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The Information Lifecycle Management Solution Suite from SAP

A One-Stop Shop for Managing All of Your Business Information

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With the influx of data and documents that companies deal with every day, it's clear that a comprehensive information lifecycle management (ILM) strategy is a necessity. But where should you begin?

An ILM strategy must account for many factors, including managing data from a live system environment as well as legacy systems, and covering both structured and unstructured data. And, of course, companies need to manage the entire life cycle of all this information, from creation to final destruction, and ensure that the process is compliant with legal retention requirements.

SAP's ILM solution suite (see sidebar on the next page) enables you to build a holistic ILM strategy. It provides functionality that allows users to define the period of time data should be retained in live systems, successfully manages data from decommissioned SAP and non-SAP legacy systems, and ensures access to archived data until it is destroyed.

To demonstrate how to make these solutions part of your company's ILM strategy and ensure the comprehensive coverage of your business information, let's take a closer look at some important information management considerations.

Managing the Information Life Cycle in Your Live System

Information created within an SAP application lives in the database as long as it is required by the application (or by the law), at which point, when there is no reason to retain it, it is archived and eventually destroyed. Holding information beyond its retention period not only has no value, it can

have a negative impact on system availability, performance, and resource use. Moreover, certain laws actually require information to be destroyed after its legal retention period is up.

Based on tried-and-true SAP data archiving technology — which is in turn based on the Archive Development Kit (ADK) — the SAP NetWeaver Information Lifecycle Management solution enables you to define rules to manage the retention of your data, so that you can reduce database size and keep it manageable in the future, as well as retain various business records for different periods of time to comply with legal requirements. In addition, you can preserve records related to a current legal case by collecting and putting the records on hold during the course of the legal action.

How Does It Work?

To manage the retention of your data in SAP ERP Financials using SAP NetWeaver Information Lifecycle Management, for example, you simply use the ILM policy manager to set up a policy with rules to define the retention period for your business-complete data — that is, data from completed business processes that is no longer required in day-to-day business, but which must be retained for legal or other reasons — and where it should be archived until the retention period expires.

Once the policy is activated, upon archiving, the data is automatically moved from the database via SAP data archiving objects, segregated into different archive files according to the retention periods defined in the associated rule or rules, and then stored in the specified location.

Once archived, the data is protected against destruction and can be retrieved at any time until its expiration date is reached, enabling you to efficiently control data growth in your systems. Then, once the data expires, it can be safely destroyed based on the rules defined in the ILM policy manager.

As an added benefit, if you are already using data archiving in your SAP landscape — as more than 80% of SAP customers are — you can leverage your existing archiving expertise and infrastructure without having to start from scratch when setting up an ILM project. But if you are not already using data archiving, don't worry; it's not a prerequisite for starting an ILM project. Ideally, however, the customer has already started archiving data in its SAP systems. SAP NetWeaver Information Lifecycle Management is built on SAP data archiving technology and uses its processes, so it's an optimal starting point for ILM projects if the customer is already knowledgeable about data archiving.

You can also use retention management features directly within your SAP ERP application as of enhancement package 4 or higher for SAP ERP 6.0. But, while the data retention functionality is useful when managing structured information (such as a sales document posted in the SAP application and stored in database tables), what about the unstructured information (such as emailed invoices and print lists) that often accompany structured data?

Integrating Unstructured Information into Your Information Life Cycle

In many cases, a business process starts with an unstructured document — for example, an incoming paper invoice. This invoice is scanned and later attached to the sales document that is posted in the SAP application. Therefore, there is a tight relationship between business documents and their attachments.

This link information is automatically stored in the TOAx tables using the ArchiveLink relationship service.¹ Attachments can be retrieved using various tools like the SAP ArchiveLink Viewer.

¹ TOAx tables are a set of tables in which linkage information between a business document and an attachment is stored. These tables are needed to find and view attachments for a particular business object. The ArchiveLink relationship service links and stores these tables.

