Simplify Your Systems

How Enhancements to SAP NetWeaver Information Lifecycle Management Can Reduce IT Complexity, Mitigate Risk, and Lower Costs

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The size of business data and the complexity of system landscapes are increasing at an astounding rate, with big data trends and information retention requirements and regulations as significant drivers. All this puts your IT budget under pressure and increases your risk potential.

How can you be sure that the data records you need for an audit or regulatory compliance are readily available, or that records that must be deleted by law have actually been purged from your systems? How can you be sure that data from your legacy systems is still interpretable — what if knowledge about the system contents or old applications and business processes has vanished from your company? On top of these concerns, you may also be dealing with vendor support for old software that is expiring or old software releases that may become incompatible with new hardware, forcing you to keep old and unreliable hardware and creating additional risks for your business.

All of this complexity and risk creates an enormous challenge as enterprises seek to keep IT infrastructures manageable and affordable. To help its customers meet this challenge, SAP is using the same principles of innovation that led to the breakthrough of revolutionary technologies, such as SAP HANA, to help you simplify the way you manage your systems and data volumes, and save you time and money. SAP NetWeaver Information Lifecycle Management (SAP NetWeaver ILM) is introducing a new approach to streamline legacy system decommissioning, new support for consolidated data storage environments using SAP Sybase IQ, and a new tool to help ILM administrators manage the information

life cycle and data archiving processes in an efficient and user-friendly way.

Innovations for Decommissioning Legacy Environments

Depending on the defined scope and reporting requirements, system decommissioning projects can be time consuming and costly, particularly when retiring non-SAP legacy systems, which require additional processing steps. Typically, retiring an SAP system with SAP NetWeaver ILM involves extracting the required data set from the legacy system and transferring it to a central ILM retention warehouse, where it can be used as needed for reporting and auditing. Data in a non-SAP system, however, may be defined according to a data model that is completely different from SAP data. In this case, the data must undergo an extract, transform, load (ETL) conversion before it is moved to the retention warehouse.

In the past, this conversion involved extracting the data from the legacy system and creating archive files using the content data extractor (CDE) functionality of SAP NetWeaver ILM, which enables the extraction of content, such as customizing data, master data, and transactional data, that is not covered by existing archiving objects. Using the CDE functionality available in previous releases of SAP NetWeaver ILM, this was a primarily manual approach that could be tedious, time-intensive, and error-prone.

A New Approach: More Automation, Higher Quality

The new SAP NetWeaver ILM approach to legacy system decommissioning combines two

powerful tools: a new, generic CDE and SAP Landscape Transformation, a standard component included with SAP Solution Manager that helps companies align their data after their SAP system landscape has changed. These tools automate many previously manual steps, reduce the risk of errors, increase the overall data quality, and lower the overall costs and duration of decommissioning projects.[1]

Extracting the data from the legacy system (see **Figure 1**) and loading it into SAP tables includes various steps, such as selecting the tables in the legacy system, creating mapping information (i.e., "synonyms") and corresponding tables in the target SAP Landscape Transformation system, and setting up a transformation environment. The process of mapping non-SAP content to SAP structures is automated, but can be fine-tuned to ensure correct reporting and data display later in the decommissioning process. The actual data from the source tables of the legacy system must then be loaded into the newly created target tables in the SAP Landscape Transformation system.

To enable the SAP NetWeaver ILM retention warehouse to use the data now stored in the SAP Landscape Transformation system, the data must then be archived — transformed into "snapshot" files in Archive Development Kit (ADK) format. In the past, using the CDE to perform this step

could be complex; it included seven customizing screens and required manual steps, such as specifying the relevant tables and fields and creating data dictionary structures. The new, generic CDE requires no manual activities; by default, it considers all the tables in the legacy system regardless of whether these tables contain SAP or non-SAP data. It also uses a sophisticated clustering logic, based on the application component, to simplify identifying archiving objects in the legacy system.

