



Business Archive Management

Archive Without Compromise™

ABSTRACT

This paper describes a comprehensive business process for archiving corporate information known as Business Archive Management. Inefficiencies in storage management, governance requirements, and the need to create value are the primary drivers for businesses to seek best practices in their data archiving solutions. This paper outlines a progression through a series of best practices to help you implement Business Archive Management in your organization.

After reading this paper, you will have a better understanding of the capabilities needed to implement Business Archive Management from both a technology and business perspective. We encourage individuals from both the technology and business areas of companies to understand the principles discussed, exchange ideas in open dialog with counterparts throughout the organization, and begin implementing the core tenants of Business Archive Management.

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A comprehensive and unique set of benefits accrue to companies who progress through the five stages of Business Archive Management.

Introduction

Plasmon has worked with leading organizations throughout the world on implementing long-term archiving infrastructures. Over the years, Plasmon has noticed that while every organization takes a slightly different approach to implementing their archives, there is a common set of best practices. However, these best practices are not widely known, and can be elusive to organizations that are just beginning to implement business archiving.

As such, Plasmon has defined a series of best practices to help guide practitioners known as Business Archive Management (BAM). BAM is a set of business processes supported by technology. Its focus is safeguarding critical information assets, supporting efficient and effective corporate governance, and creating business value. Implementing Business Archive Management involves mastering four core capabilities:

- > **Business planning** – identifying archive requirements and agreeing on requirements management
- > **Archive planning and design** – defining the policies, processes, and architecture that governs Business Archive Management
- > **Archive operations and support** – ingesting, processing, and managing the archive data
- > **Infrastructure management** – provisioning, managing, and sustaining archive resources over time, regardless of technology changes and upgrades

The degree to which these four capabilities have been implemented determines how effective and mature Business Archive Management is within your organization. The four capabilities are mastered over time as the archiving process advances, and requirements stabilize. This evolution can be characterized by five stages:

- > **Chaotic** – Archive requirements are not managed, and the organization is at the mercy of information requests. There are significant levels of regulatory and corporate governance risk, and primary information storage repositories grow, uncontrolled in size and cost.
- > **Reactive** – Basic archive requirements are managed, and the organization has a limited ability to satisfy information requests. Although compliance with simple corporate governance requirements is possible, it is reactive and manual in nature.
- > **Sustaining** – The organization implements formal processes to gather archive requirements, and applies a series of complementary controls, policies, and technology capabilities. These actions move the organization to a level of comfort with meeting corporate governance requirements, while improving the overall cost structure and efficiency of its storage environment.
- > **Proactive** – Archiving priorities shift from corporate governance and cost savings to creating value for the business. Archives become consolidated/federated and cost structures are near optimal.

- > **Value-add** – The requirements for archiving and reusing information assets are fully implemented and integrated throughout the organization. Business Archive Management has evolved into a key element of the organization's competitive advantage.

As companies mature in their business planning, archive planning and design, archive operations and support, and infrastructure management, they experience a comprehensive and unique set of benefits. Initially, business and legal risks significantly decrease as procedures to comply with external regulations and internal policies are effectively implemented. Subsequently, costs decline as organizations make better use of corporate assets via storage optimization. And finally, when companies begin to use archived information to create new opportunities and revenue streams, this value is translated into bottom-line results.

We encourage you, the reader, to reflect on your own archive environment as you read this paper. You should find ways to improve your operations. This paper and the Business Archive Management Assessment found at www.plasmon.com can serve as a guide to future actions. The Business Archive Management Maturity Model is a best-practices model that allows an organization to benchmark its performance against best-in-class standards.

Business Archive Management is a true business process that spans the entire organization.

Business Archive Management

There are many types of archives in the modern world. Libraries are archives of written works, museums are archives of physical objects, and national archives hold critical pieces of a nation's past. These archives share a common trait; they are critical to preserving history — allowing us to reference the thoughts and dialogues of the past, and to learn the lessons of history.

The discipline of maintaining archives or safeguarding critical objects is not a process limited to public service institutions. Businesses have maintained archives of corporate records and information for years. And in recent times, corporate governance and external regulations have mandated that businesses retain specific types of information assets.

