# IBM Systems and Technology Group University 2005:

# Target EMC/Hitachi: Win When Selling IBM TotalStorage

San Diego, CA
Barcelona, Spain
January 2005

ON DEMAND BUSINESS™

# Agenda

- **Beating EMC**
  - How are they doing?
  - Who are they working with?
  - Technology Comparisons
  - Silver Bullets
- **Beating HDS**
  - How are they doing?
  - Who are they working with?
  - Technology Comparisons
  - Silver Bullets
- **Winning against EMC and HDS**
  - Where to go for additional information

# Tom Simonson, VP WorldWide Competitive Sales

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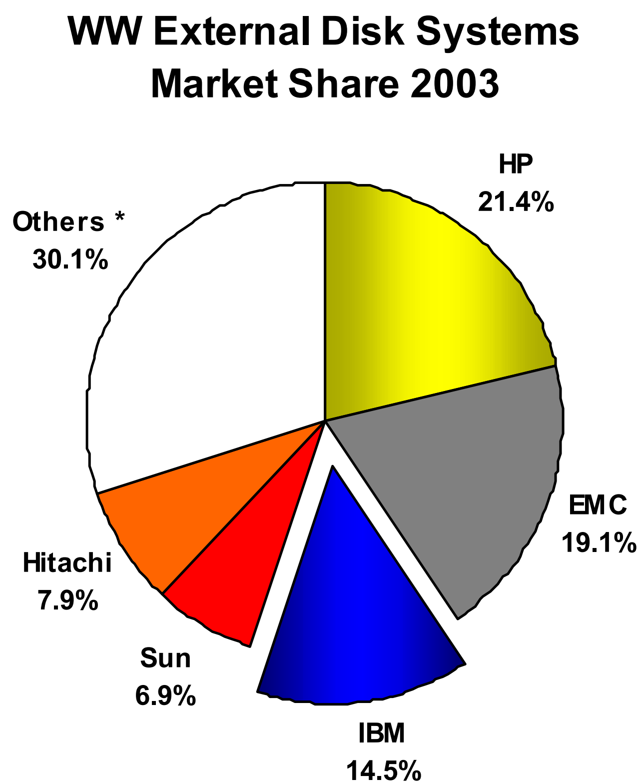
# A glance at the storage segment




*Source: IDC Annual Disk Systems Report July 2004*

**WW External Disk Systems Revenue**

| | 2003 Revenue | Revenue Growth 2002/2003 |
|---|---|---|
| | | |
| HP | $2,831 | 3.0% |
| **EMC** | **$2,524** | **5.2%** |
| IBM | $1,916 | 13.4% |
| Hitachi | $1,045 | 3.4% |
| Sun | $918 | -3.6% |
| Dell | $836 | 47.8% |
| Others | $3,170 | -12.2% |
| | | |
| All Vendors | $13,242 | 2.0% |

*(Revenues are in Millions)*

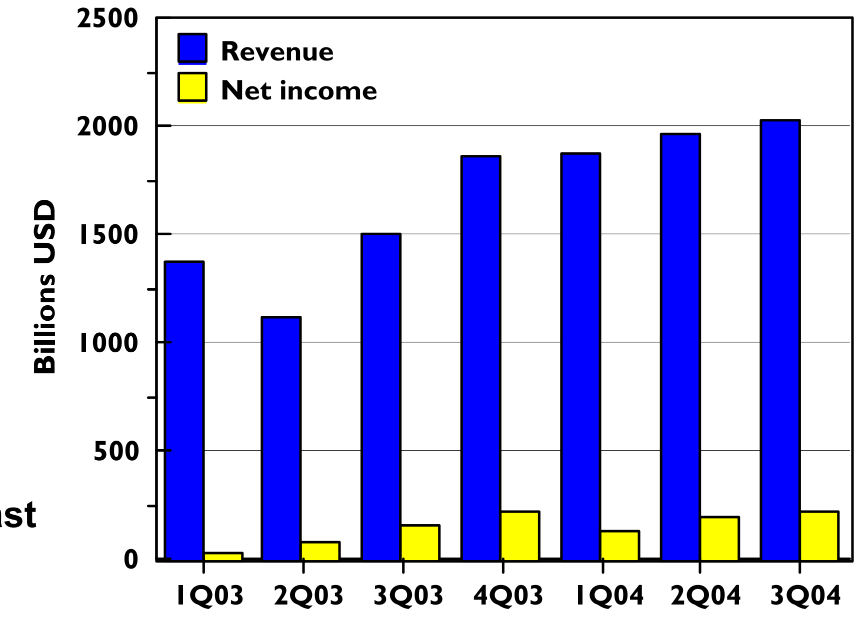
# EMC: Tough and getting tougher

**Past history**

- **Declining business results**
  - Weak demand for storage / price pressure
  - Limited success in low and mid range
  - Narrow product portfolio
  - Cost cutting and headcount reductions
  - **Alliance with Dell**

**Recent history**

- **Momentum building $5.4B=>$8.1B over last two years**
- Strong SW value proposition
- **$4B in SW acquisitions**
  - **(eg. Legato, Documentum, VMware)**
- Major updates to CLARiiON CX and DMX in February 2004
- Continued spending on R&D: $216M = 10.6% of revenue in 3Q2003
  - EMC's "war chest" holds USD $7 billion!



