Network Infrastructure Consolidation and Its Benefits

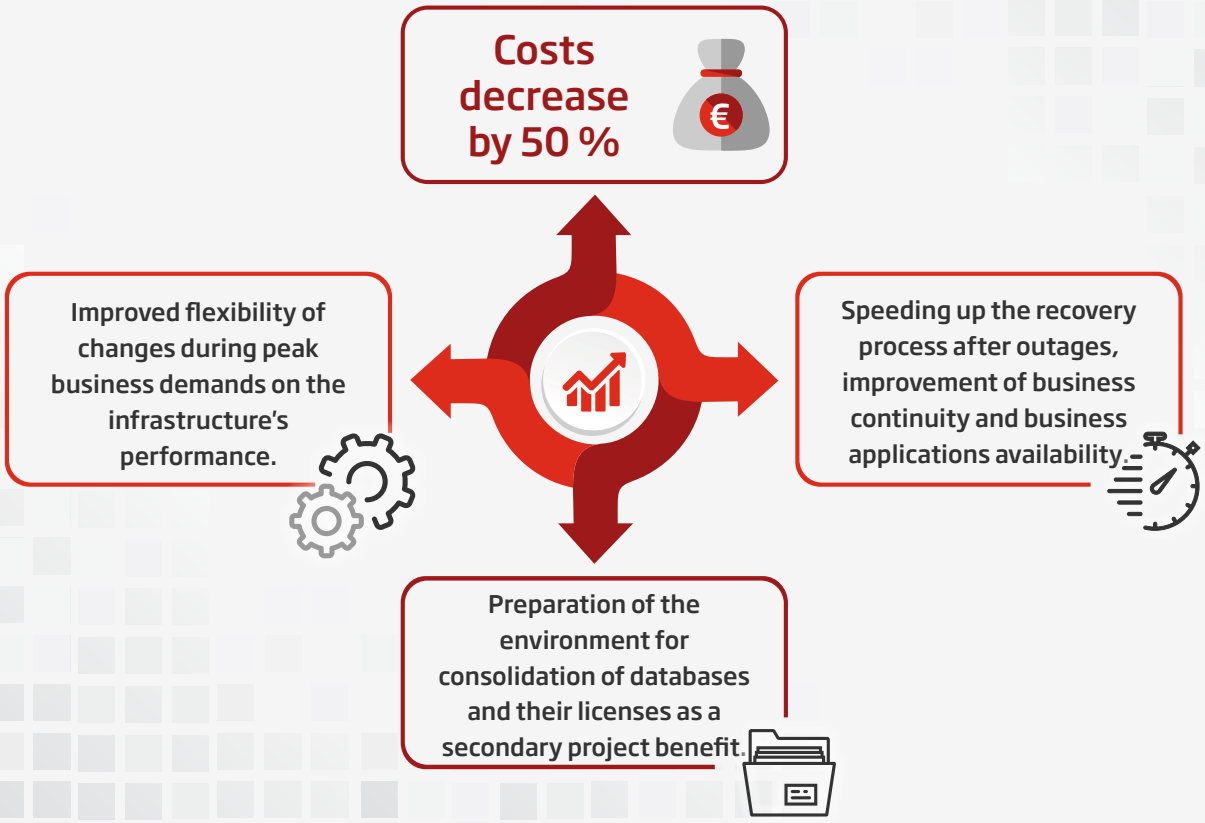
SSE-D

The Solution Implemented in SSE-D

In Stredoslovenská energetika – distribúcia, a. s. (SSE-D) we succeeded in **consolidating the network and security infrastructure** and at the same time we applied the complex solution of its **monitoring**. **The solution resulted in the improvement of response time when solving business requirements in the IT environment, increased effectiveness and a reduction in the network infrastructure's operating costs.**.

The new solution is based on MPLS topology, on HPE, Fortinet, F5 and Flowmon technologies and, from the historical point of view, even on Cisco. It integrates certain original parts of the infrastructure in order to save total capital expenditures. At the same time, the newly built network infrastructure provides for new interfaces for further business applications. This solution is unique in its architecture, in its ability to integrate specific technologies and manufacturers, and in its comparatively low capital expenditure.

The Project's Business Results:



Tempest
IT makes sense

The Project's Technological Results:

- **Increase in the network's distribution capacity.**
- **Simplification of physical infrastructure.**
- **Improvement of identification and prevention of network problems by means of integrated monitoring tool.**
- Elimination of STP protocol.
- Improved possibility to use the redundant hardware and connectivity (active load balancing).
- Improved possibility to use transmission capacity between locations and its upgrade for data centres to the level of Nx10 GigE.
- Sufficient quantity of interfaces for the connection of new hardware with 10 GigE ports.
- Modularity of devices with the possibility to use GigE or 10 GigE ports.
- Virtualisation of the network environment with the possibility of operating several independent single-technology network communication infrastructures.
- Readiness of the solution for the IPv6 protocol.
- Functionality enhancement of firewall solutions by IPv6 and further functions.
- New possibilities for back-up connectivity with a telecommunications operator.
- Upgrade to dynamic routing protocols.

Integrated monitoring

Modularity of equipment

IPv6 ready

Basic Information about the Project:

- The number of people working on the project was **2 - 12 people on the SSE-D side and 2 - 8 people on the TEMPEST side**.
- The time duration of the project was **13 months** including problem solving on the side of hardware and software manufacturers. Diagnostics and communication with the manufacturers was coordinated by TEMPEST.
- The transition into production was conducted in three logical stages **with no restrictions on the company's business processes**.

Ladislav Tomašec, Stredoslovenská energetika - Distribúcia a.s.

„The project itself was preceded by a relatively serious preparation as far as the contents of the project and its financial and authorisation issues are concerned. The future key personnel of the internal project team became involved at this stage, which helped to improve their orientation on objectives.

The people interested in reaching the common goal have a lion's share of the success. In the case of this project we also managed to find a partner with an excellent sense of purpose, even if the road leading there was not always straight. From my personal point of view, participation in the project and its coordination posed a great challenge for me as the activities concerned dealt with principal communication infrastructure with the threat of a long-term adverse impact on all our users. I do consider it a success that the vast majority of them did not have a clue about its execution until after It was over."

Peter Pongrác, TEMPEST a.s.

„The project posed a real challenge for us. Besides the demanding tendering procedure we were implementing the technologies with a unique setting in a heterogeneous environment.

This resulted in requirements for the technology's manufacturers who were able to modify sections of proprietary software in their equipment to conform to the project's requirements. Communication with the manufacturers was supervised by TEMPEST. In the project's execution stage the responsibility imposed on us was huge as the project was being intensely observed due to its scope and possible impact. We want to thank our customer for the opportunity, for his trust and extraordinarily open collaboration. We are looking forward to the future development of the project."

Stredoslovenská energetika - distribúcia, a. s.

Stredoslovenská energetika – distribúcia, a. s. (SSE-D) is a power distribution company. It is active on the market in the districts of Žilina, Banská Bystrica and in the part of Trenčín district where it is a distributor of electric power for nearly 740,000 customers – businesses and households. For its customers it provides services which have to do with the operation of distribution networks. As far as IT is concerned, SSE-D infrastructure is distributed in three geographically distant locations with specifically defined possibilities for optical connection. There are approximately 60 specialists employed in the IT section which is divided into seven units – IT Security; Administrative Information Systems; Telecommunications Unit; ERP and Customer IS; Technical Infrastructure; Technology IS and ICT Development Unit. The project was mainly attended by the units of IT Security, Telecommunications and the ICT Development Unit.