

Network Monitoring and Analytics to Enhance Cisco Full Stack Observability



Cisco Full Stack Observability (FSO) represents a holistic approach to monitoring and managing the performance, health, and security of IT infrastructure and applications across multiple environments. This strategy aims to provide comprehensive visibility into every layer of the technology stack, from the underlying infrastructure to the applications that drive business processes. LiveAction’s solutions complement and enhance Cisco’s Full Stack Observability by offering deep network insights, advanced analytics, and intuitive visualization capabilities.

Full Stack Observability Architecture








Monitoring Category		IT Management Domain
Presentation Layer	splunk>	All (Dashboards, Reporting)
IT Service Management		All (Helpdesk, Ticketing, Service Mgmt)
APM	APPDYNAMICS	Internally Developed Apps & Services
Missing Visibility in a Post-Cloud World	ThousandEyes	Digital Experience ISP, DNS, CDN, DDoS, CASB Providers
Cloud-Specific Mgmt (e.g. CloudWatch)		SaaS Providers SD-WAN Internet Transport Internet Routing
IT Infrastructure Mgmt (SNMP)		
Network Perf Mgmt & Diagnostics (Flow/PCAP)		Cloud Infrastructure
Network Capacity Mgmt (Flow)	LiveAction	Internal Data Center & WAN Infrastructure
Log Mgmt	splunk>	All

How LiveAction Supports and Enriches Cisco FSO

01 Tight Integration with the Cisco Ecosystem

- \ Enhanced SASE/SSE visibility for Cisco Catalyst SD-WAN combining both performance and security data.
- \ Powerful bi-directional workflows with Splunk provide both network observability and forensic deep dive.
- \ Out-of-the-box workflows between SNA (formerly Stealthwatch) and LiveWire for forensic investigation.
- \ **LiveWire Packet Capture and Forensics, Certified on Cisco UCS** - Unprecedented storage density; providing 3PB of effective storage in 4 Rack Units, 17x denser than common competitors.
- \ LiveAction solutions available on Cisco GPL.

02 Complementing Cisco AppDynamics, Thousand Eyes and Splunk

	What You Own	What You Don't Own
PRESENTATION 	<ul style="list-style-type: none"> • Unified Security and Observability <p style="text-align: right;">splunk></p>	<ul style="list-style-type: none"> • Unified Security and Observability <p style="text-align: right;">splunk></p>
APPLICATION 	<ul style="list-style-type: none"> • APM • RUM via Code Instrumentation <p style="text-align: right;"> APPDYNAMICS <small>part of Cisco</small></p>	<ul style="list-style-type: none"> • Active Monitoring • Synthetic Transactions • Browser-based RUM <p style="text-align: right;">ThousandEyes</p>
NETWORK 	<ul style="list-style-type: none"> • NDR (Secure Network Analytics) • Network Performance Monitoring (NetFlow, Packet Capture, SNMP, API) <p style="text-align: right;"> LiveAction</p>	<ul style="list-style-type: none"> • Active Monitoring • Synthetic Transactions <p style="text-align: right;">ThousandEyes</p>

- \ **Enhanced Network Visibility** - LiveAction provides granular visibility into network traffic, performance metrics, and behavior patterns across the entire network infrastructure, funneled up to Splunk for true observability. This level of detail into flow and network packets is essential for full stack observability, allowing IT teams to understand how network performance impacts application health and user experience (see [LiveAction for Splunk Dashboards](#)).



03 End-to-End Visibility with ThousandEyes

- \\ Cisco ThousandEyes synthetic transactions extend visibility beyond enterprise network boundaries, monitoring end-user experience across the internet, cloud, and SaaS applications. Its monitoring probes and path visualization capabilities identify performance issues throughout the service delivery path, ensuring optimal digital experience for end-users.
- \\ Complementing ThousandEyes, LiveAction helps organizations gain a true end-to-end view of their network, monitoring synthetic transactions and supporting root-cause analysis from the data center to the cloud and the edge. This comprehensive perspective is crucial for ensuring the performance and availability of applications and services that rely on the network.

04 Application Performance Monitoring

- \\ AppDynamics specializes in monitoring application performance and business transactions, offering deep insights into application behavior and end-user experience. Its diagnostics and code-level visibility help identify performance bottlenecks and optimize application performance.
- \\ AppDynamics' application performance insights enriches FSO's application monitoring capabilities, ensuring seamless user experiences across various devices and platforms. By correlating network performance with application behavior, IT teams can address performance issues proactively, aligning with FSO's proactive troubleshooting approach.

05 Advanced Analytics and Performance Monitoring

- \\ **Real-Time and Historical Analytics:** LiveAction offers both real-time and historical analytics, enabling IT teams to monitor current performance and analyze past trends for capacity planning and predictive analysis. This capability supports proactive management of network resources to meet the demands of applications and services.
- \\ **Application-Aware Insights:** By providing application-aware network performance insights, LiveAction helps ensure that critical applications receive the necessary network resources. This alignment between network performance and application needs is a core aspect of achieving full stack observability.

06 Proactive Troubleshooting and Problem Solving

- ✦ **Rapid Issue Identification:** LiveAction's intuitive visualization and detailed analytics enable quick identification of network issues before they impact application performance or user experience. This proactive troubleshooting is key to maintaining the health and availability of IT services.
- ✦ **Root Cause Analysis:** The platform facilitates root cause analysis by correlating network events with application performance issues. This capability allows IT teams to pinpoint the underlying network problems that may be affecting applications, streamlining the resolution process.

07 Security and Compliance

- ✦ **Enhanced Security Posture:** Out-of-the-box workflows between SNA (formerly Stealthwatch) and LiveWire enable forensic investigation of network packets. This seamless integration provides visibility into network traffic patterns and helps with threat hunting and incident response.
- ✦ **Compliance Reporting:** The platform supports compliance efforts by generating detailed reports on network performance and security, aiding in the documentation and verification of compliance with internal policies and regulatory standards.

Conclusion

LiveAction's solutions are integral to realizing the vision of Cisco Full Stack Observability. By providing deep network insights, advanced analytics, and intuitive visualization, LiveAction helps organizations monitor and manage their network infrastructure as part of a comprehensive approach to observing and optimizing the entire IT stack. This support enables IT teams to ensure the performance, availability, and security of their applications and services, driving better business outcomes in today's complex and dynamic IT environments.

LiveAction

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LiveAction provides end-to-end visibility for network security and performance. By relying on a single source of truth – the packets – LiveAction gives modern enterprises the confidence needed to ensure the network is securely meeting business objectives, providing full network visibility to better inform NetOps and SecOps, and reducing the overall cost of network and security operations. By unifying and simplifying the source of collection, inspection, presentation, and analysis of network traffic, LiveAction empowers network and security professionals to proactively and quickly identify, troubleshoot, and resolve issues across increasingly large and complex networks.

To learn more about LiveAction, visit www.liveaction.com

