Network Observability: Analytics, Automation, and Artificial Intelligence

AN IDC CONTINUOUS INTELLIGENCE SERVICE

IDC's *Network Observability: Analytics, Automation, and Artificial Intelligence* service examines customer requirements, tracks technology advancements, evaluates key success factors, and forecasts market adoption of next-generation enterprise network management solutions. As networks grow in complexity and criticality, enterprises across the globe are demanding detailed real-time intelligence and actionable insights focused on improving the state of their network infrastructure, connected resources, and digital experiences. Meanwhile, the scale of network data available to enterprises is exploding as connections, flows, traffic volumes, active threats, and complex exchanges continue to climb. In response, powerful artificial intelligence (AI)-driven network observability solutions combine comprehensive data collection and in-depth analytics to direct automated management, thus driving more precise, productive, and proactive enterprise network and IT operations, engineering, and support.

Markets and Subjects Analyzed

- Data acquisition, from logs to polls to telematry to synthetic transactions
- The rise of artificial intelligence and machine learning (ML) as core capabilities of next-gen network observability solutions
- Management automation: From triggering alerts to taking actions
- The cloud operating model and SaaS-delivered management solutions: Requirements? Advantages? Directions?
- Integration of observability toolsets and data sets beyond the network: IT, security, cloud, applications, and IoT
- Key innovations: AI/ML, automation, cloud visibility, security, UI, and data management
- AI-driven network observability and NetOps/AIOps collaboration
- Solution evolution: Hardware versus software and on premises versus SaaS delivered
- Impact on IT staff productivity and teamwork (NetOps, SecOps, DevOps, ITOps, SRE, etc.)
- Evaluating the ROI of network observability and automation
- Network equipment vendors: Products, positions, and potential impact on network observability and automation
- Generative AI and its impact on network automation
- Partnerships, mergers, and acquisitions that accelerate advancements and adoption
- Shifting enterprise requirements, best practices, and spending patterns
- The role and impact of network observability on network-as-a-service (NaaS) developments and adoption
- The enterprise IT journey in network automation: Analysis to action, scripting to programming, operating to optimizing, test to governance

Core Research

- Enterprise Network Observability Forecast, 2024-2028
- Top Trends in Network Management: Heightening Intelligence, Insights, Integration, and Innovation
- The Hyperscalers and Network Observability: Providers and Partners
- Artificial Intelligence: How, Where, and When in Network Observability?
- The Rise of Network Observability as a Managed Service
- The Observability Movement in IT: The Impact on Network Monitoring and Management
- IDC Innovators: AI/ML-driven Network Observability
- Network Automation: Current Status and Future Outlook
- IDC's Future of IT Resiliency and Spending Survey, 2024: Impact and Outlook for Network Management Requirements

In addition to the insight provided in this service, IDC may conduct research on specific topics or emerging market segments via research offerings that require additional IDC funding and client investment. To learn more about the analysts and published research, please visit: *Network Observability: Analytics, Automation, and Artificial Intelligence*.

Key Questions Answered

1. What are the key trends driving network observability and automation, and how will advancements impact future solutions, buyer preferences, use cases, supplier success, and digital innovation?
2. What is the market size/forecast for network observability solutions? Which are the major suppliers? Technology innovators?
3. What is the impact of network observability and automation solutions on IT organizations and practices? Where is the ROI?
4. Where and when will AI/ML drive real impact in network management?
5. How are critical network management functions — data acquisition, intelligent analysis, and management automation — evolving to match advancing customer requirements?
6. How are network observaility and automation solutions driving greater impact across the enterprise network and as part of NaaS offerings?

Companies Analyzed

This service examines the overall strategies, solution offerings, partner ecosystems, industry positioning, and future direction of key providers in the network analytics and automation market, including:

7SIGNAL, Accedian, Allot, Amazon Web Services, APCON, AppViewX, AT&T, BMC, Broadcom Software-AppNeta, Cisco-ThousandEyes, CommScope-RUCKUS, cPacket, Datadog, Dynatrace, Ericsson, Extreme Networks, F5, Federos, Gigamon, Google Cloud Platform, Hewlett Packard Enterprise–Aruba, Huawei, IBM-SevOne, Itential, Juniper-Mist, Kyndryl, LiveAction, LogicMonitor, Micro Focus, Microsoft Azure, NetBrain, NETSCOUT, Nokia, Oracle-Federos, Palo Alto Networks, PathSolutions, Plixer, Progress, Red Hat, Riverbed, Sandvine, SolarWinds, Spectrum, Splunk, Verizon, Viavi, VMware, WiteSand, and Wyebot.