Lightbits on Microsoft Azure

Migrate Storage-Intensive Workloads to the Cloud with Confidence

PERFORMANCE AT SCALE

- Powered for Oracle, MySQL, MongoDB, Cassandra, PostgreSQL, and other demanding workloads
- Average latency of < 500 µsec remains flat as load increases
- Up to 1 million IOPS per volume, scaling independent of provisioned capacity
- Auto-scales capacity as data requirements increase
- Only software-defined NVMe/TCP storage certified for VMware vSphere

PREDICTABLE LOW COSTS

- Save up to 86% over Azure ultra disk managed storage
- Thin provisioning and compression to increase effective storage capacity
- Scale processing power and capacity independently

DATA PROTECTION AND HIGH AVAILABILITY

- Synchronous replication within or across availability zones
- Snapshots and clones at no extra charge

As enterprises push forward with cloud-first strategies, many are discovering that cloud storage offerings fall short for serving storage-intensive applications. While convenient to purchase, the high-performance cloud native block storage offerings are not only unpredictably expensive, they often fail to maintain low latency as demand increases. At the same time, they lack the simplified provisioning and enterprise data services of a SAN. Too many critical database, analytics, and transactional workloads remain firmly stuck on-premises against company policy. Or worse, they've been repatriated back to the data center after a failed cloud migration.

THE FASTEST BLOCK STORAGE AVAILABLE ON AZURE

To meet the needs of storage-intensive workloads, Lightbits provides scalable, efficient, high-performance block storage that is easy to purchase, deploy, and manage through Azure Marketplace. Lightbits on Azure uses Lv3- series storage optimized virtual machines and the power of NVMe/TCP to create a high-performance enterprise SAN in the cloud. With Lightbits, you can provision persistent volumes that deliver low latency and high IOPS and scale seamlessly, so you can migrate VMware workloads and SQL and NoSQL databases to Azure with confidence–and without sending cloud charges skyrocketing.

Lightbits eliminates the performance and cost issues found in the two most common cloud storage strategies. First, unlike equipping your virtual machines with local NVMe devices, Lightbits provides storage-level redundancy for data persistence. Lightbits also scales compute and storage independently, so there's no need to add virtual machines simply to increase capacity, and no need to purchase more local NVMe storage to add processing power.

The other strategy–purchasing higher-performance Azure disk storage such as Ultra Disks or Premium SSD v2–are not only costly, but whenever you add virtual machines to scale storage performance, you're forced to overprovision additional expensive Azure resources. Once again, you can't easily scale compute and storage independently.

AZURE MANAGED APPLICATION FOR TURNKEY OPERATIONS

Lightbits is available through the Marketplace as an Azure Managed Application, making it as easy to provision and manage as Azure's native storage offerings. You choose the size of the virtual machines and the number of nodes in your cluster and you're ready to go. As a fully managed service, Lightbits controls operations within your Azure subscription and manages the storage with self-healing, auto-scaling, replication, rolling upgrades, and other critical functions performed behind the scenes to ensure availability, performance, and data protection.

YOUR ENTERPRISE SAN IN THE CLOUD

Lightbits brings a SAN-like experience to the cloud. You provision, manage, and pay for storage resources as a pool instead of volume by volume. For large-scale migrations you won't need to spend weeks sizing each volume individually, and you won't have to over provision for maximum expected throughput or capacity. Lightbits also delivers thin provisioning, snapshots, clones, and multi-zone high availability.

SCALABLE HIGH PERFORMANCE

Lightbits delivers the fastest storage on Azure with up to 1 million IOPS per volume and consistent sub-millisecond tail latency, making it perfect for Oracle, MySQL, MongoDB, Cassandra, PostgreSQL databases and other demanding workloads. You can dynamically scale-out or shrink your Lightbits cluster on-demand. Lightbits Quality of Service (QoS) ensures your users won't see any service impacts.

PREDICTABLE LOW COST

Native cloud storage can be up to 7x more expensive to purchase than Lightbits. Built-in compression and thin provisioning stretch your capacity further to reduce costs even more. And you pay only for the virtual machines you deploy, not for provisioning more volumes, more IOPS, more throughput or taking more snapshots or clones.

