



HOLISTIC DATA MANAGEMENT

Multi-Tier Data
Storage to Preserve
and Protect for Less





ALL DATA ISN'T CREATED EQUAL

For those in charge of data management, what keeps you up at night? It's likely you have too much to manage, you're dealing with lots of unstructured data, and you need a single source of data governance truth. At the same time, data needs to be easily portable – that is, it can be moved to another storage tier without the tax or cost of egress fees.

Organisations are tasked with simultaneously keeping data accessible and protected – a balancing act that can be daunting. What this leads to is an all-or-nothing data management approach, treating all information the same and paying a premium as a result.

Here are three realities that drive up storage costs, impact user access, and put data retention policies to the test:

 **THERE'S MORE DATA TO STORE** Organisations are creating overwhelming volumes of data, which, when combined with legacy data, requires more time and resources devoted to effective storage and data management solutions.

Unstructured data is continuing to grow by 30% to 60% annually and will triple in volume by 2024.¹

 **DATA VALUES CHANGE OVER TIME** While some data is critical to daily operations and real-time decision-making, a large percentage of data is no longer active, but must be kept for compliance reasons.

The likelihood of reusing data decreases with age: 80% of data created becomes inactive legacy data, never to be accessed again.²

 **DATA IS UNDER ATTACK** Cyber threats are on the rise, putting business data at risk and creating challenges about how to keep data both safe and rapidly recoverable.

2020 saw a 715% year-over-year increase in attempted and blocked ransomware attacks.³

What's needed is a modern and intelligent approach to data management based on business data value, accessibility needs, and required protection. When done right, organisations can optimise storage across the entire data lifecycle, increase control over data, and gain valuable insights – for less money and fewer resources.

¹ Gartner, [2020 Roadmap for Strategic Storage](#), July 2020

² IDC, [The Digitization of the World – From Edge to Core](#), November 2018

³ Bitdefender, [Mid-year Threat Landscape Report 2020, September 2020](#)

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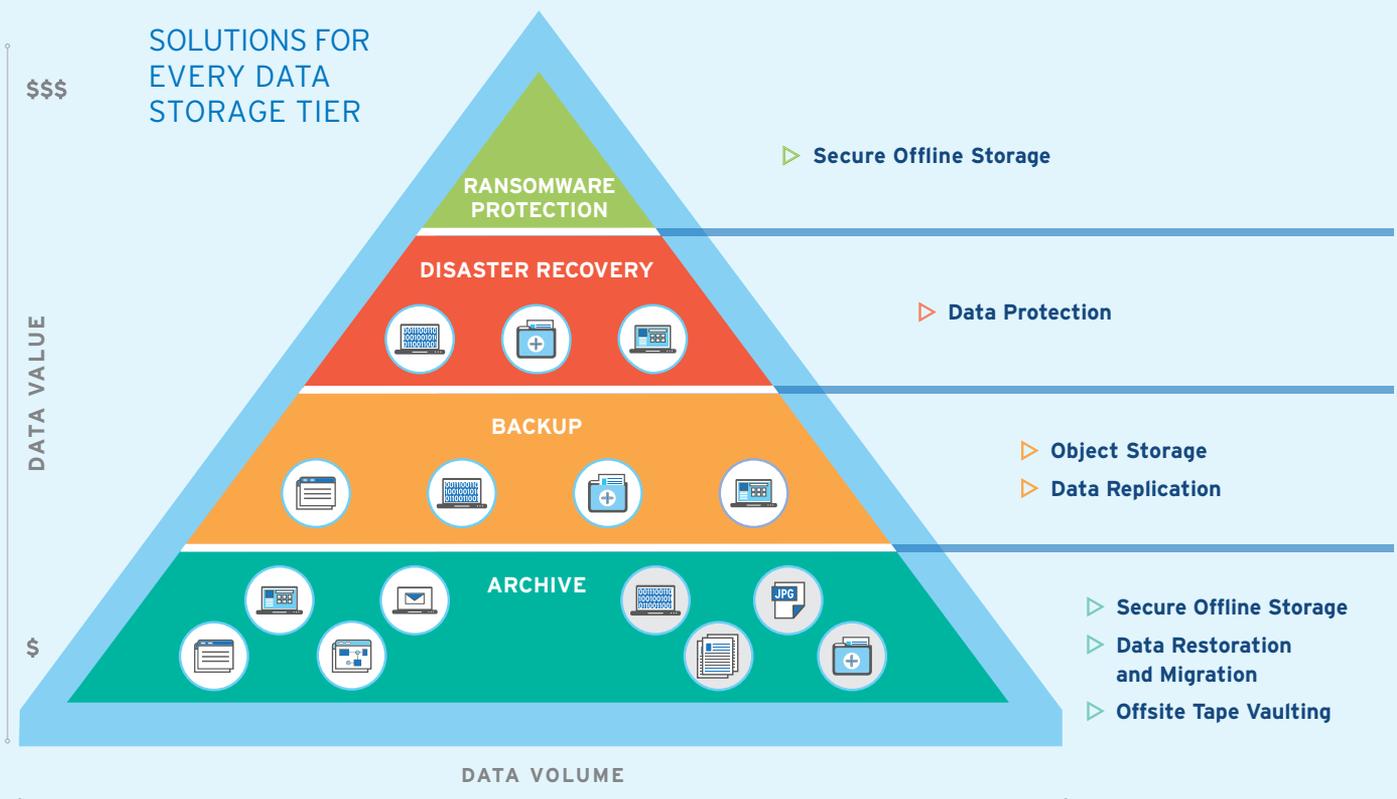
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CREATING A FOUNDATION FOR INTELLIGENT DATA MANAGEMENT

