Newsletter

IBM Information Infrastructure

December 2008

IBM®

Welcome

Welcome to our quarterly IBM Information Infrastructure newsletter.

IBM continues to build momentum with the integrated information infrastructure solutions designed to help clients improve their information infrastructure capabilities in four key business areas:

- Information Compliance
- Information Availability
- Information Retention
- Information Security

We've recently added more exciting offerings to our integrated portfolio, including:

- The new IBM System Storage™ **SAN Volume Controller Entry Edition** offers storage virtualization functionality in a more affordable package optimized to meet the needs of mid-sized businesses.

- For improved information security support, the new **Tivoli Key Lifecycle Manager** offers a simple, automated approach to the complex problem of key management.

- New IBM tape and disk offerings integrate with the new **IBM System z10 Business Class mainframe**, helping our new mainframe clients simplify their storage infrastructures, support business continuity, and safeguard their information.

In today's tough business environment, we are offering some attractive leasing and payment options. Until year end, **IBM Global Financing** is offering **"no interest, no payment for 90 days"**. Details can be viewed on the last page of this newsletter.

Please make plans now to attend IBM Pulse 2009 in Las Vegas, February 8-12, to see the next wave of IBM Information Infrastructure in action. You'll meet experts, see an extensive exhibit with live equipment and demos, and have your choice of over 35 business and technical sessions on Information Infrastructure and Dynamic Enterprise.

Susan C Blocher

Susan Blocher

Vice President
System Storage Marketing

IBM Information Infrastructure Solutions and Tools are Getting Rave Reviews

"The IBM Information Infrastructure Initiative is a new and vitally important pillar supporting the firm's New Enterprise Data Center program. By helping customers think holistically about storage, information service delivery, and automation of best practices, IBM is taking a major step towards enabling customers to cost effectively improve service availability and resource utilization in what is one of the most mission critical and fastest growing data center resource areas."

Enterprise Strategy Group
"IBM Information Infrastructure Initiative Aims to Tame the Information Explosion"

Link here

"We consider the Information Infrastructure to be a return to a more powerful past for IBM and potentially one of the most powerful and interesting things IBM has done so far this decade."

Rob Enderle
The Enderle Group
"The New Old IBM: IBM's Information Infrastructure"

Link here

"The new IBM Global Archive Solutions Center, a first of its kind, offers a place to learn about and see industry-leading archival solutions that fit the organization and its budget."

The Clipper Group

"Designing Optimized Use of Business Information with the IBM Global Archive Solutions Center

Link here

"With what has become a dominant range of products and services for information security, IBM stands in a position few other major competitors can match when it comes to the breadth of capability it offers, now augmented by the ability to leverage the transparent efficiencies of encrypting drives and expanding key management capabilities for securing data at rest." says Enterprise Management Associates® (EMA™) in the whitepaper "Security for Data at Rest: Critical Challenges and IBM Information Infrastructure Solutions". To read details, link here.

Philippine Airlines Selects IBM System Storage to Support Exponential Growth

" We can build an information infrastructure with which we will be able to deliver improved service levels, reduce business risks, and manage the information explosion effectively."

Joffrey Foronda, Manager for Infrastructure and Storage Management, PAL

Link here

"If your enterprise is battling with increasing back-up data and the never-ending war with the ever-shrinking backup window, you need to look at the advantages that IBM is offering with the newest members of the TS7700 family. Whether your requirements are for a D2D or a D2D2T environment, IBM has a well thought-out Information Infrastructure solution that employs the latest technology for your enterprise."

The Clipper Group

"Virtualizing the High-End Tape Environment -- IBM Enhances VTL Offering

Link here

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Storage Virtualization Leadership Continues

IBM's industry leading storage virtualization software comes in a new packaging specially designed for small and medium sized (SMB) businesses.

Just like enterprise clients, small to medium sized clients must deal with exploding volumes of data that must be stored. With the SVC Entry Edition, clients can keep control of storage costs to improve storage utilization, which can help reducing energy consumption for a greener data center," said Jorge Quintero, President, QCM Technologies, Inc. "By offering a more affordable entry price point, QCM Technologies can help meeting the demand that our clients have to get the most out of their information infrastructures."

