

# HPE and Nokia Telco Cloud solution

A joint solution to help communications service providers through the full NFV transformation

## Why have Nokia and HPE joined forces?

Nokia and Hewlett Packard Enterprise have prepared joint solutions and services to help customers through the full network functions virtualization (NFV) transformation. The partnership is a unique combination of years of established industry success, which leverages the advantages of two world-class vendors: Nokia who has deployed proven mobile networks worldwide and Hewlett Packard Enterprise, who brings a long track record of large-scale IT and cloud deployments.

The combination of our partnership brings communications service providers (CSPs) the expertise and product strength to transform their networks to the Telco Cloud.

## What is the HPE-Nokia approach to Telco Cloud?

CSPs can move to the Telco Cloud with confidence by leveraging the joint HPE-Nokia solution, which combines proven infrastructure and telco-hardened NFV.

This joint Telco Cloud solution from Nokia and Hewlett Packard Enterprise is based on the European Telecommunications Standards Institute (ETSI) NFV foundation architecture, which has been adopted by CSPs worldwide as the path forward to NFV. The ETSI reference architecture provides a layered approach to build open solutions with functions provided by multiple vendors.

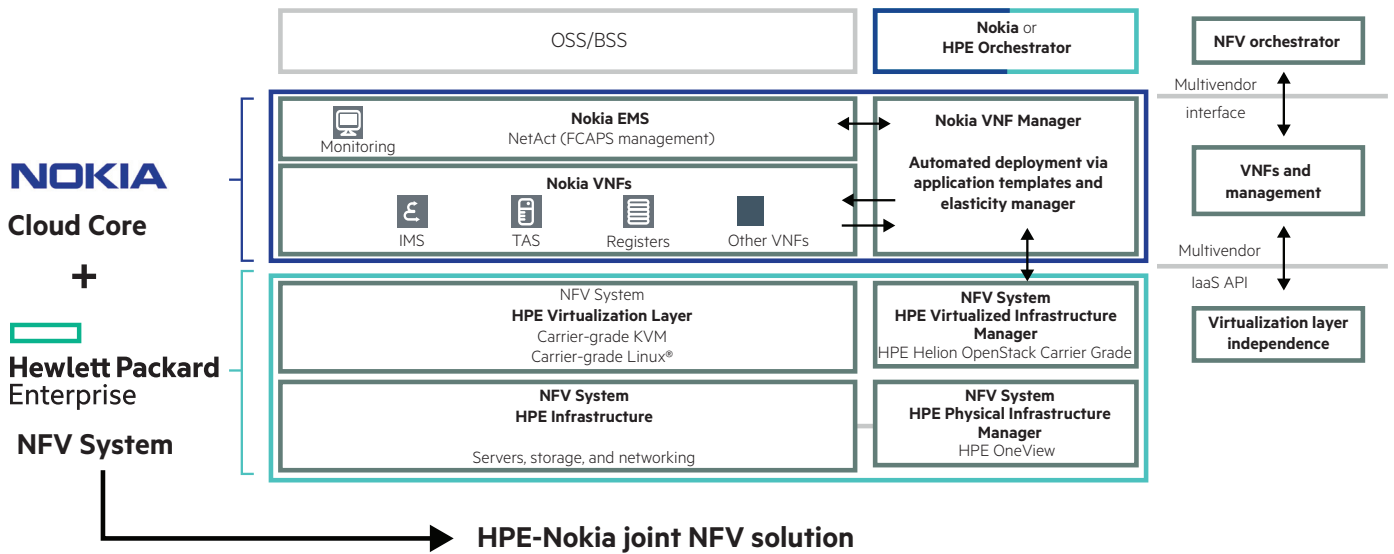
The HPE approach to NFV is built around adherence to openness and standards, which enables Nokia to introduce innovations utilizing the HPE OpenNFV platform. This allows CSPs to accelerate NFV deployments, providing them with a simplified end-to-end experience from ordering, to deployment, operations, lifecycle management, and support services.

Figure 1 shows the ETSI architecture and how HPE-Nokia jointly provide NFV solutions within this framework.

The solution comprises Nokia Cloud Core virtualized network functions (VNFs), element management system (EMS), and HPE VNF Manager on an HPE NFV System virtualized infrastructure solution with HPE Helion OpenStack® Carrier Grade, and may utilize a choice of NFV orchestration engines. The platform is offered in “right-sized” bundles of completely tested and pre-integrated hardware and software that allow CSPs to start their NFV production deployments as small as needed and scale up as demand grows. HPE NFV System provides the network functions virtualization infrastructure (NFVI) layer that is integrated with complete infrastructure virtualization. Management software for virtual and physical infrastructure is pre-installed at the factory, making the solution easy to manage.

Nokia's Cloud Core solution provides VNFs for VoLTE including IP Multimedia Subsystem (IMS) and telecom application server (TAS) and subscriber data management. The VNF management is provided by Nokia's CloudBand Application Manager, allowing CSPs to deploy and scale Telco Clouds more rapidly with the help of automation.

**Solution brief**



**Figure 1.** HPE-Nokia solutions within the ETSI architecture

The HPE-Nokia solution offers the opportunity to deploy best in industry solutions from two of the industry’s most established vendors while maintaining openness via the HPE OpenNFV Partner Program and the Nokia Telco Cloud Certification Program, giving customers choices of approved vendors that fully utilize the carrier-grade performance of the full HPE-Nokia solution.

**Beyond products, we offer end-to-end services**

The turnkey NFV solution is complemented by an integrated services offering from Nokia and Hewlett Packard Enterprise covering the full lifecycle from planning, design, build, (including operational support system [OSS] integration and training), maintenance support, through to a fully managed solution under one customer contract.

Nokia’s and HPE’s combined services support the CSP’s transition to cloud and include business and process consulting, strategic planning workshops, management of change, and build-operate-transfer.

**About the HPE OpenNFV Partner Program**

The HPE OpenNFV Partner Program follows the vision of a strong, open ecosystem of partners providing a rich set of validated choices helping the telecommunications industry confidently deploy new services with more agility, flexibility, and cost-effectiveness. HPE OpenNFV Partners utilize the HPE OpenNFV Labs to help operationalize end-to-end solutions and validate them in a multivendor environment, which helps ensure reliable operation in CSP production environments.

Since the **unveiling** of the **HPE OpenNFV Partner Program** in October 2014, the HPE OpenNFV Partner Program has grown to over 75 partners. The continued growth of the HPE OpenNFV Partner Program demonstrates HPE’s commitment to offering state-of-the-art, customized NFV experiences for CSPs. By offering the HPE NFV platform to its customers Nokia also provides them access to this ever-expanding repository of verified HPE OpenNFV applications and gives CSPs the ability to avoid vendor lock-in and to explore the best solutions that suit their individual NFV deployment journey.

Learn more at [hpe.com/dsp/infrastructure](http://hpe.com/dsp/infrastructure)



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