



Objective

Ensure continuous data availability for steadily growing company while leveraging hardware investment and minimizing future expenditures

Approach

Deploy a software defined storage solution by implementing SUSE Enterprise Storage with Ceph on [HPE ProLiant servers](#)

IT Matters

- Gain back one eight hour working day a week of IT admin time, previously spent load balancing data
- Enables high availability of data to meet 24x7 demands
- Simplifies capacity planning, allowing Experian to add storage seamlessly without a disruption of service

Business Matters

- Eliminates downtime and improves business continuity
- Maximize investment in existing hardware by using HPE ProLiant Servers with SUSE Enterprise Storage solution
- Minimize learning curve by using familiar and reliable HPE hardware

Experian Business Information Systems uses software defined storage to manage data boom

HPE ProLiant servers with SUSE simplifies capacity planning and delivers high availability



Experian Business Information Systems (BIS) transforms data into meaningful information for its business customers. After experiencing rapid growth, the company found its disparate storage area change this to network attached storage (NAS) solution to be unstable, and difficult to manage. By leveraging its existing HPE ProLiant server platform, Experian BIS implemented a SUSE Enterprise Storage SDS solution that is reliable, cost-effective, and highly available.

Experian Business Information Systems (BIS) is a unit of Experian UK that provides a variety of B2B services including commercial credit and risk management, business intelligence, and B2B marketing and sales. This includes everything from providing compliance, fraud and business research tools to help companies with their business challenges, to turning data into insights so customers can maximize ROI, to assisting in anti-money laundering and fraud detection.

As the company has grown and expanded its offerings, its databases and the need for storage have also grown. According to Howard Samm, head of infrastructure for Experian Business Information Systems, "The growth of our core Oracle-based databases has exploded in the last two to three years, and IO performance demands have gone up at the same rate. The amount of data being produced has gone from a few gigabytes a month to hundreds of gigabytes an hour, in some cases."

In order to keep up with the massive data growth, Experian added NAS systems as needed; however, this storage lacked the availability the company required. Additionally, if one of the storage servers failed, it caused a ripple effect across the company, making it slow and difficult to access data for clients.

“With SUSE Enterprise Storage on HPE ProLiant systems we now have a modern software defined storage solution on modern hardware, which gives us unlimited capacity and high availability, as well as lower TCO and more time for our IT team to focus on innovation instead of maintenance.”

— Howard Samm, Head of Infrastructure, Experian Business Information Systems

“Our business continuity and disaster recovery abilities have developed to become extremely robust, but because of the business-critical nature of our products and services, we needed to ensure 24x7 availability, says Samm. “While we have the technical skills to roll up our sleeves and automate some, if not all of the processes, the replication of data can fluctuate, so the potential for disruption and possibly even data loss is huge,” states Samm.

Samm and his team also found the task of load balancing data across Experian’s servers to be time consuming and tedious. “Having many standalone NAS devices became unwieldy and extremely time consuming to manage, and having to shuffle data stores between devices can take days to complete and causes disruption over switchovers,” Samm says. “It became almost completely unworkable, and extremely time consuming. Instead of working on strategic tasks we were spending our days moving data around our servers.”

Samm needed to find a storage solution that would support massive data growth, while protecting Experian’s investment in existing infrastructure and keep costs down. “We considered adding another layer above the existing infrastructure, which would manage the distribution and replication of data. But doing so would add a second layer of complexity from both a technical and management perspective, and require additional time and expense to manage.”

Thinking his options were limited, Samm was preparing to purchase the software and hardware needed to support Experian’s expanding data needs when he was invited to a SUSE technical seminar on their solution offering called SUSE Enterprise Storage.

Case study

Experian Business
Information Systems

Industry

Financial Services

HPE and SUSE solution delivers enterprise-grade storage

When Samm learned that HPE and SUSE were partnering to deliver an enterprise-level SDS solution using a commercial distribution of Ceph on HPE server platforms, the answer to his problems was clear. Experian could use its existing HPE ProLiant servers—which Samm describes as “rock solid”—to run SUSE Enterprise Linux and SUSE Enterprise Storage with Ceph. This not only leveraged existing investments, it also significantly shortened the learning curve for Experian’s IT staff.

“Ceph on SUSE Enterprise Storage seemed to offer everything we needed with file and block storage and snapshots, all running on our existing HPE ProLiant DL380 platform using HPE Integrated Lights Out which provides the reliability and easy management we needed for the new solution,” says Samm. “SUSE Enterprise Linux had already been our operating system of choice for a few years, and has proven reliable, fast and flexible, so having them offer a software defined storage solution was great news.”

From a business perspective, Experian management saw the benefits in cost reduction, high availability, and limited downtime of this solution, and quickly gave Samm the green light.

Experian’s initial build was modest, based around four HPE ProLiant DL380 servers as object storage devices and four HPE ProLiant BL460 blades as ceph-mons (MONs), the cluster monitor daemons for the Ceph distributed file system, with the cluster spread across two sites. A fifth MON floating virtual machine was added to provide resilience in the event of site failure. Added to this were two HPE DL380 gateway servers to provide block storage access from VMWare and Windows clients. While they are currently using this system as a general purpose storage solution versus a primarily object storage system, this configuration is growing rapidly and they have started to move client data over.

High data availability and lower TCO

“The combination of HPE hardware and SUSE made it easy to implement, and performance has been everything we could have asked for—the cluster has been extremely stable. Even being cross-site, real life throughput IOPS easily go into thousands, and having a metro-area cluster means business continuity is taken care of,” he says. “It’s a huge step up from where we were.”

Samm also says that it’s been very useful to use Experian’s familiar and reliable HPE servers in a new way, which he describes as both cutting edge, and also practical. He also points out that not needing to replace existing hardware is an eco-friendly option for organizations in a similar position.

Case study

Experian Business
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Customer at a glance

HPE Hardware

- HPE ProLiant DL380 Server
- HPE ProLiant BL460 Server

Software

- SUSE Enterprise Storage

User feedback has been positive within the organization. The system is more responsive and accessing data is much faster, with storage capacity doubling in the last six months.

The Ceph software defined storage solution has also helped Samm and his team with capacity planning by allowing infinite scalability, dynamic replication and rebalancing of data within a cluster.

“Previously, with many individual servers and a certain amount of storage on each one, it was challenging to plan for what we needed. With SUSE Enterprise Storage we have a view of exactly how much capacity we have and how much we’re using, and when we need more we can get it on demand,” says Samm. “We can keep going and adding more hardware without the refresh process making life more complex for us.”

Samm explains, “Capacity planning is much less of a headache because disks and servers can be added without having to pinpoint exactly where they need to go.”

The new software defined storage system has also saved Samm and his team time by eliminating the need for load balancing data. In fact, with a better response and less downtime, he estimates that they have gained back a full eight hour working day a week in terms of productivity, which enables the IT team to focus on more strategic tasks. This is a time savings he expects to increase.

“With SUSE Enterprise Storage on HPE ProLiant systems we now have a modern software defined storage solution on modern hardware, which gives us unlimited capacity and high availability, as well as lower TCO and more time for our IT team to focus on innovation instead of maintenance,” concludes Samm.

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