

Iron Mountain Updates PC Backup Product as Market Demand Escalates

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Iron Mountain is looking to grow its leading market share in the PC backup market with a major architectural update of its Connected Backup/PC product. It is building on the product's strong data reduction capability and ease-of-use strengths.

WHAT YOU NEED TO KNOW

Iron Mountain has released a major update of its PC backup product, Connected Backup/PC, just as enterprises are getting serious about protecting PC data. The percent of laptop PCs purchased by corporations as a percent of the total systems purchased is forecast to grow from 29% in 2005 to 44% in 2010. While protecting PC data is a growing problem in corporations, occasionally connected (and, more frequently, lost or damaged) laptop machines offer a special data protection challenge that requires a backup solution designed for that environment. Connected Backup/PC is one of the few products that meets the unique requirements of the PC backup market.

ANALYSIS

Most companies do not back up PC data. Instead, they rely on users to move important data to shared drives or implement some sort of local backup process on their own. Although PCs regularly connected to the corporate network can be protected using the enterprise backup product, the time to back up data and the impact on the system performance are often issues. Exchange users are increasingly caching the application on the desktop, with personal stores (*.pst files) only on the desktop and not on protected shared servers. With the increased deployment of laptop machines, and with remote and mobile computing increasing in popularity, special backup tools for occasionally connected machines, such as Connected Backup/PC from Iron Mountain, are becoming a requirement.

Requirements for a PC Backup Product

Remote and mobile PC users have a propensity to ignore policies that require "self-directed" backup. Thus, the backup process should be transparent to the user and initiated based on a schedule and/or the event of being connected to the network. A mobile user may need not only to recover data but also to repair PC settings or corrupted applications.

Approaches to protecting PC data range from PC imaging; to local backup with a direct attached tape, disk or CD/DVD device; to networked backup using traditional enterprise backup or PC-specific solutions. A full-recovery plan for PCs includes the availability of spare hardware in case of hardware failure or loss of the system. Imaging products often used for new system deployment can also be used to re-image a corrupted operating environment. Although some PC protection products target data and the operating environment, most companies prefer to re-image the operating environment with the most recent code and patches rather than recover the system files to the version that was on the damaged or corrupted PC. Thus, most companies look for a PC backup product that will focus on data recovery and basic registry repair capabilities.

The backup operation needs to be transparent to the user and not affect the use of the machine while the backup is in progress. Sending only changed data reduces the amount of transmitted data and the overall backup time. The ability to handle open files is also key. This is especially important in the case of personal stores, which are open whenever Outlook is open; and for most users, Outlook is always open. The user's ability to recover his or her files is also a requirement. Because the data may need to be recovered to a different machine in case of failure, the recovery needs to be able to target a different destination machine. Only a few vendors focus on the unique requirements of PC backup. Iron

Mountain offers one of the most established products in the market and recently released a major architectural update to the product.

Evolution of Iron Mountain Connected Backup/PC

Connected was one of the first vendors to deliver a solution that targeted the unique requirements of PC backup. It first offered Connected Backup/PC as a service in 1996. Two years later, Connected began offering this solution as a licensed product as well, responding to the demands of its larger customers that wanted to run the solution in their own data centers. Iron Mountain acquired Connected in 2004.

In April 2006, Iron Mountain released v.8.0 of Connected Backup/PC. This new release is a complete architectural refresh that takes advantage of new operating system and communication technologies. In June 2006, the company provided internationalized versions that expanded beyond the initial English support to include the languages supported in v.7.

In the PC Data Protection Suite, Iron Mountain has packaged Connected Backup/PC with DataDefense to form an integrated PC protection solution. DataDefense, a security product from Beachhead Solutions, is designed to detect behaviors that are inconsistent with authorized PC use. When such behavior is detected, sensitive data is automatically deleted and the PC is disabled, rendering the data useless to thieves. When the PC is found or returned, or when a new PC is supplied to the user, the backup solution can be used to recover the data.

Iron Mountain offers the Connected Backup/PC solution worldwide through various types of channels. The company reports over 800 customers have licensed the product to support a total of more than 3 million PCs. The company also has reported 762TB of PC data in its managed service business. The company uses a direct sales force in North America and Europe. In other geographies, it relies on a network of resellers, including Itochu Techno-

Solutions (CTC) in Japan, Ace Data in India, and Telstra in Australia and New Zealand. EDS, one of the service providers offering PC backup as a service using the Iron Mountain technology, offers the service in 50 countries in North America, South America, Europe, Australia and New Zealand. Iron Mountain has software support centers in the U.S., Europe and India.

Connected Backup/PC's Backup Approach

The Connected Backup/PC process works on a scheduled basis or, if a schedule is missed, when the machine is next connected to the network. At the time of backup, the desktop agent scans the PC's disk and determines what data is to be sent. The product delivers significant data reduction, which minimizes the amount of data that needs to be transmitted and reduces the amount of backup disk required. It does so by using Iron Mountain's patented DeltaBlock technology, which only sends the blocks that have changed on a PC, and SendOnce global Single Instance Store (SIS) technology, which only sends files that haven't been backed up on any of the PCs, plus additional compression.

