

VMTURBO AND OPENSTACK

Guarantee Application Performance as You Scale in an OpenStack Environment

Scale OpenStack with Confidence

OpenStack provides a foundation for building and scaling a Private Cloud, enabling centralized management of large pools of compute, storage and network resources.

At the same time OpenStack creates challenges around understanding resource allocation and limits as workloads are managed in tenant silos. Silos represent important boundaries, such as different customers or business units, and each may have separate policies. These boundaries limit the infrastructure's ability to absorb load spikes. Unpredictable demand fluctuations, especially with self-service portals, mean higher performance risk. Lastly, gaining insight into and understanding of workload and end-user resource consumption to provide accurate reporting or billing is a challenge.

VM Turbo manages the resource demands and fluctuations across tenants in an OpenStack Private Cloud environment by continuously assuring instances get the resources they need, when they need them.

VM Turbo Solution

- Guarantee workload performance through automated sizing, placement and configuration of instance resources eliminating contention for CPU, memory, storage and network
- Eliminate costly compute and storage overprovisioning by assuring tenants have enough and only enough capabilities to run their workloads and meet end-user performance expectations
- Accurately plan for future capacity needs based on existing application and instance demands in your OpenStack infrastructure
- Control tenant sizing by managing their compute and storage resource pools and assuring adequate capacity for workload demands
- Reserve capacity for future tenants or instances and actively manage reservations based on fluctuating demands in your cloud
- Create real-time reports showing tenant resource consumption and enabling showback or chargeback policies
- Support heterogeneous underlying hypervisor environments including KVM, ESX(i), Hyper-V, Xen and Red Hat Enterprise Virtualization and IBM PowerVM
- Agent-less deployment gets you up and running in minutes through a self-contained VM that can see and act upon your OpenStack environment
- Easily integrates with configuration management and cloud orchestrations systems through a rich set of REST APIS

KEY BENEFITS

- Guarantee performance of applications by ensuring instances get the real-time compute, storage and network resources they demand
- Control OpenStack environments assuring instance performance without over-provisioning tenant resources
- Manage resource partitions – tenants – in real-time as demand fluctuates
- Intelligently deploy and reserve capacity for new workloads, taking into account infrastructure demand fluctuations
- Gain visibility into end-user resource consumption enabling chargeback or showback policies

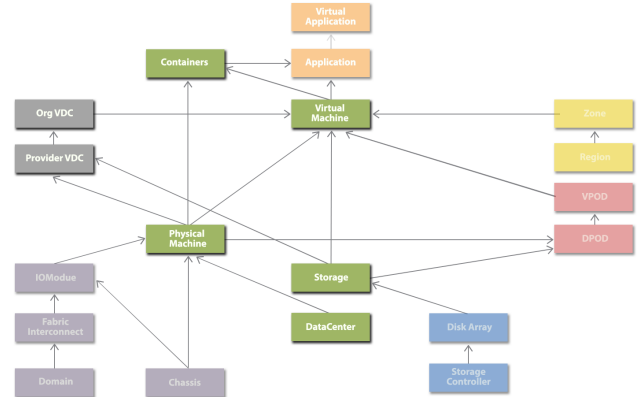
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Bring Control Further Into the Stack

VMTurbo's Common Data Model relates every entity in the data center as a provider or consumer of resources enabling real-time placement, sizing and provisioning decisions.

ENTITIES	PROVIDES	CONSUMES
Consumer Virtual Data Center (Tenant)	Resources to host virtual system	Provider VDC
Provider Virtual Data Center	Provides physical resources such as PMs and datastores to Consumer VDCs	PMs and datastores



Supported Virtualization Platforms

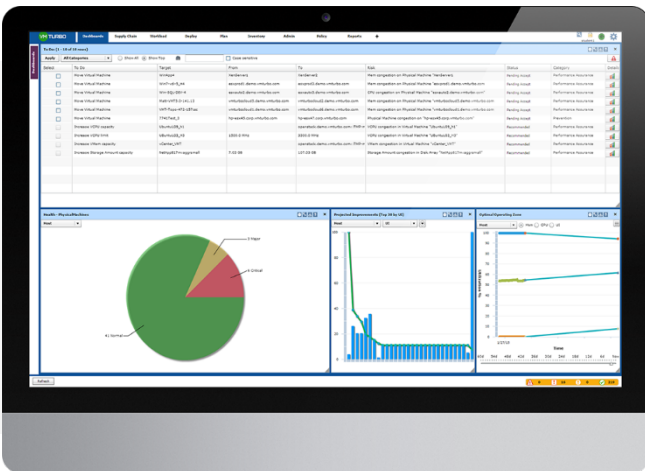


Immediate Time-to-Value

- Deploys as a single virtual machine in any environment
- Delivers value in minutes – no new databases to configure, no thresholds to set, no time to learn what is “normal” in the environment – and provides actionable improvements in 30 minutes or less

System Requirements

- Installs as a virtual appliance, that can be accessed from any browser that supports Adobe Flash
- 16 GB memory; 4 vCPUs; 80 GB disk storage (80 GB storage + 16 GB swap space to match RAM)
- Hypervisors/Management supported: VMware® vCenter versions 4.1 5.x or 6.x running with ESX(i), 3.x, 4.x, 5.x or 6.x; Citrix® XenServer 5.6 – 6.2; Microsoft® Hyper-V 2008R2, 2012 or 2012R2; Red Hat® Enterprise Virtualization Manager (RHEV-M) versions 3.x, OpenStack Havana or more recent release and any IBM Hardware Management Console 8.3+



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