

# The Unique Benefits of Archiving Email in the Cloud

Reduce email storage and management costs, satisfy e-discovery  
and compliance needs and provide business protection

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# Archiving Email in the Cloud

Reduce email storage and management costs, satisfy e-discovery and compliance needs and provide business protection

Email is the primary conduit for business information. Businesses that rely on email can easily generate thousands of new messages every day, and the volume of email bearing mission-critical information will only continue to grow. In this white paper, we make the case for cloud-based email archiving and retrieval to ease the management burden and lower costs—while ensuring that email-based information is always available to meet business, regulatory, and legal requirements.

## Key Points

- Email is essential to business, and email volumes are soaring
- Regulatory and legal requirements demand effective archive and retrieval
- Managing the email archive diverts IT resources from strategic work

## Critical Success Factors

- E-discovery capabilities
- Regulatory compliance
- Efficient, user-level search
- Integration and continuity
- Security and confidentiality
- IT staff and infrastructure efficiency
- Cost control
- Unlimited capacity

## Soaring Email Volumes and Traditional Archive Management

The growing volume of user email messages is escalating storage requirements and increasing the pressure on traditional email archiving solutions. Email messages today can come from an expanding number of channels and technologies. They often include very large multimedia content and bulky attachments, resulting in a 30 percent annual growth in email storage needs.<sup>1</sup>

Using traditional in-house solutions to maintain growing email archives to meet security, compliance, and business policies is a struggle. IT resources are drained and diverted from strategic projects as the staff works to keep up with endless upgrades. And making sure that the entire archiving system performs adequately (retrieval, ingest capabilities, and the load on mail servers) requires a never-ending cycle of investment in costly new technology as the sheer volume of email threatens to overwhelm the existing archive infrastructure.

## The Promise of Disruptive Archiving Technology

The economics of electronic storage and search have combined to bring disruptive technology to email archiving solutions. In his seminal book, *The Innovator's Dilemma*, Harvard Business Professor Clayton M. Christensen defined disruptive technologies as those offering new solutions to existing problems while being "cheaper, simpler, smaller, and, frequently, more convenient to use."<sup>2</sup> Classic examples of disruptive technologies include the personal computer (disrupting the market for minicomputers, workstations, and word processors), and digital photography (disrupting the market for traditional cameras, film, and developing services).

Now, with the ever-increasing lifecycle costs associated with traditional storage, archival, and retrieval solutions, email archiving has become a classic target for disruptive technologies. Traditional capital expenditures for email archival and search solutions begin with:

- Expensive server platforms
- Many gigabytes or terabytes of disk subsystems
- Costly storage management and search software
- Yearly depreciation expenses
- Operational expenses of configuring, managing, backing up, and upgrading servers, networks and storage managers
- Network upgrades to handle increased traffic

<sup>1</sup> Osterman Research, 2008

<sup>2</sup> Clayton Christensen, *The Innovator's Dilemma*, Harvard Business School Press, 1997

- Additional environmental and infrastructure support for floor space, cooling, power, and physical security in the data center
- Training and ongoing vendor support

These costs continue to grow with the sheer volume of email growth, bringing the economics of email storage, archiving, and retrieval to the tipping point. In search of a “cheaper, simpler, smaller, and more convenient” model, many companies are exploring cloud-based archiving-as-a-service. A radical change from traditional storage models, cloud-based storage is part of the fast-growing cloud computing marketplace, which is forecasted to capture 25 percent of all IT spending by 2012. More than 15 percent of all businesses are forecasted to add or increase storage capacity using cloud services. New cloud storage users cite ease and speed of deployment with an overall lower cost per gigabyte of storage as the top reasons for adopting cloud services.<sup>3</sup>

*“Disruptive technologies offer new solutions to existing problems while being ‘cheaper, simpler, smaller, and, frequently more convenient to use.’”*

—Clayton M. Christensen

Global economics and increased cost cutting in IT continue to fuel more spending on alternative and disruptive technologies in general. In recent years, for example, large enterprises have often increased storage capacity with less costly storage systems initially targeted at smaller companies, shifting revenues away from vendors of more sophisticated large enterprise storage systems. In the first quarter of 2009, revenue for large enterprise disk storage systems and networks fell by more than 18 percent, while the demand for additional storage grew by only 14.8 percent—the slowest growth since 2002.<sup>4</sup>

*“A creative economy is the fuel of magnificence.”*

—Ralph Waldo Emerson

The need to reduce storage costs in the face of shrinking IT budgets, along with customer demand for better ease of use and simpler management, has created a classic disruptive market opportunity. Emerging solutions that provide more robust storage and retrieval functionality, better usability, and a reduced management burden—all at a lower cost—are in a perfect position to capture a large share of the email archiving market.

