

Network Industry Trends

2021



LiveAction®

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THE STATE OF NETWORK COMPUTING:

Technology Trends Driving Network Modernization



The Modern Network: A New Digital Age

Today's world is driven by digital growth – exponential growth at that. Working remotely, the proliferation of data, increasing IT complexity and decreasing budgets and resources are driving businesses to transform. There has never been a better time to optimize IT efficiency through infrastructure modernization initiatives.

IT networks that are “fast and secure” are no longer enough. Applications and data no longer need to reside on-premises. The migration to public, hybrid cloud, and SD-WAN environments adds even more complexity to the daunting task of managing and monitoring the network. Siloed, legacy monitoring tools aren't providing required visibility. Streamlining network monitoring tools can bring much needed agility to NetOps teams and enable them to deliver strategic value to the business.

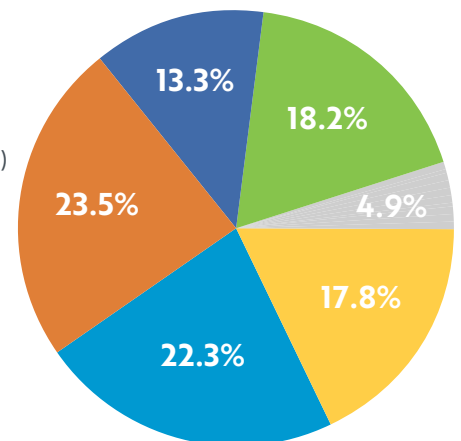
Meet the New Network

As global and emerging technology trends continue to drive the network to evolve at an accelerated pace, enterprises will accelerate their modernization, deploying new applications, expanding into public or multi-cloud architecture, and adopting new infrastructures.

In 2021, SD-WAN continued to see an increase in adoption, with no signs of slowing. To see this confirmed from those surveyed was not surprising, as SD-WAN offers enterprises enhanced network flexibility and performance functionality and services. Supporting a remote workforce was and continues to be a necessity in today's world as well.

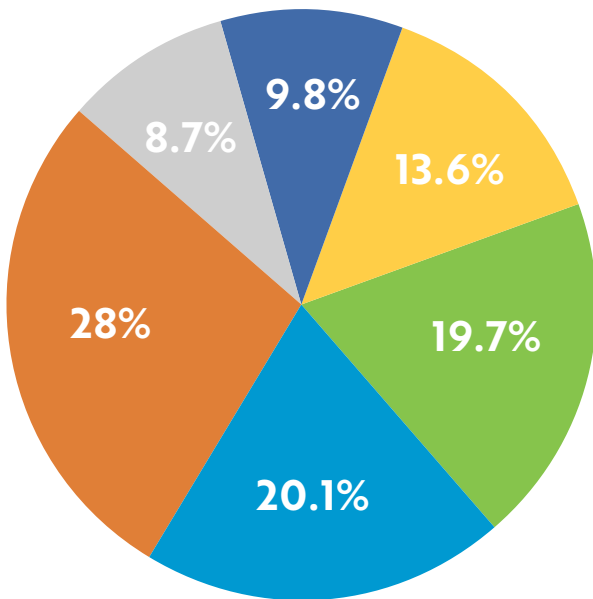
What Network Transformation Projects have Happened in the Past Year?

- SD-WAN
- Remote office/Edge Computing/IoT
- Data center modernization (software-defined data center, SDN, micro-segmentation)
- Public Cloud (IaaS) adoption/migration
- Data center modernization (software-defined data center, SDN, micro-segmentation)
- Other



