COMPOSE

ekinops
Empowering Networks

VNF Validation Services

Open Architecture

The OneOS6-LIM (Local Infrastructure Manager) creates a virtualized compute environment with the ability to host multiple Virtualized Network Functions (VNFs) on a universal Customer Premises Equipment (uCPE).
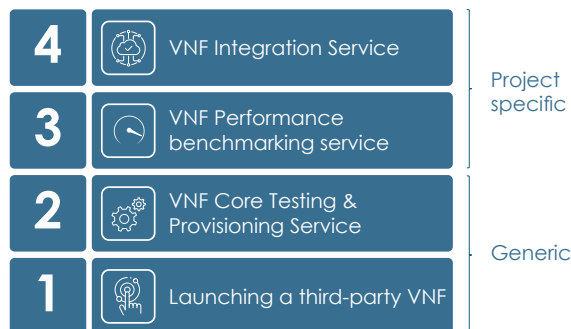
OneOS6-LIM is open to hosting VNFs that are from both Ekinops and a third party, thanks to a straightforward integration process.

The VNF validation service is an integral component within the Ekinops Compose alliance program. Ekinops has incorporated within its open ecosystem more than 30 certified VNFs. Details on tested VNFs can be obtained upon request.

VNF Validation Services

Initializing a Virtualization Project requires access to; network architects, senior engineers and other highly-skilled staff. To ensure correct service delivery, there is the need to plan and allocate a significant amount of time for the validation of multiple VNFs working together on a third party uCPE. The risk exists of slowing down the project delivery and ultimately the go to market by overloading internal resources. Ekinops can help to eliminate the risk and alleviate pressure on resources, by providing a service whereby we are responsible for the testing and validation of the selected VNFs on behalf of the Customer.

Depending on the degree of validation and integration required, Ekinops can, based on a scope of work, provide four levels of professional services.

4	VNF Integration Service	Project specific
3	VNF Performance benchmarking service	
2	VNF Core Testing & Provisioning Service	Generic
1	Launching a third-party VNF	

■ Level 1: Launching a third-party VNF

Launching a third party VNF on OneOS6-LIM involves loading the third party VNF disk image and allocating the hardware resources; essentially CPU cores and memory to the VNF. This is achieved by using the OneOS6-LIM GUI. Virtual connections between VNFs are created within the GUI, by an intuitive drag and drop mechanism.

■ Level 2: VNF core testing & provisioning service

Once the VNF is loaded and functional it is possible to analyze whether additional optimizations can be done to the VNF. The core testing and provisioning service focuses on possibility of; Zero Touch Provisioning (ZTP), onboarding of set-up parameters and the automatic provisioning of these parameters.

■ Level 3: VNF performance benchmarking service

This service is designed to provide within an individual customer set-up the performance of the VNF/VNFs with relation to a specific hardware (uCPE) environment.

■ Level 4: VNF integration service

The last stage/option of the third party VNF validation service is the full integration into the management environment. This entails the automatic provisioning of the complete service. At this stage some customer specific integrations of the third party VNF with third-party VNF controllers and/or with a Service Provider Orchestrator and OSS/BSS systems.

Service Deliverables

VNF Core Tests & Provisioning
- Verify the VNF start-up
- Verify the VNF console access
- Study and document the VNF boot-strap capability
- Verification of the performance optimization capabilities of the VNF through the support of Virtio, DPDK, SR-IOV

VNF Performance & Benchmarking Services
- Define and agree on the network topology and the Scope of Work for the testing
- Verification of network performance for a user-defined network service, possibly using different VNFs
- Verification of network performance for a specific hardware
- Measurement of performance parameters such as achievable bandwidth
- Assessment of the resources (CPU cores, memory) needed on the uCPE to achieve desired performance
- Recommend optimizations to improve performance, if applicable

VNF Integration Service
- Define and agree on the Scope of Work for integration. Depending on the agreed scope, following elements could be included
- Integrate the VNF in a customer-specific Zero Touch Provisioning (ZTP) environment
- OneOS6-LIM North-bound API integrations with third party orchestrators or OSS/BSS systems
- OneManage East/West-bound API integrations with third party VNF controllers
- OVP Design Studio integration with third party Orchestrators
- Ekinops VNF integration with a specified target Orchestrator or Controllers

About ❄ EKINOPS

Ekinops is a leading provider of open and fully interoperable Layer 1, 2 and 3 solutions to service providers around the world. Our programmable and highly scalable solutions enable the fast, flexible and cost-effective deployment of new services for both high-speed, high-capacity optical transport networks and virtualization-enabled managed enterprise services

Our product portfolio consists of three highly complementary product and service sets: Ekinops360, OneAccess and Compose.

- Ekinops360 provides optical transport solutions for metro, regional and long-distance networks with WDM for high-capacity point-to-point, ring and optical mesh architectures, and OTN for improved bandwidth utilization and efficient multi-service aggregation.

- OneAccess offers a wide choice of physical and virtualized deployment options for Layer 2 and Layer 3 access network functions.

- Compose supports service providers in making their networks software-defined with a variety of software management tools and services, including the scalable SD-WAN Xpress.

As service providers embrace SDN and NFV deployment models, Ekinops enables future-proofed deployment today, enabling operators to seamlessly migrate to an open, virtualized delivery model at a time of their choosing.

A global organization, with operations in 4 continents; Ekinops (EKI) - a public company traded on the Euronext Paris exchange - is headquartered in Lannion, France, and Ekinops Corp., a wholly-owned subsidiary, is incorporated in the USA.

EKINOPS360 Dynamic Optical Transport   **COMPOSE**   **oneAccess** Fast Network Virtualization