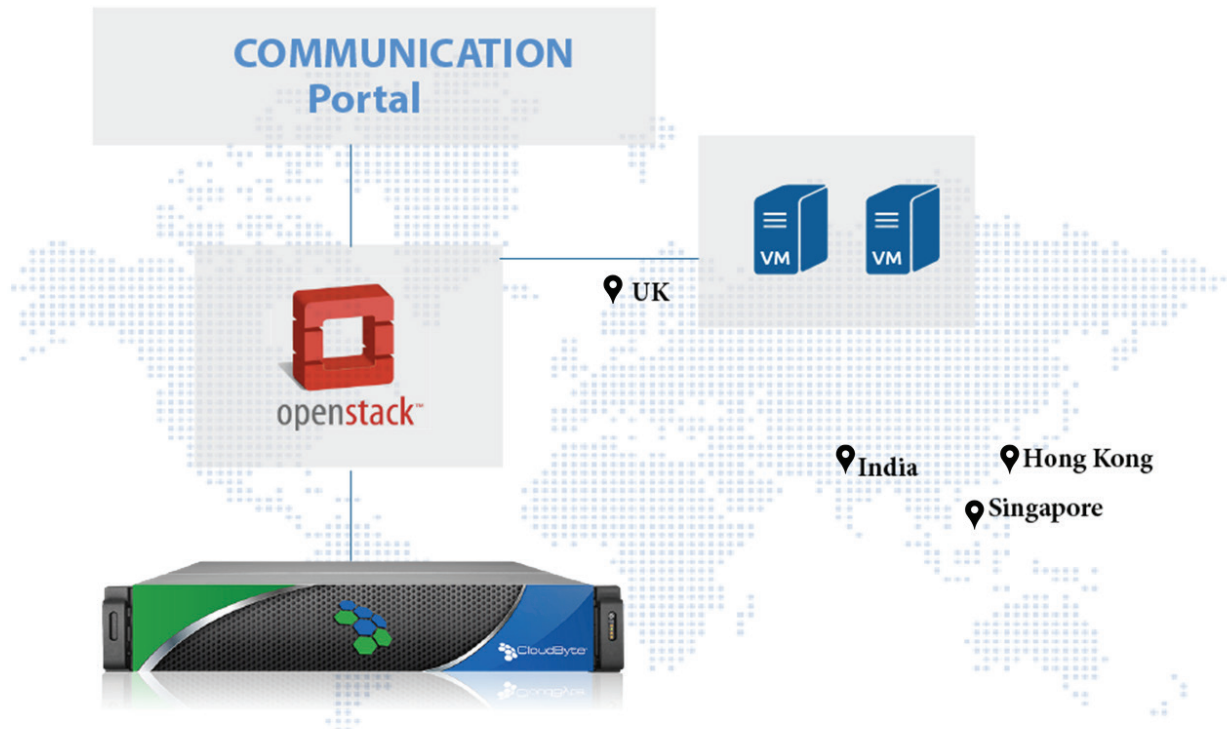


# FORTUNE 500 SOFTWARE COMPANY FINDS THE RIGHT DRIVER FOR OPEN-STACK, SOLVES STORAGE QOS DILEMMA, AND SAVES BIG WITH CLOUDBYTE

CLOUDBYTE POWERS A TOP FORTUNE 500 SOFTWARE COMPANY’S PUBLIC CLOUD FROM THE STORAGE FRONT. THE COMPANY GAINS A THREE TIME REDUCTION IN COST/GB/IOPS, INCREASED STORAGE UTILIZATION, ULTIMATE INTEGRATION WITH OPENSTACK, AND ON THE FLY STORAGE PERFORMANCE COMMUTES.



## REQUIREMENTS

- TIGHT INTEGRATION WITH OPENSTACK AND COMMUNICATION PORTAL
- MULTI-TENANCY
- GUARANTEED QOS
- RIGHT TO USE OWN HARDWARE
- LOW COST
- SPACE EFFICIENT AND APP CONSISTENT BACKUP AND RESTORE
- COMPRESSION AND DEDUPLICATION
- AUTO PROVISIONING
- SIMPLE CONFIGURATION
- SUPPORT NOT LIMITED TO PRODUCT BUT TO THE ENTIRE ECOSYSTEM
- CUSTOMIZATIONS

## SOLUTION

The company leverages CloudByte’s REST APIs to communicate with Open-Stack, effecting all tasks including QoS setup per VM/Disk/Datastore and enhancing performance of common VM operations such as backup, recovery, and cloning. All of these are done effortlessly from Communication portal.