The Shape of Today's and Tomorrow's Network

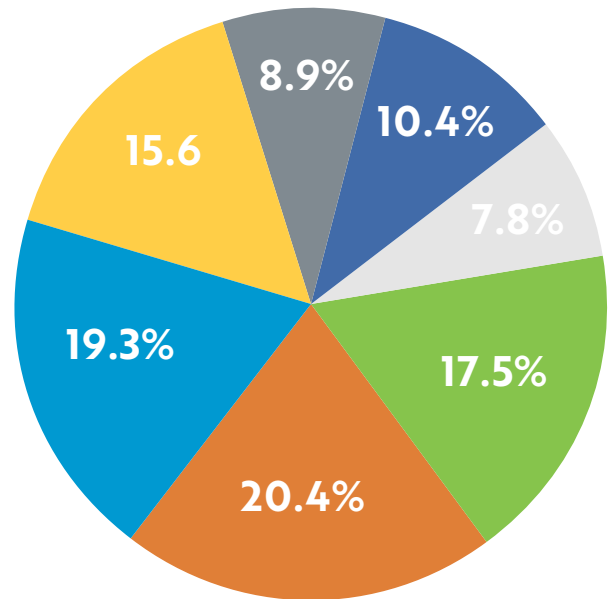
Top Percentages from Survey Responders



Network Transformation

Planning for Next Year

- Deploying or expanding an SD-WAN solution
- Deploying or expanding multi-cloud network connectivity
- Deploying or expanding public cloud infrastructure
- Security + SASE projects
- Deploying or expanding edge computing
- Expanding or deploying mission-critical applications in the cloud



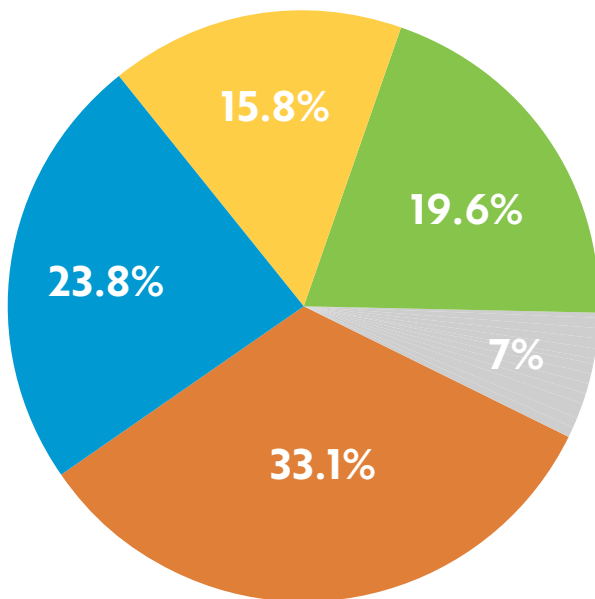
Improving the Network

Refining Network Operations

- Improve application performance across the entire network
- Improve network monitoring across entire end-to-end network
- Improve collaboration with SecOps and security architecture
- Improve network performance at remote sites and/or branches
- Improve reporting and insights from network data
- Improve performance of WiFi/wireless network
- Improve end-point network performance

The Shape of Today's and Tomorrow's Network

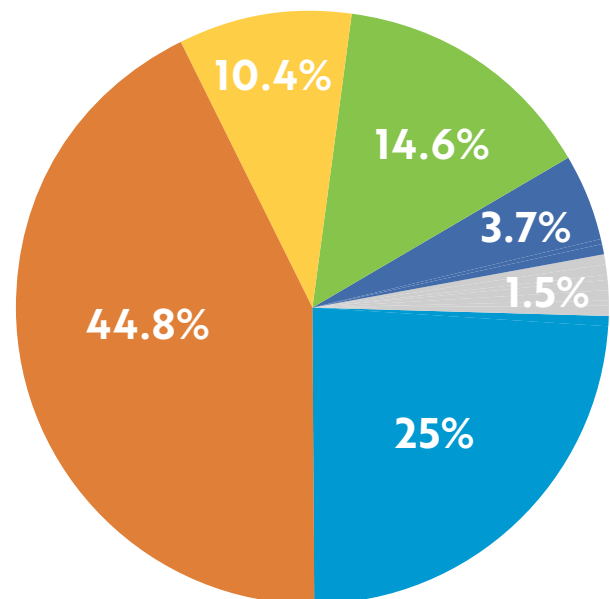
Top Percentages from Survey Responders



Trends Impacting the Network

Driving Tech Decisions

- Artificial Intelligence (AI) + Machine Learning
- Security Technology Trends (NDR, XDR, EDR)
- Internet of Things (IoT)
- SASE
- Other



Business Goals

Supporting Business Agility

- Improved Security (architecture, remote access, compliance, response, etc.)
- Network Expansion (On-prem, cloud, hybrid)
- Better Network Visibility
- Improved Availability/Uptime
- Reduced latency
- Other



PRIORITIZED NETWORK TRANSFORMATION PROJECTS:

Leaving the Past Behind

The highest priority projects for 2022 are not surprisingly aligned with a move away from antiquated technology in favor of optimized digital agility, security, and cost savings.