Since its introduction in 2003, IBM has shipped over 14,000 SVC engines running in more than 4,600 SVC systems. The SVC supports a myriad of disk systems from IBM and non-IBM including the recently the new IBM XIV Storage System, the IBM System Storage DS5000. New interoperability support for SVC also includes Microsoft Hyper-V, HDS Universal Storage Platform and HP XP20000/XP24000.

SVC Entry Edition is generally available. Link here

Next-Generation Storage Offerings Help Mainframe Clients

IBM announced new innovations in information infrastructure storage solutions for IBM System z environments, featuring next generation tape and disk storage offerings to integrate with the just announced IBM System z10 Business Class mainframe. These IBM storage offerings are designed to help clients simplify their storage infrastructures, support business continuity, safeguard their information and extract more value from their System z mainframe environments.

- **New Innovation in Enterprise Disk Storage**

  IBM announced innovative new capabilities for the IBM System Storage DS8000 series, which includes features designed to extend the performance and availability of IBM system z environments.

- **IBM Next Generation Enterprise Tape Storage**

  IBM also announced new information availability, security and retention enhancements to the IBM Virtualization Engine TS7700 product series. To offer clients the ability to use the right technology to solve their backup problem, the TS7700 family has been expanded to include a new model — the TS7720 Virtualization Engine. The TS7720 provides the benefits of the TS7700 Virtualization Engine with the additional flexibility of storing up to 70 Terabytes (TB) of data on a disk.

Read the whitepaper from Clipper Group , "Virtualizing the High-End Tape Environment -- IBM Enhances VTL Offering". Link here

Deploy a Simple Solution to a Complex Problem

The new **IBM Tivoli® Key Lifecycle Manager** provides a simple solution to the complex problem of key management. Traditionally, the more encryption you deploy, the more keys you have to manage. And these keys have their own lifecycles, separate from the data they're protecting—and that lifecycle has to be managed, from initialization and activation through expiration and destruction. Tivoli Key Lifecycle Manager can help you better managing the encryption key lifecycle, allowing you to simplify, centralize, and strengthening your organization's key management processes.

Together with IBM's innovative self-encrypting storage offerings, Tivoli Key Lifecycle Manager offers customers a proven solution that can address their concerns when a tape cartridge or disk drive is removed from the storage system and transported in-house or off-site. Lost storage media is not uncommon these days and brings with it enormous direct and indirect costs for those who lose sensitive information. With IBM System Storage™ self-encrypting offerings and Tivoli Key Lifecycle Manager, customers no longer have to worry about losing sensitive information should tapes gets misplaced or stolen.

Link here for more.

Content Collection and Archiving

Up until now companies had to use one application to archive email and another to archive files. No longer. Just released, IBM Content Collector enables clients to archive both sources of unstructured data through a common interface onto a single storage device. The new IBM Content Collector offerings can work with your enterprise content management system to make your information more accessible, more manageable and ultimately more usable. IBM solutions can help you get the most of your information assets and build value for your business—all at a potentially lower total cost of ownership than traditional archiving point solutions. For more information, link here.

Information Retention

IBM's leading information retention system, the IBM System Storage™ DR550 is designed to help businesses to meet the growing challenge of retaining and protecting key business information with security and operational efficiency. Archiving with the IBM System Storage DR550 can help companies addressing their data growth challenges, manage data throughout its life cycle, while reducing the cost of storing data over the long-term. New RAID 6 capability adds tolerance for multiple simultaneous HDD failures, providing new levels of availability and security.

To learn more on DR550, link here.

Key Criterias for an Enterprise De-Duplication Solution

De-Duplication Efficacy: Technology should efficiently find and eliminate redundant data, at a fine grain—capturing small data matches to the 2K size. Such technology should achieve 20 – 25X de-duplication within 90 days in a typical customer environment.

Performance: Data is growing, backup windows are shrinking. Solutions must allow customers to process more data faster.

