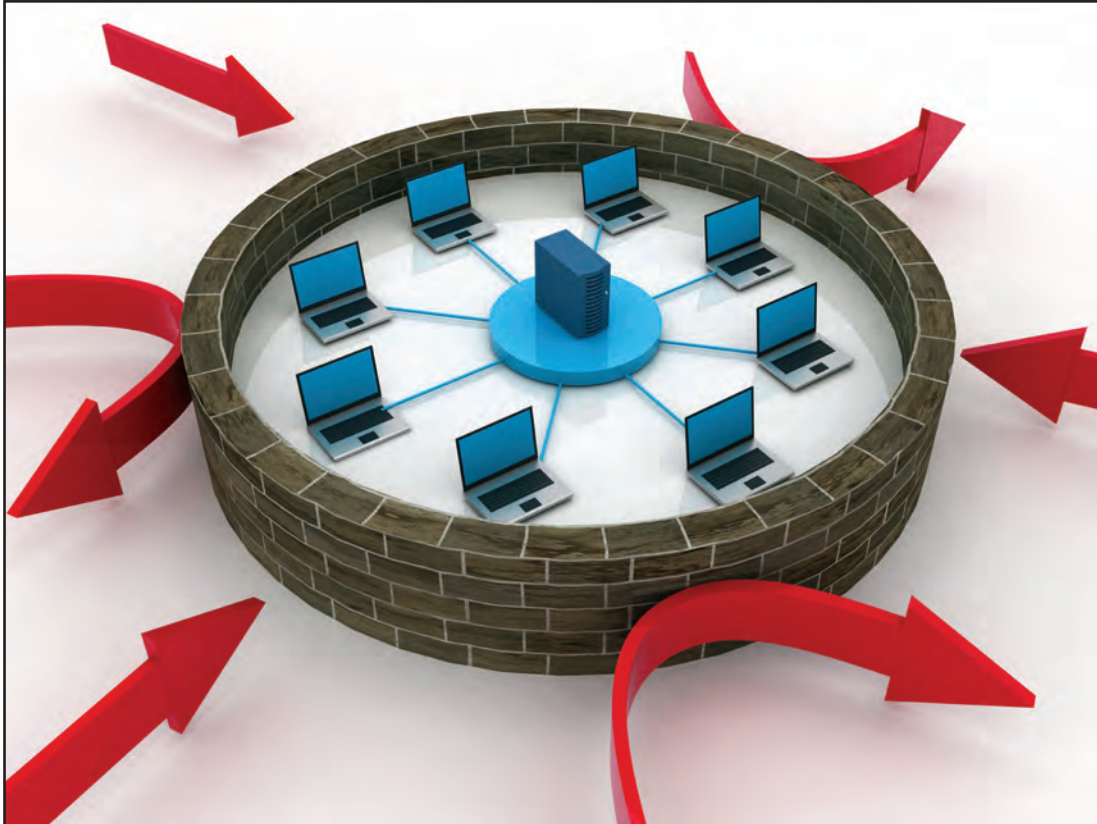


LiveAction™ Cyber Security Solutions

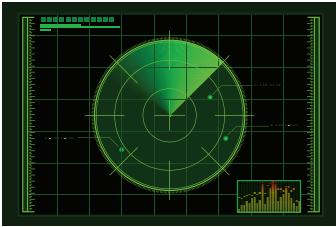


Using visualization and awareness to safeguard your networks

Constantly changing network threats are continually upsetting the optimal balance between strong security and convenient user access. And with physical isolation becoming less effective due to the Internet and virtual networking, dealing with and staying ahead of these threats requires a much more dynamic approach than traditional barriers and intrusion detection. LiveAction software is leading a new breed of interactive cyber defense tools that can track changing security conditions so security staff can respond directly to new threats quickly and decisively—especially in virtual environments. Using the same rich visualizations and embedded intelligence that it provides for network management and troubleshooting, LiveAction takes cyber security to a higher level with real-time situational awareness and control, when and where it is needed the most.

