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Peter van Beek
IT Services Manager



INFOOnline

Situation

Since 2002, INFOOnline has seen tremendous growth both in terms of the number of websites tracked by its Internet Audience Measurement technology and the volume of data generated by these sites. Those in the advertising value chain rely on INFOOnline to deliver the correct data, meeting various quality standards required at any given time.

“Our services have become mission critical to the online advertising market in Germany. Our clients expect absolute reliability, with 24/7/365 access to the data that enables their businesses to thrive,” said Dirk Wippert, Managing Director of INFOOnline GmbH.

Not only do the “user counter” servers produce more than 30 GB of new usage data every day, but there is also an enormous amount of historical data to be processed; a challenge that motivated INFOOnline to revisit its data security and backup strategy.

“Our key strategic IT challenges are availability, data security, and scalability of our measurement systems,” said Peter van Beek, Services Manager at INFOOnline’s IT Services Department. “Each month, we have to process rapidly expanding amounts of data from multiple member sites, generated by an increasing number of visitors to those sites. This puts great pressure on our server infrastructure, which is based on Red Hat Enterprise Linux.” As the need to hold and process more data became increasingly evident, INFOOnline recognized the need to replace its legacy backup system.

“In 2007, we could see that our legacy backup system, which was simply relying on hard drives attached to servers, would no longer be able to store the increasing amount of data,” said van Beek. “In addition, the management of the old data was a cumbersome task and didn’t deliver the level of service our clients expected. We needed a larger, scalable and reliable backup solution that was easier to manage.”

INFOnline

“SEP made the installation and migration of data extremely easy. The support staff I work with is outstanding. Our primary contact is one of the best I have ever worked with.”

Dirk Wippert
Managing Director

CHALLENGE

INFOnline needed to build a new, enterprise-grade, multi-tier storage and backup architecture in order to ensure high availability and data security for continuous Internet Audience Measurements of more than 1,300 leading German news and entertainment websites.

SOLUTION

When planning for a new backup and storage system, INFOnline worked with Red Hat Advanced Business Partner, dassIT, who had previously set up a monitoring solution for the company. DassIT helped select the right hardware and backup software solutions that would be capable of meeting INFOnline's requirements.

DassIT designed a multi-tier storage and backup architecture. Tier 1 of the architecture used mirrored IBM DS 3400 hard-disk storage to store the latest audience measurement data provided by the “counter” servers in 10 minute intervals. Tier 2 consisted of a database backup system on an IBM DS 8000 hard-disk storage machine holding 15 TB of production data - the amount of information generated during seven months of audience measurement. In tier 3 of the storage architecture, INFOnline and dassIT created a tape archive with a TS3100 LTO4 tape library designed to store all data for reference purposes.

INFOnline now runs a server infrastructure of 30 Red Hat Enterprise Linux machines, on IBM System x and System p hardware, which are divided into task-specific groups. Some handle reporting processes, others are web servers and the third group of Red Hat Enterprise Linux machines runs the new multi-tier backup and replication process.

“Our clients are guaranteed near real-time availability to the audience measurement data via a dedicated web interface. That is why our online Tier 1 storage needs to be both readily available and have the ability to quickly retrieve the latest analytics information from the counter servers,” explained Peter van Beek. “We also need to orchestrate several more storage-related processes using SEP.”

At INFOnline, the SEP solution coordinates 37 servers running on Red Hat Enterprise Linux machines, making sure the appropriate data is replicated to the correct tier of storage at the right time. The SEP solution is designed to monitor and manage even the largest multi-client infrastructures.

“In addition to SEP, Red Hat Cluster Suite is a key feature for us because it provides the high availability we need,” said van Beek. “Our two Red Hat Enterprise Linux server clusters sit between Tier 1 and Tier 2 storage, ensuring all scheduled replication jobs actually aggregate the data from the smaller DS 3400 drives to our DS 8000.”

RESULTS

“The combination of Red Hat Enterprise Linux with SEP backup management is extremely stable and reliable. It gives our IT service team peace of mind.”

Peter van Beek
IT Services Manager

“Support has always been readily available, responsive, professional and very knowledgeable. I wish other companies had people like this as well because they are just great to work with.”

Peter van Beek
IT Services Manager

When planning and designing its new state-of-the-art storage and backup architecture, INFOnline relied on the experience of Red Hat's partners, dassIT and SEP. “With dassIT, we have the perfect systems integrator partner on board, who fully understands our requirements and regularly comes up with clever ideas for better scaling of our systems. dassIT brought in SEP, which has proven to be a very reliable backup solution that keeps the stream of data moving through our systems like clockwork. We also like the fact that SEP is a Red Hat Advanced ISV Partner,” said van Beek.

Deploying the new storage architecture with Red Hat's partners also considerably sped up the planning and implementation process. The new system was up and running just three months after the decision was made to implement a multi-tier hard-disk and tape storage system for backup security. “We hired Red Hat Consulting services for two days, in addition to dassIT's support, to help us set up the Red Hat Global File System cluster,” said van Beek.

In complete contrast to the old, very simple hard-disk backup system, INFOnline now runs a fully scalable and highly reliable backup system with failover capacities for all mission-critical systems. The IT services team manages the company's Red Hat Enterprise Linux servers with Red Hat Network Satellite and is capable of recovering an entire system within a few hours after a failure.

“We are now well-equipped to add another dimension to our Internet Audience Monitoring,” said van Beek. “As our clients, IVW and AGOF, plan to add the “time spent on a site” feature to the audience metrics, the amount of data generated by our counter servers will significantly increase in the future. With the advent of mobile internet usage monitoring and analysis of online video consumption on IVW and AGOF member websites, we expect the growth of data volumes to be exponential moving forward.”

SEP Software is the premier technology leader providing high performance backup and disaster recovery solutions for professional IT infrastructures of all sizes. SEP delivers seamless solutions with one central interface to easily manage backups for heterogeneous environments.

SEP's software ensures that data security for both virtual and physical environments can be easily and cost-effectively achieved. SEP is the ultimate expression of German engineering and attention to detail. Design and programming originate from SEP offices in Weyarn, near Munich, Germany, where overall performance and reliability are of the utmost concern.

ABOUT INFONLINE

INFOnline is the trusted provider of internet audience market research in Germany. As a central contact point to many online sectors, INFOnline offers a comprehensive service portfolio to member-companies analyzing the efficacy of current strategies or seeking to design a new online marketing strategy. In addition to their measurement and evaluation tools, INFOnline also provides their customers with extensive online marketing consulting services.

ABOUT SEP SOFTWARE

SEP Software has been delivering the widest range of backup and disaster recovery products for enterprise-level customers since 1996. With thousands of installations worldwide, SEP has developed the fastest and most reliable data backup solution available today. Its flagship product is ideal for businesses of all sizes and has proven its value to thousands of organizations across the globe. SEP has delivered unsurpassed performance to numerous industries including retail, education, health care and governments worldwide. Thousands of customers spanning six continents rely on SEP to attain their data protection strategies on a daily basis.