Data should be treated as a portable asset and stored using information management best practices. To strategically and cost-effectively manage information enterprise-wide throughout the data lifecycle, a multi-tier storage and protection strategy is the key to success.

STORE DATA ON THE RIGHT TIER AT THE RIGHT TIME

As businesses evolve, so do data storage needs. A flexible, tiered data storage approach gives organisations the freedom to move from tape to cloud, or cloud to tape, based on their individual archive, backup, disaster recovery, and ransomware protection needs.



As a result of investing in a multi-tier data storage approach, organisations prevent cloud provider lock-in and create a single source of truth while shifting data from active to inactive, and online to offline, without paying egress fees. And, most importantly, your team gains greater integrity, availability, and security for all information assets – building a data protection foundation that enables you to unlock the true value of your data.

THE INACTIVE DATA CHALLENGE

CHALLENGES

Most data is inactive, but, for compliance reasons, it's often archived for several years. For most organisations, 80 percent of data belongs in this archive tier, with the remaining 20 percent split among other data tiers. So, while you need a long-term data storage alternative that doesn't eat up too much of your budget, it's also critical to ensure you can still access your data.

IRON MOUNTAIN ARCHIVE SOLUTIONS

To help you store data on the right tier, access data when needed, and move data between physical and digital formats, consider these Iron Mountain solutions:



SECURE OFFLINE STORAGE

For inactive data, you can add a cold storage option that lets you easily move data from cloud to air-gapped tape, which decreases overall storage costs and ensures long-term archival data compliance. (This option can also be used for ransomware protection, as you'll see later in this eBook.)



DATA RESTORATION AND MIGRATION SERVICES

Our fully managed service helps you identify, move, restore, and migrate data stored on multiple media format types – further bridging the gap between physical and digital.



OFFSITE TAPE VAULTING

If you are still managing backup tapes or media, you can move your tape or media library offsite, offline, and out of danger to our secure vaults. Your information can be retrieved and returned to you whenever needed using our secure chain of custody, logistics, and transportation services.