Key Features and Benefits

- Unsurpassed network situational awareness—Combining visualization, network modeling, and correlation tracking
- Real-time traffic visibility and control—Fully interactive system topology, device, and interface level views
- Visualize and minimize DoS attacks and unauthorized traffic—Detect, identify and block offenders
- Network forensics analysis and test report documentation—Historical recording, playback, and time-based analysis of events
- Coalition interoperability and enclave network management—Manage coalition networks and secure internal enclaves
- Built in QoS and network management capabilities—Control, prioritize, and monitor traffic on the network
- No appliances needed—Installs in two minutes on a standard laptop, desktop PC, or server



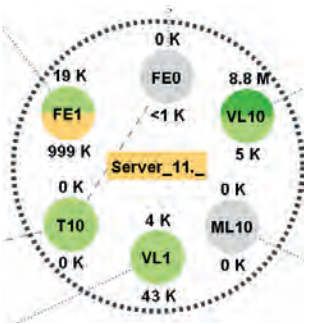
Visual Network Surveillance

If an intruder can successfully penetrate a firewall or happens to be an employee operating freely from inside the network, the damage may never be found. LiveAction watches the network continuously and shows you what traffic is traversing your topology, interfaces, and tunnels so you can quickly spot unauthorized activity, see the exact path it is taking, and shut it down without disrupting legitimate operations.



Support for tactical networks

LiveAction simplifies the management of devices on fixed and mobile tactical networks. The software supports Net-Centric solutions including critical communications, resilient networks, Mobile C4I, coalition inter-networking, and computer network defense.



Interactive troubleshooting

Achieve faster troubleshooting of your network to spot a wide variety of problems from congestion to illicit traffic—Starting with the system level topology view you can instantly spot congested devices and interfaces on the network by their amber color. Double-clicking on these areas provides more detailed information and viewing options for troubleshooting down to the device and interface levels.

LiveAction™ Intelligent, Real-Time Cyber Security

What is LiveAction?

LiveAction is a modular software tool that combines an extensive device knowledge base with a highly intuitive user interface to simplify network design, deployment, security management, and troubleshooting. It is currently available with technology modules for Cisco quality of service (QoS), NetFlow, Routing, and IP SLA.

Unsurpassed Network Situational Awareness and Control

Situational awareness involves knowing what is happening on your network and being able to understand and correlate its many components, processes, applications, and data. All of this is essential for effective security management—especially when complex technologies and traffic patterns are involved. LiveAction delivers exceptional awareness including rich visualizations of the network topology, devices, and interfaces. In addition to providing fully interactive monitoring and configuration in a single tool, LiveAction will show you the current status of your network with extreme clarity including who is on it, who is trying to get in, how your traffic is traversing the network, what applications are running, and what they are attempting to do.

Enhanced Tactical and Enterprise Network Management

LiveAction simplifies and automates bandwidth and security management to meet changing mission requirements in bandwidth-limited and coalition-type black core environments. Built-in QoS and network management capabilities enable military commanders and their operators to gain visibility and control of tactical networks. You can better secure encrypted networks and improve performance by shaping traffic with easy to apply QoS policies while reducing operator training requirements and costly configuration errors. LiveAction improves operator efficiency with advanced visual user interfaces that show real-time unclassified and encrypted traffic. It also protects against DoS attacks and unauthorized traffic by clearly visualizing black list source and destination IP addresses.

Coalition interoperability and enclave network management

Most networks by their very nature tend to extend beyond physically secure boundaries in order to accommodate outside users, such as coalition partners, utility customers, and remote employees. At the same time, secure enclaves within the network are required to contain sensitive information. When both reside on the same physical or virtual infrastructure, security is essential but can be very difficult to ensure. LiveAction helps secure the network by showing visually how traffic is flowing across various devices and interfaces making it easy to spot and block traffic that shouldn't be in certain areas.

Network forensics analysis and test report documentation

In addition to live monitoring, LiveAction also provides extensive historical reporting for QoS and NetFlow. When you retrieve historical data, you can see any point captured in the past with full visualizations as if it were still running live. Off-line analysis correlates multiple parallel sources of time-based data to provide a deeper and clearer picture of past events and the conditions that led up to them.

Unleash the power hidden inside your routers

Until now, some of the best features of your router such as QoS and NetFlow have not been fully accessible due to their sheer complexity and the inefficiencies of using the command line interface. LiveAction changes all of this with a simple but powerful interface that allows IT engineers to exploit the full potential of these devices to enhance network performance, reliability, and security. Viewing, editing, and creating router configurations is a snap with LiveAction. Create new QoS policies from scratch or choose from an extensive collection of QoS templates based on Cisco and industry best practices. Best of all, you'll never have to use the command line for configuration ever again.

