Iron Mountain's *Virtual File Store* Helps Organize Your Digital Enterprise

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Management Summary

March is the time people start to think about spring cleaning – a task that has three purposes. It shows you stuff you had forgotten you had. As a sorting and qualifying process, it lets you rationally decide what can be thrown away, gaining reclaimed space for other uses. And, finally, it gives you a more comprehensive understanding of what you have to work with – a *knowing of what's where* that librarians call *intellectual control*. Business information kept in shared network drives (also called *file shares*) should be subject to this kind of spring cleaning, but for logistical and practical reasons, such efforts often get deprioritized. In kinder times, this shortcoming was not a big problem.

In these days of uncertain futures, many enterprises are seeking to use the information they have about their operations to gain new points of advantage in grim markets. They are also trying to reclaim capacity to control costs and energy use. Spring cleaning would seem to be in order – but it can be hard to figure our where to start – and what can be done. When you are talking about business file shares, the Pareto 80/20 rule seems to work against you. Perhaps 20% of business files are easy to categorize. The vast preponderance is less easy to deal with. To reduce costs, deduplication is a good first step, but IT *deduplication* reduces the storage capacity used, but gives no clarity.

New realities exacerbate the need for better intellectual control of business information.

- **The sources and types of business data and files have grown more diverse.** RFID and other sensor data, surveillance video streams, information from partners, feedback from customers – all can and must be used to drive business efficiency. Using them well is a joint business/IT challenge.

- **All these data sources can – and must – be aggregated for use and analyzed rapidly to catch dire situations in their infancy**. To address large-scale situations, such as product recalls or contamination tracking, many data elements need to be tracked and coordinated. This aggregation requires comprehension and understanding of all the information and data sources that pertain.

- **Burgeoning regulations give newly aggressive fangs to the exhortation** *Prove it!* Most business applications were not designed to support legal forensics on the processes they support. Litigation support, particularly the ability to prove that something did not happen, is impeded by multiple or disorganized files stores.

- **To figure how and where your company can excel safely and cost effectively usually involves analysis of operations across traditional hierarchies.** This is a matter of sufficient access to information sources, as well as deft information use.

Iron Mountain has decades of experience in storage as a service. Now, complimenting its email archives and other specialty repositories, Iron Mountain offers a *Virtual File Store* to handle the miscellanies of unstructured file shares that elude easy management. It is the *completer* – like the serving spoons in a set of silverware – that most businesses need to support their 21st century operations. For more details, please read on.

In Business, Completeness Counts

Modern businesses collect more information about customers and partners and markets than ever before. While the economy may be slowing, those who intend to survive need to keep competitive – something that usually involves *better* use of *more* data. Armed with knowledge, inventories can be leaner, communications with suppliers, distributors and customers can be more relevant and compelling, and business can be more efficient. This knowledge now comes from a more bewildering variety of sources.

The value of keeping information is minimal if you do not know it is there. It is impaired if you cannot find it promptly and use it well. This is why databases, content and records management schemes, and email structural elements have been developed. These are all good, but each addresses only a piece of the pie. None addresses the information amassed in the networked file shares assigned to business units.

Networked file shares, as organizational file systems, control the redundancy of files. Much of the information in these files would have value if you could find it – if and when there was a need. Much of it, if unsecured, represents enormous business risk. Most of it is *not* part of time-sensitive e-business transaction processing. You need to be able to use the information in these files deftly and quickly when the need arises – but most of it does not need to reside in your data center. Improvements in connectivity make access to offsite information as familiar and easy as Internet access, and encryption keeps such access secure.

The Advantages of Elsewhere

Once it is captured, business information does not, and should not, change. Some of it is part of an operational system of record. Other elements contain useful information about customers, products, and other business particulars. Still other data sources, like e-mail, must be kept intact (certifiably complete) to clear the company of suspected wrongdoing.

For these kinds of information, elsewhere has several things going for it.

- *Not here* can provide the remoteness needed for disaster recovery.
- *Offsite* combined with a WORM capability is better isolated from knowledgeable insider malfeasants.
- *Someone else's problem* reduces the litany of problems with which a business must deal, and allows it to be managed by those who do it full-time.

The business reasons that the keeping-for-reference-and-reuse function is best done somewhere else boil down three parameters – *security and accountability*, *money*, and *expertise*. Businesses require the first, want to spend less of the second, and don't have enough of the third (though, in managing business information, some business specific expertise is vital – see the section on Expertise, below).

Accountability

Storage *as a contracted service* can include terms that go beyond *best effort* assurances of availability, etc. These terms can mitigate business risk – as long as you choose a reputable and experienced company with which to work.

Money

When natural growth comes in terabytes, steps must be taken to curb the inevitability of rampant onsite growth. The electric draw of many businesses is increasingly painful and in some cases constrained by the energy provider – or the government. The sprawl of storage may seem less expensive to buy than in years past, but it's environmental and management costs, particularly in an era of server consolidation, have grown. There is the same growing many-ness of elements to be managed, and denser data centers require new cooling strategies.

