Renewing the Central IT Infrastructure in Mondi SCP

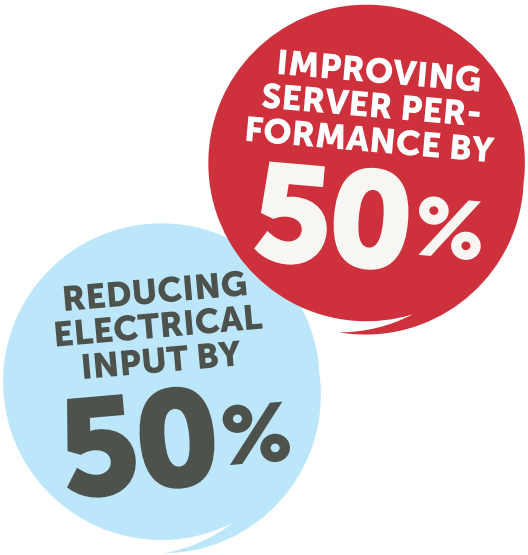
Mondi SCP, one of the key members of the international Mondi Group, is a leader in the paper and packaging industry. With more than 130 years of tradition and production exceeding 510,000 tons of pulp and 620,000 tons of paper, Mondi SCP is the largest integrated factory for the production of pulp and paper in the Slovak Republic. More than 77% of production is defined as "green manufacturing". Mondi SCP is also the largest employer in the region.

Solution

TEMPEST has consolidated and modernized the central IT infrastructure of Mondi SCP. The result is a solution that supports the customer's business requirements until at least 2018, removes performance problems, and reduces the TCO (Total Cost of Ownership). The supply included central data storages, SAN infrastructure, physical and virtual servers, a database, ERP system and warehouse management system archive migration, central backup and all related integration and migration services.

Benefits

- agreed availability and service level
- storage infrastructure with optimum capacity and operating efficiency prepared for future planned business requirements
- flexible infrastructure with minimal future investments in the event of further expansion
- lower operating and administration costs, smaller footprint
- elimination of infrastructure failure, solution without a "single point of failure"



Original condition

Several customer critical servers and storages were at the end of life and producer support. The central infrastructure provided an environment for the running of five robust systems – the Oracle database, EFACEC system for a fully automated warehouse management, the VMware ESX system – virtualization platform, the SQL and SAP environment archive. In terms of the infrastructure's location, the systems were allocated in two primary data centers (DC1, DC2) interconnected through optical fibers to ensure high service availability. Data centers are part of the two SAN (Storage Area Networks) serial networks. In the third backup data center (DC3), connected to the two main DC1 and DC2 data centers, the original solution included the infrastructure backup and monitoring systems, primarily focused on the "root cause" analysis.

mondi scp

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Assignment and Project Objectives

The original project assignment included the requirement for the replacement or reconstruction of key infrastructure components and the requirement for services related to integration and migration so that all the project objectives are met. Within the project we restored the central data storage, the Oracle database cluster, the VMware virtual server infrastructure and a central backup system. We provided the appropriate installation and migration services, upgrade, application consolidation, archive SAP and SQL databases virtualization. The assignment did not concern the LAN components and end points. The project objectives were:

- infrastructure and systems that would meet business requirements until 2018
- fully supported infrastructure and deployed software versions with an agreed level of availability
- implementation at the agreed time and budget
- no production and critical application failures
- increasing infrastructure performance by 30-50%
- virtualization of suitable environments
- full migration of the original solution's relevant components

Project Progress and Results

The project has met all major defined goals, partial project milestones observed or implemented with minimum delay, without impact on the key project milestones. The project lasted about 7 months and was scheduled in the range of several hundred man-days. Seven technologists and the TEMPEST project manager participated in the implementation. The project also included the coordination of third parties. The main project milestones were the analysis and design of a solution, along with technical specification and an implementation plan. This was followed by the stage of implementation, installation, and configuration with testing and user training. The next step was migration and the transition to production. Subsequently, the solution was tweaked.

Results and Implemented Changes:

INCREASED STORAGE CAPACITIES BY **60%**

- higher performance of servers (CPU, RAM, SAN connectivity)
- faster disk array with greater capacity and functionalities
- SAN network with higher operating efficiency
- backup server with internal disk storage (instead of a disk array)
- deduplication (in backup) on the internal disk storage – saving disk capacity, faster recovery
- tape library, which allowed reducing the time required for system backups and recovery
- SAP archive virtualization from IBM Power architecture to VMware
- change of clusterware for the Oracle DB cluster from HP Serviceguard to Symantec/Veritas HA
- implemented Symantec Ghost for the imaging of critical PCs

Summary

The project commission concluded the fulfillment of all the objectives and confirmed the solution's benefits for the fulfillment of Mondi SCP's business requirements. The two parties agreed on the successful course of the project in spite of some unexpected events and changes.

