# Unlock the power of 5G

## 5 benefits of running Nokia network functions on Red Hat OpenShift

Telecommunications service providers (telcos) have traditionally relied on a disparate mix of platforms from different vendors. However, many large telcos now favor platforms that can support numerous application vendors with an agnostic, security-focused approach to help increase efficiency and agility. Red Hat and Nokia have teamed up to provide a blueprint based on Red Hat® OpenShift® that meets these market requirements.

This strategic partnership combines Nokia Core network functions and business applications with Red Hat OpenShift, a leading enterprise Kubernetes platform,[1] to provide important benefits for telcos—including future-ready cloud-native telecommunications solutions.

Here are 5 benefits of this joint solution that can help telcos reduce time to market, increase return on investment (ROI), and facilitate innovation in their 5G core networks.

## 1 An integrated platform for streamlined deployments

Together, Red Hat and Nokia provide a robust and resilient 5G solution with an integrated platform that can help telcos build, scale, safeguard, and manage cloud-native applications. With extensive testing, blueprints, and reference architectures, this platform is an ideal foundation for developing, testing, and deploying Nokia Core network functions and business applications in 5G network environments.

Nokia Core network functions are vertically and horizontally integrated, providing:

- End-to-end validation including performance tests, lifecycle management, and compatibility checks.
- Common platform services, management, and tooling.
- Pretested design and configurations enable accelerated deliveries and time to market.
- Access to a variety of sourcing options that match customers' operational models.
- Coordination between Red Hat OpenShift releases and Nokia reference hardware creates an integrated joint solution with an extra layer of quality assurance.

## 2 Blueprints and built-in DevSecOps for a greater focus on security

Red Hat OpenShift fosters consistency, compliance, productivity, and a focus on security across a telco's 5G network.

Telcos can enhance 5G deployments with architecture blueprints co-developed by Nokia and Red Hat that define configuration, deployment, security hardening, and network settings.

Red Hat OpenShift works in tandem with Nokia on joint blueprints that provide a highly available and security-focused 5G core network with a DevSecOps framework built in, delivering:

- Greater visibility with role-based access control (RBAC) and centralized logging and monitoring.
- Secrets management for storage of sensitive information.
- Data encryption (at rest and in transit).

1 Forrester. "The Forrester Wave: Multicloud Container Platforms," 3 Oct. 2023.

## 3 Cloud-native for efficient innovation

The cloud-native scalability and flexibility of Red Hat OpenShift, coupled with Nokia's cloud-native Core network functions and business applications, allows for advanced orchestration and essential functionalities that help telcos deliver new services at the speed of customer demand with:

- Greater flexibility.
- Tested, integrated, proven cloud solutions.
- Robustness and reliability of designs and architecture.
- Evolving capabilities.

## 4 Streamlined operations for increased ROI

By reducing the complexity of day-to-day operations and automating difficult or time-consuming tasks, Red Hat OpenShift reduces the need for manual intervention, resulting in increased operational efficiency, improved application reliability, and more time for operations teams to focus on strategic initiatives.

Red Hat OpenShift allows telcos to build a holistic, fully automated 5G network using common tools and methodologies, and taking advantage of standardized operational frameworks such as GitOps.

The joint blueprints are pretested and validated designs that use the tooling provided and allow for automation on top of Red Hat OpenShift.

## 5 Future-ready hybrid cloud design for increased flexibility

Deploying Nokia Core network functions and business applications on Red Hat OpenShift will provide flexibility and abstraction across multiple different cloud providers. This eliminates the need to manage the nuances of each individual cloud platform, thereby accelerating deployments and reducing complexity.

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**Learn more**

Discover Red Hat's commitment to helping telcos transform existing, traditional networks into agile platforms for innovation.

**Get started**

Explore the Nokia Cloud Platform, running on Red Hat® OpenShift®, and take the first step in unlocking the power of 5G with joint solutions from Red Hat and Nokia.

**About Red Hat**

Red Hat helps customers standardize across environments, develop cloud-native applications, and integrate, automate, secure, and manage complex environments with award-winning support, training, and consulting services.


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