

CloudLens: Complete Visibility for Container-Based Environments

FEATURE BRIEF

NEW TECHNOLOGIES, NEW THREATS

Over the last few years, containers and microservices have changed the game in cloud technology. Driven by widespread adoption from major providers like AWS, Azure, Google Cloud, IBM, and Alibaba, organizations are flocking to container-based deployments to increase portability and reduce their footprint — **and that means new concerns about monitoring and security.**

The challenge is within the containers themselves. While traditional data centers use robust tools to provide application-aware network visibility, intra-host container communication doesn't provide access to packet-level data. Without access to these critical communication constructs, organizations are left with a host of vulnerable blind spots — creating many issues for IT teams, including:

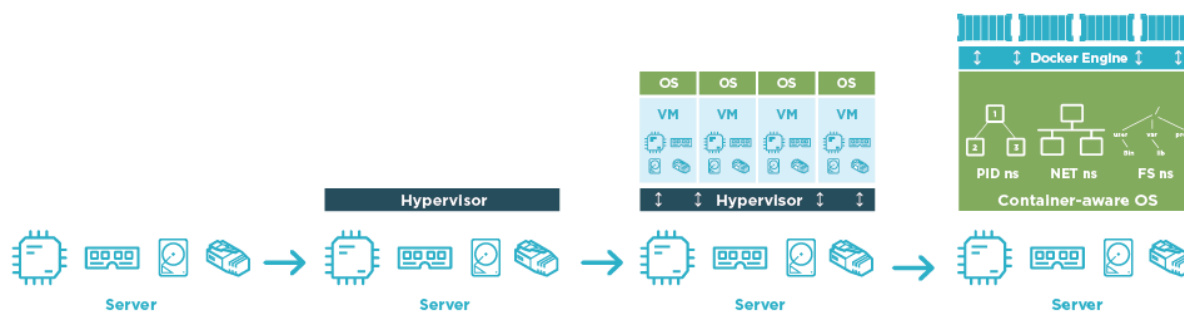
- Identifying and diagnosing active threats
- Securing potential back-doors from attackers
- Monitoring performance and quality-of-service
- Ensuring data compliance standards

GET FULL VISIBILITY INTO CONTAINER-BASED DEPLOYMENTS WITH CLOUDLENS

Ixia's CloudLens is a cloud-native, network-level solution delivering Visibility-as-a-Service (VaaS) for public, private, and hybrid cloud. **Boasting unique container-derived sensors, CloudLens enables comprehensive visibility into container-based deployments.**

HIGHLIGHTS

- **Complete Container Visibility.** Container-based sensors send packet-level data to your tools to secure vulnerable blind spots.
- **Low Impact.** No architectural or infrastructure investments needed.
- **Elastic Auto-Scaling, On-Demand.** Tested to withstand the rigors of enterprise cloud environments, you'll never lose visibility when your network grows.
- **Turnkey Tool Integration.** Day-one compatibility with leading security, APM, and NPM tools eliminates costly workarounds.
- **Easy-To-Use and Always Available.** Software-as-a-Service (SaaS) platform requires minimal setup and ongoing management.
- **Pay Only For What You Need.** Usage-based billing scales with your cloud as it grows.



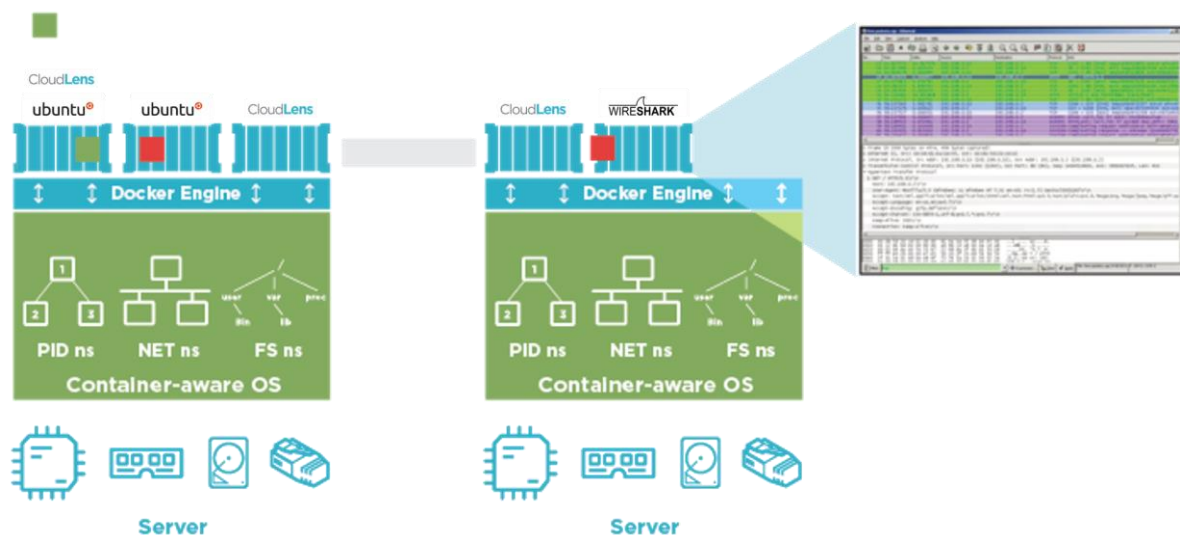
CLOUDLENS CAPABILITIES:

CONTAINER-BASED SENSORS THAT DON'T MISS A THING

Unlike other cloud visibility solutions, CloudLens sensors are Docker containers that run in Linux hosts. Once installed, any packet that enters or leaves the host is replicated by the CloudLens container, encapsulated, and forwarded securely to its destination (network packet broker, security/APM/NPM tools) over a secure P2P VPN tunnel — ensuring your tools always get the critical data they need.

