

The background of the slide features a blue sky with white clouds. Overlaid on this are four stylized white cloud icons, each with a blue arrow pointing upwards. The icons vary in size and are arranged from left to right, with the largest one on the far right. The bottom portion of the slide has a gradient from blue to yellow.

Why every organisation needs to consider Cloud Archiving

An Osterman Research White Paper

Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation of archiving platforms and providers >

The economics of cloud archiving >

Summary >

About bluesource >

Archiving is a critical best practice

The archiving of electronic content is a critical best practice for any organisation and is an essential aspect of information lifecycle management for user mailboxes and files.

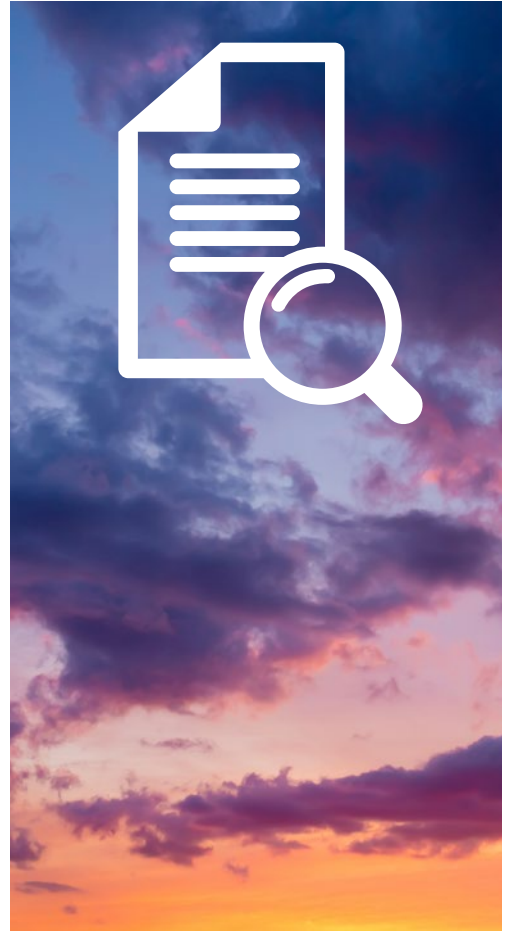
The varied drivers for archiving will be more or less important to individual organisations based on a number of factors, including the industry that they serve, their senior management's aversion to risk, the legal obligations they must satisfy, influenced by the geographical locations in which they operate, the ability for end users to access older data in a timely fashion, the need to improve employee productivity and satisfying business requirements.

However, archiving of electronic content is an essential capability that must be considered by every organisation.

Perhaps of greatest importance in the context of current archiving practice is the notion of **"data intoxication"**: the fact that the amount of data and the number of data types that organisations must archive is increasing rapidly, while control over this data is not keeping pace.

The business interoperability problems this creates will continue to worsen without a new and better way to archive content, particularly as archived content becomes fodder for business analytics tools.

“...archiving of electronic content is an essential capability...”



Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation of archiving platforms and providers >

The economics of cloud archiving >

Summary >

About bluesource >

Archiving is moving to the cloud

While the traditional archiving model has focused on on-premises deployment of servers, storage and software, all of which is managed by in-house IT staff members, that model is shifting rapidly to cloud-based delivery of archiving solutions.

For example, as shown in the opposite figure, Osterman Research forecasts that cloud-based archiving will displace a substantial proportion of on-premises archiving systems through 2016.

