

CNF CERTIFICATION FOR TELCOS WITH RED HAT



Benefits

- Reduces deployment time and complexity
- Addresses customer issues surrounding automation and troubleshooting
- Uses automated test cases in-line with industry standards
- Provides the highest standard of certification for mission-critical network functions

CNF CERTIFICATION FOR TELCOS WITH INTEL AND RED HAT

VNFs represented an important step in the journey to greater agility for Telcos and their partners. But as telecommunications services become ever more demanding on network infrastructure, vendors need to address some of the fundamental limitations of VNFs and move to a more manageable, scalable, automated means of meeting customers' needs.

Cloud-native Network Functions (CNFs, also known as Containerized Network Functions) deployed on Linux container infrastructure enable service providers to embrace the benefits of a cloud-native approach which increases resource efficiency, reduces downtime, scales to meet demand, and accelerates application delivery.

When our future includes 5G and edge computing, having confidence in network deployment and operations will be critical. Container technology and microservices architecture represent an opportunity for vendors to deploy truly cloud-native applications that are resilient, observable and feature robust automation support.

But this expanded technology approach also represents a challenge.

As containers have surged in popularity, the unregulated proliferation of containers within the enterprise means innovation can face operational obstacles. And simple migration of legacy codebases to a cloud-native environment doesn't guarantee the high standards of security and supportability that Telcos and their partners require of each other. It is crucial that the CNF certification is rigorous, comprehensive, and based on a standard that Telcos and their ISVs can trust.

A new standard in certification

To address the need for a certification standard vendors can trust, Red Hat and Intel have created a cloud-based onboarding service in a lab testbed supporting both CNF and VNF environments.

The lab has been designed to help mitigate the risks of testing and deploying CNFs through a broad scope of rigorous, comprehensive testing, including real-world scenarios specific to the demands exhibited by a service provider and expected from a CNF vendor, so telecommunications service providers are assured that they can run CNFs from partners on Red Hat OpenShift with confidence.

The lab can also transition existing operational procedures from VNFs to more agile cloud-native methodologies and models across the open hybrid cloud. As a result, both Telcos and their partners know that the CNFs or other network functions have been tested and aligned with the platforms you trust.

Red Hat Partner Connect Technology certification means that the applications you rely on are supportable and secure, reduce deployment time and complexity, minimise risks of incompatibility, ensure application performance is as expected, and address customer issues surrounding automation and troubleshooting much earlier in the integration process.



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"OpenShift is the most widely deployed multicloud container platform and boasts powerful development and unified operations experiences across many public and on-premises platforms. Red Hat pioneered the 'operator' model for infrastructure and application management and provides a rich partner ecosystem and popular marketplace. Red Hat and IBM aim to make 'build once, deploy anywhere' a reality; both companies' deep commitment to Kubernetes-powered modernization has paid off, moving OpenShift further ahead of the market since Forrester's last evaluation."

Forrester Evaluation

Three routes to CNF Confidence

By engaging with Red Hat, CNF vendors with critical workloads that are virtualized today can prepare their applications for a cloud-native future. This can help customers more quickly achieve the full capabilities of 5G and edge computing. As a valued partner, we want to best support your Red Hat network function certification strategy. We know these can be substantial projects, but we have taken steps to simplify your journey from virtualized to containerized network functions to best meet our customer's needs.

Red Hat offers CNF partners three options to integrate with Red Hat OpenShift, building upon the trusted foundation of containers and Kubernetes Operators to deliver telco customers value.

Vendor validated

The vendor validated level offers interoperability verification of a CNF with Red Hat OpenShift by the application vendor, in collaboration with Red Hat. Further, the vendor commits to offer commercial support for the CNF on Red Hat OpenShift, backed by a collaborative support framework with Red Hat. The partner implements and operates a CI/CD environment and tests its CNF with Red Hat OpenShift, as changes in either product are developed and released.

- **Continuously tested**
- **Collaborative support**
- **Engineered with Red Hat**

Red Hat OpenShift Operator Certification

Red Hat OpenShift Operator Certification delivers deeper integration with Red Hat OpenShift and is engineered with Red Hat, leveraging Red Hat Enterprise Linux (RHEL) as a trusted container foundation. Customers can take advantage of all the benefits of RHEL and the Operator Framework to provide ongoing interoperability, security maintenance and life cycle alignment, as well as automated management of the CNF life cycle. Plus, Certified partner operators can be featured in the Red Hat OpenShift OperatorHub and Red Hat Ecosystem catalog where customers can discover certified operators for Red Hat OpenShift.

- **Continuously tested**
- **Collaborative support**
- **Engineered with Red Hat**
- **RHEL distribution rights**
- **Integration in OpenShift**



Red Hat OpenShift CNF certification

Red Hat OpenShift CNF certification sets the highest standard for mission-critical network functions on Red Hat OpenShift. Building on Red Hat Operator Certification, CNF certification extends the collaboration between Red Hat and its partners to apply best practices specific to telco deployments. The partner performs and passes a set of CNF-specific tests in its CI/CD environment or the integration lab offered by Red Hat and Intel, as changes in either product are developed and released.

Red Hat OpenShift CNF Certification		
Continuously tested	Collaborative support	Engineered with Red Hat
RHEL distribution rights	Integrated in OpenShift	Verified CNF integration
Lifecycle management	Vulnerability protection	Red Hat Lab for testing

Certified CNFs will get all the promotional benefits of certified operators, including the eligibility to be listed in the Red Hat Marketplace. In addition, they get assigned a certified CNF badge in the catalog and a corresponding CNF certification logo to use for their own product content.

- **CNF functionality** CNF verified and fully supported by the partner on OpenShift 4.x
- **Engineered with Red Hat** Container operating system base image (RHEL/UBI) is maintained and supported by Red Hat
- **Integrated Lifecycle Management** CNF is deployed and maintained by a Red Hat Certified Operator
- **Ongoing vulnerability protection** Continuous scanning to identify and fix CVEs in Red Hat's components of the CNF
- **Collaborative support** Partner and Red Hat establish direct workflow between support teams
- **Engineering relationship** Through Red Hat Partner Connect
- **Continuously tested** Ongoing testing on supported OpenShift versions



Red Hat

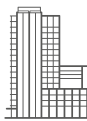


Learn more

- [Mark Longwell, Director of Alliances, Hybrid Platform Business Unit, Red Hat talks about Cloud/Containerized Network function and Virtualized Network Functions for telcos and communications service providers.](#)
- [Red Hat's Mark Longwell talks with Thomas Sennhauser of Intel about the new joint Intel-Red Hat lab in New Mexico.](#)
- [Learn about the close collaboration between Intel and Red Hat and the new laboratory in New Mexico that allows customers to test and certify their workloads and solutions.](#)
- [Watch how Red Hat and Intel are collaborating to enable organisations to connect to the world in new, flexible and secure ways.](#)

About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.



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