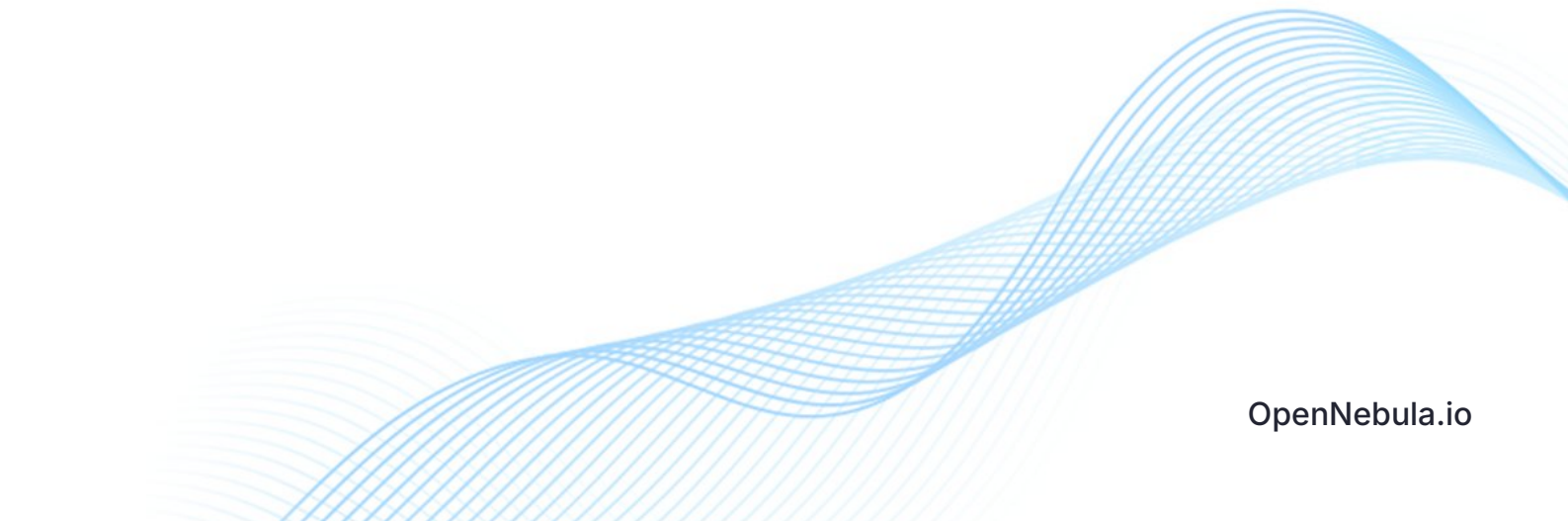
GUIDE

Telco NFV Edge Integrated Platform Support



OpenNebula comes out-of-the-box with a **significant number of edge computing features**, providing an easy way to build and manage distributed edge-cloud environments using your private infrastructure at the edge. Shared concepts like distributed edge-cloud computing and bare-metal provisioning have now become native features in OpenNebula and are the foundation of our approach to the technological challenges that lie ahead. Their aim is to improve flexibility, availability, efficiency, reliance, and scalability. They achieve this while also reducing latency
and providing better application response times with an impressive small footprint by processing and storing data closer to users and devices.