To save even more time, for every new archiving object created in the legacy system, a corresponding archiving object is automatically created in the retention warehouse system, and an entry is made via transaction IRM_CUST in SAP NetWeaver ILM, easing the process of defining data retention rules. In addition, the ILM object SN_META_G, created by the CDE to house administration information for the archived legacy data, now stores the link between the archiving object and the corresponding tables (both of which are housed in the retention warehouse system) for all database tables (including SN archiving objects).

These improvements can significantly reduce the overall effort required for system decommissioning, saving organizations valuable time and money. But the improvements aren't limited to legacy environments; productive environments stand to gain just as much.
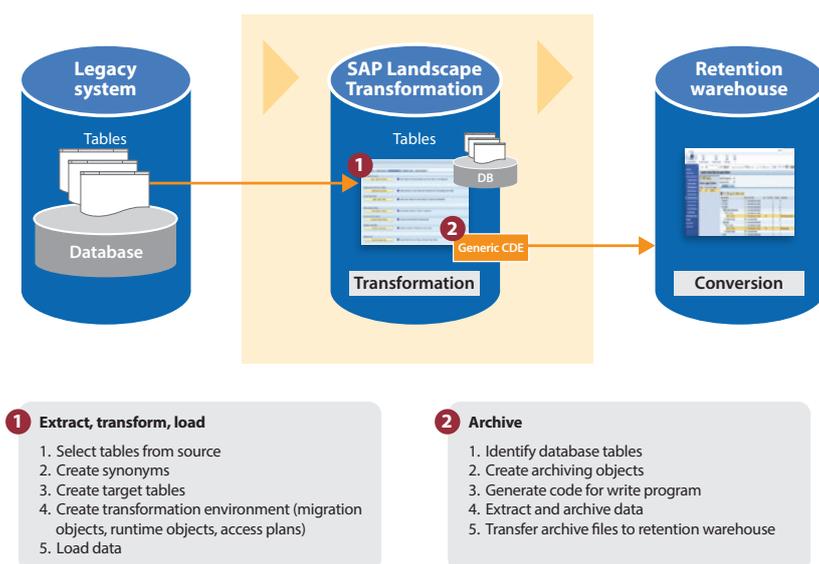
Innovations for Productive Environments

Keeping a firm hand on the sea of data in your productive SAP systems is critical, not just for keeping your landscape manageable and affordable in the long run, but also for making sure that the data you need is available and accessible when you need it for day-to-day operations and for legal and regulatory requirements.

SAP NetWeaver ILM retention management functionality helps you control the life cycle of your information, including where and how long your data is stored. To enhance this functionality and meet customer needs, SAP now offers a holistic approach to data storage that enables high-performance access to archived data, as well as a new, state-of-the-art administration tool to help SAP NetWeaver ILM administrators manage data effectively and easily.

FIGURE 1 ▼ System decommissioning with SAP Landscape Transformation and the generic CDE

[1] Though this new approach that combines the generic CDE and SAP Landscape Transformation is primarily suited for decommissioning non-SAP systems, it can also help to decommission SAP systems that are on earlier releases and are not covered by SAP NetWeaver ILM add-ons.

1 Extract, transform, load
1. Select tables from source
2. Create synonyms
3. Create target tables
4. Create transformation environment (migration objects, runtime objects, access plans)
5. Load data

2 Archive
1. Identify database tables
2. Create archiving objects
3. Generate code for write program
4. Extract and archive data
5. Transfer archive files to retention warehouse

A Consolidated Approach: Better Performance, Lower Costs

In the past, to ensure secure, long-term storage of both analytical (OLAP) data created by SAP NetWeaver Business Warehouse (SAP NetWeaver BW) and operational (OLTP) data created by SAP Business Suite applications, customers needed to maintain two dedicated storage environments.

For OLAP data, many customers use SAP Sybase IQ, while for OLTP data, many use an SAP ArchiveLink or a WebDAV third-party storage system. Such storage silos increase the complexity of the system landscape and require significant investment in two distinct archiving strategies. With new SAP NetWeaver ILM functionality, you now have the option to store operational data on SAP Sybase IQ. In combination with the storage of analytical data from SAP NetWeaver BW via the new, native BW NLS interface for SAP Sybase IQ implementation (available as of SAP NetWeaver BW 7.30 SP09 and 7.31 SP07), you can consolidate your storage infrastructure on a single platform, which enables you to reduce costs and make archiving, as well as accessing archived data, much faster (see **Figure 2**).

