

“There has been an enormous boost in performance – somewhere in the region of 180,000 IOPS, which means our critical EAM application runs twice as fast so users are more productive and less irritated.”

Siwart van der Veen  
Manager ICT  
KLM Equipment Services B.V. (KES)



KLM Equipment Services deployed two FUJITSU Storage ETERNUS DX100 devices to provide high-performing, reliable and cost-effective storage.

**At a glance**

**Country:** Netherlands  
**Industry:** Transportation  
**Founded:** 1952  
**Employees:** 150  
**Website:** kes-gse.nl

**Challenge**

KES's old storage platform was plagued with performance issues and did not have the capacity to cope with the latest version of Infor EAM. The company needed to find a flexible, cost-effective alternative that would deliver increased performance, capacity and improved reliability.

**Solution**

KES worked with the awarded Fujitsu Select Circle Partner SJ-Solutions B.V. and Fujitsu to design and deploy two clustered FUJITSU Storage ETERNUS DX100 devices over two sites to support EAM, finances, ERP and other core business functions for 150 users.

**Benefit**

- Doubles application performance making users more productive and less frustrated
- Provides dynamic full disaster recovery with second, mirrored ETERNUS storage cluster device for optimal availability
- Lowers energy consumption for storage by 40 percent, reducing electricity bills, cooling and minimizing environmental impact



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## Customer

KLM Equipment Services B.V. (KES) operates as an independent subsidiary company of KLM Royal Dutch Airlines. With Amsterdam Schiphol Airport as its permanent home base since 1952, the company has wide expertise in all aspects of ground support equipment (GSE): the vehicles and equipment responsible for the handling of aircraft on the ground, an indispensable link in the logistical processes of all airports. KES's goal is to realize low operational cost, while maximizing the availability of this equipment.

## Products and services

- FUJITSU Storage ETERNUS DX100

## Challenge

KES was dependent on an aging storage platform that, after five years, was beginning to manifest performance issues, impacting productivity, and creating frustration among users. Furthermore, the company was using a virtual server for storage backup on the same system – a less than ideal solution that was time-consuming and put an additional strain on performance.

“Our storage environment was no longer up to the job and we had a lot of complaints from colleagues about slow response,” explains Siwart van der Veen, Manager ICT, KES. “We were also running out of capacity and the fact that it took 12 hours to back up the system had a significant impact on application speeds during that process. We needed to find a modern, flexible storage solution.”

KES had also rolled out the latest version of Infor EAM, the most configurable enterprise-grade asset management solution on the market. However, this required much more capacity, adding further impetus to the need for a new approach to storage. The company approached long-time technology partner and data availability expert SJ-Solutions for advice and a proper design.

“SJ-Solutions knows our environment and suggested a number of potential ETERNUS storage designs. Only Fujitsu and SJ-Solutions could supply the solution within the deadline while meeting our requirements and budget,” adds van der Veen. “That made them the natural choice to supply, configure and install the new storage platform.”

## Solution

The scalable and unified FUJITSU Storage ETERNUS DX100 delivers enterprise-class functionality for KES with an excellent price/performance ratio. It is the perfect solution when consolidating data for server virtualization, e-mail, databases, and business applications as well as centralized file services.

“Fujitsu sent an ETERNUS storage cluster expert to Schiphol Airport, where we are based, to configure the new solution and explain its functions to our team, so we were confident we could easily manage it,” continues van der Veen. “We ran the new storage platform in parallel with the old system for two weeks while SJ-Solutions engineers assisted in migrating 35 virtual machines and all the associated data. It was a seamless transition between the old and the new.”

The FUJITSU Storage ETERNUS DX100 now handles all KES's core functions, including EAM, planning systems, ERP, financial software, and office tools for its 150 users.

The EAM application is particularly important because, if it is unavailable, it impacts directly on the KES core business process and ultimately the availability of GSE to its customers, which in turn, could impact its ability to service aircraft that are scheduled to depart.

“We needed a storage solution that would provide the ultimate in reliability because we simply cannot afford downtime,” says van der Veen. “Therefore, we have elected to install a second ETERNUS unit, completely mirroring the production device. That means if there are any issues, the disaster recovery will kick in straightaway.”

## Benefit

The new virtualized storage cluster provided by Fujitsu has given KES the performance it needs, combined with stability and resilience, at a competitive price, all within one truly unified architecture.

“There has been an enormous boost in performance – up to somewhere in the region of 180,000 IOPS, which means our critical EAM application runs considerably faster so our users are more productive,” comments van der Veen. “The fact that the database is now hosted on solid-state drives (SSD) also makes a big positive impact on latency and waiting times. Overall, we estimate performance speeds have doubled since the installation.”

The FUJITSU Storage ETERNUS DX100 is also simple to manage and maintain, reducing the burden on KES's IT team. In addition, it is very reliable: since its installation almost one year ago, there have been no reported issues. The only incident that has occurred was a proactive site visit by Fujitsu to solve a potential problem that had not yet been encountered at KES.

“We weren't experiencing any difficulties but Fujitsu explained that under specific circumstances, this bug might appear, so two Fujitsu engineers arrived to remove that possibility,” remarks van der Veen. “Other than that, the storage platform simply gets on with the job.”

KES now enjoys a robust, cost-effective, and high-performing storage solution with the capacity to scale as the organization grows and introduces new applications and services. It also consumes far less energy than the previous system – up to 40 percent – generating less heat, lowering energy bills and reducing the environmental impact.

“It is a fast, efficient and reliable solution that requires minimal maintenance so we are delighted and our users are much happier,” concludes van der Veen. “Looking forward, we will always consider Fujitsu when it comes to fresh projects and opportunities.”

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