Bloor Spotlight

SOLIX Cloud Data Management for SAP

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Introduction

Data archiving is the process by which data that is no longer actively useful can be stored safely and (ideally) cheaply. There are several reasons why this is desirable. For one thing, organisations are often – not unjustifiably – cagey about deleting data in its entirety. After all, you never know when you might end up needing it at a later date. For another, it is much more cost-efficient, in terms of both maintenance and operational costs, to archive rarely used data than it is to keep it in a live system. It also helps improve application performance, since there is less data to be processed. Moreover, there are important compliance reasons to adopt data archiving: many data archiving efforts are driven at least partially by a need for long-term data retention driven by regulatory requirements, that have in turn been created by newly passed data protection legislation. These laws provide strong motivation for organisations to minimise the amount of data in their production systems.

To wit, organisations are increasingly adopting *"data minimisation"* strategies, in which as much extraneous data as possible is excised from their systems. This saves on storage and maintenance costs, reduces the costs of activities like data migrations, improves overall performance, and helps meet compliance mandates (less data meaning there is less data to govern). Data archiving provides a path to data minimisation, and thus these benefits, while also allowing you to preserve data, either permanently or temporarily, instead of deleting it entirely and immediately. This is helpful for testing whether whatever piece of data really was useless, or if, say, it had a use that had just not been recorded. For customer data, for instance, it is quite common for requests for the removal of personal data to be followed fairly swiftly by requests for that data to be reinstated. Data archiving allows you to effectively address this sort of scenario. Data archiving can also be very useful in cases where you have had a sudden influx of new data into your systems, such as during a corporate acquisition, where due to the amount and newness of the data you do not know what you will need and what you will not. Archiving allows you to retain all of it at low cost while you figure that out.

Putting aside data archiving for a moment, SAP is a multinational software company that offers end-to-end enterprise application software, databases, analytics, intelligent technologies, and experience management. It is perhaps most notable for its ERP software, of which S/4HANA has proven particularly popular. Moreover, with the announcement of discontinuing support for SAP ECC 6 by 2027, many existing SAP customers are planning for a migration to SAP S/4HANA. However, this shift can be expensive, particularly when you have to deal with a massive amount of data that has been accumulated over years, including from acquired and divested business units. Additionally, unmanaged costs linked to HANA storage and SAP licensing can rapidly become prohibitive, and as the cost of an SAP S/4HANA server is linked to the volume of data it manages, the return on investment for archiving on the SAP platform has the potential to be very substantial indeed.

Solix Technologies, on the other hand, is a notable provider of enterprise data compliance technologies that has a long history of working with SAP solutions, that in particular offers very robust data archiving, retention, and lifecycle management technologies, both for SAP systems and otherwise.

The purpose of this paper is to examine how Solix, and its flagship product SOLIXCloud, can deliver data archiving in the context of the SAP product suite in general, and S/4HANA in particular. We will start by briefly describing SOLIXCloud as a whole, before moving on to talk more specifically about its data archiving solution as it pertains to SAP, both in terms of what it does and why you should care about it.

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SOLIXCloud overview

SOLIXCloud is an enterprise cloud data management platform that is comprised of four primary solutions: Enterprise Archiving, Enterprise Data Lake, Enterprise Content Services and Consumer Data Privacy. It offers a host of deployment options, including SaaS, private cloud, on-prem, and hybrid

Figure 1 –
SOLIXCloud Common
Data Platform Architecture

Figure 2 –
SOLIXCloud cloud data management
capabilities for SAP

multi-cloud. It is built on open-source, cloud-native technologies, and enables you to manage your structured, semi-structured, and unstructured data for the purposes of advanced analytics, compliance, infrastructure optimisation, and data privacy.

SOLIXCloud is powered by Solix Common Data Platform (CDP) and provides a comprehensive cloud data management application framework, incorporating features such as Solix Connect for data ingestion (featuring over 100 data connectors), Solix Data Governance, Solix Metadata Management, and Solix Search. This framework provides cloud data management while fulfilling the escalating requirements of complex data regulations, data retention, and consumer data privacy.

