

THE NEW STORAGE SOLUTION IN SSE REDUCED THE TIME FOR IMPLEMENTING SERVICES, ENSURED CONSTANT AVAILABILITY OF DATA AND SIMPLIFIED THEIR MANAGEMENT.

Key benefits of solution:

- Shorter time-to-market for new applications and services
- Lower TCO of IT infrastructure
- Much greater disk capacity
- Faster and better performing equipment
- New more robust SAN infrastructure
- New functionalities

Customer characteristic

Industrial sector: Energy

Customer profile:

Stredoslovenská energetika, a.s. (SSE) is an energy company that provides a full range of services linked to the distribution and supply of electricity and natural gas to households and corporate customers. The company boasts over 1100 employees, who administer the portfolio of over 700,000 customers.

In 2002, SSE became part of the group of the foreign shareholder EDF after it took over a 49% stake in the company. Since 2013, it has been part of the EPH group, which enjoys a strong position in Germany, the Czech Republic and in Slovakia. A state-of-the-art storage solution based on technologies of the company Hitachi Data Systems provided SSE with a high-performance accessible solution with access to data ensured under any circumstance. The advanced virtualisation technologies increased effectiveness in the use of disk capacity and simplified data management. The modern infrastructure also enabled the speedy provision of services dependent on disk capacity.

INITIAL SITUATION

Similarly to other companies with a high number of end customers, SSE has also encountered substantial growth in the volume of stored data in recent years. This global trend in combination with deferred investments into the renewal of IT infrastructure as a consequence of the economic reality, caused the existing storage infrastructure of the company to reach its limits. Two disk fields of the enterprise class (IBM DS 8300) and two midrange fields (SUN 6140), as well as the respective SAN network, had already reached the end of their lifecycle and were no longer sufficient to current demands, not only in terms of capacity, but also technology, and so were in need of renewal.

TARGETS AND SPECIFICATIONS

The customer had an exact idea about the scope of changes and the quality of the expected solution. In addition to capacity and performance parameters, it put great emphasis on the use of modern technologies that enable virtualisation of storage sources, and also on ensuring greater availability on a geographic level in two data centres roughly 30km apart.

To meet these requirements, PosAm proposed a solution based on the technologies of the company Hitachi Data Systems, the world leader in storage solutions. Technological advancement supported by the best possible price, while incorporating the specific requirements of the customer, meant success for PosAm among the tough competition of multinationals. "PosAm met and even exceeded our expectations in both the design and implementation of our new storage system. Work was completed in line with the schedule and to an excellent level of quality".

MICHAL ČARNÝ, PROJECT MANAGER, STREDOSLOVENSKÁ ENERGETIKA

SOLUTION

PosAm installed one disk field from the enterprise category (Hitachi Unified Storage VM) in each data centre (DC), whereby in the backup data centre there is another disk field (Htachi Unified Storage 100) as a quorum device. The net usable capacity of the system is 80 TB. High availability was ensured by PosAm using a configuration of various routes to a single disk and a cluster solution with the use of Hitachi availability manager (HAM), which ensures complete transparency for the end guest even upon complete failure of a field, whereby not even one I/O operation is lost. The whole solution of PosAm also takes into account the requirements for disaster recovery scenarios, by way of data replication on a second disk field, and configuration of the systems and SAN network. An important part of the solution is the establishment of a new SAN network with the use of Brocade directors (2+2 in each DC) linked to optical lines.

The implementation of the solution took 6 months in total (July - December 2013), whereby the majority of the time – as much as 4 months – was consumed by the migration of data. In the initial step, PosAm physically installed and launched the hardware and software platform. The whole system was then tested for conformity with customer requirements, which it satisfied easily with room to spare. For example, in the test of performance parameters, some 120,000 I/O operations a second were confirmed, with a data flow of 5 GB a second. The migration of data then followed, comprising a key part of the delivery. Despite the demands and complexity, this task was carried out within the specified time, during full operation, given a few exceptions. The final step saw implementation of HAM for the VMware environment, which ensures high availability of the whole system. This was tested by completely disconnecting a disk field from the ESX host. As expected, this outage proved to be completely transparent for the virtual servers.

PosAm endeavours to construct each solution in a way that its operation is as effective as possible for the client. In this case, we focused on simplifying the maintenance of two mirror systems and a reduction in costs for the operation and extension of the systems. Thanks to the high precision in the design and implementation of the systems, we managed to achieve essentially an identical configuration for both disk fields, which simplifies and reduces the cost of maintenance and support. At the same time, we conceived the whole solution, in terms of software and licensing, so that extending the hardware in future would not produce additional costs for software licences, which positively influences the TCO.

RESULTS AND BENEFIT

PosAm designed and supplied the solution within the set timeframe, at the agreed quality and price. The supplied storage solution is an ideal combination of the hardware and software technologies of the world leader in storage solutions Hitachi Data Systems and the experience and services of the domestic solutions supplier – the company PosAm. The implemented systems of Hitachi Unified Storage VM provide the functionality of the largest enterprise systems at the price of midrange systems. This usually means 25% savings in terms of used data space, 40% additional capacity, 50% increased utilisation, 90% reduced effort for data migration and 20-40% savings in operating costs.

The latest disk fields and technologies provided SSE with a whole range of new functionalities and benefits:

- More flexible planning and more effective allocation of disk capacity, thanks to Thin provisioning.
- The option to create backups of the data of critical systems using the functionality Snapshots.
- Simple use of the capacities of older disk fields by simplifying the migration process during full operation, which allowed for massive virtualisation.
- Greater output, stability and availability of output thanks to Cache Logical Partition Resource (CLPR).

SSE therefore gained a modern, secure, productive and stable storage for company data, which it can rely on for its business. This high availability and capacity guarantee that current needs are met, while the scalability provides the potential for problem-free extension in future. Furthermore, thanks to its strong flexibility and simplified management, the time to market for any services dependent on disk capacities can be shortened by several minutes.



PosAm's goal is to deliver usefulness to coustomers through unique solutions based on potential of information technologies. The company is certified by ISO 9001:2008, ISO/IEC 20000-11:2011, ISO/IEC 27001:2005, OHSAS 18001:2007 and ISO 14001:2004. PosAm is the holder of the National Quality Award and as the first Slovak based company it was granted the award "Recognized for Excellence in Europe" by the European Foundation of Quality Management (EFQM).

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