



SUCCESS STORIES

CONTINENTAL AUTOMOTIVE SYSTEMS ADOPTS UNIFORM SOLUTION FOR EFFICIENT, RELIABLE STORAGE WORLDWIDE

“The storage concept implemented with the help of Network Appliance lets our CAD designers throughout the world achieve maximum productivity and at the same time permits maximum efficiency at the level of system administration.”

ROLF KLAMANN Mgr. Competence Ctr. MCAD Operations & External Tasks, Continental Automotive Systems



KEY HIGHLIGHTS

Location Frankfurt am Main, Germany

Industry Automotive

Customer Profile

Continental AG's Automotive Systems division is a world-leading technology and systems partner of the automobile industry. The Automotive Systems division builds on comprehensive know-how and unsurpassed quality in the areas of active and passive safety, powertrain technology, and comfort. In 2005, this division recorded revenues of approximately €5.2 billion, with over 24,000 employees. www.conti-online.com

The Challenge

To achieve maximum productivity in the development and protection of mission-critical CAD design data with the help of a uniform worldwide high-availability storage solution.

The Solution

Standardized and automated solution for centralized protection of data of local NetApp primary storage systems on a NearStore® R200 system.

Benefits

- Complete, economical solution that makes work easier for system administrators
- Reliable protection in the event of storage system outages
- No data protection measures required at local level
- No local tape drives necessary
- No local backup/restore operations required

THE CHALLENGE:

Maximum Productivity for CAD Developers

Headquartered in Frankfurt am Main, Continental AG's Automotive Systems division specializes in total solutions that feature uncompromising quality in the areas of active and passive safety engineering, innovative hybrid technology, and intelligent automotive electronics. Quality, technology, and cost efficiency are the company's core strengths. In the year 2006, the division celebrated 100 years of successful activity in the area of automobile technology. The corporate slogan—"Forward Thinking"—shows that the company will in the future remain committed to driving safety and pleasure. The company produces and markets electronic and hydraulic brake systems and chassis components under its Continental Teves, Continental Temic, and ATE (after-market) brands. Products include chassis and powertrain systems, electronic air-suspension systems, sensors, engine-management systems, transmission controls, hybrid systems, and fan modules as well as electronic systems that add to the comfort and safety of today's vehicles. In 2005, this division, which has over 24,000 employees and operates over 41 plants, research centers, and test tracks in 17 countries around the world, posted revenues of approximately €5.2 billion.

The company is involved in the development and production of advanced automotive components and systems in the United States, Asia, and Europe. Its several hundred users of the professional CATIA® CAD software and other customer-specific CAD programs are currently at work on the technology that will make possible the automobile of the future. They are supported by a central Competence Center, whose responsibilities include definition of the software and hardware standards. Competence Center Manager Rolf Klamann says, "In order to assert its position of technology leadership, Continental focuses on maximum efficiency. In the area of CAD development, for example, we achieve this through extensive standardization of market-leading technology and seamlessly integrated information flows, which let users achieve exceptional productivity." Quick access to data and uninterrupted availability are what really count, as Klamann confirmed: "Our goal was to eliminate productivity losses in the future by deploying a storage concept that would meet our needs in terms of both performance and economy." Klamann also explains why the Automotive Systems division decided to implement this storage concept with Network Appliance: "We were one of the first customers of Network Appliance in Germany back in 1995 and have had only positive experience with NetApp systems ever since. As a result, it was only natural for us to work together to develop a future-facing solution."

THE SOLUTION:

Standardized and Automated Storage with Centralized Data Protection

The storage concept is based on the FAS200 series fabric-attached storage (FAS) systems of Network Appliance that the Automotive Systems division has installed at its plant locations. These storage systems, which can be scaled up to 48TB, feature completely redundant design with an attractive price-performance ratio and permit reliable protection of business-critical data. The systems are linked with a NearStore R200 system that, together with an upstream NetApp FAS270 cluster, has recently assumed the central role in the storage concept. NetApp SnapMirror® software is used for automatic high-speed replication of data received from the plants via LAN and WAN several times a day on the central NearStore R200 system. In the event of a problem at one of the locations, virtual storage systems can be quickly defined