### Business Requirements for Email Archiving

Business requirements today start with the bottom line and the need to increase efficiency for users, IT, and the company as a whole. Storage and archival requirements must be managed within bottom-line IT budget constraints. This focus on costs increasingly leads organizations to consider the potential advantages of cloud-based storage.

Along with cost efficiency, companies also need to meet legal and compliance requirements for email archiving and retrieval, as well as ensuring message confidentiality and data integrity. The bottom-line focus gives companies additional motivation to revisit and redefine email archival and retrieval requirements—and makes them question the need to deploy and operate in-house systems that extract ongoing and excessive lifecycle costs for upgrades, support, and management.

Let’s look at some of the key considerations that many organizations face as they try to balance email archiving requirements against solution costs.

### E-discovery

We live in an age of increasing regulatory control and legal liability. As companies focus on legal due care and regulatory due diligence, they’re looking for reliable message storage along with accurate, timely search and retrieval capabilities. E-discovery requirements give new importance to message metadata—that is, log data showing who viewed specific emails and when, message modifications, and other relevant information. Many organizations—such as law enforcement, healthcare and pharmaceuticals, government, financial companies, and Internet businesses—need the ability to efficiently produce critical email messages and log data when legally required. Email messages containing critical business or personal information must be efficiently and securely archived for rapid recovery to meet legal and regulatory mandates. Metadata in logs is equally important as a protection against message tampering and as historical evidence of access and actions taken with individual emails.

<sup>3</sup> Frank Gens et al., “IT Cloud Services User Survey: Crossing the Chasm,” IDC, Sept. 2008

<sup>4</sup> Natalya Yezhkova et al., “Worldwide Enterprise Storage Systems 2009-2013 Forecast: Economic Crisis Driving Quest for Storage Efficiency and Emerging Architectures,” IDC

E-discovery requirements for email archiving and quick retrieval in compliance with legal and regulatory mandates include:

- Federal Rules of Civil Procedure (FRCP) to comply with evidence rules for civil actions in federal courts. FRCP rules also are followed by most state jurisdictions.
- SEC Rule 17a-3 and 4 for the Financial Industries Regulatory Authority (FINRA), which governs all broker-dealer securities transactions for the National Association of Securities Dealers and the New York Stock Exchange.
- Privacy and data integrity regulations to secure critical and sensitive business and personal information. This category includes an extensive and growing set of regulations, and each organization is responsible for knowing the applicable storage and retrieval requirements for messages containing critical information. Examples of privacy and data-integrity regulations that include specific requirements for message storage and retrieval include:
  - » Gramm-Leach-Bliley Act (GLBA) for consumer finance
  - » Sarbanes-Oxley Act (SOX) for corporate financial data
  - » Health Insurance Portability and Accountability Act (HIPAA) for personal healthcare information
  - » Privacy requirements issued by the Federal Financial Institutions Examination Council (FFIEC)
  - » Many additional requirements as levied by federal, state, industry associations, and private regulatory entities
  - » International privacy statutes, such as the European Union Data Privacy Directive, the Canadian Personal Information Protection and Electronic Documents Act (PIPEDA), and the Japanese Financial Instruments and Exchange Law (J-SOX)

Legal precedents have been set in which businesses have been levied with multimillion-dollar fines for failing to meet archival requirements for quick recovery of information. One of the largest SEC actions was a \$15 million fine levied against Wall Street investment banker Morgan Stanley in 2006 for failure to deliver timely email evidence as requested by investigators in a civil lawsuit.<sup>5</sup>

### Regulatory compliance

All privacy, data integrity, and security regulations in the U.S. and internationally include requirements for message confidentiality, integrity, and availability. These requirements specify protections for sensitive information in electronic communications and storage for business of all sizes and types. Email messages containing critical business or personal information to be archived must be securely transmitted and stored to meet legal and regulatory mandates.