The ILM Solution Suite from SAP

The ILM solution suite comprises the following products:

- **SAP NetWeaver Information Lifecycle Management** — Provides retention management capabilities, including legal hold management and e-discovery, to control the life cycle of structured and unstructured information. This product also supports the decommissioning of SAP and non-SAP systems. It is available as of SAP ERP 6.0, enhancement package 4 or higher.
- **SAP BusinessObjects Data Services** — Enables the integration, transformation, improvement, and delivery of trusted data to support critical business processes and decisions. Within an ILM system decommissioning scenario, this product also provides the required extract, transform, and load (ETL) capabilities for the decommissioning of non-SAP systems. Additionally, this product is included in the SAP BusinessObjects Data Migration starter package, which enables customers to use it for a single data migration project within a specific time frame.
- **The SAP Archiving application by OpenText** — Provides archiving functionality for the storage of data and documents via ArchiveLink. The product contains the OpenText Enterprise Library, which implements the WebDAV interface of SAP NetWeaver Information Lifecycle Management and secures the retention of data files stored with SAP NetWeaver Information Lifecycle Management.
- **The SAP Document Access application by OpenText** — This enterprise content management (ECM) solution provides easy access to SAP data, such as archive files, and ArchiveLink documents for both live and legacy content. It also includes basic ECM functions, such as scanning, OCR, and barcoding.

SAP NetWeaver Information Lifecycle Management is the core ILM product, which is supported and complemented by the other products in this suite. Together, these tools form the SAP solution offering for ILM, enabling the customer to address all aspects of information lifecycle management.

Print lists, another type of unstructured information, are created as database excerpts based on SAP system reports and are stored in the SAP spool system with a reference to the business object type, rather than a link to the business object itself. For long-term storage, print lists can also be moved to a storage system via ArchiveLink. These print lists can be difficult to locate and retrieve because few technical selection criteria exist for them. SAP Document Access by OpenText, which is seamlessly integrated within the SAP system and works with SAP NetWeaver Information Lifecycle Management, enables easier print list retrieval through generated indices and its virtual folder technology.

According to a recent study by Coleman Parkes Research, enterprises spend an average of 5.8% of their IT budget to support under-utilized software applications.

Since attachments and print lists are physically stored via ArchiveLink, they are referred to as ArchiveLink documents. SAP NetWeaver Information Lifecycle Management integrates ArchiveLink documents by transferring the link entries to the WebDAV store in the form of ArchiveLink references, enabling the propagation of retention information to attachments and print lists to protect them against destruction. (Note: The user can perform these steps by running dedicated reports.)

In some cases, attachments simply inherit the expiration date from their corresponding business objects, based on the rules entered in the ILM policy manager. If it is not inherited, the user simply defines a retention rule as described previously, using the ILM object AL_DOCUMENTS. For print lists, while no inheritance is possible, the user defines a rule using the ILM object AL_PRINTLISTS. It is also possible to set and remove legal holds for such documents in the archive, just as you would for structured data. When the set retention time has expired, ArchiveLink documents can be destroyed in a similar way to structured information.

Managing the Information Life Cycle When Decommissioning Legacy Systems

System landscapes inevitably grow, whether due to normal business operations or the addition of “inherited” systems after a merger or acquisition. Often, many systems in a growing landscape are no longer needed — in fact, it is not uncommon for large SAP customers to have several hundred legacy systems that should be decommissioned. According to a recent study by Coleman Parkes Research, enterprises spend an average of 5.8% of their IT budget to support under-utilized software applications. For Western Europe alone, this amounts to annual costs of 12 billion Euros.²

The bottom line is that systems with no business value that are still up and running cost money you can't afford to throw away. Simply pulling the plug on these systems and leaving them somewhere in the data center is not an option, however. Nobody knows if these systems will be needed again and if the data will still be

accessible or even interpretable. To streamline your IT infrastructure and save money, SAP's ILM solution offerings help you decommission redundant SAP and non-SAP systems while preserving full auditing and reporting capabilities for the retained data.

How Does It Work?

The ILM solution suite from SAP enables you to consolidate multiple large legacy systems into one small, modern instance while preserving the data you need. The following is a cross-system scenario involving one or more legacy systems and the ILM retention warehouse (which includes SAP ERP, SAP NetWeaver, and SAP NetWeaver BW), to which the data from the legacy systems is transferred for later reporting and auditing.

You can extract the entire data set from a system, be it an SAP or non-SAP system, to be decommissioned, including structured information such as transactional data from closed and open business processes and contextual data (mainly master and customizing data), as well as information related to ArchiveLink documents. The extracted data is then transferred to a central ILM retention warehouse system, where it can be used for on-demand reporting using predefined SAP NetWeaver Business Warehouse (SAP NetWeaver BW) queries or for local reporting using tools other than SAP NetWeaver BW.

