Hewlett Packard Enterprise

Objective
Replace existing infrastructure with scalable and stable systems to cope with business growth

Approach
Compared upgrade to replacement and consulted with application provider on available options

IT Matters
- Quadrupled performance, cutting time required for overnight batch process from eight or nine hours to only two

- Improved response times so users no longer experience any lag between screens

- Reduced number of racks required for the system from eight to two, saving costs

- Simplified installation, as the new system could be set up and tested in parallel to existing infrastructure

- Provided sufficient performance and storage capacity to handle new ERP features

Business Matters
- Enabled the system to scale with unpredictable business growth, from originally 112 stores to 175 or more

- Reduced total cost of ownership, with 15 month payback period

- Cut operating expenditure, as support costs included in the system price

Burson Automotive handles growth with scalable infrastructure

Fast, flexible system scales with retailer's expansion

Burson Automotive needed to replace its main IT infrastructure to handle growth. It chose a HPE blade system with HP-UX and HPE 3PAR StoreServ 7450 flash storage, which has improved performance, cut operating costs and provided the required scalability. The new system has enabled Burson to consolidate multiple systems and improve its disaster recovery capabilities.

Challenge

Unpredictable growth
Burson Automotive keeps Australia's cars and light trucks on the road, supplying aftermarket parts, accessories and workshop equipment from more than 120 stores and 500 delivery vehicles.

Since it was founded in 1971, Burson has continually expanded. Recently, this growth has accelerated, requiring the company's IT systems to scale in response.

"We were running servers and storage area network (SAN) from Hewlett Packard Enterprise but with the business's growth we were coming to a point where we'd either need to upgrade or replace our infrastructure," says Leon Rawlins, business systems manager at Burson Automotive.

> "The project has gone very well and exceeded my expectations. I was surprised at the ease of deployment – all the different components integrated well together."

— Leon Rawlins, business systems manager, Burson Automotive

At this point, Burson had 112 stores but was planning to expand to 175 within five years, both via acquisition and organic growth. Rawlins comments, "We looked at what had to change to reach that point. We either needed to upgrade the CPU and buy additional disks for the SAN, or replace everything – we considered both possibilities."

Solution

Proven HP-UX stability

Rawlins spoke to HPE and discussed the options, and talked to the provider of the main application used at Burson, which is the MomentumPro Enterprise Resource Planning (ERP) system running on a Progress database.

"The application provider did have a version running on Windows®, but we wanted the proven stability of UNIX®, and in particular of HP-UX. MomentumPro is business-critical, and runs all our inventory and financial systems.

"We considered systems based on other UNIX platforms, but that would have involved bringing in a completely new operating system, which would add additional risk."

"If we had a year for the project we might have looked at other UNIX versions, but our business's rapid expansion meant we had tight timescales – so we stayed on HP-UX to simplify the migration.

"Once we had decided on HP-UX, we looked at the blades, storage and chassis available from HPE," says Rawlins. "The blade system had the benefit that, as well as handling the expansion of the ERP, we could consolidate Windows environments and other servers onto the new infrastructure."

Rawlins chose an infrastructure housed in an HPE BladeSystem c7000 enclosure, and it selected an HPE Integrity BL870c i4 Server Blade featuring HP-UX 11i v3. For storage, they selected HPE 3PAR StoreServ 7450 Storage System with thirty-two 480GB solid state disks (SSDs). The system includes HPE FlexFabric interconnects.

Fast payback

"Had we upgraded, we would have had perhaps just a year before we had to upgrade again," says Rawlins. "Also, with an upgrade, maintenance costs are increasing each year – but the replacement system included support, so we are ahead on operating expenditure. When we did a comparison, the replacement was lower in cost than the upgrade, with a fifteen month payback period on the hardware."

"By replacing the system, we could build everything and get it up and running without interfering with the current operation. If we had done an upgrade, there would have been significant downtime, even if there were no problems – but with a replacement we could build it all in parallel, do comprehensive testing and make sure everything was working."

