

# HyperDrive<sup>®</sup> HDD + SSD Storage Density+ Model

SoftIron's hybrid Ceph appliance, combining HDD and SSD into one high-performance, internally tiered storage node. 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: Density+ (HD22078 / HD22168)

SoftIron's HyperDrive Density+ harnesses our multi-processor technology to combine performance and internal flash tiering into a single, 1U Ceph appliance. The ideal solution for those looking to balance performance and price in the data center.

Ceph is the leading open-source software for enterprise-grade, software-defined storage (SDS) and is designed to provide highly scalable object, block, and file-based storage under a unified system. In the past, the conflicting needs for high-performance and cost-efficiency would have been limited to complicated cluster arrangements. Now, HyperDrive Density+ solves the problem by providing the performance of an all-flash tier with the added benefit of an efficient HDD tier.

It takes more than generic hardware to get outstanding performance for storage, and because HyperDrive Density+ 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.

**HIGH PERFORMANCE  
WRITES GO DIRECTLY  
TO A FLASH-BASED  
TIER OF STORAGE**

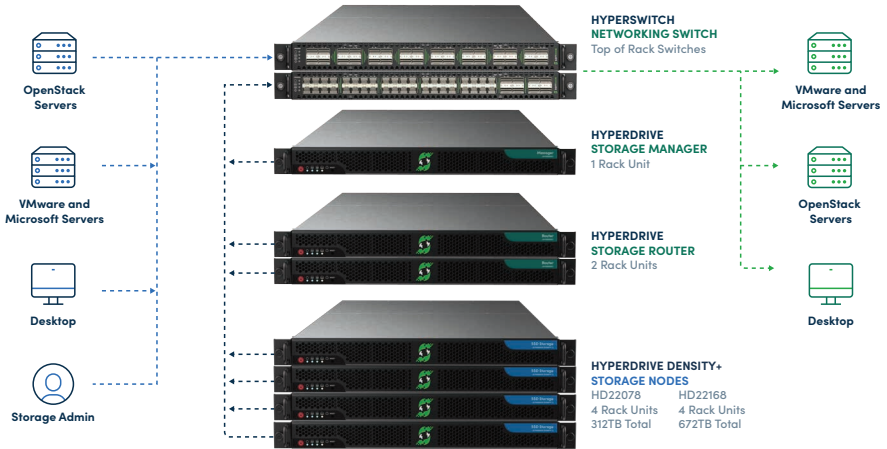
**LESS PERFORMANCE  
CENTRIC WRITES  
GO TO THE  
HDD POOL**

**RUNS AT LESS  
THAN 250W PER 1U  
APPLIANCE**



HyperDrive® Density+

# SoftIron Deployment Example



## With HyperDrive Density+ 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.

# 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<sup>®</sup> for a Test Drive

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

[softiron.com/testdrive](https://softiron.com/testdrive)

# Product Specifications

Model	HD22078	HD22168
Raw Storage	78TB	168TB
Drive Configuration	72TB (12x 6TB HDD) 6TB SSD (12x 500GB SSD)	120TB (12x 10TB HDD) 48TB SSD (12x 4TB SSD)
Networking	2x Interfaces (100GbE)	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
Management	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	< 200W	< 250W
Dimensions	H 43 mm / 1.72 in W 426 mm / 16.9 in L 869 mm / 34.25 in	H 43 mm / 1.72 in W 426 mm / 16.9 in L 869 mm / 34.25 in
Weight	22.7 kg / 50 lb (49.5 lb)	28.1 kg / 51 lb (51 lb)