That said, it is SOLIXCloud's enterprise archiving functionality that is more directly relevant to this paper. To wit, SOLIXCloud Enterprise Archiving provides a fully managed repository for archiving less-active enterprise data and retiring legacy

applications, and it offers automated and fine-grained control over the lifecycle of your data (including, but not limited to, SAP data). For example, data can be assigned a lifespan and automatically archived when that lifespan is over. For sensitive data in particular, this is a requirement for many compliance regulations, including GDPR. SOLIXCloud also implements legal hold functionality, allowing you to freeze information that is currently under request to prevent it from being edited or deleted.

Native cloud support is available, which data archiving particularly benefits from: archived data is infrequently accessed practically by definition, and is therefore going to be well-suited to the low cost and elastic compute and storage found on the cloud. It is also notable that SOLIXCloud does not much care whether data is active, archived, or even legacy: it is all just data, and it is treated – and interacted with – in the same way, with adequate governance and security. Moreover, SOLIXCloud can essentially act as an archive-as-a-service: Solix will do the archiving and manage it for you, without requiring you to devote any of your existing resources to it. Archived data is available in real-time for business and compliance reporting.

SOLIXCloud also provides wide support for various SAP products and product versions, the most recent being S/4HANA, with said support stretching back rather a long time. This comes in the form of four core feature sets: Active Archiving, Application Retirement, S/4HANA Migration optimisation (accomplished via data archiving), and support for the Data Lake and data analytics. These are shown in *Figure 2*. As we have already established, it is the archiving capabilities that most interest us in the context of this paper.
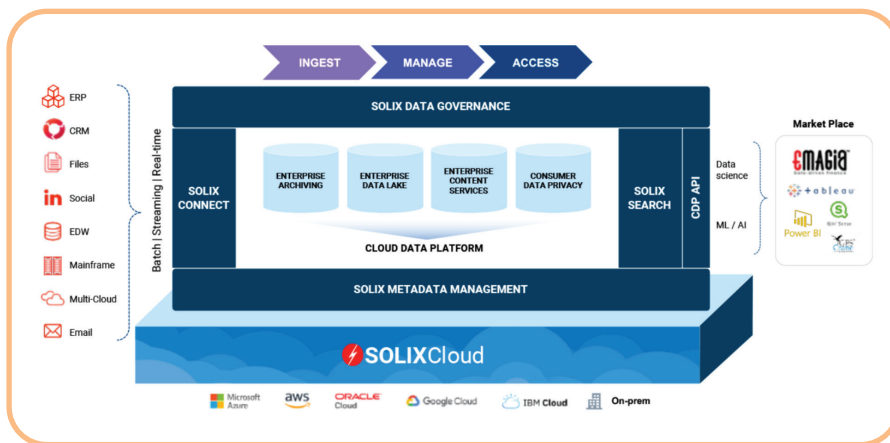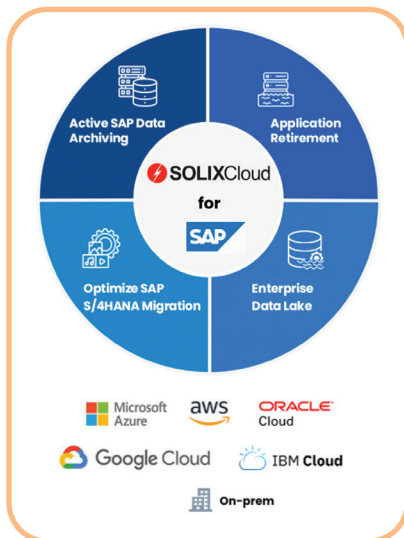
SOLIXCloud Active Archiving for data minimisation

As organisations continue to digitise and produce more data, managing the resulting growth becomes increasingly complicated. Unmanaged data growth results in reduced application performance and user productivity, increased maintenance expenses, and a greater risk of regulatory non-compliance. Therefore, an increasing number of organisations are implementing a strategy of data minimisation, in which inactive or aging data is periodically identified and archived to low(er) cost storage and purged permanently when retention requirements are met. This active lifecycle management of data can significantly reduce the overall cost of SAP systems, especially for S/4HANA which relies on the expensive HANA database, while also reducing the presence of sensitive data and its associated risks.

