Target HP: Win When Selling Against HP (Geo Speaker Name)

EMEA: Barcelona, Spain
AG & AP: San Diego, CA, USA

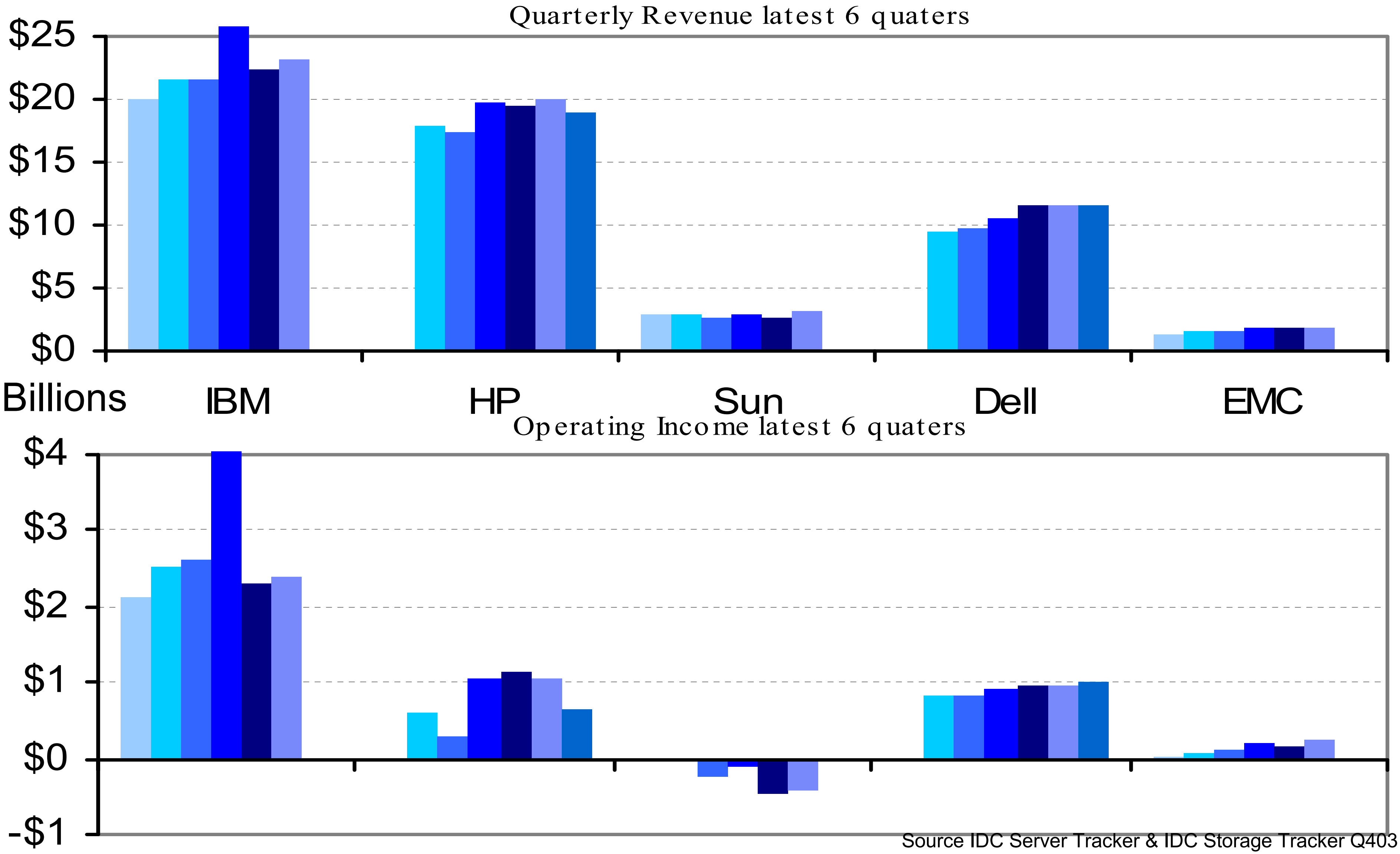
ON DEMAND BUSINESS™

Agenda

- **Why care about HP ?**
- **Overview of HP's Business & Strategy**
- **Targeting HP from an ISTG perspective**
  - Servers
  - Storage
  - Software
  - Services
  - On Demand
- **HP Messages about IBM**
- **Winning against HP – summary**
- **Q & A**

