

# Hyperconverged Cloud Blox

*Scale-out, building block approach to datacenter infrastructure*

The primary limitation that IT departments face is the physical datacenter infrastructure itself. Traditional architectures rely on complex and expensive specialized products from multiple vendors. Not only do these devices offer limited scalability options, but each vendor has its own unique certification and support program, and requires different implementation and operation domain expertise. Ultimately, the tools chosen to support your most critical initiatives end up restricting your ability to respond to the changing needs of your business.



Yottabyte's Cloud Composer and Cloud Blox appliances eliminate these limitations by providing a software-defined infrastructure solution that enables you to build a highly scalable and distributed datacenter infrastructure platform. Whether you are a business or service provider, this complete solution includes everything you need - storage, computing, virtualization and networking – all from one vendor.

## 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 to meet your current needs. As your needs change, you simply add additional Cloud Blox - no re-architecture or forklift upgrades are required.

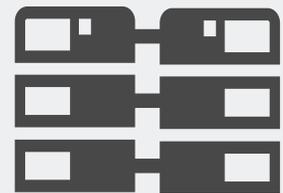
## Simplified Management

Because Yottabyte Cloud Composer clouds are defined by software, the infrastructure itself can be reconfigured on the fly. New storage volumes, virtual networks, or entire virtual computing environments can be spun up with just a few clicks, on a moment's notice, securely via browser on any connected 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-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.

# Hyperconverged Infrastructure Appliances

Cloud Blox deliver CPU and RAM to run VM's and primary, direct attached storage on the same device



## H1500i-E3-HDD

Entry level system for small and medium businesses and ROBO workloads. Configured using hard disk drives for storage with NVMe SSD for increased performance.

### Compute:

Yottabyte Cloud Composer 4.0 OS  
Up to 56G RAM for VM's (KVM)  
Intel Xeon E3-1240v5  
4 CPU Cores / 8 Threads  
Clock Speed: 3.5GHz

### RAM:

64GB 2133MHz DDR4 ECC

### Storage:

Yottabyte vSAN  
Seagate Enterprise SATA  
NVMe: 400G 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



## H1500i-E3-SSD

High performance entry level system for lower density computing using the Intel Xeon E3 class CPU with lower core count & high GHz, configured with all flash storage.

### Compute:

Yottabyte Cloud Composer 4.0 OS  
Up to 56G RAM for VM's (KVM)  
Intel Xeon: E3-1240v5  
4 CPU Cores / 8 Threads  
Clock Speed: 3.5GHz

### RAM:

64GB 2133MHz DDR4 ECC

### Storage:

Yottabyte vSAN  
Intel Datacenter Class SATA SSD  
NVMe: 400G PCIe  
RAW: 3.2T (4x800G) - 12.8T (8x1.6T)  
Usable: 1.6T (4x400G) - 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



## H1400i-E5

Enterprise class computing flagship for the most demanding server workloads. Configured using Intel Xeon E5 class CPU and Intel datacenter class all flash storage.

### Compute:

Yottabyte Cloud Composer 4.0 OS  
Up to 256G RAM for VM's (KVM)  
Intel Xeon: E5-26XXv4  
16-36 CPU Cores / 32-72 Threads  
Clock Speed: 2.1GHz - 2.4GHz

### RAM:

384-768GB 2133MHz DDR4 ECC

### Storage:

Yottabyte vSAN  
Intel Datacenter Class SATA SSD  
NVMe: 400G PCIe, 2.5" optional  
RAW: 6.4T (8x800G) - 12.8T (8x1.6T)  
Usable: 3.2T (8x400G) - 6.4T (8x800G)  
Speed: Up to 40Gb/s

### Network:

2x1GbE, 4x10GbE or 2x40GbE

### Physical:

1U: 16.93" x 27.95" x 1.72"  
750W Redundant Power Supply  
Power cables (120V, NEMA 5-15R)  
Premium rail kit



## H2400i-E5

Enterprise class, high-density computing. 4 HCI nodes in 2U for the most demanding server workloads. Configured with Intel Xeon E5 CPU and datacenter class all flash storage.

### Compute:

Yottabyte Cloud Composer 4.0 OS  
Up to 1,024 RAM for VM's (KVM)  
Intel Xeon: E5-2680v4  
112 CPU Cores/224 Threads  
Clock Speed: 2.4GHz

### RAM:

1,536-2,048GB 2133MHz DDR4 ECC

### Storage:

Yottabyte vSAN  
Intel Datacenter Class SATA SSD  
NVMe: 400G PCIe, 2.5" optional  
RAW: 3.2T (4x800G) - 12.8T (8x1.6T)  
Usable: 1.6T (4x400G) - 6.4T (8x800G)  
Speed: Up to 40Gb/s

### Network:

8x1GbE, 16x10GbE or 8x40GbE

### Physical:

2U: 17.24" x 28.86" x 3.42"  
2130W 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 Tenant/VDC/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.

**NEXT STEP:** visit us at [www.yottabyte.com](http://www.yottabyte.com) to request a demo and try out a live virtual datacenter