Case Study

iTernity

LOEWE.

Becoming State-of-the-Art with iCAS

Loewe Modernizes Itself All Around: High-Tech Archive for SAP

■ **Industry:**

Media and Entertainment

■ **Background:**

As part of SAP hardware environment renewal, it was also essential to replace the SAP archive solution. Intensive maintenance of the old devices would have been more and more expensive; a migration of the archive would have been costly and time-consuming.

■ **Challenge:**

The existing hardware with a proprietary Unix operating system had to be replaced. In this environment, the previous ECM system also ran with its attached jukeboxes.

■ **Solution:**

iTernity iCAS
KGS Contentserver4Storage

"With iCAS, we are now truly state-of-the-art in the area of SAP archiving. The biggest plus is, our archive is now so unnoticeable that it does its job invisibly and with the highest reliability. Basically, you can't say anything better about a system".

Oliver Fischer, Head of IT at Loewe Technologies GmbH

The success at a glance:

- Modern SAP archive to guarantee the required audit-proof archiving
- Seamless transition from the old to the new archive
- iCAS' Self-Healing prevents silent data corruption and ensures long-term data integrity
- Software-defined archiving offers hardware independence

Loewe makes all-round modernization

In March 2014, while the acquisition by investor Stargate Capital in March 2014 was in progress, Kronach-based electronics manufacturer Loewe faced the additional challenge of a necessary upgrade to SAP-associated hardware. As part of this process, they realized their existing archive solution would no longer be viable. The already high cost of maintaining the old devices would only continue to rise; migrating the archive would have been costly and time-consuming. KGS and iTernity offered a solution: With KGS' migration tools, the TV pioneer managed a fast and seamless transition to the new SAP archive, KGS Contentserver4Storage. iCAS software from the Freiburg-based company iTernity ensures revision-proof storage of documents in the file system.

Renewal of the SAP Infrastructure

The archive migration at Loewe was part of a larger project to renew the SAP infrastructure. The existing hardware with a proprietary Unix operating system had to be replaced. In this environment, the previous ECM system also ran as an archive platform with the corresponding optical jukeboxes as archive storage.

"All this was getting on in years and was susceptible to maintenance," says Oliver Fischer, Head of IT at Loewe Technologies GmbH. The new fully virtualized SAP hardware environment now uses SUSE Linux Enterprise as its operating system. The conversion of the previous systems would have required new licenses, and the entire conversion would have been expensive at the time when Loewe was focused on reining in costs.

Against this background, the combination of KGS and iTernity solutions was the ideal alternative. Above all, because a separate ECM system and the associated costs became obsolete. With this solution, Loewe covers three basic types of archiving from SAP: 1. Archiving of receipts, 2. Archiving of lists, and 3. Archiving via the SAP transaction SARA (to remove old receipts database from the current database).

In addition, there are VDE data coming from the production which must be retained for a long term for warranty reasons. This COLD data (Computer Output on Laserdisc) was previously stored in the old archive and could only be viewed via this. Now they are captured by the KGS DocumentRouter and transferred to the new archive backend. This means that the production output is also accessible via SAP.

Even production data is now searchable via SAP

Loewe now has a lean, customized archive system that only takes tasks intended for SAP. All document queries take place via SAP, even the search for COLD data from production. Thus, an ECM system with its own client is unnecessary. In any case, the former archive was only used to store SAP data and, in rare cases, to reorganize the database. These tasks can now be bundled and performed directly via SAP. Invoice documents and credit memos are typical documents that users can display using SAP transactions. There are 6.5 million receipts in the archive, in which 98 percent of them are commercial ones and the rest are COLD data.

Above all, it was the concept of seamless migration that was well accepted by Loewe's IT specialists. For the installation of the migration server from KGS as well as the combined archive solution from KGS ContentServer4Storage and iCAS, no technician had to come to Kronach. The software could be easily implemented by their own IT team.

Seamless transition from the old to the new archive

During the approximately three-month transfer phase, the KGS migration server behaved like a proxy server in the network during archive access from SAP. It also forwarded the inquiries to the correct archive system. It means, if a user accessed an archived document via SAP, the KGS solution Migration-4ArchiveLink checked whether it was already in the new archive. If not, it requested the document or the receipt from the old archive, showed it to the user and migrated it to the new archive.

