Cloudify Pure-Play NFV Management & Orchestration

Many Telcos, enterprises, carriers, service providers and others are looking to replace their physical and legacy network environments, opting to virtualize network functions to meet the growing need for agility and scale through NFV (network function virtualization). The main challenge lies in taking dedicated, proprietary hardware- and software-based network functions, and converting them into virtualized network functions that run on POTS (plain off the shelf) hardware.

Main Features

- **TOSCA-based,** pure-play orchestration
- **Topology-driven and application-centric** management and monitoring of entire NFV lifecycle
- **Supports legacy network functions**
- **Built-in auto-healing and auto-scaling policies for VNF**
- **IPv6 Support**
- **Support for containerized and non-containerized workloads**
- **Designed for federated deployment**
- **Embeddable (OEM)**
- **Support for any application stack, with native OpenStack, bare metal and virtual appliance support**

Cloudify is an open source cloud orchestration platform that faces the challenges of implementing NFV head-on.

Management and Orchestration:

Cloudify's open and pluggable architecture enables the management and orchestration of the end-to-end NFV lifecycle, beginning with the deployment and management of the infrastructure resources and SDNs through monitoring and remediation. Users can define their own custom policies for handling complex processes and procedures, such as continuous delivery and/or rolling upgrades, for increased agility and faster time to market.

Network Stability Through Full Cloud Portability and Interoperability:

Cloudify can detect a network failure and take corrective actions as those failures happen. On top of this, being infrastructure agnostic, Cloudify is able to provide full redundancy and high availability through hybrid cloud models, as well as data center and bare metal cloud support for full flexibility, robustness and synchronization between remote sites, in a reliable manner.

Migration and Co-existence of Legacy and Compatibility with Existing Platforms:

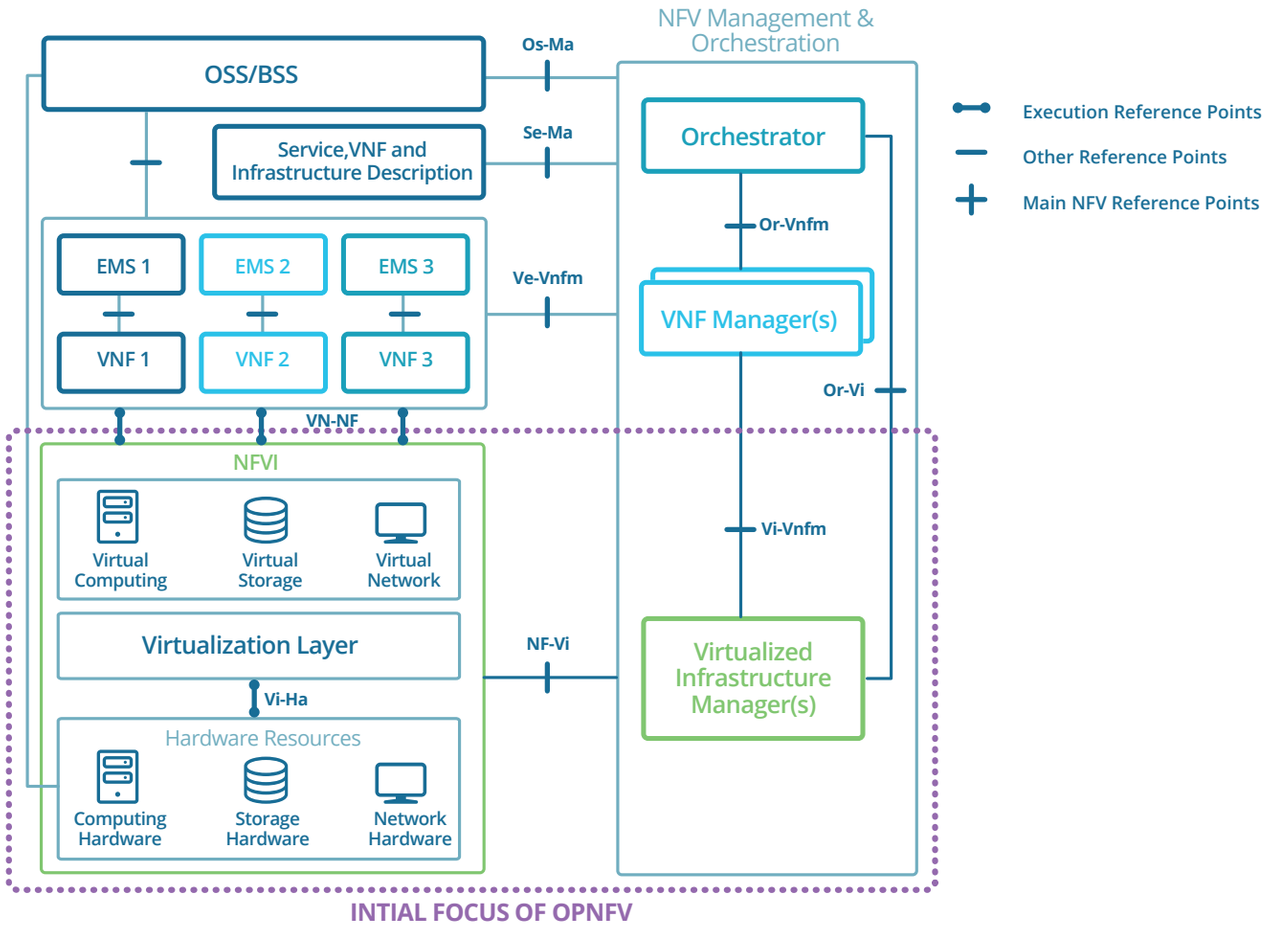
Cloudify was designed to enable legacy services by adding an orchestration layer that can automate the configuration, deployment and scaling processes, thus providing a gradual migration path toward a fully elastic service, leveraging existing infrastructures.