CloudLens sensors can monitor traffic using the `docker run` command in one of two different ways:

- **Host**, which permits the sensor to monitor the network namespace of its host — enabling all interfaces from the host for monitoring.
- **Container**, which restricts the sensor only to monitor the network namespace of a container.



CLOUD-NATIVE SCALING — NO MATTER THE SIZE OF YOUR ENVIRONMENT

Containers are designed to be short-lived. When the life expectancy of a resource is measurable in minutes rather than years, and the number of resources to monitor are in the magnitude of hundreds of thousands, traditional “lift and shift” monitoring methods just can’t handle the scale.

With CloudLens, you get a cloud-native solution that was built to scale as resources are created and destroyed horizontally. Even on a large scale — it’s completely automatic.

Cloud-native scaling enables you to:

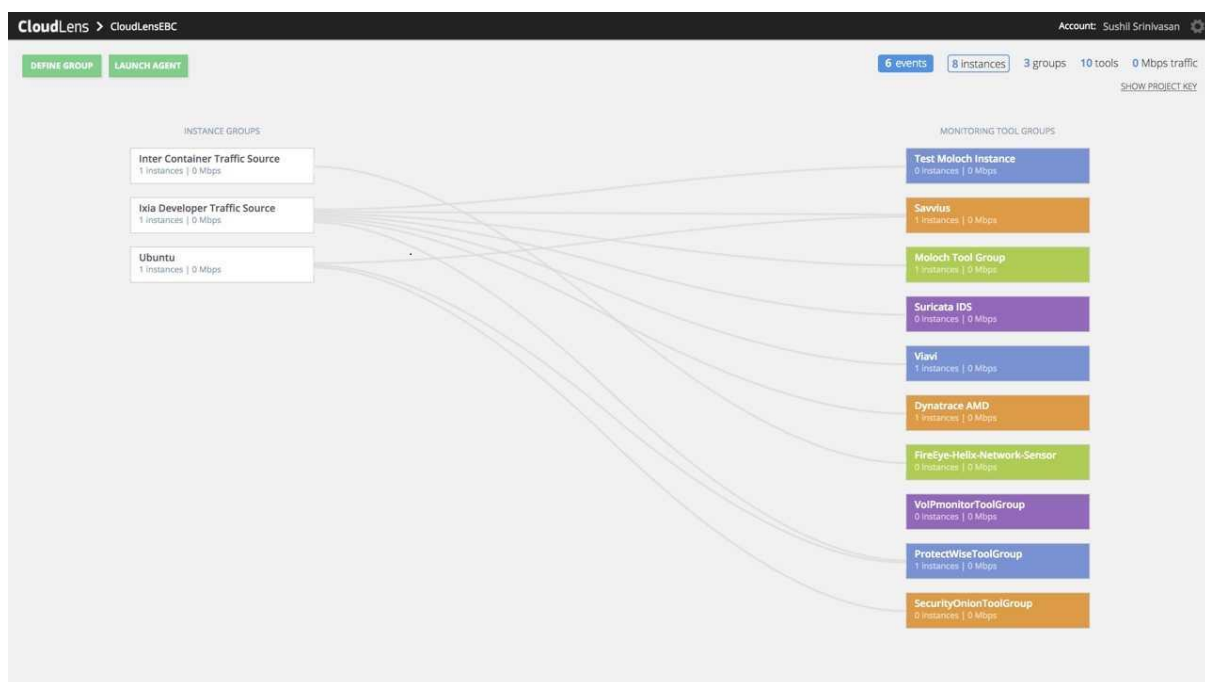
- Monitor cloud traffic without making architectural changes or purchasing additional hardware (network packet brokers)
- Improve scalability by grouping instances automatically as they spin-up, ensuring the correct security/performance monitoring policies are applied immediately

SIMPLIFIED MANAGEMENT THAT SAVES TIME AND PREVENTS COSTLY ERRORS

Container environments should streamline efficiency and boost elasticity. The last thing you need is a visibility solution that takes forever to setup, delays an anticipated ROI, and jeopardizes your network security if not installed correctly. With an innovative SaaS platform, CloudLens helps you avoid these risks by doing the heavy lifting for you — making it easy to manage all of your data, automate simple tasks, and prevent your administrators from making costly mistakes.

With the CloudLens management platform, you can:

- Manage the whole of your data in a single layer
- Access data directly at the application level — regardless of whether it is running on a physical host, virtual machine, cloud instance, or within a container
- Utilize advanced packet filtering at the source, reducing bandwidth on security/monitoring tools and eliminating the risk of an inline virtual packet broker becoming a single point of failure



Learn more at: www.ixiacom.com

For more information on Ixia products, applications, or services, please contact your local Ixia or Keysight Technologies office.

The complete list is available at: www.ixiacom.com/contact/info