Application-aware Network Performance Management with QoS Control
LiveAction Application-aware Network Performance Management

LiveAction is an application-aware network management software with QoS control, designed to simplify network management. LiveAction features an innovative visual display, real-time big data analytics and deep control of routers and switches for unparalleled ease of network administration. Through a highly expandable and distributed 3-tier architecture of clients, servers, and node collectors, LiveAction can support large-scale enterprise networks containing tens of thousands of devices. These collector nodes capture performance data, extend configuration capabilities for horizontal scaling of LiveAction and connect to a server that provides a single-pane-of-glass view across the entire enterprise.

LiveAction’s latest release provides increased scalability, device grouping, bulk discovery and configuration to quickly resolve business critical performance issues in your WAN, SaaS and cloud applications, MPLS or DMVPN links, converged wired and wireless connections, and video, VoIP, and BYOD devices. A Cisco Intelligent WAN management platform, LiveAction provides GUI-based management and visualization of intelligent path control and application performance optimization. It shows PfR path changes across the network topology, what Out-of-Policy (OOP) reasons triggered these path changes, and the affected application traffic.

Solution to Improve Application Performance

1. See—LiveAction’s unique interactive topology and end-to-end flow visualization provide a holistic network view for more effective network management.


3. Click—LiveAction easily enables Cisco Flexible NetFlow (FnF) through grouping and bulk provisioning, so networks can quickly leverage Cisco advanced flow technologies such as NetFlow, NBAR2, AVC, and Medianet.

4. Fix—LiveAction’s full graphical QoS configuration allows you to fix application performance issues by creating, editing, and deploying QoS policies based on Cisco best practices simply and accurately. Its graphical display provides instant validation of QoS policy changes.

Benefits
- Reduce time and cost of FnF configuration and deployment on groups of devices by 70%
- Reduce errors in manual FnF configurations of one device at a time
- Granular network awareness and alerting for quicker notification of impending network issues
- Increased network availability and reduced end-user complaints
- Graphical network traffic baseline

Perform in-depth real-time and historical Flow and QoS traffic monitoring for baselining or trending. Also, proactively monitor and alert based on key threshold violations that impact QoS.

Simple FnF Configurations
With two screens, LiveAction will instantly audit your device capabilities, enable FnF on all eligible interfaces of your discovered devices, and deploy Cisco advanced technologies for flow monitoring.

Visual awareness and monitoring
With LiveAction, you can literally see and trace your traffic flows from end-to-end across the network in both real-time and using historical playback. Drill down to device and interface level for even more information on flows, routes, QoS policies, and IP Service Level Agreements (SLA) tests and results.
What is LiveAction?

LiveAction is a unique application-aware network performance management tool available with intuitive real-time visualization, accurate point-and-click configuration of Cisco technologies such as QoS, NetFlow, IP SLA, Medianet, AVC, ACLs, PfR, Routing and PBR, switching and spanning tree. Through the use of visual icons and in-depth topology graphics, in addition to text, tables, and graphs, LiveAction offers an accurate rendering of complex networks to provide a quick understanding of problems and available solutions. From this deep understanding, users can take advantage of LiveAction full QoS control features and its highly intelligent graphical interface to optimize network and application performance by adjusting QoS and other performance indicators accurately and confidently.

Enable faster and more effective troubleshooting by providing end-to-end traffic flows, site-based dashboards, alert drilldown, visibility of QoS policies and Medianet/NBAR2 performance metrics. Powerful Flow-DVR feature offers re-play, review, and fast-forward of past events.

Benefits

- Dashboards, search, guided workflows, interactive and real-time network awareness allow quicker troubleshooting of issues and validation of changes
- More than 50% reduction in time-to-find performance problems and service quality improvement
- 30% reduction in trouble ticket volumes and “break-fix” churn to allow more efficient IT operation and improved end-user productivity

Create and edit QoS policies using a graphical policy editor built around Cisco best practices to resolve application performance issues. Also gain immediate feedback to validate your QoS changes using highly granular, real-time traffic visualizations and statistics.