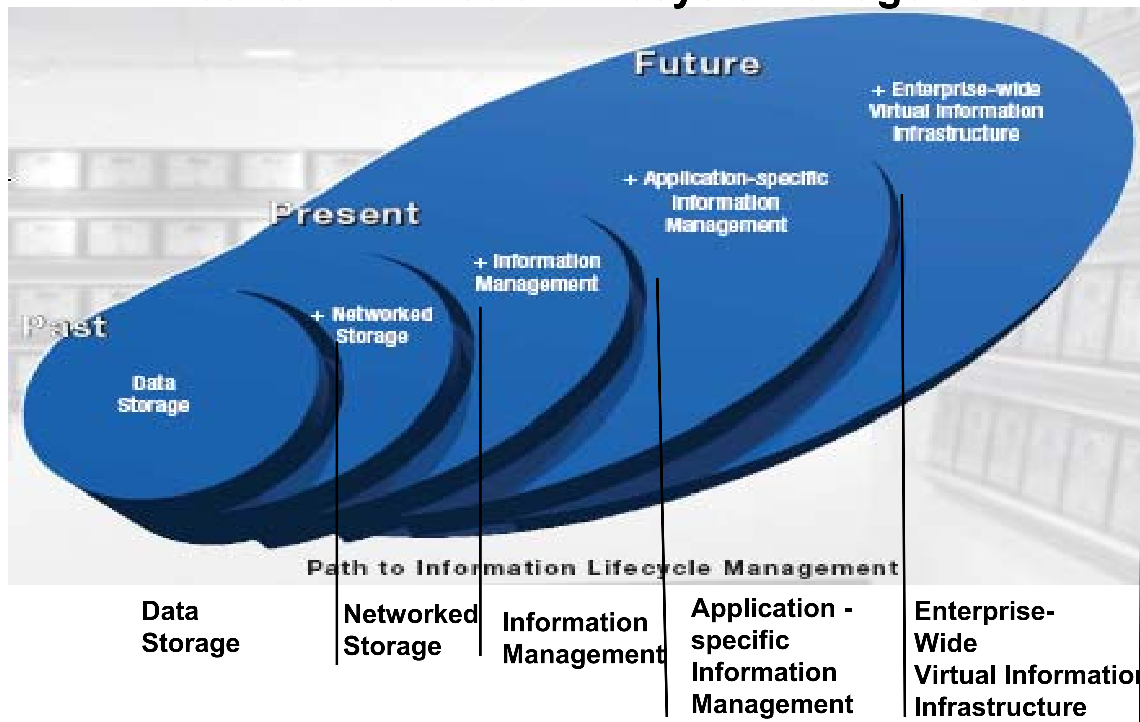

"EMC's edge comes from its focus and its ability to make quick decisions and to react."

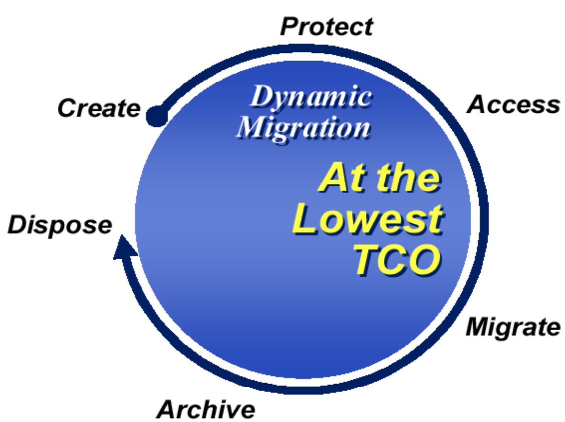
Randy Kerns, analyst,
Evaluator Group, October 2004

# EMC’s go-to-market strategy

**Information Lifecycle Management (ILM)** is a strategy for aligning your IT infrastructure with the needs of your business—based on information's changing value.