SD-WAN, a top project last year amongst the surveyed audience, emerges as a priority for enterprises once again. Organizations look to SD-WAN for improved network performance and reduced communication costs across remote offices and distributed branches.

Cloud-oriented projects offer increased scalability and flexibility and come with increased complexity that can leave many NetOps teams to struggle for clearer visibility into these environments.



Network Transformation

Planning for Next Year

28%

Deploying or expanding an SD-WAN solution

14%

Security + SASE projects

20%

Deploying or expanding multi-cloud network connectivity

10%

Deploying or expanding edge computing

19%

Deploying or expanding public cloud infrastructure

9%

Expanding or deploying mission-critical applications in the cloud

THE ROAD TO OPTIMIZATION AND EFFICIENCY:

The Challenges of a Complex Network

Fast, secure, and reliable connections continue to be a foundational component for a business's success. Network downtime is not only disruptive but an incredibly costly mistake that ascends by the minute.

Today's workers need steady and consistent access to collaborative applications – a priority for many of those we surveyed. There was a commonality amongst the top improvements, network performance, and collaboration.

For many years, SecOps and NetOps worked separately. However, a trend has emerged, NetOps and SecOps (or NetSecOps) collaborating for a more secure and better-performing network. Although fundamentally different, both teams are working to support the business by becoming more agile, reducing operational costs, and accelerated troubleshooting.



Improving the Network

Refining Network Operations

20%

Improve application performance across the entire network

19%

Improve network monitoring across entire end-to-end network

18%

Improve collaboration with SecOps and security architecture

16%

Improve network performance at remote sites and/or branches

10%

Improve reporting and insights from network data

9%

Improve performance of WiFi/wireless network

8%

Improve end-point network performance

SHAPING A NEW NETWORK:

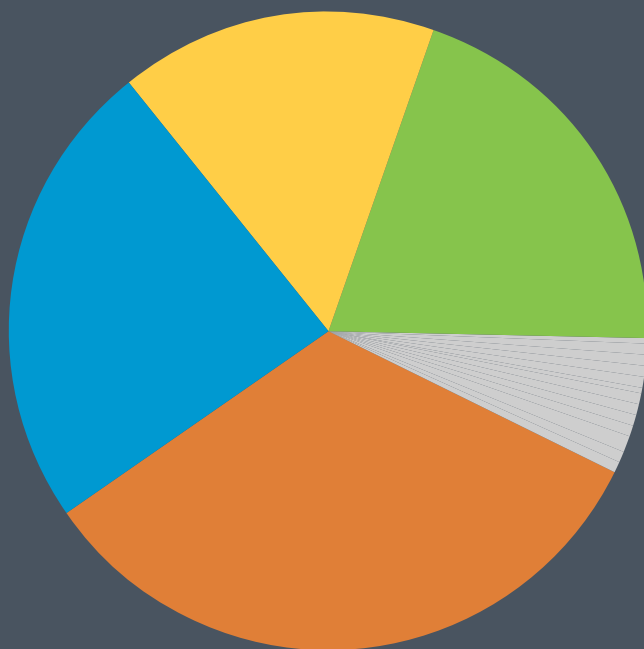
Evolving Trends Making an Impact

Several technologies consistently create a buzz in the networking world. Striving towards goals like network flexibility, agility, and security has shifted towards more innovative technology.

Artificial Intelligence (AI) and Machine Learning (ML) can address complex challenges in real-time based on its ability to intelligently detect and recognize malicious or abnormal activities on the network. AI-powered networks utilized by the healthcare industry have seen a tremendous boom in recent years, empowering medical professionals with quick decisions about patients.

NetOps teams, including those we surveyed, show an increased interest in AIOps or advanced analytical tools that can assist in baselining and monitoring complex data. AI appears to be a disruptive force that will be influencing network trends for the coming future.

In response to the pandemic, businesses quickly pivot (and shift to digital), creating a mountain of security issues in its wake. Ransomware, cyber-attacks, and scams have increased exponentially, making unavoidable evidence that companies need to reassess their security strategies and investments. Securing the network has never been more essential, and prioritizing new technologies like XDR, NDR, and EDR to combat security concerns is a high priority for the immediate future.