If you already use SAP NetWeaver ILM or Data Archiving to archive your SAP application data, you can store archive infostructures (for example, the ZARIX tables created by the Archive Information System) in the SAP Sybase IQ database by leveraging its "write-once" storage space. This feature is available as of SAP NetWeaver BW 7.31 SP07. As part of the upcoming next generation of SAP NetWeaver ILM retention management functionality, you will also be able to store archived data in the SAP Sybase IQ write-once space.

Storing your data in SAP Sybase IQ enables you to consolidate your storage infrastructure on a single platform and avoid the software, hardware, network, and operations requirements associated with the integration of third-party compliant stores. Using a grid-based (columnar) database like SAP Sybase IQ for data storage provides various benefits. It reduces the volume of data and archive indexes stored (for instance, identical data values appear only once in a column table).

Using Sybase IQ also brings performance benefits — the archive I/O is usually much faster since the system needs to access fewer layers (no network or storage hardware and software involved). In addition, data archiving and accessing archived data is much faster, and you'll see increased search capabilities since it's less

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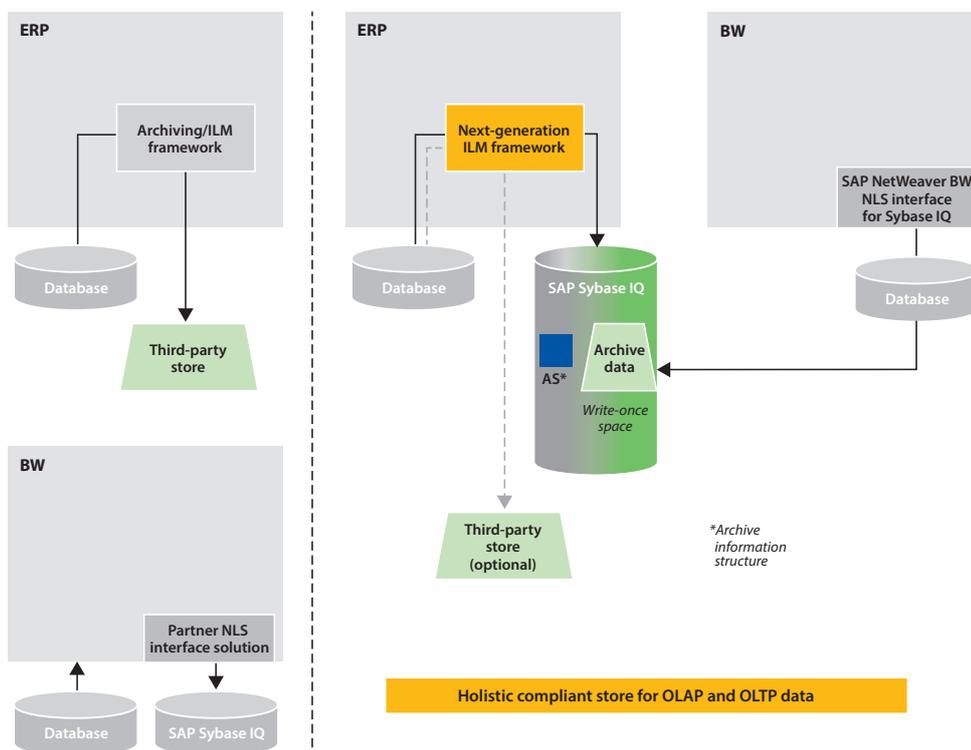

