



WHITE PAPER



TOP 4 REASONS TO ADOPT DATA LIFECYCLE MANAGEMENT

MANAGING DATA THROUGHOUT ITS LIFECYCLE HAS BECOME A STRATEGIC IMPERATIVE FOR IT TEAMS. FACED WITH STAGGERING DATA GROWTH, IT LEADERS RECOGNIZE THE NEED TO ADOPT SOLUTIONS AND PRACTICES THAT NOT ONLY CONTROL COSTS AND REDUCE RISK, BUT ALSO EFFECTIVELY MANAGE A WIDE VARIETY OF DATA TYPES TO ACHIEVE COMPETITIVE BUSINESS ADVANTAGE.

Researchers expect the amount of data to double every two years through the end of the decade, with the preponderance of growth comprised of unstructured data such as e-mail, social media, SharePoint interactions and other collaborative communications.¹ Businesses are using this data to drive innovation and improve customer satisfaction through data analytics, the Internet of Things (IoT) and other initiatives.

But organizations also face enormous challenges in ensuring that they can protect, preserve and manage their data at every stage of its lifecycle. Without a coherent and comprehensive approach to data lifecycle management, organizations face huge risks, including spiraling storage costs, potential security breaches, noncompliance with regulatory requirements and an inability to respond to e-discovery demands. Beyond these tangible risks is the potential for missed opportunities, caused by an inability to leverage the strategic value of data through business intelligence and analytics.

Developing a comprehensive plan and strategy for data lifecycle management can feel like an overwhelming challenge for many IT organizations, particularly those trying to address the problem

without the benefit of a trusted and experienced partner. There are myriad issues to deal with, such as the following:

- > Where and how to store data in the short and long term
- > Where and how to back up data
- > How to make sure data is accessible when needed for e-discovery requests, compliance or other business requirements
- > How to ensure rapid and complete recovery in the event of a disaster—whether physical or cyber
- > How to ensure data protection when the data is off-premises, in the cloud
- > When and how to move data to more cost-effective storage as it evolves during its lifecycle, from idea to production to accessible archive and then to cold storage
- > How to ensure that consistent and auditable policies are applied for data retention and disposal

Adding to this complexity are the numbers of options organizations now have as they build out their storage infrastructure strategy. Organizations can use public clouds, private clouds, hosted cloud services, on-premises solutions or even software-centric approaches such as storage virtualization or software-

¹ "The Digital Universe of Opportunities," IDC and EMC, April 2014

defined storage. Plus, organizations still have data and documents in a variety of formats, including paper, tape and disk, and in some cases, in audio files, medical images and more. Developing a flexible solution that addresses an overall data management strategy is not a simple task. Progressive companies consider providers with great technology backed by experience and in-depth knowledge.

This white paper examines the top four reasons why organizations must focus on developing and deploying data lifecycle management as a strategic initiative. It also explores where and how to use specific solutions, along with the benefits of working with a partner that can offer a comprehensive approach to data lifecycle management that meets the current and future needs of any organization.

REASON NO. 1: THE DIGITIZATION OF BUSINESS OPERATIONS

Organizations of all sizes are more reliant upon digital operations than ever before. Digital transformation is a major driver of business processes and innovation as IT teams strive to leverage digitized data for competitive business advantage. IDC has predicted that worldwide IT spending on digital transformation technologies will reach more than \$2.1 trillion in 2019, growing at a compound annual rate of 16.8%.²

The stakes for IT teams have probably never been greater. The decisions that IT leaders make—in terms of which companies to choose as strategic partners or how to best deploy technologies such as cloud computing, software-defined

data centers and IoT—will likely determine the fate of their organizations.

One of the most important responsibilities for the IT team is to develop and execute an effective data lifecycle management strategy that uses best practices to protect, preserve and manage data at all times. A successful data management strategy is essential to digital business operations for the following reasons:

- > **Controlling costs:** If your strategy is to keep buying more storage devices or more space in the cloud to support data growth, you will eventually obliterate the IT budget. A data lifecycle management strategy places value on your data as it moves through the various stages of its lifecycle. Once data is no longer useful for production environments, it can be moved to less costly storage, whether that is on-premises, in the cloud or in a hosted off-site tape vault. By working with a strategic partner to build and execute a data lifecycle management plan, your organization can leverage a wide range of technology solutions to keep costs down for all of your data, including backup, replication and archiving.
- > **Leveraging data for competitive advantage:** In a digitized business, data is the lifeblood of the organization. Companies depend more and more upon analytics to satisfy the needs of customers and employees. With a data lifecycle management strategy, IT can develop policies and procedures to ensure that all data is consistently tagged and indexed so it can be found and accessed whenever it is needed,

