# Hybrid Infrastructure



A production-ready OpenStack-based cloud platform for service providers, software vendors, system integrators and enterprises.

The platform is fine-tuned for cloud-native and Al/ML applications, as well as traditional virtualized workloads. It includes KVM-based virtualization, OpenStack orchestration, Kubernetes, software-defined storage, S3-compatible storage, built-in load balancing and backup as a service.

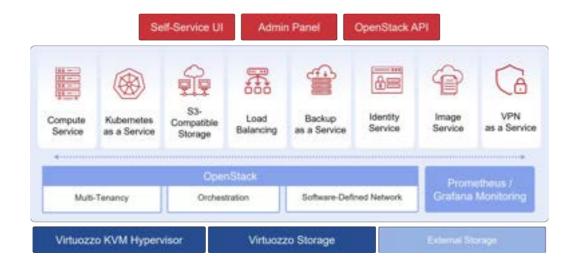
It's a single hyper-converged solution with easy-to-use management and monitoring tools, and a multi-tenant self-service portal. Virtuozzo Hybrid Infrastructure simplifies cloud deployment and management, optimizes performance and reduces total cost of ownership for public, private and hybrid cloud environments.



"We needed an enterprise-grade, hyperconverged OpenStack solution with flexible management, scalability and digitalization capabilities. No one else but Virtuozzo could deliver."



Tolga Dinçer



### Key Benefits



#### Out-of-the-box cloud platform

Virtualization, Kubernetes, storage, orchestration, network, self-service UI



#### Auto-install and zero downtime updates

Significantly lower TCO and risks



## **Meet AI/ML emerging market demands** Fine-tuned for GPU-powered workloads

Hugely experienced engineering team Your interface to the OpenStack community



#### Tuned for performance and efficiency

Optimized KVM, storage is up to 3x faster than Ceph



## **Commercial support for all components**Enables predictable SLA and managed services

### Resilient Compute and Networking



High performance and high availability for Virtual Machines. With an improved KVM hypervisor, GPU/vGPU support, and hot plug for vCPU, memory and storage resources, your cloud is ready for enterprise workloads



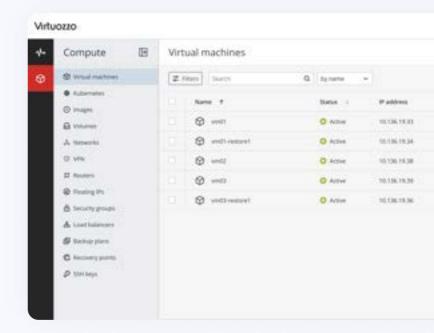
Secure and isolated networking with VXLAN networks, distributed virtual routers, Load Balancers, Security Groups and built–in VPN as a Service solution



Integrated software-defined storage, S3-compatible storage with self-service interface, and external storage support offers a flexibility of choice while protecting the investments in currently used storage solutions

### Simplified Management

- Single management console for compute, storage and network services
- Multi-tenant self-service portal for end-users with white labeling support
- Single-click update for all system components with Maintenance Mode for all services
- Easy billing integration: meter and bill for your cloud resources with popular cloud billing platforms such as WHMCS, HostBill and CloudBlue
- Built-in advanced analytics and monitoring with an alerting system and enterprise overview dashboards powered by Prometheus and Grafana
- Comprehensive integration with third party solutions via a 100% compatible OpenStack API



## Software-Defined Storage



Data redundancy in case of any type of hardware failure, with support for block storage (VM volumes, iSCSI), file storage (NFS), and object storage (S3)



High-performance block storage for hot data and virtual machines, natively integrated with compute services, including RDMA support and ability to create multiple chunk servers per NVMe/SSD drive



Cost-effective cold data storage with erasure coding that optimizes disk space for storing petabytes of data



Easy and smooth scalability for growing clusters by small steps on one server or disk

### Kubernetes as a Service

- Automated Kubernetes deployment and updates
- Industry standard, CNCF-certified Kubernetes implementation based on OpenStack Magnum
- Integrated cluster Autoscaler for automated horizontal scaling according to the cluster load
- Pre-integrated persistent storage and load balancing
- Highly available Control Plane
- Integrated monitoring with Prometheus and Grafana
- Multiple network options support
- Flexible cluster management with labels
- Rolling Kubernetes cluster update
- Cilium network plugin support
- Compatible with third-party backup and disaster recovery solutions such as Trilio and Velero



### Backup as a Service



Crash-consistent backup for both root and secondary volumes, easily managed by end-users through the selfservice panel or OpenStack API



Secure storage of backups on external Object Storage or NFS, which can be Virtuozzo-based, managed by administrators



Seamless restore capabilities to a new volume or a new virtual machine, ensuring quick recovery



"Virtuozzo knows the hosting and cloud provider mind-set, what we need and what our customers need... With our ability to rely on Virtuozzo for the platform, we were able to focus on our cloud infrastructure design."



Tim Timrawi CEO