Capacity: Business needs and regulation are driving the need for long term on-site disk-based data retention. Solutions must allow for large and growing (hundreds of TB) repositories on a per system basis. Systems that can only support 20 TB repositories or less require enterprise customers to manage an ever growing number of independent islands of storage.

Data Integrity: Information is the company's lifeblood. The risk of data corruption that is associated with the de-duplication process must be zero. Specifically, large environments do not tolerate even the theoretically low risk of "hashcollision" (basically a "false positive" whereby the wrong data is de-duplicated).

Non-Disruption: The solution must fit with the existing practices, policies and SLAs.

Source-Agnostic De-Duplication: The de-duplication algorithm should be able to handle any data that is sent to it, irrespective of source and content. In other words, it is important that the system is not to be limited to a specific type of backup application, and that it will not require an effort to reverse-engineer the incoming content. The assumption is that end-users wish to maintain great flexibility and send ever-changing types and sources of data to the de-duplication system.

IBM recommends that any de-duplication offering to be evaluated along the above dimensions. For more details on each criteria, please click this link.

Data De-Duplication - What is the Essence?

Broadly defined, de-duplication is a method for finding and eliminating redundant data from the network and/or storage infrastructure. The great benefit of de-duplication technology is that it can dramatically increase the effective capacity of a given storage pool. This directly translates to hundreds of thousands or millions of dollars saved in the cost of storage. But, harnessing this promised value is not always straightforward. There are a wide range of de-duplication offerings on the market today, and these solutions vary greatly in their underlying de-duplication algorithms, system architecture, functional usecase, strengths and weaknesses.

Because of these differences—and the associated risks—IBM strongly encourages end-users to consider a range of factors beyond the ability to de-duplicate their data when they are evaluating the solutions. In speaking with our customers over the past several years, we have identified a list of key criteria that an enterprise-class solution must have. The table on the left outlines these key criteria and their importance.

To learn about IBM's solution for Data De-Duplication, link here

The IBM System Storage TS7650G ProtecTIER De-duplication Gateway, based on the innovative Diligent ProtecTIER technology acquired by IBM in 2008, was designed to deliver the scalability, performance, and ease of use required to meet the data protection needs of midrange and enterprise-class data centers. This ESG Lab Report examines the enhanced ease-of-use, performance, and fault tolerance of the latest version of ProtecTIER inline de-duplication software running within a clustered pair of IBM TS7650G appliances. For details, link here.

Centralize Encryption Key Management

Business data is growing at exponential rates, and along with that growth comes a demand for securing that data. Enterprises have responded by implementing **encryption** at various layers - in the hardware, on the network and in various applications. This response has resulted in a series of encryption silos - some of it holding confidential customer data—with fragmented approaches to security, keys and coverage.

Different applications across the enterprise often employ different methods of encryption. Some departments in the organization may use public-key cryptography while others use secret-key or hashes. Still others don't encrypt data while it's at rest (such as when it is stored on a device or in a database) but only when the data is in motion, using virtual private networks (VPNs) to secure the data pipeline.

Key management for these encryption approaches is often similarly fragmented. Sometimes key management is carried out by department teams using manual processes or embedded encryption tools. Other times, the key management function is centrally managed and executed. In some cases, there is no formal key management process in place. This fragmented approach to key management can leave the door open for loss or breach of sensitive data.

Solid State Drive Sets Speed Record

Engineers and researchers at the IBM Husley Development Laboratory in England and Almaden Research Center in California have set a record in storage speed, outperforming the current rate by more than 250 percent. By combining Flash solid-state technology and IBM's storage virtualization technology, the researchers were able to transfer data at more than 1 million Input/Output (I/O) per second.

The results have profound implications, especially for businesses that rely on computational speed such as reservation systems and financial trading systems. Solid state storage is faster than the traditional disk drives because it uses no moving parts, thus eliminating many of the access delays associated with electro-mechanical disks.. It also requires less floor space and energy. But experts say achieving gains will need more than new hardware. To learn more, read here.

