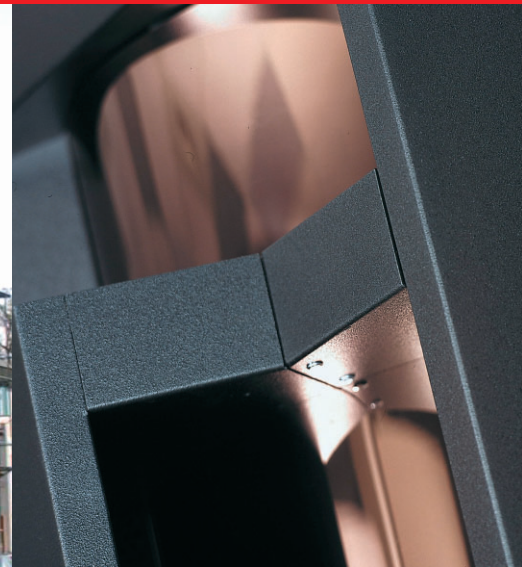


Linux on the Mainframe at Sparda-Datenverarbeitung eG



Lower costs, more comprehensive disaster reduction and investment protection

CUSTOMER
Sparda-Datenverarbeitung eG

REQUIREMENTS
Integration and consolidation of Linux applications on IBM zSeries

Founded in 1983, Sparda-Datenverarbeitung eG in Nürnberg is an IT services provider for 28 banks which together have balance sheet totals of Euro 62.4 billion and attend to 4.5 million banking customers across Germany. Sparda-Datenverarbeitung deploys tried-and-tested, forward-looking software products and system platforms to be able to provide their clients with top service quality. Economies of scale and the ability to adapt quickly to new technologies visibly reduce operating costs for NetBank and the Sparda banks and PSD banks supported.

Linux applications on zSeries

The issue of disasters is becoming increasingly relevant for open systems applications. The mainframe sector has been aware of this problem for a long time and also tackled it a long time ago. So why not transfer database applications, known for their high data throughput and low CPU usage, to mainframes and avail of the backup and recovery systems already installed and established? This is technically possible with Linux on zSeries with VM as the integration platform, and also interesting in terms of software costs: by transferring the Tivoli Storage Manager (TSM) alone to z/Linux, Sparda-Datenverarbeitung was able to save over a half a million Euros in software fees each year. A further advan-

tage is openness for new applications: many software providers are currently focussing development on open systems, particularly on Linux as the operating system.

From test run to fast-seller

Bernd Bohne, who is responsible for databases and central systems engineering at Sparda-Datenverarbeitung, is convinced that "our personal organization structure accommodates the integration and consolidation of open systems and the mainframe world." Together with COMPAREX as the fulfillment partner for IBM zSeries, the requirements were met for testing Linux applications on the mainframe. "We gave our management team a break-down of the possible software cost savings and got the go-ahead for a test run. It has since become a fast seller. The benefits in the area of disaster reduction, in particular, are obvious and now more and more departments want to transfer their open systems applications to the mainframe," the department manager enthuses. The staff of Central Systems Engineering have developed a special cloning process for this purpose where they can set up a new Linux guest on zSeries, with a complete network and storage connection, in just 30 minutes.

Exceeds expectations

The following applications were transferred to inte-

SUCCESS

Backup consolidation with z/Linux as integration platform

grated facilities for Linux (IFLs) of IBM zSeries in several stages:

- Tivoli Storage Manager
- CICS Transaction Gateways: the application as the connection between WebSphere and CICS
- Workflow management database that is supplied with data from the z/OS environment
- Digital postbox: the mainframe provides legally binding images of account statements
- Database of the "sales-oriented workplace", an Intranet application

Intensive stress tests returned very good response times with low CPU usage. The system was rolled out for production in November 2004 and since then the applications have been very stable. "Linux on zSeries' with its network connectivity has proved to be a very suitable integration platform," says Oliver Röhthinger, Central Systems Engineering, of his experience. However, to make optimum use of the benefits of this solution, Oliver Röhthinger believes one primary prerequisite must be met: "The employees responsible have to know how to work with Linux as well as VM".

High availability for open systems

The open systems area is witnessing constantly increasing data volumes with varying security requirements. Sparda-Datenverarbeitung has connected FC tape drives to the mainframe to make this infrastructure available to TSM on 'Linux on zSeries', as well as other open systems servers. A conscious decision was made to maintain control of the tape libraries on z/OS. Backups can be made LAN-free under TSM control whereby here only the meta data are transmitted to the host. z/OS took over the LAN backup of TSM unchanged. As a result, completely new options are now open to TSM, such as LAN-free backup.

Further integration and backup consolidation will take place in the future with regard to open systems and mainframes. However, the same processes and high safety standards that have been commonplace among mainframes for a long time are now already available to open systems applications. Consequently, disaster reduction for open systems data is safe, well-trodden ground rather than unknown territory.

Cost reduction and investment protection

Better use is made of existing resources and considerable savings are possible, particularly with regard to software fees: Sparda-Datenverarbeitung cut its software costs dramatically just by transferring TSM to 'Linux on zSeries' alone. License fees for CICS Transaction Gateways were 12 times higher for z/OS compared to z/Linux. When calculating software fees for z/OS, approx. 10% less MSUs can now be applied as a result of transferring the workload. No additional costs are incurred for a parallel infrastructure for disaster reduction for open systems data. New investment in mainframe power for z/OS could be delayed as CPU capacity was freed up by transfer-

ring I/O-intensive applications. Furthermore, the processors assigned to the open systems applications can be better scaled with z/VM and whitespace can be reduced.

Long-term partnership with COMPAREX

Sparda-Datenverarbeitung and COMPAREX have had a steady partnership for over ten years. As an independent system integrator, COMPAREX has already seen through many projects - consulting, technical feasibility studies, proof of concept in the COMPAREX Core Competence Center, profitability analysis as well as installation, operation, maintenance and service. COMPAREX supports Sparda-Datenverarbeitung in the areas of data center and backup/recovery and as a Novell Linux Platinum Partner.