**Path to Information Lifecycle Management**



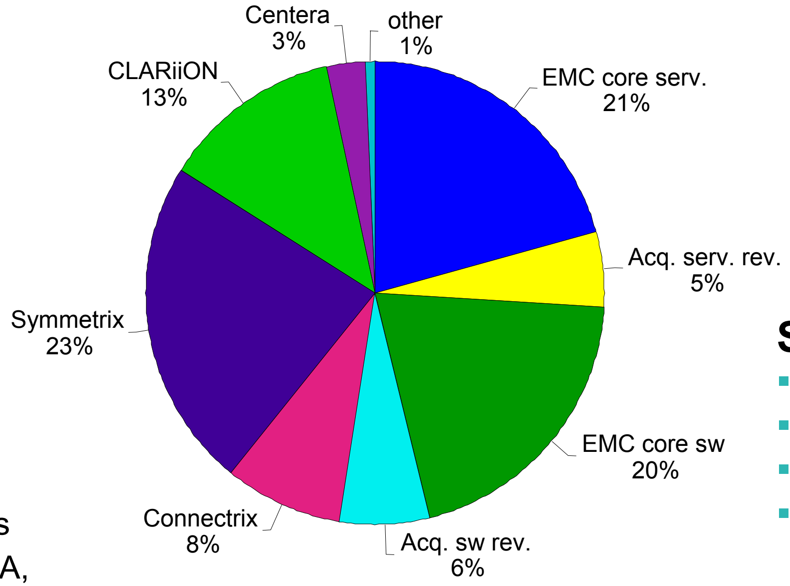




”Through ILM, you get the most value from your information, at the lowest TCO, at every point in its lifecycle.”

# A diverse line of storage, services and software

**Content Addressed Storage**
- Centera

**3Q2004 $2.029B WW**




**Services**
- Product support and services
- Professional services

**Disk arrays**
- Symmetrix
- CLARiiON

**Software**
- Data Migration & Mobility
- Information Management
- Information Protection & Recovery
- Storage Management

**Storage Networks**
- Connectrix Directors & Switches
- Resell/relabel Brocade, McDATA, Qlogic and CNT

*Acquired software*
- Legato
- VMware
- Documentum

**Network Attached Storage (NAS)**
- Celerra
- NetWin
- NS Series/Gateway

Source: www.EMC.com

# Expanding reach through 3rd Party Vendors

| Software Vendors | System Integrator | Hardware Technology | Channel/Business Partners | Emerging Ecosystems |
|---|---|---|---|---|
| Middleware<br>Oracle<br>Microsoft<br>Computer Assoc.<br>Sybase<br><br>ISV<br>SAP<br>SAS Institute | Accenture BearingPoint<br>Deloitte Consulting<br>Cap Gemini<br>Ernst & Young<br>EDS | McData,<br>Brocade<br>Cisco<br>Nortel Networks | Dell<br>Fujitsu/Siemens,<br>BMC SW Unisys<br>Bull<br>NCR | EMC is aiming at Intel Blade provisioning and virtualization, with partners (and potential acquisition targets) like Steeleye, Aurema, DATA Synapse, Platform Computing, OPSware, BladeLogic |

**Value of Key Relationships**

**Dell**: Deliverers 1/3 of the CLARiiON product revenues.

**Fujitsu / Fujitsu Siemens (FSC)**: Fujitsu/FSC offers EMC storage as part of its IT server solutions.

**Accenture**: Strategically aligned relationship focused on key storage growth areas involving a five year agreement where EMC consulting business unit will be staffed by both EMC and Accenture employees.

**Microsoft**: Provides SW technology to EMC to support low end NAS solutions and the CLARiiON line.

# A focus on SMB . . .

## eWeek

**EMC Takes Aim at SMBs**

EMC announced a new NAS device, the NetWin 110, last week… a scaled-back version of EMC's NetWin 200 product… for the cost-conscious SMB customer. .. first channel-only product, based on the latest version of Microsoft's Windows Storage Server 2003.

## EMC

**EMC's Express Solution for E-Mail**

…first in a series of pre-packaged HW, SW, Services for channel partners …for MSFT Exchange environments in the 100-5,000 seat range. "We're taking ILM to the midmarket. SMBs get boatloads of email just like the big guys do, and they want to do something about it."…

## IDC

**Channel exclusive with Dell manufacturing**

**EMC's AX100: A Zebra Changes Its Stripes**

EMC sent a warning shot over the bow of several competitors, including IBM… At a starting price of $5,000, EMC officially entered one of the most dynamic segments of the storage market…