## BENEFITS

- 1/3RD THE COST/GB/IOP
- NO VENDOR LOCK-IN
- OUT OF THE WAY SUPPORT
- EASE OF MANAGEMENT

*“When I asked my team to find a Storage Solution that can easily adapt to our portal, integrate seamlessly with OpenStack and virtualization environment, I knew it is gonna be hard. With our zero-tolerance attitude toward Quality of Service, VM level backup, multi-tenancy, and space efficiency, chances were grim. But choosing ElastiStor eased all apprehensions. Also, finding a partner who aligns to our philosophy of delivering simple and user-friendly service to our service was a real bonus. I’m convinced why Cloud-Byte ElastiStor is the best Software Defined Storage out there.”*

*Director, Implementation,  
Fortune 500 software company*

## DEALING THE BACKUP BAGGAGE

**B**ackup is a necessary evil and involves big money. But CloudByte ElastiStor's tiered architecture helps the company make major cost-savings.

- Schedule snapshots at regular intervals.
- CloudByte REST APIs provide full control for snapshots retaining consistency with the VM.
- Backup snapshots are moved to a lower tier to optimize storage cost based on retention settings

This helps to free up storage at the upper tier.

CloudByte's multi-tier architecture supports moving backups across tiers of storage.

*"Storage deployments are no cakewalks. But Cloud-Byte proved it wrong from the onset to implementation through production. They shipped hardware for evaluation, offered real-time customizations, extended support beyond their product to the entire ecosystem, and then their clean and crisp provisioning parceled as REST APIs make any administrator proud. Considering that our tests are tough to pass, it is easy to conclude that CloudByte has a definitive storage platform to offer."*

*Director, IT Services,  
Fortune 500 Software company*

## CHALLENGES

The budget conscious Fortune 500 company required an OpenStack-compliant storage solution that as well fits into their well-established ecosystem. Making this interplay a success means extreme customizations, sound knowledge and support of a team of engineers with expertise beyond the product and storage at large (which the company found rare). Dynamic handling of multi-tenancy, zero-tolerance to QoS guarantee were obvious expectations.

The key to the implementation is a cost-effective but focused backup mechanism that offers VM-consistent snapshots that let them revert to the prior state at any particular point in time. Also they wanted to generate intuitive and granular reports for the end user.

And the company wanted all of these by employing hardware of their own choice in a cross-world setup spanning the UK, Singapore and India.

## HOW CLOUDBYTE ELASTISTOR RESOLVES THE REQUIREMENTS

Running on commodity hardware, CloudByte ElastiStor™ is the perfect fit for the public cloud implementation. CloudByte provides a multi-tenant shared storage infrastructure with guaranteed performance, VM-consistent backups, and flexible provisioning.

The following are the highpoints of the setup:

- **Multi-tenant shared storage:** The storage requirements of scores of clients are met with from a single platform with around a couple of dozen physical drives.
- **Highly economical backup:** Only the recent snapshots are kept at the higher storage tier thereby reducing the costly capacity demand at the top tier.
- **Enterprise-grade storage functionality** such as RAID, compression, failover, and protection against data corruption
- **Business resilience against disasters.** With VM-consistent snapshots, replication to a backup array, and protection against data corruption, ElastiStor meets the resiliency requirements.
- **Ability to scale capacity and performance independently.** Administrators can now dynamically provision IOPS and throughput for any development process or testing workload.
- **Seamless compatibility** with the company's ecosystem that includes OpenStack, VMware, KVM, and the communication portal.

