Manage the power of 5G with Network Operations Master.
Manage your network for success

Telco networks are once again being transformed by technology, with 5G delivering powerful ways to innovate services and create growth. To reap the full benefits of the transformation, communications service providers (CSPs) and enterprises need new ways to manage network operations.

Conventional reactive management processes must give way to real-time operations with flexible scalability. Manual procedures need to be replaced by intelligent automation.

Nokia Network Operations Master brings you the intelligent automation capabilities to unleash the power of 5G.
Flexible automation for network operations

Rapid, continuous change is becoming the norm and network management must keep pace. Network operations need to be more adaptable and automated, moving from a monolithic management structure to customizable, microservices-based applications.

Driven by 5G, change is sweeping across networks as they become cloud-native and adopt new architectures like Open RAN. New technologies and different service levels need to be managed in real time to always provide the best service to all users.

Network slicing, a key feature of 5G, is a good example of why conventional manual network management is no longer adequate. A huge number of parameters need to be controlled for each slice and there could be hundreds or even thousands of slices to be managed.

The answer to continuous change lies in automation supported by machine learning. Only then can CSPs and enterprises with private networks cope with the increasing demand for flexible digital services, be efficient and effective, and reduce everyday human error in network operations.
Intelligent network automation with Nokia Network Operations Master
Operational intelligence powered by automation and machine learning

Nokia Network Operations Master is an innovative cloud-native network management system that simplifies and automates operational workflows while enabling network managers to stay in full control. It can monitor and configure networks including 4G, 5G, small cells and VoLTE core technologies. Suitable for public and private networks, the solution also supports open networks with equipment from multiple vendors and running multiple radio and core technologies.

By automating large numbers of routine network optimization tasks, Network Operations Master helps ensure near zero downtime upgrades, maximum network performance and fewer errors. Open Application Programming Interfaces (APIs) enable easy integration with third party systems for further development and customization.

Network Operations Master’s intelligent automation is an essential step on the path to full automation of network operations in which CSPs and enterprises only need to set basic performance boundaries.

A main concern for many CSPs implementing an automation solution is building staff confidence in its result. Network Operations Master makes it easy to take the first step and then progress to fully automated operations at the right pace.
The intuitive, intelligent management system for all networks

Network Operations Master automates everyday, manual operations.

- **All-in-one cloud-native network management system** supports the evolving needs of radio and core networks, as well as private networks. CSPs enjoy simplified network operations that deliver uncompromised service quality, while enterprises benefit from its scalability to match their needs cost effectively.

- **Unified user experience** that is intuitive and can be customized via open APIs to fit the way users work and the automation needs of the organization.

- **Intelligent operations** uses machine learning based on historical and real-time alarm data to detect and even predict abnormal network behavior, then recommend actions, becoming more accurate as it processes more alarms. Engineers can accept or modify recommended responses and eventually allow the system to fully automate.
Network Operations Master is a powerful tool that allows CSPs and enterprises to perform automated operational tasks with ease and confidence. A common aspect of managing increasingly complex networks is the sheer number of alarms that are constantly generated.

Vodafone Germany was experiencing an average of 10,000 network alarms each day and bursts of up to 300,000, threatening to overwhelm its operational teams. Engineers had no easy way to identify root causes or determine which alarms needed immediate attention and which could be ignored.

By deploying the machine learning capabilities of Nokia Network Operations Master, the CSP was able to automatically dismiss short-lived alarms and correlate repetitive alarms into single incidents. This achieved a remarkable 70% fewer alarms needing attention, freeing engineers to focus on resolving entire incidents at source instead of addressing multiple alarms individually.

“Our management has issued the target ‘No one will be looking for alarms anymore.’ What we’ve seen so far from our collaboration with Nokia is impressive and promising. We strongly believe this is where the future lies, and this methodology will revolutionize fault management.”

Jörg Volkmer, OSS Project Manager Vodafone Germany
About Nokia

At Nokia, we create technology that helps the world act together.

As a trusted partner for critical networks, we are committed to innovation and technology leadership across mobile, fixed and cloud networks. We create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Adhering to the highest standards of integrity and security, we help build the capabilities needed for a more productive, sustainable and inclusive world.

Nokia is a registered trademark of Nokia Corporation. Other product and company names mentioned herein may be trademarks or trade names of their respective owners.

© 2021 Nokia