## EMC

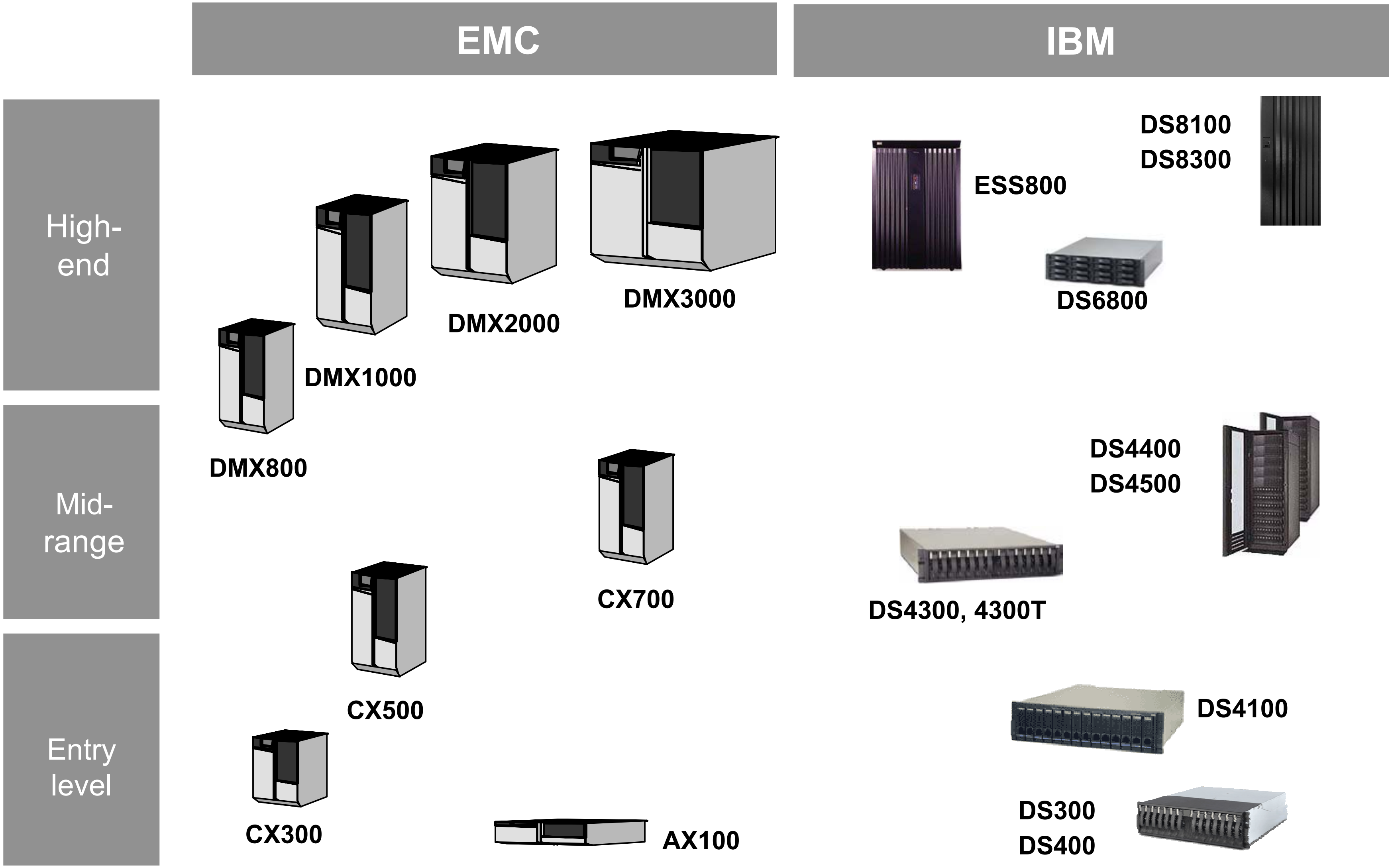
**EMC Acquires Dantz Development Corp**

… estimated $13M backup software market player… Retrospect product for intellectual backup & recovery technology. Competes with both Veritas & CA… a strategic acquisition for EMC's SMB push…

Sources: EMC Press Release October 12, 2004

EMC Cleans Up Exchange Clutter , eWeek September 21, 2004
EMC targets SMB market, Network World Fusion, 05/31/04
IDC Analyst Report, EMC's AX100: A Zebra Changes Its Stripes June, 2004.

# EMC Disk Products



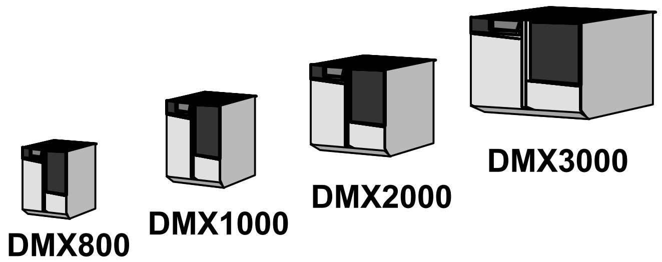
# Symmetrix DMX

## Product Overview

- Introduced February 2003, enhanced 7/2003 and 2/2004
- Direct MatriX technology
- Inherited all functionality from Symmetrix "Classic"
- New functionality, often DMX exclusive
- Elected 2003 Storage Product of the Year by SearchStorage.com & Storage magazine editors

## Drawbacks

- Limited investment protection
- Performance weaknesses
- Connectivity challenges
- Data Protection: no cache mirroring
- Licenses for advanced functions and management software