SOLIXCloud provides an Active Archiving solution that is SAP certified. It offers a policy-based approach to the comprehensive archiving of data, and even allows you to access your archived records directly through native SAP applications, alongside any production data therein. At the same time, you can also access these records through SOLIXCloud, whether through text search, forms, queries, or custom reports. Active Archiving's architecture is shown in *Figure 3*.

Essentially, SAP products already expose a set of invokable archiving routines, but these routines are fairly low-level, and hence difficult to use. SOLIXCloud Active Archiving takes advantage of these routines to form the core of its archiving logic, but provides a substantially more friendly user interface to help you understand and leverage them more easily. These routines output data in ADK files, and in parallel Solix extracts this data for ingestion into SOLIXCloud, presenting the archived data inside the Solix platform and allowing you to operate on the data from there.

In addition, the Solix-SAP connectors provided by SOLIX Connect are designed to extract all of the data from your SAP solution – structured and unstructured – even when that data is encrypted. SOLIXCloud CDP also allows you to combine SAP data with other data via its heterogeneous enterprise data lake (for analytics purposes, for instance), which is otherwise nontrivial.

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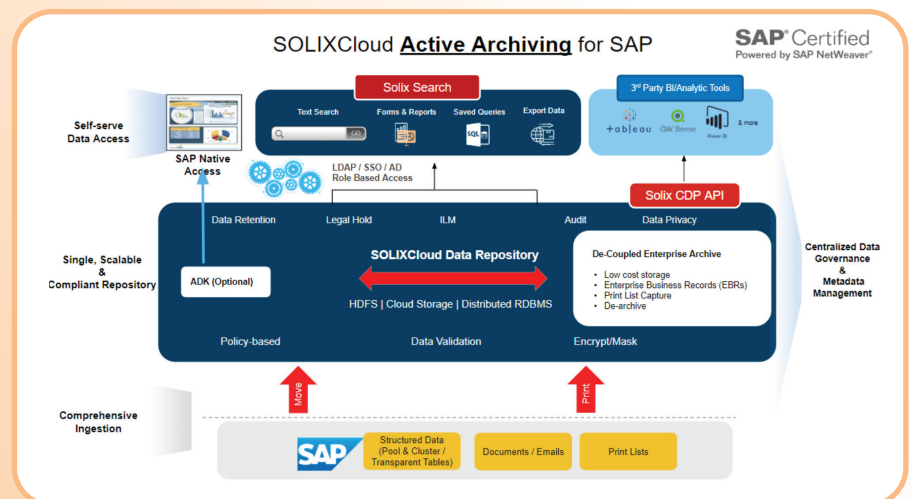> ❞

Figure 3 – SOLIXCloud Active Archiving for SAP

SOLIXCloud Data Archiving for optimising migration to SAP S/4HANA

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> **Consolidating and transferring data from multiple SAP systems, both active and inactive, to a new S/4HANA installation may prove particularly challenging.**
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Partially (though hardly wholly) as a result of the imminent discontinuation of SAP ECC6, many SAP customers want to upgrade to S/4HANA. As with any shift of this nature, this can be optimised (to minimise the resulting costs, for example) and many organisations are looking to do so. In fact, due to significant changes to the underlying technology stack, this could be better thought of as a migration than an upgrade. Consolidating and transferring data from multiple SAP systems, both active and inactive, to a new S/4HANA installation may prove particularly challenging.

Data archiving, and in particular data archiving via SOLIXCloud (see *Figure 4*), can be helpful here. For instance, you can use it to archive inactive data from ECC6 and legacy systems prior to migration to S/4HANA, minimising the presence of SAP data in your system and correspondingly minimising many of the complexities of the data migration. In short, there is less data to migrate (and to verify post migration), leading to a faster, less expensive migration process. Archiving less frequently accessed data, rather than migrating it to the (relatively expensive) HANA database, can also reduce costs. At the same time, when leveraging SOLIXCloud for this purpose, you (and your customers) retain access to the data you have archived, even if you decommission the ECC infrastructure that was originally using it.