The cloud is displacing on-premises archiving solutions for a number of reasons, including:

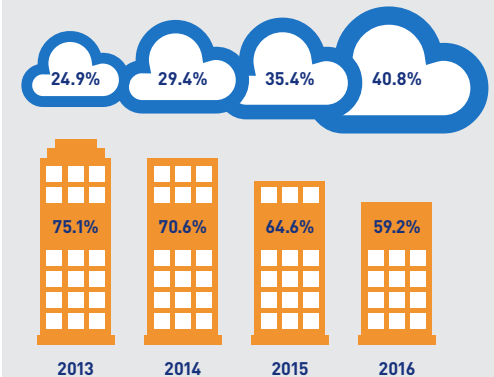
- inherently greater scalability
- lower cost of ownership and associated OPEX business model
- it's flexibility in accommodating new data types over time
- it's ability to more capably address the growing complexity of managing archives as data volumes and application complexity increase
- it's ability to free internal IT staff for projects and initiatives that may provide more value over time

However, choosing a cloud provider and a delivery model can be complicated and requires significant due diligence because of the variability between providers, their long-term roadmaps, and their ability to migrate existing archives, among other factors.

“...cloud-based archiving will displace a substantial proportion of on-premises archiving systems through 2016.”

Figure 1.

Distribution of Cloud vs. On-Premise Archiving Solutions



Source: Osterman Research, Inc.

Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation
of archiving platforms
and providers >

The economics
of cloud archiving >

Summary >

About bluesource >

Archiving of email and other electronic content is driven by a number of requirements, both internal and external.

While the drivers for archiving content, as well as the particular delivery models that will be chosen for archiving solutions, will vary from one company and industry to the next, these drivers can be segmented into two types:

- a) those focused on information management and
- b) those focused on functional considerations for managing content.

Information management considerations

- Litigation
- Regulatory compliance
- Employee productivity

Litigation

Repositories of electronic content maintain a growing proportion of business records that must be preserved for long periods of time.

This content is frequently demanded during eDiscovery proceedings because of requirements set forth in the Federal Rules of Civil Procedure (FRCP) various US state versions of the FRCP, and various requirements in many other jurisdictions.

As a result, it is essential that all relevant electronic content be made available for eDiscovery purposes.



Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation of archiving platforms and providers >

The economics of cloud archiving >

Summary >

About bluesource >

Information management considerations

Regulatory compliance

There are a large number of regulatory obligations to which most organisations are subject, that obligate them to retain certain types of relevant data.

These include:

- the Sarbanes-Oxley Act of 2002
- the Health Insurance Portability and Accountability Act of 1996
- the Medicare Conditions of Participation
- various requirements from the US Securities and Exchange Commission and the Financial Industry Regulatory Authority
- Dodd Frank
- the Financial Conduct Authority
- the Autorité de Contrôle Prudentiel
- the Bundesanstalt für Finanzdienstleistungsaufsicht, Deutsche Bundesbank
- the US Food & Drug Administration
- numerous national employment laws
- various European Union data protection requirements

Employee productivity

An important benefit of an archiving solution that retains and makes available email and other electronic content is its significant positive impact on employee productivity.

For example, employees that need to access older electronic content – emails, documents, presentations, contact information, etc. – can be much more productive if they have ready access to this content in an archiving system instead of having to search across a number of disparate data stores, or if they have to recreate this information.

This makes employees not only more productive by spending less time on searching for or recreating content, but it permits them to make decisions more quickly by having ready access to essential information resources.

Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation
of archiving platforms
and providers >

The economics
of cloud archiving >

Summary >

About bluesource >

Functional considerations

There are a number of functional considerations that drive organisations to archive their data:

- reducing storage footprint and costs by up to 60% or more by moving data to cheaper storage improves the efficiency of storage management
- improving IT efficiency by shifting the responsibility for information retrieval to end users, making access to older information easier for them
- permits archiving of content created and managed on mobile devices
- Streamlines backup and recovery times by moving older, infrequently accessed data from production sources into a centralised archive

Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation of archiving platforms and providers >

The economics of cloud archiving >

Summary >

About bluesource >

Forward-looking considerations

Increasingly, archiving will be used as a proactive tool in support of Big Data and business intelligence initiatives.

An enormous amount of information is locked away in archives, including information on how messages flow within an organisation, how salespeople interact with customers and prospects, how employees communicate with management, and so forth.

