



Leveraging an Effective Network Troubleshooting Platform to Reduce Downtime

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Network Management teams routinely perform several activities to plan, deploy, upgrade, maintain, troubleshoot, and monitor the network. Each of these activities are extremely data-driven and are heavily dependent on the network team's accurate understanding and interpretation of the data coming from applications, network devices and the traffic moving over their network.

IT teams must make sure that end users have an expected level of performance when working with various applications. Failures negatively impact employee productivity, product and service functionality, customer satisfaction, and inevitably, revenue. Downtime can cost companies an average of **\$300,000 an hour** in lost revenue and productivity.

The Challenge

Once a network operations team has detected a service problem, they must race to solve it. Every minute of downtime disrupts revenue generation, breaks business processes, and undermines customer relationships.

- **Network Complexity:** The network is inherently complex, ensuring there are no simple answers to be found. NetOps teams typically struggle with:
 - Multiple vendors across switching, routing, Wi-Fi, and network security
 - Multiple network domains, including data centers, the cloud, local-area networks, and wide-area networks
 - Massive scale, with dependencies that grow exponentially
- **Data Complexity:** Network managers collect and analyze a wide variety of data. The data most important to network troubleshooting, according to analyst research, include:
 - Packets
 - Device logs and Cloud provider flow logs
 - Network flows (NetFlow, IPFIX)
 - Device metrics (via SNMP MIBs, APIs)
- **Tool Sprawl:** Tool sprawl leads to wasted money and can contribute to a Network Manager's loss of productivity
 - NetOps must correlate insights across numerous tools
 - Network management tools are often ineffective at supporting fault isolation and root-cause analysis workflows
 - Tool consolidation and integration is a best practice; NetOps teams are twice as successful when purchasing fully integrated multi-functional NPM solutions.

Quick facts

- On average, IT organizations use **4 to 10 tools** to monitor and troubleshoot the network
- **43% of Network professionals** are challenged to find the time to work on strategic business initiatives
- **38% of Network professionals** cannot proactively identify network performance issues
- **41% of Network professionals** find that troubleshooting issues across the network to be incredibly time-consuming
- **35% of Network professionals** have poor visibility into performance across all fabrics of the network

The Solution

Establish Effective Network Troubleshooting Tools and Practices

The typical network troubleshooting workflow typically has four steps:

- 1. Problem identification and fault isolation**, via correlation of tickets, alerts, and reports.
- 2. Root-cause analysis**, often a trial and error exercise. A network manager develops and tests theories about the problem until the answer is found.
- 3. Problem remediation**, fixing the root issue is relatively straightforward. It may involve a configuration change, replacement of a failed device, or a capacity upgrade.
- 4. Optimization**, Network managers must validate that a change resolved the problem. He or she must then adjust or refine the change if needed.

Essential Troubleshooting Platform Capabilities

Look for NPM platforms that can provide the following insights:

- Application performance visibility, including application response time and packet drops
- Quality of service visibility, including settings and service level tags
- Application bandwidth visibility
- Service provider SLA visibility, including MPLS SLA reports and ISP outage reports

Is Your Network Performance Management Tool Prepared?

Many network managers say their tool sets are weakest with problem identification and root-cause analysis. To keep your network optimized and high performing, make sure you have these capabilities in your NPM platforms.

- Layer 1-7 visibility
- Diverse data fluency
- Path and traffic visualization
- Insight correlation (apps, traffic, devices, sites, people)
- Compatibility with next-generation network technology (SD-WAN, cloud networks, IoT)
- Historical data retention for forensic analysis and re-investigation of complex & recurring problems.

With the right NPM platform optimized for accelerated troubleshooting, a network operations team will help a digital enterprise compete in any environment.

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 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.