



Open Source Scale-Out iSCSI SAN Solution

PetaSAN is a new Open Source Scale-Out SAN solution which uses modern technologies that power many cloud deployments. The system is agile, scalable and provides data resilience, thanks to the advanced AI that is provided by PetaSAN's Ceph-based architecture. This allows for the addition of storage nodes at any time without interruption.

PetaSAN is designed to provide the user with highly available, clustered iSCSI hard disks. Multi-path iSCSI disks, each of which can be identified by a virtual IP address, provide fast I/O and link redundancy. With PetaSAN the iSCSI drives are mapped by Ceph to multiple physical drives in the cluster. In the event of node failure those virtual IPs can be dynamically moved from one node to another in a client-transparent manner.

PetaSAN is ideal for deployments that require high parallel I/O operations. Examples of use cases with high I/O demands are:

- Big Data analytics
- VMware vSphere deployments
- Microsoft Hyper-V implementations
- Scalable shared file systems such as Microsoft Scale-Out File Server (SOFS)
- Database servers with multiple parallel transactions per second

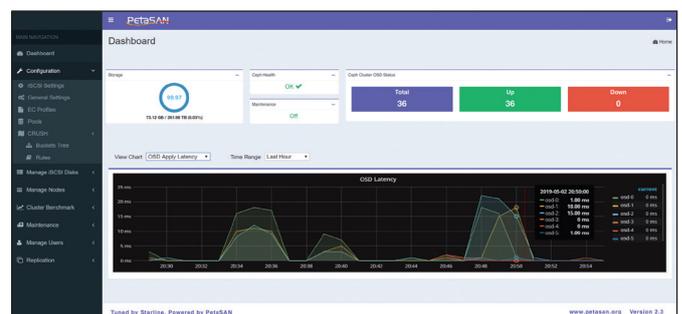
PetaSAN excels when it comes to providing users with a highly available, clustered iSCSI storage that is easy to deploy and a breeze to manage. It makes things easy for system administrators by providing an intuitive point-and-click management interface while also allowing power users full access to the underlying system via command line.

PetaSAN can be fully integrated with modern Open Source IT infrastructure automation and management solutions such as Ansible, Puppet, SaltStack and more.

- Internally PetaSAN uses the following modules:
- LIO (www.linux-iscsi.org) for its target iSCSI server
 - Ceph (www.ceph.com) for its storage engine
 - Consul (www.consul.io) for distributed resource management in the cloud

Advantages

- State-of-the-art SDS that flexibly expands storage capacity to meet actual demand
- Delivers n-way active/active iSCSI that distributes individual disk LUNs across multiple nodes
- Transforms iSCSI service of the Linux kernel into a scale-out service layer running on the Ceph storage backend
- Supports iSCSI Persistent Reservations and VAAI in Hyper-V and VMware virtualization environments
- Provides an integrated end-to-end solution
- Access to proven cloud technology for the data center
- Self-adapting and self-healing system with high reliability
- Ceph Storage Engine ensures that data is stored in an open standard format - without proprietary vendor lock-in