For example, using sophisticated analytics, it is possible to analyse the content in email and file archives, and determine with a high degree of certainty, which employees are likely to commit fraud (or are already doing so), which employees are colluding with external parties in violation of corporate policies, and which employees are likely to leave a company.

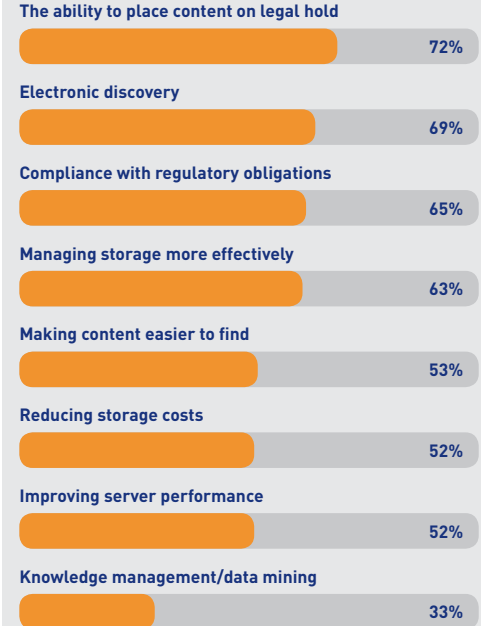
The use of archiving for these proactive foci, instead of the traditional focus on defensive use of archiving to protect against legal or regulatory risk, will be a key driver for archiving moving forward.

As shown in Figure 2, this 2014 Osterman Research survey demonstrated that information management considerations are the more important issues that drive organisations to archive electronic content, although functional considerations are important, as well.

Figure 2.

Drivers for Archiving Electronic Content

% Responding an Important or Extremely Important Driver



Source: Osterman Research, Inc.

Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation
of archiving platforms
and providers >

The economics
of cloud archiving >

Summary >

About bluesource >

There are four primary options for archiving electronic content:

1. On-premises

Archiving software deployed using on-premises servers or appliances and managed by in-house IT staff members is the traditional and most common of the approaches employed today.

In this model, all data is stored and managed within the on-premises infrastructure, although many organisations using on-premises archiving also implement geo-redundancy in order to guard against data loss or service interruption arising from power outages, natural disasters and the like.



Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation
of archiving platforms
and providers >

The economics
of cloud archiving >

Summary >

About bluesource >

2. Software-as-a-service (SaaS)

A SaaS approach to archiving is increasingly popular, employing a hosted service provider to supply and manage the entire archiving infrastructure and store data remotely.

Customer data is routed to the SaaS provider for indexing, storage and retrieval, requiring no on-premises infrastructure (in most cases) and minimal IT staff time to manage.



Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation
of archiving platforms
and providers >

The economics
of cloud archiving >

Summary >

About bluesource >

3. Infrastructure-as-a-service (IaaS)

The IaaS model for archiving is another cloud-based model in which a hosted provider supplies all of the hardware infrastructure elements necessary for customers to deploy their own archiving solution.

This combines the lower cost and ease of hardware management inherent in the SaaS model, while allowing customers tremendous flexibility in how they deploy and manage their archiving system of choice. However, the IaaS model still requires organisations to manage archiving on a day-to-day basis as is the case with traditional, on-premises archiving solutions.



Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation
of archiving platforms
and providers >

The economics
of cloud archiving >

Summary >

About bluesource >

4. Hybrid

Because of bandwidth, latency, security, scalability, functionality or other concerns an organisation may perceive; the use of a fully cloud-based archiving solution may be inappropriate for the organisational requirements. Maintaining a combination of an on-premises and cloud archiving solution can provide important benefits and can help to optimise the archiving experience. This is especially valuable for highly distributed organisations or those that require access to very large data stores.

