

Property Agency Automates Data Storage with Unified Fabric

Customer Case Study



LBB in Germany uses Cisco Fibre Channel over Ethernet data center solutions to improve productivity and cut costs.

EXECUTIVE SUMMARY

Customer Name: Landesbetrieb Liegenschafts- und Baubetreuung (LBB)

Industry: Public Sector, Regional Government

Location: Germany

Company size: 1300

Challenge

- Improve data management by centralizing storage
- Increase productivity throughout organization
- Support IT flexibility to enable new ways of working

Solution

- Storage area network integrated with existing computing and phone network

Results

- Improved IT efficiency by centralizing data management processes
- Increased employee productivity by improving access to information
- Provided platform that will scale up and enable virtualization

Challenge

The Landesbetrieb Liegenschafts- und Baubetreuung (LBB), the estate and construction management agency of Rheinland-Pfalz, offers construction and property management services to the federal state Rheinland-Pfalz. Its duties are to provide property management services, including site-use optimization, in accordance with sound business principles as well as the implementation of construction projects initiated by the German federal government, its partners in NATO and foreign armed forces, the state of Rhineland-Palatinate and other third parties. The agency has 1300 employees working in 25 offices in seven different cities, including the headquarters in Mainz.

LBB currently stores about 2 Tb of data in each of its seven locations, and that volume of data is expected to double each year from now on. Much of the data consists of architectural drawings and plans in formats from applications such as AutoCAD, although other applications such as Ariba and Oracle are also important. Each of LBB's locations used to have separate storage facilities based on individual hard drives attached directly to servers, making it impossible to manage the data from a central point or to automate processes such as backups.

One of the agency's goals was to improve productivity and enhance the working environment by giving its employees faster, more convenient, and better access to information. In the longer term, LBB wanted to introduce a document management system throughout the organization, to automate several processes, minimize errors, and eliminate inconsistencies. As an important first step, the agency decided to adopt a centralized approach to data storage by creating a storage area network (SAN). The SAN would provide an easier, more cost-effective way of managing data than separate storage facilities, and create a foundation on which to introduce a document management system.

"Instead of setting up a different network for storage, we wanted to converge the new SAN infrastructure with our LAN," says Rudolf Ritz from the Information Technology department at LBB. "At the time, the Cisco Nexus 5000 switch was the only solution available that could do this."



“We’re already benefiting from time savings and productivity improvements, and we expect these to continue and increase over time.”

Rudolf Ritz
Information Technology Department
LBB

Solution

Until recently, SANs typically operated on a network that was completely separate from the infrastructure used for computing and telephony services. These networks each have different devices for data switching and management, and they use different technologies for transmitting data (Fibre Channel for SANs, Ethernet for LANs). In addition, because storage area networks need full redundancy to avoid any loss of services, every device on a SAN has to be duplicated. All these factors lead to increased cost in terms of equipment purchase, cabling requirements, space, and energy consumption for power and cooling.

LBB already had an end-to-end Cisco infrastructure that incorporates WAN, LAN, wireless, and IP telephony. Implementing Cisco® SAN solutions was a natural next step to consider, because it would help optimize previous investments in equipment and training, and would fit in well with the existing environment.

LBB was able to avoid unnecessary cost and duplication by choosing to build its storage area network on [Cisco Nexus® 5000 Series Switches](#). These LAN switches can also operate as storage switches, using Fibre Channel over Ethernet (FCoE) technology. This meant that LBB only had to install one Cisco Nexus 5000 Series Switch in each of its locations, instead of one Fibre Channel switch and one Ethernet switch at each site. (The only exception is the headquarters, where there is a second Nexus 5000 switch for full redundancy.) By connecting its file servers, backup servers, and Microsoft Exchange servers to the Cisco switches through QLogic FCoE adapters, the agency has halved its requirements for hardware devices and costly accessories such as cables and interface cards.

Built-in scalability was another reason why LBB chose the Cisco solution. For example, currently one 10 Gigabit Ethernet network interface card is in each of the Cisco Nexus switches, but spaces are available for additional cards to connect more storage devices, as required. Another big advantage of selecting Cisco was the fact that the IT department at LBB already had extensive Cisco skills and experience.

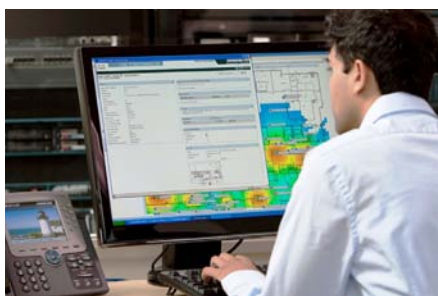
“Adding more Cisco solutions to our existing infrastructure was certainly simpler for us and less of a risk,” says Ritz. “Cisco also discussed with us their data center strategy and shared some of their long-term development plans for the Nexus 5000 switches, and this insight gave us confidence that we were making the right decision.”

Results

LBB can now remotely monitor, manage, and back up all the data in seven locations from the central point of its headquarters in Mainz. Higher levels of automation have improved the agency’s operational efficiency and strengthened its security, by saving time and minimizing the possibility of data loss or damage.

The ability to consolidate LAN and SAN switching has enabled LBB to halve the number of devices, cables, and interface cards necessary to set up a storage area network. In addition to removing certain capital costs, this consolidation will also reduce power consumption, which, combined with other factors such as simplified management, will cut the agency’s operating expenditure. “We’re already benefiting from time savings and productivity improvements, and we expect these to continue and increase over time,” says Ritz.

The new SAN has not only lessened the workload for LBB’s IT department, it has also helped improve the overall performance of the agency’s IT systems. LBB is better able to help ensure business continuity, for example, because there are no longer delays of up to 20 hours before some services are restored after unscheduled downtime. Data backup is also faster and safer, due to the close integration between the Nexus switches, the network, and the agency’s storage devices.



“When we go into the second phase and introduce a document management system, we expect to see even greater time savings and productivity gains.”

Rudolf Ritz
Information Technology Department
LBB

The ability to manage both its LANs and the new SAN with the same software (the CiscoWorks LAN Management Solution) has enabled LBB to protect its previous investments in Cisco equipment and minimize training costs. Because the people responsible for storage and network management are now using the same software on one device instead of two, albeit with separate controls, they can work more closely together than before and are becoming more effective as a result.

“Most of the benefits we are enjoying today, although significant, are related to IT,” says Ritz. “However, the introduction of the storage area network is only the first phase of a larger plan. When we go into the second phase and introduce a document management system, we expect to see even greater time savings and productivity gains.”

Next Steps

To improve application performance and continue increasing productivity, LBB intends to virtualize some of the physical servers, which are currently hosting its applications. The Cisco Nexus 5000 Series Switches will provide an excellent platform for virtualization, because they are part of the network foundation for the [Cisco Data Center Business Advantage](#), an architectural approach that helps organizations transform their data centers to better achieve their business goals.

For More Information

To find out more about the Cisco Nexus 5000 Series Switches, go to: www.cisco.com/go/nexus5000

For more information on Cisco solutions for the data center, visit: www.cisco.com/go/datacentre

Product List

Routing and Switching

- Cisco Nexus 5000 Series Switches



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