FIGURE 2 ◄ The traditional approach to storing OLAP and OLTP data vs. the new, holistic approach
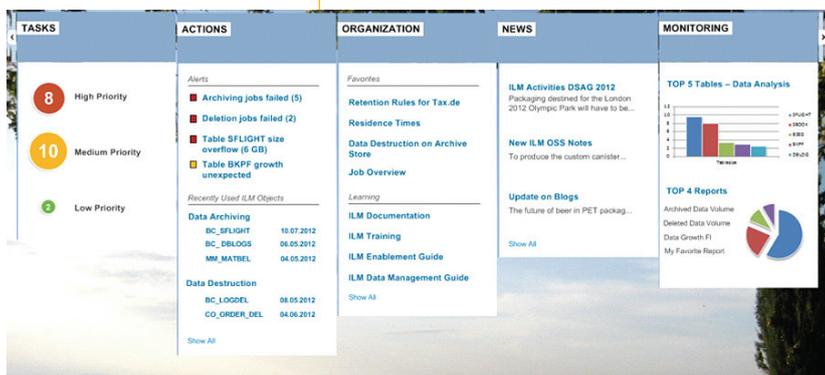
FIGURE 3 ▲ ILM Cockpit entry page in SAP NetWeaver 7.40 or higher

expensive to define broader archive indexes in a columnar database.

ILM Cockpit: A Tool Designed for ILM Administrators

Managing the life cycle of data requires experienced, well-trained ILM administrators, but even the most experienced users, accustomed to delving into the nitty-gritty of data archiving, retention management, and data destruction processes, prefer tools that are easy to use and that help them avoid unnecessary work, automate steps, and complete their tasks in the most efficient way.

With this in mind, SAP launched an initiative to develop a framework that provides enhanced support for data archiving and ILM processes, along with a state-of-the-art user experience. Created in collaboration with SAP customers and partners, this new framework — called ILM Cockpit — is currently being developed, and will include features that meet the specific needs of ILM administrators. Let's look at an example of how ILM Cockpit can help simplify ILM administration processes.

ILM administrators regularly need to schedule archiving runs and monitor them to ensure they complete successfully. Then, to enable end users to access archived data, administrators need to ensure that archive information structures are built up and ready to use. Finally, when data is no longer needed, administrators need to schedule appropriate data destruction runs.

Each of these activities may require calling a different transaction or program. ILM Cockpit helps by providing a single point of access to all relevant activities, allowing administrators to focus on the tasks they actually need to perform rather than navigating between transactions or screens. In addition, crucial information

is displayed in a single location directly to the administrator — via alerts, for instance.

Figure 3 shows an example ILM Cockpit entry page.[2] The entry page is grouped into sections that provide an overview of and access to the most important events and activities. This example shows eight tasks classified as high priority in the "Tasks" section. For more details and to take action, you simply click on individual tasks listed under "Alerts" in the "Actions" section. You can store your favorite transactions and links to ILM documentation in the "Organization" section, and the "News" section lets you connect to social media and collaboration workspaces. The "Monitoring" section helps ensure you always know what is going on in your systems.

The entry page also provides access to other areas, such as work centers (e.g., the archiving, reporting, customizing, or destruction work centers) and worklists. For example, using ILM Cockpit to view a worklist, you can filter all archiving objects that have sessions with the archiving status "with errors;" you can select archiving objects with a certain status, such as "incomplete," or sessions from a certain period of time; and you can browse details such as application area, session number and date, and variant used. You can also personalize the display and create your own queries.

Living Simply

SAP helps customers meet critical challenges and unlock the power of SAP solutions. Whether you want to enable your administrators to manage core ILM and data archiving processes in a more efficient way, consolidate your storage environment onto a single platform to improve performance, or streamline the system decommissioning process to reduce costs and project runtimes, the latest innovations from SAP for SAP NetWeaver ILM can help you reach your goal while minimizing your exposure to risk along the way. Stop investing in IT complexity, and start living simply.

Learn more at the ILM site on the SAP Community Network at **http://scn.sap.com/community/information-lifecycle-management.** ☐

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[2] The mockup in Figure 3 depicts an entry page as it will appear for release SAP NetWeaver 7.40 and higher. For older releases, a different UI based on a different UI technology, such as Floorplan Manager, may be used. All features shown are subject to change and may be changed by SAP to align with current or future UI strategies.