A hybrid approach to archiving is what its name implies: a combination of cloud-based archiving with on-premises or IaaS capabilities. While smaller organisations will often only be able to use a cloud-based solution, many mid-sized and large organisations should consider a hybrid archiving solution. The use of a hybrid archiving solution can provide an organisation with a solution that represents the best of both worlds, bridging the gap between the two basic delivery models yet providing the most salient benefits of each.

For example, an organisation that has deployed and wants to maintain on-premises Symantec Enterprise Vault, might also want to implement a cloud-based archiving solution for a company it has acquired, or if it is deploying archiving to field offices that do not have dedicated IT staff available. Another example might be a university in which faculty and staff are served by an on-premises archiving solution while students are served by a cloud archiving system.



Executive summary >

Why should you archive? >

Options for archiving >

**Checklist for evaluation
of archiving platforms
and providers >**

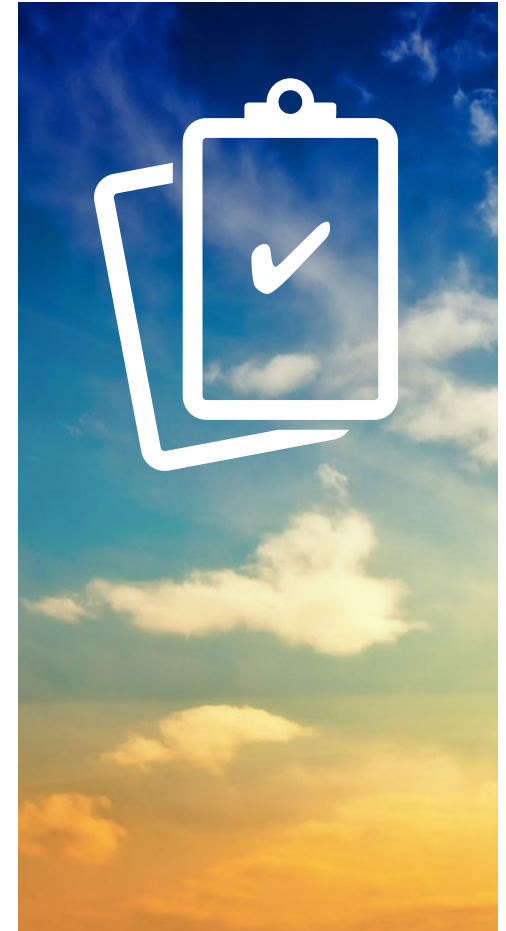
The economics
of cloud archiving >

Summary >

About bluesource >

There are several issues and questions for decision makers to consider for each of the archiving solutions they will evaluate. What follows is a list of questions that should be considered during the due diligence phase for an archiving solution, whether it is delivered via an on-premises, hybrid, SaaS or an IaaS model:

- **How much data needs to be stored?** Archiving solutions must be able to store growing amounts of data, in some cases storing hundreds of millions of records. Scalability is often overlooked or at least under-estimated when planning an archiving solution or when choosing a cloud provider. Be aware of your data growth estimates and check with your cloud provider on their assumptions. Organisations with large quantities of data need to take extra care in vetting cloud archiving providers to understand key factors such as performance and latency.
- **What is the roadmap for “futureproofing” of the archiving solution?** Ensure that your archiving solution can properly store and support all necessary content types that might be required for archiving in the future, such as social media posts and text messages. It is essential for an organisation that is considering archiving to take a long term view toward the types of information it will need to archive and to consider the ability for its systems to manage this content moving forward. Importantly understanding how these new types of content will be stored is key. For example, will social media content be stored in such a way as to preserve its context, or will the content simply be stored as blocks of text? Some archiving solutions are not sufficiently flexible or granular and will only provide a “one-size-fits-all” approach. For example, effective archiving solutions should be able to have different retention periods for different types of data so that the solution can adapt to the changing data landscape.