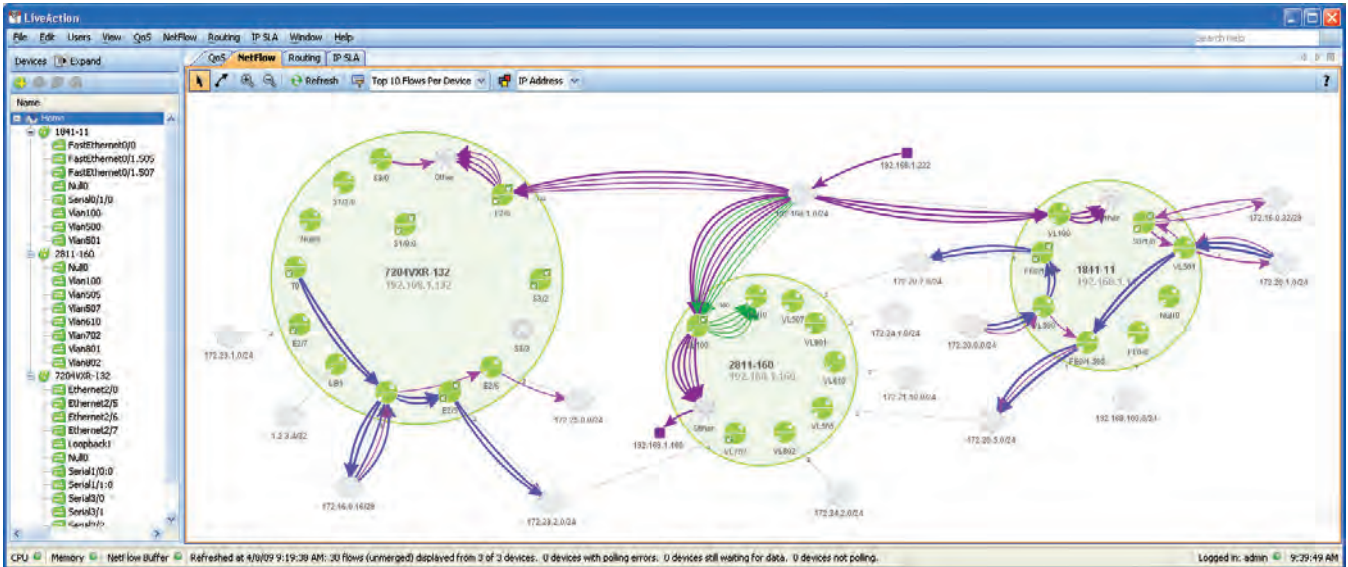
Get your IT staff up to speed in record time

LiveAction is the first product that makes Cisco routers easy to use. After a simple two minute installation on a standard PC or laptop, IT professionals, with the proper security credentials, can immediately begin monitoring and configuring Cisco routers and troubleshoot live networks with ease and confidence. This increases the capabilities of less experienced staff while allowing more experienced engineers to operate with greater speed to make better use of their valuable time and expertise.

Rich visualizations, live data flows, multiple levels of detail—all in REAL TIME

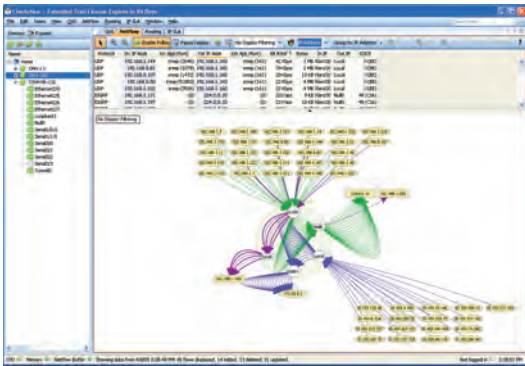
Topology Level

LiveAction generates amazingly clear and detailed topology views of your network allowing you to see not only your devices but their interfaces as well. Observe device interconnections, network flows, interface bandwidth, congestion, and much more—all in real time.



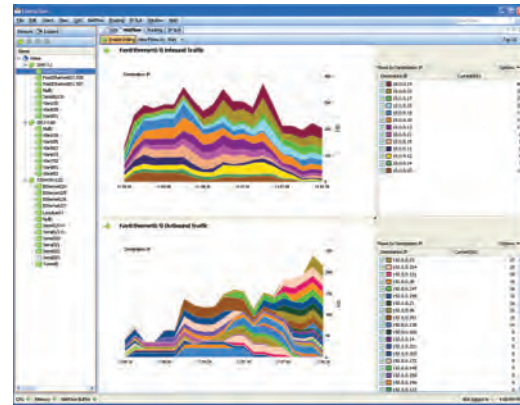
Device Level

Dive deep into the setup and activity within your Cisco switch or router. See flows and routes entering, traversing, and exiting the device. View the whole picture or filter down to troubleshoot specific paths.