Benefits

- Accelerate IT problem resolution and maintain the required level of service needed to meet business priorities
- 70% reduction in time to understand and edit complex QoS policies
- 50% reduction in time to restore voice/video quality and fix critical application performance problems

Simplify maintenance and tuning with proactive system-wide awareness and visibility of QoS policies and performance issues. The system and site-based dashboards provide overall network health status; search and filter allow quicker investigation of relevant information across hundreds of reports and millions of flows; easy-to-use graphical QoS policy editor enables fine-tuning of existing policies; and highly granular queuing statistics let you know exactly how applications are performing.

Benefits

- Consistent user experience and application performance
- 30% reduction in trouble ticket volumes and “break-fix” churn to allow more efficient IT operation and improved end-user productivity
- 70% reduction in time to understand and edit complex QoS policies

Graphical, interactive QoS policy editing

LiveAction is the only network management tool that provides a fully graphical interface for creating and editing Cisco QoS policies. The software’s built-in wizards and templates ensure speed, accuracy, and compliance with Cisco best practices.

Maintain optimal application and network performance

Changes in network traffic may occur due to the introduction of new users, new applications, or even changes in company policies and direction. With LiveAction, you can track these factors and adjust your policies to reshape network traffic, improve application performance, and then fine tune and validate your policies and bandwidth allocations accordingly.

Instant, visual troubleshooting

No other management tool provides a faster and more visual approach to troubleshooting congestion on your network. LiveAction highlights congested devices (large circle) and interfaces (smaller inside circles) with an amber color so you can pinpoint problems instantly. Click the interfaces for more information and use LiveAction’s configuration tools to fix problems on the fly.
Application-aware Network Performance Management with QoS Control

LiveAction is a sophisticated network performance management and QoS control software that enables you to optimize end-user experience and business application delivery by effectively managing your application-aware network performance. There are six single modules in LiveAction - Flow, QoS Monitor, QoS Configure, IP SLA, Routing, and LAN – that provide network engineers with a comprehensive toolset to accelerate troubleshooting and resolution of performance issues, thereby, reducing costly downtime.

Situational awareness with end-to-end flow visualization
LiveAction is the only tool that provides real-time, end-to-end flow visualizations across your network. Clicking on a flow highlights its entire path hop-by-hop. You can also examine historical views to analyze flows at any date and time in the past with the Flow DVR feature. Use graphical Mediatrace and Medianet Flow Path Analysis to visually troubleshoot voice and video performance issues in real time or historically.

Proactive application performance and remediation
LiveAction provides unique QoS control to resolve performance issues and eliminates the need to resort to other tools or command line interface (CLI). With LiveAction, IT engineers can immediately identify and locate problems, take corrective action on the spot, and then validate any changes made all within a single LiveAction session.

Point-and-click configuration of Cisco technologies
In addition to its intuitive graphical interface, LiveAction comes with extensive device expertise to make configuration changes quickly and accurately. LiveAction graphically enables FmF and edit ACLs, policy-based routes, IP SLA tests/responders, and QoS policies.

Single-click QoS audit and performance reports
LiveAction generates a highly accurate and intelligently organized report in seconds with just a single click of your mouse. This report will show you everything you need to know about your QoS policies in great detail including configuration settings, performance issues, drops, and policy errors.
Rich Visualization with Multiple Levels of Detail

Topology Level

LiveAction generates clear and detailed topology views of your network allowing you to literally “see” device connections, routes, flows, interface bandwidth, and more all in real-time. The interactive display lets you pan, zoom, and drag individual network elements across the screen for an even better view.

Product Tabs
Click on these tabs to switch from QoS to Flow, Routing, IP SLA, or LAN. Each tab provides a different overlay and user options specific to the selected view.

Search
Quickly find specific information with an easy key word search approach across hundreds of reports and millions of flows.

Hierarchical View
Left side of screen shows devices and interfaces in a hierarchical view. Scroll right for additional details.

Status Bar
Bottom of screen includes status indicators for CPU, memory, flow buffers, alerts and more. Alerts can also be sent via e-mail for remote notification.

Devices and Live Network Topology
View shows devices (large circles), interfaces (small circles), interconnections, flows, interface bandwidth, congestion, and more. Click on a device, interface, or flow for more details. Click and drag to rearrange or resize items for even better visibility. Devices can also be logically grouped to streamline management of larger networks.