Regulatory compliance also requires secure retrieval of messages containing business-critical or sensitive personal information, including protections against tampering. The identities of authorized users must be authenticated before accessing sensitive information, and historical logs must be maintained to show all access and actions taken with individual messages.

Requirements for message availability apply even during business disruptions, potentially adding considerable complexity and cost to message archiving requirements. The cost of a traditional in-house solution quickly escalates when backup systems must be acquired and supported in a redundant location.

### IT cost control and performance impacts

With storage, search, and retrieval demands increasing up to 30 percent annually, server performance can degrade quickly. Keeping pace with messaging growth means continuous investment in archiving and storage, which can wreak havoc with tight budgets. When slower email systems are burdened by more retrievals and more complex searches, productivity is immediately reduced for users who depend on the system for day-to-day operations.

The expense of upgrading an email archival and retrieval solution is steep. It means boosting the lifecycle costs of licensing, configurations and platform administration, storage and retrieval optimization, search policy management, support and training, logging, and backups. Incremental upgrade expenses for platforms and networks, physical infrastructure and security, and depreciation must also be considered.

### Overcoming storage and access limitations

Email archiving, search, and retrieval requirements for e-discovery and FRCP are not traditional IT corporate services. Message archiving is a highly specialized function when deployed and operated in house, and can be costly in terms of people, processes, and technology. The large technology investment and ongoing operational commitment of an in-house archiving solution often mandates centralized archival technology to achieve sufficient economy of scale.

However, centralized archival technology rarely provides the enterprise with the flexibility it needs to efficiently optimize and manage email storage, search, and retrieval. The large investment and operational commitment to a centralized technology locks business into a specific path and vendor, limiting agility when storage limitations restrict archival services. Moreover, IT professionals rarely have the in-depth knowledge of e-discovery requirements and legal issues needed to effectively manage email search and retention policies.

User requirements for archiving, retention, and access often conflict with storage limitations imposed by a centralized technology infrastructure. Business units have the best understanding of policies and controls needed to protect against tampering, unauthorized message deletions and overwrites, and logging of access and actions. To efficiently administer changing requirements for archival of inbound and outbound messages, business units prefer a decentralized management model.

Business units are also the first to feel the impact of tight centralized budgets on archiving. Centralized archival technology, along with a lean budget, tends to restrict per-user storage, limiting the ability to optimize search and retrieval policies. Meanwhile, business units have a productivity incentive to optimize storage quotas and retention policies.

### Staff efficiency and green IT

Today's businesses are increasingly focused on wringing maximum value from IT staffs and budgets. This bottom-line discipline seeks to boost IT productivity by doing more with less staff and is a prime contributor to the growth in cloud computing and software-as-a-service (SaaS). Seeking to outsource non-critical functions, 9 out of ten companies are planning to grow their use of SaaS. Fully 37 percent of surveyed companies plan to replace on-premises licensed software with SaaS applications to drive down total cost of ownership. As a result, the cloud-based SaaS marketplace is growing by double digits, from \$6.4 billion in 2008 to a projected \$14.8 billion in 2012.<sup>6</sup>

By outsourcing non-strategic functions, companies also support green IT—reducing onsite power and resource consumption when IT functions are moved to the cloud. Cloud-based services benefit from greater economies of scale in managing power and cooling for large data centers and in applying efficiency technologies such as virtualization.

### The Future of Archiving

The future of IT continues to be shaped by the market forces that create and drive disruptive technologies. For email archiving, this means a focus on enforcing the complex and shifting policies needed to comply with legal and regulatory mandates. It means empowering end users to perform complex searches across many volumes of different text and multimedia file types from multiple message channels. It means outsourcing of non-critical IT functions that carry high costs in people, processes, and technology. And it means driving down the cost of storage hardware while optimizing resource usage through more robust storage software.