Executive summary >

Why should you archive? >

Options for archiving >

**Checklist for evaluation
of archiving platforms
and providers** >

The economics
of cloud archiving >

Summary >

About bluesource >

- **Is the archiving solution that's under consideration fit for purpose?** This is an important issue for on-premises archiving solutions, but there are specific additional considerations for cloud solutions where providers will be storing archived data remotely. Understanding the depth of capability of the archiving solution when operating in the cloud is key but also understanding the provider and the underlying infrastructure upon which they operate is essential. For example, will there be any impact on bandwidth requirements with a new archiving solution? If so, what are they and what will they cost? Consider too the security controls in place in a multi-tenant environment to ensure that there is no risk of other customers accessing your organisation's data.
- **Where will the archived data be stored?** Since a cloud provider can move customer data to a variety of locations for day-to-day management or backup purposes, this can create jurisdictional problems for companies that have strict rules about data location. Some cloud-based archiving solutions offer more control and transparency about where their customers' data resides, which may alleviate decision makers' concerns. For some organisations, because of regulatory or other considerations, this may heavily influence the type of solution that can be deployed.
- **How easy is it to migrate to a new or replacement archiving solution?** Understanding what mechanisms are in place to ingest data into a new archiving solution and extract data from an old archiving solution are key considerations. If not approached with care and due diligence it can be problematic and expensive. Understanding what data formats can be received is important – for example, will they accept physical delivery of media (disk drives, DVD-ROMs, CD-ROMs, etc.) for ingestion, or is the internet to be used, or is professional data migration expertise required? Similarly ensure you understand how easy it is to extract your data in terms of processes, timelines and costs. Check out the small print in the contract. Finally ask how the chain-of-custody will be guaranteed as data is migrated.

Executive summary >

Why should you archive? >

Options for archiving >

**Checklist for evaluation
of archiving platforms
and providers >**

The economics
of cloud archiving >

Summary >

About bluesource >

- **What expertise exists to properly evaluate different solutions?** Is the expertise available in-house to evaluate archiving platforms, cloud providers, and the underlying infrastructure that a cloud provider uses to deliver their archiving solution(s)? If not, are third party experts readily available to provide this expertise? As part of this understanding, the organisations preferences is key – is a single, unified archiving solution for all content types required; or is there a preference for different archiving solutions for different types of data? For example, an organisation may want to maintain an on-premises archiving solution for email, but use a cloud archiving provider for social media content.
- **To what extent will eDiscovery of archived content be required?** Be clear about your eDiscovery requirements and how sophisticated these need to be. Some archiving solutions are not well suited for sophisticated eDiscovery requirements and can return too much or too little information in a search, take a substantial amount of time to return the results of a search, or cannot conduct sufficiently granular searches. This problem impacts not only eDiscovery, but also activities in which detailed search is required, such as early case assessments, responses to regulatory audits, or even informal searches. Enquiring about the underlying search technology used in the archiving solution can be helpful. Many older archiving solutions rely on older indexing and search technology which makes search less reliable and much slower as data sets get larger.
- **How will the archiving solution be managed?** Ensuring your archive solution remains in a healthy state and making available the appropriate resource to enable this is key. Having the right controls in place over retention policies, disposal of unnecessary content and access to archived content are just some of the regular maintenance tasks you need in place to ensure the health of your system. If this is a challenge, outsourcing this responsibility has some key advantages: you can move to a known predictable cost, operate to strict SLA's and have the confidence that everything is under control.

Executive summary >

Even a cursory review of the high-tech trade press will reveal that traditional, capital expenditure (CAPEX)-based models for deploying information systems are falling out of favor as operating expense (OPEX)-based models using cloud delivery are replacing them.

Why should you archive? >

Consequently, the cloud is having a profound impact on how decision makers perceive the costs associated with providing services to their users.