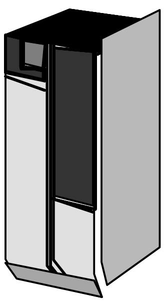
# CLARiiON

## Product Overview

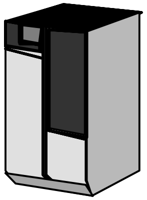
- **CLARiiON CX range introduced August 2002, enhanced Sept 03 and again in February 2004**
- **4 Intel 3 GHz processors in dual controller**
- **EMC Positioning**
  - Investment protection due to "data-in-place" upgrades
  - Increased performance
  - Remote replication & advanced copy features
  - Scalability - pay-as-you-grow

## Drawbacks

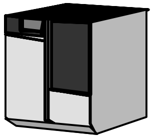
- **Limited upgradeability**
- **Performance, not demonstrated in public benchmarks, eg SPC1**
  - low back-end performance
- **Architectural limitations and ATA implementation concerns**
- **Software**
  - Tiered pricing – charge on growth
  - Maintenance 18% - 20% of list price
    - 90 days warranty only



**CLARiiON CX700** *FC / PATA*



**CLARiiON CX500** *FC / PATA*



**CLARiiON CX300** *FC / PATA*

# EMC CLARiiON AX100: Drawbacks continue

- ***Can't upgrade* from single to dual controllers**
- ***Costs for many users will be higher than they initially appear***
  - Many users will require the second controller
  - Many users will require a switch or switches
  - Many users will require the Premium Warranty
- ***Not part of the CX family* of controllers**
  - The AX uses different disks, controllers, and software
  - The AX can't be upgraded to be part of the CX family of storage products
- **Entry level, but as complex as other EMC midrange products**
- **AX100 & CX-series can be in same SAN, <u>but…</u>**
  - *Each server must be zoned to only one type of array*
  - AX100s are isolated islands

# EMC software strategy

- To “become 'the' **leading storage software** company“
- CEO Joe Tucci set goal for software to be **30% of overall revenue** by YE2004
  - *Achieved 28% after Legato/Documentum acquisitions*
  - **Over 80% of R&D budget is now software**
- Two Strategic Initiatives:
  - **Intelligent Data Services**: putting software functionality closest to the element it controls
  - **Information Lifecycle Management**: single info access and recovery method that is policy driven,

**Objective:** to achieve a "single pane of glass" for server/storage infrastructure management [TBR, 10/03]

ILM ***"...the guiding vision and strategy for everything we do.“***
***EMC***

**ILM *“…A better way to manage your information from cradle to grave.”***
***EMC***

# EMC software: Drawbacks

- **EMC *lacks policy orchestration technology* to integrate software pieces based on business policies.**
- ***Separate SRM and disk management products* for each product line**
- **ControlCenter, *advanced function limited to their own storage arrays***
- ***TCO – additional software maintenance costs***
- **EMC has *no SAN virtualization products.***
- ***Vendor tie-in* – questionable commitment to newly announced SMI-S compliance**

# IBM Opportunities against EMC

# EMC strengths and weaknesses

**Strong**

- **Perceived leader**
- **"PR machine"** – good at presenting a high-level "good news" story
- Distribution channel
- **Dell relationship**
- Highlights **recent SW acquisitions;** positions itself as an ISV
- **Data replication products**
- **Leverages install base** - over & over

**Weak**

- Disk storage only company
- Low penetration of international markets
- **TCO Consideration**
- **No model upgrades** between DMX models
- ControlCenter, advanced function limited to their own storage arrays
- **No SAN virtualization** products
- **No public benchmarks** such as SPC-1

# When you are up against EMC

- ►Understand the situation
  - –Identify the decision maker/influencer
  - –Why are they interested in EMC?
- ►Be aggressive
  - –Challenge all EMC's claims - force them into the defensive role
- ►Change the rules to your advantage
  - –Focus on real customer benefits
- ►Solve the customers real storage problems
- ►Sell the full IBM product line
  - –***EMC: "When IBM packages, they win"***
  - –SOSWOS
- ►Be creative and aggressive
  - –Use all IBM financial options
  - –Use Try and Buy approach
  - –Benchmark
- ►Attack ALL EMC accounts

Package a complete solution:

- +servers
- +disk
- +tape
- +applications
- +databases
- +middle ware
- +networking
- +business consulting
- +technical consulting
- +implementation services

# Beating HDS…

## Part 2:
## HDS vs. IBM Technology

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# HDS: A snapshot

- Hitachi Data Systems (HDS) not a publicly traded company
- In 2000, HDS commenced a transitions from being a shipper of general purpose computers to a storage company
- In 1999, the storage component of HDS revenue was 38%. In 2002, it was more than 95%. Source: Evaluator Group, 12/01/2003
- HDS estimated revenue split by class for FY 2003 (ending 3/04) to be 75% hardware, 10% software, 10% services. Source: A.G. Edwards 9/08/2003
- HDS was #4 External Disk Share Leader in 2Q04 with 8.1% share (down 1.6% from Q1). Source: IDC Q204 Worldwide Quarterly Storage Tracker
- HDS' storage hardware growth has outperformed storage segment growth and shipments have doubled each year since fiscal 1998. Source: Evaluator Group, 12/01/2003

