



# IBM Information Infrastructure

*Thinking Beyond Today*

**Pierre-Jean BOCHARD**  
**Mid Range Disks and N series Sales Leader,**  
**IBM Central Eastern Europe, Midle East, Africa**  
**[pbochard@at.ibm.com](mailto:pbochard@at.ibm.com)**



## The Information Era

### ***Business Challenges***

**Globalization**  
**Mergers**  
**Risk & Compliance**  
**Customer Loyalty**  
**Operational Costs**  
**Business Velocity**

...

***INFORMATION  
IS A  
STRATEGIC  
ASSET***

### ***Information Challenges***

**Retention**  
**Security**  
**Accessibility**  
**Version control**  
**Volume and Variety**  
**Infrastructure Silos**

...

***5x more value creation by organizations  
using information effectively\****

\* Based on IBM internal studies and estimates.

Sources: IBM® Attributes & Capabilities Study, 2005; Client Interviews 2004; IBM CFO Study, 2006

# Multiple Forces Driving Information Solutions Needs



## Information Explosion

- 57% CAGR thru 2010\*
  - 80% unstructured\*
- Unpredictable workloads

## Business Optimization Opportunities

- Customer profitability
  - Information quality
- Content-based processes and products

## Risk and Cost Management

- Compliance / legal
- Security / privacy
- Capital Expense and Operation Expense Control

\* Sources: Various external consultant reports

# Common Client Requirements

## *For Managing Information Risks*



### **Information Availability**

*Deliver continuous and reliable access to information*

- Heterogeneous storage virtualization
- Unified management console
- Future-proof data migration services



### **Information Security**

*Protect and enable secure sharing of information*

- Data and media encryption
- Secure Access control
- Continuous data protection



### **Information Retention**

*Support your information retention policies*

- Optimized, efficient tiered storage
- Data deduplication, compression
- Integrated archiving solutions



### **Information Compliance**

*Reduce reputation risks and audit deficiencies*

- Data discovery, classification
- Tunable service levels
- Information lifecycle management

# The Information Infrastructure

*IBM Addresses your Information Needs*



IBM enables an evolutionary new model for efficient IT delivery  
with a *resilient infrastructure for securely storing information*  
and mitigating business risks.

# IBM Information Infrastructure Strategy

*Technology, Solutions, and Expertise for Data Center Transformation*



## **Technology Leadership**

- Best of Breed Products
  - R&D Innovation
  - Acquisitions

## **Client Focused Solutions**

- Purpose Designed
  - Industry Aligned
- Cross IBM Integrated

## **Expertise & Experience**

- Industry Expertise
- Consulting Services
- Experience Based Tools and Methods

# IBM is Responding

*Technology Leadership to Drive Information Infrastructure Initiatives*



## **Technology Leadership**

- Best of Breed Products
  - R&D Innovation
  - Acquisitions

## **Client Focused Solutions**

- Purpose Designed
  - Industry Aligned
- Cross IBM Integrated

## **Expertise & Experience**

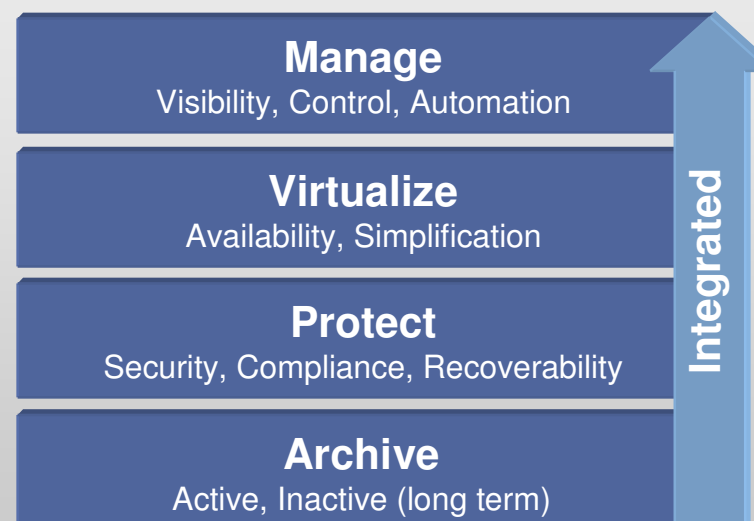
- Industry Expertise
- Consulting Services
- Experience Based Tools and Methods

# Breadth of Capability From a Single, Proven Vendor

*IBM Information Infrastructure Includes...*

- Storage and Security management software
- Disk and Tape systems
- SAN Directors and Switches
- Integrated business solutions
- Expert storage consulting
- Deep and proven industry experience
- Flexible financing

