

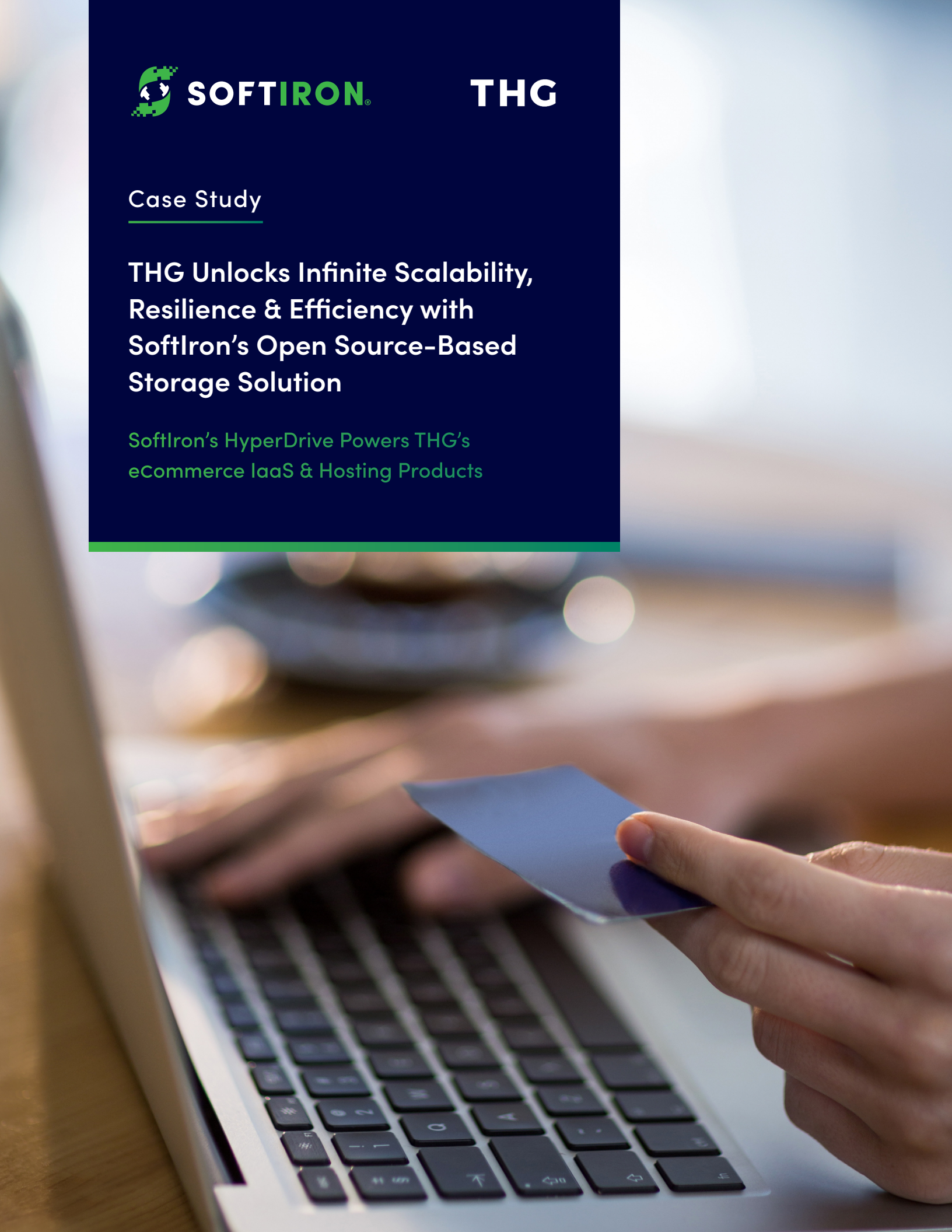


**THG**

## Case Study

# **THG Unlocks Infinite Scalability, Resilience & Efficiency with SoftIron's Open Source-Based Storage Solution**

SoftIron's HyperDrive Powers THG's  
eCommerce IaaS & Hosting Products



# Who Is THG?

THG Plc is a global end-to-end, ecommerce tech platform specialising in taking brands direct to consumers worldwide. Powered by its unique end-to-end ecommerce infrastructure, THG Ingenuity, THG operates over 200 international direct-to-consumer websites through its proprietary ecommerce platform. In September 2020, THG listed on the London Stock Exchange.

Developed initially for THG to power its own brands, such as Myprotein and Lookfantastic, THG Ingenuity has now positioned itself as the partner of choice for brands looking to grow globally, at pace, eradicating complexity and a need for multi-partner relations. It provides brands with a complete solution to digital transformation through a simple ecommerce platform, which is the enabler of THG's global Direct-to-Consumer (DTC) growth, achieved through 16 years of continuous innovation and investment in ecommerce technology.

THG Ingenuity is completely unique in that it's both a peer-to-peer ecommerce retailer and a service provider to global cross-border commerce operations. The same technology that drives the growth of Ingenuity's partners also powers the growth of their own brands. This same global data centre and network footprint is sold directly as services via THG Hosting.