These forces will increasingly drive an integration of message archiving, search, and storage with end-user applications. These applications—such as Microsoft Outlook for messaging or Microsoft Sharepoint for collaboration—can exist in the cloud or enterprise network. End-user applications will become more tightly integrated with archiving functionality to better manage the increasing size and complexity of message stores, including unstructured data types and communications across multiple channels. Advanced natural language policy engines will address the wide mix of business needs for retention and access while optimizing storage to take advantage of the most cost-effective technology.

#### **McAfee SaaS Email Archiving Service**

The McAfee® SaaS Email Archiving service is a cloud-based email archival solution that automatically, safely, and economically stores email for future review and e-discovery. Designed to cost effectively meet all the business, legal, and regulatory requirements discussed, The McAfee SaaS Email Archiving service provides complete email backup for organizations with unlimited, in-the-cloud storage and quick, powerful search capabilities. Without IT involvement, approved end users can easily create powerful, flexible search criteria to retrieve messages in active archives within fractions of a second and messages in online inactive storage within seconds.

Unlike in-house archiving solutions, which can quickly become overwhelmed, there will be no service degradation as user populations and storage volumes grow. One low ongoing subscription provides near real-time archiving with rapid search and access that extends transparently across both active and inactive archives as well as all message logs. Automatic sequential searches eliminate the need for lengthy and costly manual search interventions, so legal and regulatory evidence can be provided without embarrassing and potentially costly delays.

#### **Rapid search and retrieval supports e-discovery and compliance**

The McAfee SaaS Email Archiving service searches all message content, including headers, body, attachments, and metadata—such as message size, date, last access, and more. Fast and accurate retrieval of messages based on message content, attachments, and message metadata delivers powerful support for e-discovery and compliance mandates. You can respond to regulatory and legal requests for information without burdening IT and allow individual users to search their own archived emails to retrieve important business information almost instantly.

#### **User self-service increases business agility**

The time it takes to find, mount, and search a tape can seriously detract from IT's core mission. The McAfee SaaS Email Archiving service frees IT from the ongoing task of supporting archiving policies and message searches. Users and business units can build email archive policies using natural language and can execute their own searches using an integrated archiving toolbar in Microsoft Outlook. Authorized users can quickly locate a single stored email message—or thousands—in seconds using simple or advanced search criteria, including sender, recipient, date range, message content, and even attachment content.

#### **Easy Microsoft Outlook integration boosts productivity**

The McAfee SaaS Email Archiving service includes easy, automatic integration with Microsoft Outlook 2003 and 2007. The integrated archiving toolbar keeps users productive by delivering archival storage and retrieval through Outlook's familiar email folders and user interface. Each user's personalized Outlook view, with messages, is maintained even during business disruptions.

#### **Uninterrupted access ensures business continuity**

Instead of maintaining an onsite tape library along with a secure, offsite backup facility, take advantage of secure and redundant McAfee cloud-based service centers. The McAfee SaaS Email Archiving service is unaffected by business disruptions, providing message archiving and searches over the web even while IT infrastructure is unavailable. And during normal operations, IT is relieved of the cumbersome and time-consuming backup procedures required by traditional onsite message archiving solutions.

The McAfee SaaS Email Archiving service also ensures continuity across ongoing and historical operations. Because archiving needs don't begin with the adoption of our cloud-based solution, we provide two options for importing historical data into our service. The online uploading option suits the needs of most businesses, while the offline option preserves bandwidth and provides automatic deduplication and other optimization features for companies with very large historical email stores.

#### **Secure access and email confidentiality protect private information**

Privacy regulations require owners of information to encrypt critical business data and sensitive personal information contained in email messages sent over the Internet. McAfee uses the industry-standard secure sockets layer (SSL) to establish an end-to-end transport layer security (TLS) encrypted tunnel from within the cloud. Sensitive messages are secure in transit from the source, across all network hops, to the destination, and in browser sessions.

#### **Low-cost archiving with unlimited storage keeps email working for your business**

The McAfee SaaS Email Archiving service optimizes storage by allowing organizations to manage the amount of data in their active storage facility. Typically, active storage is synonymous with the corporate email server—one of the most expensive storage devices on the network when considering maintenance and monitoring costs. Optimizing the size of this resource is critical to managing cost, but this can only be accomplished if secondary storage costs are also fixed and don't compromise access to archived data.