ARCHIVAL DATA
RETENTION
REQUIREMENTS OF
100 YEARS
OR MORE ARE
NOW COMMON ⁴

⁴ Active Archive Alliance, *Active Archive and the State of the Industry 2019*, July 2019

Healthcare Customer Success Story

Eliminate the Burden of Managing Tape Yourself

THE SITUATION

One of the nation's largest Medicaid providers was responsible for 65,000 tapes with over 6 petabytes of data. Managing these tapes, along with the cost of maintenance renewals, patches, and upgrades, was expensive. They needed a modern backup and archive environment with an offsite solution.

OUR STRATEGY

Iron Cloud Secure Offline Storage and Data Restoration and Migration Services were implemented to provide a go-forward data protection strategy that protects all the organisation's data throughout its lifecycle.



THE RESULTS

This customer significantly improved their total cost of ownership (TCO) with a modernised backup strategy that mitigated long-term data retention risks, and they did it by storing their data on a mix of cloud and tape. This approach eliminated the costs of maintaining tape infrastructure on premises, while still ensuring continued data access to legacy data and creating a go-forward data protection strategy.

IRON MOUNTAIN'S ARCHIVAL BENEFITS

 Since we can help you tier your data (the right tier at the right time and at the right cost), we are 30 percent less expensive than other cloud providers' overall storage solutions.

 If we manage your legacy data, you can turn off that particular infrastructure and save on software license fee renewals, while retaining access with our Data Restoration and Migration Services.

 By using air-gapped, offline storage that is not connected to a network for your inactive data, our archive solutions protect you against catastrophes such as ransomware and data breaches, where recovery is otherwise expensive and time-consuming.

OPERATIONAL RECOVERY

CHALLENGES

A secure and scalable active operational recovery strategy is critical to protect and back up your valuable data – yet you also need to have on-demand access. More than ever before, your organisation's data is at greater risk due to remote workers' multitude of laptops and mobile devices, the blurring of personal and work computing, and reliance on software suites like Microsoft 365.

Operational recovery helps bolster your organisation's data protection strategy by making a backup copy of your important data and storing it in the cloud – all without increasing the workload of your IT staff.

IRON MOUNTAIN OPERATIONAL RECOVERY SOLUTIONS



DATA PROTECTION

This cloud-based suite of backup and recovery services can help you get back online after a crisis event, such as a system failure, a man-made or natural disaster, or a ransomware or cybersecurity attack. These services use secure, high-speed, reliable connectivity to an Iron Mountain data centre, which keeps your data backed up, protected, and recoverable 24/7, while also keeping costs in check.



OBJECT STORAGE

This solution makes an ideal content repository to back up active cloud data that helps you establish a cloud-forward data management strategy with geo-resiliency built in to better protect and secure your data. Data stays online for easy access and retrieval.

REMOTE WORK
INCREASES DATA
VULNERABILITIES.

53% OF
EXECUTIVES AND
IT PROFESSIONALS
SURVEYED
EXPERIENCED
UNRECOVERABLE
DATA IN THE LAST
3 YEARS. (IDC)⁵

⁵State of IT Resilience Report, IDC, 2020

Retail Customer Success Story

Modernise Data Protection and
Optimise the Backup Environment

THE SITUATION

A large omnichannel retailer relied on a legacy tape environment to run its business. Painstaking restoration and tedious management of the tape environment were wasting the company's time and IT budget.

OUR STRATEGY

Our Iron Cloud Object Storage, integrated with NetBackup software, replaced the legacy tapes with a solution that delivered active data storage in the cloud. Additionally, our Iron Cloud Data Protection let the company fully protect its critical data by replicating it offsite, so it stayed protected, yet available, for fast and efficient recovery.



THE RESULTS

With this solution, our customer was able to optimise their backup environment and simplify administration, making the best use of IT personnel. They also eliminated their tape infrastructure, saving more than \$3.5 million over five years.

IRON MOUNTAIN'S OPERATIONAL RECOVERY BENEFITS



Our pricing structure is tied to the volume of data being protected, so you only pay for the data storage you need.



