

Newsletter

IBM Information Infrastructure



March 2009



Welcome

Welcome to our quarterly IBM Information Infrastructure newsletter.

IBM is paving the way to help our clients implement information infrastructure solutions to manage their skyrocketing data more securely and efficiently.

On Feb 9, IBM announced new and enhanced products, services, and solutions to help our clients increase efficiencies and reduce risks:

- Clients can **reduce costs up to 50% and achieve new levels of efficiency** for storing, archiving and managing information with IBM's expanded suite of ProtecTIER data deduplication appliances, XIV Storage Systems and Tivoli Storage Management software
- Clients can **mitigate information risks and reduce information security costs** with IBM's new enterprise disk encryption for DS8000, Tivoli Key Lifecycle Manager, and new GTS data loss prevention appliances
- Small and medium sized businesses can manage information more efficiently and reduce data risks and IT costs with IBM's **expanded suite of easy-to-use and well priced information infrastructure solutions and services**

As always, [IBM Global Financing](#), is available to provide funding in the form of leases and loans.

Would you like to learn how you can create a smarter infrastructure?

Please join us in a webcast to learn the foundation of a Dynamic Infrastructure.

[Webcast: Creating a smarter infrastructure](#)

Susan Blocher
Vice President
System Storage Marketing

Why Information Infrastructure?

Today, information has become the lifeline for business sustainability and competitive advantage. Firms of all size are searching for practical ways to create business value – to get their arms around information, correlate insights and to confidently predict outcomes and take action.

For CIOs, the information era poses unique challenges: how to cost-effectively store, archive and retrieve a virtual explosion of new information, how to protect and secure that information, meet compliance requirements and make it accessible for business insight, where and when it's needed.

Data Volume

By 2010, the codified information base of the world is expected to double every 11 hours. Data is exploding, & its nature is changing to machine-generated – from sensors, RFID, meters, GPS systems & more

Data Variety

With the expansion of information comes large variances in the complexion of the available data – 80% of data is now unstructured, contributed largely by email, documents, images and video

Data Risk

With more than 30 new compliance regulations worldwide, the amount of data that is subject to regulation is growing at 64% per year. More than 60% of IT executives now rate compliance with regulations a top challenge

Data Retention

Many industries require certain data to be stored for more than 50 years. But on average 37% of a firm's data is inactive or expired. Storing and archiving this data unnecessarily increases business risk, energy consumption and IT costs

Without a dynamic information infrastructure, organizations will find themselves facing higher operational costs and greater exposure to business risks.

To help our clients, IBM is addressing these challenges with [Information Infrastructure](#) solutions for efficiently managing information growth, supporting compliance, reducing storage and archiving costs and enabling continuous access to information in support business requirements.

"We can build an IT 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,
Philippine Airlines, Nov. 2008



The best got better: Introducing Tivoli Storage Manager 6

IBM Tivoli Storage Manager (TSM) has been a leader in helping organizations protect, retain and assure availability of their most important asset, their data, for more than 15 years. The TSM family is a truly comprehensive, enterprise-wide data protection and recovery solution, with features including: Backup / Restore, Archive / Retrieve, Continuous Data Protection (CDP), Disaster Recovery, HSM / Information Lifecycle Management, Application Protection, Database Protection, Bare Machine Recovery and Robust Remote Office Recovery.

On February 9, 2009, IBM proudly took the next big step in the mission of keeping our clients ahead of the tidal wave of data with the announcement of Tivoli Storage Manager 6. Read the [Press Release](#).

Tivoli Storage Manager 6 offers a wide array of dramatic improvements that include: simplified deployment and management; increased scalability, availability and performance; built-in data deduplication; and improved integration with VMware and Microsoft environments and with NetApp and IBM N series NAS systems. These improvements provide the basis for a unified recovery management platform that delivers improved Quality of Service (QoS) levels.

You need Tivoli Storage Manager 6 if:

- You want to reduce data protection infrastructure and operational costs
- You want to improve service levels by reducing backup and recovery times; and through improved integration with Microsoft Windows, VMware and NetApp/N series
- You want to simplify administration and gain better visibility into your data management environment

[IBM Tivoli Storage Manager 6](#) will be available March 27, 2009.