Interfaces

Flows
Curved lines indicate traffic flows.

Device Level
Dive deep into the setup and activity within your switch or router. See routes as well as flows entering, traversing, and exiting the device. View the whole picture or use filters to display specific items.

Interface Level
Need even more detail? Click down to the interface view and observe actual traffic performance in real time. View pre and post-QoS activity and see the effects of your device configuration changes in seconds.
LiveAction Features

LiveAction Flow starts with a network topology and a unique end-to-end flow visualization of live traffic across the network. For large-scale networks, devices can be grouped by location, type, or other attributes for simpler management. In addition, users can quickly drill down to individual devices or interfaces for more details on flow characteristics such as IP addresses, DSCP values, byte rates and count. This makes it easy to visualize trouble spots on the network and gain a better understanding of traffic patterns.

- Cisco Medianet Performance Monitoring
- Cisco Application Visibility and Control
- Cisco Performance Routing
- Cisco Converged Wired/Wireless and User Identity
- Cisco ASA Network Security Event Logging
- Cisco ASR 1K High Speed Logging
- MSI 4.0 including reverse Mediatrace
- Topology-based traffic flow view
- Medianet Flow Path analysis
- Supports NetFlow v5/v9, IPFIX, sFlow, and J-Flow
- Aggregate flow or individual flow views
- Display end points as host IP address, host name, application port name or number
- Filter and search
- Flow dashboard
- 360-degree report view
- Flow DVR of historical data
- Adjustable flow polling rates
- Built in Domain Name System (DNS) name resolution

LiveAction QoS Monitor provides the ability to track QoS performance on a per-class basis in real-time or for historical time periods. Engineers can gain a deep understanding of traffic and QoS behavior using LiveAction’s application (NBAR), class or queuing views. Monitoring and alerting of priority queue drops provides proactive notification of potential voice and video quality issues.

- NBAR2
- QoS Dashboard
- Rate-based NBAR graphs
- Pre and post-QoS graphs
- Peak and average rate statistics
- Class and interface drop graphs
- Congestion indicators from topology and device views
- Built-in CBQoS MIB viewer
- Custom NBAR definitions
- GRE tunnel visualization
- Automatic QoS graph resynchronization on policy changes
- Unknown port discovery
- View QoS graphs across routers
- Historical views and reporting
- Detailed graphical display of CBQoS statistics

LiveAction QoS Configure enables IT engineers to create, edit, and apply QoS policies for Cisco routers and Layer 3 switches on live networks with consistency and confidence. Use the QoS wizard and built-in templates to apply policies based on Cisco best practices or create and edit your own policies from scratch.

- Full MQC QoS configuration support including WRED, CBWFQ, and Priority Queueing
- Read existing QoS policies inside routers
- Apply or remove QoS configurations across multiple interfaces in bulk
- Push policies to multiple devices
- Hierarchical policy creation for advanced configurations
- Custom NBAR and NBAR2 based matches including high level attributes, HTTP URL, MIME, HOST and RTP protocols
- Built-in ACL editor
- CLI command preview
- Built-in rules for QoS settings that highlight violations
- Graphical inbound/outbound QoS editors
- Configuration audit trail
- System-wide QoS audit
- LAN service policy
LiveAction IP SLA makes Cisco IOS IP SLA operations easily accessible for generating and monitoring synthetic network traffic to baseline network performance, test policy changes, or proactively monitor key network paths. Synthetic traffic types include data (HTTP, FTP, DNS, DHCP) and voice that can be used to measure latency, loss, jitter, and mean opinion core (MOS) for VoIP. With IP SLA VO support, LiveAction enables easy pre-deployment capacity planning for video applications. Its highly interactive graphical interface delivers the functionality and flexibility of IP SLA features without the need to learn and use Cisco device command lines.

- Test Types: DHCP, DNS, ICMP Echo, FTP, HTTP, Jitter, UDP Echo, video
- Latency, MOS performance measurements, loss, jitter
- DHCP: destination, source, circuit ID, remote ID, subnet mask
- IP SLA VO (video operations) for Medianet
- IP SLA topology view (real-time)
- IP SLA dashboard
- Set up responder at destination
- Edit, save, delete test configurations
- Export to CSV file
- Large-scale wizard-based IP SLA provisioning in full-mesh and hub/spoke configurations

LiveAction Routing provides real-time routing visualizations for Cisco networks that can identify reachability problems, routing loops and asymmetric paths affecting traffic quality. In addition, the module’s policy-based routing viewer/editor provides a high degree of traffic control allowing users to route traffic easily and predictably over user-specified paths.