When the data is ready to be transmitted, the backup server authenticates the PC agent's connection via the user encryption key, while the PC agent authenticates the server via a certificate embedded in the agent installation package. The agent then encrypts each file flagged for backup using 128-bit Advanced Encryption Standard (AES) encryption and sends the file that contains only the changed blocks to the backup server. The backup server periodically runs a process that incorporates changes and re-indexes its view of each user's files, building a new base and index for fast recovery.

The new version delivers a major update to the client software, delivering a product with a dramatic reduction in user impact during backup, and overall improvements in performance and usability. The product provides a set of standard management

reports on backup metrics. The company continues to offer the Connected Backup/PC Email Optimizer, an add-on option that provides for more-granular handling of locally stored Exchange or Lotus Domino messages. This option separates the message from attachments and then uses the Iron Mountain SendOnce technology to deliver SIS. Without the added option, e-mail is handled as a single file for backup purposes. Microsoft SQL Server is required on the backup servers, and a Web server is required to run the Web-based management tools and MyROAM. MyROAM is a configurable option that enables users to download their files from the backup server to another PC using a standard Web browser and Internet connection.

Connected Backup/PC's Response to the Most-Popular PC Backup Features

Following are the features that companies request when looking for PC backup support, and how Connected Backup/PC meets those requirements.

- *Desktop platform support:* Windows XP/2000 with support for Mac, Windows Vista and Linux operating systems on Iron Mountain's road map for 2007.
- *Nondisruptive, background backup:* Yes
- *Full-system or data-only backup option:* Yes
- *System heal capability:* Yes
- *SIS:* Global SIS across all PCs for files and, with the Email Optimizer feature, also for locally stored Exchange or Lotus Domino messages and attached files
- *Mid-file restart in the event of connection disruption:* Yes, restarts where the backup left off. Does not start the backup again from the beginning.
- *Options for recovery:* Web, Connected Backup/PC Agent, compact disc, DVD
- *User recovery of own files:* Yes
- *Centralized management console to support multiple remote backup servers:* Yes
- *Encryption:* 128-bit AES used during transmission and on the backup disk
- *Size of desktop agent:* 25MB
- *Agent installation:* First-time installation is via Microsoft Systems Management Server (SMS) or other software installation tool; updates are then

pushed automatically during a regularly scheduled backup

- *Number of versions retained:* Configurable by number of days and/or number of versions for changed files, as well as number of days for deleted files
- *Bandwidth throttling:* Not available, but on Iron Mountain's road map for early 2007
- *Open files handling:* Through Microsoft Volume Shadow Copy Service (VSS) support for Windows XP PCs; through integration with Columbia Data Products, if installed
- *Unicode support:* Yes
- *Language support:* Brazilian Portuguese, Dutch, English, European Portuguese, French, German, Hungarian, Italian, Japanese, Korean, simplified Chinese and Spanish
- *High-availability option for backup server:* Supports clustered backup servers

PRODUCT STRATEGY

Connected Backup/PC is part of Iron Mountain's strategic move into the digital service market. The primary focus of the Iron Mountain digital business unit is to deliver service solutions; however, the company continues to sell this product to large companies that prefer in-house management or where the number of supported PCs, coupled with an IT infrastructure, makes an in-house solution more cost-effective. Iron Mountain also licenses the product to resellers that have the infrastructure to run their own service business, especially in geographies where Iron Mountain's digital business unit has less of a direct presence.

Iron Mountain is a \$2.3 billion company with a worldwide business in information protection and storage services. Best known for its storage of physical assets, such as paper documents and backup tapes, the company has been moving into the recovery and electronic records management markets, setting up its worldwide digital business unit as a financial reporting segment in January 2006. The business unit represents 6% of the company's overall revenue and consists of two product lines: digital data protection and e-records management. Digital data protection includes server backup products and services from the November 2005

acquisition of LiveVault, and PC backup products and service from its November 2004 acquisition of Connected. Iron Mountain had offered server and PC backup services through reselling partnerships with the two vendors before acquiring them.

STRENGTHS

- Experience in protecting PCs in licensed and service environments
- Strong references and worldwide sales and software support
- Technology with a focus on the special requirements of the PC environment, including global SIS, automated, nondisruptive operation, granular support for data protection of local mail files, and user recovery options

CHALLENGES

- The assumption that the brand recognition for Iron Mountain as “the data storage company” also gives Iron Mountain digital credibility in the backup software market, which results in less-aggressive product marketing and promotion
- The company focus on selling services has resulted in limited and confusing information about the product offering on the company’s Web site
- No integration with enterprise backup solutions or tape for disaster recovery

CONSIDER THIS PRODUCT WHEN

- You require automated, efficient, nonintrusive backup for desktop and laptop PCs.
- You require a product for one of the many languages that Connected Backup/PC supports.
- You need to back up large numbers of PCs (1,000 or more), although the offering supports installations of all sizes.

CONSIDER ALTERNATIVES WHEN

- You require support for a dial-up connection.
- You need to support Mac, Linux, Windows 95 or older operating environments (Mac and Linux are on Iron Mountain’s road map but are not supported today).
- You require fast recovery of the full system, including operating system, applications and data. PC imaging solutions may be a better option.

Company Information

Iron Mountain

Headquarters: Boston, Massachusetts

www.ironmountain.com

Founded: 1951

Ownership: Public

Employees: 15,500+ at 850 facilities worldwide

Financial Data: Revenue: 2004 - \$1.8 billion; 2005 - \$2.1 billion

Partners: EDS