Most Popular Disk for System z

When you think of the mainframe-class storage, what comes to mind is the highest levels of performance, availability, and resiliency that can support the most demanding applications, and the IBM System Storage DS8000 Turbo enterprise disk platform does just that. This makes it the ideal storage platform for supporting today's round-the-clock, global business environment. What's more, with its tremendous scalability, broad server support and flexible virtualization capabilities, the DS8000 Turbo can help simplifying the storage environment and consolidating multiple storage systems onto a single DS8000 system. That's exactly why the mainframe customers trust their most demanding System z applications to this IBM flagship storage platform. In fact, the DS8000 is the world's most popular disk storage platform for System z environments.

Watch this (link) 3D look inside the DS8000 Turbo.

Support for the new High Performance FICON for System z protocol can not only double the performance of online transaction processing (OLTP) workloads running on the mainframe, it can also help to reduce overhead and improve end-to-end system reliability, availability, and serviceability (RAS). Another new function is z/OS Metro/Global Mirror Incremental Resync, which enhances the DS8000's existing three-system, multi-target business continuity solution. After a GDPS Hyperswap occurs where the primary storage system experiences an outage and is quickly replaced by a secondary system, Incremental Resync only needs to send the data that was "in flight" when the outage occured, instead of having to send and resynchronize the entire volume or volumes of data from the secondary storage system to the remote system. As such, the DS8000 can reduce the resynchronization time from hours to minutes! Not only can Incremental Resync greatly reduce the resynchronization time and bandwidth requirements after a Hyperswap, it can lead to more effective data consistency between long distance sites very quickly to help reduce the risk, should another outage occur (for instance in the case of rolling power outages).

XIV - The New Revolutionary Disk System

The IBM XIV® Storage System is a revolutionary high-end disk system for open system server environments supporting key business requirements for a highly available information infrastructure. Its design is a grid of standard components, connected in any-to-any topology using Gigabit Ethernet. Its patented data distribution algorithm automates data placement and control enabling self healing and self tuning. Combining that with its easy to use, intuitive user interface, management is amazingly simple. This groundbreaking architecture provides exceptional performance, scalability, and reliability. It is a core component of the IBM Information Infrastructure which helps clients address their needs for availability, security, compliance and retention of information.

See for yourself how easy XIV's management interface is to use!   **Link to GUI Demo**

Hear what NaviSite has to say about their experience with XIV   **Link to video**

IBM Global Financing

IBM Global Financing, the lending and leasing business segment of IBM is offering "Why Wait," a no interest no payments for 90 days deferral plan to support eligible customers acquiring IBM System Storage now through the end of 2008. The financing structure is a 36-month fair market value lease. Customers installing the new hardware under the promotion terms make no payments for 90 days, and then make 36 even monthly payments. Customers must be credit qualified, lease the eligible equipment with the IBM Global Financing for the promotional term and structure, and install the product in participating countries by Dec 31, 2008. Terms and conditions may vary by country.

For more information, please visit: www.ibm.com/financing/whywait

Storage Optimization Self Assessment - 5 minutes with this tool could free up to 15% of your storage!

Interested in taking the first steps to streamline your storage environment, reduce costs and minimize risk associated with your data? Need help assessing your current Storage environment to see where you may have issues and gaps? Take this on-line tool. It can help you identify areas where you need to focus, plus give you recommendations on your best next steps to an optimized Storage infrastructure. Link here.

Data Mobility Self Assessment - 5 minutes with this tool could save you months of planning!

Are key business issues and the explosive growth rate of storage driving you to optimize your storage infrastructure and evaluate virtualization, right tiering, data center relocation or consolidation initiatives? When you make any of these changes, you'll have to securely migrate your data and minimize the disruption to your business. Learn how you can leverage IBM's Data Mobility software and best practices to reduce risks, cut costs, and minimize the application outages associated with data migration. Take this on-line tool to determine your preparedness for your next key initiative. Link here.

TSM FastBack Solutions Live Demonstration.

Watch live demonstration of TSM FastBack and TSM FastBack for Exchange data protection products.These solutions provide the ability to meet aggressive Recovery Point and Recovery Time Objectives in an organization's data protection service. Link here.