aws | linke

THE LINKE AWS CONNECTOR FOR SAP

Linke's solution to infuse cloud storage with SAP systems

ABSTRACT

The Linke AWS Connector for SAP enables businesses to integrate their on-premises or cloud-based SAP systems with Amazon Simple Storage Service (Amazon S3) through an ABAP add-on. By doing so, businesses can simplify their SAP architecture, reduce infrastructure costs, keep pace with rapid data growth, and improve agility and flexibility. This document provides context as to why businesses ought to consider moving SAP storage to the cloud, details the benefits they will receive once up and running, goes over common use cases for the solution, and more.

COMMON CHALLENGES RELATED TO SAP STORAGE

For many organizations, SAP systems represent some of their most critical, deeply integrated workloads. As such, it is imperative for these organizations to make sure that the IT resources supporting their SAP systems are available, performant, secure, and reliable. Meeting these requirements as it pertains to storage commonly necessitates businesses provisioning storage infrastructure that is SAP-certified and setup with high performance and availability.

Leveraging these types of storage resources in itself can create a costly and complex architecture for IT teams to run and manage, plus this challenge is extrapolated by the ever-growing quantities of business data. On top of cost and complexity, businesses risk bottlenecking operations if their data outgrows their storage resources. Because SAP workloads are typically central to numerous departments, roles, and key processes — poor performance can have a devastating impact to a large portion of the business. To overcome these challenges, organizations need storage resources that fulfill demands of their critical SAP workloads, while also infusing greater agility, flexibility, and cost-effectiveness.

INTRODUCING THE LINKE AWS CONNECTOR FOR SAP

In an effort to help businesses solve the challenges detailed above, many are looking to cloud storage from Amazon Web Services (AWS). Linke has created the Linke AWS Connector for SAP – an SAP ABAP add-on that enables the use of Amazon S3 with SAP systems. The Linke AWS Connector for SAP can be used with any SAP system – on-premises or cloud-based – without needing to provision additional hardware. Additionally, this solution has been designed to secure critical data being transferred from SAP systems to Amazon S3. By using this solution, businesses can adopt cloud storage in a secure, streamlined manner, simplifying their IT architecture while still meeting the storage demands of their critical SAP workloads.

Why Amazon S3 for SAP storage?

Amazon S3 is an object storage service that allows companies to securely collect, store, and analyze their data at massive scale. By leveraging Amazon S3, businesses can right-size their storage footprint and scale elastically, while paying only for the resources they use. This eliminates the need to over-provision storage capacity and thus, creates a cost-efficient environment, while also providing the scalability to support large SAP systems.

This solution also helps organizations improve the reliability of their storage implementations, as Amazon S3 is designed to deliver 99.999999999% durability. As of 2018, the AWS global footprint spans 55 Availability Zones (AZs) within 18 geographic Regions and 1 Local Region around the world. This widespread presence makes it easier for customers leveraging Amazon S3 to store data in a geographically-redundant, highly-available, and disaster-tolerant manner. When storing data in Amazon S3, objects are automatically distributed across a minimum of three AZs that are typically miles apart within a Region. To make sure resources are close to where users need them most, businesses using the Linke AWS Connector for SAP are able to control which Region their objects are stored.

To help secure SAP data, Amazon S3 supports three forms of encryption and uses Amazon Macie – a machine learning-powered security service – to automatically discover, classify, and protect sensitive data. Amazon S3 also supports numerous compliance certifications (including PCI-DSS, HIPAA/HITECH, FedRAMP, EU Data Protection Directive, and FISMA) helping businesses satisfy regulatory requirements. Organizations can further bolster their security posture by integrating native AWS security services and third-party solutions available in AWS Marketplace with Amazon S3.

Businesses can support their SAP systems with confidence using AWS resources, knowing that numerous leading enterprises, including BP, General Electric, Ávoris, Barceló Hotel Group, and Serunion (Elior Group), are running critical SAP workloads, including production environments, on AWS. Furthermore, SAP itself has been running workloads on AWS since 2008.

Deployment options for the Linke AWS Connector for SAP

The Linke AWS Connector for SAP is available in three editions – Standard, Business and Enterprise – with varying support, capabilities, and costs, depending on a business's particular needs.

