MayaNAS Overview

MayaNAS provides enterprise-class unified storage solution with high-performance and high-availability for

Block storage	Fibre-Channel, iSCSI, NVMe target
File Storage	NFS protocol 3 and 4. Additionally SMB, AFP protocols for file service
Cloud Storage	Azure Blob, Google Object Storage, Amazon or other S3 compatible
Data Protection	Adaptive RAIDZ that ZFS provides with advanced checksumming and self-healing. Unlimited Snapshots with rollback and fast cloning. Periodic Snapshot based delta mirroing Asynchronous block device mirroring using DRBD.

For administration the server comes with light-weight web based GUI using only javascript and HTML standards, and cross-platform scriptable CLI that works remotely too. MayaNAS is easy to use feature rich storage server for various workloads from bandwidth demanding video streaming to latency sensitive database workloads. Common deployment with MayaNAS is outlined below.

- **All Flash Array**
  Robust ZFS based storage pool with all SSD storage for stellar NFS and block storage performance.
- **Hybrid Data Platform**
  Build cost effective storage platform with bcache for LVM or with L2ARC Read/Log cache for ZFS
- **Capacity optimized NAS**
  Industry validated deduplication based on Alberio VDO combined with LVM thin-provisioning.

Feature		
Dual controller High-Availability	Avoid complicated Scale-Out deployment when our Active-Active solution can surpass the performance and capacity requirement.	
Shared Storage	SAS/SATA JBOD NvmeoF for internal attached storage. EBS storage on cloud. S3 Object storage	
Network	10G or better for iSCSI Any RDMA capable interface for NVMeoF Standard TCP on cloud. No SRIOV or special network adapter required.	
NVMe SSD Write Caching	Uses bcache module for write-cache in write-thru or write-back over slow devices.	
Read Cache and Write Log Support	No log device required when using all SSD for storage. On cloud when pd-ssd is used. L2ARC setup over Ephemeral NVMe devices Mirror Log over Ephemeral NVMe	
Snapshot	Highly scalable efficient snapshots with ZFS or with thinpool LVM Policy driven Snapshot Scheduling	
Replication	Snapshot based mirroring with RPO of 1 min Synchronous mirroring Asynchronous Replication	
Object Tiering	Connect to cloud object storage as local block devices. Support for Google Cloud Storage, Azure Blob , Amazon or other S3 compatible providers.	
Lift and Shift	Pair with deduplication and compression for getting data in and out of cloud.	

Installation

The software is available as bootable ISO image suitable for baremetal installation or in any VM infrastructure. On cloud self extracting installer bundle is provided to convert Centos 7.4 compute instance to ZettaLane MayaNAS image.

Cloud Support

MayaNAS architected solution fully exploits the network and storage resources available for the following cloud platforms and provides highly-available and scalable

Google Cloud

Microsoft Azure

Amazon AWS