ACCEDIAN

Solution Brief

Differentiate managed SD-WAN services with complete assured performance

Achieve correlated overlay and underlay visibility, plus KPI insights, with a standards-based platform

With enterprise customers increasingly looking to outsource the management of SD-WAN, commercial opportunities are opening up for communications service providers (CSPs). With the growth of SD-WAN, enterprise use cases are more varied, from secure distributed access for branch and home workers to assuring cloud application performance to private data centers and SaaS at regional hubs.

Service providers need to support multiple best-of-breed SD-WAN and security vendors, assure network and application performance, and offer competitive SLAs. A Heavy Reading report, which surveyed CSPs globally, revealed that comprehensive network performance management across legacy and SD-WAN deployments will be key to driving successful managed services.[1]

SD-WAN is positioned as a single service, but in reality, it comes in different flavors and sits across multiple network domains. SD-WAN as an overlay network is flexible in combining bandwidth and optimizing network routes, but also masks the biggest challenge of managing performance across multiple transport networks (including third-party networks).

Business benefits

- Reduces OpEx by consolidating multi-vendor SD-WAN management tools

- Single platform for underlay and overlay visibility and SLA KPI monitoring

- Faster troubleshooting with event correlation

- Improve customer experience with "right first time" service provisioning

- Provide actionable insight and events for automated zero-touch operations

- Use patterns and baselining allow for ongoing improvements to the service

[1] https://go.accedian.com/heavyreading-future-of-managed-sd-wan-services

Challenges

For managed SD-WAN providers, poor availability, low throughput, high bandwidth, latency, and jitter are all challenges across hybrid networks. About 66% of CSPs cite monitoring network performance as a major challenge, and 71% of the largest service providers, whose annual revenue exceeds $5 billion, indicate that as their key issue.[1] More than 60% of service providers offer 3 or more best of breed SD-WAN vendors and have to manage these different systems which can lead to silos.

Gaining visibility into network and application performance is absolutely critical to ensure SLAs are met and end customers are happy. Yet, to get true end-user quality of experience (QoE), service providers need solutions capable of monitoring the physical underlay as well as the overlay network. They also need to be able to correlate events for customer reporting and SLAs. Additionally, automation will be a key requirement going forward: it is relevant to all aspects of deploying and managing SD-WAN services.

SD-WAN performance challenges:

- Managing SD-WAN performance across hybrid networks and domains

- SLA verification across different transport networks and systems

- The ability to coordinate and automate new service verification

- How to break down domain silos and create a uniform view of network and application performance

- Performance monitoring of the underlay network and correlation to the overlay—this is a priority for automation

Solving SD-WAN performance challenges with Accedian Skylight

Managing multiple SD-WAN services and related tools requires a platform developed to support DevSecOps engineers with publicly available APIs, a standards-based architecture, cloud-native microservices, and support for flexible metadata and real-time data streaming. Skylight offers a single best-of-

breed open platform to manage multiple SD-WAN services, providing complete underlay and overlay visibility and the ability to analyze enriched data and correlate events for faster troubleshooting.

Accedian Skylight's cloud-native active testing and monitoring solution can be instrumented in the service chain. Standard open APIs allow easy and dynamic ingestion of data from any third-party platform and the ability to push enriched data to any data bus or system.

With full visibility of the overlay and transport network, service providers can effectively manage customer SLAs and differentiate services in a number of ways. These include offering SLA performance tiers (for example, gold, silver, and bronze), improved real-time visibility on service performance in customer self-serve portals, and a reduction of errors during service provisioning by assuring the delivery of services are right the first time.

Accedian Skylight offers the following multi-layered architecture featuring three key elements: sensors, orchestration, and performance analytics. These building blocks help service providers to deploy services faster, manage SD-WAN services more effectively, and provide a superior end user experience.

A flexible combination of software agents, cloud-native sensors, hardware-assisted components, virtualized functions, and smart SFP hardware comprise its lightweight sensor layer. Skylight supports multi-tiered performance assurance and can be deployed wherever gaps in existing vendor solutions need to be filled: this includes active test agents to gain visibility of the underlay network and passive sensors to monitor application performance.

