# VMware Cloud

AT A GLANCE

OpenNebula is intended for companies willing to create a self-service cloud environment on top of their VMware infrastructure without having to abandon their investment in VMware. OpenNebula also makes it possible to take steps towards liberating your stack from vendor lock-in by adding new resources based on open source hypervisors to your cloud. You can manage a distributed collection of vCenter instances across multiple data centers with a single OpenNebula instance.

KEY BENEFITS

- Seamlessly integrates with **existing vCenter infrastructures** to leverage advanced features provided by the VMware vSphere product family.

- Enables **cloud provisioning**, **elasticity** and **multi-tenancy** features on top of vCenter.

- **Very easy** to install, upgrade, and maintain, with easy-to-use graphical interfaces.

- Completely **open**, **customizable** and **modular**, so it can be adapted to your needs and components.
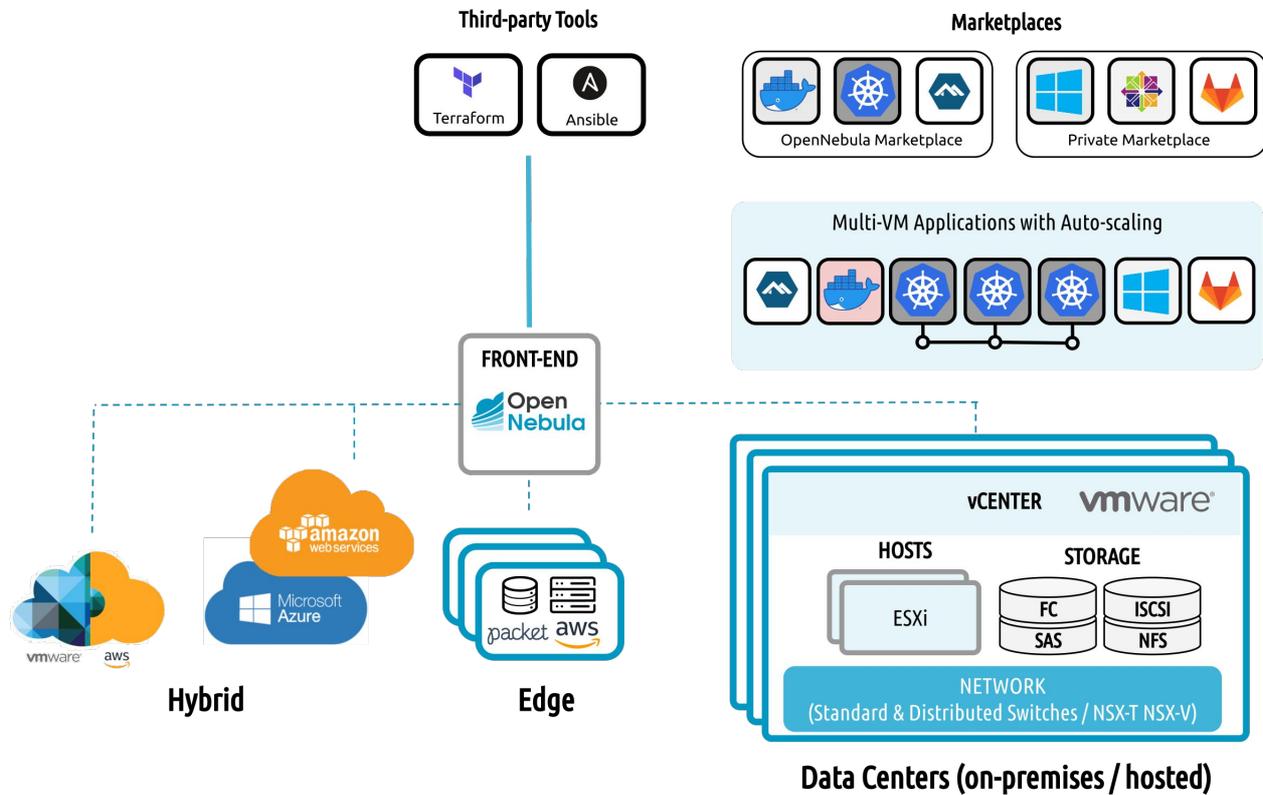
SYSTEM REQUIREMENTS

- Front-end: 2 CPU (4 cores) with 8GB memory, 200GB disk and 2 NICs
- Hypervisors: Depends on the expected workload, recommended to have at least 1GB per core

SCALABILITY

- Scalability tested with 10,000 VMs on 2,500 servers.
- Horizontally scale your cloud by adding new OpenNebula zones within a federated deployment to grow the size of your cloud beyond these limits.

vOneCloud

TRY IT NOW! Go to https://vonecloud.openenebula.io

In **just five minutes**, deploy an enterprise-ready OpenNebula cloud on your VMware infrastructure, and see just how simple OpenNebula is.

More details about OpenNebula and its features at OpenNebula.io

OpenNebula Specs on VMware

On-Demand Self-Service Provisioning

Application Containers	❏ Full support of Docker using Kubernetes for container orchestration
Service Auto-scaling	❏ Define and manage services as a group of related VMs, including their interconnection networks and elasticity rules
Service Insight	❏ Monitor service specific performance metrics and set elasticity rules based on them
Private Marketplaces	❏ Built-in support to build private marketplaces based on S3 and HTTP with automatic conversion of qcow2 images to vmdk
Public Marketplaces	❏ Integration with OpenNebula Public Marketplace with pre-built and certified appliances with popular OSS components and OS like k8s, WordPress, Gitlab, Centos or Ubuntu
APIs	❏ Ruby, Python, Go and JAVA or XML-RPC
CLI	❏ Fully featured UNIX-like command line tools
GUI	❏ Sunstone, a modern and simple Web-UI for admins and advance users. Cloud View, a simplified provision portal for end users. Remote access through VNC, SPICE and RDP is integrated in the GUI's

Resource Management

Authentication	❏ Built-in password-based, Active Directory, SSH, X509,LDAP, login tokens and 2FA
Multi-tenancy	❏ ACLs, users, groups, resource UNIX-like permissions and VDCs
Capacity Management	❏ Limit usage with user/group quotas. Fine-tune VM allocation with dynamic placement constraints and affinity rules. Automatically schedule virtual networks and datastores.
Observability	❏ Monitoring, accounting, showback and auditing/traceability
Networking	❏ Virtual routers, standard and distributed switches, NSX-V and NSX-T support
Storage	❏ Storage pods, linked clones, disk resizing, hotplugging, persistency, VM and image live migration.
Automation	❏ Hook system for tailoring and logging, programmable VM operations, and context to further customize VMs based on user input

Cloud Architectures

High Availability	❏ Front-end HA based on RAFT consensus and fully compatible with vCenter HA / DRS / storage DRS
Elastic Private	❏ Resource provisioning on bare-metal AWS and Packet, and grow with physical resources from VMware on AWS
Edge Distributed	❏ Dynamic geo-distributed private clouds on public cloud resources
Hybrid Cloud	❏ Cloud bursting of VMs on AWS and Azure
Federated Cloud	❏ Federation of multiple OpenNebula zones for scalability, isolation or multiple-site support
Mixed Hypervisor	❏ Support for multi-hypervisor environments that use VMware, KVM, LXD and Firecracker