

# CLOUD-BASED ARCHIVING, THE OBVIOUS RESPONSE TO DATA GROWTH

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50 Years of Growth Innovation and Leadership



Cloud deployment of mission-critical workloads has become entirely uncontroversial, and many of the regional differences we used to see are gone. According to a recent Frost & Sullivan research, only a minority of organisations world-wide now believe cloud is only appropriate for less critical or less sensitive workloads. American organisations are still particularly gung-ho about cloud as a strategic driver of business transformation, but the rest of the world is catching up quickly.



It should, therefore, come as no

surprise that cloud is rapidly gaining ground in enterprise archiving. In April 2019, Frost & Sullivan conducted its global cloud user survey of IT decision-makers across infrastructure, software and service. We found that 46% of companies preferred cloud as their primary deployment model for object storage. That is only slightly behind the 55% of companies that primarily deploy CRM in the cloud, meaning that the differences in propensity to run different application types in the cloud are also narrowing.

Organisations must deal with spectacularly increasing volumes of unstructured data. Unstructured data could be as much as 80% of all enterprise data and grows at a much higher rate than structured data – approximately 65% per year. Organisations only used to hold structured data, which was chiefly backed up for legal or continuity purposes but hardly ever needed to be accessed afterwards. It was very much a "set-and-forget" situation. Images, video, audio recordings and, of course, are ever-expanding sources of unstructured data that needs to be archived and, potentially, accessed without unwarranted delay. Social media, chat, text messaging and file sharing are an essential part of many business processes and need to be archived as well.

In Frost & Sullivan's opinion, the scope of an organisation's archiving solution must cover all data it holds. This entails all unstructured and structured data that resides in corporate systems as well as on end-user devices, regardless of whether the data was created and handled by individuals or generated and elaborated by automated processes.

Against this backdrop, it is easy to understand how the pressures on archiving resources will continue to increase. Archiving is already a core IT cost driver, which tends to trigger unwelcome step-ladder cost functions relating to data centre hardware. However, even if organisations could keep expanding their data centres without worrying about the cost of servers and maintenance, the resulting cooling and power requirements would be unsustainable from an environmental perspective.

Embracing the cloud is the obvious solution.



#### The Predicament of too much Data

Data is the lifeblood of businesses in the digital economy, as anyone will tell you, but the value of data deteriorates with age, and too much data is detrimental when it does not translate into unique insight that contributes to the value creation for the business.

Typical production systems maintain a significant amount of data no longer actively used. Application performance is depressed when production servers are weighed down by inactive data, and transactional databases are adversely affected by large data sets. Moreover, data held unnecessarily in expensive tier 1 storage has significant cost implications.



In Frost & Sullivan's assessment, as much as 80% of data is inactive and can often be moved to cheaper, lower-tier storage environments, leading to much-reduced infrastructure and maintenance costs. As an added benefit, application upgrades are quicker because they handle less data, and the time required for backup is significantly reduced because organisations no longer keep backing up the same inactive data that is not changing. A backup is a duplication of data. Duplicating inactive data is a complete waste of resources regardless of whether data is backed up to the cloud or an on-premise server. Everything should be archived only once; deduplication should take place across all accounts (e.g. , Sharepoint and collaboration applications) by recognising identical emails and IM against all recipients or overlapping files against all drive holders.

Cloud email archiving, for example, is almost always the right choice for small to medium-sized organizations, compared to keeping the entire email archive in the active email database. This illustrates very well the archiving conundrum that faces managers daily. The likelihood of someone needing to consult a 10-year old email is slim, but knowing that it is possible provides a definite "feel-good factor" to all categories of staff. Archived emails could be relevant for legal purposes (e.g. subpoenas), and staff members regularly conduct manual searches of their email archives when they need a piece of information from years ago. Policies about email deletion might prompt staff to archive emails in parallel, which would completely defy the purpose of deduplication. Hence, email archives must be searchable and consultable after archiving.

Of course, production systems and e-mail are just two examples of applications that create and store data. Virtually all employees of an organization create data continuously through a variety of other applications across a range of devices, sometimes unintentionally or without much thought. Data stored in files that reside on devices, some of which are mobile and may not even be owned by the organization, is outside the control of the IT department.



Gaining control over local data generation is extremely difficult, and without control, it is impossible to ensure compliance.

Knowing when it is acceptable to purge data is one of many components of the information lifecycle, and organizations should be actively managing the lifecycle of all data, from the cradle to the grave. Unsophisticated organizations might archive data from databases and file systems based on usage or last access with no thought for how users might be affected in the future and how archived or deleted data might destroy referential integrity.

## **Decommissioning Obsolete Applications**

Obsolete applications are another manifestation of too much data that becomes detrimental. All types of organisations typically fail to retire numerous obsolete applications because they need to maintain access to data from the outdated applications for compliance or governance reasons or because they do not know if they might need the data later. Some obsolete applications continue to operate in parallel with their more sophisticated new equivalents or prevent migration to new (often cloud-based applications) altogether. The latter is almost worse because it is an obstacle to digital transformation and holds organisations back from initiatives that would strengthen their competitiveness.

A big archiving challenge concerning many obsolete applications is that they are rarely scalable enterprise-wide applications with interfaces and pre-written integrations. Many of them are homegrown applications and niche systems that might have been best-of-breed or served a highly specific process when they were first introduced but no longer live up to the challenges of the modern enterprise. There is a risk that enterprise archiving strategies focus on systems and data types that are easy to incorporate, but not solving the issue of obsolete applications deprives organisations of significant savings and complexity reductions. Enterprise information archiving must cover everything.

