ACCEDIAN

Solution Brief

Cloud-Native Performance Monitoring Enables Service Innovation and Velocity for Software-Driven Organizations

Today's organizations are faced with the challenges of developing and deploying applications at rapid speeds and positioning their businesses to capitalize on innovative new business models, all while reducing operational costs.

Figure 1: The four main pillars of cloud native

These challenges can be addressed with a cloud-native approach and application deployments. Consequently, production use of cloud native has grown more than 200%[1] in the past year.

Our customers are looking to take advantage of the benefits of cloud native, which include the ability to enable continuous integration and continuous delivery (CI/CD) and automate operations, to reduce costs and improve security. Cloud-native architectures increase operational efficiency by improving infrastructure utilization and scaling to adapt to real-time business events and accelerate revenue.

The New Software-driven Enterprise and Service Provider

Business turn to cloud native to drive several key business outcomes:

- Improved end user or customer experience and satisfaction
- Increase top line revenue
- Reduce OpEx through automation
- Reduce CapEx through the use of generic standard hardware

The goal is clearly to deliver service innovation and service velocity, while reducing costs, through a DevOps model that supports "Fail Fast". An example of this is improving customer digital experiences with the rapid availability of new services to maintain engagement and drive top-line revenue, as well as the ability to provide self-service customer apps and tools for operational efficiency.

[1]Source: Cloud Native Computing Foundation

How Accedian facilitates service innovation and service velocity goals

Our customers are looking for technology partners to help them align with cloud-native practices.

Accedian can move at the speed of cloud native

Accedian provides always-on, cloud native performance and end user experience monitoring. The cloud-native methodology is foundational to the Accedian Skylight platform:

- Skylight Open APIs, built on the Open API standard, facilitate the deployment velocity, control and self-service benefits of on-demand infrastructure
- Skylight Open APIs allow for seamless integration and automation
- Skylight sensor containers can be easily deployed anywhere, anytime in a cloud-native architecture
- Enables a DevOps model for enterprises, service providers, and third parties

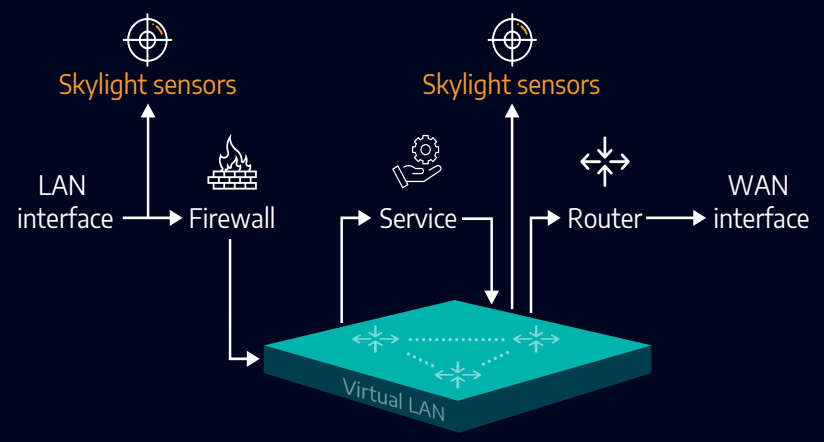

Figure 2: Accedian Skylight containers or microservices are easily deployed as part of the orchestration and service chaining

