

TURBONOMIC AND RED HAT ENTERPRISE LINUX OPENSTACK

Guarantee performance as you scale on the Red Hat Enterprise Linux OpenStack Platform

Scale OpenStack with Confidence

The Red Hat Enterprise Linux OpenStack Platform provides a great foundation for building and scaling Infrastructure-as-a-Service, enabling centralized management of large pools of compute, storage and networking 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.

Turbonomic manages the resource demands and fluctuations across tenants in Red Hat OpenStack environment by continuously assuring instances get the resources they need, when they need them.

Turbonomic and Red Hat Solution

Turbonomic and Red Hat have been collaborating on OpenStack since 2012 with a goal of assuring enterprises can accelerate and confidently scale their OpenStack deployments.

- Assure workload performance through automated sizing, placement and configuration 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
- Restrict workload placement to specific hosts to minimize socket-based licensing costs
- Reduce network latency between customer-identified n-tier workloads through affinity rules at deployment and throughout workload lifecycle management
- Offer tiered services guaranteeing performance of selected workloads during periods of peak utilization while increasing overall resource efficiency
- Provide VM redundancy for HA and load balancing assuring high performance and scalability
- Leverage shared nothing live migration to assure performance through continuous placement, enable inexpensive local storage for ephemeral-backed VMs, increase density or perform Host maintenance
- Enable Host evacuation or forced migration for operational maintenance or emergency outages
- Accurately plan and reserve future capacity based on existing application and fluctuating instance demands in your Red Hat OpenStack infrastructure
- Support for Red Hat Enterprise Linux OpenStack Platform for Icehouse, Juno and future OpenStack releases on KVM or other hypervisors
- Fast, agent-less deployment gets you up and running in minutes through a self-contained VM that can see and act upon your Red Hat OpenStack environment

KEY BENEFITS

- Confidently scale your Red Hat OpenStack deployment with real-time and continuous placement, configuration and provisioning decisions
- Assure application workload performance by meeting their demand with real-time compute, storage and network 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
- Enable HA, placement policies, live migration and forced host evacuation capabilities in an OpenStack deployment

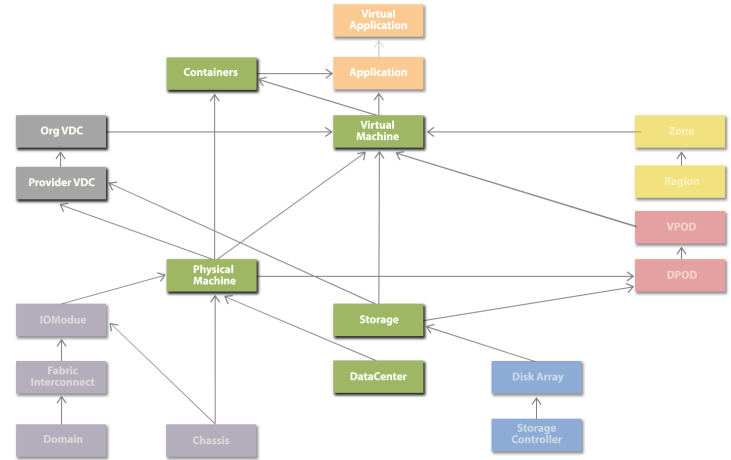
TURBONOMIC AND RED HAT ENTERPRISE LINUX OPENSTACK

Guarantee performance as you scale on the Red Hat Enterprise Linux OpenStack Platform

Bring Control Further Into the Stack

Turbonomic'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.

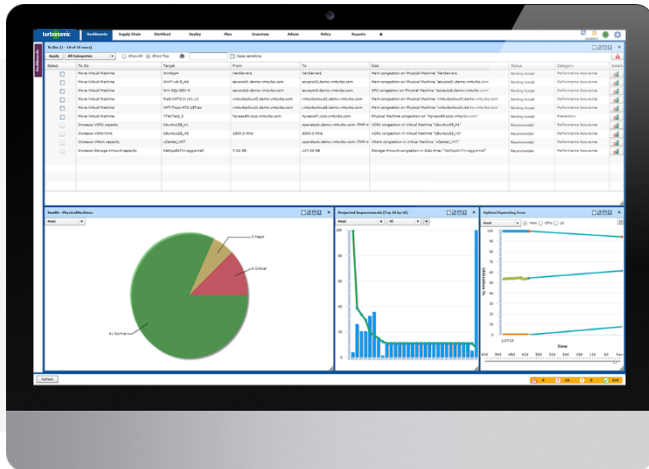
ENTITIES	PROVIDES	CONSUMES
Consumer Virtual Data Center (Tenant)	Resources to host virtual system	Provider VDC
Provider Virtual Data Center	Provides physical resources such as PMs and datastores to Consumer VDCs	PMs and datastores



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

Supported Virtualization Platforms



Try Turbonomic and OpenStack

- Download a free trial of Turbonomic for 30 days, at turbonomic.com/download
- For more information on Turbonomic, visit turbonomic.com