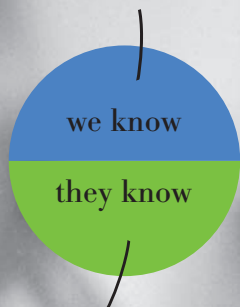


TOP TO BOTTOM

@business solutions



END TO END

Security and Performance in large databases with GE CompuNet.

Expansion requires capacity

GE CompuNet is Germany's leading, independent service provider for large-scale corporate Internet and IT. As part of the American General Electric Group, GE CompuNet focuses on the development and operation of distributed IT infrastructures. Here the special focus is on increased availability, as well as effectiveness and operating efficiency of customer IT systems.

With almost 3,700 employees GE CompuNet generated a total turnover of Euro 1.1 billion in the year 2001 – including almost Euro 300 million Euro service turnover. The integration achievement was 183,000 system work stations, of which over 100,000 were refined to meet customer requirements. In Kerpen, the headquarters of GE CompuNet's logistics and technology centre, the service provider bundles all the procurement and distribution functions, as well as customer service and data processing services for Germany and Europe.

GE CompuNet deals with a large part of its order and procurement volume over the Internet and Intranet. The production certificates for incoming orders are written at night. On the

following day the systems ordered are configured and put together according to the customer requirements. A merchandise management system, based on mySAP.com solutions, and geared to the special needs of the company, ensures optimal cooperation with producers and customers.

Clear aims

When GE CompuNet decided to update its system landscape, the demands on this IT system were unequivocal. With this server consolidation, the focus was – as indeed is the case in the company itself – on availability, effectiveness, operating efficiency and security, as well as on the cost factor. Ralf Wegener, director of the SAP data centre at GE CompuNet, has no illusions: "System failures would immediately cause us losses amounting to millions. The database security and smooth running business processes are what the success of the business depends on. We have to operate round the clock, seven days a week with targeted maintenance."

Once IBM – always IBM

At installation new and existing systems could be combined with ideal results: the proven IBM RS/6000® SP systems continue to be used for development,

Overview

■ The Challenge

Greater performance scope for upgrades and expansion; to guarantee high availability and to perfect the security

■ The Solution

Consolidating servers with pSeries;
Application: mySAP.com
Software: AIX®; WebSphereMQ®;
Tivoli®; Libelle Shadow Database
Hardware: IBM @server® pSeries™;
Enterprise Storage Server® (ESS)

■ The Benefits

40% increase in performance;
appreciable reduction in costs;
recovery within minutes in event of system failure

IBM

SAP

test and security; with their excellent scalability, the IBM **@server** pSeries 690 offers the ideal base for training and performance tests in the SAP environment. With this high-end pSeries model, GE CompuNet is ideally equipped for future expansion and upgrades.

40 % increase in performance

Thanks to the significantly stronger performance of the new systems, the number of application servers in the production environment could be reduced from eight to four. In the test systems, no further application servers were necessary and the data storage could be transferred from the old Serial Storage Architecture (SSA) technology to the two Enterprise Storage Server (ESS) servers. The result: improved performance in the test environment as well. Ralf Wegener: "By replacing the hardware, we have achieved a 40 % increase in performance – and that with a reduction in the number of CPUs and hardware and software costs." The boost in performance can be directly appreciated by the SAP users – currently 3,100 named users: the average dialogue response times are currently at 150 milliseconds and average booking times at 250! The Tivoli Storage Manager servers were also replaced by new models: that reduced the time eaten up every day for backup from 6 to 2.5 hours.

650-GB database:

High availability with HACMP

Apart from security aspects, GE CompuNet has invested substantially in high availability: The servers can now be adapted at any time and easily deal with the enormous data volumes on the Oracle database which has now grown to 650 GB. In addition, High Availability Cluster Multiprocessing (HACMP) provides a solution that guarantees high stability and availability of the systems.

Just in case:

The shadow database cuts in

In addition, to safeguard the database, GE CompuNet relies on a solution for database mirroring from Libelle Informatik GmbH. This software allows the database to be mirrored completely automatically and continuously with variable delay time, so that if a system failure does occur, one can switch over to the shadow database immediately and recover the last error-free status. Thus the recovery solution is considerably faster than a restore from tape followed by recovery and, therefore, serves as an additional database high availability solution. As opposed to the usual backup, this solution does not require any special know-how or any additional support. Within a few minutes, the Libelle database mirror allows you to continue working in the system as usual. Ralf Wegener: "The user interface of the Libelle database mirror is self-explanatory, the program is easy to install and copes with the load from a very large database as a matter of course. I know of no other comparable product in the IT sector."

Sufficient space for back up and test

The developers at GE CompuNet copy the production data onto their test or security system approximately eight times a year so as to provide optimal testing of developments under production conditions. Meanwhile, the data volumes on the two ESS servers have reached approximately three terabytes.

Strong basis for future developments

The new, powerful system landscape has enabled GE CompuNet to further stabilise its proven merchandise management system and increase its flexibility. The whole service spectrum can be covered even better, from simple system extension right up to the pre-installation of entire networks. The exchange of information, the querying

of installation parameters and the calling up of all order and inventory data as well as of the base software updates electronically, is all done via Intranet portals – and that is another step into the future.



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