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| Standard	Business	Enterprise

• Annual subscription (not including cost of AWS usage) per SAP landscape (*)
• Support: Monday-Friday from 9am-5pm CET
• Limited to S3 integration
	• Annual subscription (not including cost of AWS usage) per SAP landscape (*)
	• Support: Monday-Friday from 9am-5pm CET
	• Support for future AWS service integrations
	• Consulting voucher (8 hours)
	  • Training workshop
	  • Support for initial setup
	• SAP Archivelink compatible
		• Annual subscription (not including cost of AWS usage) per SAP landscape (*)
		• Support: 24x7x365
		• Support for future AWS service integrations
		• Consulting voucher (40 hours)
		  • Installation and technical configuration services
		  • Initial scenario implementation support
		• Access to a technical account manager
		• Access to roadmap plans
		• SAP ArchiveLink compatible

The Standard edition delivers the core functionality of the solution, enabling customers to write their own programs to read from and write to Amazon S3. Demo programs are provided within this edition to help customers get started.

The Business and Enterprise editions feature more robust software, including management and configuration capabilities that make it easier to setup and get started, and also include support for future implementation of AWS services. These versions are compatible with the SAP Archivelink API, allowing customers to use Amazon S3 as their repository for archiving SAP data. Like the Standard edition, the Business and Enterprise versions allow customers to build their own applications using the SDK. It also comes with varying levels of support (depending on which tier is purchased) to help customers manage their SAP storage and optimize implementations for performance and cost.

With all editions, customers have the option of deploying the Linke AWS Connector for SAP on their own (recommended only for ABAP-experienced users) or gaining implementation support from Linke.

COMMON USE CASES

Each business uses SAP systems in unique ways to run their business, serve their customers, and build and maintain competitive advantages. As such, the Linke AWS Connector for SAP has been used to serve many different needs. In particular, three primary use cases have resonated most with customers. While these use cases are the most popular, there are countless other ways the Linke AWS Connector for SAP can improve SAP storage.
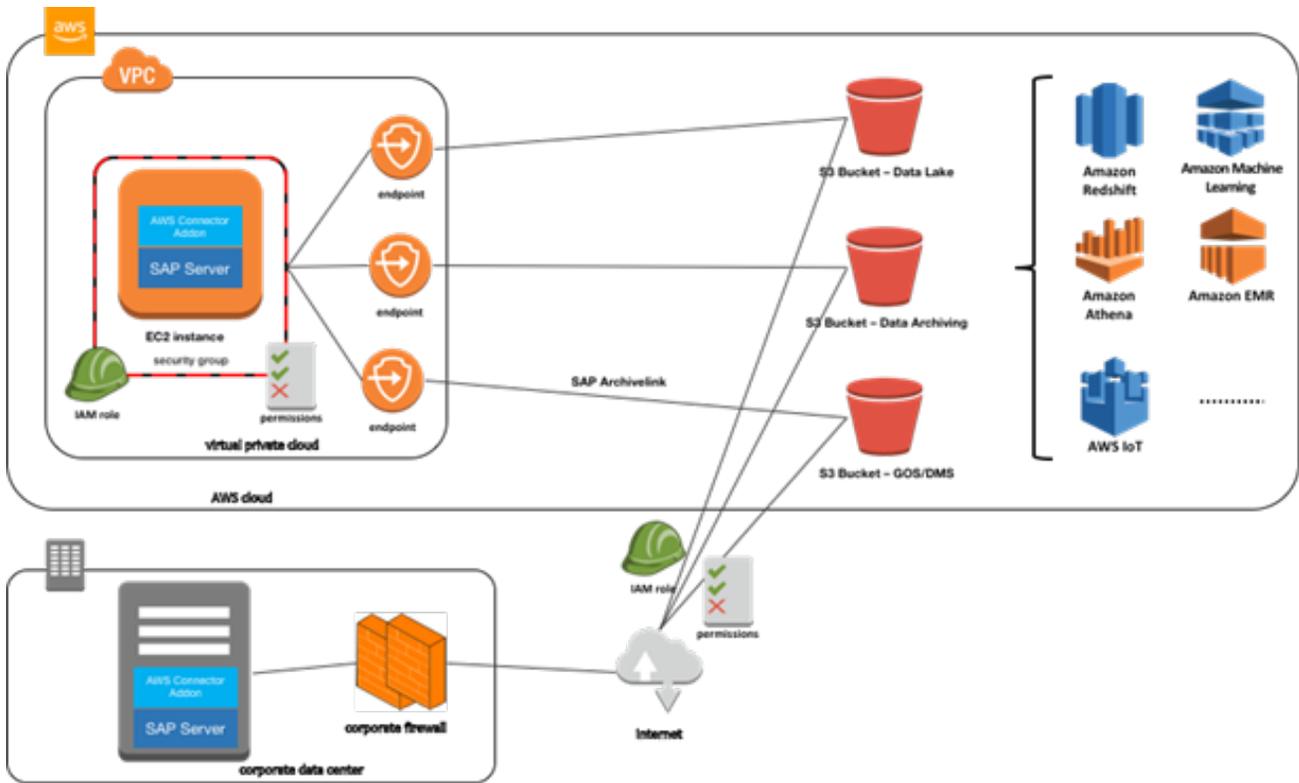
Storing documents and attachments in Amazon S3

