Tame the complexity of 5G with Network Operations Master
Program your network for success

Networks based on 5G offer great power, but that power comes at a price. In order to draw full benefits from the possibilities that 5G offers, manual operation and conventional automation will not be enough.

The answer is a programmable network, based on an intelligent software solution that transforms the way operators manage their networks, achieving maximum effectiveness and efficiency. That solution is Nokia Network Operations Master, the key to managing the power of 5G.
The growing complexity of 5G networks

As networks have grown in complexity, they have become ever more challenging to manage. With the advent of 5G, the challenges can only increase. New technologies, different service levels and a host of real and virtual network elements make it a huge task to provide the best service to all users at all times.

The picture is further complicated by network slices, a key feature of 5G. Each slice user will want their part of the network to offer the best service and meet their SLA parameters at all times.

Automation goes some way to solving these challenges. By automating large numbers of routine optimization tasks, we can speed them up and reduce errors. However, for automation to work properly, we need to define a ‘perfect’ set of tasks, which is not always possible.

A better approach is to build a programmable network, where we define a goal and let software figure out how to achieve it. Such a network allows operators to cope with the increasing demand for flexible digital services, be efficient and effective, and reduce everyday human errors in network operations.
Intelligent network management
Let your network find the answer

Programmability is at the heart of Nokia’s revolutionary new network management product – Network Operations Master. This is a cloud-native network management software that allows communication service providers to simplify and automate operational workflows.

Initially, human operators chose the boundaries that Network Operations Master works to. Network Operations Master uses these rules to decide how to respond to a wide variety of network events and which parameters to change.

For example, for a software upgrade for a set of base stations, these rules could include when to start, the base stations to work on and which to avoid to minimize disruption.

The only time people need to get involved is if very complex or unknown issues crop up. This cuts the workload, as operation centers only need to look at the most critical network events.

Let your network find the answer
Faster, easier, more accurate

Network Operations Master

Automation and programmability

• Eliminate human errors
• Improve operational efficiency
• Closed-loop automation
• Multi-vendor capability
• Monitors and configures 4G, 5G, small cells and VoLTE core technologies
• Provides a library of programmable interfaces

DevOps

• Automated feature delivery
• Fast integration and service creation
• Test automation

Cloud native architecture

• Built-in resiliency
• Independently scalable micro-services
• Open source components
• Zero downtime in service upgrades
• 30x faster upgrade compared to traditional architecture
Common software brings it all together

Network Operations Master is cloud native, based on microservices that can be upgraded and scaled up independently. This ensures upgrades cause no downtime and gives the whole product great resilience.

Network Operations Master also uses DevOps techniques, allowing it to be developed continuously to meet the changing needs of users.

Network Operations Master was built on Nokia’s Common Software Foundation. This allows the software’s main functionalities like cloud-native architecture and DevOps to be delivered and provides a common look and feel for all Nokia software products.
You are in control

The introduction of 5G demands that communication service providers find a way to perform efficient network operations for an extensive network and manage hundreds of new services.

With Nokia Network Operations Master, operators can program their network to manage itself based on rules they set. The software also gives a full overview of the evolution of their processes, as well as the ability to perform lifecycle operations on them.

Nokia Network Operations Master was developed in collaboration with a well-known global communications and technology company. Using real-world facts and functions, the result is a powerful tool that allows network operators to perform lifecycle operations with ease and confidence.

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