2 "IDC Forecasts Worldwide Spending on Digital Transformation Technologies Will Surpass \$2 Trillion in 2019," IDC, Jan. 26, 2016

whether it is in a business-critical production environment or a data archive. Many organizations struggle with using the right technologies to tier data and create consistent policies that maximize the value of data. Working with a strategic partner, IT teams can use best practices to establish enforceable governance policies that future-proof the value of data for as long as it needs to be retained.

- > **Accelerate time to value:** Time to value is a critical aspect of the digital business. Organizations must be able to deliver data, services and applications much faster than ever before to satisfy the needs of a more “consumerized” customer and employee base. A comprehensive data lifecycle management strategy makes everyone in the organization more productive, from customer sales reps to service technicians to application developers. You not only give these individuals and teams the ability to find and access data whenever they need it, but also eliminate the information silos that prevent effective collaboration across the company—and collaboration is one of the hallmarks of a successful digital business.

These are not the only benefits of data lifecycle management for the digital business. You will also be able to drive major improvements in security, compliance and data archiving, as discussed in the following sections.

REASON NO. 2: SECURITY

A data breach or other security incident can be devastating to any organization. It is not only costly, but can also cause long-term damage to brand reputation and customer goodwill. Security is much more complex in today’s business environment because most organizations are using on-premises solutions and off-premises cloud services to store, back up, replicate and recover their data. In addition, cybercriminals and others who would do harm to your business have become much more adept and sophisticated in preying upon any real or perceived gaps in your data protection schemes.

As organizations embrace cloud services and other models for data storage and archiving, they must work with vendors they trust to protect and secure their most prized assets. A data lifecycle management strategy will incorporate data protection as one of its core capabilities. As data becomes diffused and moves to a wider variety of places, choosing a single vendor to protect, preserve and manage data can offer much greater levels of security than trying a do-it-yourself approach. This is particularly apt if you are deploying public cloud models, where you lose visibility into your data and increase the risk of attacks from software-as-a-service or shadow IT initiatives that fall out of IT’s control.

Working with a single vendor for data lifecycle management can mitigate these risks, particularly if the vendor offers a full complement of on-premises and cloud solutions, including

cloud backup, cloud archiving, disaster recovery, tape backup, tape archiving, restoration and migration, and secure asset disposition. Iron Mountain is a leader in data protection and storage because it offers all of these capabilities and constantly stays ahead of the curve in delivering data protection services to its customers. The Iron Mountain portfolio has evolved from physical storage and protection to encompass digital storage as well, with the same level of care, protection and innovation.

As an example, Iron Mountain has partnered with Virtustream to leverage its Virtustream® xStream® and Viewtrust® software to orchestrate, automate and secure cloud storage services for Iron Mountain cloud-based service offerings, including infrastructure as a service. With Viewtrust integration, Iron Mountain can facilitate infrastructure compliance with a broad range of security frameworks. In addition, Iron Mountain leverages its own highly secure, mirrored data centers to host its cloud services, ensuring the highest levels of physical and cybersecurity to customers.

REASON NO. 3: COMPLIANCE AND E-DISCOVERY

Data growth, particularly of unstructured data, is creating new challenges for IT teams, compliance officers and legal departments when it comes to meeting requirements for regulatory compliance and responding to e-discovery requests.

Regulatory and legal bodies have little patience with organizations that can't react quickly and respond accurately to demands for data access. A data lifecycle management plan incorporates strategies, technologies and processes that enable IT to meet compliance and e-discovery requirements through the following means:

- > **Defining where to store data as it moves through its lifecycle**, including production, backup, replication, archiving and destruction.
- > **Ensuring that data is properly tagged**, categorized and indexed so that it can be easily found when needed, even if it hasn't been used in years.
- > **Ensuring that once data has been found**, it can be easily accessed in a timely manner whether it is on-premises, in the cloud, in an off-site tape vault or anywhere else.
- > **Setting enforceable policies and procedures for data retention and destruction** that meet regulatory requirements and provide lawyers and judges with proof that the data provided to them is complete and has not been tampered with.

