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*Michael Mehrens  
 Competence Center Storage  
 W&W Informatik GmbH*



## W&W Informatik GmbH

### INDUSTRY

Information Technology: Services for the Financial Industry

### SOLUTIONS

**Virtualization, Storage Management, Enterprise Platform, Modular Platform**  
**Hardware** — Hitachi Universal Storage Platform® V, Hitachi Adaptable Modular Storage 2100, 2300, 2500 and 1000  
**Software** — Hitachi Tuning Manager, Hitachi Dynamic Provisioning, Hitachi Tiered Storage Manager, Hitachi TrueCopy® Synchronous and Hitachi ShadowImage® Heterogeneous Replication  
**Services** — Provided by Hitachi TrueNorth™ Partner SVA

## W&W Informatik Relies on Hitachi Storage Solution to Keep Doors and Business Open 24/7

Banks and insurance companies close their doors to customers on time every evening, but e-banking services are intended to remain available outside normal business hours. For IT, this means providing technical support 24/7/365, not only for end customers, but also for internal applications. It is no surprise, then, that IT services provider W&W Informatik GmbH deems downtimes unacceptable. During the provider's last major migration, it chose storage virtualization via a Hitachi Universal Storage Platform® V (USP V). The USP V provided a sound basis for moving the data, and there were no interruptions to operations.

W&W Informatik GmbH is the central IT service provider for the financial security specialists Wüstenrot & Württembergische Group (W&W Group). With six million customers and 6,000 branch staff, the W&W Group has established itself as the largest independent financial service provider in the German state of Baden-Württemberg. W&W Informatik develops and operates all IT applications within the W&W Group. It is also responsible for networks, decentralized systems, architectures and data processing centers. W&W Informatik currently employs over 850 people at its sites in Stuttgart, Ludwigsburg and Bad Vilbel.

In order to guarantee equally high availability of its infrastructure, W&W Informatik has undertaken a whole range of measures. To increase its disaster recovery capabilities,

both data processing centers are subject to synchronous mirroring. Meanwhile, high availability is assured thanks to regular snapshots and tests, such as planned failover scenarios that switch the focus from one data processing center to the other.

Last but not least, various takeovers have required that the Competence Center Storage at W&W Informatik, led by Michael Mehrens, complete both day-to-day work and numerous larger scale integration projects. Banks and insurance companies that have been taken over have brought their own infrastructure with them. Using Hitachi technology has helped the company to avoid creating IT islands.

"The aim was to set up an integrated and unified infrastructure," says Mehrens. "Our environment also needed to be scalable, as we deal in continuous data growth." This meant that as well as availability, the efficiency of the system was a crucial factor. Both data processing centers are incorporated into a backup strategy in which one location replaces the other during a malfunction so that no data is lost. What's more, Mehrens and his storage team use the systems and their functions, such as active-active node, to bring the various applications into line with future requirements.

### Virtualization

For this and other reasons, W&W Informatik initiated a virtualization project based on USP V technology in 2007. Working with Brocade, they planned to introduce a modernized SAN management system as early as 2008 that would increase the connection speed between servers and storage to 8Gb. In the same year, data was migrated from the previously used Hitachi Lightning 9980V™ enterprise storage system to the USP V. The team transferred a total of 90TB of data in just seven weeks without a single interruption.

"Without the storage virtualization solution, we would have needed about six months to move that amount of data," explains Mehrens. "The only time remaining would have been the ever shorter maintenance periods during planned downtimes." Aside from the sheer time factor, high costs are also accrued when a long time is spent moving data. For example, this may occur



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when operations must be duplicated. This approach also helped to keep the complexity of the entire migration to an absolute minimum.

### Dynamic Provisioning Ensures Controlled Data Growth

W&W Informatik tackled the data growth in two stages. In the first stage, any growth requirements were subjected to a stringent three-part approval procedure that consisted of the following:

- Requirements analysis, including architecture conformity testing
- Justification of requirements
- Budget review

In the second, the remaining requirements represent the actual growth, which is then further reduced using Hitachi Dynamic Provisioning software. The software, in turn, generates further cost savings.

When all applications were fully available, W&W Informatik was able to reduce storage growth by more than 45%. Therefore, instead of 464TB, only 248TB had actually been supplied and installed as of October 2010.

A net total of 535TB of storage are installed at W&W Informatik. "We manage around three quarters of this storage capacity using the USP V with internal capacity and with storage systems connected externally, as well as virtual, modular storage systems. The systems run without a hitch. We have found Dynamic Provisioning in particular to be an extremely useful tool," explains Mehrens. "Initially, the storage virtualization solution allowed us to consolidate eight systems into two. That number has since risen, though this is due to the strong data growth. Our stored data is increasing by around 80% each year. Without the USP V, we would have considerably more storage systems," he adds.

As well as the reduced hardware requirements, Dynamic Provisioning has contributed one further advantage: the performance of the overall system is increasing. "The integrated striping virtually consolidates the various drives into one. This is the ideal way of spreading the load: the system can allocate individual blocks to different disks," explains Siegmund Kaminski, who is supporting W&W Informatik at Hitachi Data Systems as Commercial Sales Director.

### From a Reactive to a Proactive Data Processing Center

Finding the right IT infrastructure concept is only half the story. "It's crucial that you plan in the right way," confirms Bernhard Keyerleber of Hitachi TrueNorth™ Partner SVA. "But the only way to avoid bottlenecks is through regular monitoring and system feedback." For this reason, W&W Informatik has included Hitachi Tuning Manager among its range of solutions. Administrators were previously only able to take a reactive approach to bottlenecks, but alarm signals now notify them that bottlenecks may occur or are developing. As they are able to recognize trends at an earlier stage, these downtimes are now avoided.

The brief periods in which the systems are interrupted due to a planned system stop are set to be further reduced in future as the systems become more fully automated. The 24 hour support for all operating systems at W&W Informatik is still pending, but Mehrens notes that the proof of concept for a control system with no manual interference is planned for 2011.

"We were delighted with the progress during every phase. Hitachi and SVA maintained an incredibly high level of quality at all times," Mehrens recalls. Together, W&W Informatik, SVA and Hitachi Data Systems are introducing a tiered storage model in the best possible way. Data will be saved on one of three classes of storage capacity depending on its importance and the speed requirements in each case. High performance storage capacity will serve critical applications, and the production class that covers around three quarters of the total capacity will be supplemented by a third class for internal use. Last but not least, in this context W&W Informatik has also earmarked the use of solid state disks (SSDs) on its roadmap. The data gathered from Tuning Manager software will form the basis of the tiered storage concept. Although the current expansion stage has not yet reached the limit of its capacity, W&W Informatik is still making good technical progress in terms of ensuring it remains productive and is in the best possible position to tackle future challenges.

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