Cloud Opportunity and Challenges

Cloud computing has transformed the way IT services are delivered, enabling dynamic scaling of infrastructure. Organizations are increasingly looking to service providers for scalable, reliable and cost-efficient cloud services. In turn, you have created multi-tenant data centers to ensure the economies of scale necessary to deliver competitively priced – yet profitable – cloud services, such as virtual hosted services, IaaS, PaaS and SaaS, that meet the quality of service desired by your subscribers.

The increased scale of your infrastructure and expectations of your subscribers has exponentially increased the complexity of assuring performance.

Guarantee Performance While Maximizing Resource Utilization

VMTurbo Operations Manager changes the way virtual and cloud environments are operated. It is the only Application Performance Control platform that provides real-time placement, sizing and provisioning decisions that guarantee application quality of service while utilizing the underlying infrastructure as efficiently as possible. The software continuously analyzes real-time application workload demand and matches it to any infrastructure compute, storage and network resources in a virtualized, private or public cloud environment.

VMTurbo Is Built For Cloud Architectures

VMTurbo fully supports your tenancy models and modularity units – often referred to as Virtual Data Centers. These logical compute and storage resources are the core of your service offerings but add complexity and further abstraction to the overall environment. The decision-making criteria for planning, provisioning and operating these cloud environments are incredibly complex. Physical and logical resources must be sized, allocated and placed properly to maintain quality of service while assuring you and your customers are able to maximize the investments made in infrastructure and services.

VMTurbo collects data related to workload demand, capacity allocation, and technical and business configuration constraints from both the underlying hypervisor and the cloud platform (e.g. OpenStack, VMware vRA) to derive the necessary actions that maximize performance, improve utilization and adhere to required policies and limitation that are specific to your environment and those of your customers. It complements any virtualization or cloud architecture:

- Continuously characterizes each application workload in multiple-dimensions to understand their individual requirements for compute, network and storage resources in real-time and over time
- Places workloads in real-time, multiplexing demand peaks across the infrastructure to prevent resource contention while making the most efficient use of compute, network and storage
- Determines when allocation of compute and storage resources are not aligned with application workload demand, driving decisions to provision more or suspend compute and storage capacity
- Auto-scales any application horizontally or vertically based on real-time demand
- Operates one instance across multiple hypervisors (e.g. VMware, Hyper-V, KVM) and public clouds (e.g. AWS, Azure and SoftLayer)
- Works in harmony with existing operational policies (e.g. affinity, anti-affinity, HA, etc.) and provides the ability to define new ones incorporating any business or regulatory constraint
- Provides the option to operate beyond the scope of a cluster, enabling workloads to exploit underutilized pools of resources, when network and storage configurations permit
- Integrates with IT process orchestration and change management systems to facilitate the automation of resource allocation decisions, where IT operations teams are required to approve and schedule changes
- Integrates with provisioning systems to enable intelligent initial placement decisions based on the demand characteristics of existing and new workloads
VMTURBO FOR CLOUD SERVICE PROVIDERS

“VMTurbo’s intelligent placement of workloads and ability to allocate resources based on application performance and business priorities enables us to provide reliable cloud services to our enterprise customers.”
Eli Almog, CTO of Trusted Cloud Hosting Solutions, CSC

“We host over 4,000 users and without VMTurbo, we would have to purchase more hardware. It does what it says it does and gives me more confidence in the health of my system.”
Giles Ogram, Technical Architect, CGI

“Oh VMTurbo right-sizes the environments and helps us avoid overprovisioning. Consequentially all cost savings are passed down to our clients.”
Ross Goldstein, Senior Cloud Services Architect, All Covered

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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