

Storage Cloud Blox

Scale-out, software defined storage approach to datacenter infrastructure

Traditional storage fails to meet the needs of today's modern businesses and service providers. As your organization moves into new, next-generation IT use cases such as cloud, big data analytics, IoT, mobile and media streaming, you need a storage solution that is flexible and scalable to achieve business and technical objectives. Your storage solution should enable high performance and high capacity workloads while being economical and simple to scale as data grows.



Traditional storage systems add fixed amounts of capacity with limited bandwidth, requiring large, up-front capital expenses making scalability difficult. With scale-out storage and Cloud Blox appliances, adding capacity and performance is a smaller incremental expense. Your organization can scale one appliance at a time as your consumers demand. Yottabyte's Cloud Composer SDI platform includes a massively scalable, fully distributed, globally deduplicated software-defined storage system developed from the ground up to deliver block storage in a single self-managed, self-healing platform. Cloud Composer provides an excellent alternative to traditional storage arrays where features like global deduplication, cache tiering and replication enable flexibility in how data is stored, protected and accessed to meet varied performance and capacity needs.

Virtual Datacenter

Yottabyte and Intel technologies allow the building of a range of scale-out infrastructure appliances called Cloud Blox. These appliances may be mixed and matched to enable the simple creation of a Cloud Composer cloud infrastructure containing the right mix of hyperconverged, storage, computing and network resources for your current needs. As your needs change, you simply add additional Cloud Blox - no re-architecture or forklift upgrades are required.

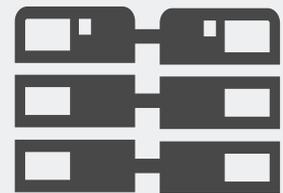
Simplified Management

Because Yottabyte clouds are defined by software, the infrastructure itself can be reconfigured on the fly. New storage volumes, virtual networks, virtual machines or entire tenant virtual datacenters can be spun up with just a few clicks, on a moment's notice, securely from any connected browser, on any device.

Key Benefits

Composer Hardware Abstraction

The core of your next generation datacenter infrastructure is Yottabyte Cloud Composer. This software abstracts and isolates physical appliance resources into secure virtual datacenter containers. These physical elements are translated into secure pools of virtual storage, virtual compute and virtual network resources. These virtual resource units can be provisioned to secure tenant environments to run virtual machine and virtual network workloads on top of the virtual SAN. Each tenant may sub-provision their resources allowing nested tenancies. This enables true multi-tenant, isolated datacenters that run on the same physical infrastructure with zero impact by your neighbor. With Cloud Composer, disaster recovery is considered at the entire virtual datacenter, not just VM level. Instant cloning and replication happens at the VDC level, even between sites. Everything is configured, managed, and provisioned entirely through software, securely from any device with a modern browser. The Cloud Composer SDI platform provides on-demand provisioning and unmatched flexibility, all while increasing efficiency and reducing complexity.



Scale-out Architecture

A Cloud Composer infrastructure platform is built upon a scalable architecture of modular Cloud Blox appliances. With this architecture, you are free from burdensome pre-planning and the massive initial expense of traditional storage and compute systems. Your implementation can start small, with a small investment, and easily scale through evolution. The datacenter you create for a proof-of-concept can be easily scaled for pilot testing and production use simply by adding additional Cloud Blox.

Storage Infrastructure Appliances

Cloud Blox deliver high performance All Flash Array or capacity optimized Hard Disk storage

Yottabyte vSAN

Enterprise class virtual storage area network (vSAN) software. Connect these high performance all flash or capacity optimized hard disk drive Cloud Blox appliances to VDC's running on any Yottabyte Hyperconverged or Compute Cloud Blox appliance. Scale-out each tier of storage at its own rate, based on consumer demand.

vSAN Features:

- Scale-Out Architecture
- N+1 Node Resilience (Default)
- Global Deduplication
- Replication (cluster to cluster)
- Replication (site to site)
- At-rest Encryption
- In-flight Encryption
- Branching
- Snapshots (Tenant, VDC & VM)
- Customizable Retention Profiles
- Silent Corruption Detection
- Silent Corruption Repair
- Auto-health scanning
- Web-browser based GUI



S1500i-E3-SSD

Enterprise class all flash storage array. Configured using Intel datacenter solid state drives optimized for the highest performance and reliability. NVMe SSD used for increased performance.