With file share data safely in a remote repository that can be securely accessed, if it is run by a trusted partner, local (on-site) copies can be erased and the storage reused. Since this offload includes all the different troves of the same information, you may save more storage space than you anticipate, and the offloaded repository may be less voluminous than you had feared.

Expertise

Iron Mountain's experience with its existing specialty archives for email, medical records, and other kinds of information collections, and its acquisition of the eDiscovery company *Stratify* have given it a great deal of expertise – but the knowledge of the particular initiatives, risks and pain points of a business is something only an insider can know.

The data center needs to identify the file shares to off-load. Business and IT need to develop retention policies for different kinds of information. How the business operates will affect what kinds of *findability*[1] will be useful, and how information destruction should be scheduled.[2] The need to share this business-specific expertise with the entity caring for your repository is another reason to choose a reputable business with clear policies on use of customer information and related issues concerning intellectual property. Iron Mountain can provide a continuity that may be helpful as the insiders with relevant expertise inside the company change.

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[1] To develop and keep current a taxonomy of terms of interest to your specific organization, insider knowledge is required. Of course, this is something many are already doing. If there are many taxonomies in use in an organization, offloading to VFS is an opportunity to reconcile them, as much as possible. It can be a time to look for gaps (perhaps in the areas of new initiatives) that may need to be filled – but this is a massive undertaking.
[2] Planned destruction is important. While information is an asset, it can also be a liability.

Iron Mountain Virtual File Store

VFS comes as a rented appliance in multiple models, including, at the high end, a 3-way cluster targeting mid-market and enterprise. The appliance acts as a gateway for the offload of files, both CIFS and NFS. The rate of throughput will depend on the model used and bandwidth available – but remember that this is a background offload of non-transaction information. Speed may not be the critical factor.

The initial offload of a data source is apt to be very large. In such cases, to avoid telecommunications strain or increased costs, Iron Mountain offers a VFS *Data Shuttle* service. A storage device that can be attached to the gateway, filled with transferred data, and then transported, by trusted courier, to an Iron Mountain site. For ensuing periodic transfers, the convenience of network-based transfer is a more probable choice for most businesses.

The off-site VFS repository should be distant enough to be on a different electrical grid and not in the same flood plain. Industry and national regulations may further constrain where the repository is sited. The VFS repository is fully redundant across two sites. Should one go down, the remaining site would begin to replicate the data locally. Iron Mountain can also set up an additional replacement site, if desired.

Each repository has enforced retention schedules and is WORM compliant. Within the repository, each file has a digital signature. Each storage node is RAID protected. These assurances make it safe to reclaim local storage capacity.

With these schemes, the customer is assured of a remote, protected copy of file share information. The completeness of the service offered reduces the local data center responsibilities for work – work that, while necessary, does not add business value. This value can be enhanced by the following Iron Mountain services.

Iron Mountain Services Provided for Repositories and How They Add Value

Recovery

A client can specify, as part of the contract, the immediacy of recovery of information and, if needed, of the application with which the information works.[3] Basic data protection (replication) at the Iron Mountain site will be a part of most contracts. (It is what lets you erase your local files and reclaim storage.) Depending on the nature of the files, particularly their bulk, additional strategies for more speedy recovery may be needed. Iron Mountain can support a variety of strategies.

Retention

With proper policies in place, retention is assured by contract. Needs change. Regulations change. Iron Mountain, as part of its business, keeps informed of regulatory changes and understands their ramifications on corporate information. For many smaller companies, supporting this expertise internally is hard, and leveraging the expertise of others a welcome alternative.

Discovery

Comprehensive discovery tools are important in email and R&D documentation. Corporate communications usually are vetted by lawyers as part of their creation. Information in file shares often is not vetted, but also falls under *eDiscovery* mandates. Consolidating file shares on Iron Mountain VFS can make the discovery process more efficient. They can be used to support business strategy as well as for forensics.

The holistic assessments of corporate risk that are made by most prudent companies will guide how and where you use discovery services. The ability to exclude information sources from a service limits costs. Some files that are transferred to Iron Mountain's VFS may fall into a low-risk category.

Destruction

Destruction is often considered an after-thought, but deserves better. Destruction can limit risk – but, often, exceptions must be made for information that may have unexpected extended value. That is why most Iron Mountain customers prefer to invoke destruction themselves, and not through automation. Iron Mountain provides both options.

Conclusion

When business must to innovate to survive, the completeness of the business record becomes critical. Where a business has found success – and where problems have arisen – are crucial to future planning. Managing this completeness, however, may be neither a core competence nor a strategic objective.

One of the most powerful business values of Iron Mountain is what it allows their clients IT shops not to do. Iron Mountain's Virtual File Store offloads the library-style information maintenance tasks that many organizations have neither the expertise nor the staff to perform on an ongoing basis. Instead, local IT can focus on what will provide real business value.

Consider the benefits of offloading what to your organization is defensive drudgery – to someone for whom it is the basis of their business.

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[3] Separate from VFS, Iron Mountain also provides *Cloud Recovery* cloud storage (off-site data protection) for Microsoft *Data Protection Manager*. Cloud Recovery is offered through Microsoft channel partners.

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