On-premise applications that are kept alive are a drain on IT staff and data centre resources, including power and cooling. Moreover, it is demoralising for IT staff to look after an obsolete application that adds no value to the business anymore. Everyone wants to work on the latest deployments, and, with IT staff shortages looming, motivating the workforce is critical.

Frost & Sullivan recommends a framework for application retirement that achieves highly compressed archiving of deduplicated data in an immutable format that can be queried afterwards. That satisfies compliance and triggers tremendous cost savings across hardware, maintenance, staff, licences, power and physical data centre space. Another well-known eliminable IT inefficiency is the duplication of active applications. Organisations end up with duplicate applications that may not be obsolete but offer overlapping functionality due to mergers and acquisitions or regional IT autonomy that many businesses no longer tolerate. Duplicate applications should always be considered for retirement, but that can only happen when the data is secure.

#### The Real Value of SaaS

As we have established, archiving in the cloud reduces complexity and environmental impact. It is safe, fast and easy and, in many cases, will also offer cost savings. An "as-a-Service" archiving platform aligns cost with consumption and demand and removes the upfront infrastructure cost and most step-ladder cost functions. Many organisations treasure monthly service fees and per-terabyte or per-user charges, although there is no guarantee of cost reductions in absolute terms. Organisations need to determine which charging model is right for them.





From Frost & Sullivan's perspective, SaaS is increasingly popular, however, and almost half of organizations that prefer cloud as their primary object storage environment also prefer the SaaS model. SaaS has been gaining ground everywhere in the world, with 51% of US organizations and 46% of organizations in APAC having implemented SaaS, according to Frost & Sullivan research. Over the next two years, we expect growth of almost 120% in both Europe and LATAM, meaning that fewer than a quarter of organizations world-wide will have no SaaS implementations at all. Mid-sized companies with 500-999 employees are the greatest SaaS proponents.

As we have observed for many years, midmarket organisations are particularly well-positioned to harness the cloud model. They generally support fully-staffed IT organisations; are limited in Capex budgets and specialised technical resources, and tend to be nimble and have less physical infrastructure and fewer processes. Thus, midsized firms have a strong impetus to embrace new technology and an acute sense of value for money. They appreciate paying for the required capacity out of Opex budgets and aligning storage costs with data value, which means paying significantly less for archival data that may not need to be accessed at all.

The SaaS model offers the ability to outsource responsibility for Capex- and labour-intensive workloads and allows organisations' own IT and LoB staff to focus on the frequently changing priorities that tend to characterise their business environment. Frost & Sullivan observes that mid-sized companies are less likely than others to conceive of cost reductions as the main driver behind their cloud journey. Cost reductions are a welcome by-product, but the real driver is easy access to the integrated, automated, open and analytics-driven technology platforms with the help of their cloud partners.

#### Introducing SOLIXCloud Enterprise Archiving

The recently launched SOLIXCloud Enterprise Archiving is the natural evolution of Solix' successful on-premise next-generation enterprise information archiving framework - SOLIX Common Data Platform (CDP).

With a similar scope, SOLIXCloud is an "as-a-Service" offering that employs Information Lifecycle Management to support all enterprise data throughout its lifecycle, including email, file and database archiving, and application retirement. It does so by classifying data at creation and implementing a retention policy with legal hold support for all enterprise data until deletion.

In addition to robust data collection, SOLIXCloud comes with a host of discovery tools for information retrieval using text search of a wide array of file formats query, structured reporting, custom forms and reports, and advanced data profiling.





With 54 regions, data sovereignty measures can be taken. Azure has more global regions than any other cloud provider including Canada, Australia and South Africa and jurisdictions such as Germany, Switzerland, Singapore and South Korea that are particularly big on privacy protection. Ten Azure regions have several, physically separate availability zones, offering resiliency options for customers.

#### **Microsoft Azure**

SOLIXCloud runs on Microsoft Azure, which meets all significant compliance standards, such as GDPR, HIPAA and SSAE. 100% metadata driven approach of the flat (non-hierarchical) file format and rich metadata associated with SOLIXCloud means that content is quickly and easily accessible to any workload or application. Placing cloud object storage near users, in world regions where a company does business, minimises network-induced latency that might otherwise affect the performance of specific applications. And also helps meet data localization requirements.



#### **The Last Word**

Frost & Sullivan recommends that organisations take a holistic view of archiving, which should extend to the management and migration of all historical data, including data originating from decommissioned applications.

The enterprise information archiving platform is so much more than a simple storage solution. It must address dynamic and steadily increasing data protection needs, providing the right balance with accessibility, integration, performance and value for money, and allowing organisations to harness the value in their data, even after archiving. Scalability without compromising performance and cost-effectiveness is vital because data volumes will only increase, whereas IT budgets will not.

Cloud-based archiving is an attractive proposition because it prepares organisations for future challenges and affords them great flexibility to architect data resiliency and data sovereignty into the archiving framework. It is difficult to see how traditional storage architectures and formats would ever be sustainable and organisations could ever meet future archiving needs without embracing cloud in some form.





## **Contact Us**

For more information contact us at:

#### Solix Technologies, Inc.

4701 Patrick Henry Dr., Bldg 20 Santa Clara, CA 95054

Toll Free: +1.888.GO.SOLIX (+1.888.467.6549) Telephone: +1.408.654.6400 Fax: +1.408.562.0048 Email: info@solix.com URL: http://www.solix.com

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