You can also use SOLIXCloud's data archiving in a similar way after your migration is complete, in order to manage the growth of data within your S/4HANA installation and allow you to benefit from a strategy of data minimisation that can reduce costs and enable compliance.
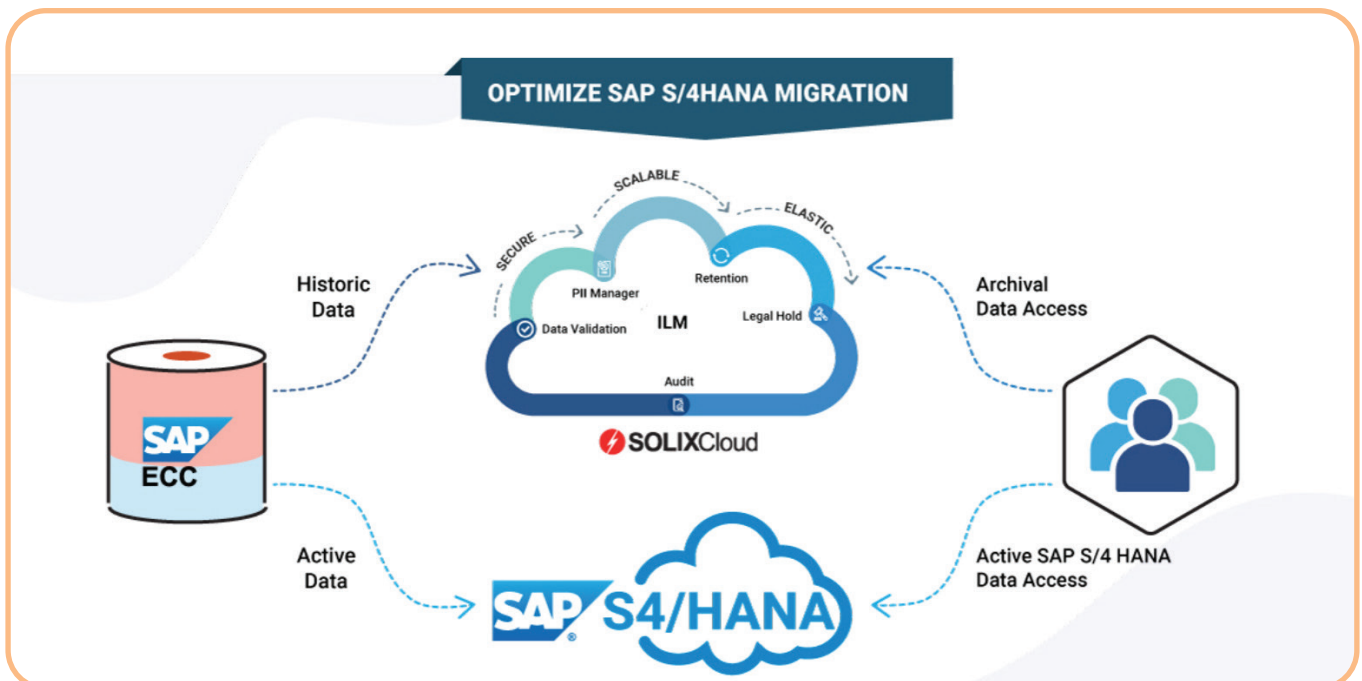

Figure 4 –
SAP S/4HANA migration
with SOLIXCloud

SOLIXCloud Application Retirement for decommissioning legacy SAP applications

It is quite common for organisations to retain control of applications long after they have served their purpose. There are numerous reasons why an application may no longer be useful: for instance, perhaps it was acquired during a corporate acquisition, or conversely perhaps its functionally was supplanted by another application during one. Regardless of the reason, the bottom line is that applications can (and frequently do) become outdated and no longer necessary. At the same time, the data held in these legacy applications – sometimes including SAP legacy applications – can still be important, whether for compliance, audits, business reporting, or what have you. Therefore, these applications and their data cannot simply be deleted. At the same time, being able to delete them (while retaining their corresponding data) would represent a significant cost-saving measure, as it would remove the need to maintain the application as well as its relevant personnel, licenses, and infrastructure. Moreover, legacy applications may operate on outdated hardware, software, or database components that are no longer supported, making them vulnerable to cyber-attacks and burdening them (and you) with a significant risk factor. Data reliability and integrity can also be compromised, for much the same reasons.