Trends Impacting the Network

Driving Tech Decisions

33%

Artificial Intelligence (AI) + Machine Learning

24%

Security Technology Trends (NDR, XDR, EDR)

20%

Internet of Things (IoT)

16%

SASE

7%

Other

BUSINESS OBJECTIVES:

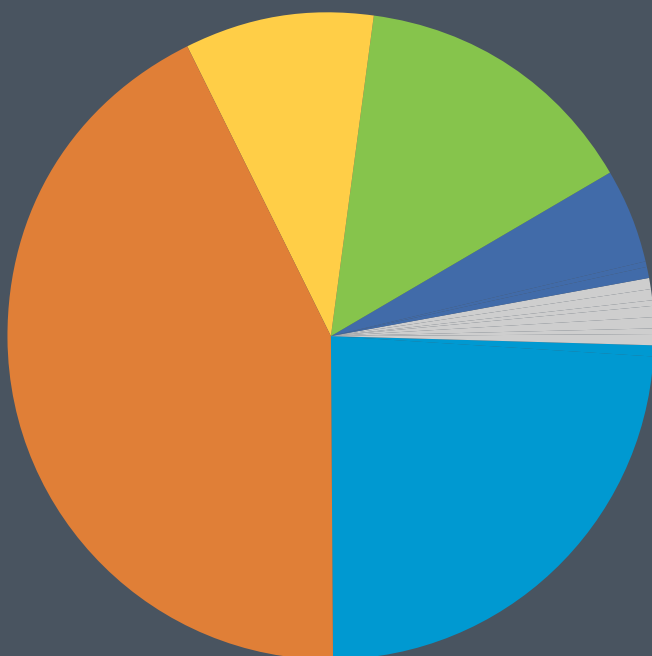
Driving Network Readiness and Transformation

Enterprises understand that their network is no longer a collection of technology assets but a core component to business success. To deliver maximum value and easily support future initiatives, organizations must ensure the network meets business objectives, have full network and application visibility for better decisions, and reduce the cost of operating the network.

Increasing visibility, creating a more secure environment, and expanding upon cloud-first strategies are all high priorities for NetOps.

The trend of organizations reassessing or restructuring their network security continues when we look at supporting the needs of the business. After all, a breach affects more than revenue; even large enterprises can struggle to regain trust and recoup losses after a cyberattack.

There's more data than ever on business networks as these networks expand from the data center to WAN edge to remote sites and cloud. Getting visibility across the entire network and troubleshooting networked applications fast is difficult. Comprehensive visibility is crucial when it comes to supporting the business and creating an agile network. Visibility is a top challenge for NetOps, so it is no surprise that it is looking to improve upon this year and the next.



Business Goals

Supporting Business Agility

45%

Improved Security (architecture, remote access, compliance, response, etc.)

25%

Network Expansion (On-prem, cloud, hybrid)

15%

Better Network Visibility

10%

Improved Availability/Uptime

4%

Reduced latency

1%

Other

Optimizing Network Performance and Enabling Digital Transformations with LiveAction



Achieve Network-wide Visibility

End-to-End Performance & Network Visibility Platform

- ▶ Complete network visibility from Core to Edge to Cloud
- ▶ Optimize application performance across the entire network



Optimize Performance

Superior Network Operations & Performance

- ▶ Improve network monitoring and application performance across the entire network
- ▶ Proactively identify network issues



Achieve Business Goals

Supporting Business Objectives

- ▶ Reduce IT Operations costs
- ▶ Do less with more, unified data from a single platform



Cutting-Edge Capabilities and Innovation

Enabling Next-Generation Networks

- ▶ SD-WAN and Cloud Deployments
- ▶ Network upgrades, site optimizations, remote work enablement



Why LiveAction

LiveAction Provides End-to-End Performance and Network Visibility

IT organizations are adopting disruptive technologies like SD-WAN and cloud, to support digital transformation. Network operations teams often lack the visibility to successfully enable these data-driven change initiatives. LiveAction allows companies to manage large and complex networks by unifying and simplifying the collection, correlation, and presentation of application and network data making it actionable for network management teams. NetOps teams gain end-to-end visibility across the entire network – campus, branch, data center, public cloud, WAN and SD-WAN from a single pane of glass. This means enterprises can reduce the cost and complexity of managing multiple point solutions, reduce meantime to resolution, and save days documenting activity by leveraging automated reporting

Gain Superior Application and Network Performance with LiveAction

For large enterprises, millisecond delays in application responsiveness can make or break a company. App-centric approaches to managing performance are incomplete. LiveAction bridges this gap using the advanced analysis of packet, flow and DPI-enhanced metrics to improve the way NetOps teams comprehend, resolve and optimize application performance issues.

