



OpenNebula versus OnApp: Competitive Pricing Review

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Scope

This review assumes you want to build a private cloud composed of multiple hosts (servers) running KVM. This report compares the pricing of OpenNebula and OnApp cloud management platforms, and highlights OpenNebula's key differentiators that are asked about most frequently by cloud service providers. OpenNebula exceeds the cloud management requirements of most enterprise and service provider users, and in the particular case analyzed, it can result in up to 60% cost savings.

What is OnApp?

OnApp¹ provides a KVM-based cloud stack for automating, orchestrating and provisioning public and private cloud services. OnApp's cloud management, provisioning and billing portal also supports VMware vCenter and VMware Cloud Director, which enables VMware cloud providers to use it to offer multi-tenant cloud that leverages OnApp's pricing, packaging and access controls. Founded in 2010, OnApp offers services via a single UI and REST API and primarily focuses on service provider markets.

What is OpenNebula?

OpenNebula² is a simple, open source cloud management platform that combines virtualization and container technologies with multi-tenancy, automatic provision and elasticity to offer on-demand applications and services. OpenNebula supports both containers with virtual machines in a common shared environment to get the best of both worlds; integrates multiple virtualization technologies, from VMware and KVM for fully virtualized clouds to LXC and Firecracker for containerized and serverless deployments; and can easily deploy multi-cloud, hybrid and edge environments with public clouds.

Value of OpenNebula Subscription

OpenNebula subscriptions provide the assurance of having the OpenNebula experts steadily involved, under SLA guidelines—standard 9-to-5 or premium 24/7—backing your cloud. On top of this, they unlock additional benefits for corporate users, including gaining access to an enterprise repository with maintenance and LTS versions of the OpenNebula Enterprise Edition and Enterprise Tools, knowledge base and notifications about critical issues, as well as access to exclusive services provided by OpenNebula consultants and engineers.

¹ <https://onapp.com/onapp-cloud-management-platform/>

² <https://opennebula.io/discover/>

When comparing the OpenNebula Subscription to OnApp list pricing, OpenNebula offers a number of material benefits, including:

- Significantly lower total cost of ownership (TCO).
- No capital expenses (CapEx), OpenNebula is fully open source, so there are no licensing costs as with proprietary software deployments.
- Operating expenses (OpEx) charged via subscription.
- Subscription sold per host with any number of sockets (CPUs)—OnApp licenses are sold either per physical CPU core (KVM) or per managed virtual machine (vCenter).

Simple Case Pricing Review

As a simple case study, we will compare the three-year total cost of ownership (TCO) when building a private cloud on a single cluster with 10 servers, each having two 16 Core (32 Thread) CPUs, running KVM and a single frontend controller. Prices below are list prices (OnApp³ and OpenNebula⁴) only. Discounts would be applied depending on volume, length of contract and other factors.

OnApp Infrastructure	OnApp Annual Pricing
10 hypervisors (hosts) with 2 x 16 Core CPUs	320 Total Cores @ \$12 /month
TOTAL	\$46,080

Now let us evaluate the three-year TCO of the cloud management layer with **OpenNebula's** full-featured distribution compared with **OnApp's** KVM platform.

Three-year Total Cost of Ownership (TCO)	
1 OpenNebula Premium for 10 KVM hosts:	1 OnApp KVM license for 320 CPU Cores per month:
\$54,000	\$138,240
DIFFERENCE: \$84,240	

This case study reveals savings of more than **\$84K (more than \$25K per year)** by using OpenNebula over OnApp to build your cloud. And if you are using servers with more than two CPUs or more cores per CPU, or building a cloud with more than 10 servers, you will see that **the savings increase dramatically**. For example, in the same case using four-CPU servers, the savings would be more than \$50K per year. The costs associated with OnApp's per-CPU core licensing model, can actually result in many enterprises seeing their TCO inflate significantly over time especially taking into account the density of CPU cores increasing over the years.

³ OnApp list pricing as of January 2021

⁴ <https://support.opennebula.pro/hc/en-us/articles/208381403-OpenNebula-Subscription-Guide>

Key Differentiators

- ✓ **Lower TCO** → Compared with OnApp, OpenNebula delivers a lower TCO and helps to reduce OpEx budget pressure and concerns.
- ✓ **No Vendor Lock-In** → Once you have built your cloud with OpenNebula, you can then add new resources based on other hypervisor technologies—such as LXC, Firecracker, or even VMware vCenter—and hence use OpenNebula as a migration framework.
- ✓ **Simplicity** → Very easy to install, upgrade, and maintain, with easy-to-use graphical interfaces.
- ✓ **Fast and Responsive** → Deploying new virtualization hosts and virtual machines with OpenNebula takes only a few seconds, much faster than competitive solutions.
- ✓ **Customizable** → Completely open, customizable and modular, so it can be adapted to your needs and components.
- ✓ **Wide Array of Features** → With support for High Availability front-ends, nested virtualization, NUMA configuration, as well as more standardized features such as multi-tenancy, configurable ACLs (RBAC) and virtual isolation (via VDCs), OpenNebula has features to fit all use cases and requirements.
- ✓ **Multi-site, Multi-cloud and Hybrid** → You can manage a distributed collection of KVM clusters across multiple data centers with a single OpenNebula instance, federate multiple OpenNebula instances, or easily connect your private cloud to public cloud and edge providers like AWS, Google Compute and Equinix .
- ✓ **Container Orchestration** → You can deploy and manage Kubernetes clusters, containers and VMs in a single shared environment.

Summary

Using OpenNebula to build an enterprise cloud can have **significant economic benefits** for any enterprise or cloud provider and will improve both infrastructure flexibility, business agility, and the bottom line. OpenNebula provides the most demanded management features to build clouds for enterprises and service providers, matching most of the features offered by OnApp at a fraction of their cost. The main advantage of OpenNebula is the strategic path to openness as you move beyond virtualization toward a private cloud.

By adopting OpenNebula, you take a step toward **liberating your stack** from vendor lock-in. Being a platform independent software, you can gradually migrate to other virtualization platforms. OpenNebula can leverage your existing cloud infrastructure, protecting IT investments, and at the same time avoid future vendor lock-in, gain more control over your infrastructure, and strengthen the negotiating position of your company. Have a look at our **Case Studies**⁵ to learn more from our users and customers about how they are putting OpenNebula to work.

⁵ <https://opennebula.io/case-studies/>

Ready for a Test Drive?

You can evaluate OpenNebula and build a cloud in just a few minutes by using **miniONE**,⁶ our deployment tool for quickly installing an OpenNebula Front-end inside a Virtual Machine or a physical host, which you can then use to easily add remote Edge Clusters based on KVM, LXC or Firecracker.

miniONE

LET US HELP YOU DESIGN, BUILD, AND OPERATE YOUR CLOUD



CONSULTING & ENGINEERING

Our experts will help you design, integrate, build, and operate an OpenNebula cloud infrastructure



OPENNEBULA SUBSCRIPTION

Get access to our Enterprise Edition and to our support and exclusive services for Corporate Users



MANAGED SERVICES

Our team of experts can fully manage and administer your OpenNebula cloud for you

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⁶ <https://minione.opennebula.io>