

## Iron Mountain Throws Down the Cloud-Based Storage Solutions Gauntlet

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Iron Mountain recently announced the Virtual File Store (VFS), an offering which consists of an archiving appliance that leverages cloud-based storage infrastructure as part of an enterprise-class information protection and storage solution. Few deny the ease of access and simplicity of management that cloud-based storage options offer, but reliability has been an ongoing concern (based on well publicized outages of other online services) with cloud offerings, and few vendors have integrated enough higher level functionality in their products to credibly claim it as a solution to business problem (as opposed to an improved type of storage target).

Iron Mountain's announcement of their strategy and their first product in this space changes that. VFS boasts all the financial and management advantages that other cloud-based storage options offer, but differentiates itself from them by providing a true solutions orientation, with key functionality critical for managing off-site data effectively over long periods of time. Their pedigree and domain expertise in information protection and storage add to the credibility of this "storage as a service" offering, setting a high bar for other cloud providers looking to compete at the business solution instead of the storage infrastructure level. This was an excellent move by Iron Mountain, and Taneja Group applauds their broad strategy in this space which offers comprehensive options through proprietary and non-proprietary cloud-based archive services.

### A Changing Environment for Data Preservation

Exploding data growth, pegged to be 50% to 60% per year over at least the next five years, is combined with an evolving business and regulatory environment that is driving much longer retention periods for corporate data. Add in an increasingly litigious business environment, and you have the market drivers for a new class of secondary storage. Tape has historically been the secondary storage tier, but an expanding need for data accessibility, even for archived data, and the

need to meet legal requirements such as e-discovery, establishing retention holds, and enforcing immutability (records preservation in a non-rewritable, non-erasable format) is pushing enterprises to deploy an additional online secondary storage tier. The primary storage bloat that is common in enterprises today is driven in large part by historical assumptions that a secondary storage tier is by definition offline (i.e. tape-based) and therefore any data migrated to it is no longer easily accessible for recovery, search, or other management purposes.

Vendors have responded with new platforms designed around scale-out architectures that leverage new disk technologies such as SATA and storage capacity optimization (e.g. file level single instancing, data de-duplication, compression, etc.) to meet these new requirements in a cost-effective manner. If we examine the enterprise's need to retain corporate data for long periods of time, five main use cases become evident:

- Archiving
- Local data protection (backup)
- Remote data protection (disaster recovery)
- Compliance/litigation
- General long term data preservation

In our opinion, these platforms do an excellent job of meeting the requirements, but they still require customers to install and manage storage infrastructure to do so. In-house storage infrastructure also imposes power, cooling, and floor space requirements on data center managers, all of which need to be taken into account as solution total costs of ownership (TCO) are evaluated.

## Enter Cloud-Based Storage

Cloud-based storage, defined as a dynamically scalable, network-based storage target accessible through industry standard APIs like NFS and CIFS, is an emerging technology that offers significant benefit to end users. Cloud-based storage offers easy access to storage capacity without the need to buy, install, and manage any infrastructure. This model opens up the opportunity for cloud providers to create a set of easily accessible storage services to cost-effectively

deliver advanced functionality on-demand and to even the smallest enterprises. The cost and ease of use advantages of cloud-based storage are attractive to enterprises of all sizes, but they are particularly relevant for small and medium enterprise customers who could not even consider in-house options for online secondary storage tiering in the past.

## Leveraging the Cloud

Iron Mountain is a \$3B vendor whose focus is to reduce the costs and risks of information protection and storage. With over 120,000 customers and 93% of the Fortune 1000 using their products and services, they have established themselves as *the* trusted repository for the business world's off-site data stores. With their recent announcement of VFS, Iron Mountain is unveiling a strategy that will almost immediately have an impact in the secondary storage market. VFS is transparently deployed at customer sites, and through policies established by administrators, creates and maintains a cloud-based secondary storage tier that is spread across secure facilities owned and managed by Iron Mountain. Customer data is transparently migrated to this lower cost online tier, relieving primary storage bloat yet still keeping that data directly accessible by end users. Iron Mountain offers sophisticated recovery, retention, discovery, and destruction capabilities in this "storage as a service" offering that boasts low upfront costs, a pay-as-you-grow model, continuous access to stored data, highly secure storage, and is easily accessible through industry standard APIs (CIFS, NFS). VFS offers the range of management capabilities necessary

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to meet all five use cases mentioned earlier (archiving, local and remote data protection, compliance/litigation, and general long term data preservation). Iron Mountain's plan to release a set of open, documented "archive APIs" later this year which provide access to this same cloud-based infrastructure completes the picture, giving customers the option of either an end-to-end solution from Iron Mountain (VFS) or allowing customers to continue to manage their archives through pre-existing tools (Symantec Enterprise Vault, etc.) without having to manage the physical archive infrastructure.

### **Market Impact**

Iron Mountain's pedigree in information protection and storage is the deepest in the industry, and in survey after survey of their own customers, "trust" and "reliability" are what differentiates their offerings from others in the market. Their entry into the cloud-based storage market validates that segment in a way no other vendor could, and they've done it with a strategy that over time comprehensively addresses archive requirements for enterprises of all sizes with an offering whose capabilities are well matched to new requirements for an online secondary storage tier. VFS includes the required features to provide comprehensive solutions to the five key secondary storage business problems.

Iron Mountain's existing relationships with their customers, combined with their huge installed base, gives them an excellent opportunity to dominate cloud-based archiving solutions. Iron Mountain has defined a non-disruptive migration plan that allows their legacy customers to move portions of their rapidly growing data from tape-based to cloud-based operations for off-site data storage, giving them the inside track for those considering the benefits of an affordable online secondary storage tier at an off-site location. Reliability has been a key concern of customers evaluating cloud-based offerings, but Iron Mountain arguably has more expertise than any other vendor in this space in providing storage services for mission-critical data.

Iron Mountain's announcement uplifts the dialog around cloud-based storage to more of a solutions focus. For a true utility computing model to become viable, vendors have to provide not just web access to compute cycles and storage capacity, but reliable solutions to business problems. This announcement signals that cloud-based offerings can be serious storage infrastructure solutions for enterprises of all sizes, and establishes a standard that other cloud providers will be hard pressed to meet.

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