

vScaler Storage



vScaler Cloud Storage (VCS) is software that helps companies of all sizes simplify the design, deployment and management of storage infrastructures by turning standard server hardware into a reliable and highly automated data center file system – hence it is viewed as a new generation hardware agnostic storage system.

At its core, VCS is a distributed parallel file system:

- Distributed means that file data and metadata is stored on many servers.
- Parallel expresses that file data can be read from and written to many devices in parallel.
- File system indicates that it provides the very semantics of a local file system.

HIGH PERFORMANCE

Get the most out of your hardware: Ultra-low latency and fast metadata operations keep up with tough workloads like EDA, Life Sciences, Financial Services, and Media & Entertainment.

LINEAR SCALABILITY

Scale out from a single four node appliance to entire data centers and beyond. Add nodes to increase performance without downtime.

MANAGE WITH AUTOMATION

vScaler cloud storage frees administrators from worrying about system internals. Reconfigure your entire storage with one click and bring agile best practices to your storage. The software is self-managing, shielding you against hardware failures, operator errors, network partitions and disk corruption. End-to-end checksums protect all file data, metadata, and communications.

FREEDOM OF CHOICE

VCS can be installed on most Linux distributions. Since VCS does not require extensive server resources it can run both on dedicated storage servers and shared compute/VM/storage hosts. Sharing hardware can result in lower hardware costs, but also enables higher performance through server-local data access for a variety of applications. In many scenarios, it allows scaling storage and compute simultaneously by adding individual servers.

Unified Storage Access

VCS implements strong data semantics that can subsume all kinds of unstructured data including block storage and object storage

Single Management Interface

Manage and scale your storage resource with an easy to use web interface

Built for the future

With support for Kubernetes, Mesos, and Rancher you get a solution for rapidly fluctuating workloads



FUTURE PROOF

Inflexible data center design has given way to a highly responsive containerized world and with VCS, your storage will be ready. We provide persistent storage for containers, you can even run your storage inside containers. Along with support for Kubernetes, Mesos, and Rancher and Hadoop you get a solution for rapidly fluctuating workloads.

STORAGE

- Unified Storage
- Auto Tiering
- Containerisation
- Erasure Coding
- Data Placement
- Composable Quotas

BENEFITS

- POSIX file system for seamless integration
- High IOPS, consistent sub-millisecond latency
- “Lights-out” data center resiliency; self-healing
- Near-perfect linear scaling
- 100% hardware and kernel independent
- Hadoop, Docker, and OpenStack support
- Erasure coding option, perfect for analytics and sequential workloads
- Policy-driven data placement and tiering
- Integrates with Kubernetes, Rancher, and Mesos

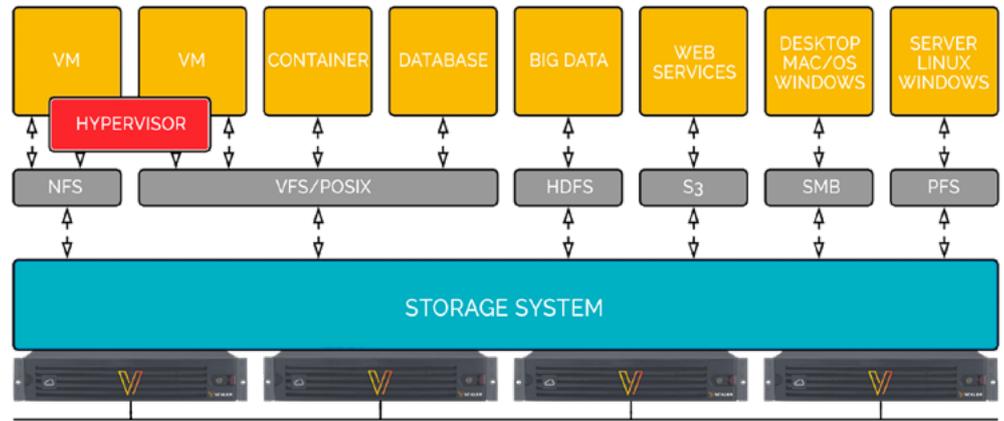


Fig. 1 - All data can be subject to file-based backup systems

VSCALER STORAGE BUILDING BLOCK

STORAGE CAPACITY	Up to 12TB NVMe or 750TB SAS
MEMORY	384GB DDR 2666MHz
NETWORK CONNECTIONS	2x 1 GbE, 1x 1GbE RJ45 (IPMI) Dual-Port 25 GbE RDMA Mellanox
MULTITENANCY	Built-in
DATA PLACEMENT	Dynamic and policy driven down to the file level, enables performance isolation, system partitioning, tiering and intelligent placement by locality
CHECKSUMS	End-to-end CRC32 at the block level
BLOCK SIZE	512 bytes to 2MB, configurable for each file
PARALLEL IO	Striping, direct communication from client to many storage servers
HEALTH MANAGER	Continuous supervision of cluster health and performance
LIVE UPDATES	No service integration with



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