With the McAfee SaaS Email Archiving service, messages arriving in active storage can be quickly archived to secondary (inactive) storage, enabling active storage to be trimmed to a manageable size without concerns about the longevity of the data being purged. Our single-engine search technology works transparently across all active and inactive archived messages for fast retrieval. Even in inactive storage, searches are returned in seconds—as fast or faster than searches against the corporate email server.

Since users can search the archive through Outlook, their accessibility level for archived messages nearly matches that of messages stored on the local Microsoft Exchange Server—with no need for IT involvement. And this optimized storage meets the most demanding e-discovery requirements by cost effectively providing unlimited storage space in a cloud-based virtual service. There's no additional staffing; no investment in IT facilities; no expensive acquisitions of IT hardware or software; no additional power consumption, cooling or security needs; and no ongoing depreciation costs. Company knowledge is automatically secured as it is generated, without putting an undue load on the Exchange servers.

#### **Instant scalability fits your business requirements**

This cloud-based archiving service from McAfee can instantly scale up or down to meet business demands, seasonality, or acquisitions. New users can be easily added individually or in groups, with no decline in performance as the archive grows. Our subscription services help optimize IT investments by reducing storage costs while increasing business agility.

#### **Flexible licensing accommodates your storage needs and budget**

The McAfee SaaS Email Archiving service is available with licensing and retention options of one or multiple years. Budget-friendly service bundles combine archiving with our cloud-based email security solutions to provide maximum flexibility and business agility.

#### **The Cloud—A Better Way to Archive, Search, and Retrieve Email**

The McAfee SaaS Email Archiving service is a disruptive email search and retrieval technology that provides a new solution for e-discovery and compliance. Our service offers the best of all worlds in a cloud-based service: convenience and ease-of-use, cost advantages, rapid scalability, business agility, strong security, and robust search and retrieval.

- *Convenience*—With our SaaS solutions, there's no hardware to buy, no software to install, no backup tapes to manage, and no maintenance to perform. The McAfee SaaS Email Archiving service is easy to deploy and integrate, easy to manage with our intuitive console, and never requires an upgrade.

- **Business agility**—Quickly scale archiving needs up or down to support seasonal business, changing supply or distribution conditions, and acquisitions. It's easy to add new users or user groups at any time.
- **Ease of use**—Our award-winning user and management interface makes users instantly productive and enables managers to become archiving experts in hours
- **Cost advantages**—The SaaS model requires no capital investments in servers, storage systems, or software—and no additional IT staffing. There is no depreciation, no ongoing support and training requirements, and no infrastructure to build, power, cool, and secure.
- **Robust search and retrieval**—Our optimized storage and self-service features decentralize searches for simple, quick e-discovery and compliance. Policy-based access to the archive allows users to find the information they need, saving time while maximizing the value of information captured in email messages.
- **Proven security**—All McAfee SaaS services are delivered from the network cloud by world-class experts, offering security expertise along with service levels and skills that few companies can afford in house

### Learn More

Find out how you can leave the management to McAfee while enjoying the benefits of an email archive that is always up to date, secure, available, and searchable to meet all your business, regulatory, and legal requirements. And learn about our other cloud-based Security-as-a-Service solutions for protecting your entire connected business environment. Visit us online at [www.mcafee.com/saas](http://www.mcafee.com/saas), and give McAfee SaaS Email Archiving and our other SaaS solutions a trial today.

### About McAfee, Inc.

McAfee, Inc., headquartered in Santa Clara, California, is the world's largest dedicated security technology company. McAfee is relentlessly committed to tackling the world's toughest security challenges. The company delivers proactive and proven solutions and services that help secure systems and networks around the world, allowing users to safely connect to the Internet, browse, and shop the web more securely. Backed by an award-winning research team, McAfee creates innovative products that empower home users, businesses, the public sector, and service providers by enabling them to prove compliance with regulations, protect data, prevent disruptions, identify vulnerabilities, and continuously monitor and improve their security. <http://www.mcafee.com>.

