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Klaus Krüger, Systems Engineering Project Manager, SIGNAL IDUNA Group

SIGNAL IDUNA Improves its Online Storage Performance with F5 Networks

The SIGNAL IDUNA Group (www.signal-iduna.de), an amalgamation of a number of individual firms inside Germany, is one of Germany’s ten largest insurance companies. The parent companies of the SIGNAL IDUNA Group are:

- SIGNAL Krankenversicherung AG (Dortmund)
- IDUNA Vereinigte Lebensversicherung AG (Hamburg)
- SIGNAL Unfallversicherung AG (Dortmund)

The financial services side of the Group’s operations includes a private bank, a home loan bank, an investment trust, and an asset management firm. Outside of Germany, the SIGNAL IDUNA Group has companies in Hungary, Poland, and Switzerland. The Group employs a workforce of around 8,000 and is represented by 27,000 insurance agents in the marketplace.

Business Challenges

A team of 13 specialists is responsible for managing everything relating to the client-server infrastructure of the entire SIGNAL IDUNA Group. The team includes a “subteam” of experts who look after the storage systems and storage area networks (SANs), which are operated in an open system environment.

Given the exponentially growing volumes of data, Klaus Krüger, Systems Engineering Project Manager, and his team had serious concerns about the extremely slow access and data backup speeds of an online storage system based on a four-node, Microsoft Windows 2003 cluster. A detailed investigation revealed that there was a considerable volume of seldom-used files that took up a disproportionately large amount of online storage space.

Apart from the high storage costs per megabyte, this severely impacted performance. As an initial remedy to this problem, the team found an hierarchical storage management (HSM) solution that monitors the online storage system constantly and ensures that older, rarely used files are removed automatically from the system and moved to more cost-effective, external storage. However, many HSM systems replace each swapped-out file with what’s referred to as a “stub”: a small file in which the new storage location of the data record in question is recorded.

Ultimately, the storage team wanted to do without such stubs in order to maximize document access speeds and to avoid becoming dependent on stubs and their associated software or appliance.

Overview

Industry

Insurance and financial services

Challenges

- Resolve serious performance problems in online storage systems
- Accelerate data backup operations by moving thousands of rarely used files to external storage
- Manage the steep volume increase of online storage while retaining user transparency

Solution

- Intelligent File Virtualization with F5 ARX6000

Benefits

- Significantly improved availability of online storage
- Increased performance
- Reduced costs due to better capacity usage
- Improved ease of use and transparency
- Eliminated vendor lock-in

What's more, the HSM solution was not to be tied to any particular brand of storage hardware in order to guarantee greater flexibility of choice.

"We wanted a solution that offered proven reliability," explains Krüger, "because in addition to low cost per megabyte, we also very much wanted to have a system that is exceedingly dependable with effective fail-safe mechanisms. Above all, we wanted to provide a totally transparent system for our users."

Solution

Krüger and his team were greatly impressed with the F5® ARX® file virtualization solution, which offers a considerably more versatile solution than traditional HSM systems.

"The first thing that actually impressed us was the fact that ARX is a network switch—a combination of high-performance hardware and integrated software," says Krüger. "It neither generates stub files nor requires that agents are installed on servers or terminals. It is fast, efficient, and 100 percent transparent for our users—and that's precisely what we want." Furthermore, the hardware independence of ARX guarantees that SIGNAL IDUNA retains total flexibility and control over its choice of storage system supplier.

SIGNAL IDUNA installed two ARX6000 devices, one at each of its data centers in Hamburg. The team worked closely with F5 consultants on site to put the ARX devices into service as part of a step-by-step migration process. "The implementation process went quite smoothly," Krüger recalls. "Even when we required a firmware upgrade, F5 was able to carry it out while the ARXs were up and running." This upgrade was conducted first on the passive and then on the active switch without any negative impact on performance.

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Benefits

A key requirement of SIGNAL IDUNA—the way the F5 ARX solution enables hierarchical structuring of the storage system—automates the swapping out of non-critical business data to more cost-effective mass storage devices. This not only improves performance, but also lowers capital expenditure significantly. What's more, the ARX solution downsizes the backup windows and lowers infrastructure costs, because it reduces the size of the redundant data regularly saved. As Klaus Krüger puts it: "Thanks to F5's ARX, we have been able to free up a massive amount of online storage space, greatly improving performance. Whereas prior to the implementation of this solution, we had serious concerns regarding the performance of online storage, we now no longer have such worries."

Given the fact there are more than 6,000 users who regularly need to access files, high performance and transparency were right at the very top of SIGNAL IDUNA's list of requirements. Another positive aspect of the F5 solution is that it offers the company additional cost and efficiency benefits.

The ARX solution's automatic file tiering process enables SIGNAL IDUNA to manage its storage needs efficiently without any interruptions to the company's operations and business, meaning 100 percent transparency for users.

Each user is able to access files by the usual means, even when the files are being relocated. Another advantage is that ARX technology generates neither stub files nor any other form of marker. As a result, user access to files remains fast and uncomplicated, and the complexity of the data storage and recovery processes is reduced.

Moreover, the intelligent file virtualization technology in ARX makes it possible to perform routine tasks in connection with the mass storage devices online—for example, availability, decommissioning, swapping out, relocating, and load balancing. Processes of this type help companies like SIGNAL IDUNA make big performance gains while lowering the cost of manual or semi-automated workflows drastically—and users benefit from optimum service.

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