SOLIXCloud addresses these issues by enabling you to retire your legacy applications (including SAP legacy applications) and store them in a cost-effective cloud archive (see *Figure 5)*. This can reduce costs, improve compliance, and add flexibility. Moreover, SOLIXCloud allows you to access archived data in real-time, regardless of its source system, using its search and reporting capabilities, thus adding visibility to data that would otherwise need to be accessed through a legacy application. In addition, particularly important application reports can be tagged, indexed, and also made searchable within SOLIXCloud, providing greater ease of access. In particular, when retiring SAP applications, SOLIXCloud provides an SAP connector that will extract structured and unstructured data alike from pool and cluster tables, ADK files, and external content management systems.

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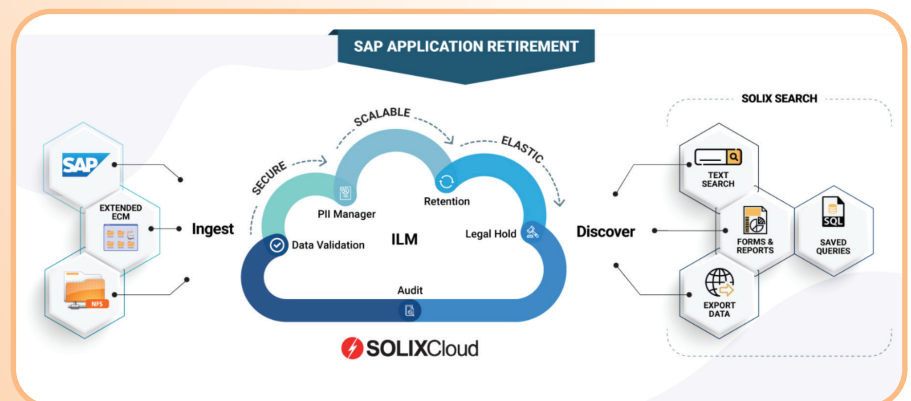
Figure 5 –
SAP application
retirement with
SOLIXCloud

Conclusion

In this paper, we have demonstrated the need for effective data archiving, driven by data minimisation efforts and the multitudinous desires for such. We have also offered a brief overview of the SOLIXCloud solution, paying particular attention to its enterprise-grade data archiving functionality, which provides one way of satisfying the need we initially demonstrated. Moreover, we went on to describe how said functionality can be applied to SAP environments.

The long and the short of it is that both data archiving as a whole, and Solix's efforts to that effect, work to reduce costs, improve performance, and enable compliance. This is true whether or not you are operating in the context of SAP S/4HANA, or indeed SAP in general, but at the same time it is clear that Solix has taken pains to make sure its data archiving solution is particularly well-integrated with SAP's various offerings. As such, we highly recommend it for that purpose.

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About the author
DANIEL HOWARD
Senior Analyst,
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Daniel started in the IT industry relatively recently, in only 2014. Following the completion of his Masters in Mathematics at the University of Bath, he started working as a developer and tester at IPL (now part of Civica Group). His work there included all manner of software and web development and testing, usually in an Agile environment and usually to a high standard, including a stint working at an 'innovation lab' at Nationwide.

In the summer of 2016, Daniel's father, Philip Howard, approached him with a piece of work that he thought would be enriched by the development and testing experience that Daniel could bring to the table. Shortly afterward, Daniel left IPL to work for Bloor Research as a researcher and the rest (so far, at least) is history.

Daniel primarily (although by no means exclusively) works alongside his father, providing technical expertise, insight and the 'on-the-ground' perspective of a (former) developer, in the form of both verbal explanation and written articles. His area of research is principally DevOps, where his previous experience can be put to the most use, but he is increasingly branching into related areas.

Outside of work, Daniel enjoys latin and ballroom dancing, skiing, cooking and playing the guitar.

Bloor overview

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