As a business process, archiving should link the requirements and goals of the business with the actions and tactics of its IT organization. Business Archive Management is a true business process that spans the entire organization to facilitate three goals: minimizing risk associated with governance concerns, enabling the efficient use of corporate assets, and generating value through the reuse of information assets.

For the purposes of this paper, we will define Business Archive Management as:

A comprehensive set of business processes supported by technology that safeguards critical information assets, with the goal of enabling efficient and effective corporate governance and value generation.

Business drivers and benefits

Corporate governance

The last decade has seen significant changes in corporate governance requirements. Shareholders are increasingly concerned with how companies allocate resources, provide incentives, and generally conduct their business operations. These concerns stem from recent corporate corruption scandals, as well as from changing values towards our natural environment, including energy efficiency.

In parallel with public opinion, governmental organizations have imposed stricter controls on companies. Regulations such as Sarbanes-Oxley, SEC Rule 17a-4, the Federal Rules of Civil Procedure, HIPPA, and the European Union 8th Directive create business requirements for retaining key information assets. Failure to comply exposes companies to fines or regulatory sanctions so severe that non-complying organizations may cease to exist.

In response to these new risks and shareholder pressures, many companies have enacted strict corporate governance policies – some more stringent than the regulations even require. As a result, organizations are keeping e-mails and certain types of files forever. By deploying strong business processes for archiving that are linked to larger corporate governance requirements, organizations can minimize business and legal risks.

The three key drivers of Business Archive Management are the need for corporate governance, efficient use of corporate assets, and business reuse of information.

Efficient use of corporate assets

The emergence of electronic data as the official business record, compliance regulations, and corporate governance practices, has caused an explosion of digital information. It is common for companies to experience annual data growth rates between 20% and 60%. Not only is there more data to archive, but it must be retained for longer periods, and specific files must be quickly accessible for legal discovery purposes.

The compounding effects of double-digit data growth and longer retention requirements have fundamentally changed the way information assets are managed and archived. Traditional storage practices improperly match cost and performance tradeoffs, while not considering the long-term sustainability of meeting corporate governance requirements.

A strong archiving business process significantly enhances storage optimization, and relieves the cost pressures associated with adding primary storage devices. Archived information can be retained on more cost-effective storage tiers, thereby increasing a company's overall return on assets. As primary storage is freed up, access to information is improved. And by making smart decisions on the technology used to house long-term archive information, organizations can see noticeable improvements in the amount of environmental resources needed to facilitate archiving.

Business reuse of information

Businesses are continually searching for new ways to increase revenue, decrease costs, or improve relationships with customers. In today's information-centric world, many businesses are realizing these new avenues are paved with information from the past. Examples include:

- > Healthcare organizations that digitally store x-ray images of patients can dramatically increase patient care quality with better diagnosis and treatment regimens.
- > The entertainment and media industries have created new revenue streams by reselling archived photos and motion picture footage.
- > Natural resource exploration companies achieve significant cost savings by archiving and reusing costly seismic data.
- > Financial services companies mine customer databases to find new revenue opportunities from existing customers.

These examples highlight a few specific cases where businesses are turning archived information into new value for their companies. The key to this type of value creation is the proper identification of information assets for retention, and the ability to efficiently access the assets when needed. A well-designed process that links the business need for archiving with the appropriate technology allows organizations to tap these new wellsprings of value.

Business Archive Management requires mastering four core capabilities:

- > Business planning
- > Archive planning and design
- > Archive operations and support
- > Infrastructure management

Capabilities to master

As businesses begin to implement Business Archive Management, four core capabilities must be considered and mastered. The degree of excellence that organizations develop in these capabilities determines how far they will progress in actually deploying Business Archive Management.

Business planning

Business planning is the capability by which organizations identify archive requirements and gain internal agreement on how those requirements will be managed. This phase also recognizes other corporate mandates such as using environmentally-responsible technologies. Immature organizations do not plan, and requirements are discovered via failed audits or compliance incidents. Advanced organizations have comprehensive processes that gather enterprise-wide requirements for governance and business reuse of information. The business planning capability is comprised of two key components:

- > **Business identification** – Business identification defines a requirements gathering approach and orientation, conducts a scan of the business for the actual requirements, and discovers and inventories information assets. This process creates the comprehensive set of archive requirements for the enterprise.
- > **Business/IT alignment** – Business/IT alignment is the process by which business and IT stakeholders meet to gain agreement on what requirements mean, define a framework for managing information assets, and publish a set of service level agreements to govern the archiving process.