## IBM Information Infrastructure



**Best Practices and Services**

# What Are We Launching?

*The IBM Information Infrastructure*



- **A unified approach to address information-centric client challenges**
- **A new entry point in the New Enterprise Data Center initiative**
- **An ecosystem to support clients' information infrastructure requirements**

**Sept 8th news: IBM announces over 30 new and enhanced products and services to support client's information infrastructures.**

*The world's largest storage-related product announcement.*

[ibm.com/systems/informationinfrastructure](http://ibm.com/systems/informationinfrastructure)

# Acquisition Leadership Strategy

*Bringing Great People and Technologies into the IBM Family;  
Helping Clients Enhance Core Capabilities*



## Information Availability

*Deliver continuous and reliable access to information*

- **XIV** – High performance, scaleable grid-based storage systems, 1/08
- **Novus** - storage analysis and reporting software and services, 10/07
- **Softek** - Data mobility technology and best practices consulting, 3/07



## Information Security

*Protect and enable secure sharing of information*

- **Encentuate** - Enterprise single sign-on and authentication, 3/08
- **Watchfire** - Web application vulnerability assessment and compliance solutions, 7/07
- **Internet Security Systems** - Preemptive enterprise security, 10/06



## Information Retention

*Support your information retention policies*

- **Diligent** – In-line data de-duplication, 4/08
- **FilesX** - Continuous data protection and rapid recovery, 4/08
- **Arsenal** – Managed Services for on-line data protection, 12/07



## Information Compliance

*Reduce reputation risks and audit deficiencies*

- **Consul** - Data governance and compliance monitoring, auditing and reporting, 1/07
- **FileNet** - Business process and content management solutions, 10/06

# IBM Information Infrastructure *SECURITY*

*Leading the Industry in Self-encrypting Tape and Disk Storage*

## ■ Client value

- Encrypt data with virtually no input/output performance impact
- Scale linearly, automatically, and transparently to applications, system administrators, and end-users
- Secures data less disruptively, more manageably and cost effectively than other alternatives.

## ■ Reasons to choose

- U.S. National Security Agency (NSA) has qualified self-encrypting hard drives for computers deployed by U.S. government agencies and contractors for national security purposes<sup>1</sup>
- Standards-based software encryption key manager to support tape and disk systems
- Device-level encryption enables compression, de-duplication, and other advanced functions to be performed first, saving space.

***Encrypt all the data with virtually no performance degradation!***



***Information Security***

[http://www.ibm.com/systems/storage/solutions/data\\_encryption/index.html](http://www.ibm.com/systems/storage/solutions/data_encryption/index.html)

# IBM Information Infrastructure for Secure Information Retention

## IBM System Storage™ TS1130 Tape Drive with Encryption

- Client value
  - Improved performance and capacity
  - Shortens backup windows
  - Reduces infrastructure through consolidation
  - Secures data from loss and inadvertent or deliberate compromise through encryption
- Reasons to choose
  - Leading tape technology
    - New GMR head provides outstanding data integrity and subsystem reliability
    - New head overcoat technology helps increase overall drive life expectancy
  - Highest performing, high capacity drive
  - Supports drive-based data encryption to help protect data

[ibm.com/systems/storage/tape/ts1130](http://ibm.com/systems/storage/tape/ts1130)



**Store the text of one million books on a single tape cartridge**



**Information Retention**



**Information Security**

TS1130 announced July 15, 2008

# IBM Information Infrastructure for Protecting Information

## IBM Tivoli Storage Manager FastBack

- Client value
  - Near-Instant recovery for critical Windows
  - Reduced risk of data loss
  - Backup consolidation & business resiliency for remote/branch offices
- Reasons to choose
  - Patented express mount technology for near instant recovery
  - Block-level continuous data protection for mission critical applications and data
  - Item level granularity for recoveries
  - Eliminates need for backup windows

***Restore access to any amount of data within seconds; Reduce the amount of data at risk to near zero***



## ***Information Availability***



<http://www.ibm.com/software/tivoli/products/storage-mgr-fastback/>

FilesX acquisition announced April 2008

# IBM Information Infrastructure for Compliance

## *IBM Compliance Warehouse for Legal Control, v2*

- **Client Value**

- Comprehensive all-in-one solution
- Legal discovery enhancements
- New Analytics and BI reporting

- **Reasons to choose**

- Customer-proven
- Integrated hardware, software and services
- Manages all enterprise content types, paper and process information

***The first large scale, integrated solution for enterprise-wide Compliance Management***



***Information Compliance***



<http://www.ibm.com/software/data/content-management/products/compliance-warehouse.html>

## IBM Information Infrastructure for Information Security and Compliance

### IBM Proventia Network Mail Security System (Internet Security Systems)

#### ■ Client value

- Spam elimination improves productivity
- Supports compliance and use policies
- Detects viruses and other malware

