



# Modern Storage for OpenStack

*Automation, elasticity, and flexibility for cloud builders*

Today's enterprises need to move faster to capitalize on new opportunities and need a greater level of agility in provisioning applications and infrastructure. OpenStack provides a comprehensive set of software tools for building and orchestrating private and public clouds, helping organizations achieve a faster time-to-market with infrastructure-as-a-service automation.

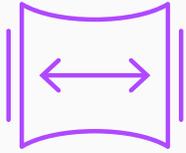
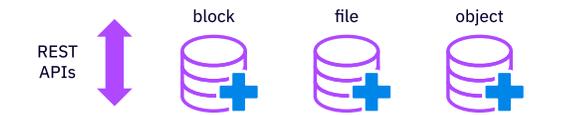
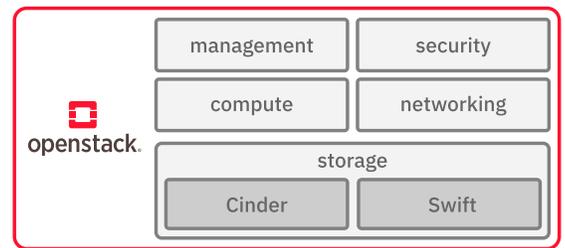
The Hedvig Distributed Storage Platform designed with modern distributed systems DNA is a perfect fit for production OpenStack deployments, transforming commodity hardware into an elastic, resilient, modern storage solution that keeps pace with changing business requirements.

## Hedvig and OpenStack – the perfect match

Organizations rely on a wide range of applications and need access to a full set of storage capabilities within OpenStack. Modern web and cloud applications add additional pressure requiring scale-out architectures to meet user demands. In the face of these challenges, traditional storage solutions quickly become a bottleneck.

Hedvig software-defined storage provides simplicity and flexibility for OpenStack initiatives. With block and file storage protocols via Cinder, object storage via Swift, and support for private and public cloud infrastructure you can meet all of your OpenStack requirements without resorting to hard-to-manage islands of storage. Hedvig provides a robust set of advanced storage features needed for OpenStack in production environments.

The Hedvig solution is fully programmable with all of its functionality accessible via REST API. IT and DevOps have at their fingertips everything required to quickly build and deploy an automated, full featured, implicitly hybrid, storage system.



### Scalable storage for private and public clouds

Scale to petabytes of data. Start with as few as three nodes and scale to thousands. Add capacity when needed. Embrace the economics of commodity infrastructure for your storage.



### Block, file and object storage: no-compromise

Define and deliver any type storage for your business applications running on any platform. Maximum flexibility means no compromise delivery of services to your business.



### Seamless integration and automation

Cinder and Swift integration simplify storage provisioning directly from Openstack. Streamline deployment with support for Mirantis using the Hedvig Plugin.



## Advanced Storage Features

- < Cinder and Swift support
- < Mirantis Plugin
- < iSCSI, NFS, and object protocols
- < All-flash and hybrid disk support
- < Quality of service (QoS) controls
- < Auto-balancing and tiering
- < Client-side SSD/PCIe caching
- < Inline deduplication
- < Inline compression
- < Thin provisioning
- < Tunable replication
- < Cross rack and site disaster recovery policies
- < Self-healing
- < Zero-impact snapshots and clones
- < I/O sequentialization
- < GUI, CLI, REST API, and RPC interfaces

## Business Benefits

- < Lower TCO 60% or more
- < Scale to massive capacity
- < Eliminate operational headaches
- < Lower risk of data-loss
- < Eliminate storage downtime
- < Never migrate data again
- < Deliver projects on time

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## The Hedvig Distributed Storage Platform

The Hedvig Distributed Storage Platform provides a single, unified software-defined storage platform with the capabilities you've come to rely on from enterprise storage.

- The Hedvig Storage Service, a patented distributed systems engine installs on whitebox servers to deliver all of the storage options and capabilities required for an enterprise OpenStack deployment.
- The Hedvig Storage Proxy, a lightweight storage access layer, runs as a guest VM or Docker container to enable support for any compute environment

The Hedvig Distributed Storage Platform provides the flexibility to scale compute and storage separately in a hyperscale configuration, as well as together in a hyperconverged solution.

## Advantages of OpenStack with Hedvig

Simplify and automate provisioning – spin up any number of virtual disks in just a few seconds. Cinder, Swift, and REST API support enables seamless integration for OpenStack developers.

- Integrate public and private clouds—Build a unified hybrid environment to easily migrate to or from your data center and public clouds.
- Set granular virtual disk policies—assign enterprise-class features on a per volume basis to best fit your application requirements.
- Connect to any compute environment—use with any hypervisor, application, or bare-metal system.
- Grow seamlessly with an elastic cluster—scale storage performance and capacity on-the-fly with off-the-shelf x86 and ARM servers.
- Deliver predictable performance—massive parallelism, dedicated flash, and edge cache configurations deliver consistent high-IOPS performance for demanding applications.



### ABOUT HEDVIG

Built by software engineers of the world's largest distributed systems, Hedvig delivers modern storage for enterprise compute environments running at any scale. Customers such as LKAB, Scania, and GE use the Hedvig platform to transform their storage into a fundamental enabler of digital business strategies.

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