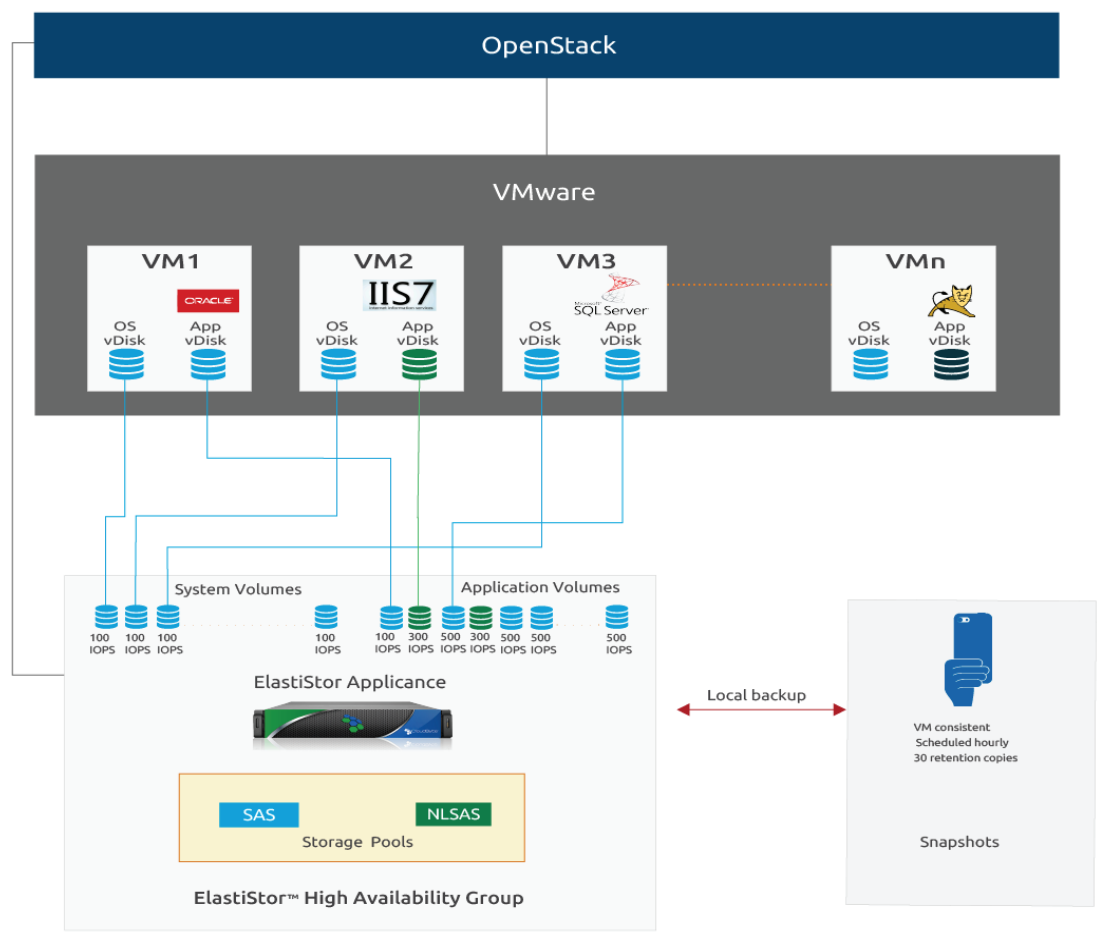
## DETERMINING FACTORS

- **1/3rd the cost:** Despite offering essential features not offered by competitors such as guaranteed storage performance.
- **No vendor lock-in:** Performance and capacity can now be independently scaled with industry-standard hardware. The customers have the right to choose their hardware.
- **Out of the way support:** Passionate technical support round the clock, acknowledged by the Fortune 500 software company.
- **Ease of Management** – including performance analytics and option to autoprovision.

**T**o optimize the per GB cost, ElastiStor uses a tiered approach. Only the latest snapshots are retained on SAS pool and the remaining resides on NLSAS pool.

### SOLUTION ARCHITECTURE

The public cloud implementation involves OpenStack as the orchestration platform and ElastiStor as storage. VMware/KVM acts as the compute platform. VMs are deployed on the predefined Hypervisors and they consume storage from ElastiStor. For guaranteed QoS, OS disk of the VM is from a SAS Pool and Application VM Disk is from SAS/NLSAS based on IOPS or throughput requirement. After the VM is created for backup and recovery, VM consistent snapshots are taken based on RPO/RTO, for example, on an hourly basis, with a retention copy of 15 disks. To optimize the per GB cost, ElastiStor uses a tiered approach. Only the latest snapshots are retained on SAS pool and the remaining resides on NLSAS pool. The multi-tenant architecture ensures that the customer data is secure.



### ABOUT CLOUDBYTE

CloudByte is a leading provider of enterprise storage for the virtual environment. Its patented software defined storage architecture enables organizations to solve the storage level I/O contentions in the virtual environment by providing granular storage performance guarantees for each application. Established in 2011 and managed by technology executives from companies such as NetApp, EMC, LSI, and Novell, CloudByte is headquartered in the Silicon Valley and has a development center in India. CloudByte is venture-backed by Fidelity Worldwide Investment, Nexus Venture Partners, and Kae Capital.

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