# What Are They Doing Differently?

THG Ingenuity's mission is to build a state of the art platform that not only supports, but accelerates their ecommerce business. "Our focus right now, post-IPO, is in building a resilient, global and mission-critical infrastructure that can rapidly scale in-line with the exponential growth we're experiencing" explains Schalk Van Der Merwe, THG's CTO. "At the same time, we need to ensure we're supporting the corporate goal of becoming carbon neutral. As you can imagine, this poses several challenges, and informs how we evaluate the vendors we choose to work with."

THG recently announced the launch of THG Eco, the force behind the company's sustainability action plan. THG Eco will accelerate the group's ongoing activity to reduce its impact on the environment and create innovative sustainability practices. THG recently attained CarbonNeutral® certification and places equal importance on their wider ethical and societal impacts through their value chain, including suppliers, customers and employees.

# What Are Their Challenges?

## Scalability & Resiliency

As the organization is experiencing exponential growth, it requires a 24x7x365 resilient infrastructure to power its world-leading retail platform. To support this mission-critical infrastructure on a global basis, vast amounts of data are generated and consumed, both for THG and the leading brands who leverage their ecommerce, warehouse and infrastructure software. On-demand, infinite scalability is therefore a critical component of any data storage solution in order to keep pace with their ambitious growth targets. Given the number of brands who rely on THG Ingenuity to underpin their own businesses, in an industry where consumer expectations are high and even a split second crash can equate to millions of dollars in lost revenue – downtime is not an option.

## Cloud Native Without Cloud

Schalk explains that another strategic differentiator for them revolves around their drive to "own their destiny", a top-down mandate to stand on the shoulders of stalwart open-source ecosystems such as the Ceph filesystem project.

"While open-source solutions may seem like a "science project" for non-tech companies – for us, being cloud-agnostic, free of lock-in and achieving "Cloud Native Without Cloud" – is all strategically important within our architecture. This is why we love the "task-specific" approach SoftIron is taking to make open-source Ceph deployable and manageable at scale for enterprises like ours, while at the same time reducing our environmental footprint."

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## Efficiency & Sustainability

Over and above their ambitious, global growth plans, a key corporate goal for THG is to maintain their CarbonNeutral® certification. Part of that goal is highly visible, such as reduced packaging waste in consumer-facing operations, while another, often overlooked aspect is the constant battle to increase power efficiency in their growing footprint of data centers – where SoftIron's ultra-efficient, ARM-powered solutions really shine.



# Why SoftIron?

SoftIron's HyperDrive® is an enterprise-class, software-defined storage (SDS) solution purpose-built to optimize Ceph; the leading unified, open-source SDS platform that supports block, file and object storage. While Ceph is powerful, it has a history of complexity. HyperDrive is a robust, easy-to-deploy SDS solution, optimized at every level of the technology stack to deliver efficiency, performance, and reliability, finally enabling the adoption of Ceph at scale.

## Scalability & Resiliency

Ceph is, remarkably, a self-healing, infinitely scalable storage platform, enabling thousands of clients to access petabytes to exabytes of data. It was recently successfully scale **tested** with more than one billion objects. The inherent resilience of Ceph, when architected correctly, means zero lost data and downtime, making it an ideal solution for ecommerce platforms like THG's.

## Cloud Native

The Ceph Object Gateway provides a way to host scalable data storage "buckets", similar to those provided by Amazon S3 and OpenStack Swift. These objects are accessible via a REST API, making them ideal for cloud-based applications, big data storage and processing, and many other use cases. In addition, because the underlying cluster infrastructure is managed by Ceph, fault-tolerance and scalability is guaranteed, and as HyperDrive is built for Ceph, it's cloud-native ready.

## High-Density / Low Power

HyperDrive is up to 5x more energy efficient than current market-leading appliances, reducing energy usage by as much as 80% and producing as little as 20% of the heat compared to legacy storage hardware, allowing for greater rack density, even when power is limited, freeing up floor space and dramatically improving hardware and drive reliability due to relief from "heat exhaustion".

## The Result

SoftIron's HyperDrive portfolio of enterprise storage appliances offers an easy-to-deploy system specifically architected for Ceph and is optimized at every level of the technology stack to deliver efficiency, performance, and reliability. Built with the task-specific purpose of maximizing the capabilities of Ceph, HyperDrive storage appliances deliver the best that Ceph can offer.

"Today, our SoftIron Ceph deployment spans three regions: America, Great Britain and Germany, underpinning our Openstack-as-a-Service APIs, and 'vanilla' bare-metal offerings that power well-known gaming, streaming and hosting brands," says Shalk. "Besides powering object storage use cases such as warehouse data replication and backup solutions based on SoftIron technology partners like Veeam, we see strong interest in direct SoftIron Ceph integrations with Kubernetes workloads." This is relevant as contention around storage has traditionally been a hot-button for internal IT, says Shalk.

He explains further: "Being able to unleash API integrations such as Kubernetes' CSI (common storage interface) with SoftIron have significantly sped up the pace and confidence - both for development and operations teams. As we further invest we will be exposing a wider range of powerful API endpoints which our customers and partners can use as integration weapons alongside our managed ecommerce platform."

"Last but certainly not least," continues Schalk, "the ultra-efficient nature of HyperDrive means we've been able to better contribute to the stringent sustainability standards in order to maintain our CarbonNeutral® certification."

## 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 at the edge? 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.





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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