- System topology view of active routes
- Device route table views in graphical and tabular form
- Virtual routing and forwarding tables
- Export - Exports route, route table, device forwarding tables to CSV files
- Troubleshooting - Shows routing loops and asymmetric routes, unstable conditions, black holes, and error summarizations
- Policy-based routing (PBR) - Configuration/editing of PBR and Set statements; modifying existing route map configurations; checking for compliance with PBR rules; displaying PBR usage, static routes and PBR issues; exporting route map statistics
- VLAN trunk, port channel names
- VLAN associations within a device
- VLAN highlighting through the network
- Input/output bandwidth of each VLAN and port interface
- VLAN Path visualization
- Spanning Tree Protocol visualization and reporting
- Trunk and access bandwidth information through network polling
- Layer 2 QoS statistics including CoS, DSCP and IP precedence
- Dropped packets, interface warnings through network polling at the VLAN level
- Find IP/MAC addresses

LiveAction LAN provides real-time Layer 2 visualizations for networks, including trunk interfaces, port channels, VLAN associations and bandwidth percentages.
Devices Supported

Cisco Series Routers
- 800, 1700, 1800, 1900, 2600, 2600XM, 2800, 2900, 3600, 3700, 3800, 3900, 4400, 7200, 7600, ASR 1000, CSR 1000V
- Recommended IOS versions 12.3 or higher or 15.0 or higher for use with the software. (IOS XE 2.6.0 or higher for ASR 1000 series). Earlier IOS versions may work but are not officially supported.

Cisco Series Switches
- Catalyst 2960, 2960-X, 3560, 3650, 3750, 3850, 4500, and 6500 series switches
- Nexus 7000
- Some aspects of QoS can be set up on Layer 3-routable interfaces and VLANs (no Layer 2 QoS configuration)
- NetFlow can be used with Catalyst 3850, 6500 and 4500 switches. NetFlow Lite on 2960-X/XR. Please consult Cisco’s feature navigator for specific hardware requirements.

Cisco Security Devices
- ASA 5500 Series running 8.3 (NetFlow support only)
- ASR 1000 Zone-Based Firewall High-Speed Logging

Cisco Other
- Network Generation Appliance (NGA)
- Cisco MSI-capable endpoints including IP cameras, Telepresence, Jabber, etc.

Non-Cisco Devices (Flow analysis only with NetFlow, IPFIX, and sFlow, discovery, topology representation, MIB-II)
- Examples: Alcatel, Extreme, Brocade, Hewlett-Packard, Juniper, NetVanta, nProbe

System Requirements
- Network connection
- Server and client PC operating system (Windows)
- 64-bit—Server 2003 SP2, Server 2008 R2,
- Windows 7 Professional and Ultimate
- CPU—2+ GHz minimum, quad-core recommended
- System RAM—8 GB or more recommended
- Disk space—1.5 TB or more recommended

Contact LiveAction
LiveAction
825 San Antonio Road, Suite 209
Palo Alto, CA 94303
Phone and eFAX: +1 888-881-1116
Email: sales@liveaction.com
Web site: www.liveaction.com

What users are saying about LiveAction...

“Network managers need reliable and accurate network management tools to become more predictive in their ability to troubleshoot problems versus being reactive. LiveAction allows users to quickly see and identify where the problem is going to be.”

“If you run or need to run QoS on your network, I could not possibly give any other product for QoS management a higher recommendation than LiveAction.”

“With LiveAction, we’re now able to fine-tune QoS policies and get highly granular statistics to see exactly how policies are performing. Ultimately, it helps us deliver a high-quality end user experience and increase the return on our voice, videoconferencing, and collaboration investments.”

“LiveAction’s visual representation helps us pinpoint the location of a network incident that’s affecting the user experience in just minutes, compared to hours or even days before we had the tools.”