

Global Network Automation Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

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Report description:

The network automation market is registering a CAGR of 22.49% during the forecast period. Public and private companies and government entities are requiring employees to work from home (WFH), putting an unforeseen strain on networking technologies and causing bandwidth and security concerns because of increased internet traffic, which is driving the Network Automation Market across the globe.

Key Highlights

Enterprise networks are under pressure, with more users, devices, and applications relying on the network for essential connectivity to a broad range of endpoints. Organizations are increasingly interested in new network architectures and advanced management tools that leverage machine learning and artificial intelligence to create self-driving or autonomous networks. These advancements are also significantly changing the way enterprises rely on services from their partners and vendors.?

One of the most significant benefits of network automation is a lower operational expense. By eliminating tedious and manual processes through automated and orchestrated infrastructures, one not only extends the network's capabilities but also achieves a faster ROI.

Automation also reduces errors and builds resiliency. In addition to automating manual tasks to minimize network errors, many solutions automatically respond to network errors without intervention, enhancing business resiliency and ensuring employees have access to the applications and data they need whenever they need it. Increased network automation levels help reduce complexity and are essential for businesses to keep up in the digital world.

One of the main factors constraining the market's growth is certain firms' concern that automated solutions can overlook security issues or impose many network restrictions. Additionally, implementing automated systems or solutions forces an organization to hire professionals or train its current network teams, ultimately raising costs for the business.

Automation plays an essential role in maintaining IT operations during the COVID-19 pandemic. According to the Verizon Network

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Report, April 22, the overall data volume across its networks increased by 19% compared to pre-COVID levels. While data usage remains elevated, the changes in how people use the network have stabilized. Verizon expects the user to continue at sustained higher levels in the future.

Network Automation Market Trends

The Virtual Network Segment is Expected to Hold a Major Market Share

Software-defined networking (SDN) and network functions virtualization (NFV) abstract the implementation of new network functions and decouple them from the hardware infrastructure and associated topological constraints, thus, making communications networks programmable and, as a result, much more flexible and agile.

SDN and NFV are together seen as key technologies enabling the transformation of communication service providers to provide a lower-cost means to address market demands. The primary end users driving this market are telecom operators who need to achieve CAPEX reduction, improve efficiency, and offer new services. NFV has been a constantly complementing SDN by virtualizing network services that run in dedicated appliances, such as deep packet inspection (DPI), firewalls, load balancers, and session border controllers (SBCs), so that these services can run on a single pool of computer hardware, yielding CAPEX and OPEX savings.

Network virtualization and automation are beneficial for environments that experience unexpected usage surges. The automated network can accommodate these surges by automatically redirecting network traffic to servers in less impacted areas of the network.

Companies are resuming to scale their virtualized environments past simple virtual server deployment. They are now deploying virtual disaster recovery and virtual support for dynamic workloads and private cloud infrastructure. In doing so, they encounter unprecedented rates of change and growing complexity in the physical and logical network. Several open-source projects are dedicated to establishing network automation standards through virtualization. For instance, the European Telecommunications Standards Institute (ETSI) Industry Specification Group (ISG) for NFV Management and Orchestration (MANO) is focused on the management and orchestration of network resources in cloud-based data centers. These standards will enable better and more efficient communication between SDN and NFV platforms.

Microsoft's Azure Virtual Network (VNet) is the fundamental building block for Azure's private network. VNet permits many types of Azure resources, such as Azure Virtual Machines (VM), to interact with each other securely, the internet, and on-premises networks. VNet is comparable to a traditional network that would work in the data center but brings additional benefits to Azure's infrastructure, such as scale, availability, and isolation.

Europe to Account for a Significant Market Share

The European region holds a significant share in network automation due to the rapid expansion of the area and the presence of market players, such as Microfocus International PLC, Nokia Communications, Ericsson, and Entuity Network Management.

Several big enterprises are opting for WAN and LAN services in Europe. For instance, in April 2021, GTT Communications Inc., a global cloud networking provider to multinational clients, announced that SGN, owner of one of the UK's largest gas distribution networks, extended and renewed its agreement with GTT Communications for cloud networking services. SGN distributes green and natural gas to approximately 5.9 million businesses and homes across southern England, Scotland, and Northern Ireland. GTT is poised to provide SGN with cloud connectivity, LAN and WAN services, and DDoS mitigation and increase the scope of professional services delivered to support its cloud transformation strategy.

In Europe, the adoption of software-defined networking (SDN) and network function virtualization (NFV) technologies is increasing

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daily. These factors rapidly change how large enterprises build their wide area networks to meet these growing network requirements. Also, deploying several technologies in organizations is increasing the complexity of the IT infrastructure in these organizations, further increasing the demand for network automation solutions.

5G technology adds layers of technical and network architecture complexities. CSPs increasingly demand intelligent management systems to deal with the fast-increasing number of physical and virtual network events that may place heavy workloads on network operation centers. Cisco collaborated with Telefonica to implement network automation to simplify the service provider's operations in Spain in preparation for the 5G era. With this newly automated network powered by Cisco's Crosswork Network Automation suite, Telefonica may be able to provide improved operational insight and network health.

In addition, Samsung Electronics and Vodafone UK announced the launch of the UK's first 5G Open RAN site, which is now handling active customer traffic. In Bath, the UK, this site is the first of Vodafone's scalable Open RAN network design in Europe, with over 2,500 more locations. The firms completed a 5G live video conversation utilizing Samsung's 5G virtualized Radio Access Network (vRAN) to commemorate the deployment of their first site, which was the UK's first call on a commercial 5G Open RAN in January 2022.

Network Automation Market Competitor Analysis

The network automation market is slowly turning into a fragmented market. It is expected to witness a robust increase shortly, strongly driven by cloud trends and growing network traffic across various end-user industries. To maintain their foothold in the network automation landscape, the competitive strategy has been quite strong from the current market leaders, mainly driven by their acquisitions of various startups and solution vendors. Key players in the market are Cisco System Inc., Juniper Networks Inc., and IBM Corporation. Recent developments in the market are -

January 2021 - Juniper Networks Inc. combined Apstra's solution network automation?based on an open, multi-vendor architecture?with its data-center networking portfolio, which centers on Juniper's JUNOS operating system. The combined platform would help public and private cloud partners optimize their operations as they work their way toward AI-driven autonomous networks.

June 2021 - IBM announced the launch of new hybrid cloud AI-powered automation software for communications service providers (CSPs) to help deliver on the promise of 5G, including zero-touch operations, reduced costs, and the rapid delivery of innovative services to customers. In many environments, CSPs can use AI-powered automation to stand up and manage networks quickly, and it is engineered to scale new services in days rather than months.

August 2021 - Fujitsu Network Communications Inc. announced that FastTrack Communications, a business communications service provider, upgraded its fiber-optic network with Fujitsu Network Communications' modular 1FINITY optical networking technology. FastTrack is building a disaggregated architecture based on the 1FINITY platform with Fujitsu's aid and the channel partner LightRiver's network capacity, agility, and scalability.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

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