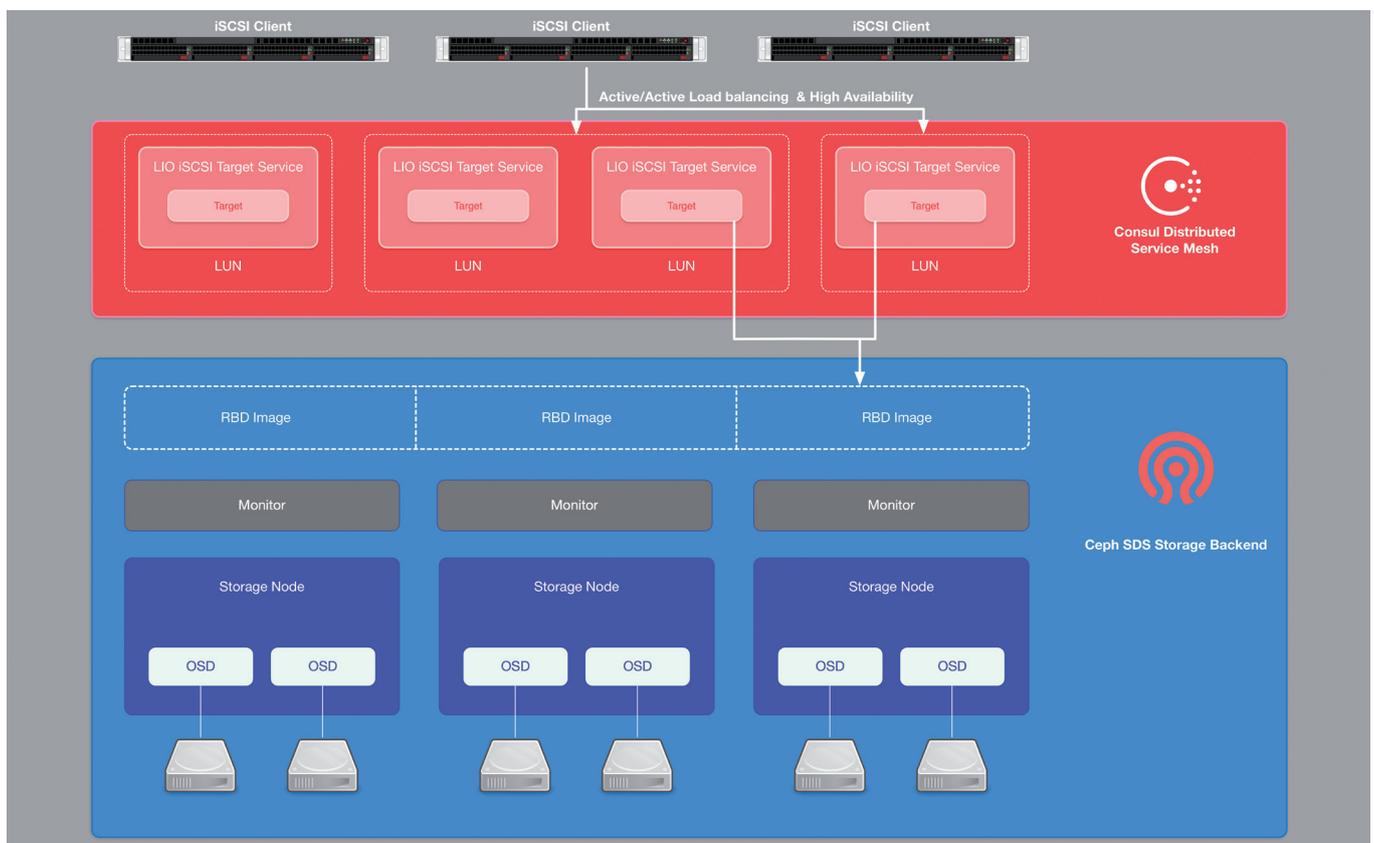


The concise PetaSAN user interface provides an overview of all the important information at a glance.

Reliable support from EUROstor

In case of questions and for trouble-shooting, EUROstor will provide you with full first-level support: You can reach us by email or telephone five days a week for nine hours each.





 **ceph** is a software-defined storage (SDS) platform. SDS means that a solution relies on software intelligence rather than expensive hardware controllers and an inflated number of disks to preserve the integrity of data and keep total cost to a reasonable minimum.

- To ensure the integrity of your data, Ceph uses monitors (MONs) to watch over your object storage devices (OSDs). The OSDs are where your data is kept. It can also run metadata servers which provide POSIX file-system capabilities.
- Ceph can use either Replica or Erasure Coding profiles:
 - Replicas = Number of copies of your data
 - Erasure Coding = An algorithm that allows you to make more efficient use of your raw capacity in exchange for more CPU and RAM usage
- Ceph makes use of a Crush Map, an algorithm that determines how to store and retrieve your data by computing data storage locations
- Ceph has object storage, block storage and file-system abilities. This allows it to be integrated within almost any storage scenario.

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