

In an era of hyper-distributed digital business, there's a need to bring simplicity to the management of IT systems. A network platform enables unified visibility, automation, and experiences across disparate domains of the network.

How a Network Platform Approach Is Becoming an Imperative for IT and Business Agility

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Questions posed by: Cisco

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Q. What is a network platform and which factors are driving organizations to consider it?

A. A network platform is an integrated system that combines hardware, software, policy, and open APIs with an intuitive user interface, advanced telemetry, and automation. Network platforms are increasingly being used by enterprises to transform operations and expand IT and business ecosystems. Organizations can take a network platform approach in individual networking domains (e.g., access, WAN, IoT, datacenter, multicloud) or with a unified platform approach across multiple domains.

Today's hybrid and hyper-distributed world inherently makes IT complex and network management difficult. Organizations must manage distributed users, devices, applications, and workloads while addressing heightened IT security vulnerabilities. IT is also being asked to respond faster to support new digital initiatives that require integration across on-premises and cloud resources and across the IT stack. In response, enterprises want simplified solutions that help them consistently achieve high-quality, secure network experiences.

Meanwhile, IT systems are quickly evolving to become more integrated, intelligent, and automated. Organizations that take advantage of a platform approach, which can simplify management and enable advanced functionality, will be better positioned to win in the digital business era.

IDC survey data reinforces these points. IDC's June 2023 *Future of Connectedness Survey* (n = 770) asked respondents to name their most pressing connectivity challenges. Top responses included network security, transforming networks to be more scalable and agile, incorporating new technologies, and network reliability and resiliency. Respondents were also asked to what extent their organization is digitally connected across their entire network footprint. On a 5-point scale

with 1 being minimal connectivity and 5 being extensive connectivity, most respondents reported being a 3 (25%) or 4 (37%) with only 27% being a 5, indicating that most organizations still need to progress in their connectivity maturity. Network platforms that provide IT with an integrated operating experience across the end-to-end points in the network help organizations become more comprehensively connected. Businesses, meanwhile, benefit from a platform that can support fast-moving technology requirements that take advantage of the vast amounts of network data and adapt to changing application requirements of the network.

Q. What are the key attributes of a network platform?

A. A crucial goal of enterprises when adopting a network platform is to simplify IT and network operations and ensure that the network is best positioned to meet the evolving needs of a digital business. To achieve these goals, a network platform should possess certain elements, including:

- » **Integrated visibility:** This is necessary for monitoring and analyzing network performance and end-user experiences. Visibility telemetry should be fed into an analytics engine that can quickly identify network performance or security problems and help with guided or automatic remediation. This advanced visibility and automation also creates rich data pools that can use open APIs to integrate with third-party IT and network management systems.
- » **Extensibility:** A network platform should be extensible and modular so that new hardware and services like identity services, policy management, location services, and assurance can be added incrementally. Likewise, the platform must be able to expand incrementally beyond one domain to multiple domains, creating a unified network platform.
- » **Support for cloud operating models:** A network platform should enable and enhance cloud operating models so that the network can leverage cloud principles for managing IT resources. When organizations utilize cloud operating models for their networks, they gain scalability, simplified management, and feature velocity. Network platforms should allow IT and network staff to take advantage of more unified management and control experiences regardless of whether their network management system is on premises, cloud hosted, or part of a hybrid management approach.
- » **Unified platform capabilities:** By adopting a networking platform that can extend across more than one domain, organizations benefit from consistent management, assurance, data collection/analytics, and improved team collaboration. Expanding to a unified platform also helps IT to better monitor, secure, and ensure the end-to-end digital experience through a single system and interface. Key components of a unified network platform include unified visibility, management, and automation across domains of the network.

Q. How can organizations benefit by utilizing a network platform?

A. A network platform can yield a variety of business, operational, and technical benefits as described in the sections that follow.

Business

- » **Increases efficiency:** The network is a key enabler of running a successful digital business at scale. Winning in the digital business era requires a company to innovate faster, increase business agility, improve operational efficiency, and grow revenue. Fundamentally, a network platform creates efficient networks that then help businesses to be more agile. IT and network operators don't want to spend their time managing the day-to-day functions required to deliver high-quality and secure network experiences. They just want the network to deliver the outcomes the business needs from it, such as the ability to take advantage of new technologies such as generative artificial intelligence (AI) for business benefits. A network platform allows organizations to focus on the higher-level outcomes the network delivers rather than on the day-to-day management of the network.
- » **Supports a network ecosystem:** Network platforms that have open API ecosystems help businesses in many ways: IT and network systems must work within an ecosystem of IT and business applications, data, and users. The integration of these elements can facilitate agile innovations and collaborations between teams, data sources, and management tools. Open and extensible APIs are crucial to this functionality.
- » **Enables more predictable IT costs:** With increased predictability, centralized management, and more efficient technology consumption, network platforms can enable financial benefits too. Network platforms become the foundation for designing and implementing systems that can be managed many ways: on premises, from the cloud, or in a hybrid approach and either directly by customers or by third-party partners, including via a network as a service (NaaS) that features a flexible consumption model.

