software AG

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Michael Engel
BS2000 System Administrator
Global Information Service – Mainframe
Software AG

The FUJITSU Server ETERNUS BS2000 SE series, ETERNUS CS8000 and ETERNUS DX provide the necessary stability, performance and availability for all applications.

At a glance
Country: Germany
Industry: Software manufacturing and services
Founded: 1969
Website: softwareag.com

Challenge
Software AG recently moved its infrastructure to the new BS2000 SE500 server to enable it to provide the best possible customer service. To satisfy its requirements, the company wanted to construct a secure, external backup site it could use in the event of a disaster. Reliability, cost-efficiency in terms of the mainframes, and various central services were key factors in the project.

Solution
Remote backups are now continually updated by deduplicating the datasets from different mainframe worlds and replicating them on an external FUJITSU Storage ETERNUS CS8000 Data Protection Appliance. In a disaster scenario, the low-powered BS2000 SE300 server can step in to run the mainframe services.

Benefit
- No downtime in the event of a disaster
- Cross-platform solution for various mainframes and services
- Cost-efficiency through deduplication and replication
- Identical process environments for production, testing and development in separate guest systems
- Customers retain transparent access to services in the event of a disaster

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Customer

Software AG (Frankfurt TecDAX: SOW) supports companies undergoing digital transformations. They use its Digital Business Platform to improve the ways they interact with customers and develop their business models to identify and take advantage of new potential markets. In the field of the Internet of Things (IoT), Software AG offers customers leading solutions for integrating, connecting and managing IoT components, as well as analyzing data and predicting future events based on artificial intelligence.

Products and Services

- FUJITSU Server BS2000 SE500
- FUJITSU Server BS2000 SE300
- FUJITSU Storage ETERNUS CS15000
- FUJITSU Storage ETERNUS CS8200
- FUJITSU Storage ETERNUS DX500
- Hardware and software maintenance, and customer-specific support services

Effective, affordable, cross-platform backups for disaster recovery

Software AG has been working closely with Fujitsu for many years, with both companies aligning new software and hardware with the other's solutions. As a large software manufacturer, Software AG supports many international customers, whose services are processed in a virtualized environment on their own dedicated guest systems at the company's modern, high-performance data center in Darmstadt. A BS2000 SE500 server offers all of the options they need, with smooth integration into heterogeneous infrastructures (Windows, Linux, VMware), provided through the open interfaces available with the BS2000 SE server series. An ETERNUS DX410 disk subsystem acts as a storage solution.

When the company was undergoing ISO certification for its international customer base, questions were asked as to how reliable the data center systems would be in the event of disaster. "The Board reacted to this and tasked us with finding a backup location and creating a disaster recovery concept," says Michael Engel, BS2000 System Administrator in the Global Information Service – Mainframe Department at Software AG. Email services, z/OS and BS2000 would have to be provided from a location outside of Darmstadt.

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The Software AG experts were keen to develop a cross-platform solution that would encompass both Fujitsu BS2000 and IBM z/OS systems. "Mirroring the systems in full would have been out of the question, mainly due to the sheer cost," explains Engel. The z/OS and BS2000 teams at Software AG and Fujitsu therefore developed a cross-platform concept whereby the backup data would be deduplicated and replicated, and a BS2000 SE infrastructure, along with the data to be processed, would be stored at a separate location.

Deduplication with the ETERNUS CS8000 and BS2000 SE infrastructure

Rather than the more expensive option of mirroring the systems, Software AG and Fujitsu designed a backup solution that could be stored at a second location and started up quickly when needed. A cross-platform, universal solution was chosen with which email services, z/OS and BS2000 backup data could all be consolidated on one ETERNUS CS8000 and replicated on a second device. This would reduce expenditure and be faster to start up in the event of a disaster.

"We only use it to replicate the backup that is created here in Darmstadt. This saves on data costs as well. We only transfer data where there is a difference between the two locations," explains Engel. This replication of deduplicated data via an ETERNUS CS8000 keeps the data between the two locations synchronized whilst keeping expenditure as low as possible.

The FUJITSU Storage ETERNUS DX410 in Darmstadt is connected to an ETERNUS DX500 in the e-shelter data center in Rüsselsheim, while its BS2000 SE500 server is connected to an SE300. Despite being less powerful, the SE300 can still meet the company's demands easily in the event of a disaster. One advantage for the management team is the recently developed SE Manager, which enables both systems to be managed in exactly the same way. In a disaster scenario, both the z/OS data and the BS2000 data can be fully reconstructed and started on the respective hardware.

The new concept undergoes regular, thorough testing. Disaster scenarios have already been tested twice. "So far, we haven't had any problems at all," reports Engel.

Pragmatic solution improves customer relationships

The combination of storage-based replication of deduplicated data and server operations with custom management provides a pragmatic and cost-efficient solution for securing data in the event of a disaster. The fact that the solution covers data from both mainframe worlds, as well as the communication of important services for Software AG's customers, makes it all the more attractive.

For Software AG's end users around the world, the switch to the backup site is completely transparent. If there is a disaster, the servers in the backup location, including the BS2000 servers, receive the DNS entries from their companion servers in Darmstadt. This means that they automatically become the main servers for the various services, unnoticed by the customer, and traffic from all over the world is routed to them automatically. Michael Engel sees this platform-agnostic deduplication and replication solution as a real pilot project.

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