To learn how to manage more data, more efficiently, with less infrastructure please visit the [IBM Tivoli Storage Manager](#) and listen to the [webcast](#).

Simple, cool and bold: IBM TS7650 ProtecTIER Deduplication Appliance

Data deduplication is becoming an essential component of every information infrastructure. The concept of data deduplication is simple—when multiple copies of the same data are sent to a system, the system finds the redundancy and stores only one copy of the data as it maintains an index to keep track of all data within the system. The motivation for data deduplication is also simple—storing fewer copies of the same data can significantly reduce the capacity required to keep backup images on disk for quick and reliable restores.

More simple? The new [IBM System Storage™ TS7650 ProtecTIER® Deduplication Appliance](#). This plug-n-play

solution delivers inline deduplication with up to 500MB/sec or more performance and offers scalable configuration options. It is designed to meet the disk-based data protection needs of a wide variety of organizations from mid-sized IT environments to enterprise data centers. Customers can improve backup operations while reducing the physical storage required by up to 25 times or more. Unlike hash-based deduplication products from other vendors, the IBM offering provides high performance, scalability and enterprise data integrity to meet increasing business requirements for data protection. Here are a few features:

- Performance - High-speed inline deduplication up to 500MB/sec or more with a single appliance
- Cost Efficiency - Store up to 25 TBs or more backup data on only 1TB of storage
- Scalability - A single solution that easily scales from 7TB to 36TB
- High Availability - Clustered configuration provides hardware redundancy for higher availability
- Data Integrity - Enterprise-class data integrity without the risk of hash collisions
- Proven Technology - In production in Fortune 500 data centers since 2005

IBM System Storage™ TS7650 ProtecTIER® Deduplication Appliance will become generally available on March 6, 2009



“Innovative products such as ProtecTIER are delivering improvements in how enterprise level companies are managing explosions in data growth,”

[Rake Narang](#), editor-in-chief, Network Products Guide, May 2008.

“Gotta” Love it! Small or large - XIV can take care of itself!

We've all been there - we love something like a sport or a pet or even a favorite disk system - something that suits us to a tee - meets all our needs well and provides better function at a great price point. However, no matter how great that thing is, it can wear on you over time if it requires a lot of time and work to take care of. Now we have a disk system that will become your favorite because of great functionality, but will stay your favorite because it can take care of itself - it is the ultimate low overhead disk storage product. That's the IBM XIV Storage System. Like it because it provides awesome tier-1 functionality at a reasonable price. Love it and keep loving it because it takes care of itself with high automation, self tuning and self healing.

Now this favorite of disk systems is even more of a favorite for even more customers because it is available in smaller, more flexible configurations. The IBM XIV

Storage System is now available in a 65% smaller minimum capacity size, making it a great fit for those large enterprise or mid-size organizations who want to step up capacity more gradually. This makes entry-level price performance even more attractive which is so important in today's economy. The minimum initial configuration is 27TB usable capacity, and upgrades are also offered to enable incremental growth up to the fully loaded system.. Unlike other high-end storage systems, XIV performance scales up linearly as capacity grows because processors and cache are added with the disk drives. Additionally XIV's self tuning, self healing virtualization

automatically redistributes data as disks are added, preventing hotspots and helping to protect information availability.

So, if you haven't already, take a look at the disk system that is sure to become a favorite - check out storage reinvented with the [IBM XIV Storage System](#).

Bank Leumi Revolutionizes Its Storage Paradigm after Discovering Superior Performance and Real Single-Tier Storage with the IBM XIV Storage System

Read [here](#)

“I can list numerous ways in which the IBM XIV Storage System brings us value—the simple fact is that it has given us a real, single-tier solution for the first time, with a host of business benefits, making life simpler and happier for everyone.”