Options for archiving >

This is because the OPEX model for service delivery offers significant advantages relative to CAPEX:

Checklist for evaluation of archiving platforms and providers >

The economics of cloud archiving >

Summary >

About bluesource >

Minimal up-front costs

Unlike traditional, on-premises solutions that require significant investments in hardware, software, and IT labour for deployment and configuration, cloud-based solutions require only minimal up-front costs for initial setup.

More predictable pricing

Cloud providers also offer more predictable pricing over the service life of the contract, since unanticipated costs like outages or hardware failures that could trigger off-budget expenses in an on-premises model are borne by the cloud provider, not their customer, but be sure to check your terms.

Lower ongoing costs

Osterman Research cost models, as well as those of other firms, have demonstrated that cloud-based service delivery is typically less expensive than on-premises delivery because of the economies of scale that cloud providers enjoy relative to most of their customers.

IT staffing benefits

Another benefit of cloud delivery is that it can alleviate on-premises IT staff from the burden of managing day-to-day tasks related to archiving and storage management.

Archiving as a component of other services

Cloud-based archiving is also offered as a part of other services, such as Microsoft Exchange Online Archiving that is offered as part of Microsoft Office 365. The benefits and limitations of this approach are generally the same as those of SaaS-based archiving solutions.

Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation
of archiving platforms
and providers >

The economics
of cloud archiving >

Summary >

About bluesource >

Archiving of email and other electronic content is an essential best practice for any organisation. While the traditional model of on-premises archiving can provide important benefits, cloud-based archiving can offer lower total cost of ownership and other advantages over on-premises archiving.

There are two primary models for cloud archiving – SaaS and IaaS – available from several leading providers, although it is essential for any organisation to perform its due diligence to ensure that a provider will meet its specific requirements.



Executive summary >

Why should you archive? >

Options for archiving >

Checklist for evaluation
of archiving platforms
and providers >

The economics
of cloud archiving >

Summary >

About bluesource >

bluesource help businesses make information accessible to drive productivity, seamlessly integrating technologies and devices in Information Management, Collaboration and Universal Communications.

We leverage 15 years expertise as custodians of enterprise data, working with clients in highly regulated sectors.

We provide insight and expertise to guide clients in the right IT choice for platform and management solutions and examine the ROI benefits for the options around cloud, hybrid, on-premises and managed solutions.

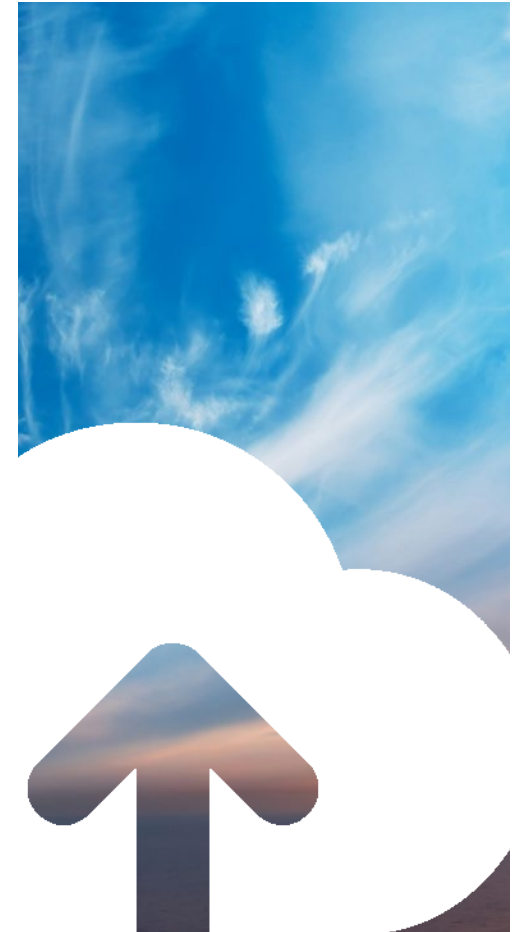
We provide confidence: that customers remain compliant, applications work 24/7 365, and they are protected with financially backed SLAs.

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