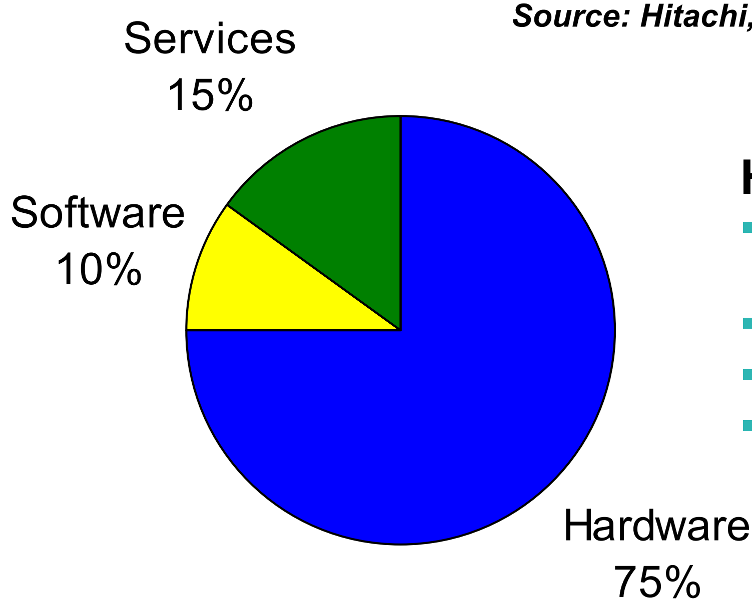
# HDS revenue and product overview

**HDS FY 2003 Revenue – $2.39B**

**(expected to grow to $2.76B for FY 2004)**

***Source: Hitachi, Ltd.; A.G. Edwards***

**Services**
- Product service and support
- Professional services
  - Assessment
  - System Design
  - Configuration Management
  - Project Management




Estimated 2003 Revenue by Class (A.G. Edwards 9/8/2003)

**Hardware**
- Storage Network Products
- NAS Devices
- Thunder
- Lightning

**Software**
- HiCommand Management Framework
  - Supports Hitachi-developed or ISV components
- Expected to grow to 15% of FY 2004 Revenue (70% Hardware, 15% Software, 15% Services)