Commonly, SAP processes include and/or generate documents and attachments (PDFs, photos, etc.) as a means of keeping record or generating outputs. Historically, these documents and attachments would then be stored within the SAP database native to the server running the process, regardless of how critical they may be. Customers running these processes on-premises commonly support their SAP workloads with costly storage implementations, including high performance disks and high availability setups. By storing documents and attachments that are not necessarily critical within these implementations, businesses inefficiently consume resources and drive up costs. Furthermore, this can lead to a bottleneck in operations.

With the Linke AWS Connector for SAP, customers are able to offload document and attachment storage to Amazon S3. This allows the core processes to continually run inside of their dedicated servers but removes document storage, increasing both cost-efficiency and the speed of operations. By moving document and attachment storage to Amazon S3, customers are able to only pay for the resources they use, drastically saving costs and removing the need to over-provision hardware. Furthermore, this reduces the burden on personnel to manage on-premises storage hardware. Ultimately, by storing documents and attachments on Amazon S3, customers experience accelerated backups and no longer have to spend as much on high-performance storage disks.

Integrating SAP systems with AWS services

Many organizations are building applications on AWS in an effort to achieve cloud adoption and overall digital transformation. By doing so, these organizations gain access to a broad and deep set of native cloud services, spanning traditional IT resources, such as compute, storage, and networking, as well as emerging technologies, like the Internet of Things (IoT) and machine learning. AWS continually updates these service offerings based on customer feedback, driving a rapid pace of innovation. And since these offerings are available natively, organizations can adopt them without the cost, risk, and time traditionally associated with doing so in an on-premises environment.

Customers looking to adopt these technologies to drive new value from their SAP workloads need a method to integrate their SAP data with their AWS applications. This process can be simplified using the Linke AWS Connector for SAP. Since businesses can store SAP data directly in Amazon S3 using the Linke AWS Connector for SAP – and Amazon S3 is a common storage repository across AWS services – this data can be extracted by these services quickly and easily. From there, customers can use SAP data within applications spanning traditional and emerging IT technologies.

Archiving SAP data on AWS

Whether as part of a standard backup process, complying with internal or regulatory requirements, or meeting storage service level agreements, many customers store old business data – such as transactional data, or process outputs – on their SAP servers for an extended period of time (often 5 years). Although accessing this data is generally not critical to the day-to-day operations, many businesses are required to store it on SAP-certified disk storage, which can be difficult to scale and expensive to maintain. Another option is archiving data using tape or optical storage, which requires

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the use of an off-site facility and can take a long time to recover and restore. Neither of these solutions are ideal.

Instead, businesses can use the Linke AWS Connector for SAP to store this data on the cloud. Doing so enables efficient backups that simplify on-premises infrastructure, reduce management requirements, and eliminate the need to leverage an off-site facility. Customers can drive cost-efficiency further by leveraging Amazon Glacier, a long-term, secure, durable object storage for archiving. Once SAP data is stored in Amazon S3, customers can setup a lifecycle rule that transitions objects to Amazon Glacier after a certain period of time (determined by the customer), allowing them to store data for as little as $0.004 per gigabyte per month. Amazon Glacier provides comprehensive security and compliance capabilities, as well have varying retrieval options – the service gives customers the option of retrieving items within 1-5 minutes, 3-5 hours, or 5-12 hours depending on their needs.