Itzik Malach, Executive Vice President, Bank Leumi

Cloud Computing

Enterprises today are facing enormous challenges like global and domestic competitive pressures, exponential increases in the volume of information that need to be stored and accessed, pressures to act more socially responsible and become more energy efficient. With the increasing complexity of their Information Infrastructure, there also comes the need for simplicity. Organizations are striving to reach their full potential by rapidly implementing innovative business models while simultaneously lowering the IT barriers to driving innovation and change. These challenges call for a more flexible, responsive computing model that enables rapid innovation for applications, services and service delivery. Cloud Computing can be one element of such a model.

Addressing the enormous challenges our customers are facing it is no wonder why Cloud Computing has become a hot topic these days. There is a lot being written about it in the press, by analysts, and vendors of technology. Some say its hype and others believe it is a disruptive technology and is an evolution the technologies driving the Internet. So what is Cloud Computing? It is a style of computing where the Information Infrastructure capabilities are provided as a service. It allows users to access technology-enabled services “in the Cloud” without knowledge of, expertise with or control over the Information Infrastructure supporting the service. For users, Cloud Computing means accessing information or using the service through whatever device they may have in their hands at the time. It could be a laptop, a Blackberry, iPhone or other IP enabled device. For organizations, Cloud Computing is a means to deliver services for consumer or business needs in a simplified way, providing unbounded scale and differentiated quality of service to foster rapid innovation and decision making.

IBM considers Cloud Computing to be a potentially cost-efficient model for provisioning processes, applications and services while making IT management simpler and increasing business responsiveness. Cloud computing can enable rapid business

innovation by delivering easy-to-use computing services to users “on demand” regardless of their location or the type of device they are using. As a leader in cloud-building and cloud-delivered services, IBM has a proven history of helping organizations leverage new technologies for innovation in key cloud enabling technologies like management, virtualization and security. Because of the depth and breadth of its offerings and experience in helping enterprises build a Dynamic Infrastructure, IBM is a trusted partner for many who are ready to reap the rewards derived from Cloud Computing.

Evaluating Cloud Computing? Consider Continuous Data Protection via the Cloud!

IBM's new cloud-based service for continuous data protection helps you leverage IBM best practices without the need for new infrastructure investments. Link [here](#) to learn more.



Disk Encryption at its best

It's no secret that strong security helps build the trust needed for collaboration, innovation, and superior customer relationships. Data breaches have fueled an immense interest in IBM self-encrypting storage, which secures all information on a tape cartridge or disk drive when they are physically removed from a storage system. By having the entire tape cartridge or disk drive encrypted, customers can be assured that should the cartridge or drive get lost or stolen, the information can't be read by unauthorized parties... anywhere.

After almost three years of enabling IBM clients to successfully secure their backup tapes with self-encrypting tape drives, the DS8000 series now extends this exciting technology to the disk system. By combining IBM full-disk encrypting drives and the

market-proven key manager used with IBM's tape encrypting solution, the DS8000 solution not only secures data at rest but also offers a simple, cost-effective solution for "securely erasing" any disk drive that is being retired or repurposed.

IBM System Storage DS8000 disk encryption solution will be generally available on March 5.

"The best thing about drive level encryption from IBM is: **Less worry.** Disk and tape encryption can become automatic, giving Risk Managers one less exposure to audit."

Clay Ryder, The Sageza Group, January, 2009

New "hot" enhancements to IBM's leading Enterprise Disk System

The latest 4.2 release of the IBM System Storage DS8000 can help manage growth and reduce operational complexity through storage consolidation with lightning fast solid-state drives, high performance fibre channel drives, and high-capacity Serial ATA (SATA) drives. Add to that its tremendous scalability, flexible tiered storage options, broad server support, and support for advanced IBM de-duplication technology, and it's no wonder the DS8000 is a disk platform that has been satisfying the world's most demanding clients. This combination offers a compelling story for organizations looking to manage their storage environment more effectively by matching specific application needs with the appropriate storage tier.

