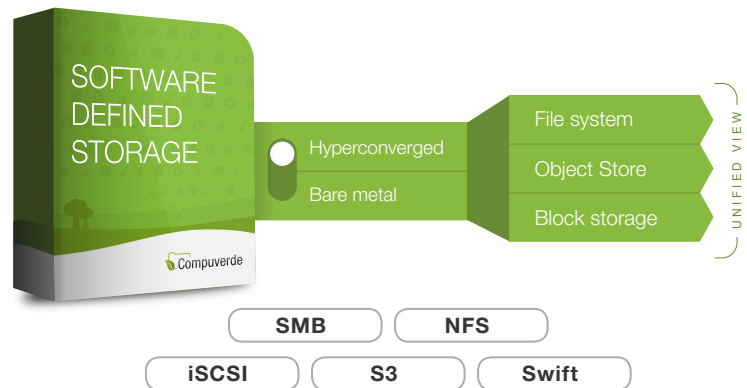


Compuverde Product Overview

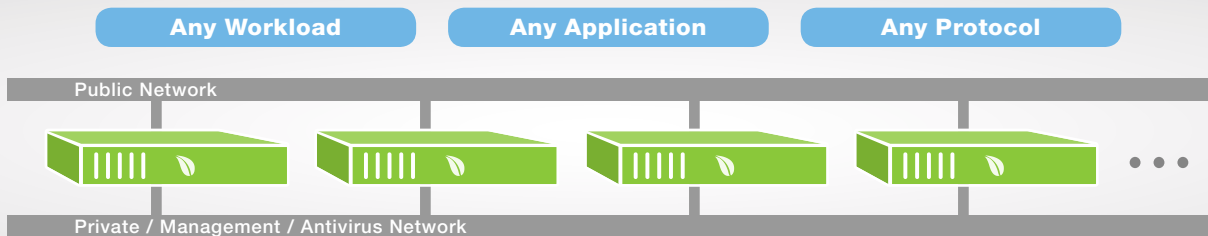
Compuverde delivers a unified storage solution with NAS, SAN and Object Store in one package. Fully software-defined, completely hardware-agnostic and massively scalable, eliminating the cost and worry of future data migrations and hardware replacements.

Compuverde Scale-out storage delivers a cost efficient storage with a fully featured unified file system. Each node in the cluster is a self-sustained server installed with Compuverde vNAS software. The file system spans all nodes, consistently available through any node and through any of the major protocols. This makes for a storage system that is self healing, flexible and fully automated – packed with essential features for flexibility, safety and security.

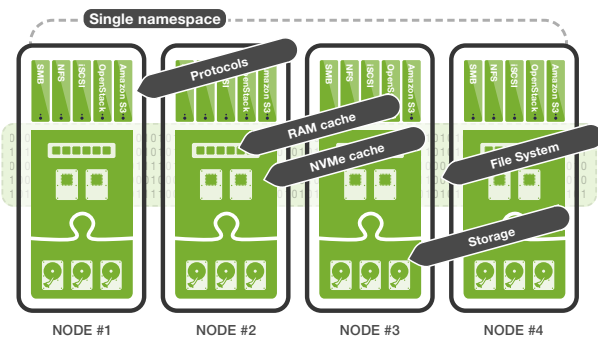


3 deployment modes: **vNAS**, **Hyperconverged** or **Metro**. Off-site Async Replication for disaster recovery.

Compuverde scale-out storage cluster



Architectural overview: Compuverde vNAS



Private Network

For synchronization and communication between the nodes. Use high-speed connections for low latency and increased performance. Optionally, use separate networks for management and antivirus.

Management Tool

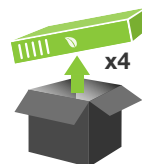
Designed to help perform administrative tasks, monitor the system, change configuration features, access logs and roll out new firmware updates. Connected to the management network, it is not part of the storage cluster or node-to-node communication.

Clients and applications access the file system through the public network. All nodes share the same view. The cluster keeps itself internally synchronized, horizontally throughout the cluster and vertically down to the physical storage. Data is automatically distributed and replicated for protection.

