

Everpure with Nokia on Red Hat OpenShift

Delivering a telco-grade, all-flash data layer for Nokia cloud-native network functions on Red Hat OpenShift

As telcos make the move to fully cloud-native networks, three industry leaders—Nokia, Red Hat, and Everpure™—have delivered an easy-to-deploy solution for high-performance, scalable cloud-native deployments from core to edge.

A new solution for cloud-native network functions

Nokia selected Red Hat® OpenShift® as the primary reference platform for its mobile core and infrastructure applications telco cloud, providing a hardened, lifecycle-managed platform for cloud-native network functions (CNFs) across core and edge. The latest evolution of Nokia's cloud platform—Nokia on Red Hat OpenShift (formerly Nokia Cloud Platform)—unifies CNF deployment, lifecycle management, and security across distributed sites.

To meet the larger deployment model's data demands, Everpure FlashArray™ provides a high-performance, telco-grade, efficient, and resilient data layer, while Portworx® by Everpure delivers Kubernetes-native data services that support stateful, large-scale CNFs. This joint solution gives service providers a standardized storage and data services reference architecture that they can roll out repeatedly across many CNFs and locations, reducing operational complexity while improving service level agreements (SLAs) and readiness for AI-driven automation.

The joint solution delivers:

A standardized data layer: Unify storage and data services for Nokia CNFs across core and edge, replacing fragmented, per-application silos with one repeatable reference architecture.

Telco-grade resilience: Combine Red Hat OpenShift, Nokia CNFs, FlashArray business continuity services, and Portworx replication for carrier-grade availability, protection, and recovery.

Open and disaggregated design: Preserve CNF vendor choice while standardizing the underlying platform. Nokia, Red Hat, and Everpure align on an open, multivendor architecture.

Nokia on Red Hat OpenShift

Nokia on Red Hat OpenShift provides a cloud-native, telco-grade platform for CNFs, with lifecycle management and security engineered for large-scale, distributed deployments. Built on Red Hat OpenShift, the platform delivers a consistent operational experience from core data centers to edge locations, with automated deployment, upgrades, and integrated observability. Additional benefits include:

A cloud-native foundation for CNFs: Nokia's portfolio of CNFs is validated on Red Hat OpenShift and supported with comprehensive lifecycle management, helping operators accelerate the shift from virtual network functions (VNFs) to CNFs without compromising reliability or performance.



Unified solution

Implement a tested and proven stack for running telco CNFs from three major industry vendors.



Scale and performance

Achieve the speed and scale you need for even the largest telco networks.



Core to edge

Easily deploy services where and when you need them.

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Hardened, carrier-grade architecture: Nokia and Red Hat provide a reference architecture stack with security, observability, and lifecycle automation designed specifically for telecom workloads across distributed footprints.

Consistent operations from core to edge: The same Red Hat OpenShift–based reference architecture applies across central data centers, regional hubs, and far-edge sites, providing predictable behavior from lab to live and simplifying multisite operations.

Unified support model: Operators gain a unified approach to support for Nokia CNFs on Red Hat OpenShift, with Everpure integrated into the broader telco ecosystem as the data layer partner.

All-flash data layer for cloud-native telco workloads

FlashArray is engineered to meet the needs of modern telco data centers, combining ease of management, reliability, flexibility, and predictable all-flash performance. It is purpose-built to take full advantage of flash for dense, power-efficient storage that can sustain demanding CNFs and data-intensive services, from 5G core to analytics and AI workloads.

The hardware, combined with the Purity operating system, provides consistent microsecond latency and high throughput to run multiple CNFs and supporting applications without “noisy neighbor” effects. FlashArray is available in a range of configurations, with top-tier systems delivering latency as low as 150µs and throughput up to 45GB/s to support high-bandwidth telco workloads.

Key FlashArray benefits for Nokia on Red Hat OpenShift include:

Data reduction and efficiency: Always-on global deduplication and compression help contain the storage footprint while reducing power and space. Compared to legacy disk and many all-flash alternatives, Everpure can deliver up to 85% less energy consumption and five times greater storage density, improving economics across core and edge sites.

Built-in business continuity: FlashArray offers ActiveCluster™ for synchronous metro-distance replication with zero recovery point objective (RPO) and ActiveDR™ for near-synchronous disaster recovery, helping operators meet stringent availability and compliance targets for critical CNFs.

Ransomware-resilient protection: Immutable SafeMode™ Snapshots help protect against ransomware and accidental deletion with indelible, tamper-resistant recovery points and multiparty authorization for changes to retention policies.

Ease of deployment and lifecycle management: Administrators do not need specialized storage skills to deploy and operate FlashArray. Nondisruptive upgrades, a subscription-based Evergreen® model, and automation via application programming interface (API) and container storage interface (CSI) integration simplify operations across distributed telco environments.

