

Digital Record Center™ for Medical Images



Disaster recovery and long-term archiving for medical images.

As the importance and use of medical images have grown, so have the costs and risks. How can a healthcare facility maintain these images over the long-term, access them whenever needed for care, and protect them in a way that meets HIPAA requirements for disaster recovery?

The answer is the Iron Mountain Digital Record Center™ for Medical Images Disaster Recovery and Long-Term Archiving solution. This solution is a managed backup and archive service that provides both a long-term archive and off-site disaster recovery service for digital medical images.

Outsourcing your archiving as well as your disaster recovery to Iron Mountain is a cost-effective, reliable alternative to building and maintaining your own image archive. You get comprehensive disaster recovery protection you can rely on, you reduce the technology and cost burden on your facility, and most importantly, you ensure on-demand access to all medical images whenever and wherever needed.

FROM LEADERS YOU CAN TRUST

Iron Mountain has been the leader in records management and disaster recovery since 1951. Today, more than 45,000 healthcare accounts, including 2,000 hospitals in North America, trust Iron Mountain for their information protection and storage and our digital data protection services manage more than 4 petabytes of data. This experience uniquely positions Iron Mountain to be your partner in digital medical information storage and data protection.

The Digital Record Center for Medical Images, developed in conjunction with HP, is powered by HP's Medical Archiving Solution (MAS) technology which is deployed in more than 175 facilities worldwide. The solution is specifically designed for medical images, and offers the highest levels of disaster protection, recovery, and security.

You can trust your medical images to Iron Mountain's disaster recovery and long-term archiving solution.

DISASTER RECOVERY AND LONG-TERM ARCHIVING FEATURES AND BENEFITS

Disaster Recovery

- Continuous backup ensures the most recent data is backed up and moved off-site.
- Rapid recovery time minimizes downtime in case of disaster.
- Automatic backup frees up staff and resources, and eliminates hassles and problems.
- Off-site storage in secure facilities reduces the risk of data loss and supports compliance.
- Compatible with your current PACS to provide seamless protection.

Long-Term Archiving

- Lower Total Cost of Ownership due to reduced expenses for technology, real estate, staff and maintenance.
- Ability to redeploy people and resources for other tasks.
- No large capital outlay required.
- Managed and predictable monthly costs.
- "Future-proof" technology protection with assured upgrades.
- Rapid access to individual studies 24x7x365.
- Easily and quickly scalable when volume demands change.

DISASTER RECOVERY AND ARCHIVING IN ONE SOLUTION

With Iron Mountain's Digital Record Center for Medical Images, your images are stored in Iron Mountain's underground data centers, which provide an ideal recovery environment, versus on-site or campus approaches. Your archived images are continuously replicated from our primary data center to a secondary data center, ensuring redundancy and high availability for fast access to your medical images. The service is unique in providing both disaster recovery and archive benefits, thereby reducing your overall costs.

The service supports medical images such as radiology, cardiology, and mammography studies in an industry-standard file format, and is comprised of two essential capabilities:

- **Disaster recovery** — images are stored in our secure Data Bunker 220 and are available for rapid disaster recovery in the event of information loss at your facility.
- **Long-term archiving** — a duplicate set of images is stored in our secure Data Bunker 110, geographically dispersed from Data Bunker 220, and rapidly available around the clock, as often as needed.