A virtualized orchestration layer centralizes management and orchestration of the sensors, leveraging local controls and REST API automation. It can also feed data into third-party analytics platforms. Skylight orchestrator automates the configuration and service provisioning and testing for fast SD-WAN service turn-up and can be integrated with full service lifecycle orchestration.
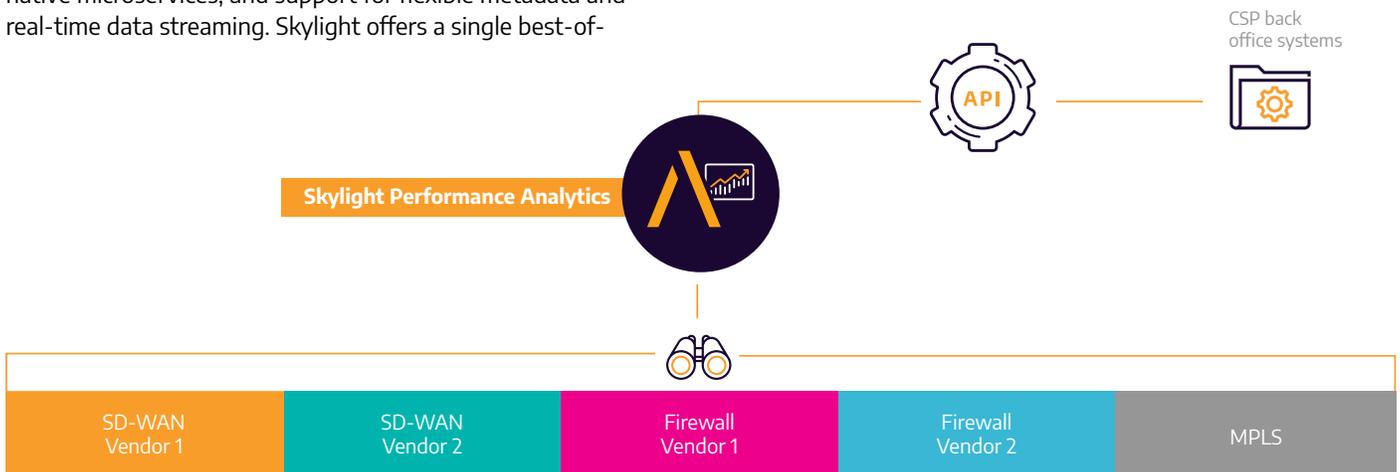

Figure 1: Accedian Skylight aggregates data to monitor SLAs across multiple service offerings

Skylight performance analytics combines data from all Skylight sensors and third-party sources into a single pane of glass. It offers machine learning-powered alerts and rapid troubleshooting for network and application performance issues. Real-time intelligent monitoring also helps to predict and automate fixes. Raw data and KPIs can be enriched with metadata on SD-WAN locations, customers, equipment, transport network, and more, to enhance insight.
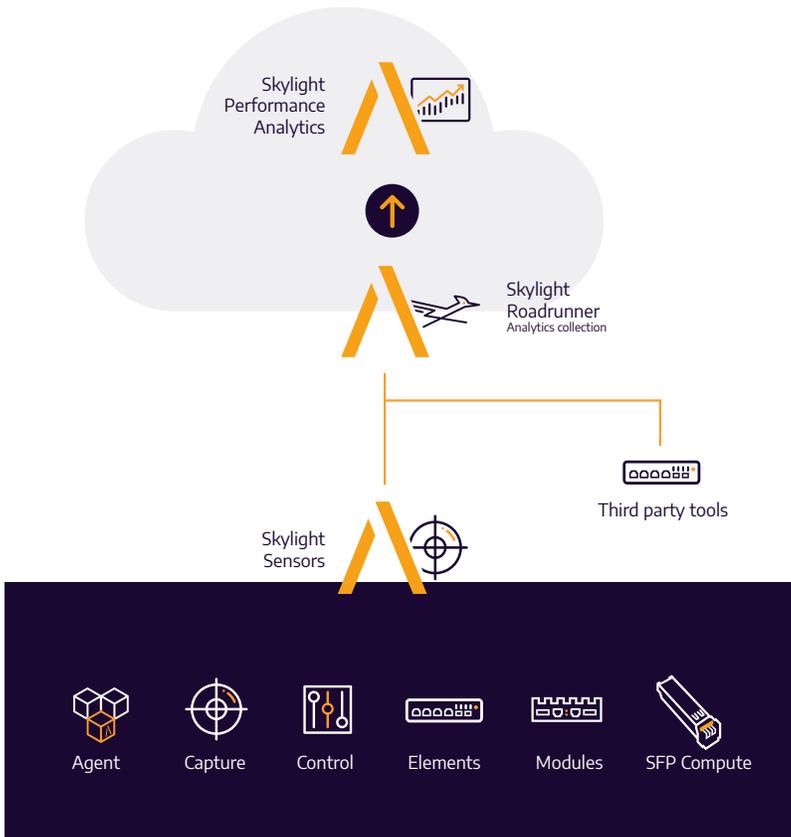

Figure 2: Accedian Skylight's multi-layered approach to comprehensive performance visibility

Skylight benefits for SD-WAN service providers

- A cloud microservices platform: Enables future scalability and flexibility to manage any SD-WAN vendor, uCPE platform, CNF or VNF

- Multi-tiered performance assurance: Ingests third-party data, supports OpenMetrics standards and open APIs

- Underlay and overlay visibility: Correlates data in a single open platform (application and transport aware), enriched data output can be used by multiple systems

- Industry-leading performance: service activation testing with zero impact on end-to end service performance

- SLA reporting: Near real-time granular (every millisecond) and high-precision performance metrics and KPIs to offer differentiated SLA tiers

- Troubleshooting: Performance data analytics in real time for proactive monitoring and issue resolution

- Automation: Open APIs and databus support allow easy integration into closed loop systems, creating actionable events to automate issue resolution

About Accedian

Accedian is the leader in performance analytics, cybersecurity threat detection and end user experience solutions, dedicated to providing our customers with the ability to assure and secure their digital infrastructure, while helping them to unlock the full productivity of their users.

Learn more at accedian.com