



## SoftIron donates storage solution in support of open source community project, Sausage Cloud

HyperDrive delivers high density, low power and high-performing storage at the edge.

## SoftIron enables Sausage Cloud to deliver competitive IaaS at the edge with HyperDrive: highly efficient, task-specific storage hardware that is purpose-built to optimize Ceph, the leading open-source software-defined storage solution.

### What is Sausage Cloud?

Sausage Cloud is a public-facing infrastructure-as-a-service (IaaS) cloud platform with a strong reputation for supporting the open-source community. With a small team of like-minded volunteers dedicating their free time, they cater to the various needs of individuals and companies involved in developing and maintaining cloud compute infrastructure, including OpenStack itself, as well as developers and maintainers of key OpenStack projects.

As a non-profit operating on a shoe-string budget from the outset, the vision for Sausage Cloud was to provide a cost-effective and accessible resource for learning, research, and development – particularly for anyone interested in developing cloud infrastructure related software such as OpenStack and Kubernetes.

### How it works

In their role as the cloud provider, Sausage Cloud hosts the core infrastructure components that you would traditionally find in an on-premises data center, including servers, storage, and networking hardware, as well as the virtualization or hypervisor layer. They offer a 'vanilla' OpenStack: deployed, maintained, and exposed using upstream tooling.

They currently provide, at a flat rate, comparatively substantial infrastructure resources which makes it well suited for users looking to spin up larger, long-running VMs in order to perform functional testing of their software, for example. The rate includes up to 10 virtual machines, 20 vCPUs, 32GB of RAM, and 5 public IPv4 addresses. They have also developed tooling, including basic infrastructure-as-code examples, that allow users to easily replicate standard infrastructure scenarios, suitable for virtual labs, as another example. With the current number of subscribers, they have a lot of public IPv4 addresses for such a small outfit. Their solution is also feature-rich including Kubernetes clusters on-demand via the Magnum API as well as Designate (DNSaaS).

### The Challenge

Uniquely, Sausage Cloud's entire infrastructure is housed in an old war bunker, located in the remote Cultybraggan Camp in Scotland, United Kingdom. Unsurprisingly, this presents the team with several challenges: a very small and remote space with very limited power. Coupled with equally little time and money with which to run the operation, they were looking for a stand-out storage solution that could help them deliver their service to a competitively high standard and meet the expectations of their users. And, while they have a strong relationship with their colocation provider, they are always looking at opportunities to reduce operational costs in order to deliver better value to their users.

Given its ties to the open-source community, SoftIron wanted to support the project by donating their HyperDrive® storage platform, the ideal solution to meet the varied needs of the team at Sausage Cloud.

### Wire-speed Performance

SoftIron's HyperDrive storage appliance is custom-built to optimize Ceph, the leading open source storage solution. Because HyperDrive is purpose-built for Ceph storage, Sausage Cloud is able to achieve density increases of 2x to 10x. Most manufacturers assemble a multi-use unit around a motherboard and processor, adding software as an afterthought, but HyperDrive was built with a clear focus on scalable storage performance at wire speed.

### High-density, low power

HyperDrive is 5x more energy efficient than current market-leading appliances which can reduce power bills by 80%. Being so energy efficient allows our customers to fit more appliances into each rack, and get much more storage into their data center without upgrading or over-engineering miles of power circuits. For example, SoftIron's HyperDrive Density Storage appliance delivers 120TB of storage in a single "u" of rack space with a power budget of fewer than 125 watts. That's over 5PB of storage in a 42U rack, delivered for around 5kW of power consumption, well within that delivered in most data center racks, and equates to a significant cost saving in colocation environments where consumption impacts rack rates. HyperDrive also produces barely 20% of the heat of other legacy storage hardware – another benefit of being super energy efficient.

## Save time and money with support without vendor lock-in

The initial outlay for hardware can be expensive, but our PAYG subscription model removes that cost altogether. No outlay, no ongoing commitment, no risk. Storage becomes a simple, fixed operating cost. Coupled with our end-to-end support for both the hardware and software, you have total peace of mind knowing that help is just a phone call away. Because we built the whole stack, end-to-end, you'll never be caught in the middle of a hardware/software blame game.

## Remote Access & Centralization

SoffIron's unifying Storage Manager is a powerful and intuitive online system that radically simplifies management of all your Ceph software and storage hardware, enabling granular monitoring and control for unit, rack, and whole-of-center optimization. Ideal for admins and particularly useful for remote and edge-case data center management.

## Total Freedom

We believe in the freedoms enabled by open-source software. When you design and build hardware for a specific task, and you know exactly what code you're going to run, you can vastly improve the ability to efficiently and intuitively configure, install and operate your environment.

The HyperDrive storage solution, as well as SoffIron's Storage Manager and Router, all have total interoperability with any Ceph device in your data center. Whether you're upgrading an existing data center or building from scratch, HyperDrive lets you configure the data center you need now, and in the future.

The end result? All the benefits of a proprietary bundled solution, but without the huge drawback of the vendor lock-in because it's still open-source, so you can move on at any time.

### Take the next step:

Is your data center being impacted by power and space constraints? Is archaic and inflexible infrastructure adding bottlenecks to your processing targets? Or, is performance being hampered by legacy storage solutions that are not keeping up with the complex and evolving requirements of modern-day workloads? Take HyperDrive for a test drive and discover what a secure, task-specific storage solution can do for your organization. Visit [softiron.com](https://softiron.com) for more information, or book a discovery call to talk to one of our Solutions Architects at [bit.ly/SoffIronDemoRequest](https://bit.ly/SoffIronDemoRequest)





SoftIron® is the world-leader in task-specific appliances for scale-out data center solutions. Their superior, purpose-built hardware is designed, developed and assembled transparently, and they are the only manufacturer to offer secure provenance.

SoftIron's HyperDrive® software-defined, enterprise storage portfolio runs at wire-speed and is custom-designed to optimize Ceph.

HyperSwitch™ is their line of next-generation, top-of-rack switches built to maximize the performance and flexibility of SONiC.

HyperCast™, built on FFmpeg, is their high-density, concurrent 4K transcoding solution, for multi-screen, multi-format delivery.

SoftIron unlocks greater business value for enterprises by delivering best-in-class products, free from software and hardware lock-in. For more information visit [softiron.com](https://softiron.com)

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