Objectives defined in connection with the virtualization project
• Faster response to business needs
• Increase of availability
• Cost-efficient method for providing testing environments

Results achieved through the use of the VMware solution
• Lead time of server roll-outs is 1 day, down from 4 to 6 weeks
• Downtime due to hardware failure was reduced to 3 to 4 hours from 1 to 2 days
• Geographically distributed, disaster tolerant infrastructure established in a cost-efficient way
• Setting up testing environments on demand within a few minutes, without additional investments
• The number of introduced systems has grown dynamically, and yet, the costs of operation and the number of operating staff remained unchanged

KEY HIGHLIGHTS

“Thanks to flexibility and availability achieved with VMware based virtualization Lombard Lízing Group can present itself to the customers as an agile, innovative and readily available financial service provider, and respond faster to changes on the market.”
— Róbert Klajkó, head of hardware operations department at Processes and IT Directorate of Lombard Leasing Group

Lombard Lízing Csoport

Lombard Lízing Csoport (Lombard Leasing Group) with its most significant experience, is the leading brand-independent player of the Hungarian leasing market, offering wide variety of financial services for the public and corporate clientele. Besides funding of vehicles, capital goods and properties, it offers total fleet-management and fleet-funding services; its financial services are available at 15 offices and two sites throughout the country.

The direct shareholder and most important global professional partner of the group is VR Leasing AG, Germany's biggest brand-independent leasing company, a member of Volksbank and Raiffeisen Bank Group. Their solid background is guaranteed by DZ Bank.

Since 2000 Lombard Lízing Csoport has expanded its service portfolio considerably. Introducing products that are meant for new target groups presented a serious challenge for the IT team of the company.

"In order to meet the continuously emerging business requirements, we introduced new systems and applications almost every two months", recalled Róbert Klajkó, head of the operations and IT department at Processes and IT Directorate of Lombard Leasing Group. "In an environment built on physical servers, however, the lead time of the individual projects was too long, mostly not due to the installation and configuration of the application, rather the time consuming process of purchasing the hardware. We sped up the approval procedure, but to no avail, as the manufacturer was only able to deliver within 2 to 6 weeks, and it took us another calendar week to hand over the new system to the business department.

Dramatically reduced system implementation time

The market of financial services is characterized by keen competition all the time, and this was doubly true at the beginning of the 2000’s during the period of boom when each day counted at the time of introducing a new product. For this reason, Lombard required improved efficiency and flexibility in terms of system implementations.

“We had to find a solution to release new systems much faster to the business department, and thus, in 2006 we started to scrutinize VMware's virtualization software, which had already been regarded as a proven technology”, said Róbert Klajkó. “Our tests with the free version confirmed this beyond doubt. We have ascertained that, compared to the former lead time of several weeks, in a VMware based virtual environments we were able to provide the business department with a new system in a day, including the installation and configuration of applications. It was precisely this kind of speed and flexibility that we wanted to achieve, and consequently the corporate management decided to proceed with the investment. In 2007 we purchased the VMware ESX licenses, which opened up important new functions for us, and with the professional assistance of a support partner we began to virtualize our server environment.”
Lombard has also laid down the improvement of the safety of operation as a key requirement. In the past, with applications running on a non-redundant infrastructure, hardware failures would cause service outages lasting for several hours.

“Ultimately we also wanted to reduce downtime resulting from hardware related failures”, added Róbert Klajkó. “It would be futile to place a new funding product on the market if they were rendered unavailable from time to time; availability has a direct impact on our company’s competitiveness. This is why we regarded the opportunity to make our infrastructure fault tolerant using VMware technology as a decisive argument for server virtualization.

Retaining customers through fault and disaster tolerance

As early as the installation of the first VMware solution Lombard Lízing Group began to use HA and DRS services providing high availability and dynamic resource allocation – this fact also reflects how important it is for the company to ensure the uninterrupted availability of business applications.

“Through server virtualization we wanted to ensure fast response to business needs as well as uninterrupted operation, and VMware lives up completely to both of our expectations.”

— Róbert Klajkó, head of hardware operations department at Processes and IT Directorate of Lombard Leasing Group

In the next years Lombard migrated more and more of its business critical applications, including business front-end systems as well as its system handling CRM, and document management outstanding receivables and risks, its partner portal to the virtualized infrastructure, and therefore it was necessary to make the host environment, which provided the hardware platform fault tolerant. To that end the corporate management made a decision in 2010, even though the financial crisis was already in full swing, to invest into a solution that allowed for setting up, a catastrophe-resistant virtual infrastructure ensuring the continuity of business operations.

“In case of a breakdown of the live server environment we can now restore all services in about one and a half day on the virtualized infrastructure operating at the back-up site”, said Róbert Klajkó. “Most of our applications running on the virtual machines use storage devices that are not mirrored as yet in real time at the back-up site. Thus, even though it takes much less time for us to start up the virtualized infrastructure at the back-up site, we have to restore the image files of the virtual machines from tapes, which is a time consuming process with more than 50 virtual servers. In 2012, however, we plan to roll out a storage environment, which will provide real-time image mirroring for the entire virtual infrastructure, reducing the recovery time to 1 hour in this way.

By now more than 60 percent of the business applications and management systems of Lombard Lízing Group run in a virtualized environment. In the autumn of 2011 the company will further upgrade host resources so physical-to-virtual migration will continue in 2012, and during this process sales and customer front-end systems will also be virtualized.
Cost-efficient testing and operation

Frequent adoption of applications required intensive testing, which posed a sometimes seemingly insurmountable challenge for the IT team of Lombard. In an environment built on physical servers setting up a testing environment was a time consuming process, and also, due to limited resources, sometimes it was not possible to provide a testing environment on the required scale.

“There were few of our introduced applications that we were able to test even in an environment made up of workstations, however it was impossible to extend the available server resources beyond a certain limit due to the costs”, pointed out Róbert Klajkó. “Thus, we were only able to maintain a testing environment for the most critical business system, which presented a serious problem. We tried to mitigate it by including resources for the testing environment in the project budget of systems that were scheduled for implementation. However, with the older systems, it did not make our lives easier, and due to parallel development efforts sometimes we would have needed more than one testing environment at the same time. With physical servers, such demands can only be satisfied in a time-consuming and extremely costly way. VMware based virtualization offered an excellent solution for these problems. Using the Snapshot function we can mirror the live system and set up testing environments as necessary within a few minutes, and thus they will always contain up-to-date data. Once testing is complete, the committed resources can be freed up just as easily. Our virtual infrastructure makes the provision of testing conditions incomparable faster, more flexible and also more cost-efficient.

Another benefit of the virtualization process at Lombard Lízing is that, despite the newly introduced systems, the costs of operation did not rise, and the two-strong operating team did not require additional members.

“Reducing costs was not the primary reason for the virtualization of our infrastructure, but the improvements of economy, which were unimaginable in a physical server based environment, are most certainly appreciated”, said Róbert Klajkó. “The greatest benefit for us, however, is the fact that thanks to flexibility and availability achieved with VMware based virtualization Lombard Lízing Group can present itself to the customers as an agile, innovative and readily available financial service provider, and respond faster to changes on the market, as has been proven in practice many times over.”