"One enterprise IT vendor (GigaSpaces) has been included in this report because its open source technology is the basis for a number of telco vendors NFV MANO implementations."

Caroline Chappell, Principal Analyst, NFV & Cloud | Heavy Reading

ETSI's MANO and TOSCA Standards:

ETSI, the European Telecommunications Standards Institute, has defined a standard reference architecture to achieve NFV, along with a management and orchestration layer called **MANO**. Cloudify essentially plays the role of the ETSI orchestrator, leveraging its open and pluggable architecture to interface with the Virtual Network Functions Manager, the Virtual Infrastructure Manager and the Network Functions Virtualization Infrastructure to better orchestrate the lower level software defined networks.



With Telcos and enterprises being highly standard-driven, the alignment with MANO is an important element for NFV adoption. This is where the adoption of a standard like TOSCA is becoming an important criterion in the choice of an orchestration platform. Cloudify is based on TOSCA (Topology Orchestration Specification for Cloud Applications). This specification, from the OASIS standards foundation, provides a standard templating language in simple YAML blueprints that is agnostic to application, topology, tool or environment. TOSCA defines virtual application topologies, VNF dependencies and relationships, along with the actions to be performed as part of the full application lifecycle.

Cloudify based on TOSCA is becoming a real game changer when it comes to NFV-enablement, making it easy to plugin to other Telco industry standards, such as YANG/Netconf in order to minimize the learning curve and leverage existing network administrator know-how, and is fully compatible with ETSI's MANO.

A top 5 US telecom carrier turned to Cloudify to automate their internet activation services. Looking for TOSCA-based orchestration on OpenStack and VMware, this Telco successfully deployed internet automation in less than one week with Cloudify.

GIGASPACES

GigaSpaces was founded in 2000 and has offices in the US, Europe and Asia. For more information, please visit ***www.gigaspaces.com*** or ***www.getcloudify.org***