Archive planning and design

Archive planning and design defines the policies, processes, and architecture that governs how Business Archive Management is implemented and managed. Immature organizations give little or no consideration to archive planning and design — archiving is generally just an afterthought. More advanced organizations craft comprehensive archive architectures and processes for multiple areas of the business that optimize the archive infrastructure, and improve storage operations. Three components comprise this capability:

- > **Archive planning** – Archive planning creates the overall information classification schema and defines the process for classification. A comprehensive, enterprise-wide metadata schema is also developed and deployed.
- > **Archive process management** – Archive process management defines key metrics, reporting processes, continuous improvement processes, and training requirements that are needed to meet service level agreements.
- > **Archive architecture** – Archive architecture defines the overall physical and logical architecture of the archive along with all the interfaces and integration services that the archive must support.

Archive operations and support

The archive operations and support capability includes ingesting, processing, and managing the archive data. In immature organizations, the backup process is used as the archiving process. This is ineffective, does not support the goals of an archive, and fails to optimize the storage infrastructure. Moderately mature organizations understand that an archive is not a backup, and have started to segregate archive data from dynamic data to improve operational efficiencies and data access. More advanced organizations begin to consolidate and merge their archive operations. This produces a unified processing and management capability that is optimized for cost and performance. Archive operations and support is comprised of three critical steps:

- > **Pre-processing** – Pre-processing is the set of activities that readies data for ingestion into the archive. It includes object identification, transformation processing, metadata assignment, and quality assurance measures.
- > **Archive ingestion** – Archive ingestion places the data into the archive, and includes presentation and loading, compliance processing, indexing, namespace management, and de-duplication.
- > **Internal archive operations** – Internal archive operations are the activities required to manage an archive object from ingestion to disposal. These include retention management, compliance management, tiered storage management, search, discovery, recall, archive protection, and restoration.

Infrastructure management

Infrastructure management encompasses the physical management of the archive resources. Initially, companies manage their archives in application or information silos. As organizations mature, these silos need to be consolidated/federated and integrated into the larger processes for IT management. Best-in-class organizations spend considerable time and effort ensuring that archived information is continuously available regardless of technology changes and upgrades. Infrastructure management is concerned with three elements:

- > **Deployment and configuration** – Deployment and configuration follow the basic principles of IT asset procurement, testing, and configuration management. These capabilities are typically linked to larger IT organizational processes.
- > **Resource management** – Resource management ensures that adequate capacity exists, that resources are monitored, and that incidents are resolved in a timely fashion. Again, these capabilities are typically linked to larger IT organizational processes.
- > **Long-term sustainability** – Long-term sustainability is concerned with ensuring that archived information will be available over extended periods, and will survive multiple cycles of technology upgrades, refreshes, and changes. Standards need to be enacted to ensure sustainability.

Companies follow a natural progression in developing their archive capabilities.

A natural progression

In Plasmon's experience working with companies around the world, we have noticed a natural progression that organizations follow in developing the aforementioned archive capabilities. The five stages of this progression are as follows:

Chaotic – archive requirements manage you

Almost all organizations start in this state when dealing with digital archiving issues. Demands for older information may arise when meeting an external compliance or e-discovery request, or when searching for historical data. Since there has been no business planning, information is informally retained with no effective processes in place. And even if the information has been properly kept, a lack of archive operations and support capabilities means there are no tools to easily access the information. Each time a request is made, a significant manual effort must be deployed to search, locate, and retrieve the information from swollen data stores — old backup tapes must be dusted off and paper files must be rummaged through.

In many cases, some — if not all — of the requested information has either not been kept or cannot be found. Having its archives in this chaotic state exposes a company to ongoing failures to comply with corporate governance, external regulations, and e-discovery, or simply exposes it to lost productivity. As this chaotic cycle repeats, the organization continually wastes resources and effort, while increasing its business risk.

Reactive – managing chaos

Organizations quickly learn that the chaotic state is impossible to manage, and presents significant business and legal risks. As such, basic business planning identifies key types of data to preserve in archives, and basic archive operations and support capabilities emerge for specific domains. Some, if not a significant amount of archive information, is still treated via backup processes. The desire to optimize the storage infrastructure and reduce the backup workload initiates a process of migrating archive information to true archive silos – easing the burden on expensive primary storage systems.

