Product Datasheet

Enea NFV Core: Carrier-grade software platform for CO and PoP

NFV Infrastructure software built on OPNFV and OpenStack, for deployment of virtual Customer Premise Equipment (vCPE) network functions in Central Offices (CO) and Edge Points of Presence (PoP).

Key Facts

Features and Benefits

- Deployment-ready based on pre-integration, configuration and hardening
- OpenStack and OPNFV-based with extensive testing
- 100% open source based High Availability solution with automatic detection and recovery of failed resources
- Out-of-the box support for Arm and x86
- Optimized KVM for reduced latency and jitter and maximized network throughput
- Optimized data plane throughput including an accelerated vSwitch, DPDK-RSS, SRIOv/PCI passthrough
- VM live-migration with both local and shared storage
- Compatible with OpenStack Heat Templates (HOT) and Tosca

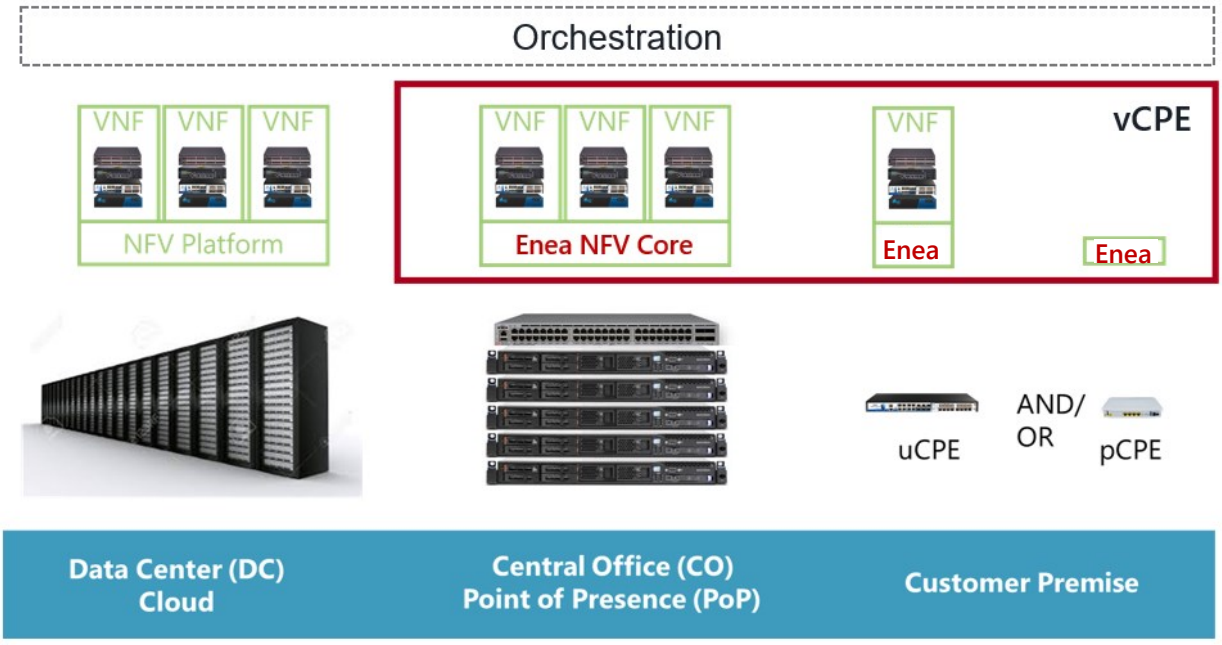
Enea NFV Core is a carrier-grade virtualization software platform built on OPNFV and OpenStack and compatible with the ETSI architecture. It is significantly enhanced in terms of performance, availability, functionality and scalability to meet the commercial carrier-grade needs of NFV deployments. Enea NFV Core enables deployment of vCPE network functions in central offices and data centers, utilizing cost efficient generic hardware platforms.

Key Components

- OpenStack: core services including Horizon, Nova, Neutron, Cinder, Glance, Swift, Keystone, Congress, Heat, Tacker, and Ceilometer
- Compute node software package that includes: Linux® OS, KVM, and Intel® DPDK acceleration
- OPNFV projects that integrates OpenStack and a set of OPNFV components like for example an installer, KVM4NFV, Doctor and ARMband for ARMv8 support
- High Availability: Enea extends the OPNFV baseline with a telco grade HA solution to meet operators and CSP requirements for availability
- Orchestration: OpenStack Heat Templates (HOT), TOSCA parser. Has been validated with Cloudify full application lifecycle orchestration

Use cases

Enea NFV Core is optimized for vCPE and central office deployment, providing the performance, reliability and flexibility required in next generation networks.