We are the only provider that offers end-to-end data protection solutions that can cover all the data, devices, and systems that run your business.

DISASTER RECOVERY

CHALLENGES

When most people think about disaster recovery, they picture hurricanes, tornadoes, or other natural disasters. In reality, catastrophes caused by humans – such as cyberthreats, wide-scale system failures, and human errors – are the main sources of disaster. Iron Mountain offers expanded data protection for businesses of all sizes and helps to protect against all types of disasters, including those caused by nature or by humans.

IRON MOUNTAIN DISASTER RECOVERY SOLUTIONS



DATA PROTECTION

This cloud-based suite of backup and recovery services can help you get back online after a crisis event, such as a system failure, a man-made or natural disaster, or a ransomware or cybersecurity attack. These services use secure, high-speed, reliable connectivity to an Iron Mountain data centre. This means your data is backed up, protected, and recoverable 24/7, helping you establish recovery point objectives (RPOs) and recovery time objectives (RTOs) that will minimise the impact of possible business disruptions at a low cost while keeping costs in check.

NEED END-TO-END DATA BACKUP AND RECOVERY OPTIONS?

Within the Iron Cloud Data Protection solution portfolio, you can choose to backup servers, endpoint devices and Microsoft 365, migrate data to the cloud, and implement disaster recovery capabilities to help your business deploy the right form of protection for all data types across your organisation's information ecosystem, so you can meet a wide range of backup and recovery objectives.

IDC INDICATES

80% OF
BUSINESSES HAVE
EXPERIENCED DOWNTIME
AT SOME POINT, WITH
COSTS RANGING
FROM **\$82,000** TO
\$256,000 PER AN
EVENT. THIS THREAT OF
DOWNTIME IS THE SINGLE
BIGGEST DRIVER FOR
BUSINESS CONTINUITY
PLANNING FOR MANY
ORGANISATIONS.⁶

⁶ The International Data Corporation: *Growth Opportunity for SMB Cloud and Hybrid Business Continuity*
Sponsored by: Carbonite

Healthcare Customer Success Story

Recovering from Superstorm Sandy

THE SITUATION

One of the United States' largest managed healthcare companies stored all of its data within a 30-mile radius and lost massive amounts of medical insurance information due to flooding during Hurricane Sandy in 2012.

OUR STRATEGY

As part of an overall system upgrade, they turned to our Data Protection services to replicate data across the customer's two locations and protect it in the cloud.



THE RESULTS

Through our unique offerings, the customer transformed its disaster recovery system, moving from tape to cloud to prevent future problems. They estimate \$2 million in savings, as compared to using their traditional commodity cloud service. The organisation can now rely on geo-redundancy across Iron Mountain's ultra-secure data centres.

IRON MOUNTAIN'S ARCHIVAL BENEFITS

-  Iron Mountain's Data Protection offers streamlined turnkey solutions to keep your data secure, while minimizing downtime and eliminating the cost and IT resource burden of onsite backup solutions.
-  Security and efficiency upgrades from our disaster recovery offerings enable savings. With us, you can leverage advanced encryption technologies for added security and enable a remote workforce by protecting all endpoint devices. At the same time, you can ensure the data and applications that run your business, such as Microsoft 365, are recoverable within minutes.

RANSOMWARE PROTECTION

CHALLENGES

Ransomware attacks are no longer something you just read about; they are happening far too often. Because it can be difficult to isolate data on your own, Iron Mountain creates a gold copy of your data and stores it offline at a considerably low cost to protect against ransomware and other cybersecurity threats. Iron Mountain also offers cloud backup and recovery solutions to help you improve operational resiliency and ensure business continuity.