on the near-line system to restore access to data for personnel at the location affected. However, NearStore R200 is a valuable resource for Continental Automotive Systems not only in emergencies: “At the administrative level, the investment in NearStore R200 is paying for itself if no other reason than that we can now handle routine operations significantly more efficiently. Centralized software distribution, which is done for all locations throughout the world via NearStore R200, is one good example,” explains Klamann. The Automotive Systems divisions now benefits from the advantages of a system that combines the powerful Data ONTAP® operating system with inexpensive ATA hard disks. This allows NearStore to achieve a level of performance that is almost as high as that of the primary storage systems but at a low cost similar to that of tape. That makes the near-line storage system, which can be scaled up to 96TB to

accommodate further growth, the ideal solution for backup purposes and data mirroring because data can be restored quickly and easily. Another NetApp module plays an important role in the storage concept in the event of an outage—a backup FAS200 series primary storage system that is used for testing purposes under normal conditions and can be made available to the locations within 24 hours in the event of an incident.

THE BENEFITS:

Simple, Centralized Administration and High Availability Worldwide

“NearStore lets us give our users access to economical high-performance virtual storage resources so that unscheduled outages do not interfere with productivity in the area of CAD development” is how Klamann sums up the benefits of the new storage concept. As a result, Continental AG’s Automotive Systems division benefits from the high throughput rates that can be achieved with NearStore as well as from immediate access to data, which would not have been possible with tape. Klamann adds, “For us, it’s just as important that no data protection know-how is necessary at the locations, no additional investments required, and no maintenance expense incurred. Instead, consistent standardization and automation of data protection processes let us handle these specialized activities centrally to reduce the workload of our system administrators.”

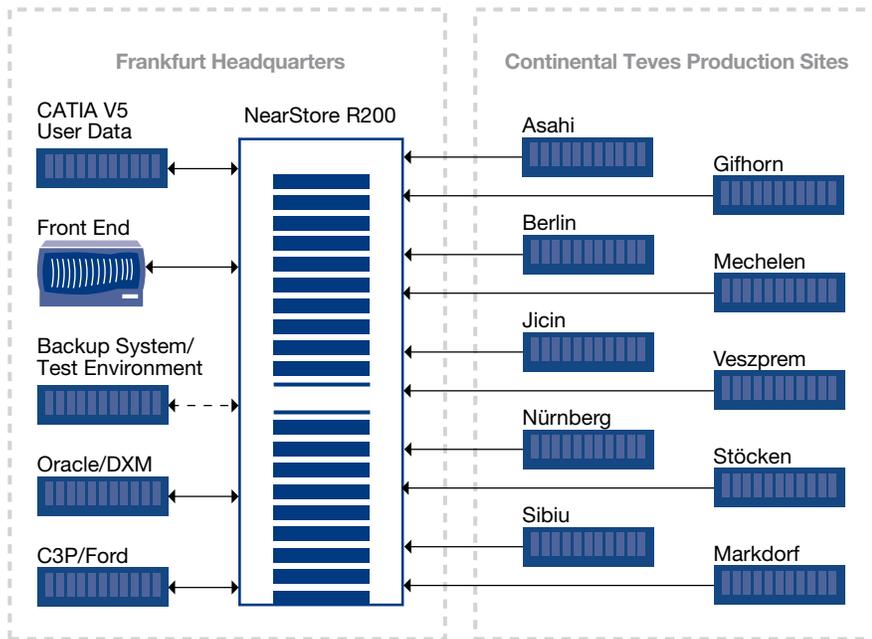


Figure 1) Continental AG’s Automotive Systems division as an example of a storage concept: data mirroring, including virtual systems for all plant locations.

TECHNOLOGY

NetApp NearStore R200 system with NetApp FAS270 cluster system for centralized data protection and virtual storage for plant locations, NetApp FAS200 series as primary storage systems for plant locations
Operating system: Data ONTAP 7.0
Administrative tools: SnapMirror

SUPPORTED SERVICES

CATIA V4, CATIA V5, PRO/ENGINEER®, I-deas®, ABAQUS®, etc.
Oracle®i Database