IT teams see measurable and demonstrable value in being able to achieve these goals. But they are often intimidated by the challenges required to build a comprehensive data lifecycle management plan that incorporates this level of information governance. This is particularly the case in today's

complex environment, where IT faces a wide range of compliance and e-discovery challenges, including the following:

- > **Staggering growth** in the volume, variety and velocity of data
- > **Information silos** that isolate strategic data across different geographic locations and media formats
- > **Shadow IT initiatives** that pop up without IT's knowledge or control
- > **A wide variety of choices for data storage and management**, including public cloud, hybrid cloud, on-premises and others — without clarity as to the real costs and advantages of each model
- > **Stringent regulatory and legal requirements** that differ greatly among regions and within industries

Building and executing a comprehensive data lifecycle management plan is often beyond the capabilities or expertise of most IT departments. That's why many progressive IT leaders work with Iron Mountain, which offers industry-leading expertise and experience in protecting, preserving and managing data across businesses of all sizes in all industries.

Iron Mountain provides solutions that can be deployed on-premises, off-site and in the cloud. Because of this variety of solutions, Iron Mountain is technology-agnostic and focused on

providing the most efficient, cost-effective and secure solutions to meet the specific requirements for compliance and e-discovery for its customers.

REASON NO. 4: DATA ARCHIVING

Archiving has become a critical business requirement, particularly with the immense expansion of unstructured data. The enterprise information archiving market is growing at a compound rate of 11.8% a year and will exceed \$7.5 billion by the end of this decade, according to research by MarketsandMarkets,³ which notes that growth is being fueled by:

Demand for cost-effective storage solutions for inactive enterprise data, need for data retention to meet the legal and governance requirements, and demand for high performance of business processes. Furthermore, the market is expected to be driven by opportunities such as new scalable and cost-effective archiving through cloud and development of applications for intelligent archiving of enterprise data and emerging potential markets.⁴

Organizations can't afford to have archived data clogging up production environments, so they must adopt storage tiering strategies that move data automatically during its lifecycle. At the same time, as data moves into archives, the organization must be able to quickly locate and access it to meet potential

³ "Enterprise Information Archiving Market Worth \$7.55 Billion USD by 2020," MarketsandMarkets, March 2016

⁴ Ibid, footnote 3

compliance and e-discovery requests or for monetization purposes.

This is another area where IT teams have a variety of options. How do you choose which is best for your organization? A first step is to look at your current solutions. Despite the hype surrounding cloud and the growth of spinning disks as a medium for archiving, tape is still an extremely cost-effective archiving solution.

If you currently use an off-site secure tape vaulting service for archives, there is probably no need to make a change. If you are using tape but keeping it on-premises, you should consider moving it to a secure tape vault. Why? You don't need to take up space in your data center with data you will hardly ever need to use. Also, an off-site tape vault service will provide much better protection and preservation of your assets. And if you have a disaster on-site and the tape is in the same location as your production storage, you may not be able to recover.

Moving forward, a cloud archiving solution provides a cost-effective option for data that needs to be accessible but not accessed frequently. Iron Mountain offers a Cloud Archive service that includes important security features such as built-in data protection. When you partner with a full-service provider such as Iron Mountain, you can leverage several technologies to support your archiving

needs. For example, you can use Cloud Archive to create a gold copy of data and then move it to tape media, where it can be stored off-site in a secure vault.

CONCLUSION

IT teams are facing a new reality: They must manage their data to control costs, ensure security, drive business agility, meet compliance and e-discovery requirements, and enable the digital transformation that is necessary for the growth and survival of their organizations. Building and executing a strategy for data lifecycle management has become an important new imperative. But it is also an immense challenge, particularly with the complexity and wide range of technology options available.

Most IT teams don't have the knowledge, experience, time or skill set to go it alone in building a data lifecycle management initiative that meets today's challenges in protecting, preserving and managing data. But with Iron Mountain, IT teams can turn to a trusted and expert partner that has more experience managing and protecting business-critical data than any company in the industry. For information on how Iron Mountain can help you build and execute a modern data lifecycle management strategy, please visit www.ironmountain.com/services/data-management.aspx.

ABOUT IRON MOUNTAIN

Iron Mountain Incorporated (NYSE: IRM) provides information management services that help organizations lower the costs, risks and inefficiencies of managing their physical and digital data.

Founded in 1951, Iron Mountain manages billions of information assets, including backup and archival data, electronic records, document imaging, business records, secure shredding, and more, for organizations around the world. Visit the company website at www.ironmountain.com for more information.