HEDVIG

HEDVIG DISTRIBUTED STORAGE PLATFORM

Hedvig's software-defined storage solution provides the flexibility needed for rapidly changing data, application, and user requirements in private, hybrid, and multi-cloud environments.

Hedvig Storage Service

PROCESSORS	x86 or ARM	
PUBLIC CLOUD PROVIDERS	Amazon Web Services, Microsoft Azure, Google Cloud Platform	Supported with any cloud provider that delivers standard compute instances with persistent storage services
IOPS/NODE	Variable	Dependent on storage node hardware configuration
MINIMUM NODES PER STORAGE CLUSTER	3	**MAXIMUM NODES PER STORAGE CLUSTER** Unlimited
MINIMUM DRIVES PER NODE FOR STORAGE POOLS	6	**MAXIMUM DRIVES PER NODE FOR STORAGE POOLS** Unlimited - varies by server
MINIMUM CAPACITY PER STORAGE CLUSTER	20TB	**MAXIMUM CAPACITY PER STORAGE CLUSTER** Unlimited

Hedvig Storage Proxy

PROCESSORS	X86 OR ARM
HYPERVISORS	VMware vSphere, Microsoft Hyper-V, KVM , Xen
CONTAINERS	Docker, CoreOS, Red Hat, OpenShift
BARE METAL	CentOS, Red Hat Enterprise Linux (RHEL)
FLASH-OPTIMIZED CACHING	Client-side metadata, read and dedupe caching
HIGH AVAILABILITY	Active/passive failover
MULTIPATH I/O (MPIO)	Supported via HA Storage Proxy configuration

Hedvig Virtual Disk

STORAGE PROTOCOLS	Block	iSCSI
	File	NFS
	Object	Amazon S3, OpenStack Swift APIs
	OST	Veritas OpenStorage Technology
MAXIMUM VIRTUAL DISKS PER STORAGE PROXY	Unlimited	**MAXIMUM VIRTUAL DISKS PER STORAGE CLUSTER** Unlimited
MINIMUM VIRTUAL DISK SIZE	1 GB	**MAXIMUM VIRTUAL DISK SIZE** Unlimited
MINIMUM BLOCK SIZE	512 bytes	**MAXIMUM BLOCK SIZE** 64 KB

Management Interfaces and APIs

HEDVIG WEBUI	Web-based graphical user interface (GUI)	Any HTML5-compatible web browser including mobile devices
SNMP	Integrate error and status reporting messages with enterprise monitoring tools	
CLI	RSH/SSH	Supports all administrative, provisioning, monitoring, and automation functions
API	REST-based and RPC	

Storage Features

DATA PROTECTION		
TUNABLE REPLICATION	Number of copies	1-6
	Type	Synchronous and asynchronous
	Policy	Agnostic, rack-aware, datacenter-aware
SNAPSHOTS	Maximum number of snapshots	Unlimited
CLONES	Maximum number of clones	Unlimited
SELF-HEALING	Automatic, accelerated data rebuild from distributed data copies across storage cluster	
I/O OPTIMIZATION		
AUTO-BALANCING	Automatic distribution of data across cluster to optimize capacity and resource utilization	
AUTO-TIERING/CACHING	Write through read caching to maintain active data on flash media tier	
I/O SEQUENTIALIZATION	Random I/O aggregation to streamline data writes to the storage cluster	
PIN-TO-FLASH	Designation of Flash/SSD as exclusive storage media type for data	
SECURITY & USER ADMINISTRATION		
ENCRYPT360™	AES XTS disk encryption cipher mode with AES-256 bit key support - in-use, in-flight, at-rest	
KEY MANAGEMENT	Integration with enterprise key management solutions: AWS KMS, OpenStack Barbican	
USER AUDIT LOGGING	Track and view user system activity for auditing, compliance, security, and governance.	
ROLE-BASED ACCESS CONTROL	Tenant and user role policy administration.	
CHAP	Challenge-Handshake Authentication Protocol (CHAP) support for iSCSI virtual disks	
LDAP/ACTIVE DIRECTORY	Integrate with directory services for user administration	
STORAGE EFFICIENCY		
COMPRESSION	Data reduction	
INLINE GLOBAL DEDUPLICATION	Data reduction at proxy and storage nodes	512-byte and 4K chunk sizes
THIN PROVISIONING	Creates volumes without requiring pre-allocation and reservation of physical disk capacity	
OTHER VOLUME FEATURES		
CLUSTERED FILE SYSTEM SUPPORT	Enables dynamic VM migration and multi-writer environments (e.g., VMFS).	
CLUSTER SHARED VOLUME (CSV) SUPPORT	Enables dynamic VM migration with Scale-Out File Server (SOFS) and Microsoft Hyper-V	
RDM SUPPORT	Enables direct LUN-access for virtual machines	

Ecosystem Drivers and Integrations

VCENTER PLUGIN	Provision and manage Hedvig storage from with the VMware vSphere web management interface
DOCKER VOLUME PLUGIN	Provision Hedvig Virtual Disks from the Docker container framework including Docker Datacenter
VERITAS OST PLUGIN	Backup and restore data with NetBackup media servers via Veritas OpenStorage APIs
RED HAT OPENSHIFT	Integrate Hedvig functionalty for containers with Red Hat OpenShift platform
MIRANTIS FUEL PLUGIN	Streamlines integration of Hedvig with OpenStack using the Fuel management interface
OPENSTACK CINDER DRIVER	Integrates Hedvig block and file storage functionality with OpenStack
KUBERNETES FLEXVOLUME	Integrate Hedvig storage with the Kubernetes container orchestration framework
MESOS FRAMEWORK	Provision persistent volumes from Mesos via the Docker Volume Plugin.

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.

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