Trust LiveAction to Help Achieve Your Business Goals

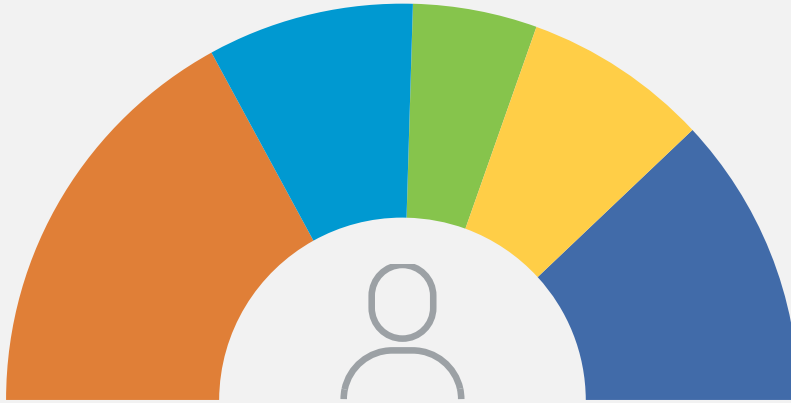
Enterprises understand that their network is no longer a collection of technology assets, but a core component to business success. When business needs inevitably shift, the network must be ready to adapt to those changes. With LiveAction, enterprises gain the confidence that the network is meeting business objectives. LiveNX delivers a single, unified view across the network which helps speed MTTR and reduce both internal and customer downtime. This enables network administrators to not only ensure SLAs are met, but to proactively plan for change in the network as business needs evolve.

Drive Digital Transformation with LiveAction

Strategic change efforts are the core of digital transformation, yet they are often delayed, derailed or more costly due to the necessary network infrastructure improvements required before operational changes can be delivered to the enterprise. LiveNX's time-based analysis of network performance state enables management teams to report on performance deviations that occur so that technology improvements are rolled successfully, on-time and on budget.

Research Background

Job Title



34%
Network Engineer

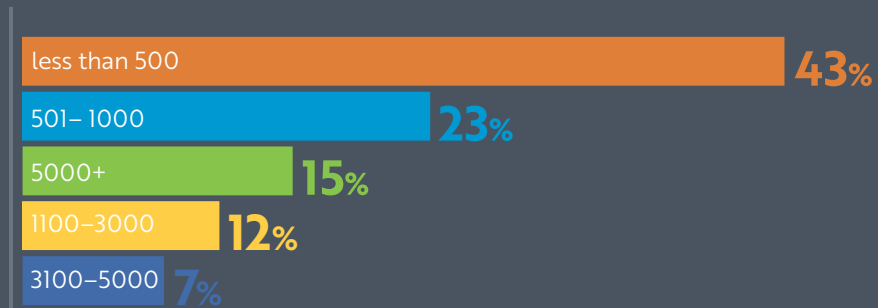
17%
IT Manager

10%
Network Architect

Size of Organization



of Network Devices Managed



LiveAction supports the entire network including campus, branch, datacenter, public cloud, WAN, and SD-WAN. We leverage the broadest array of telemetry including NetFlow, Packet, SNMP, API, and IPIFIX. While remaining vendor agnostic, LiveAction supports all key network vendors.

LiveAction has the enterprise scalability that can consume the millions of performance data points sent every second by your network. Our unmatched data fidelity and the finest level of granularity gives you end-to-end visibility at the global level but lets you drill down to a location, a single hop, or packet. LiveAction gives you all of this with both real-time access to this data as well

as historic playback, without compromise. LiveAction provides enterprises the confidence that their network is meeting business objectives, full network visibility for better decisions, and reduced cost to operate the network.

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