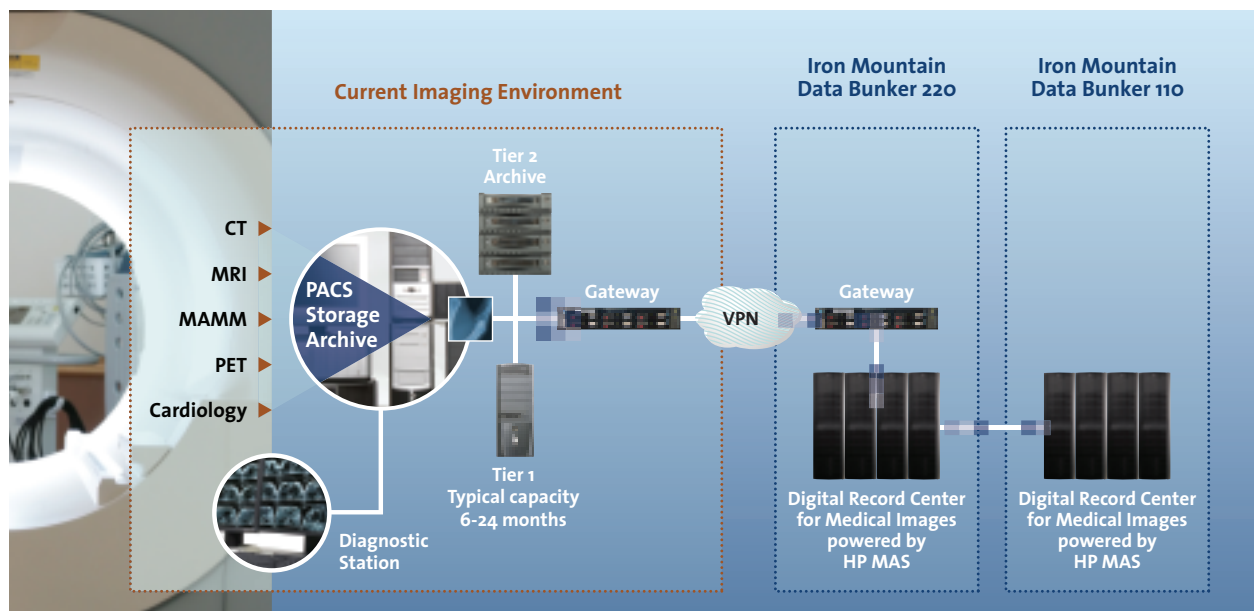
Disaster recovery and long-term archiving enables your healthcare facility to:

- Have the tools to meet HIPAA disaster recovery and compliance requirements (see sidebar);
- Manage medical image archiving cost-effectively;
- Rapidly and routinely access studies whenever needed; and
- Focus on quality of care and cost management.

The service integrates seamlessly with your existing PACS, and is highly scalable and quickly implemented. Most important of all, you can be confident that with Iron Mountain's solution, all your medical images are available when you need them most.

INDUSTRY-LEADING DISASTER RECOVERY SERVICES

Iron Mountain ensures that you minimize downtime in the event of a disaster. Leveraging our proven expertise, this solution delivers optimum Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO). We offer several disaster recovery alternatives designed to handle any amount of data that must be restored. With our staff of



Iron Mountain's Digital Record Center for Medical Images integrates seamlessly with your existing environment, presenting itself to your on-site PACS as a remote storage archive. An on-site appliance — or gateway — connects to the PACS. The digital medical image studies are forwarded from the PACS to the gateway, then transmitted over a secure VPN network to Iron Mountain's underground, remote data center. Iron Mountain's service supports the regulatory requirements for storage, transmission and protection of patient information.

With the addition of the long-term archiving service, data is archived in Data Bunker 220 and replicated to Data Bunker 110 — ensuring redundancy and availability. Maintaining redundant copies of all data at all times, the HP MAS grid computing architecture allows for seamless failover to backup operations in the event of a failure.



HIPAA AND DISASTER RECOVERY

HIPAA contains strong requirements regarding disaster recovery and business continuity planning.

Specific requirements (under Section §164.308) for data recovery include:

- Data backup plan (Required). Establish and implement procedures to create and maintain retrievable exact copies of electronic protected health information.
- Disaster recovery plan (Required). Establish (and implement as needed) procedures to restore any loss of data.
- Emergency mode operations plan (Required). Establish (and implement as needed) procedures to enable continuation of critical business processes for protection of the security of electronic protected health information while operating in emergency mode.
- Testing and revision procedures (Addressable). Implement procedures for periodic testing and revision of contingency plans.

