

Orchestrate Data Archiving Processes Across Your SAP® Environments

Regular, automated archiving through Control-M helps SAP® systems run faster and more cost effectively

Table of Contents

02	Table of Contents
03	Executive Summary
04	Introduction
05	The Problems of Not Archiving
07	The Traditional Problems with Archiving
08	The Way Forward: Consolidated and Comprehensive Data Archiving
09	Conclusion

Executive Summary

Allowing data to grow unchecked in any SAP® system leads to performance problems, higher infrastructure costs, and potential compliance risks. Regular and thorough data archiving is especially important for S/4HANA because its licensing cost is based on the amount of live data in the system. These data growth problems can be avoided through regular data archiving, but that introduces its own issues. Determining an effective and practical archiving strategy is challenging and

carrying it out according to plan can be time consuming and can drive up maintenance costs. Ideally, SAP data archiving is conducted regularly and is automated. Control-M can do that, without requiring any additional tools from SAP, cloud, or other storage providers, or ISVs. This white paper explains how Control-M takes time and effort out of data archiving, which keeps unnecessary data, delays, and costs out of SAP systems.



Introduction

Even in this age of data, the IoT, and real-time AI and analytics, there is such a thing as too much data, even though historical data can still hold great value. For enterprises that run SAP, a typical problem isn't having too much data, but rather, having too much data in the wrong place. Keeping data in the hot tier of an SAP system can slow overall performance – and thereby affect staff, partners, and customers in all areas of the business. The excess, nonessential data that slows processing times also drives up storage needs and associated costs (and can put organizations over their SAP tier storage limits). SAP S/4HANA licensing fees are based on data volume, so good data stewardship is essential for cost optimization. And, unused or rarely used data is at risk for data loss, which can cause a company to violate its compliance requirements for data retention.

The need to manage SAP data supports an entire industry ecosystem, from consulting firms that help set data management strategies, to software providers that sell tools for compressing and transferring SAP data, to service providers that provide storage and can manage the entire process.

Regardless of the strategy and execution choices an organization makes, regular data archiving is the foundation for optimizing SAP data, and therefore system performance and compliance posture. Yet, according to one estimate, only ~33% of organizations archive their SAP data.¹

Why don't more organizations archive regularly and effectively?

- It requires a data strategy (which can be very difficult to develop). Stakeholders across the enterprise often disagree about what data should be retained in SAP, and for how long.
- Archiving takes time, time that organizations would rather spend on innovation, or may simply need to allocate to more pressing day-to-day user support and system maintenance. The degree of automation among SAP data archiving options varies greatly.
- There is a confusing array of tools, techniques, and services available. Many options may be specific to SAP, or a storage environment, or another infrastructure component, requiring organizations to investigate, select and integrate multiple tools.
- It can be expensive, considering the potential software licensing and the SAP specialist staff time needed to execute.
- No one wants to own the big decisions on how long to retain data, how much to retain, and how many years of data to delete after retention periods. This creates a vacuum causing many organizations never to finalize their data archiving strategy.

The following sections provide some context around these challenges and a path to overcome them.

¹ Proceed Group "Benefits and challenges of regular archiving" April 20, 2021. <https://www.proceedgroup.com/archiving/benefits-and-challenges-of-regular-archiving>

The Problems of Not Archiving

Data volume is exploding, and enterprise data processing, movement, management, storage, and governance processes are not keeping up. That creates performance, business continuity, compliance, and cost risks in the SAP world, where data volumes grow at astounding rates annually. With archiving, annual SAP database growth can be kept under 2 percent². As SAP itself states in its documentation for SAP Information Lifecycle Management (ILM): “Archiving enables you to manage data volume. It helps you keep SAP software systems at optimum operational size by moving less current data into archive files with an automated and governed process.”³

Slower SAP System Performance

It stands to reason that the more data is live on the system consuming storage, compute, and network resources, the slower the system will run. But how much slower? By one measure, performance degradation of 25 percent can be expected once SAP databases exceed 80 to 100 columns, according to an independent analysis published in the SAP Community blog⁴. Slow performance doesn't only occur for database operations and their associated transactions and services. It impacts backup and recovery operations, system

copies, and more, including dependencies on non-SAP enterprise applications plus partner and customer systems. The associated SLAs and business operations touch nearly all aspects of the enterprise.

Capacity-related problems

Too much data can cause system problems other than slow performance. For example, out of memory (OOM) situations can develop if organizations attempt to load large tables or other data sources into SAP, causing execution delays and potential system failures. SAP HANA has defined hot and warm tiers for data. The warm tier is limited to four times the size of the hot tier, with a 10 TB maximum. These capacity issues are in addition to the common challenges related to bandwidth, storage, and processing capacity of the enterprise infrastructure.

² Proceed Group “Benefits and challenges of regular archiving” April 20, 2021. <https://www.proceedgroup.com/archiving/benefits-and-challenges-of-regular-archiving>

³ SAP “Information Lifecycle Management Capabilities for Data Protection and Privacy - A Guide for Customers”

⁴ SAP Community “Best Practices for SAP HANA Data Loads” <https://blogs.sap.com/2013/04/07/best-practices-for-sap-hana-data-loads-2/>

Higher-than-necessary costs

More data has always meant higher storage costs. SAP S/4HANA imposes additional, avoidable costs on enterprises that do not optimize the data in their SAP systems. Most notably, S/4HANA license costs are based on the amount of data in the system. Since data volume will grow without archiving, so will the software cost. Plus, a significant component of the total cost of ownership for S/4HANA is the cost to implement it, regardless of whether it is a [greenfield, brownfield, or bluefield implementation](#). Data migration is an important and expensive step in the implementation process. Organizations should set a data management strategy and carefully assess their system data prior to an S/4HANA migration or new implementation. Otherwise, they will be paying to move data that they don't need in S/4HANA because it could have been access from an archived, lower-cost storage option. The non-essential data will also contribute to higher licensing costs and will have undesirable cost and performance effects on the infrastructure, whether it is on-premises or cloud.

