

# Case Study

## PwC Germany

» Our new Fujitsu ETERNUS High-End systems have enabled us to increase our storage capacities by more than 40% whilst reducing energy costs by 45%. Ultimately, this will allow us to save more than €500,000 over the next five years «

Carsten Meyer-Rühen, Chief Technology Officer, PwC Germany



### The customer

From tax optimization, to liquidity planning and process optimization, right through to stock market flotation: PricewaterhouseCoopers (PwC) provides advice to consolidated companies and family businesses, industrial and service-based enterprises, global players and local heroes, public authorities, associations and NGOs. In Germany, PwC is the market leader in auditing and consulting services. As an independent member of the global PwC network, PwC Germany can count on the support of 169,000 people in 158 countries around the world.

### The challenge

“Knowledge is our most valuable commodity,” explains Carsten Meyer-Rühen, CTO at PricewaterhouseCoopers Germany. “Our customers trust us to handle huge quantities of sensitive information.” After all, more than 9,000 employees at PwC’s 28 locations throughout Germany spend their days dealing with tax documents and information about their clients’ strategies and processes. “And just as our customers trust us, so we sought out a partner whom we could rely upon to increase our IT capacities and optimize efficiency,” Carsten Meyer-Rühen continues. The hunt for a new storage infrastructure was also expressly focused at achieving an even higher level of security.

### Customer benefits

PwC Germany also needed a new storage infrastructure due to a rise in its data volume. Fujitsu was able to respond to this requirement quickly, saving PwC from having to upgrade its legacy systems: “The ETERNUS product family allowed us to quickly install a practical interim storage solution to cover initial requirements,” explains Marcus Eppmann, Account Manager at Fujitsu. “Working on the basis of the smaller ETERNUS DX440 systems with a storage capacity of 100 terabytes, we were able to quickly assist PwC for the transitional period leading up to the delivery of the High End systems.” All disks and shelves from the temporary solution were later transferred to the ETERNUS DX8700 S2. One part of the migration was therefore complete before the ‘real’ systems even arrived at the PwC data centers.

#### THE CUSTOMER

Country: Germany  
 Industry sector: Auditing/Consulting services  
 Founded: 1905  
 Employees: 9,302  
 Website: [www.pwc.de](http://www.pwc.de)



#### CHALLENGE

Modernize the storage infrastructure for PwC’s German branches, concentrating on increasing storage capacity and boosting efficiency and high availability.

#### APPROACH

Fujitsu ETERNUS DX8700 S2 disk storage systems combined with the Fujitsu ETERNUS CS High End data protection appliance as a backup system.

#### THE BENEFIT

- SAN infrastructure with maximum availability and system stability
- Central, standardized management and monitoring of all SAN resources
- Excellent I/O performance
- High scalability
- Energy costs reduced by 45% thanks to more efficient systems
- Highly automated backup-to-disk-to-tape solution
- Less space required in the data center due to use of 2.5-inch disk technology

All data from the PwC German sites converges in Frankfurt am Main so that it can be stored under extremely secure conditions. The new ETERNUS DX8700 S2 systems – two per data center – allowed PwC to expand its overall storage capacity from 1.0 to 1.4 petabytes whilst also reducing the space required. Now, CTO Carsten Meyer-Rühen can take a more relaxed view of future data growth – after all, the scalability of these High-End systems is more than satisfactory. Ultimately, the storage infrastructure at PwC Germany can be extended to as much as 4.6 petabytes – and that’s per individual storage system.

Simply mirroring the ETERNUS DX8700 S2 systems provides a high degree of system stability. If necessary, the automated failover runs via the FalconStor NSS storage virtualization solution with no manual intervention required. *“Thanks to FalconStor, the data migration took much less time than expected,”* states Marcus Eppmann. *“A traditional migration process would have taken up to half a year, but we were able to transfer PwC’s data to the new systems in just a few weeks.”*

ETERNUS SF software is used to simplify the monitoring of the entire SAN infrastructure, allowing all storage capacities (and their connections to physical servers) to be managed and monitored via one interface. This also gives PwC’s IT team an overview of the various disk types. Whilst a smaller share of the capacity is implemented using high-quality SSD disks, data that is accessed less often is stored on less expensive near-line SAS disks.

In a nod to the significant role played by the data in the commercial success of PwC Germany, the backup has also been integrated via the ETERNUS CS High End with high availability. While the appliance has been physically divided between the two data centers in a ‘split-site configuration’, the ETERNUS CS High End is still a single system from a logical perspective. This means that the backup data is always available at both locations and, in the event of a disaster, one site can always take over the duties of the other – without the need for a manual or even less reliable failover.

#### PRODUCTS AND SERVICES

- Storage systems: 4 x Fujitsu ETERNUS DX8700 S2 with a total storage capacity of 1.4 petabytes
- Backup system: 1 x Fujitsu ETERNUS CS4000
- Storage virtualisation: FalconStor Network Storage Server (NSS)
- Storage management: Fujitsu ETERNUS SF
- Services: Fujitsu Storage Integration Services

#### Conclusion

PwC Germany had the chance to examine the Fujitsu ETERNUS DX systems in its Paderborn demo center and run performance tests in advance. Later on, the demo center also hosted training sessions for the IT staff. Overall, PwC now has a high-performance, extremely fail-safe big data solution. Friedrich Esser, the Project Manager responsible at PwC Germany, draws a positive conclusion:

**“In Fujitsu, we have found a partner who listens and has responded with an ETERNUS enterprise big data solution that is tailored to our needs and runs some four times faster than our previous solution. We were very impressed by the great flexibility and efficiency demonstrated by the experts at Fujitsu. Our storage infrastructure is well-positioned for the future.”**

#### About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Approximately 170,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. For more information, please see [www.fujitsu.com/de](http://www.fujitsu.com/de).