Jaroslav Jaroš, IT Manager of Mondi SCP

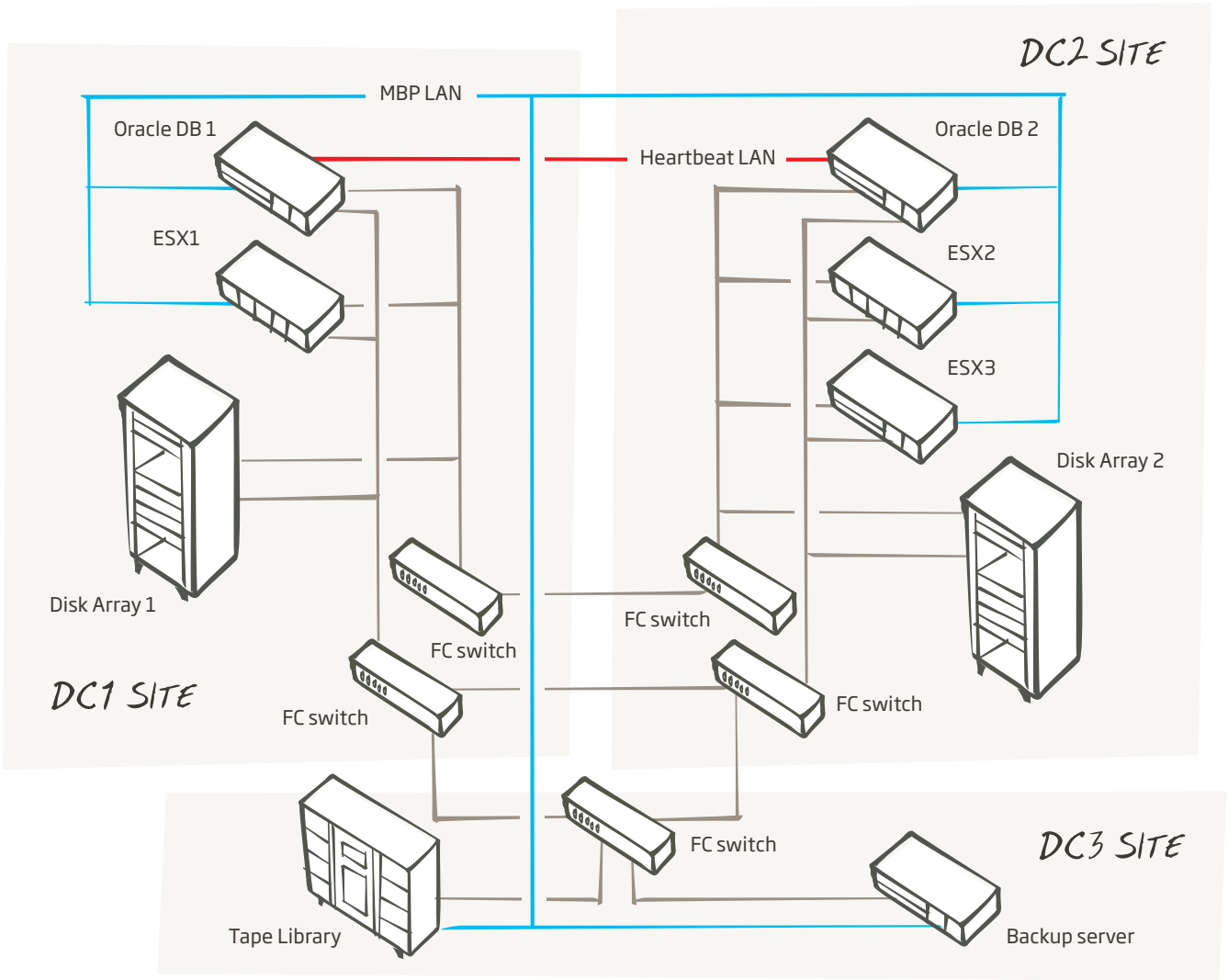
> *"The project met all the defined objectives. I positively rate the overall project management organization, specifically the risk management in all project stages. I would particularly highlight the level of collaboration and communication between the specialists from both teams, which greatly helped to replace the infrastructure without an impact on our business processes. We applied a sufficiently powerful and stable technology, which creates the space for us to focus on other development projects."*