# A focus on growing software and services

**Estimated HDS Revenue Breakdown**

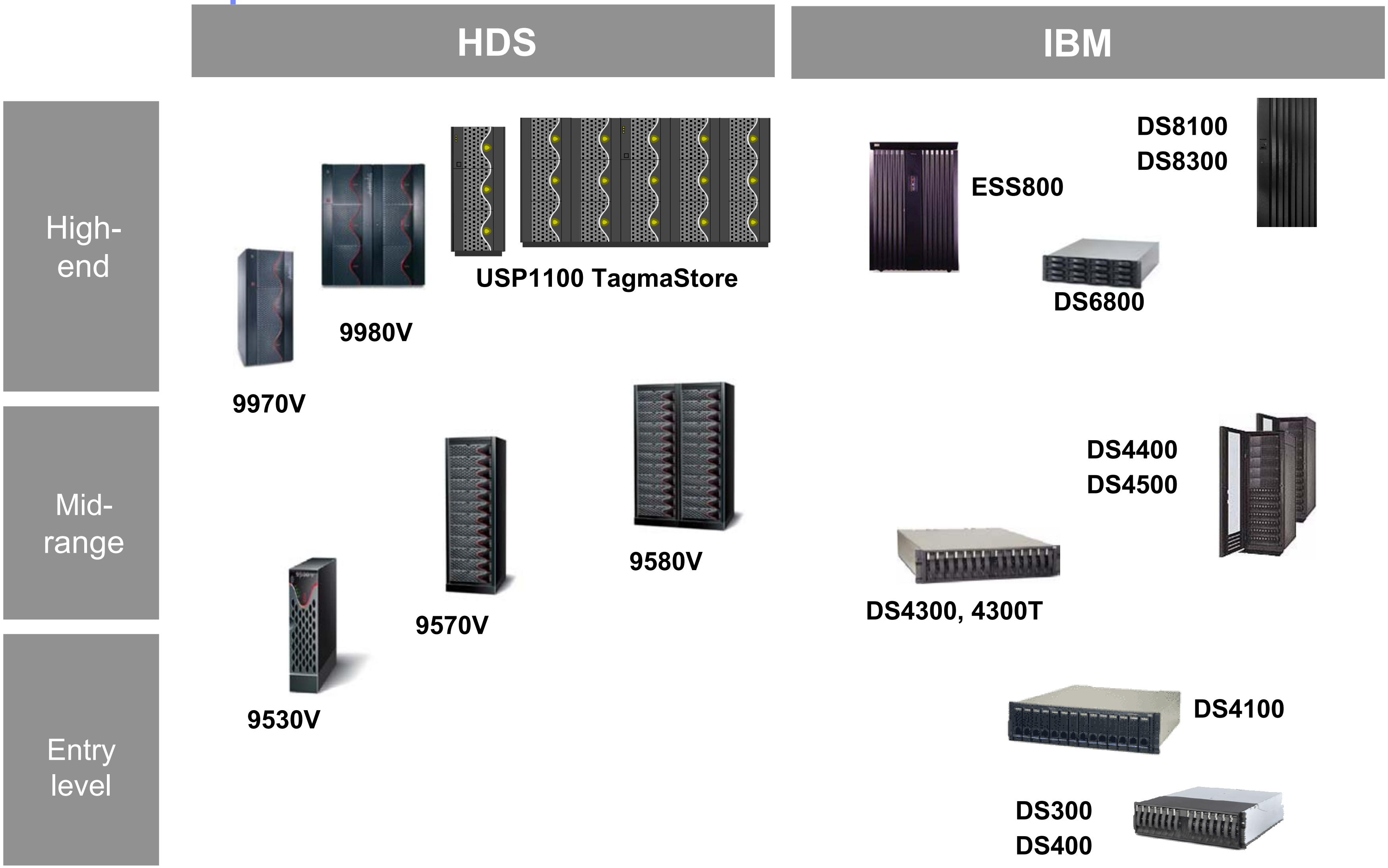
*Source: Hitachi, Ltd.; A.G. Edwards*

| | **F2002 (Mar ’03)** | **F2003 (Mar ’04)** | **F2004 (Mar ’05)** | **F2005 (Mar ’06)** |
|---|---|---|---|---|
| Hardware | 80% | 75% | 70% | 60% |
| Software | 10% | 10% | 15% | 20% |
| Services | 10% | 15% | 15% | 20% |
| **Total Revenue** | **$2.24B** | **$2.39B** | **$2.76B** | **$3.05B** |
| **YTY % Change** | **+7.5%** | **+11.1%** | **+15.5%** | **+10.4%** |

# HDS Relationships

- Formed OEM supplier relationship with **HP** and with Sun
- Provides integrated NAS / SAN offerings via relationship with **Network Appliance** Corp.
- HDS provides support for **Brocade** switches worldwide
- Partnership with **Microsoft** and **McData** to reduce cost of ownership for Microsoft Exchange 5.5 and SQL Server 7.0 applications
- Integrates with management software such as **Tivoli**, **CA UniCenter**, **BMC Patrol**, and **OpenView**.
- Compatible with **VERITAS** SANPoint Control
- Relationships/Alliances also established with **Crossroads**, **CNT**, **Qlogic**, **Emulex**, **JNI**, **AppIQ** and **IXOS** Software

# HDS disk products



# HDS product close up

## "Lightning" 9900 V Series

- Resold by Sun, HP OEMs
- Supports S/390 and Open Systems via ESCON/FICON/Fibre Channel
- RAID-5 and Raid-1 support
- Up to 8,192 logical devices
- No support for IBM i-Series

## "Thunder" 9500 V Series

- Available in 4 models
- Supports up to 224 disks (210 SATA)
- LUN Support per subsystem limited to 512, while competitors offer over 1,000
- Hitachi Resource Manager, Data Link Manager, and SANtinel is an add-on cost
- No Raid-3 support

## TagmaStore

- New capabilities offer more "bragging rights" than actual business value
- Several features delayed until late 2004 or until 2005
- External disk system support and external capacity support is initially limited
- Warranty still 3 yrs hardware, 90 days software

## Storage: On Demand and Virtualization

- Forces virtualization to be controlled by one expensive array
- No 3rd pty external storage initial release
- Full virtualization support not expected until 2H05
- No ability to scale the single TagmaStore

# How to win against HDS storage

- With new **DS6000** & **DS8000**, IBM now has **decisive performance leadership**, as well as many other competitive advantages
- IBM's enterprise class Servers & Storage should be a killer combination
  – HDS has no systems perspective
  – No tape
  – No i-Series support
- HDS has less experience in Open Systems
- TrueNorth Storage Management vision not well-received
  – HDS Storage Management Software rated "Strong Negative" by 9/26/03 Gartner Report
- HDS strength is at high-end (Lightning/TagmaStore)
- IBM DS8000 has significant competitive advantages vs. TagmaStore
  – Performance appr to 2x (IOPS)
  – True Logical Partitioning
  – Compatibility of Storage Management Software and Advanced Functions across High-End and Mid-range or rack-mounted systems (DS8000 & DS6000)
  – 4 yr. standard warranty for both hardware and software
  – More details available – see "IBM TotalStorage DS8000 benefits over HDS TagmaStore" on System Sales

