with Unity EdgeConnect is the Unity Orchestrator management software, which provides unprecedented levels of visibility into legacy and cloud applications, and the ability to centrally configure business intent overlays and implement policies across the WAN in accordance with business intent to secure and control all WAN traffic. With Unity Orchestrator, organisations can move beyond manual device-by-device configurations to centrally orchestrate and manage their WAN in alignment with business requirements and intent.

Key features of Unity Orchestrator include:

- **Single screen administration – enables quick and easy centrally orchestrate and implement network-wide business intent policies, eliminating complex and error prone policy changes that result from manual device-by device configuration and management**
- **Heat Map – makes it easy for network administrators to identify transport underlay brownouts and outages to maintain network and application performance and availability**
- **Real-time monitoring and historical reporting – provides specific details into application, location and network statistics, including continuous performance monitoring of loss, latency and packet ordering for all network paths. All HTTP and native application traffic are identified by name and location, and alarms and alerts allow for faster resolution of service providers issues**
- **Bandwidth cost savings reports – documents the cost savings for moving to broadband connectivity**

In addition to Unity Orchestrator, Unity Boost is an optional WAN optimisation performance pack that enables companies to accelerate the performance of latency-sensitive applications and minimise transmission of repetitive data across the WAN.

Key features of Unity Boost include:

- **Latency mitigation – TCP and other protocol acceleration techniques minimise the effects of latency on application performance and significantly improve application response time across the WAN**
- **Data reduction – WAN compression and deduplication is applied to all traffic, eliminating repetitive transmission of duplicate data. Silver Peak software inspects WAN traffic at the byte level and stores content in local data stores. Advanced finger-printing techniques recognise repetitive patterns for local delivery. Data Reduction can be applied to all IP-based protocols, including TCP and UDP**
- **Flexibility to apply Boost to specific application groups or locations that require additional application acceleration**

Unity EdgeConnect market momentum

In December 2017, Silver Peak surpassed 600 Unity EdgeConnect production customer deployments worldwide. EdgeConnect customer deployments span all segments of the market, from small-to-mid-sized businesses to geographically distributed global enterprises and cloud service providers. A cross-section of new EdgeConnect SD-WAN solution customers include CorTrust Bank, IMMI, Medical Products, Nuffield Health, Produce World and Simpson Strong-Tie.

Why nominee should win

- **Unique – Unlike other vendors, Silver Peak offers a fully integrated solution that combines high-performance SD-WAN, WAN optimisation, routing and a stateful firewall**
- **Performance – Using any combination of transport, Silver Peak provides predictable application performance, QoS over any transport and high-availability, with seamless sub-second failover**
- **Visibility, control and security – Enterprises can see and control all applications, and are also benefiting from edge-to-edge encryption and WAN hardening**
- **Costs – Businesses are reducing their connectivity and equipment costs dramatically by up to 90 percent**
- **Market traction – Silver Peak has thousands of customers worldwide and hundreds of SD-WAN deployments, including Nuffield Health and Produce World**