SAP Document Access by OpenText allows business users to retrieve legacy content within their SAP applications via virtual folders. OpenText Enterprise Library (which is included in SAP Archiving by OpenText) provides a hardware abstraction layer to ensure the secure storage of information on a storage system.

Once the data is extracted, you can decommission the unneeded system without worry about whether the data will be accessible,³ and you can implement retention rules in the ILM retention warehouse system for the legacy data exactly as you would in a live system. Even legacy information will eventually expire — so to avoid extra costs (for hardware, personnel, or electricity, for

² Coleman Parkes Research, “The 2010 Applications Management Survey Whitepaper” (November 2010).

³ For detailed coverage of the decommissioning process, see “Running a System Decommissioning Project with SAP NetWeaver Information Lifecycle Management” by Claudia Dangers and Tanja Kaufmann in the July-September 2009 issue of *SAPinsider* (sapinsider.wispubs.com).

example) and potential legal implications (of unwanted and irrelevant results during a tax audit, for instance), it is good practice to destroy legacy information that is no longer needed once it is legally safe to do so.

Let's now take a look at handling unstructured information, which requires a slightly different approach.

Handling Unstructured Information During Decommissioning

When a legacy system is shut down for good, ArchiveLink documents with retention times that have not yet expired must also be considered from a legal compliance standpoint. Technically speaking, the administrator needs to move only the link entries in the TOAx tables plus some customizing data from the legacy system's content repository to the ILM retention warehouse system.

The good news here is that a migration of the documents is not required. The actual ArchiveLink documents can physically remain in the same content repository used for the legacy system, as long as the content repository is connected to the required retention warehouse system. Once available in the retention warehouse, the same retention management techniques (propagation of retention times, setting and removing of legal holds, and destruction) can be applied to these documents, using SAP NetWeaver Information Lifecycle Management.

During SAP NetWeaver BW reporting, attachments can be displayed directly from any query used for reporting on data by simply using the right mouse button to select and open the attachment.⁴ (Note: This is happening within a query; when you run a query based on legacy structured information, you can also display the attached unstructured documents.)

As the retention warehouse can contain print lists from many different legacy systems, SAP Data Access by OpenText provides you with a convenient way to find print lists by enabling you to add search fields and grouping definitions. While processing structured and unstructured information from decommissioned SAP systems is fairly straightforward, processing data from non-SAP systems requires some additional processing.

Handling Data from Non-SAP Systems During Decommissioning

The ILM suite of solutions from SAP helps you transfer not only data from SAP legacy systems to the ILM retention warehouse, but also data from non-SAP systems. So, no matter the type of data you're faced with, the retention warehouse is the right repository for storing and reporting on it. Since data from non-SAP systems may be defined according to a data model completely different from the model used for SAP data, the data itself needs to be processed before getting transferred to the retention warehouse for further use.

SAP BusinessObjects Data Services works with SAP NetWeaver Information Lifecycle Management to extract the data from the non-SAP system, map it to SAP or custom structures, and convert it into Archive Development Kit (ADK) files that have a structure identical to files created from native SAP data. This is part of a consulting project and is performed (by the consultant) using the SAP BusinessObjects Data Services set of functions.

Once the data from the non-SAP system is processed, it is used in the SAP NetWeaver Information Lifecycle Management retention warehouse system exactly as if it were native SAP data. You would then apply ILM data retention rules to the freshly created ADK files and move them to the WebDAV store for long-term preservation. For reporting, you would simply load the data into SAP NetWeaver BW or use local reporting tools.

Summary

Regardless of your information lifecycle management needs — whether you need to manage structured or unstructured information in your live SAP ERP systems, or decommission any SAP or non-SAP systems — SAP's ILM solution suite will support you. This offering helps you reduce system complexity and cost, preserve retention-relevant information, and remain legally compliant with regard to information retention, helping you to establish a truly holistic information lifecycle management strategy for your enterprise.

For more information, visit www.sdn.sap.com/irj/sdn/ilm or follow @SAPILM on Twitter. ■

Whether you need to manage structured or unstructured information in your live SAP ERP systems, or decommission any SAP or non-SAP systems, SAP's ILM solution suite will support you.

⁴ This tip is only relevant when decommissioning legacy systems.