# IBM vs. HDS - Silver bullets and pellets

## IBM advantage

- IBM is a total solution provider
- IBM has a broad Storage and IT portfolio, and takes a Systems approach (vs. a Disk Storage-only approach)
- HDS offers Disk and Disk management software
- HDS has limited experience with NT and Unix platforms
- HDS has a limited set of disaster recovery or business continuance products
- IBM solutions have lower TCO due to many claims including standard software capabilities and features included at no extra charge as well as longer software warranty periods
- IBM is a technology leader (HDS is a follower)

## HDS competitive position

- HDS strength is at high-end (new TagmaStore)
- HDS Storage Software Strategy is suspect
- Virtualization Strategy requires an expensive high-end box (TagmaStore)
- May claim architecture advantages and performance advantages (but DS8000/DS6000 sets new standards)
- Will try to isolate deals to disk-only to eliminate IBM advantage
- A single HDS rep. may offer/price disk, s/w, and services

# IBM advantages against EMC and HDS

- **One-stop shopping** for customer IT storage solutions
  - **Including servers, storage, tape, and storage systems management**
  - **The more you pack together, the greater the differentiation**
- **Lower Potential Total Cost of Ownership**
  - **Up to 4 years warranty for both hardware and (selected) software options**
  - **Many software options delivered free of charge**
- IBM's **Virtualization** solutions
  - **Disk pool virtualization with TotalStorage SAN Volume Controller**
  - **SAN File System for a single shared file system across the enterprise.**
- Investment based on **open standards and leadership in openness**
  - **IBM delivered open APIs to industry standard SNIA Storage Management Initiative Specification (SMI-S)**
  - **IBM publishes Storage Performance Council SPC-1 industry standard benchmarks**
- IBM's **content and data retention solutions**
  - **Build on IBM open standards and not tied to specific hardware**
- A clearly stated **TotalStorage strategy** matching technology to business needs
  - **Infrastructure Simplification, Business Continuity and Information Lifecycle Management**

# Bring in IBM services to elevate the client discussion

## Business

- ***Assessment***
  - Financial
  - Business Risk and Compliance
  - Business Impact Analysis
  - Business Resiliency
- ***Data Classification***
- ***Strategy and Change***
- ***Vertical expertise***


## Technology

- ***Assessment***
  - TCOnow! Tool
  - Infrastructure Simplification Support Guide
  - Scorpion TCO studies
  - IT Optimization
- IT Recovery
  - Storage strategy and planning
- ***Design and Implementation***
  - eBusiness On Demand Design Centers
  - BP Innovation Centers and TSSCs
  - Piper Data Migration Tool
  - ILM Architecture and Design
  - Storage virtualization
  - Business Continuity and Recovery
  - Tiered Storage Deployment
- ***Hosting***
  - Recovery services and facilities

# Resources to win

***PreSales Funds***

- Money to use for any valid presales expense eg: studies, services, loaners
- Allows IBM to break in to a competitively held space so *you can sell where they are!*
- Wins include Bank of America, UBS, SONY, Morgan Stanley, Nokia, Mizuho, Prudential Financial!

***Compete Center and Compete Line***

- Hotline Support, On-site Customer call support, WW network of Competitive Experts
- Marketing Support, Education, Competitive Pricing and Specs!

**Program Finder**

- A new, searchable sales tool. Consolidates IBM sales plays, offerings and promotions on the Web
- w3.ibm.com/sales/competition/pop or Submit new content at popfind@dk.ibm.com

**Piper Migrations**

- Simplifies data migration to IBM storage solutions in open systems and mainframe environments
- Can deliver substantial tech and cost benefits offered by IBM TotalStorage ESS and FAST-T products

**Web**

- COMP portlet at: **http://w3-03.ibm.com/sales/competition/compdlib.nsf/pages/portlets?Opendocument**

## IBM TotalStorage Competitive Sales Tool **NEW January 2005**

- **TotalStorage competitive information**
- **Downloadable**
- **Updated monthly**
- **Available via System Sales, COMP and PartnerWorld®**

## Software Pricing Tool

(IBM DS4000 Storage Manager vs. EMC CLARiiON Navisphere)

- **Typically shows significant price advantage - 3 year software costs**
- **Iterative pricing comparisons - including potential discounts**
- **Updated quarterly (Prices and Content)**
- **Available via System Sales, COMP and PartnerWorld®**

- **WW IS&TG Competitive Marketing Portlet (COMP)**
  - IBM: http://w3-03.ibm.com/sales/competition/compdlib.nsf/pages/ISTGPage
  - Partners: http://partners.boulder.ibm.com/src/compdlib.nsf/bpwebbysource?OpenView&IBM+Systems+and+Technology+Group+WW+Competitive+Marketing&Start=1&
  - **Includes: Educational Materials, Product-to-Product comparisons & more**
- **Competeline - Pre sales support**
  - Americas
    - **Intranet: http://w3-1.ibm.com/support/americas/competeline.html**
    - **Business Partners must contact Partnerline: 1-800-426-9990**
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