IN 2020, THE SEVERITY OF RANSOMWARE ATTACKS INCREASED 47%, WITH A 100% SPIKE IN THE NUMBER OF ATTACKS.⁷

IRON MOUNTAIN RANSOMWARE PROTECTION SOLUTIONS



SECURE OFFLINE STORAGE

This cold storage option lets you easily move a gold copy of your data – from the cloud or spinning disk – offline to cost-effective air-gapped tape. Here it is safely kept in a climate-controlled vault, physically isolated from unsecured networks and quickly recoverable based on SLAs. This also decreases your storage costs and ensures long-term archival data compliance, while retaining options for fast cloud-based retrieval whenever needed.



DATA PROTECTION

This cloud-based suite of backup and recovery services can help you get back online after a crisis event, such as a system failure, a man-made or natural disaster, or a ransomware or cybersecurity attack. These services use secure, high-speed, reliable connectivity to an Iron Mountain data centre. This means your data is backed up, protected, and recoverable 24/7, helping you establish recovery point objectives (RPOs) and recovery time objectives (RTOs) that will minimise the impact of possible business disruptions.

⁷ Department of the Treasury, [Advisory on Potential Sanctions Risks for Facilitating Ransomware Payments](#), October 1, 2020

Government Customer Success Story

Protect Against Ransomware Attacks

THE SITUATION

A local government suffered a cybersecurity attack, with hackers demanding \$400,000 in ransomware payments.

OUR STRATEGY

Three servers protected by Iron Cloud Data Protection remained safe from the attack, and the IT team was able to restore the data without giving in to the hackers' ransom demands.



THE RESULTS

To optimise backup and disaster recovery services, Iron Cloud Data Protection was deployed to all servers and devices in all locations.

53% OF FINANCIALLY MOTIVATED
BREACHES WERE CAUSED BY
MALICIOUS ATTACKS WITH THE
AVERAGE COST OF **\$3.86M**.

⁸ IBM Security and the Ponemon Institute.
[Cost of a Data Breach Report 2020](#)

IRON MOUNTAIN RANSOMWARE PROTECTION BENEFITS

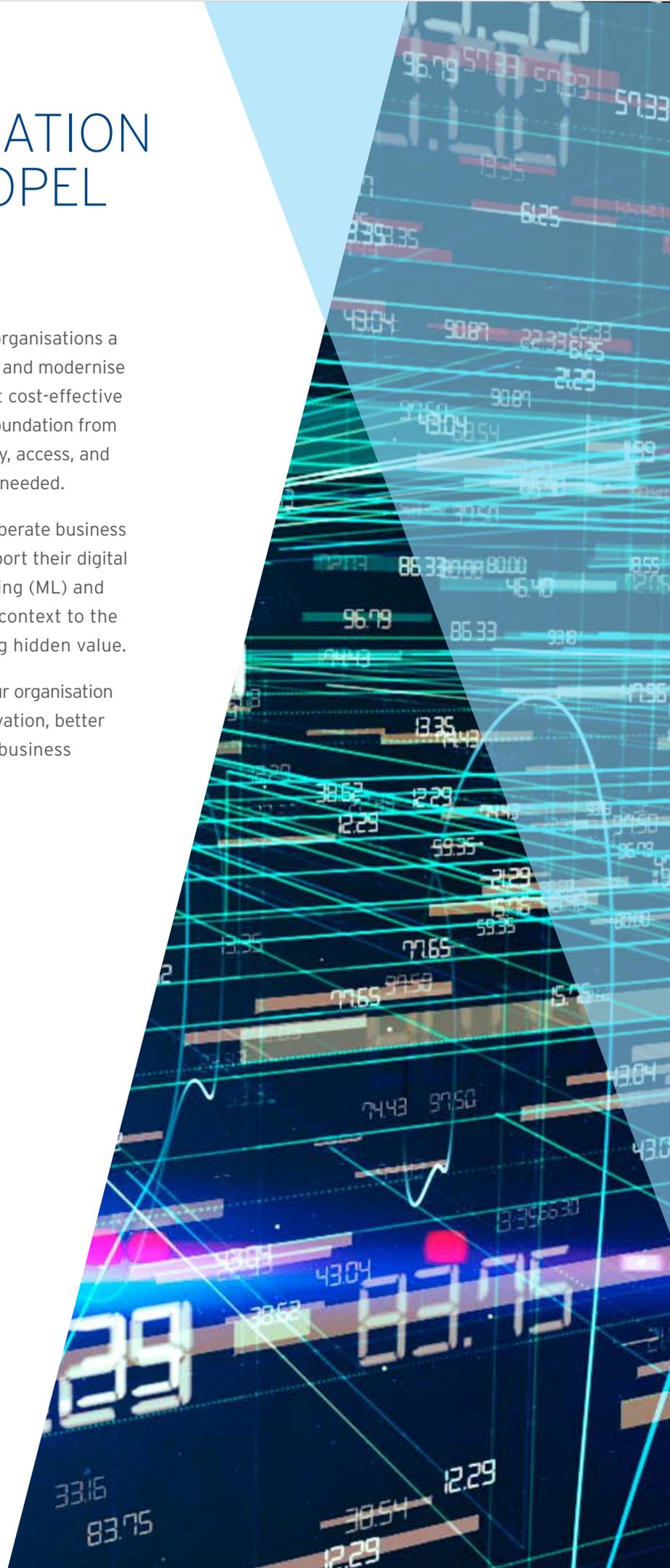
-  By storing inactive data offline with fast retrieval options, you can adhere to long term data retention requirements while significantly reducing risk of breach or cyber attack. An air-gapped, gold copy of your data can also be used to recover in the worst case scenario since the data is stored unconnected from the network.
-  Plus, with our Vault Lock option, you can use multi-factor authentication for retrieval of offsite data for ultimate protection from ransomware threats.
-  Iron Cloud Data Protection offers end-to-end data protection solutions that can cover all the data, devices, and systems that run your business. Our pricing structure is tied to the volume of data being protected, so you only pay for the data storage you need.

