



Accelerating Business with OpenStack and OPNFV

What is NFV?

Network Functions Virtualization (NFV) is an evolving transformation of global network architecture. Moving away from single-function hardware, NFV helps telecoms and enterprises move toward an elastic, cloud and software-based network that offers streamlined service provisioning, lowered CapEx and OpEx, and significant agility. NFV enables you to meet skyrocketing network demands while accelerating new service offerings.

OPNFV and OpenStack

OPNFV: Accelerating NFV

Open Platform for NFV™ (OPNFV™) facilitates the development and evolution of NFV components across various open source ecosystems. Through system level integration, deployment and testing, OPNFV creates a reference NFV platform to accelerate the transformation of enterprise and service provider networks. As an open source project, OPNFV is uniquely positioned to bring together the work of standards bodies, open source communities, and commercial suppliers to deliver a de facto NFV platform for the industry. OPNFV is using OpenStack® as the Virtualized Infrastructure Manager (VIM) solution and contributes NFV requirements “upstream” to several OpenStack projects like Nova, Neutron, and Cinder.

OpenStack: The Foundation for NFV

NFV is essentially a fit-for-purpose cloud used for deploying, orchestrating and managing virtual network functions. OpenStack provides the foundation for the NFV Infrastructure (NFVI) and Management and Orchestration (MANO) components of the ETSI NFV specification, offering management from a single pane of glass and common security, identity services, APIs, policies and user interfaces. NFV-required features are continuously incorporated into existing and new OpenStack projects.

“We believe that the OPNFV and OpenStack open source communities—thanks to their openness, growth, and rich features—play a key role in telco software-centric network transformation. We at TIM have already started towards a more flexible, innovative and open network able to address and satisfy current operational challenges and upcoming ones like 5G and IoT.”

— Pierpaolo Marchese, Global Advisory Team, Telecom Italia

“Orange fully collaborates into OPNFV and OpenStack to deliver carrier-grade platforms for VNF interoperability. As a founding OPNFV member, Orange believes that open source components integration is key to achieve such a high available infrastructure. Orange is very involved in OPNFV (FuncTest and Moon project leaders, hosting platforms for the community) and OpenStack (BGP VPN).”

— Eric Debeau Head of NFV solutions, Orange

OpenStack and OPNFV: Groundbreaking Innovation

Open source projects such as OpenStack and OPNFV are proven to facilitate innovation. The combination of OpenStack and OPNFV allows you to tap into the most comprehensive set of NFV capabilities available today. You’ll also be on the leading edge of network development and innovation—giving your organization the flexibility it needs as NFV evolves.



Security: Both projects have earned the Core Infrastructure Initiative (CII) Badge—recognizing security, quality and stability with 100% compliance.

Key Benefits

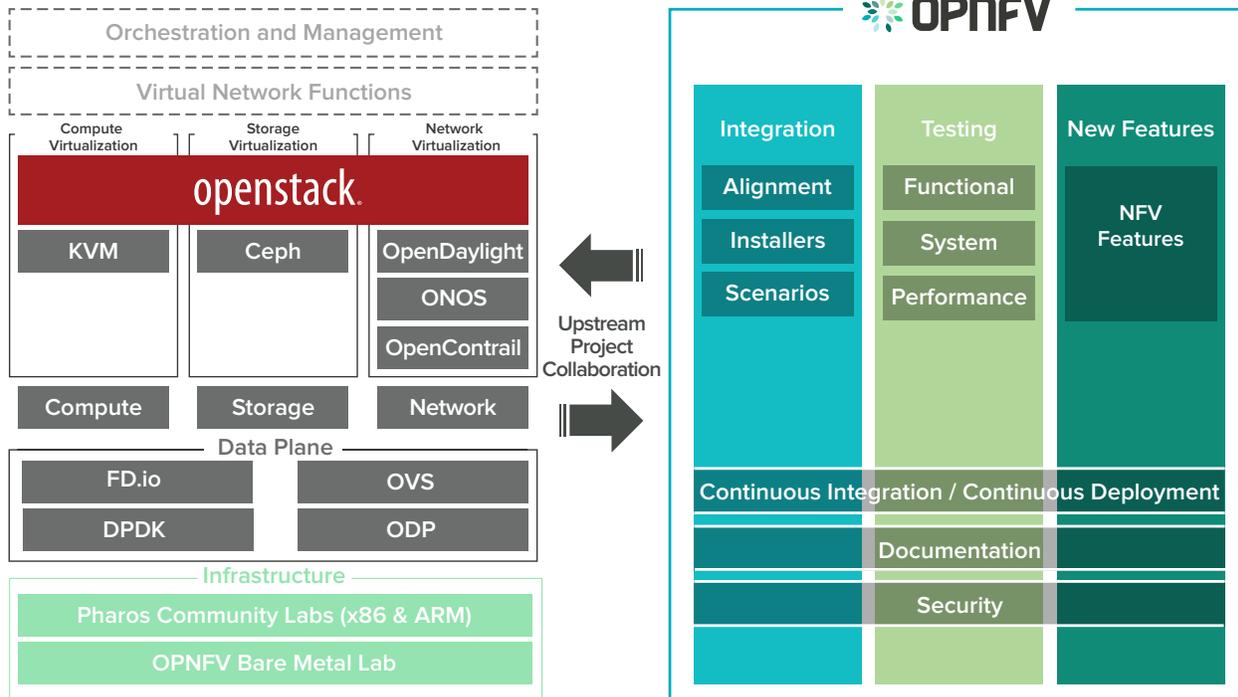
OPNFV and OpenStack help organizations move away from proprietary networking:

- ✓ Ability to offer new services quickly
- ✓ Reduced capital and operational expenditures
- ✓ Accelerated deployment
- ✓ Network agility
- ✓ Programmatic operations
- ✓ Open standards
- ✓ Proven innovation



“We are fully committed to open networking and open source including our work with OPNFV and OpenStack.”

– Alex Zhang, Principal Architect, China Mobile Technology US



Engagement Accelerates Development

Telecommunications companies and large network operators realize the value delivered by the OPNFV project and OpenStack software as they look to implement next-generation networks that include support for 5G and the Internet of Things. Both open source projects value a diverse ecosystem to provide requirements, expertise and code.

“AT&T uses OpenStack as the core foundation of our cloud and virtualization strategy and leverages OPNFV to help drive changes upstream into OpenStack, especially for driving NFV/SDN use cases, standardizing APIs and data models across projects, integrating with other efforts like OpenDaylight, and providing comprehensive functional and performance testing.”

– Toby Ford, AVP of Cloud Infrastructure and Platform Architecture & Strategy, AT&T

Exploring the possibilities of OPNFV with OpenStack

Read white papers, review reference architectures and watch presentations at:

- www.openstack.org/telecoms-and-nfv
- www.opnfv.org/resources

Join The Movement

Both projects are governed and developed in the open and, there are several ways to get involved.

- Become a part of the OpenStack community at openstack.org/join. Individual membership is free.
- Visit openstack.org/community to join mailing lists, attend local meetups and more.
- Read about how to participate in OPNFV at opnfv.org/developers/how-participate

Try It Today

- Access the OPNFV Colorado release and documentation here: www.opnfv.org/software/download
- Visit the OpenStack Marketplace for training, software and services providers at www.openstack.org/marketplace