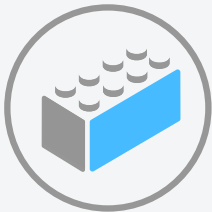


Elastic

Scales to petabytes of data

Start with as few as three nodes and scale to thousands. Add capacity as needed. Embrace the economics of commodity x86 infrastructure to build your storage.



Simple

Provides block, file, and object storage

Collapse monolithic, disparate storage solutions into a single, modern platform. Streamline and automate provisioning. Bring the simplicity of public clouds to your datacenter.



Flexible

Connects to any compute, runs in any cloud

Ensure any application or OS benefits from modern storage. Avoid application and OS rewrites. Evolve to software-defined and cloud infrastructure at the pace your business demands.

Hedvig Distributed Storage Platform

Hyperscale Storage for Enterprise Clouds

The Hedvig Distributed Storage Platform is a modern storage solution for any enterprise compute environment running at any scale. It's truly software defined, transforming commodity hardware into the most advanced storage solution available today.

A single, programmable platform for any workload, any cloud, and any tier

Traditional data storage systems no longer keep pace with the rapidly changing demands of modern applications and clouds and are difficult to manage as data grows exponentially. Hedvig delivers the flexibility to quickly and easily tailor storage for any workload from private and hybrid clouds including VMware, Docker, and OpenStack to big data and IoT, to disaster recovery, backup and archiving. Designed with distributed systems DNA, the Hedvig platform gets better and smarter as it scales, transforming a cluster of x86 or ARM servers into a highly-flexible, cost-effective storage system.

The Hedvig Distributed Storage Platform enables:

- < **A scale-out, software architecture.** Achieve the elasticity needed to grow data services in lock step with changing business requirements.
- < **Native, multi-site replication.** Natively replicate data among sites to ensure locality and availability.
- < **Full automation and orchestration.** Automate provisioning and management via orchestration frameworks and APIs for a composable infrastructure.
- < **Application-specific data services.** Match application needs with individual storage policies to meet unique data requirements.



"We like Hedvig because it was the only product that provided the enterprise and multi-site availability features we needed. The Hedvig Distributed Storage Platform now underpins our entire software-defined datacenter initiative and we have it deployed in development across four data centers in Europe to help with rapid prototyping in our digital platform."

— Emmanuel Salzard, Director of IV2 Digital Platform
BNP Paribas CIB

The Hedvig Architecture

Hedvig Storage Service

- < Patented distributed systems engine that scales storage performance and capacity with off-the shelf x86 and ARM servers
- < Delivers all of the storage options and capabilities required for an enterprise deployment

Hedvig Storage Proxy

- < Lightweight VM or container that enables access to the Hedvig Storage Service via industry standard protocols
- < Enables client-side caching and deduplication with local SSD and PCIe flash resources for fast local reads and efficient data transfers

Hedvig APIs

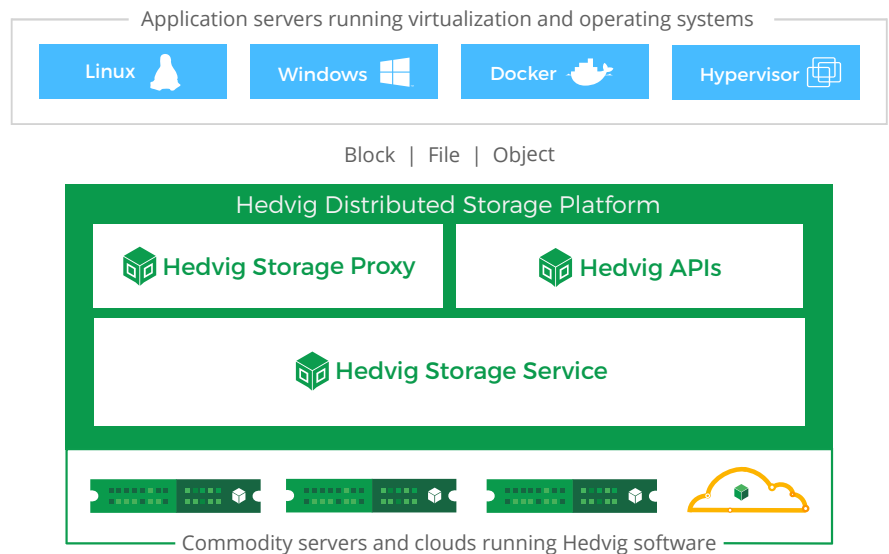
- < RESTful and RPC-based application programming interfaces (APIs) for developers
- < Enable access to all Hedvig storage features to automate provisioning and management with self-service portals, applications, and clouds

An elastic storage cluster with predictable performance, reliability and cost

The Hedvig Distributed Storage Platform provides all of the capabilities required to support even your most demanding workloads. Hedvig powers in-software provisioning of file, block, and object storage with the flexibility to span private and public clouds, creating an elastic, hybrid cluster that can scale to thousands of nodes.

Hedvig software virtualizes and aggregates flash and spinning disk in a server cluster or cloud, presenting it as a single, elastic storage system. Organizations can spin up any number of Virtual Disks in just a few seconds via a graphical user interface (GUI), CLI, or REST API.

Policy and provisioning processes that normally take hours, days, or weeks now take just a few clicks and can even be performed from mobile devices. Provision and access Virtual Disks via a graphical user interface (GUI), CLI, or REST API and fully-customize each to fit the needs of your application.



Hyperscale and Hyperconverged

The Hedvig Distributed Storage Platform supports flexible deployment of the Storage Proxy and Storage Service enabling configuration of a hyperscale system, a hyperconverged system – or both in a single storage cluster.

