LiveAction®

Cloud Monitoring Solution Overview

Solution Overview

Challenge

The pandemic has pushed many organizations to accelerate their digital transformation and adopt a cloud or hybrid cloud model.

NetOps teams have been under increasing pressure to support remote workers, while organizations are driven to change their business models to keep up with the accelerated pace of change. For most organizations, productivity is tied to being at the cutting edge of technology. These data-driven initiatives are foundational in whether an organization is delivering value to its customers.

But when migrating the network, you need visibility into performance to set critical baselines. It's essential to understand what applications are on the network (and which ones to prioritize), what the top talking sites are, and which ones use the most bandwidth. What's more, poor application performance, security incidents, or even a slow network can result in devastating business disruption and revenue loss.

Detailed capacity planning is required. Without historical data into performance, it's impossible to understand good or bad outcomes after a migration (critical in Day 0 planning). Once migrated, the policies need to be vetted to ensure they're meeting performance standards. Cloud migrations require careful consideration of bandwidth allocation and an understanding of how much data is coming from the cloud (as costs can quickly get out of control).

Multi-cloud or hybrid environments are the new norm and offer increased scalability and flexibility but spreading services across multiple environments fractures the ability to get a holistic network view. Not only does this add complexity, but cloud monitoring tools are burdensome to manage alongside existing monitoring products and do not provide the level of network and application visibility that architects and engineers (on both the cloud and network sides) need to be successful with these transitions.

LiveNX and LiveWire's complete cloud monitoring solution provides you with the end-to-end visibility you need for your hybrid IT environment.

Advantages

Application performance data where none exists

The LiveNX cloud monitoring solution can ingest native cloud telemetry via cloud flow logs stored in S3/Blob storage buckets and convert them to IPFix data. LiveNX also uses cloud API integration to pull information such as cloud services, regions, availability zones to showcase valuable integrated data with the flow logs. This information can be used to pull monthly cloud application reports, bandwidth usage. Native cloud data does not provide application performance data, but with the help of Livewire deployed in the cloud, monitoring the VPC/ Vnet traffic, LiveNX can provide application performance data.

Adds visibility from on-premises into the cloud.

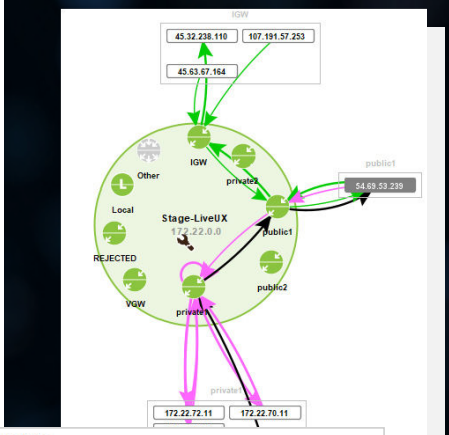
Visibility is lacking when network infrastructure devices don't generate flow in critical areas you need to monitor, or when these devices are oversubscribed. By turning on flow generation, network functions degrade, possibly causing data loss on the network. Visibility is also difficult in virtual environments. Flow generation is often unavailable within the virtual network infrastructure, but with LiveWire, you can generate flow from packets, whether north-south or east-west traffic.

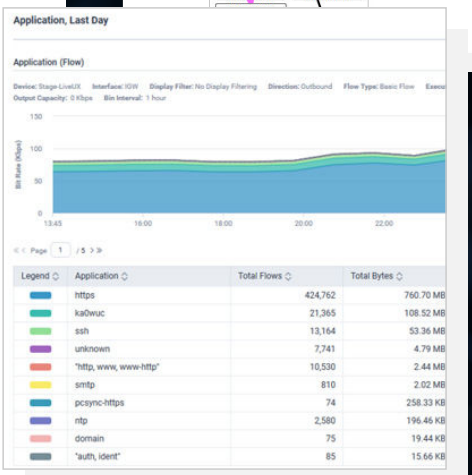
Root-cause analysis based on packets.

Many, but not all, network and application problems can be solved with flow data. But when flow data isn't enough, root-cause analysis based on the packets that generated the flow data is just a click away, and all within the LiveNX application.

The best flow data available.

Because LiveAction can generate flow data directly from packets, flow data can be enhanced beyond what is available via NetFlow and IPFIX from network infrastructure devices. This enhanced flow data, which includes TCP metrics, packet retransmission details, and VoIP metrics like jitter and phone numbers; provides advanced data to streamline network and application alerting and troubleshooting to reduce mean time to resolution (MTTR) significantly.