In addition, HIPAA includes many requirements for protecting the privacy of patient information, including how that information is stored and accessed.

Iron Mountain's Disaster Recovery and Long-Term Archiving solution ensures that you have the tools to meet these HIPAA requirements, that your patient information is secure, and that you will be able to recover rapidly in the event of a disaster.

thousands of recovery experts and hardware ready in reserve, Iron Mountain is prepared to respond quickly and get you up and running when disaster strikes.

THE AFFORDABLE ALTERNATIVE TO IN-HOUSE ARCHIVING

Letting Iron Mountain maintain and manage your medical image archiving provides several advantages:

No large capital outlay

Iron Mountain's service requires no large initial purchase, such as is needed for in-house systems. Instead, the archiving service becomes part of your monthly operating budget.

Reduced Total Cost of Ownership (TCO)

Image storage is expensive and costs are rising. Maintaining hardware and systems can be a costly drain on IT departments. Furthermore, many healthcare providers discover they must continue buying high-end storage to keep pace with the volume of medical images being saved. Add in staff, real estate and other resources, and you have an ongoing, major expenditure.

Iron Mountain's archiving service delivers predictable, manageable costs. There is no large upfront capital purchase. We take over the burden of system investment and maintenance, so you don't have to. And, because our investment is spread across many clients, the cost to you is lower. You save on:

- Startup costs
- Real estate
- Staff resources
- Utilities
- System maintenance

A "future-proof" solution

With our off-site managed service, you can eliminate equipment obsolescence and frequent buying cycles. Iron Mountain ensures that your images are stored on up-to-date technology and all studies migrated as needed.

Centralized image storage for better control

Iron Mountain's service ensures that you have a single, centralized image storage system that supports all modalities and is PACS independent, so it will work seamlessly with your systems. You can maintain better control over the images and your use of them.

Fast access to studies

Iron Mountain's archiving service ensures rapid access and delivery of complete files or individual studies whenever needed.

A solution that scales easily and rapidly

Scaling an in-house system can easily take months for capital approvals and equipment deliveries. With Iron Mountain, providers have immediate access to additional capacity whenever needed — for short-term spikes, long-term structural changes (such as acquisitions), and rapidly expanding digital image archives.

LET US PARTNER WITH YOU

Iron Mountain will work with you to evaluate your needs for disaster recovery and long-term archiving. You'll have the industry's leading information protection and storage for your medical images, at a cost that is affordable, controllable and fully managed.

The support you need, now and in the future

Iron Mountain offers full support to help you design, deploy and use your disaster recovery and archiving program. Our support team has deep experience in healthcare best practices. We will get you started quickly, and will be there whenever needed. Iron Mountain's team is available 24x7x365 to support your critical issues, and we respond rapidly to your service requests.

In addition to disaster recovery and archiving, we can also help with all aspects of image lifecycle management, including data migration and conversion, retention management and destruction.

**HIGHEST SECURITY LEVELS TO PROTECT YOUR INFORMATION**

For Disaster Recovery and Long-Term Archiving, Iron Mountain maintains the highest levels of security:

- **Data Centers** — All medical images are stored off-site at Iron Mountain's Data Bunker 220, one of the most secure, commercially available data centers in the world.
- **Advanced network security** — Iron Mountain maintains advanced data security measures, including: Firewall Best Practices, Intrusion Prevention and Data Validation.
- **Reduced compliance risk** — Iron Mountain ensures that your medical images are stored, transmitted and protected according to HIPAA requirements.

YOUR PROVEN DATA STORAGE AND PROTECTION PARTNER

Iron Mountain's reputation has been built on providing comprehensive information protection and storage solutions that mitigate our customer's risks and reduce costs.

To learn more about our Digital Record Center for Medical Images as well as other services for healthcare, visit our Web site at www.ironmountain.com

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