



Grazer Stadtwerke: well provided for with the IBM @server xSeries.

Grazer Stadtwerke AG is a modern service company with a long tradition. In 1960, when municipal companies were released from government control, this public utility and transport company, which had been partly in private hands and partly run by the city of Graz, was converted into an autonomous limited liability company. 99.46 per cent of the company is owned by the state capital of Graz; the rest is divided amongst the state capitals of Salzburg, Innsbruck, Klagenfurt and Eisenstadt. With this conversion, Graz introduced a new development into Austrian local politics. The public utilities may be owned by the city of Graz, but they are run privately. In other words, the public duties of the city must be carried out in a way that will cover costs. The major business activity of the company is the supply of energy and this is supplemented by services in the fields of electricity, gas, water and district heating. In 1999, the company employed more than 1,700 staff and generated sales of around ATS 7.4 billion.

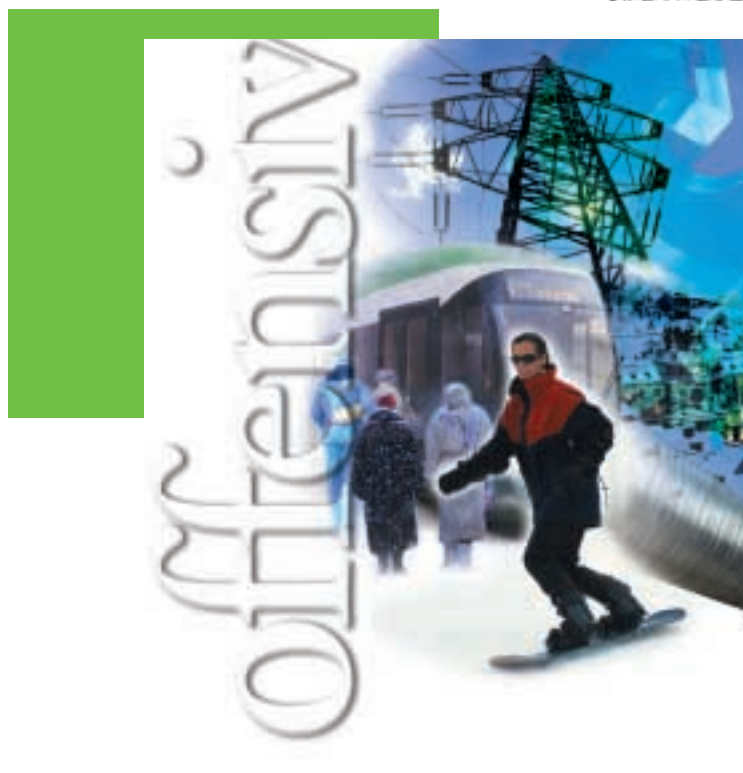
The service company's installations are distributed throughout the city of Graz and incorporate a vast, complex IT landscape. The management has decided to consolidate this landscape so as to be able to cover the region's requirements more

effectively and efficiently. Together with IBM, Grazer Stadtwerke AG has elaborated an attractive solution to reshape the permanently available IT landscape.

Introduction in record time

After just one month of planning, the existing system was replaced with IBM Netfinity Intel[®], processor-based servers within 14 days. This called for a smooth transition so as to offer the 120,000 customers of Grazer Stadtwerke AG an uninterrupted service. The IBM @server xSeries Department in Austria actively supported and helped the supplier to implement the system in this short period of time. Parallel to this consolidation, the migration of SAP R/2 to R/3 took place. During the

Industry	Services
Application	SAP R/3 FI, CO, AM, MM, PS, SD, HR
Software	MS Windows NT MSCS
Hardware	xSeries



“For years, the quality of the IBM systems has never disappointed us. That is why our strategic decision came out in favor of IBM.”

Christian Freidl,
Deputy Manger of IT Services
Grazer Stadtwerke AG

course of the migration, the strategy for the operating system was also considered and, for financial reasons, a clear decision was reached in favor of NT. The software from SAP meets business requirements and offers the optimal basis for the group's accounting. The group's own team of programmers also produced add-ons that guarantee data exchange with many of their own solutions such as Customer Billing. This Oracle-based solution was developed especially for Grazer Stadtwerke AG and is used to charge for energy supplies.

The latest cluster technologies

The IT landscape of Grazer's public utilities currently comprises around 30 IBM Netfinity and xSeries servers of various models. The service company uses IBM Netfinity 5500 M20 servers with 4-way Intel Pentium III Xeon™ processors and a 4 GB main memory. Once reorganisation is complete, Grazer Stadtwerke AG will operate a total of 5 Microsoft cluster server solutions in different configurations. Two of the cluster solutions run on IBM Netfinity 5500 servers with fibre channels, one runs on an IBM Netfinity 6000R server with a FASTT 500 connection – a new technology that proves Grazer Stadtwerke AG is prepared to innovate. There is also an IBM Netfinity server for testing, quality assurance and data reflection. Grazer Stadtwerke AG's graphical information system (GIS) runs on one of the two clusters. Other IBM Netfinity servers are used for file services, file sharing and spool jobs. The individual companies in the Graz region are connected via several domain servers. IBM Netfinity 5000 servers with 2-way Intel Pentium III processors are used which, according to the various requirements, are equipped with a main memory of between 256 MB and 1 GB. There are servers for each region that administer file services and connect to the headquarters of Grazer Stadtwerke AG. They are connected via WANs and LANs, which are installed and operated by Grazer Stadtwerke AG itself. For protection against failure, domain services are used which can automatically failover the system if necessary.

In the field of personnel, Grazer Stadtwerke AG uses SAP HR. Following consolidation of the servers, this will be used as a 3-tier system on an IBM Netfinity 5500 M20 server and will be equipped with 4-way

Intel Pentium III XEON processors and a 2 GB main memory. This server was actually the first IBM Netfinity server to be used by Grazer Stadtwerke AG and its performance in calculating wages and salaries has clearly been convincing.

FASTT 500s are used as disk sub-systems, which makes it possible to connect additional storage media to expand capacity and to enable the systems to be permanently scaled. The hard disks that are used are hot-swap compliant, i.e. they can easily be exchanged if necessary when the system is operating. Data security is ensured via a fully redundant designed IBM tape library 3494, which stores around 1.5 TB on 300 tapes. However, Grazer Stadtwerke AG does not only place its confidence in IBM's latest technologies: years ago, domain services were initially installed on an IBM 704 server and SAP HR was implemented on a Netfinity 7000 server. Even then, these devices were particularly impressive and paved the way for today's expansion – 2 of these models are still in productive use.

High availability with MSCS

With its X-architecture, network system control and the cluster opportunities offered by the Microsoft Cluster Server in the NT environment, the xSeries server ensures a permanently available operation. The optimal combination of hardware and software provides Grazer Stadtwerke AG with the ideal prerequisites to completely cover the service company's broad-based range of products and to effectively and efficiently operate its vast IT landscape.

Well provided for in the future

By the end of 2001, the service company will have expanded its IT landscape even further so as to make it ideally equipped for the ensuing deployment of SAP R/3, version 4.6c. For the commercial part of the SAP system, the new IBM @server xSeries model 350 with 4-way Intel Pentium III Xeon processors and 4 GB main memory will be used. According to Christian Freidl, Deputy Manager of IT Services at Grazer Stadtwerke AG: "High availability, scalability, performance and quality were and are the requirements of our IT structure. With IBM Netfinity and xSeries servers, our customers are in good hands with us – and we with IBM."



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70548 Stuttgart
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