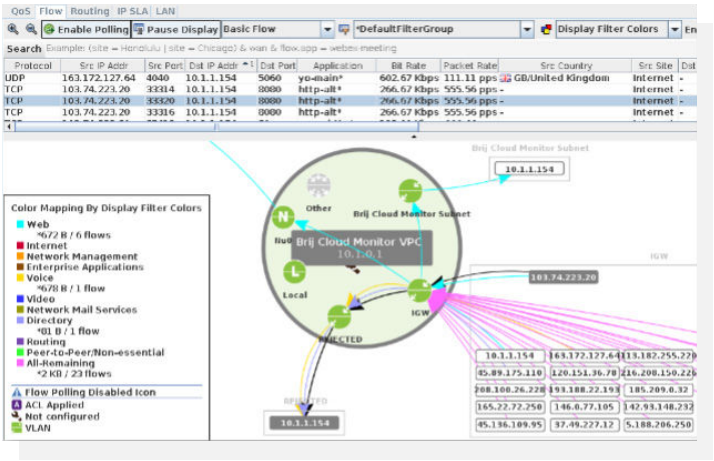


Use Cases

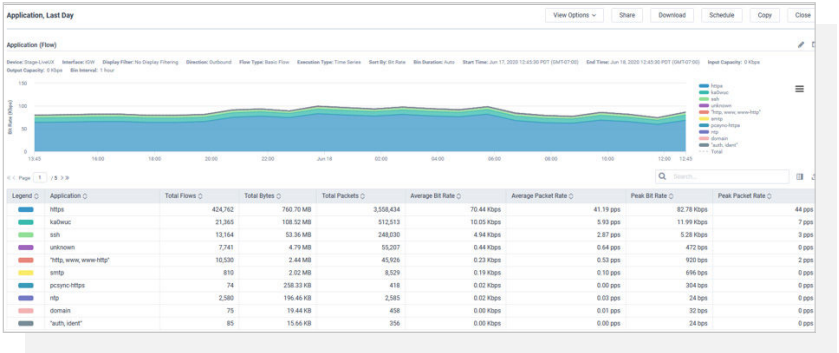
- **Visibility** – Organizations struggle to gain unified visibility across the entire network. The combined solution of LiveNX and LiveWire enable application-aware Netflow visibility where traditional visibility gaps may exist with legacy or evolving vendor landscapes. Gain deep visibility into public cloud traffic, application usage, and performance across AWS and Azure cloud infrastructure.

- **Hybrid IT** – Most IT teams don't have the visibility they need to map end-to-end paths for applications from the on-premises network to the cloud and vice versa. LiveNX and LiveWire provide a hop-by-hop analysis for end-to-end application path examination, analysis on KPIs such as application and network latency, utilization, packet loss, QoS configuration, and VoIP performance for alerting and detailed forensic analysis. Support day two operations (monitoring, troubleshooting network, and application behavior)

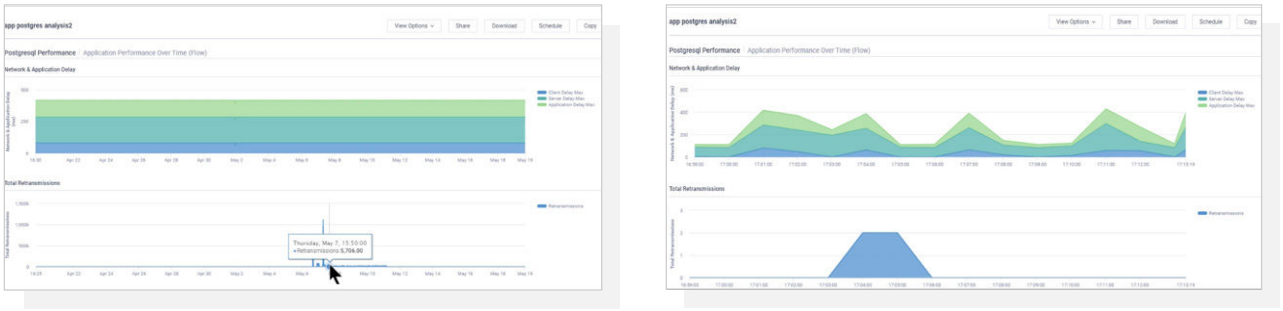
- **Security Incident Response** - With LiveNX, users can gain visibility in the public cloud via clear and deep visibility into accepted and rejected traffic. Once an intrusion is found, you need a recording of the activity – the network packets – to determine both the fingerprint and the extent of the breach. LiveWire can provide the extra capability to capture and store every packet it receives. Armed with the packet data, you can respond quickly and confidently.



- **Cost, Consumption Analysis** – Proper visibility is needed to conduct cost and consumption analysis of applications and services in the cloud. LiveNX provides the same in-depth level of analytics across public cloud workloads (in AWS and Azure) as they have for on-premises environments, all through a single unified interface. Utilizing N-dimensional granular reporting of application and network data allows admins to slide and dice cloud visibility data into n-dimensions for troubleshooting, cost and consumption analysis, historical analysis via playback capability. This enables IT teams to measure cloud applications and services' performance and utilization baselines against trends over time to facilitate capacity planning and optimization.



- **Cloud Migration** – Cloud migrations vary greatly depending on a company's needs and objectives. Whether migrating limited portions of your enterprise systems, such as a few specific databases or servers, or an entire application stack or datacenter, you'll need a clear understanding of pre-and post-migration KPIs. LiveNX provides the ability to measure historical baselines and changes over time.



Understand pre-deployment On-prem Application traffic rates and Application SLAs
Understand post-migration Cloud Application traffic rates and Application SLAs
Validate Cloud Migration and impact to other Applications in the Network

- **Application visibility and control** – Migrating applications from the core network into the cloud is often challenging. You need a deep understanding of the application's current state before doing anything, and you need to confirm that everything will work as intended post-migration. LiveNX provides application and service visibility that measures bandwidth usage pre-deployment (while the app is still on-premises) and leverages topology visualizations to identify application paths to help plan the migration effectively.

Summary

The combined solution of LiveNX with cloud monitoring and LiveWire in the cloud provide a comprehensive cloud monitoring solution. Whether you're migrating limited portions of your environment for a hybrid cloud experience or planning a complete migration to the public cloud, LiveAction can help.

About LiveAction

LiveAction provides end-to-end visibility of network and application performance from a single pane of glass. This gives enterprises confidence that the network is meeting business objectives offers IT administrators full visibility for better decision making, and reduces the overall cost of operations. By unifying and simplifying the collection, correlation, and presentation of the application and network data, LiveAction empowers network professionals to proactively and quickly identify, troubleshoot and resolve issues across increasingly large and complex networks. To learn more and see how LiveAction delivers unmatched network visibility, visit www.liveaction.com.

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