Companies can now react to discovery or recall requests. While still time consuming and manual in nature, these processes allow for basic compliance with governance requirements. As more and more requests for discovery or ingestion pile up, organizations begin to implement more robust policies and practices, slowly moving to a state that can sustain the business.

The five stages of Business Archive Management are Chaotic, Reactive, Sustaining, Proactive, and Value-add.

Sustaining – gaining control over the archive process

Many companies rapidly realize that constantly reacting to seemingly uncontrolled archive requirements and requests is inherently risky and expensive. Therefore, they start to implement informal and then formal processes to identify information assets for archiving — in other words, *business planning*. A collaboration process begins among records management, compliance and risk managers, attorneys, and IT, primarily focused on lowering storage costs, enhancing compliance, and meeting corporate governance objectives. The archive process no longer merely reacts to requirements; it begins to actually integrate with the business.

Prior to this stage, IT departments reacted to requirements by implementing targeted point solutions, e.g. — e-mail archives. Over time, deployment of these point technologies increases to a level that is neither manageable nor cost effective. In an effort to increase the sustainability of the archive process, organizations begin to consolidate and/or merge their information archives, and archive operations and support capabilities mature. This consolidation process supports the availability of standard services and capabilities that readily satisfy governance requirements.

It is this move away from being controlled by requirements, and towards taking control of the requirements, that creates a fundamental shift in organizational behavior. Businesses soon realize they are collecting large repositories of information that they can no longer manage and control. They are constantly reacting to external information requests. These factors motivate them to create policies, processes, and infrastructures that are sustainable and cost effective. Hence, the business-sustaining phase of Business Archive Management is in place; a comprehensive business process supported by technology that safeguards critical information assets for efficient and effective corporate governance.

Proactive – optimizing archives for business use

As most organizations start to reach the point of comfort and control regarding the amount of governance exposure they face, a shift occurs. The focus of their business planning requirements moves from a governance orientation to one of creating business value. Business managers, who have seen value in using historical information assets, now see platforms and capabilities within IT organizations that can make their goals a reality.

No longer are archive requirements driven solely by governance concerns. Business requirements evolve that are centered on increasing enterprise value. Business and IT managers actively collaborate on archive requirements and there is further consolidation of archive infrastructures.

Investment decisions are not justified exclusively on reducing risk, but on creating new revenue streams, increasing customer loyalty, creating more leverage in corporate cost structures, and providing environmentally-responsible alternatives. These initiatives create different concerns for managers relative to archive operations and support and infrastructure management as the business now relies on the archive process as a source of competitive advantage.


Value-add – optimizing business objectives

A small group of companies will see significant value in entering the last stage of Business Archive Management – Value-add. For various reasons, an organization may have realized that one of its most important corporate assets is its digital data. During the proactive stage, managers observed how they benefited from the reuse of archived information and created incremental value. These organizations will now invest to fully extend the capabilities of their business archives to support innovation and maximize value generation. This shift creates the most mature form of Business Archive Management — a comprehensive business process that safeguards critical information assets for efficient and effective risk mitigation and value generation by the business.

Conclusion

While every business faces its own unique set of challenges and requirements, we believe the four capabilities described above are universal. We encourage you to reflect on these capabilities and assess your organization's implementation of them. Plasmon research shows that most businesses have not taken the holistic approach required to unite the IT team with the rest of the business for comprehensive Business Archive Management. Until an organization takes this critical step, it is very difficult to implement a true business process. Many of the advantages of Business Archive Management stem from a comprehensive business process that links the intent and requirements of the entire business with actions from the IT organization. Without this linkage, suboptimal decisions are made, the organization is placed at risk, and potential value remains trapped within the organization's unmined data resources.

Next steps

We suggest visiting www.plasmon.com and taking the Business Archive Management Assessment. The assessment will help you determine how well your organization has implemented the capabilities noted above, and will provide recommendations on how to improve your Business Archive Management. If you have further questions, feel free to contact your local Plasmon representative. 

Plasmon offers the only enterprise-class active archive solution that ensures data permanence, authenticity, access, longevity and removability, at the low total cost of ownership that businesses demand.

Archive Without Compromise.™

Plasmon is ISO 9001 certified.

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