

DATASHEET

KVM Cloud

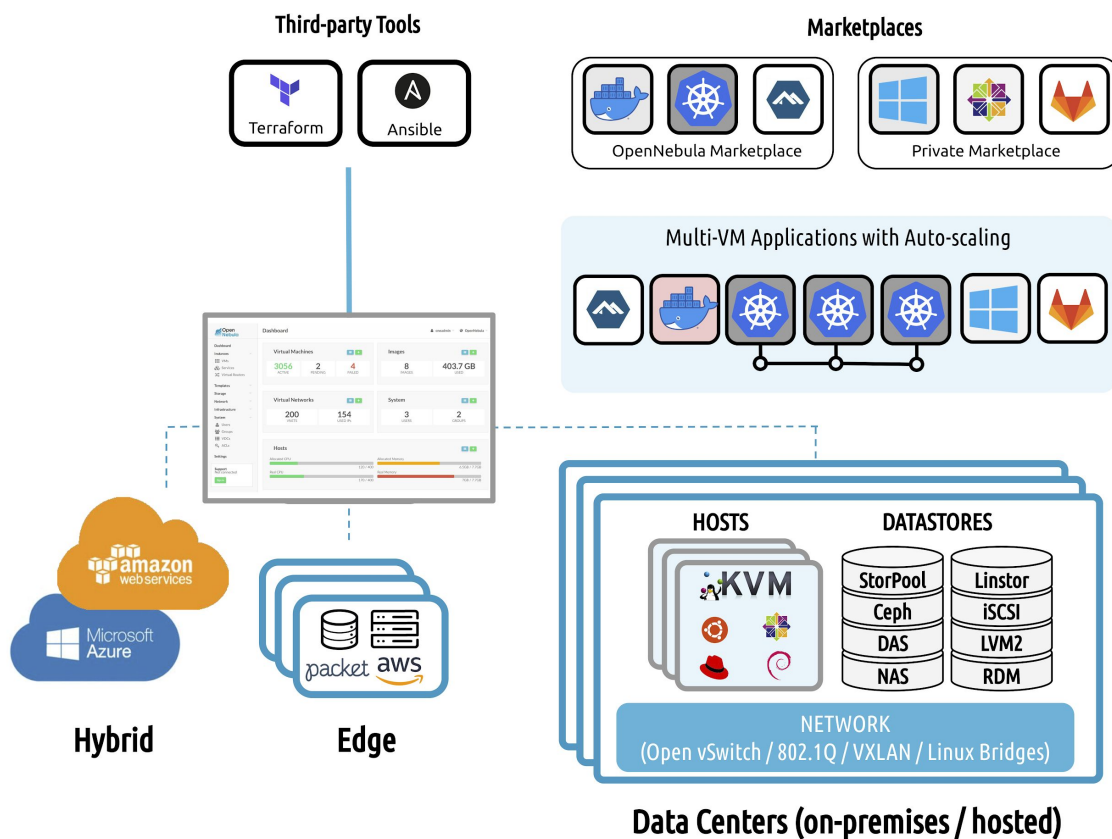


AT A GLANCE

OpenNebula is a simple, yet powerful and flexible turnkey open source solution to build Private Clouds and manage Data Center virtualization on KVM. Its integration with AWS and Microsoft Azure offers flexibility in creating hybrid cloud infrastructures, as well as with bare-metal providers like Packet and AWS for trouble-free deployment of Elastic Private clouds that could include Edge Computing resources.

KEY BENEFITS

- Advanced features for **capacity management**, **resource optimisation**, **business continuity** and **high availability**.
- **Multi-tenant**, **cloud self-service provisioning** including **virtual data centers**, **data center federation** and **hybrid cloud computing** to connect in-house infrastructures with public clouds.
- **Mixed hypervisor environments** with Firecracker, LXD and VMware.



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

- Front-end: Tested on 2,500 servers
- Hypervisor: Tested with 500 VMs
- Horizontally scale your cloud by adding new zones within a federated deployment

miniONE

TRY IT NOW!
<http://miniONE.opennebula.io>

In just five minutes, use miniONE to deploy a fully functional implementation to evaluate just how simple OpenNebula is.



More details about OpenNebula and its features at OpenNebula.io

On-Demand Self-Service Provisioning

Application Containers	<input type="checkbox"/> Full support for Docker using Kubernetes for container orchestration
Service Auto-scaling	<input type="checkbox"/> Define and manage services as a group of related VMs, including their interconnection networks and elasticity rules
Service Insight	<input type="checkbox"/> Monitor service-specific performance metrics and set elasticity rules based on them
Private Marketplaces	<input type="checkbox"/> Build your own private marketplaces based on S3 and HTTP protocols
Public Marketplaces	<input type="checkbox"/> 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	<input type="checkbox"/> Ruby, Python, Go and JAVA or XML-RPC
CLI	<input type="checkbox"/> Fully featured UNIX-like command line tools
GUI	<input type="checkbox"/> Sunstone, a modern and simple Web-UI for admins and advanced 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	<input type="checkbox"/> Built-in password-based, Active Directory, SSH, X509,LDAP, login tokens and 2FA
Multi-tenancy	<input type="checkbox"/> ACLs, users, groups, resource UNIX-like permissions and VDCs
Capacity Management	<input type="checkbox"/> Limit usage with user/group quotas. Fine-tune VM allocation with dynamic placement constraints and affinity rules. Automatically schedule virtual networks and datastores.
Observability	<input type="checkbox"/> Monitoring, accounting, showback and auditing/traceability
Networking	<input type="checkbox"/> Virtual routers, NIC hotplugging, security groups, SR-IOV interfaces and support for DPDK, IPv6 and IPAM modules
Host	<input type="checkbox"/> PCI-passthrough, GPUs/vGPUs, NUMA and CPU pinning
Storage	<input type="checkbox"/> Snapshots and disk resizing, hotplugging, persistency, VM and storage migration
Automation	<input type="checkbox"/> Hook system for tailoring and logging, programmable VM operations, and context to further customize VMs based on user input

Cloud Architectures

High Availability	<input type="checkbox"/> OpenNebula components HA-based on RAFT consensus and VM/host failover
Elastic Private	<input type="checkbox"/> Resource provisioning on bare-metal AWS and Packet
Edge Distributed	<input type="checkbox"/> Dynamic geo-distributed private clouds on public cloud resources
Hybrid Cloud	<input type="checkbox"/> Cloud bursting of VMs on AWS and Azure
Federated Cloud	<input type="checkbox"/> Federation of multiple OpenNebula zones for scalability, isolation or multiple-site support
Mixed Hypervisor	<input type="checkbox"/> Support for multi-hypervisor environments that use VMware, KVM, LXD and Firecracker