UPGRADE TO SAP HANA WITH THE LINKE AWS CONNECTOR FOR SAP

Many businesses are pursuing the adoption of SAP HANA – an in-memory relational database management system – to drive SAP modernization. The key benefits of upgrading to SAP HANA include:

- Faster, and more optimal decision making based on real-time data processing
- Simplified data management by eliminating the management and maintenance separate legacy systems and siloed data
- Accelerated track to digital transformation with analytics capabilities that support the adoption of emerging technologies

Businesses planning to run SAP HANA-based applications on-premises will typically procure costly infrastructure to support the performance demands of the memory-intensive workloads. To help alleviate these costs, customers can migrate their old SAP data or documents to Amazon S3 (using the Linke AWS Connector for SAP) thereby reducing their on-premises storage footprint and infrastructure needs. Once the new SAP HANA systems are up and running, these businesses can simply connect them to their Amazon S3 storage volumes.

Organizations opting to run SAP HANA on the cloud can streamline the transition in a similar manner, however without requiring large upfront hardware investments. AWS provides Amazon Elastic Compute Cloud (Amazon EC2) instances that have been certified by SAP to run production deployments of SAP HANA-based workloads. These resources, including Amazon EC2 X1, X1e, C5, M5, and Bare Metal instances, are equipped with varying levels of memory to support even the most demanding SAP HANA workloads. Because businesses leveraging the Linke AWS Connector for SAP already have their SAP data on Amazon S3, migration is largely streamlined.

Whether upgrading to SAP HANA in an on-premises or cloud-based environment, the Linke AWS Connector for SAP can help streamline the process.

> "
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CUSTOMER SUCCESS STORY: ÁVORIS

Ávoris is a leading tourism business in Spain that operates 685 travel agencies and serves 2.2 million travelers a year. In the time since Ávoris had adopted its SAP environment, the company had grown from 300 employees to 3,000, and the SAP systems had failed to keep pace with this growth. As a result, overnight reporting processes began running into the next working day. "Staff couldn't start working on their SAP-related tasks when they came into work and had to wait up to two hours for the process to end," explained Gabriel Ramis, head of IT at Ávoris.

To improve performance, while also improving reliability, scalability, and cost-effectiveness, Ávoris decided to migrate their SAP environment to AWS. And they chose Linke's consulting and technology services to help them get there. Ávoris's new SAP environment leveraged the Linke AWS Connector for SAP to integrate their SAP ERP platform directly with Amazon S3. This simplified their archiving processes and reduced costs by eliminating the need for on-premises archiving infrastructure.

With the help of Linke, they were able to complete migration in just three months. "Even with the short time frame, Linke had no problems helping us migrate our SAP workloads to AWS," says Ramis. "Linke IT brought a deep level of expertise in both AWS and SAP to the project."

After their migration, Ávoris was able to better support its users and customers – when employees arrive at work, the SAP ERP workload has already been processed. "Using AWS, our SAP overnight reporting processes are more than 50 percent faster than they were with our on-premises platform," says Ramis. The company has also seen a significant improvement in performance during peak hours – the average response time for dialog processes of the SAP ERP production system has accelerated by 57 percent. Furthermore, with the massive scale of AWS, Ávoris is no longer at risk of outgrowing their infrastructure.

Read the full case study here.

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GETTING STARTED

The Linke AWS Connector for SAP has helped businesses of all sizes support their most critical SAP workloads, while improving cost-efficiency, agility, and flexibility. By using this solution, organizations can not only meet their existing SAP demands, but drive new value from their SAP environment by easily integrating data with emerging technologies and simplifying adoption of SAP HANA. Users can explore the following resources for additional information to help them get started:

- Learn more about Amazon S3
- Learn more about Linke AWS Connector for SAP
- Read the blog post Harnessing the Power of AWS for SAP Workloads with APN Partner Linke