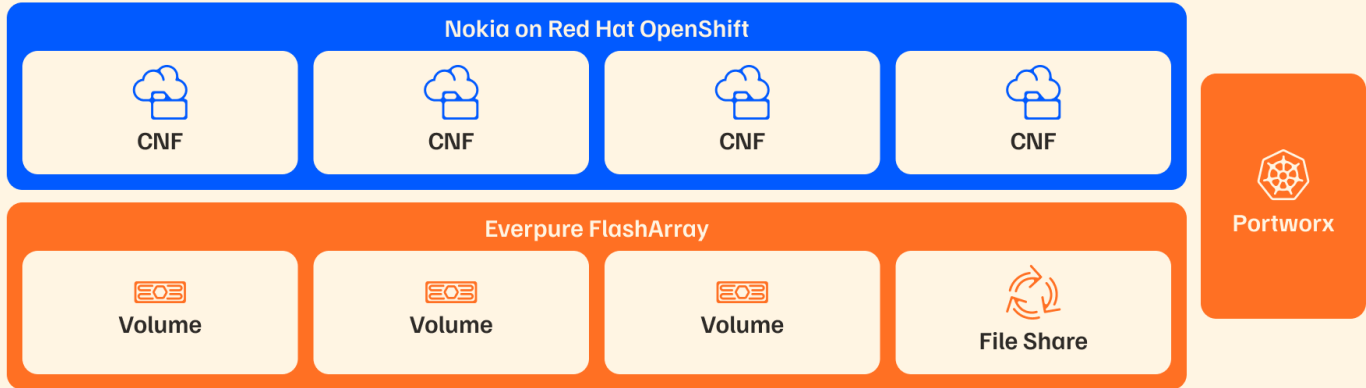
Kubernetes-native data services with Portworx: Portworx provides an enterprise-grade, Kubernetes data platform for stateful CNFs, including replication, encryption, backup and disaster recovery, Autopilot-based capacity automation, and Red Hat OpenShift console integration. With Portworx Cloud Drives on FlashArray, operators can standardize on an automated approach to capacity expansion and vertical scaling of storage pools.

A high-level view of the integrated solution

The solution from Nokia, Red Hat, and Everpure is engineered to minimize integration overhead while delivering a repeatable, telco-grade reference architecture across sites. Nokia CNFs run on Red Hat OpenShift worker nodes, with FlashArray providing persistent volumes via CSI (using iSCSI, Fibre Channel, or NVMe-oF/TCP) and Portworx delivering Kubernetes-native data services on top of the storage.

Once deployed, platform and storage administrators can use Red Hat OpenShift operators, the Portworx console plug-in, and Pure1® to manage the full stack—from CNFs and clusters to storage policies and data protection—through familiar, automated workflows. This integrated approach supports one streamlined platform across core data centers with metro-pair architectures and smaller edge sites running hyperconverged Red Hat OpenShift and Portworx clusters.

Simplified solution diagram



A representative architecture includes:

- **Nokia CNFs on Red Hat OpenShift:** A control plane and worker nodes run Nokia’s CNFs and related operational applications.
- **FlashArray as the data layer:** High-performance, all-flash storage delivers CSI-provisioned volumes to Red Hat OpenShift clusters over iSCSI, Fibre Channel, or NVMe-oF/TCP, with ActiveCluster and ActiveDR providing metro and disaster recovery protection.
- **Portworx for stateful CNFs:** Portworx forms a storage cluster across Red Hat OpenShift worker nodes, providing replication, high availability, encryption, backup/restore, and Autopilot-based capacity management for stateful services.

There are both core and edge deployment models.

- **Core data centers:** FlashArray systems deployed in metro pairs with ActiveCluster for zero-RPO resilience, Portworx replication for pod-level high availability, and high-bandwidth networks for replication and data services
- **Edge locations:** smaller Red Hat OpenShift footprints using a hyperconverged Portworx model, with placement policies and replication factors tuned to local resiliency requirements

This integrated solution helps operators:

- Strengthen SLAs and reduce incident minutes with metro-class resilience, app-aware protection, and nondisruptive upgrades across the Nokia/Red Hat/Everpure stack.
- Lower run costs at scale through flash efficiency, automation, and standardized operations, reducing integration work and support tickets across hundreds or thousands of sites.
- Maintain vendor choice and roadmap flexibility by standardizing the underlying platform and data layer while keeping CNF selection open and disaggregated.

Contact your Everpure, Nokia, or Red Hat account team to learn how Nokia on Red Hat OpenShift with Everpure can help you modernize telco workloads with an open, all-flash, telco-grade data platform.

Additional resources

- Learn more about [Nokia on Red Hat OpenShift](#).
- Read more about Everpure [FlashArray](#).
- Explore [Portworx](#) by Everpure for Kubernetes and Red Hat OpenShift data services.
- Read more about Everpure [telecom solutions](#).

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