



case study

EnBW @ KGS Software GmbH



EnBW Energie Baden-Württemberg AG, firmly rooted in the south-west of Germany, is a leading German and European energy provider. Our team of 20,000 employees actively helps to make the energy transition happen and reap the benefits of this transformation. We provide our customers with power, gas, water as well as energy-related products and services. We believe in customer orientation to ensure we are the first choice when it comes to satisfying energy needs. This includes steadily creating new offers that address the increasing demand for decentralized and sustainable energy solutions. We are transforming our power generation facilities and networks by focusing on renewable energy, in particular by investing in wind and hydro power systems and by steadily increasing the share of alternative energies with the help of our subsidiaries. www.enbw.com

short version

Challenge

Customer consultants must be able to display 500 million documents stored across an array of different systems on their screens with a click of the mouse.

Solution

To accomplish the fast document access, EnBW created a new, global and future-proof archive architecture from scratch based on the 'kgs Content Server' core component. The architecture has a strong SAP focus and is thus able to archive and quickly make available all incoming or outgoing digital objects of any format from SAP or any other third-party system.

Results

The kgs system is easily adaptable to the existing technical infrastructure. There is no need of additional DMS user management and the system is lean, fast and scalable. There are imports of up to 800,000 documents per day, the support effort is lower and the system behavior is more stable.

high-speed SAP archiving and document anagement

Steadily growing data volumes present companies with tough challenges. EnBW Energie Baden-Württemberg AG manages about half a billion documents with a total size of 50 terabytes. Customer consultants must be able to display any of these 500 million documents stored across an array of different systems on their screens with a click of the mouse. This can only be achieved with a high-performance archive, for which EnBW uses the Content Server from kgs.

In a large company like EnBW, documents inevitably originate from numerous systems, including the different ERP system modules as well as various non-SAP systems. The IT landscape also comprises a recordbased SAP Folders Management document filing system, a document management system and a Sharepoint environment.

Up until 2003, the group used a DMS designed for technically oriented companies (CAD and product data). While it is possible to connect such systems to SAP with the ArchiveLink interface, they tend to treat the ERP system like a 'black box' and remain in control of access, filing and meta data management. "What we wanted was an SAP-centered solution that accepts ERP as the leading system and delivers a slim yet powerful engine 'under the hood' – much like a racing car that runs fast and reliably – while leaving all other functions such as meta data management, views etc. up to the higher-level systems," explains Armin Rehm, IT Service Manager DMS, EnBW Group.

Forward-Looking and Global Archive Architecture



Source: EnBW

To accomplish this, EnBW created a new, global and future-proof archive architecture from scratch based on the 'kgs Content Server' core component. The architecture has a strong SAP



Benjamin Dohm, EnBW-IT-Team



„kgs Scan would allow us to implement centralized or distributed incoming mail scenarios, capture sensitive documents directly at the SAP workstation via document scanners and then automatically allocate them to the corresponding SAP business object.“

focus and is thus able to archive and quickly make available all incoming or outgoing digital objects of any format from SAP or any other third-party system. Given this feature set, the solution is an open, forward-looking service architecture rather than an insular application specialized in handling CAD drawings with the added ability to connect to SAP. The newly introduced kgs solution is capable of accessing existing hierarchical storage systems. This enabled EnBW to retain the SAM-FS file system (which held approx. 10 TB of data back then) and all connected storage systems for the long-term archive. The archive was fully migrated on the database level.

Initially, the archive was used for document storage in the existing system, i.e. the various SAP modules: ISU, CRM, PM, etc. Moreover, the various business units set up separate record-keeping solutions for HR, branding, construction etc. in SAP Folders Management that also draw on the 'kgs Content Server' for archiving. Last but not least, there are numerous non-SAP applications, such as, for instance, sales systems, which also need to be managed.

Archive Supports any Input Channel

In order for third-party systems to be able to connect to the 'kgs Content Server' via ArchiveLink, the IT department coded a dedicated middleware dubbed 'Document Management Center' (DMC). "It makes the archive available to any input channel," says Dr. Torsten Zytowski, explaining why it made sense for EnBW to develop this program. "There is no longer a hard-wired connection from the archive to a specific application such as SAP; instead, the product can serve as a single archive for all leading systems that exist right now or will be added in the future," continues Zytowski. The DMC also links standard office scanners to the archive. This provides an easy workflow for directly digitizing and storing documents during daily operations.