High Availability

Enea NFV Core offers a 100% open source High Availability (HA) solution, based on an integrated and verified implementation of the OPNFV Doctor reference HA framework. Enea NFV Core HA solution integrates and validates the following components:

- Carrier-grade availability & reliability
  - Zero touch evacuation and recovery of failed resources using Vitrage and Tacker
  - Automatic evacuation and recovery of failed VNFs and compute nodes
  - Redundant Controller nodes with automatic recovery on failure
- OpenStack: Congress- and Vitrage-based Inspector
  - Notification, Event and Alarm Management for MANO integration
  - Root Cause Analysis capacity
  - Rich set of notification data sources, including Zabbix, Nagios, collectd/DPDK and Openstack services
- Nagios- and Zabbix-based monitoring
  - Wide range of industry-validated applications
  - Real-time monitoring of software and hardware resources
  - Fault detection and notification
  - Seamless integration with Vitrage using pushed notification for fast notification

High Performance

Highly optimized virtual networking performance provide reduced latency, higher throughput and lower processing overhead, allowing higher compute density. Enea NFV Core maintains performance when functionality moves from application-specific hardware to software on standard hardware, allowing better decoupling between software and hardware.

Integration based on open standards

The ability to mix and match NFV components with little or no integration requires open standards. Enea NFV Core is based on OPNFV and OpenStack, and is compliant with ETSI NFV. These are de facto standards for telecom NFV, which ensures seamless integration with standard hardware, VNFs and third party NFV software. Enea also has a large global services organization to cover any gaps between standards and operators' environments.

Comprehensive Testing

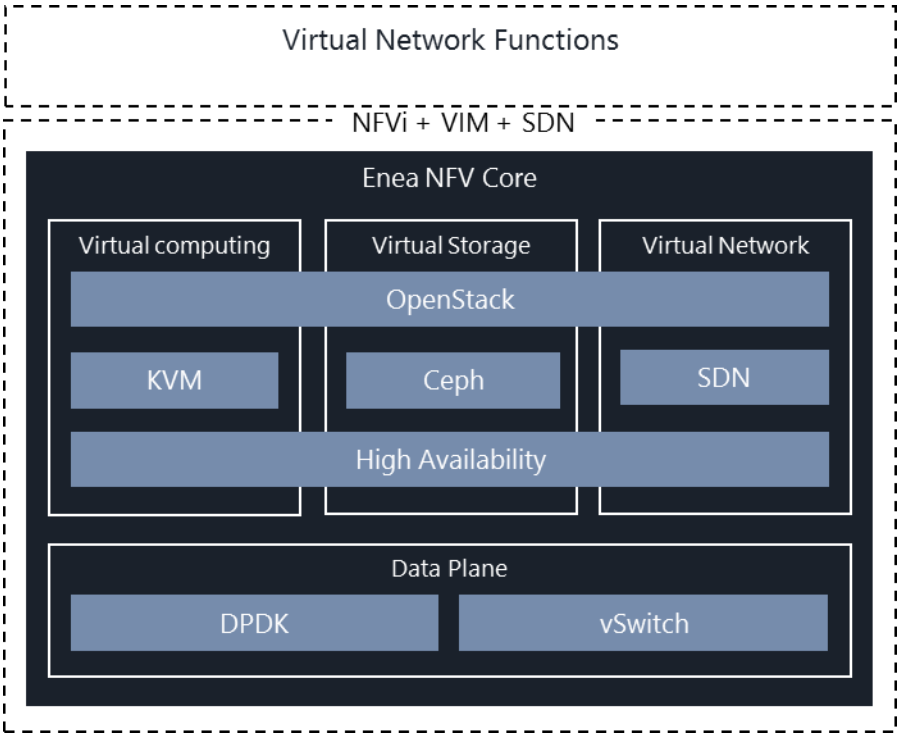
Enea leverages a comprehensive set of telecom focused test and validation suites from OPNFV as well as customer and Enea internal test suites. Some examples below:

- Functest: comprehensive testing methodology, test suites and test cases to test and verify OPNFV Platform functionality that covers the VIM and NFVI components.
- Yardstick: verification of infrastructure compliance when running VNF applications
- Dovetail: compliance and certification
- Enea NFV test suite: based on customer and internal test specifications

Supported Hardware

Enea NFV Core supports both ARMv8 and Intel architectures:

- Cavium ThunderX
- Intel Xeon-D and Xeon-E5
- Additional reference implementation available on request



Find out more on the Enea website!

Enea develops the software foundation for the connected society with a special emphasis on reducing cost and complexity at the network edge. We supply open-source based NFVI software platforms, embedded DPI software, Linux and Real-Time Operating Systems, and professional services. Solution vendors, Systems Integrators, and Service Providers use Enea to create new networking products and services faster, better and at a lower cost. More than 3 billion people around the globe already rely on Enea technologies in their daily lives. For more information: www.enea.com