#### ■ Reasons to choose

- Multi-layered, content-based spam engine, with Dynamic Host Reputation filtering and support for more than 40 unique languages
- Highly flexible e-mail policy system, with centralized reporting and message tracking



Additional information: <http://www-935.ibm.com/services/us/index.wss/offering/iss/a1027071>

*\*Actual spam eliminated dependent on client environment.*

***Eliminate up to 98% of spam\****



***Information Security***



***Information Compliance***

## IBM Information Infrastructure for the Most Demanding Environments

*IBM System Storage™ DS8000 R4.0 (Sept 5) and R4.1 (Oct 24)*

- Client value
  - 50% more storage capacity in the same footprint with new, higher capacity drives
  - 400% increase in System z Volume Size support with Extended Address Volumes
- Reasons to buy
  - Release 4.0 adds
    - 450 GB fibre channel drives
    - RAID 6 protection
  - Release 4.1 improves System z performance and availability
    - High Performance FICON
    - Metro/Global Mirror Incremental Resync

***Can sustain up to 4.9 million IOPs from a single system!***



### ***Information Availability***

Enterprise class disk storage  
for System z and distributed  
environments

<http://www.ibm.com/systems/storage/disk/ds8000/index.html>

## IBM Information Infrastructure for *Information Availability*

### *IBM System Storage™ DS5000*

#### ■ **Client Value**

- Lifecycle longevity protects against risks of change and growth
- Sustainable performance for real world mixed workloads and rigors of consolidation
- Provides Enterprise-level service and support in a scalable modular package

#### ■ **Reasons to Choose**

- Linearly scalable performance to match growth, maintain SLAs
- Supports 4 Gb/s FC today and is 8Gb/s and 10 Gb/s iSCSI “ready”
- Dynamic online expansion and configuration

**Control The Unrelenting Change  
That's dominating the Midrange  
to Enterprise Disk Storage Market!**



***Information Availability***

<http://www-03.ibm.com/systems/storage/disk/>

# IBM is Responding

*Client Centric Solutions with a Faster Time to Value*



## **Technology Leadership**

- Best of Breed Products
  - R&D Innovation
  - Acquisitions

## **Client Focused Solutions**

- Purpose Designed
  - Industry Aligned
- Cross IBM Integrated

## **Expertise & Experience**

- Industry Expertise
- Consulting Services
- Experience Based Tools and Methods

# IBM Information Infrastructure Proven Capabilities

## *Manage Information Risks*



### **Information Availability**

*Deliver continuous and reliable access to information*

- *Geographically Dispersed Parallel Sysplex (GDPS)*
- *Scale Out File Services (SOFS)*
- *DS5000 Virtualized HA and DR in MS Hyper-V and VMware environment*



### **Information Retention**

*Support your information retention policies*

- *Grid Medical Archiving (GMAS)*
- *Virtual Tape System (VTS)*



### **Information Security**

*Protect and enable secure sharing of information*

- *Encrypted Media, Key Management*
- *zSecure Suite*
- *Tivoli Security Information and Event Manager*



### **Information Compliance**

*Reduce reputation risks and audit deficiencies*

- *Compliance Warehouse*
- *Data Retention System (DR550)*

# IBM Thought leadership

*Expertise and Experience for Enabling Client Success*



## **Technology Leadership**

- Best of Breed Products
  - R&D Innovation
  - Acquisitions

## **Client Focused Solutions**

- Purpose Designed
  - Industry Aligned
- Cross IBM Integrated

## **Expertise & Experience**

- Industry Expertise
- Consulting Services
- Experience Based Tools and Methods

# Information Infrastructure Services

*Implementation Services; Expert Consulting; Services Products*



## Information Availability

*Deliver continuous and reliable access to information*

- *Storage Optimization & Virtualization*
- *Information On Demand*
- *Data Mobility*



## Information Security

*Protect and enable secure sharing of information*

- *Data Security Assessment and Design*
- *Information Protection Assessment*
- *Security Governance*



## Information Retention

*Support your information retention policies*

- *Data Continuity*
- *Resiliency Consulting*
- *Enterprise Archiving*



## Information Compliance

*Reduce reputation risks and audit deficiencies*

- *Activity Compliance Monitoring and Reporting*
- *Regulatory and Standards Compliance*
- *Crisis Management and Response*

Assess \* Design \* Deploy \* Manage

# IBM Information Infrastructure

*Technology, Solutions, and Expertise for Data Center Transformation*



## **Technology Leadership**

- Best of Breed Products
  - R&D Innovation
  - Acquisitions

## **Client Focused Solutions**

- Purpose Designed
  - Industry Aligned
- Cross IBM Integrated

## **Expertise & Experience**

- Industry Expertise
- Consulting Services
- Experience Based Tools and Methods