Organizations are increasingly moving their archives from on-premises to the cloud. However, there are major differences between archives deployed in a SaaS model versus those deployed in a PaaS model that directly affect the security, accessibility and functionality of your archived data. This Technical Brief explores what you will need to consider in order to make an informed decision about PaaS versus SaaS.

**What is a SaaS-based Archive?**

Software as a Service - SaaS - represents the most utilized option for conducting business in the cloud. SaaS-based archiving applications reside in a remote cloud network accessed through the web or an API. Through the application, users can store and manage their data. In a SaaS model, the cloud vendor provides a specialized application, designed for one particular use and stored in that vendor’s cloud environment. In most cases, this is rented space on a multi-tenancy cloud platform.

**Pros of SaaS-based Archives**

- Predictable licensing and operating costs via a subscription model
- All features and functionality included in the subscription
- Software is managed and upgraded by the vendor
- Data is resilient in the cloud: equipment failure does not usually result in loss of data

**Cons of SaaS-based Archives**

**Costs and Functionality**

- Costs usually higher than PaaS
- No flexibility in functionality or scalability – one size fits all, regardless of requirements
- Complicated, frustrating data exports due to the inability to scale and throttle export speeds
- Lack of additional functionality needed as business requirements change

**Access to Data/Data Lock In**

- Data portability issues when subscriptions are cancelled (archive vendors may charge for your data to be extracted from their proprietary cloud – the equivalent of a ransom fee)
- Data is stored in vendor’s proprietary format, preventing best of breed analytics, AI/ML tools being used

**Data Security**

- SaaS-based archives use a shared (multi-tenant) architecture, introducing significant data security concerns
- Inability to customize security protocols or performance levels
- Data residence (geo) choice may not be available – a data sovereignty issue
- Legacy archive data migration to a SaaS repository can miss or inadvertently delete metadata affecting the chain of custody
- Inability to account for all migrated data, including the handling and rehydration of email stubs

**Fig. 1: PaaS/SaaS Compared**
What does PaaS-based Archiving Offer over SaaS-based Archiving?

Platform as a Service - PaaS - is a cloud model that provides organizations with a more customizable cloud environment in which they can develop, manage and deliver focused solutions. In addition to storage and other computing resources, organizations can take advantage of a suite of prebuilt, native tools to develop, customize and utilize a variety of cloud applications and functionality, such as information management and archiving.

Additionally, a PaaS environment allows for the rapid incorporation of new cloud platform capabilities such as machine learning-based data auto-classification and predictive supervision. Organizations that want to implement agile use case methodologies and want more control of their cloud-based archiving platform, including controlling their own security and encryption keys, are the best suited to PaaS-based archiving. PaaS provides a simple but elegant way to customize and utilize custom applications in a secure cloud environment.

Key Trends in PaaS Archiving in 2020

- Continuous innovation increases PaaS capabilities for information management and archiving
- PaaS solutions will utilize the full spectrum of emerging cloud security services
- PaaS will enable the quick adoption of custom machine learning/AI capabilities such as auto-classification and predictive supervision

Pros of PaaS-based Archives

- Lower total cost of ownership (TCO)
- Reduced/eliminated capital expenditure (associated with on-premises systems)
- Straightforward subscription license model
- Predictable infrastructure costs – which you can control as the customer
- Zero vendor lock-in: you have direct agreement with the cloud platform provider, instead of through a 3rd party multi-tenant SaaS cloud provider
- Reduced IT overheads: security, operating systems, server software, and backups managed by PaaS provider – with flexibility to add or customize additional capabilities as you require them
- Elastic scalability to address needs of business: instantaneous expansion as needed

Cons of PaaS-based Archives

- Minimum entry requirements may not be financially viable for smaller organizations
- Security must be integrated to and maintained with your corporate security protocols
- More responsibility for your data and applications
- Management and maintenance of the archive is your responsibility (or the archive vendor’s)
- Ongoing infrastructure planning is required to optimize performance
Archive2Azure PaaS Information Management & Archiving Platform

Archive2Azure is a native Azure application that gives organizations the ability to securely and intelligently categorize, onboard, store, secure, and manage their unstructured and structured data in their Azure tenancy. Archive2Azure utilizes the Azure PaaS cloud model to give you direct control over your data including implementing and managing your chosen security protocols, closely controlling costs, and proactively adjusting application performance-based on changing needs in your business.

Archive2Azure stores your data in its native format directly in your Azure tenancy. Data is always under your direct control via powerful access controls. As the customer, you own, maintain and manage your encryption keys, and have full audit and reporting capabilities. This ensures that your data can never be locked-in or ransomed by 3rd party archiving or cloud providers. Because Archive2Azure is built on the Azure PaaS platform, you and your team have full access to the entire stack of Azure services including powerful analytics, machine learning/AI, and cognitive services.

Fig. 2: The Azure/Archive2Azure Architecture
Compliance and Legal Defensibility

While regulatory and legal compliance requirements around the storage and management of data can span from ambiguous unusually prescriptive, one major condition of all regulatory requirements is the documentation of the process with ongoing audit and reporting. Unlike most SaaS solutions, the Archive2Azure platform provides your company with direct control of your data in your cloud tenancy. As a result, regulatory compliance, eDiscovery, data management, and elastic search are faster, more consistent, legally defensible, and customizable to your organization's specific needs and performance requirements.

It's your Data: Manage it in Your Azure Cloud

A key benefit of Archive2Azure is that it works with your Azure tenancy allowing you to retain direct ownership and management of your data. Most SaaS-based archives upload your data to a 3rd party, multi-tenant cloud that can convert it from its native format, creating data portability issues in the future. The archiving vendor will control if, when, and at what speed you can migrate your data out of their system – the equivalent of data ransom. With Archive2Azure and your Azure tenancy, you never give up ownership or direct control of your data.

Archive2Azure Pricing

The Archive2Azure Intelligent Management and Archiving solution works in conjunction with your Azure subscription. You manage and pay separately for your company's Azure usage. Archive2Azure is priced separately as a subscription model.

About Archive360

Archive360 is the enterprise information archiving company that businesses and government agencies worldwide trust to securely migrate their digital data to the cloud, and responsibly manage it for today’s regulatory, legal and business intelligence obligations. This is accomplished by applying context around the search, classification, and indexing of data including files, videos, and emails—all while allowing organizations to maintain full control over privacy, access, and compliance. Archive360 is a global organization that delivers its solutions both directly and through a worldwide network of partners. Archive360 is a Microsoft Cloud Solution Provider, and the Archive2Azure™ solution is Microsoft Azure Certified. To learn more, please visit www.archive360.com.