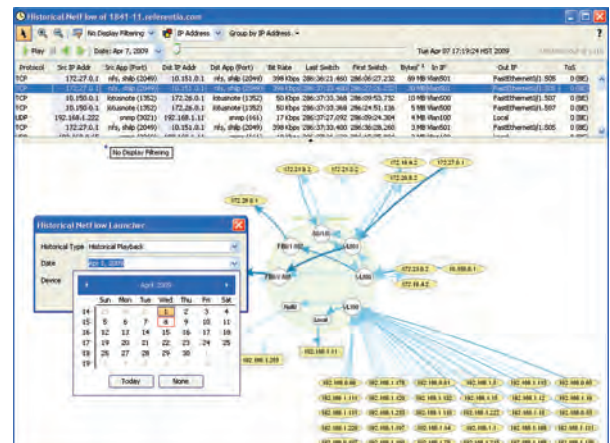
Interface Level

Need even more detail? Click down to the interface view and observe actual traffic in real time and identify the type, source, and amount of traffic. See the effects of your device configuration changes in seconds.



Historical tracking for forensics analysis and reports

Capture and retrieve traffic data for QoS and NetFlow. View by previous dates, zoom in for details, replay NetFlow events exactly as they happened.



LiveAction™ Specifications

Devices Supported

- Devices supported: up to 100 (depending on license)
- Cisco 800, 1800, 2600XM, 2800, 3600, 3700, 3800, 7200 series routers (IOS 12.3, 12.4)
- Cisco Catalyst switches up to 6500 (IOS 12.2 or higher)

System Requirements

- Operating system: Windows (Server, XP, or Vista)
- System RAM: 1 GB minimum
- Disk space: 2 GB minimum
- Network connection

Options and Support

- One year warranty and support including free upgrades
- Online technical support

NetFlow Features

- Topology-based Netflow view
- Aggregate flow or individual flow views
- Display end points as host IP address, host name, application port name or number
- Top 200 flows from each device
- X-Ray view of flows inside router
- Ability to filter flows
- Works in MIB and Collector modes
- Sortable NetFlow table
- Start, stop and pause NetFlow data
- Adjustable NetFlow polling rates
- NetFlow graph—by port, by source or destination address
- Built in DNS name resolution

NetFlow Benefits

- Faster troubleshooting of the network
- View flows across the network
- Pinpoint entry and exit of flows
- Acquire understanding of flow paths
- Observe routing and other router changes and effects

IP SLA

- Real-time topology view of test path
- Latency, loss, jitter, MOS measurements
- Test types: HTTP, UDP, UDP Echo, Jitter
- Quick and full test options
- Export results to CSV file
- Quick source and responder setup

QoS Monitoring

- Rated-based NBAR graphs
- Pre- and post-QoS graphs
- Peak and average rate statistics
- Class and interface drop graphs
- Congestion indicators
- Built in CBQoS MIB viewer
- Custom NBAR definitions
- Hierarchical policy graphs
- NBAR unknown port debugging
- GRE tunnel visualization
- Automatic QoS graph resync on policy changes

Troubleshooting

- Unknown port discovery
- View QoS graphs across routers
- Topology-based QoS state

Additional Reporting

- Historical views and reporting
- Extreme low level graphs of CBQoS statistics

QoS Configuration

- Full MQC QoS configuration support include WRED, CBQoS, Priority Queueing
- Ability to read existing QoS policies on the router
- Take snapshots of current configuration for future use
- Rollback to previous policies at anytime
- Apply or remove QoS configurations quickly and easily across multiple interfaces
- Ability to push policies to multiple devices
- Hierarchical policy creation for advanced configurations
- Custom NBAR based matches including HTTP URL, MIME, HOST and RTP protocols
- Build in ACL editor
- CLI command preview
- Built-in rules for QoS settings that also highlight attempted violations
- Graphical inbound and outbound QoS editors
- WAN shaping support

Routing

- System level topology view of active routes
- Device route table views in graphical and tabular form
- Route display filtering by protocol and destination
- Export route information to CSV file
- Refresh for real-time updates of routing layer
- Troubleshooting capabilities
- Policy-based routing (PBR)



LiveAction software is available from Referentia Systems Incorporated
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+1 808 423-1900 www.referentia.com liveaction@referentia.com

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