



Pilatus takes its IT sky high.

High-flying Swiss aircraft manufacturer Pilatus offers cutting-edge corporate and training aircraft. Mirroring its dynamic business, the company generates soaring volumes of data through new development and production applications – and therefore needed more adequate IT. As Pilatus's existing servers and storage were reaching their limits, the aircraft manufacturer decided to replace its heterogeneous, performance-limiting infrastructure with a unified, future-oriented solution based on Hewlett Packard Enterprise (HPE) products. This restored the company's scope to manoeuvre and respond to changes at short notice.

Starting point. The increasing use of electronics and IT technology in development and production has led to an enormous growth in data at Pilatus – one single test flight generates up to 10 GB of data. The annual increase in data volume of up to 40 percent pushed the server and storage infrastructure of the Central Swiss aircraft manufacturer to its limits. Storage capacity, limited to 2 TB per LUN, was exhausted with hardly any room for future projects or new business requirements. The heterogeneous infrastructure, which had grown organically, made the work of the IT specialists even more difficult as the two separate data centres housed more than 13 different server and storage component types. In addition to the lack of scalability, Pilatus Head of ICT Operation Dominik Amstalden and his seven-person team were faced with the extreme challenge of managing this complex infrastructure.

Project objectives. With the finance-lease cycle for key system components coming to an end, Pilatus decided to build a central infrastructure to consolidate its previously heterogeneous server and storage landscape. Top priorities for the new solution included:

” Our bottom line for the new server and storage infrastructure was ‘Keep it simple.’ We now use only three types of servers at Pilatus, which has simplified our support and procurement processes significantly. ”

Dominik Amstalden,
Head of ICT Operation,
Pilatus Flugzeugwerke AG

- A single hardware vendor
- Only two pre-defined server models
- A centralised, highly scalable storage infrastructure – detached from physical servers – with enough capacity to last four to five years
- System components optimised for virtualisation
- Simple management of the entire infrastructure via a central management console

Process. Pilatus, located in Stans, Switzerland, entrusted Bechtle with the design and implementation of the new infrastructure. After an extensive evaluation, which also included various reference visits, the decision was made in favour of a unified solution based on the latest HPE technology. “Our collaboration with Bechtle was excellent in every project phase, as was the support provided by HPE, enabling us to complete the server and storage consolidation project within the set time and budget. This was only possible because everyone involved put their heart and soul into it,” says Dominik Amstalden.

Solution. The solution consolidates all storage and SAN subsystems onto two fully redundant HPE 3PAR StoreServ 10800s with an integrated SAN virtualisation layer and advanced tiering technology. This last feature automatically distributes data blocks to faster or slower (and therefore more affordable) storage media, depending on performance requirements. The solution also utilises six high-end, latest-generation HPE server systems to enable virtualisation through a new vSphere 5.x cluster. Added to this are HPE blade servers, also of the latest generation. The LAN/SAN networks, which had previously been kept separate in the blade chassis, were brought together using powerful HPE FlexFabric technology. These networks were also equipped for comprehensive FCoE (Fibre Channel over Ethernet) connectivity to enable higher bandwidths. And to ensure maximum data protection, all key data is now replicated synchronously in real time across Pilatus’ two data centres. Finally, the entire setup was completed by an application that backs up data to separate HPE P2000 G3 systems.

Business benefits. Project manager Dominik Amstalden pinpoints the new solution’s enhanced scalability, notably better system performance and radically simplified management as its chief benefits. “Our company continues to grow dynamically,” Mr Amstalden explains. “The IT department is often confronted with new requirements and projects that must be implemented at very short notice. We can now respond much more quickly thanks to our new, highly scalable server and storage solution, which is in and of itself ideally designed for virtualisation.” The decision to limit the hardware to a few models and greatly simplify the architecture has resulted in easier system administration and leaner support and procurement processes. The storage side leverages fully automatic tiering and thin provisioning, which automatically frees up unused storage capacity for other systems. Such state-of-the-art technology saves up to 45% storage volume and enables substantial cost savings. The two redundant data centres and optimised backup and restore processes guarantee maximum data protection: if one system-critical component fails, its redundant counterpart takes over seamlessly. Through the System Center Operations Manager (SCOM), IT staff is able to monitor the entire infrastructure on one intuitive platform and evaluate trends. Mr Amstalden sums up the success of the project by stating, “Our new server and storage infrastructure has provided us with a flexible, scalable solution for the future.”

CUSTOMER PROFILE.



Founded in 1939, Pilatus Flugzeugwerke AG is the only Swiss company to develop, produce and sell aircraft to customers around the world: from the legendary Pilatus Porter PC-6 to the best-selling single-engine turboprop in its class, the PC-12, and the PC-21, the training system of the future. The latest development is the PC-24 – the world’s first ever business jet for use on short unprepared runways. The Pilatus Group, whose main office is located in Stans, Switzerland, includes three independent subsidiaries in Altenrhein (Switzerland), Broomfield (Colorado, USA) and Adelaide (Australia). Founded in 1996, Pilatus Business Aircraft Ltd in Colorado gives 60 percent of all PC-12s a customer-specific finish (interior and painting) after production in Stans. The American subsidiary is also responsible for the marketing, sales and service of the PC-12 in North and South America, while Pilatus Australia Pty Ltd has supported the marketing and sale of the PC-12 in the Pacific region since 1998. Altenrhein Aviation AG (AAL) has been responsible for the maintenance, modernisation and overhaul of Pilatus PC-12 and PC-6 since 2003. With over 1,600 employees at its headquarters, Pilatus is one of the largest employers in central Switzerland. Pilatus provides training for about 100 vocational trainees in ten professions and has a 50-strong IT team.

For more information: www.pilatus-aircraft.com

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