HPE Technology Services designed the new system with Burson's Infrastructure & Operations manager Nick Dawson to check all aspects were considered. Rawlins comments, "The implementation went extremely well, and the engineering support people at HPE were excellent – everything was here on time or early, and it all went smoothly.

"We built the new system and got the operating system loaded, the disks up and database restored, and were able to run tests until we were satisfied to give us a comfort factor," says Rawlins. "Then we took the users off the system and started the migration of data at 6pm, and had everything up and running by 11pm that night."

Benefits

Performance quadrupled

With the new infrastructure, Rawlins says the biggest single benefit is improved performance, not least due to the system's solid state storage. He comments, "Although going all flash with the 3PAR storage was more expensive, it was worth it for the performance advantage."

Burson runs an overnight batch job to process all the orders from its stores, and to calculate the orders and picking lists needed for its warehouse management system (WMS). Previously, this took up to four to five hours, but the new system and disk I/O has cut this – a saving of at least 75 per cent.

"We knew we had to speed up the processing, if we expand into Western Australia we would lose three hours from the overnight window, due to the time difference," says Rawlins. "We had to do the same tasks in a smaller timeframe."

As of today, Burson has grown to 121 stores, and Rawlins says, "The old system would already have been unable to cope – we would have been on about 99 per cent CPU, but at the moment we're sitting at 15 per cent CPU. It's a massive change – we would have been happy with a 50 per cent improvement, but we've got almost an 80 per cent increase."

Based on its current application layer, this speed increase means that Burson has plenty of headroom for growth to its planned 175 stores and beyond. The HPE server can also be upgraded to double the performance if required. Rawlins comments, "While the store rollout is the priority, we're also going to look at adding extra functionality in the ERP application. In the past we were constrained by hardware performance, but the new system is giving us the opportunity to add more modules."

Customer at a glance

Applications
- MomentumPro ERP system
- Progress database

Hardware
- HPE BladeSystem c7000 enclosure
- HPE FlexFabric interconnects (four 1GB copper, four 8Gb SAN SFP)
- HPE Integrity BL870c i4 Server Blade (four 9540 CPU, 512GB RAM)
- HPE 3PAR StoreServ 7450 Storage Systems

Software
- HP-UX 311i v3

HPE services
- Data centre consulting
- Care Pack installation services

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Consolidation reduces costs

As well as the main ERP system, Burson is also starting to use the new infrastructure to consolidate its other systems, including file, print and Exchange servers. By moving from a rack-based server system to blades, the company will be able to shrink its infrastructure from eight cabinets to only two.

"HPE's deduplication features will also save us money, as we will need to buy fewer disks to migrate our existing external servers onto Hyper-V virtual machines on the blades," says Rawlins.

"We were at full storage capacity on the old system, but now with the 3PAR we will be at around 70 per cent after we have migrated Exchange onto the infrastructure – and that's even before we add in the benefits of deduplication," says Rawlins.

The current system has two controller nodes for the storage, but for the future, Burson is expecting to scale this to four nodes if required. Rawlins comments, "This was a deliberate choice – we wanted a system with the flexibility to grow, without having to buy hardware now that we wouldn't use for six or twelve months."

Another reason Burson replaced its infrastructure was to improve disaster recovery (DR). Previously, when it failed over to its DR site Burson had to reduce the number of users to 50 per cent. Now, it uses its old production system for DR, which enables Burson to run at around 90 per cent capacity if it has to fail over to the DR site.

Exceeded expectations

"The project has gone very well and exceeded my expectations, and I was surprised at the ease of deployment – all the different components integrated well together," says Rawlins. "Overall, the biggest benefits for us were performance, simplicity of implementation and cost.

"Due to this positive experience with HPE, we're now looking at working with them in other areas of our business, and we're already rolling out HP Thin Clients at some of our stores," concludes Rawlins.

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