HyperDrive®
SSD Storage
Performance Model

SoftIron's powerful, yet economical Ceph storage appliance. Purpose-built for scale-out enterprise storage.

Slightly controversial. Quietly confident.

SoftIron® creates the world's best appliances for scale-out data center solutions, delivering industry-leading performance on all critical metrics including density, efficiency, capacity, speed and heat emission.

Choose SoftIron for:

Superior, task-specific appliances

» We do not optimize commodity hardware or configure the cheapest components.

» They're purpose-built to optimize their specific role in the data center.

High Performance

» Specialization fosters performance breakthroughs.

» Task-specific design reveals opportunities for improvement at a granular level.

Secure Provenance

» SoftIron not only controls the entire design and build process, but manufactures and assembles all products in-house.

» The result is auditable provenance on all of our data center appliance and SoftIron is the only manufacturer to offer it.

HyperDrive® Storage Node: Performance (HD31056 / HD32113)

SoftIron's HyperDrive Performance range is our high-performance, custom-designed, dedicated Ceph storage appliance, purpose-built for the hyperscale data center.

Ceph is the leading open-source software for enterprise-grade, software-defined storage (SDS). It's designed to provide highly scalable object, block, and file-based storage under a unified system and it will endure because of its accessibility, unparalleled flexibility, rich features, impressive roster of enterprise ambassadors and an already deep and devoted user community.

It takes more than generic hardware to get outstanding performance for storage, and because HyperDrive Performance (HD31056 / HD32113) is custom-built for Ceph, all components integrate with, and exploit Ceph's outstanding functionality. The result is a scale-out storage solution that runs at wire-speed yet at less than 100W per 1U appliance.

44% FASTER RANDOM CACHED ACCESS*
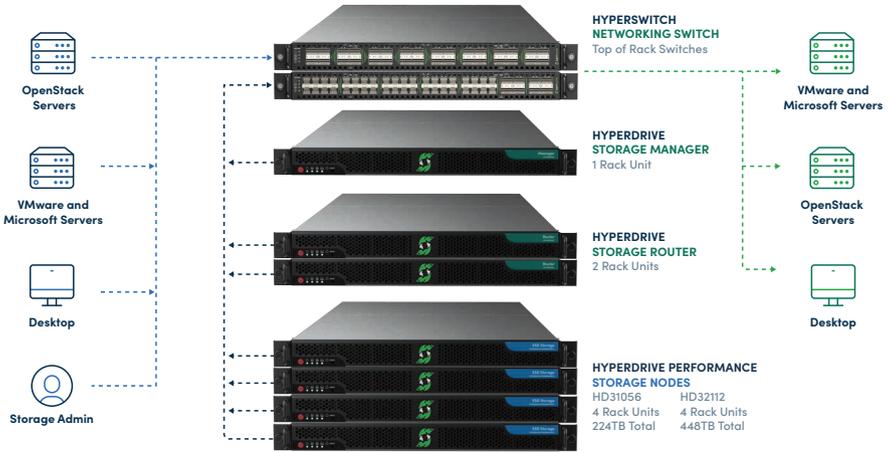
26% FASTER SEQUENTIAL NON-CACHED ACCESS*

RUNS AT LESS THAN 100W PER 1U APPLIANCE

HyperDrive® Performance

In a recent head-to-head performance test pitting a cluster of dual socket Xeon processors against our entry level HyperDrive.

SoftIron Deployment Example

OpenStack Servers

VMware and Microsoft Servers

Desktop

Storage Admin

HYPERSWITCH NETWORKING SWITCH
Top of Rack Switches

HYPERDRIVE STORAGE MANAGER
1 Rack Unit

HYPERDRIVE STORAGE ROUTER
2 Rack Units

HYPERDRIVE PERFORMANCE STORAGE NODES

HD31056	HD32112
4 Rack Units	4 Rack Units
224TB Total	448TB Total

VMware and Microsoft Servers

OpenStack Servers

Desktop

With HyperDrive Performance you can easily and confidently:

✓ Deploy your Ceph storage cluster on custom-designed hardware that's purpose-built and optimized for storage.

✓ Seamlessly integrate HyperDrive into your existing Ceph environment.

✓ Simplify and centralize the management of your storage hardware and Ceph software.

✓ Run your data center at true wire-speed.

✓ Futureproof your data center with an infinitely scalable SDS solution, free from vendor lock-in.

✓ Manage your budget with a flexible, pay-as-you-go subscription model.

✓ Optimize your rack and reduce cooling costs with low power, 1U form factor appliances that use less than 100 watts under full load.

✓ Take advantage of our end-to-end, one vendor support for assistance with software and hardware.

softiron.com

Purpose-built solutions for the hyperscale enterprise data center.

Storage Hardware

» Task-specific, scale-out ready

» Wire speed throughput performance front-side and back-side networking

» Solid state disks for journal

» Preconfigured and tuned for balanced read and write performance

» Low wattage power design

Ceph

» Compatible with clusters running Ceph

» Interfaces for file, block, and object storage

» Support for OpenStack, Kubernetes, VMware, and HyperV

» Interfaces for file, block, and object storage

Storage Management

» Configurable cluster-level resiliency

» Health monitoring

» Full hardware configuration and management

» Workflow-based Ceph management

Networking

» Wire speed on all ports at all times

» Simplified, core networking functionality

» Optimized for hyperscale data center performance (1GbE–100GbE)

Take HyperDrive®
for a Test Drive

Try out a HyperDrive storage cluster in your environment for 90 days – no long term commitment necessary.

softiron.com/testdrive

Product Specifications

Model	HD31056	HD32112
Model Type	SSD Storage	SSD Storage
Raw Storage Capacity	56TB	112TB
Drive Configuration	56TB SSD (14x 4TB SSD)	112TB SSD (28x 4TB SSD)
Networking	2x Interfaces (10GbE, 25GbE)	2x Interfaces (100GbE)
Data Resiliency	High Availability per service / protocol	High Availability per service / protocol
Storage Protocols	Ceph-FS, RBD, S3	Ceph-FS, RBD, S3
Storage Type	Block, File, Object	Block, File, Object
Storage Management Port	1x 1GbE, IPMI, HyperDrive Manager	1x 1GbE, IPMI, HyperDrive Manager
Power Supply	Redundancy Power (Dual Supplies) 120–240V, 50–60Hz	Redundancy Power (Dual Supplies) 120–240V, 50–60Hz
Power Consumption	< 100W	< 250W
Dimensions	H 43.7 mm / 1.72 in W 429 mm / 16.9 in L 637 mm / 25.1 in	H 43.7 mm / 1.72 in W 429 mm / 16.9 in L 637 mm / 25.1 in
Weight	11.8 kg / 26 lb	12.3 kg / 27 lb

softiron

softiron.com