Operational

- » **Enables IT collaboration:** A network platform helps to remove organizational silos among data, teams, and processes. A unified network platform encourages data sharing across network domains to enhance operational efficiencies. The platform becomes a synergistic system for different teams within IT to collaborate on, and they can facilitate processes that can be created once and applied across the entire network.
- » **Enhances management:** Such a platform also enables simplified and comprehensive visibility, analytics, management, and automation of networking and IT resources. IT and networking teams can be more efficient, focusing on high-level tasks that benefit the business rather than day-to-day network management.
- » **Simplifies life cycle:** Network platforms allow for simplified life-cycle management of network design, implementation, and ongoing management, including improved security, owing to centralized management of software, firmware, and security patches.

Technical

- » **Creates a rich data pool:** One of the chief benefits of a network platform is the creation of a rich data pool that uses network telemetry from across the network's domains. This comprehensive data pool can facilitate visibility, analytics, and automation, including via AI-enhanced capabilities. It also helps correlate alerts, identify root causes, and accelerate guided or automated troubleshooting. A unified network platform allows AI for IT operations (AIOps) automation tasks to be applied to multiple parts of the network. This approach enhances network and IT staff efficiency by applying AI-enhanced closed-loop automation across a wider part of the network and reduces the manual burden of managing complex, distributed networks.

- » **Supports integrations:** A network platform permits easier integrations with other IT systems and management platforms through API extensions. It can help speed and simplify the process of onboarding new devices and services, as well as provide faster access to new network management features and functions. Fast access to new capabilities across the network results in greater IT innovation and a better ability for the network to support new digital business use cases and requirements.
- » **Creates consistent architectures:** A unified network platform creates consistent architectures and design principles across domains of the network, increasing standardization and best practices and enhancing security while maintaining necessary domain-specific customizations where needed.

Q. How do network platforms use AI to enhance network efficiency?

A. Organizations across the globe are looking to take advantage of AI and machine learning (ML) capabilities to advance their businesses. From a network management perspective, one of the key ways that AI can help is by enhancing automation systems. A network platform approach can increase AI's power by creating a wider pool of data from across domains of the network for an AI system to leverage.

AIOps are being applied to network management to analyze, optimize, remediate, and predict. AIOps systems can help organizations bring greater context to network performance visibility and analytics and help find the proverbial needle in a haystack of network performance or security problems. AIOps systems can also learn normal network behavior and help reduce the time needed to identify and remediate network performance issues, including with closed-loop automation. By using historical pattern data, AIOps systems can predict network behavior and optimize the system to promote high-quality and consistent user experiences.

A network platform enhances the benefit of AIOps for network management by having access to a comprehensive data lake of network telemetry across network domains. This increases the ability of the AIOps systems to analyze, optimize, remediate, and predict in real time. It also facilitates the application of AIOps automation tasks to multiple parts of the network. This approach can strengthen the operational efficiency of network and IT staff. For example, AI-enhanced closed-loop automation can be applied across a wider part of the network. Doing so reduces the manual burden of managing complex, distributed networks and allows staff to focus on business-enabling tasks.

Q. How can an organization get started with a network platform strategy?

A. In a time when workers can be anywhere and mission-critical enterprise applications can be everywhere, there's a need to simplify the management of IT systems. CIOs and IT leaders want to provide high-quality connectivity outcomes without having to worry about underlying technology that enables those outcomes. Network platforms that simplify management, enable advanced automation, and offer reliable high-quality digital experiences are an important step to achieving outcome-driven networking.

Examine your organization's business priorities and goals and what technology investments will help to achieve them faster. Network platforms could be a strategic driver for increasing network and digital maturity and agility.

Tips for evaluating a network platform include the following:

- » **Consider** the platform's extensibility, including its ability to unify management, visibility, and assurance across networking domains over time; add new services; and integrate across other IT systems through open APIs.
- » **Ensure** that the platform can support the company's IT strategy for on-premises, cloud, and hybrid management, as well as cloud operating models.
- » **Align** IT capabilities with business needs across departments in the organization and choose a platform that can effectively break down these silos with a unified approach.

About the Analyst



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Brandon Butler is a research manager with IDC's Network Infrastructure group covering Enterprise Networks. His research focuses on market and technology trends, forecasts, and competitive analysis in enterprise campus and branch networks. His coverage includes technologies used in local and wide area networking such as Ethernet switching, routing/SD-WAN, wireless LAN, and AI-enhanced enterprise network management platforms. While contributing to ongoing forecast and market share updates, he also assists in end-user surveys, interviews, and advisory services and contributes to custom projects for IDC's Consulting and Go-To-Market Services practices.

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