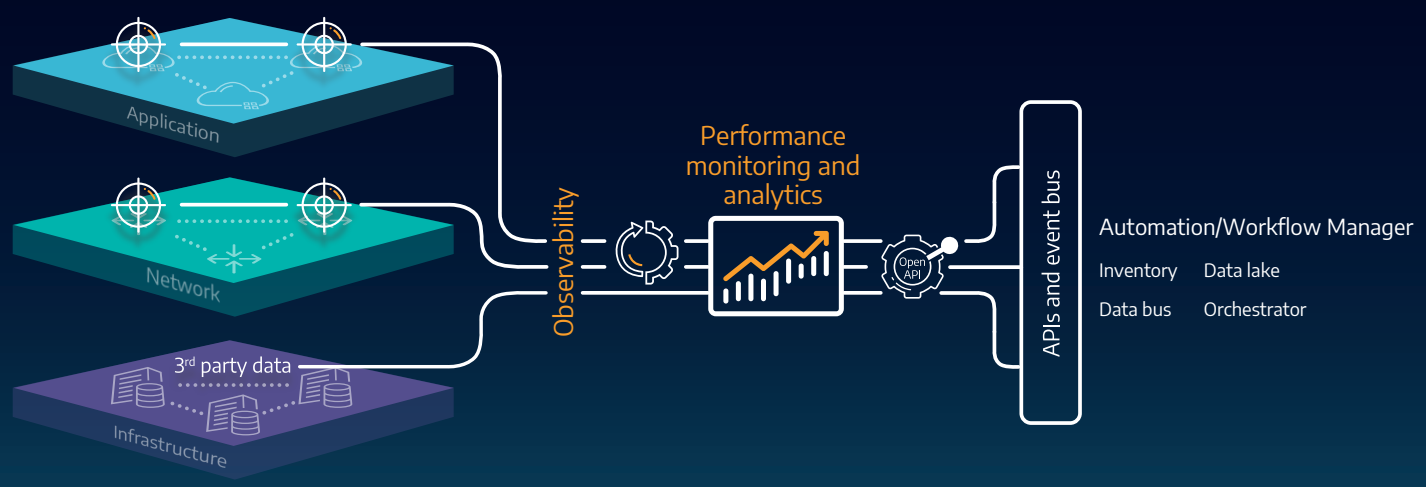

Figure 3: Accedian Skylight analyzes performance data and KPIs from both the application and network layers, plus ingests third-party data from infrastructure and other sources, and allows easy integration via Skylight Open APIs

Observability, monitoring and analytics in a single platform

Visibility is a combination of observability (data acquisition), monitoring (visualization and workflows), and analytics. Accedian combines the observability from Skylight sensors deployed throughout the network with the monitoring and analytics provided by Skylight performance analytics to achieve complete visibility.

In a cloud-based world, IT infrastructure resource identities are dynamic, but still critical to track accurately. Accedian uses "per-packet intel"™, also commonly referred to as data context or metadata, to determine the performance of the application delivery across distributed IT and cloud environments. Per-packet intel is real time analysis of network traffic that does not require the full weight of the traffic payload for complete user experience insight. This enables:

- Lightweight observability of the service identity, application delivery and network performance when combined within the Skylight performance analytics engine
- Comprehensive visibility at scale across hybrid and multi-cloud, multi-operator environments
- Reduced networking costs and complexity, minimized storage and compute requirements and cost

Application delivery is the true determinant of real end user experience, and Accedian's Skylight agentless sensors use per-packet intel, such as HTTP, DNS and SQL, to enable real user monitoring (RUM) at a fraction of the data storage requirements for agent-based solutions.

Complete visibility at both the network and application layer

Accedian provides a unique view of the relationship between applications and the network. We also take to the cloud the most detailed, fine-grained performance metrics available on the market with over 30 KPIs and millisecond precision independent of technology stacks.

Skylight generates this high quality performance data using a flexible range of Skylight sensors and makes that data easily available via Skylight Open APIs.

These extensive active and passive monitoring KPIs, from across the application and networking layers, are critical for determining true end user experience and root cause of performance impairments.

Skylight provides:

- Ability to work with both external and internal synchronization methods
- Many standardized active protocols supported, such as TWAMP (e.g ICMP Echo) and various service activation testing standards
- Breadth of metrics in every test session (80+ metrics/KPIs) all have a reason for their existence
- Ability to remove noise at the point of measurement (not a post-process operation)
- Independent uplink and downlink measurements
- Multi-tier performance degradation root cause triage

Easy to operationalize with APIs

Whether you are deploying cloud, multi-cloud or hybrid cloud as your transformation strategy, Accedian's cloud-native approach to performance and publicly available APIs readily integrate into your continuous delivery initiatives, now and into the future.

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 protect their digital infrastructure, while helping them to unlock the full productivity of their users.

Learn more at accedian.com

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