Interaction with External DMS and Sharepoint



Dr. Torsten Zytowski, Projektmanager, Document Management



„Thanks to the outstanding performance and speed, the kgs Document Router can store up to 800,000 documents in the archive within a 24-hour period.“

For example, many business-relevant documents are distributed via e-mail, meaning they are not directly linked to an SAP posting record. Several years ago, EnBW set up a traditional DMS solution to complement their component portfolio and handle these types of documents. It maps the record framework scheme, so the DMS functions are used to speed up document search. Archiving is still fully taken care of by kgs technology. Shortly after introducing the DMS, the IT team further installed a Sharepoint infrastructure to ensure that all documents generated as part of the collaboration process are reliably stored in the archive.

The company uses the 'Document Router' to perform bulk data import from external sources (e.g. from bulk scanners, file servers) to SAP. The tool transports data to the target system, according to predefined logic, using the upload method. There, it connects the data with SAP objects. Communication with SAP takes place via the standardized ArchiveLink interface. The bulk import process places data in the archive and furthermore transfers meta data to ensure the documents are re-connected to SAP. As a result, every user will find their documents in SAP. Benjamin Dohm, IT team member in charge of DMS and Archiving comments: "We have received numerous requests to open the archive to various data sources. These originate in the departments and group companies, such as the so-called energy-related tertia-

ry market, which count among our customers.” For example, a business unit wanted to have their meter cards printed externally and then digitize them for use with the system. The import process via Document Router was performed using bulk scanners.

Approx. 40 Document Router instances are currently in operation at EnBW. Predefined directories are monitored to identify newly entered documents, pull them from there and place them in the archive. Thanks to outstanding performance and speed, a single instance of the Document Router can store up to 800,000 documents in the archive within a 24-hour period.

Ad-hoc Archiving Using Workplace Scanners

In addition to performing bulk import of invoices, outbound documents, delivery notes and other documents via the Document Router, EnBW also employs scanners at the workstations. Every day, documents need to be scanned at the SAP workstation at the push of a button. Employees can use their local scanners to capture incoming invoices that require immediate posting. EnBW is thinking about introducing the ‘kgs Scan’ for this task, as it provides high-performance, intuitive scanning that can process and archive documents directly from within the SAP GUI. “This would allow us to implement centralized or distributed incoming mail scenarios, capture sensitive documents directly at the SAP workstation via document scanners and then automatically allocate them to the corresponding SAP business object,” says Armin Rehm.

Access in Less than a Second

Of the approx. 20,000 EnBW employees, more than 8,000 regularly work at a workstation and thus handle digital documents every day. Given these numbers, it is imperative to have an archive system in place that reliably and rapidly provides all requested documents. “Thanks to the kgs so-



lution, we are working with state-of-the-art technology. Document access is very fast, which is quite a feat considering that the system has to deal with 500 million documents. What our internal departments needed was a solution that could ensure that any front-end customer consultant taking a call has the required document on screen within a second. We owe it in large part to the technology from kgs that our DMS can meet this requirement,” explains Dr. Torsten Zytowski. EnBW has already received multiple awards honoring this performance. The SAM-FS file system was deliberately kept in place when introducing the new long-term archive. Now this technology is being updated with the use of ‘kgs Migration’. The tool migrates archive objects in the background during normal operation. Thanks to a proxy server function provided by the migration software, the documents can be accessed during the entire migration process, regardless of whether they have already been transferred or are still located in the legacy archive. This means that employees still benefit from ‘less-than-a-second’ access to documents even during ongoing data migration.



in use

Content Server

The tia® Content Server is a high-performance archive solution that integrates seamlessly with SAP and eliminates the need for costly rollouts of client components. In addition, the tia® Content Server also has full integration with various storage and HSM solutions and can run on a wide range of operating systems; existing server and storage infrastructure can be used and additional investments for document and data archiving are obsolete.

Migration

The tia® migration software was developed for simple and controlled archive migration in the SAP environment. It allows seamless monitoring of whether the legal framework conditions are adhered to during the archive change. The software also provides proof that all objects have been transferred correctly. tia® Migration can use any SAP ArchiveLink®-capable archive as a source and target system, and it is already possible to switch to the new archive at the start of the migration.

Document Router

With the tia® Document Router, a company can make documents from a wide range of sources usable in SAP, making it a universal input manager. The tia® Document Router can be used for all SAP ArchiveLink®-certified archive systems, document management systems and enterprise content management systems. It supports all SAP storage scenarios, including early archiving and late archiving with barcodes, archives documents in any ArchiveLink®-compliant archiving system and creates links to SAP business objects; the software runs on all Java-compliant hardware and operating system platforms and is suitable for mass import of large volumes of data.



Armin Rehm, Service Manager DMS



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