



Instant Insight
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EMC Connects More ILM Dots

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EMC has announced multiple products and solution to strengthen its ILM capabilities. The products focus on EMC's information management software that the company is tying in with previously announced services. With this announcement EMC claims it has launched nearly thirty products, solutions, or services in 2004 to advance deployment of ILM.

EMC is announcing products in three main areas:

◇ **High-end replication and data mobility software:**

- *SRDF/Star* allows customers to make copies to two data centers and continues to protect even if the primary data center is not available.
- *EMC Open Replicator for Symmetrix* uses lower-cost storage for remote protection, and allows applications to restart before all of the data has been copied back to the destination.

These products focus on tiered storage infrastructure through advanced protection for multiple sites as well as lowering the costs of remote protection. EMC also uses VMWare software to enable server consolidation at remote sites.

- ◇ **Application-aware software capabilities and solutions** that support email and database. These products implement ILM policies dependent on the type of application involved through *Database Xtender* and *Email Xtender*. They are designed to optimize performance of production data, and archive and manage databases and email.
- ◇ **Application-independent file movement** is important for consolidated NAS environments. This is the antithesis of the Xtender products as ILM policies are invoked regardless of the underlying application.
- Celerra FileMover for the NAS Gateway is designed to manage files based on defined policies.
 - Documentum Content Storage Services use metadata that are then managed by policy for more cost-effective management.

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It is the nature of the ILM beast that induces vendors to deliver solutions as a hodge-podge of specific bit products and services. Unfortunately, this makes it hard to fully assess the impact of EMC's announcement. While no one particular bit is earth-shattering in itself, the accumulation of capabilities truly is significant, sort of like ILM itself. ILM is not a single technology problem, but it is about business resource management and the technology necessary to support thinking about information in new and strategic ways. There will never be one vendor SKU that solves ILM, because it affects enterprises differently, depending on their structure, industry, and place in the business value chain.

ILM, in its current incarnation, focuses on turning random storage into services based on policies which in

turn are based on business requirements. EMC has taken some of the best-understood and most urgently needed issues: enterprise backup, database, and email management, and targeted them first. It has also begun to investigate further up the chain of ILM needs as well.

To our way of thinking, ILM is really the data and information side of the demand-driven enterprise. Not only does data need to be available and maintained in ways that fit the demands of regulators and legal rules, but ILM is also based on prudent use of resources that reflect fiscal responsibility. Not all data is created equal. Faced with this reality, storage vendors have risen above the stomach-churning arguments of disk access speeds and fibre channel loop arbitration to thinking about ILM. Logically, their approach has been driven by their heritage, with most hardware vendors working their way up the stack from the raw system metal, through the operating and file systems, and finally approaching the applications space. Much of EMC's thinking has followed this approach. Like IBM, HP, StorageTek, and others, EMC started by making the hardware more flexible and capable. While this approach could not be taken by software-only vendors like Veritas, the major hardware vendors have focused on making hardware work better, easier, and more cost-effectively. The real barrier, however, is the looming issue of applications.

EMC has taken an important first step in separating data that operates based on the type of application — such as email and database — from data that needs to be managed as files regardless of the application. However, Sageza believes that ILM will not become a ubiquitous component of enterprise computing until there are a standard series of identifiers and capabilities that application vendors can link into their software. This standard set of application integration APIs will allow application to interact with the storage environment (and probably the computing virtualization environment) so that the application, which understands the content and its business use, can act on behalf of the enterprise to make the storage management do what needs to be done. This should significantly simplify the development and integration of applications with the overall IT environment especially across time, as the applications change and the entire environment becomes increasingly dynamic.

While we are a long way from ILM nirvana, the good news is that organizations like SNIA and FCIA exist and storage vendors are used to working together, originally to get connectivity standards down, and more recently the management standards as well. Once the application (or maybe call it the ILM API) layer is reached, all storage, application, and system vendors will be able to deliver what enterprises want seamlessly: predictable results which will be truly useful to customers worried about specific content from specific applications. EMC's work in the meantime is important as a baseline, filling in the myriad spaces needed for customers to make sense and use of the billions of bytes of information lurking in their corporate sofa cushions.