Compliance complications

Some organizations believe they need to keep certain data in their SAP system to meet retention, reporting, and other compliance requirements. In reality that data could be archived to storage options that won't slow the SAP system and drive up its costs. This is why data management strategy is so important, and why there must be a comprehensive, efficient way to automatically execute the strategy, so planned-for data transfers aren't skipped or failed.

Eventually, data will need to be moved out of SAP. Whether it happens in troubleshooting after a system failure, or happens according to a plan, depends on the enterprise approach to data archiving.

The Traditional Problems with Archiving

Archiving is not a silver bullet that solves all SAP data management challenges, in part because archiving tools and enterprise processes themselves have had built-in limitations and inefficiencies. For example, SAP includes some of its Information Lifecycle Management functionality in its standard NetWeaver technology platform, but a separate ILM license must be purchased to use it for other types of data. Meanwhile, enterprises already have solutions in place for archiving and file transfers for their non-SAP data, so the separate ILM license could be considered a redundant cost. Many legacy

solutions have similar limitations on the data types they can handle and the applications, storage, and other infrastructure components they can work, which has made multi-tool environments common. These solutions are also inconsistent in their degree of automation and some archiving operations are still highly manual, so there is significant room to upgrade. These challenges are a reason why many enterprises don't really archive at all, and many others do so on a limited or ad-hoc basis.



The Way Forward: Consolidated and Comprehensive Data Archiving

The emerging era of data, hybrid architectures, the impending SAP ECC end-of-life and S/4HANA becoming the favored form of SAP demands a modern approach to data archiving. Control-M for SAP® provides it. Control-M is an SAP-certified solution that creates and manages SAP ECC, SAP S/4HANA, SAP BW, and data archiving jobs, and can support any application in the SAP ecosystem, eliminating time, complexity, and specialized knowledge. It can also be used for all other enterprise jobs, services, processes, and workflows. That lets organizations that run SAP build, orchestrate, run, and manage all their enterprise jobs from a consolidated, integrated platform that provides visibility across all enterprise workflows and their dependencies.

Control-M works across on-premises, cloud, and hybrid environments and supports archiving, file transfer and ETL operations. Besides its support for multiple SAP versions, Control-M manages many specific job types, including:

- Data archiving jobs
- System management jobs
- Workflow management jobs

- Connect jobs
- Critical functional/integration jobs
- CCMS jobs and alerts
- SAP GRC Suite security and risk compliance jobs

It also has specific capabilities for several SAP Business Warehouse processes, and Control-M Application Integrator extends functionality to SAP Spyglass and Concur.

Control-M also integrates, automates, and orchestrates application and data workflows on-premises, in public and private clouds, and in hybrid environments so your jobs and business services are delivered on time, every time. With a single unified view, you can orchestrate all your (SAP and non-SAP) workflows, including file transfers, applications, data sources and infrastructure with a rich library of plug-ins. Easily provisioned in any cloud,

Control-M leverages the ephemeral capabilities of cloud compute services.

Conclusion

Data archiving is an essential maintenance task for any SAP environment because not doing it regularly slows system response time, creates avoidable operating costs because of processing and storage requirements, and makes it more time consuming and difficult to meet audit and compliance requirements. Regular and thorough data archiving is especially important for S/4HANA because its licensing cost is based on the amount of live data in the system. For many organizations, data archiving has been as challenging as it is necessary, because their processes and tools require specialized SAP support staff, are not fully integrated, and do not natively integrate with all elements of the infrastructure, enterprise applications, and software used for workflow execution, including file transfers.

Control-M can remove this burden for system administrators. Control-M automatically executes SAP data archiving jobs and manages all data transfers to and from any storage environment, including in hybrid and multi-cloud architectures. Control-M is SAP certified and creates and manages SAP ECC, SAP S/4HANA, SAP BW, data archiving jobs, and supports any application in the SAP ecosystem -- plus all other, non-SAP enterprise jobs. Those capabilities enable Control-M to serve as a single point of control for data archiving, file transfers, and other workflow executions across the entire enterprise IT estate.

SAP Certified

Integration with RISE with SAP S/4HANA Cloud



For more information

Visit the **Control-M for SAP®** page for a data sheet, additional white paper, webinar, blogs, and other resources that provide more detail about capabilities and customer testimonials.

About BMC

BMC works with 86% of the Forbes Global 50 and customers and partners around the world to create their future. With our history of innovation, industry-leading automation, operations, and service management solutions, combined with unmatched flexibility, we help organizations free up time and space to become an Autonomous Digital Enterprise that conquers the opportunities ahead.

BMC—Run and Reinvent

www.bmc.com



BMC, the BMC logo, and BMC's other product names are the exclusive properties of BMC Software, Inc. or its affiliates, are registered or pending registration with the U.S. Patent and Trademark Office, and may be registered or pending registration in other countries. All other trademarks or registered trademarks are the property of their respective owners. ©Copyright 2022 BMC Software, Inc.