Compute:

Yottabyte Cloud Composer 4.0 OS
Intel Xeon: E3-1240v5
4 CPU Cores / 8 Threads
Clock Speed: 3.5GHz

RAM:

32GB 1600MHz DDR3L ECC

Storage:

Yottabyte vSAN
NVMe: 1x400G PCIe
Intel Datacenter Class SATA SSD:
DC S3710 SSD (10x TDWD, 5 years)
DC S3610 SSD (3x TDWD, 5 years)
DC S3510 SSD (.3x TDWD, 5 years)
RAW: 6.4T (8x800G) - 12.8T (8x1.6T)
Usable: 3.2T (8x400G)- 6.4T (8x800G)
Speed: Up to 10Gb/s

Network:

2x1GbE, 2x10GbE (SFP+)

Physical:

1U: 17.24" x 21.8" x 1.75"
450W Redundant Power Supply
Power cables (120V, NEMA 5-15R)
Premium rail kit



S1500i-E3-HDD

Capacity optimized storage for small and medium businesses. Configured using hard disk drives for backup and archive storage with NVMe SSD for increased performance.

Compute:

Yottabyte Cloud Composer 4.0 OS
Intel Xeon E3-1240v5
4 CPU Cores / 8 Threads
Clock Speed: 3.5GHz

RAM:

32GB 1600MHz DDR3L ECC

Storage:

Yottabyte vSAN
Seagate Enterprise SATA
NVMe: 1x400G PCIe
RAW: 24T (4x6T) or 16T (4x4T)
Usable: 12T (4x3T) or 8T (4x2T)
HDD Speed: 7200 RPM
Speed: Up to 10Gb/s

Network:

2x1GbE, 2x10GbE (SFP+)

Physical:

1U: 17.24" x 21.8" x 1.75"
450W Redundant Power Supply
Power cables (120V, NEMA 5-15R)
Premium rail kit



S2400i-E5-HDD

Capacity optimized storage for medium and large businesses. Configured using hard disk drives for backup and archive storage with NVMe & SATA SSD for increased performance.

Compute:

Yottabyte Cloud Composer 4.0 OS
Intel Xeon: E5-2620v4
16 CPU Cores / 32 Threads
Clock Speed: 2.1GHz

RAM:

128GB 1600MHz DDR3L ECC

Storage:

Yottabyte vSAN
Seagate Enterprise SATA
NVMe: 1x400G PCIe
RAW: 72T (12x6T) or 48T (12x4T)
Usable: 36T (12x3T) or 24T (12x2T)
HDD Speed: 7200 RPM
Speed: Up to 10Gb/s

Network:

2x1GbE, 2x10GbE (SFP+)

Physical:

2U: 17.24" x 28.86" x 3.42"
1600W Redundant Power Supply
Power cables (120V, NEMA 5-15R)
Premium rail kit

Cloud Composer - Software Defined Infrastructure Platform

Composer SDI Software

Complete software defined infrastructure platform that abstracts virtual datacenter environments from the underlying hardware. Fully automated orchestration enables secure provisioning of storage, compute & networking in seconds.

Storage:

Built-in Yottabyte vSAN included. Scale-out, distributed architecture; add Cloud Blox for performance or capacity as needed. Global deduplication, mirrored and striped data protection. On-the-fly corruption detection & repair. Configurable encryption at rest and in flight.

Compute:

Built-in Hypervisor included. Guest OS support for Windows and most major Linux distributions that run on x86 platforms. Automatic VM failover and live migration between nodes.

Network:

Built-in virtual switching. Public/Private IP address, L2/L3, BGP, firewall, NAT/PAT, DNS, DHCP & MAC address management.

Scalable:

This is a multi-cluster/site/cloud aware platform. There is no single cluster node limit, however, practical implementations are governed by network uplink and datacenter power limits.

Management:

Single pane of glass, secure web-browser based interface for managing, monitoring, alerting and notification.