

## LINZ AG migrates its communication servers to HP BladeSystem servers



“It was amazing how fast the rows of cabinets disappeared from the server farms through the use of HP blade servers.” Franz Loderbauer, head of the network and back-office group of management service, Managementservice Linz GmbH (a subsidiary of Linz AG)

LINZ AG

### Objective:

Linz AG needed a significant reduction in the number of servers and wanted to lower costs for maintenance and infrastructure expenses.

### Approach:

- Consolidation on HP ProLiant BL20p servers.

### IT improvements:

- Additional flexibility is provided by extremely fast expandability and replacement of the components.
- New age of enterprise computing.
- Full compatibility with the products already in use.
- Speed of deployment.

### Business benefits:

- Decreased amount of space taken up by servers.
- Platform for future growth.

With more than 2,600 employees, LINZ AG provides energy and infrastructure services for private households and businesses in the metropolitan area of Linz and Upper Austria, including power generation and distribution, gas and heat, water supply and waste disposal, public transportation and much more. In all of these areas Managementservice Linz GmbH, a subsidiary of LINZ AG Holding, provides basic services such as purchasing, payment processing and training, and is also responsible for IT throughout the group at its computing centre.

### Rising IT operating costs

Previously there were over 100 servers in use in the computing centre. More than 30 Citrix Terminal Servers were required just for providing SAP (finance, HR and CRM), MS Office and other business applications to approximately 700 users. The operating costs for these had risen exorbitantly over a period of years. It was predicted that additional servers would be required due to the impending explosion of data from file and print services as a result of IT-supported business processes (energy data management, call centre application and archiving systems).

The challenge was clear: the number of servers had to be reduced in order to lower costs for maintenance and infrastructure expenses (cabling, LAN and SAN connectivity) and allow for fast deployment of new hardware. The solution: consolidation on HP ProLiant BL20p servers.

### Blade servers put to the test: ready to use within two hours

“We had observed the development of the HP BladeSystem for a long time,” comments Martin Schaubmayr, enterprise computing project manager for Managementservice Linz GmbH. “What

## Customer solution at a glance

### Primary hardware

- 7x HP ProLiant BL20p servers

### Primary software

- VMware
- Linux
- Windows
- Citrix Metaframe XP Terminal

particularly impressed us was the full compatibility with the products already in use at LINZ AG, such as Cisco LAN switches, McData SAN switches and Avocent keyboard-video-mouse switches.”

Now it was a matter of testing the blade servers in LINZ AG’s computer centre. A special test was arranged with HP for this purpose. A fully functional 19 inch cabinet with HP ProLiant BL20p servers was delivered by freight forwarding. After just two hours the servers were completely ready for use including the KVM, LAN and SAN connections.

The initial performance tests showed immediately that the dual 3.4 GHz processors and 8 GB RAM would usher in a “new age of enterprise computing” as Mr. Schaubmayr describes the results. The specialists of Managementservice Linz GmbH had already developed an automatic server installation, which, with a little adaptation, was also used for the new HP ProLiant BL20p servers. The comprehensive function tests also included console management and the installation procedure, migration steps, backup and restoration and emergency plans.

The most important results of the lab tests were that up to 100 Citrix standard users per Terminal Server were achieved (previously 25 to 30 were achieved) and full compatibility with existing Cisco switches and the SAN switch infrastructure.

Furthermore, it was clear that a complete rack infrastructure could be installed in less than three hours and that an individual server could be removed from its shipping package and be brought into operation in less than 20 minutes! “Server replacement with HP BladeSystem servers is as simple as changing a hard drive,” says Franz Loderbauer, head of the network and back-office group of Managementservice Linz GmbH.

### Rollout of the entire new server infrastructure within a day

The decision was made to use HP blade technology for the Citrix Terminal Servers, file and print services, high-end application servers, anti-virus and administration servers, domain services and backup and restoration servers. Particular attention was paid to the last point, since IT security and continuous availability of IT-supported business processes must

be 100 per cent assured, making redundant architecture a prerequisite.

On the same day as delivery in October 2005 the blade servers were brought into operation, and after only three working days the existing Metaframe XP Terminal solution was migrated to the new Citrix server farm with seven HP ProLiant BL20p servers without adversely affecting the function of any of the 700 users. In later steps the file servers, anti-virus servers, administration server and others were converted to HP blade technology.

The “greatest” challenge of the rollout proved to be the necessary infrastructure for air conditioning and power supply (3x400V, 32A), which required minor adaptation. A lot of space was saved as well. “It was amazing how fast the rows of cabinets disappeared from the server farms through the use of HP blade servers,” remarks Mr. Loderbauer.

In addition to the security of redundant systems, flexibility is provided by extremely fast expandability and replacement of the components. A reserve of units was established on site, and as part of the 36 month HP standard warranty, defective components are replaced immediately by next business day shipment.

### Plans for the future: virtualising the server systems

After the successful hardware consolidation with HP BladeSystem servers, Managementservice Linz AG continues to pursue big plans: in addition to the current virtualised systems using software solutions (VMware and LPAR), a more fundamental virtualisation of its systems is seen as an attractive scenario for the future. In this regard, a server virtualisation under Linux and Windows with VMware and the use of dual core systems should soon be completed, which should also contribute to the optimisation of the necessary licensing.

“We are watching the continued development of virtualisation on a hardware basis with great interest. In particular, the hardware virtualisation concept of HP provides prospects of great strategic interest in this regard. For us it is clear that they offer us the security for the future that we as providers of key infrastructure owe to our customers,” concludes Franz Loderbauer.

To learn more, visit [www.hp.com](http://www.hp.com)

© 2007 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