Ľuboš Ondrúš, Key Account Manager of TEMPEST

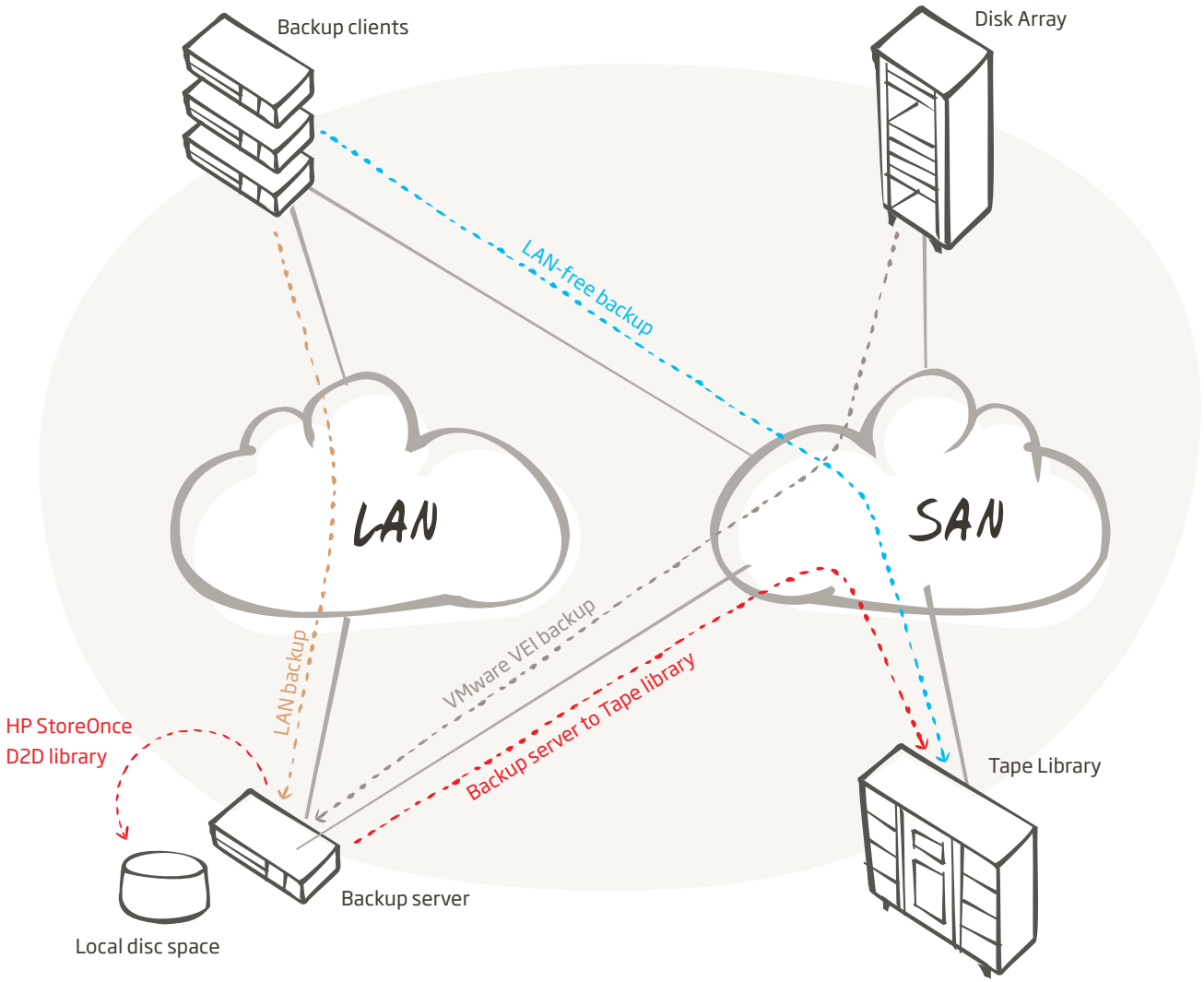
> *"We are thankful for the confidence we've received from the customer. Also, thanks for the great cooperation of all project team members on both sides. I believe that we have met all expectations and brought about a technological solution that is flexible, prepared for effective expansion and supporting the long-term entrepreneurship of Mondi SCP."*

Resulting Infrastructure

Solution architecture, Fig. 1:



Backup architecture, Fig. 2:



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