If Loewe waited until the users at some point have retrieved all documents, the migration would have taken years to complete. To prevent this, large amounts of data were removed from the old archive and written to the KGS ContentServer4Storage. *"This made a seamless transition from the old to the new archive possible,"* says Oliver Fischer, describing how it works. *"The users did not notice the migration at all. Everything went without any major disruptions."* Currently, Loewe has nearly 280 SAP users, all of whom access the documents archived in KGS and iCAS via SAP in accordance with their authorization.

Auditability and WORM? iCAS is the solution!

Auditability is a necessary condition for long-term archiving. This is understood in the IT context as permanent and unchangeable storage of electronic documents and other data. At Loewe, this had been ensured so far by storing the

data on WORM media (Write-Once-Read-Many) in Jukeboxes.

"With the elimination of the Jukeboxes, we questioned how we can ensure auditability in the future," says Roland Scherbel, System Administrator at Loewe. The auditor of Loewe was not satisfied with a procedural documentation in combination with the storage in the standard file system without a Jukebox or another system which only allows read access. *"It is clear to every auditor that immutability is given with a WORM Jukebox, but not with a pure storage in the file system,"* says Roland Scherbel.

This is where iTernity's iCAS software comes into play. It protects data on storage system from unauthorized deletion and possible manipulation attempts. iTernity's patented container technology ensures evidential value and integrity of archive data by using content-related hash codes. In addition, iCAS manages retention periods of individual archive data and enables replication to multiple storage systems, including automatic self-healing of archive data to ensure its long-term availability.

iTernity solution meets strict requirements of auditors

Loewe discussed the security aspects of the new archive solution intensively with its auditors. The documentation of iTernity and the fact that even financial authorities use iCAS software were ultimately the decisive point. The result: The Jukeboxes could be abolished; the required auditability is guaranteed by iCAS. *"It is a great advantage for us that iTernity's data protection software accesses standard file systems and writes to NAS and SAN of any manufacturer. So, we are completely independent of the storage technology,* "explains Roland Scherbel.

Under the SAP system, the KGS software runs in the Loewe installation on a Linux server virtualized with VMware. It writes documents in encrypted form to a virtual CIFS (Common Internet File System) share of the iCAS system (Windows operating system), where iCAS takes over the hash code formation.

Roland Scherbel

Oliver Fischer

Self-Healing prevents silent data corruption

At Loewe, the iCAS system is configured so that the archive data is written on two storage paths. The Self-Healing of the archiving software is used for this: iCAS continuously checks the integrity of all data on both paths in the background. If a corrupt object is detected, iCAS automatically replaces it with the valid object from the second path.

"The Self-Healing is an important advantage for us," says Roland Scherbel, *"because it enables us to ensure that the data is valid and available throughout the entire archiving period.* The system administrator knows: *"On all storage systems, data can become corrupted to a certain extent, in technical jargon "Silent Data Corruption".* The storage of archive data with content-related verification by means of Self-Healing prevents this potential danger. In reality, data corruption rarely occurs. In the worst case, however, restoring data from backup would be much more time-consuming without Self-Healing, according to Roland Scherbel.

At Loewe, backup is conducted at the end of the data processing chain, through which the entire landscape will be secured. By using a backup software, the data is written on tapes. The advantage of the iTernity software is that any backup system can be connected to it. As a result, Loewe could simply continue using their existing backup solution and processes.

Oliver Fischer: *"With our KGS/iTernity solution, we are now truly state-of-the-art in the area of SAP archiving. The system is more modern in the sense that we are no longer dependent on outdated WORM technology and can now use the file system for audit-proof archiving. The uninterrupted migration also impressed us. The biggest plus is, our archive is now so unnoticeable that it does its job invisibly and with the highest reliability. Basically, you can't say anything better about a system".*

Case Study

Future-Proof Solution for Data Integrity and Long-Term Archiving

Companies of all sectors with the most diverse demands on secure data storage rely on the software solution iCAS. All well-known ECM, ERP, DMS, PACS and e-mail systems are certified for iCAS and can be easily connected with it. iCAS helps you meet legal and internal compliance requirements, thereby minimizes your business risks significantly. As a hardware-independent solution, iCAS protects the integrity and security of your data in the long term – flexible, future-proof, and cost-efficient!

A Central Platform for Your Data Management

The software solution iCAS acts as a central management layer between your applications and the storage infrastructure. iCAS ensures data integrity and availability over long periods of time regardless of the hardware used. Thus, you can change your storage technologies and applications over time; nevertheless, your stored data remains consistent and secure. Data migrations can be conducted by iCAS in the background without burdening the productive systems.

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