Performance Challenge

Today’s enterprises have virtualized 80 to 99 percent of applications including mission-critical, I/O-intensive and latency-sensitive distributed workloads. With increased virtualization comes dynamic and unpredictable demand on the compute, storage and network layers. To address performance challenges and simplify management, operations teams are adopting converged or hyper-converged infrastructure, flash storage and public cloud services. Still, application growth and an increasingly rapid development cycle exponentially amplify the complexity of delivering the performance users demand.

A Different Approach to IT Management

Assuring application performance requires a real-time approach across the plan, build and run operational phases of IT. The Turbonomic platform changes the way virtual and cloud environments are operated. It is the only autonomic performance platform that provides real-time placement, scaling and provisioning decisions that guarantee application quality of service while utilizing any infrastructure as efficiently as possible. The software continuously analyzes real-time workload demand and matches it to compute, storage and network resources in a virtualized, private or public cloud environment.

**Run** – real-time and automatable workload placement, scaling and provisioning decision guarantee performance of cloud native applications

**Build** – intelligent placement across private and public clouds, assures performance while minimizing costs

**Plan** – simulated change in the environment accelerates and cost effectively manages migrations to and across public clouds

Turbonomic seamlessly works with any application, hypervisor, cloud architecture and infrastructure across the run, build and plan operational phases.

**Guarantee Application Performance**

The platform provides actionable workload placement, scaling and provisioning decisions. It continuously characterizes each workload, understanding individual requirements for compute, storage and network resources and auto-scales workloads horizontally or vertically based on real-time demand. Decisions are extended into compute and storage layers to minimize latency and I/O bottlenecks via resource provisioning and scaling of storage volumes and pools.

**Effectively Manage Capacity**

Determines when allocation of resources is not aligned with workload demand, driving decisions to provision more or suspend capacity. Enables you to simulate changes across the environment for new workloads, cloud migration, hardware refresh, data center consolidation, scaling down VMs and more.

**Scale With Confidence**

Provides intelligent initial placement decisions based on the demand characteristics of existing and new workloads to provisioning systems (e.g. VMware vRealize Automation, OpenStack). New workloads are matched to existing shared resources and future workloads are held as reservation avoiding resource contention and accelerating private cloud initiatives.

Lower Infrastructure and Cloud Costs

The platform continuously places and scales workloads based on demand, preventing resource contention while making the most efficient use of the environment. It extends cluster or data center scope to exploit underutilized pools of resources, when network and storage configurations permit.

**Any Workload, Any Infrastructure**

Operates across multiple hypervisors and clouds (e.g. VMware, Hyper-V, KVM, AWS, Azure). Maps and visualizes end-to-end relationships and resource consumption from application to virtual machines, compute, storage, storage controller, network, fabric interconnects and more.

**Simple to Customize and Align**

Works in harmony with existing operational policies (e.g. disaster recovery, high availability, affinity, anti-affinity) while providing the ability to define service priorities and cost policies. Dashboards and reports are simple to customize and share across your entire organization. Easily integrates with service orchestrations and process management (e.g. Microsoft System Center, ServiceNow) facilitating automation and scheduling change where approval is required.

**KEY BENEFITS**

- Guarantee application QoS for any workload (e.g. application response time, transactions per second)
- Accelerate delivery of virtualized, cloud and distributed applications
- Improve management of larger, more complex environments
- Optimize resource allocation, reducing HW/SW spend and public cloud bills
- No downtime for mission-critical applications
- One platform for deployment, planning and real-time management of the environment

**TIME TO VALUE**

91% of Turbonomic customers see a return on their investment within 90 days
TURBONOMIC WORKLOAD EDITION
Assure the Performance of Any Application on Any Infrastructure

Turbonomic operates outside the cycle of generating alerts and attempting to fix issues. With the Turbonomic platform IT operators are freed from reactive firefighting; architects and planners are able to effectively plan for new applications, additional users and hardware upgrades; and application owners and users experience improved performance.

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

Turbonomic Workload Edition
Turbonomic Workload Edition supports multiple hypervisors and cloud environments and extends decisions into cloud orchestration and change management systems as well as storage, compute fabric, converged and hyper converged infrastructure, through APIs, no agents required.

Supported virtualization and cloud environments: VMware® vCenter, Microsoft® Hyper-v, Citrix® XenServer, Red Hat® Enterprise Virtualization, IBM® PowerVM, OpenStack®, Amazon® Web Services, Microsoft® Azure and IBM® SoftLayer.

Seamless control for: VMware® vRealize Automation and vCloud Director, ServiceNow®, Microsoft® System Center Virtual Machine Manager, Apache® CloudStack, Red Hat Cloud Forms, EMC® VNX, EMC® VMAX, EMC® XtremIO, NetApp®, HPE® 3PAR OneView, Synergy and BladeSystem c7000, Pure Storage®, Dell Compellent®, Nutanix®, Cisco UCS®.

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

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