UNLOCK INFORMATION TO FURTHER PROPEL OPERATIONS

Iron Mountain's data management solutions give organisations a smarter way to manage data, protect information, and modernise IT operations. Not only is data stored on the most cost-effective data tier based on how it's used, but you create a foundation from which you can also gain the ability to easily classify, access, and utilise information across your organisation when needed.

By unlocking this information, organisations can liberate business intelligence, gaining deeper insights to better support their digital transformation journey. Applying machine learning (ML) and artificial intelligence (AI) delivers structure and context to the information, making it more usable and revealing hidden value.

Understanding the information that exists within your organisation can lead to new revenue opportunities, more innovation, better decision-making, and other avenues to improve business efficiency at a reasonable cost.



YOUR PARTNER IN MODERNISED DATA MANAGEMENT

Iron Mountain is a trusted advisor to organisations, helping to decrease their storage costs, security risk, and business inefficiency. Our comprehensive data management solutions support a modern, intelligent data management strategy that is optimised for data protection and preservation.

Business as usual is no longer an option. Storing data all in one place – on tape, on spinning disk, or in the cloud – or paying for legacy backup infrastructure is just too costly.

Iron Mountain's multi-tier data storage approach makes it easy to:

- ✔ Manage explosive data growth cost-effectively
- ✔ Protect and preserve any type of data while retaining access
- ✔ Migrate to the right tier at the right time
- ✔ Take advantage of the right mix of cloud, tape, or disk
- ✔ Keep data intact to maintain integrity
- ✔ Create a foundation to unlock business insights from your data

LEAVE THE DATA MANAGEMENT TO US

Iron Mountain is the only vendor that can help you manage your data throughout its entire lifecycle – active and inactive, online and offline. Our data management solutions work with the technology you already have in place. Plus, we manage everything going forward, simplifying operations to drive additional savings.

Our analysis shows that about 26 percent of Iron Mountain customers are backing up their data to the wrong storage tier. If you're concerned you may be paying for solutions you don't need, just ask.





YOUR PARTNER IN MODERNISED DATA MANAGEMENT



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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.

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