Authentication services provide a layer of security before allowing access to read or modify data. Compuverde supports Active Directory, NIS, Kerberos and more.

Everything is embedded, simplifying the installation and securing reliability and integration between protocols, file system and object store. No open source or third-party libraries are used.

3 Step Installation



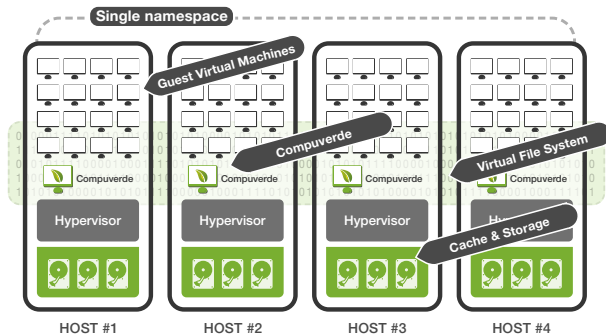
1. Insert the CD / ISO
2. Reboot to start the installation
3. Set a name

The name you select for the node will show up in the list of available nodes for the storage cluster.

Refer to the Compuverde Quick Setup Guide and the Installation Guide for information before deployment.

Hyperconverged

In Hyperconverged mode, Compuverde installs on hypervisor hosts such as VMware ESXi. Fast and efficient by having direct access to cache and storage devices by using PCI passthrough or RDM. Combines computing, network, virtualization and storage.



Erasure coding provides almost complete data redundancy and reduced footprint compared to mirroring. Compuverde distributes slices of data across nodes and locations so that data and services stay protected in case of failure. Each node will contain a mix of data and parity from other nodes' data, so hot spots are avoided and all data is equally safe.

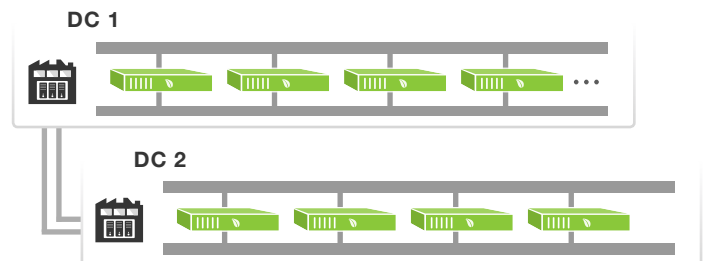
Virtual IP makes your storage cluster highly available. The feature provides a failover mechanism for nodes, ensuring that all nodes appear online at all times even in the case that one goes down.

Multitenancy: With multitenancy, you can add multiple file systems within a single storage cluster. Each file system has its unique domain, shares, users and groups. This allows reduced overhead, easier administration and cost-savings on power consumption and hardware. The file systems and everything inside are isolated from each other. Disk Quotas can be set for file systems, shares and folders.

Upgrades: To increase capacity and throughput, simply add nodes of any size to the cluster, on-the-fly with no need to

Metro

Compuverde Metro Cluster multi-site configuration offers complete redundancy to support mission-critical data and applications. Data is synchronously mirrored and distributed to two independent physical locations less than 1 ms apart (2 ms round-trip). Metro can be utilized both with Compuverde vNAS and Hyperconverged setups.



take the service offline. Mixed sizes are supported, so if you later decide to add larger nodes, there is no need for "forklift" upgrades. The storage cluster will automatically rebalance, distribute existing data and utilize the new capabilities. Similarly, firmware updates and hardware replacements can be done on-the-fly using Virtual IP to ensure continuous service. Avoid hotspots by enabling Auto Rebalance before adding nodes to an existing cluster so that existing data is distributed to the new and empty nodes.

Recommended hardware specifications

CPU	x64 (4+ cores) SSE4.1
RAM	64+ GB
Boot disk	60+ GB
Cache disk	100+ GB NVMe
Storage disk	SAS/SATA disks
Network	2 x 10 Gigabit or more
Network switch	2 x switches
Number of nodes	Scale out from 4 nodes



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