With the introduction of solid-state drives on the DS8000, customers can see a dramatic decrease in back-end drive response times to around 0.8 milliseconds. Compare this with average base response times of 6 milliseconds for a typical 15,000 RPM (revolutions per minute) enterprise fibre channel drive, and it's clear that solid-state drives offer a tremendous benefit for distinct application workloads. What's more, solid-state drives have no moving parts, so they consume less energy to operate than spinning drives, which can help reign in data center operational costs.

The new functional capabilities for IBM System Storage™ DS8000 series include:

- **Full Disk Encryption** - First enterprise self-encrypting disk solution using IBM Full Disk Encrypting Disks and flexible key manager software. Supported drives include: 146 GB, 300GB or 450 GB 15,000 rpm Fibre Channel drives
- **Solid State Drives (SSD)** - Ideal for high-performance, business-critical applications, solid-state drives can provide much greater performance over traditional platter-based drives. The new solid-state disks are available in both 73 GB or 146 GB capacities
- **Increased capacity** - New The 1 TB 7,200 rpm SATA disk drives provide 50% more raw capacity than existing models, up to 1,024 TB for DS8300 Turbo Models and up to 384 TB for DS8100 Turbo Models.
- **Intelligent Write Caching** - This latest cache algorithm from IBM Research combines and balances the benefits of the most effective read and write caching algorithms to determine how the write cache should be managed for optimal throughput in the DS8000.

Are you a midsize business?

Are you seeing an ever-increasing amount of information - feature-rich documents, limitless e-mails, audio and video files, that you need to keep, protect, store and delete when the time comes? Do you have a tight IT budget and even tighter administrative skills on board? Are you committed to stay ahead of competition?

If you have answered 'yes' to any of the above, then worry no more. Recognizing the needs for midsize businesses, IBM has developed products and solutions that are easier to afford, deploy, and operate. Your ability to store and access data, to retain data securely, and to transform the data into a strategic business asset, can provide the edge that puts you ahead of your competitors. IBM information infrastructure for mid-sized organizations allows you to do just that, simply and affordable. Here are a few examples:

IBM System Storage SAN Volume Controller Entry Edition:

Now the industry's best-performing and most proven storage virtualization solution is available in a more affordable package for mid-sized organizations

Comprehensive Data Protection Solution.

The new Comprehensive Data Protection Solution from IBM is designed to enhance data protection capabilities in a Windows environment. The solution includes TSM FastBack, storage and servers to restore access to email, files, and databases within seconds, rather than the hours or days it takes to restore using traditional backup solutions.

Self Encrypting Storage and Key Management

The new Self-encrypting Storage and Key Management Solution is a simple and effective way to secure information on backup, archive, and off-site tapes. The solution includes IBM Tivoli Key Lifecycle Manager with drive-level encryption on LTO4 tape for an automated security.

For details, please visit [here](#)

Information Infrastructure Storage optimization study and workshop specifically designed to help clients develop an overview of the current state of their IT storage infrastructure and identify alternative approaches for storage management using Best Practices and footprint reduction "Green" principles. A strategy for improvement is recommended along with a high level business case. Link [here](#).

Storage Energy Analysis will help clients identify opportunities to reduce storage requirements while accommodating data growth - therefore reducing the total cost of storage, including power, cooling, hardware, software and storage management. Link [here](#).

Control your confidential data with new hard drive retention option. This new option will give you complete control of your confidential data by allowing you to keep replaced hard drives to help you more easily—and more cost-effectively—comply with data privacy requirements. Link [here](#).

Reduce complexity of managing storage with IBM Storage Enterprise Resource Planner (SERP). Clients can increase use of their storage capacity and centralize storage information with increased visibility of the entire, multi-vendor storage environment, enabling clients to rapidly reduce costs and improve productivity. Link [here](#).

Perform necessary hardware changes for System z without disrupting applications or costly downtime with new data mobility services. Clients may now address needed changes such as technology refreshes, consolidation, relocation, virtualization, and volume expansions, without affecting IT systems or applications. Link [here](#).

New pre-packaged and pre-priced data migration services specifically designed for small and medium sized businesses support 2, 5 or 10 terabyte data migration projects without disruption to applications or requiring costly system downtime. Link [here](#).