Cloud and Hybrid IT Visibility with Packet-Based Analytics

The Challenge
Rapidly growing network data loads, increasing application complexity, and emerging hybrid IT deployment environments continue to raise the bar on delivering consistently high levels of IT services. As applications migrate to the cloud, network teams are challenged to obtain insight into application traffic, assess user experience, and investigate performance and security issues.

The Solution
Ixia CloudLens™ provides exceptional visibility into on-premises, cloud, and highly virtualized environments with access to packet level data. Offered as a software as a service (SaaS), it retains the elastic scale, flexibility, and agility benefits of the cloud. Combined with the VIAVI Observer® real-time analytics solution and long-term packet capture, IT organizations get in-depth views into service health while also providing rapid troubleshooting when anomalies occur – achieving ultimate visibility into network activity.

Introduction
According to the State of the Network Study, respondents report that by the end of 2020, seven-in-ten of their business applications will be hosted in the cloud.

While cloud migration shifts costs from capital to operational expenses and promises cost savings by reducing infrastructure management responsibilities, the shift often leaves IT teams in the dark when managing end-user experience and ensuring optimal IT service delivery.

The right network-based performance monitoring solution can overcome these challenges, helping organizations maintain excellent visibility and high-levels of user satisfaction with current cloud-hosted applications or future migration deployments.

Joint Solution Benefits
- Attain deep visibility into application performance across cloud service providers including Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform, and any other CSP platform
- Assess and reconstruct user experience of applications in hybrid IT environments in real time with wire data from the cloud and on-premises networks
- Never wait for the problem to repeat with Observer back-in-time functionality and long-term wire-data capture and retention
- Ensure total transaction visibility and intelligence into network performance whether in the cloud or at line rate on a 100 Gb core network
- Leverage real-time wire-data analytics to deliver comprehensive and actionable application performance analytics
- Auto-scale CloudLens instances in tandem with application elasticity for uninterrupted visibility
- Quickly detect and isolate problems across all tiers and services by using the granular data access offered by CloudLens visibility as a service (VaaS).
The Ixia and Observer Solution

VIAVI Observer and Ixia CloudLens extend enterprise network and application monitoring from the data center to the cloud, ensuring uninterrupted visibility while maintaining critical operational insights into performance, availability, and user experience. With Ixia CloudLens and VIAVI Observer, IT teams can:

- Ensure outstanding end-user experience regardless of host location
- Automatically isolate fault domains across complex application and delivery architecture to speed problem resolution
- Understand the business impact of degraded performance to effectively prioritize problems
- Resolve hybrid IT issues with solutions designed for virtual and cloud networks

CloudLens ensures that Observer visibility is real-time and comprehensive by addressing the challenges of capturing and filtering packet-level traffic in the public cloud. The combination delivers panoramic perspectives into network activity and performance visibility and provides IT teams with the following advantages:

- The best long-term packet capture and post-event wire-data analytics in the industry
- Optimized visibility into all sources without a single dropped packet
- Visibility into cloud-based and virtualized east-west traffic
- Quick threat isolation to the area of interest
- Faster mean time to know for critical and revenue-impacting problems

How It Works

VIAVI Observer and Ixia CloudLens are integrated, enabling customers to keep their existing data center monitoring architecture intact as they shift workloads to the cloud. The process is easy:

- Attach CloudLens sensors to your instances. Sensors come in two varieties: Docker-based for Linux or agent for Windows.
- From the CloudLens Web interface, drag and drop a data path to Observer GigaStor
- Configure traffic filters as appropriate

Observer then receives all wire data, all the time for continuous visibility into application performance and user experience – regardless of the cloud service provider.

Leverage the Benefits of Cloud Without Sacrificing Visibility

The joint VIAVI-Ixia solution allows IT teams to scale business operations and networks without compromising visibility, analysis, or troubleshooting capabilities. CloudLens ensures that the elastic demands of cloud customers in a multi-tenant, self-serve model are met, without adding any burden to troubleshooting teams.