DATA PROTECTION AND HIGH AVAILABILITY

Your data is protected from failures using synchronous 3-way replication within or across availability zones. All services are highly available and operational during failures. Your applications will maintain access to the data while Lightbits self-healing capabilities will automatically re-protect your data.

ENTERPRISE FLEXIBILITY

Lightbits is a multi-tenant solution. A single Lightbits cluster can serve multiple heterogeneous environments. For hybrid cloud deployments, you can port licenses between Azure and on-premises.

Lightbits Performance - IOPS and Tail Latency for 100% Reads
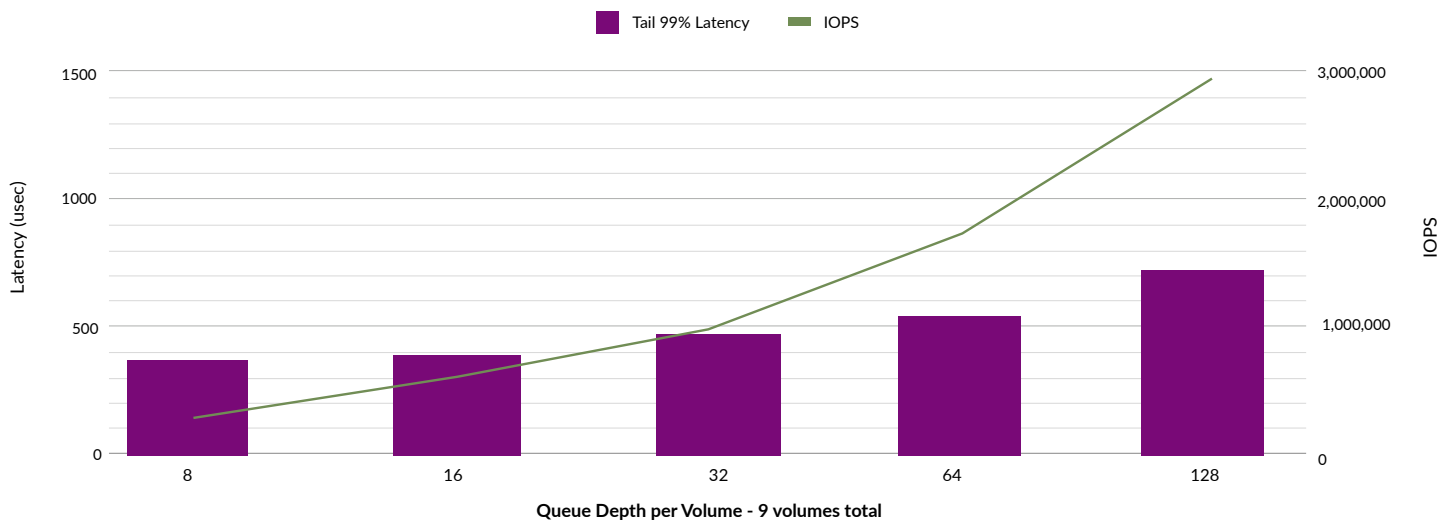
Compare Lightbits to Azure Disk Storage

	AZURE DISK STORAGE	LIGHTBITS	LIGHTBITS ADVANTAGE
Performance	Up to 160K IOPS per volume Up to 120K IOPS per VM using Azure Ultra Disk	1M IOPS per volume 3M+ IOPS per VM consistent low latency	Maximum performance for your most demanding storage intensive workloads
Storage Costs	Charged by capacity plus for provisioned IOPS and throughput	No IOPS or throughput charges and up to 86% lower pricing than Azure Ultra Disk	Low, predictable pricing for premium performance
Additional Costs	Pay subcharges for each volume you provision and every snapshot you create	Pay only for the Lightbits on Azure virtual machines you deploy	Scale your data cloud and deliver stronger data protection at no additional cost
Compression & Thin Provisioning	No	Yes	Increase your effective storage capacity

1830 The Alameda, San Jose, CA 95126   E: info@lightbitslabs.com   www.lightbitslabs.com