- < **Hyperscale:** Scale compute and storage independently
- < **Hyperconverged:** Scale compute and storage together

“We wanted to lower overhead costs and consolidate into a modern infrastructure where hardware and software are decoupled. We looked for a software-defined solution and the Hedvig Distributed Storage Platform met our expectations. With Hedvig, we get real-time multi-site replication, flexible scalability, high performance and a single platform that supports all needed storage protocols.”

— Magnus Blom, Business Area Manager of Outsourcing and Managed Services, DGC

“The product is easy to use and it can grow with us. We just replace or add servers as we extend capacity and update the system in the future. Hedvig’s approach is more predictable and leverages our investment in Cisco, which means a more predictable cost.”

— Christoffer Niemi, IT Architect, LKAB

“We chose Hedvig because of its versatility in delivering the best of both worlds. It provides capacity efficiency with dedupe, compression, thin provisioning, snapshots, and clones. But it also provides synchronous and asynchronous replication all in one product.”

— Bertram Rutte, CEO & Founder, Dovilo

Use Cases

The Hedvig Distributed Storage Platform delivers storage more effectively for traditional applications while accelerating your journey to modern applications.

Traditional Workloads

Server Virtualization

Hedvig’s unique architecture supports the widest breadth of hypervisors, operating systems, containers, and clouds. The result is a single, scale-out storage platform that provides a consistent, high-performance workflow for provisioning storage in large, highly virtualized environments.

Backup & Archive

Hedvig scales dynamically with commodity servers on and offsite to provide an efficient secondary storage platform for backup, archiving, business continuity, and disaster recovery. Built-in hybrid cloud support and storage efficiency features streamline on and off site data protection with the ideal economics and flexibility for long-term data retention.

VDI

Hedvig delivers fine-grained control of storage services to meet the unique demands of hosted virtual desktops. The software takes advantage of the latest high-performance flash storage options in modern servers, server-side caching, the cost economics of commodity infrastructure, and integrated data efficiency features to ensure the success of your VDI project.

New Workloads

Hybrid Cloud

Hedvig’s programmability and cloud-like storage provisioning delivers simplicity for infrastructure-as-a-service (IaaS). It plugs into cloud orchestration and service catalog tools like OpenStack, Kubernetes and Mesos, supports container technologies like Docker, and runs seamlessly in public clouds including AWS, Azure, and Google Cloud Platform.

Test/Dev

Hedvig offers unparalleled simplicity and flexibility for storage provisioning in test/dev environments. By providing point-and-click provisioning with granular virtual disk policy selection as well as instant cloning, Hedvig makes it easy to deploy storage for development followed by a seamless move to production.

Big Data & IoT

Hedvig provides a single underlying data management platform for modern apps to deliver operational efficiency, streamline capacity management, and reduce capital. Tunable replication, compression, and deduplication gives organizations the ability to build a “data lake” and store more data at less cost.

Hedvig Benefits

Business responsiveness

- Provision with the speed and simplicity of the cloud
- Deliver massive capacity, scale, and performance with no change to application infrastructure
- Eliminate the headaches of traditional storage operations and maintenance

Reduced Risk

- Lower risk of data-loss with distributed replication and zero-impact DR
- Eliminate storage downtime and business interruption with cluster self-healing
- Never be impacted by data migration demands again

Lower costs

- Achieve performance, resilience, and reliability with commodity servers and storage for predictable cost
- Store efficiently and reduce capacity requirements by 75% or more
- Lower TCO 60% or more

LEARN MORE

Hedvig storage services available per Virtual Disk

Block, file & object storage	iSCSI, NFS, S3, & Swift protocols
Data replication	Store one to six data copies to support high availability, data protection, and recovery
Client-side caching	Dedupe-enabled cache for fast local read performance
Inline compression	Compress data before storing to disk
Inline global deduplication	Eliminate repetitive data to reduce storage requirements
Pin-to-flash	Designate use of all-flash resources for storing data
Hybrid disk storage	Use of a mix of flash (SSD) and hard disk (HDD)
Thin provisioning	Space-efficient dynamic storage capacity allocation
Zero-copy snapshots	Space-efficient metadata-based volume snapshots
Zero-copy clones	Space-efficient independent volume copies

Hedvig storage efficiency and resiliency features

Auto balancing	Data load balancing across nodes to optimize resource use
Auto tiering	Intelligent data placement of active data on fast media
I/O sequentialization	Random I/O aggregation for efficient data writes & reads
Self healing	Automatic repair of data from failed drives or nodes
Multi-site replication	Store copies across racks, data centers, or clouds
Wide striping	Intelligent data distribution across available cluster nodes

Environment specifications

Supported processors	x86 or ARM
Supported hypervisors	VMware vSphere, Microsoft Hyper-V, KVM, Xen
Supported containers	Docker
Supported public clouds	AWS, Azure, Google Cloud Platform
Supported cloud frameworks and orchestration tools	OpenStack, Mesos, Kubernetes, Docker Swarm, VMware vCenter
Available plugins	Docker Volume plugin, Mirantis Fuel plugin, VMware vSphere Web Client plugin
Maximum nodes per cluster	Unlimited
Maximum capacity per cluster	Unlimited
Maximum Virtual Disks per host	Unlimited
Maximum Virtual Disks per cluster	Unlimited
Management interface	Web-based graphical user interface (GUI) RSH/SSH command line interface (CLI) RESTful APIs

For a complete list of product specifications please see the [Hedvig Distributed Storage Platform data sheet](#).

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 BNP Paribas CIB, DGC, LKAB, and Mazzetti use the Hedvig platform to transform their storage into a fundamental enabler of digital business strategies.