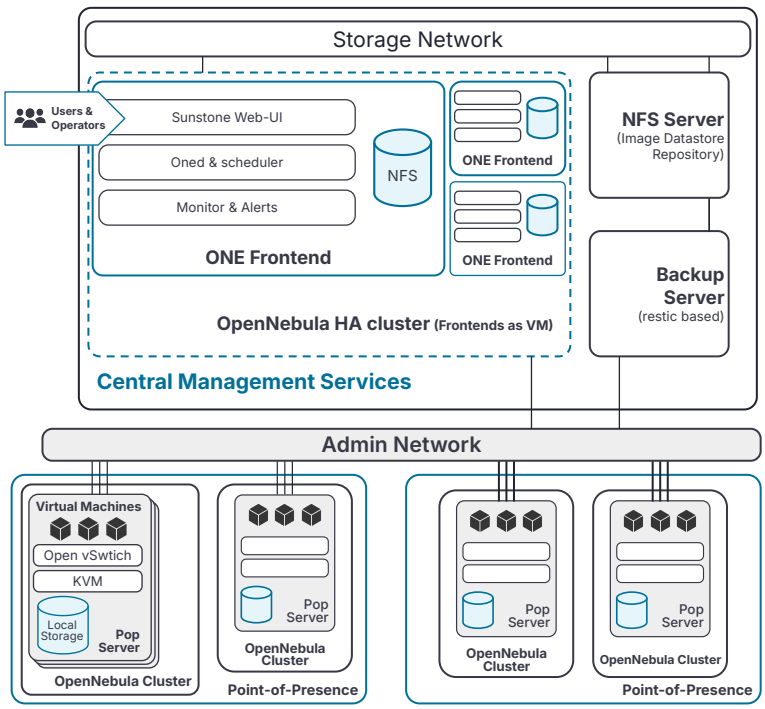
OpenNebula's NFV/Edge Integrated Platform enables the modernization of Telco's existing networks, helps simplify network operations, deploys 5G networks quickly, and adopts open frameworks, such as Open RAN, while navigating the disaggregation of their resources. The platform includes OpenNebula with built-in KVM as hypervisor, Prometheus for monitoring, Restic for backup, and Open vSwitch for networking, optionally all on embedded Red Hat Enterprise
Linux (RHEL) or Ubuntu Pro. The NFV/Edge Integrated Platform Add-on extends the OpenNebula Subscription benefits to these built-in software components in the NFV/Edge Integrated Platform and optionally adds official RHEL or Ubuntu Pro.

Architectural Description

A Distributed NFV/Edge Deployment includes a single cloud front-end to manage tens to hundreds of geo-distributed clusters (PoPs with edge nodes) with minimal hardware infrastructure, local storage, and DPDK or SR-IOV technologies for high-performance throughput. The architecture supports the most challenging Virtual Machine workloads, including Network Functions Virtualization (NFV) and high-performance computing workloads. With OpenNebula, Telco customers can deploy both containerized and virtualized network functions side-by-side, and host Third Party services if so required. The clusters can be used at 5G Edge Deployment as micro DCs to host O-RAN and offer edge-cloud services following a Multi-access Edge Computing (MEC) architecture.

Front-end	Description
Operating System	RHEL | Ubuntu Pro
Cloud Manager	OpenNebula
Monitoring/Alert	Prometheus
Backup	Restic
Authentication	Builtin or LDAP/AD

Edge Nodes	Description
Operating System	RHEL | Ubuntu Pro
Hypervisor	KVM
Networking - SDN	Open vSwitch / DPDK
Storage - SDS	Local datastore - QCOW2



What the Support Add-on Includes

The NFV/Edge Integrated Platform Support Add-on includes single vendor experience with a complete Integrated Platform stack fully supported by OpenNebula Systems.

- ✔ Enterprise Support for the OpenNebula software and the rest of the built-in technology components in the NFV/Edge Integrated Platform in their integration with OpenNebula to enable the edge service. We provide expert guidance for any issue or incident arising during the automatic deployment, configuration, and operation of the virtualization, network, and storage software systems required to work with OpenNebula according to the NFV/Edge Cloud Architecture and the terms of the **OpenNebula Subscription Guide**.

- ✔ Optionally, Ubuntu Pro or RHEL versions and updates, such as security and other updates, as they are made available by the vendor. The hypervisor support as part of the Integrated Product is offered by OpenNebula Systems in partnership with the vendor. The Customer does not need to contact the vendor separately for any issue with the Operating System. OpenNebula will work with the vendor to solve issues needing escalation.

Ubuntu Pro

Red Hat Enterprise Linux

What the Support Add-on Excludes

The support add-on does not provide independent access nor support to the individual built-in technology components.

- ✔ The support is provided for the NFV/Edge integrated platform as a whole.

- ✔ Enterprise support is provided exclusively for the certified versions of the technology components described in the Release Notes of each OpenNebula release.

- ✔ The NFV/Edge integrated solution must be installed on an NFV/Edge compliant architecture by following the single installation routine defined in the official documentation.

OpenNebula Systems cannot provide the immediate minor enhancements and hot fixes for those supported components that it provides for OpenNebula code. Any bug discovered in the kernel or Linux packages while resolving a customer support request, if there is no existing bug fix, is reported to the affected upstream component. OpenNebula Systems follows up its resolution and a workaround will be provided. Please refer to the **OpenNebula Subscription Guide** for further information about the scope of our support offering.

Pricing

All the Software components in the NFV/Edge Integrated Platform are licensed, supported, and distributed in an integrated way as an extension of the OpenNebula Subscription Model with annual fee.

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Reference: Telco NFV Edge Integrated Platform Support - Rev20260301