HP Overview

HP's Financial performance in perspective



Source IDC Server Tracker & IDC Storage Tracker Q403

Strategy

- **HP Company Strategy**
  - Best return on Information Technology (RoIT)
  - Consumer: Simple and rewarding experiences
  - World-class cost structures
  - Focused innovation
- **HP Focus Areas**
  - Adaptive Enterprise
  - Itanium Server Migration
  - Smart Office (SMB)
  - Management Software
  - Digital Entertainment
  - Digital Publishing
  - Managed Services (Outsourcing)

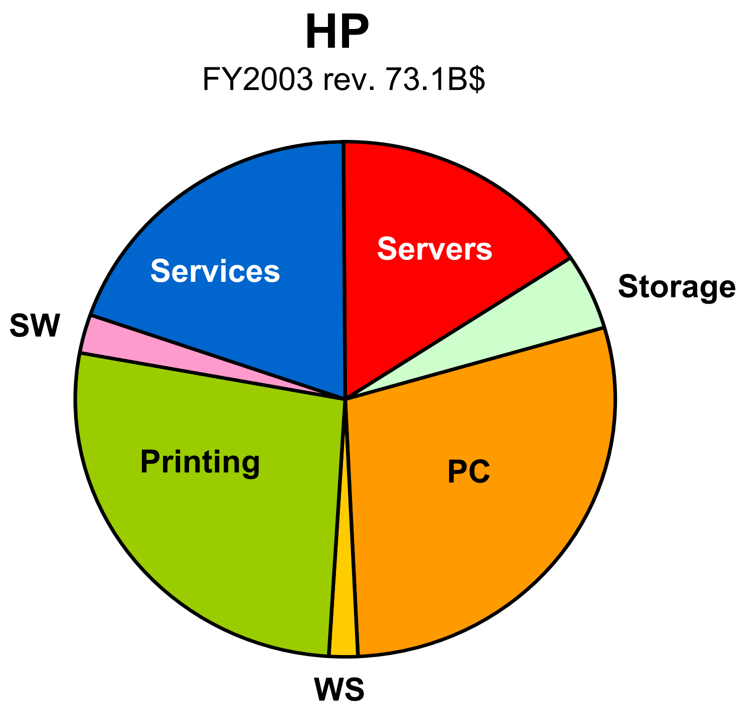
HP strategy

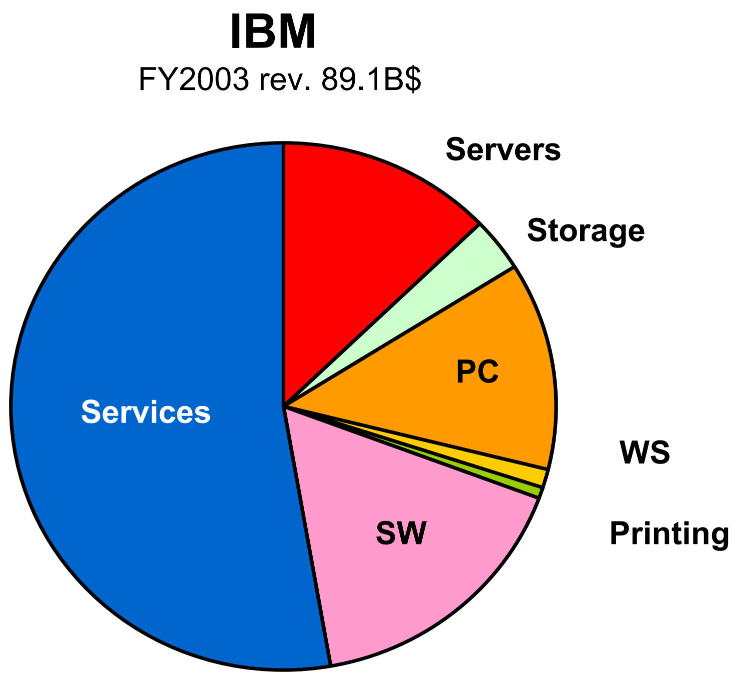
Innovation at a price our customers can afford, delivered with an experience that sets us apart.

"HP is the best alternative to IBM"

Source: HP Analyst Meetings 06/08/04 and 06/03/03

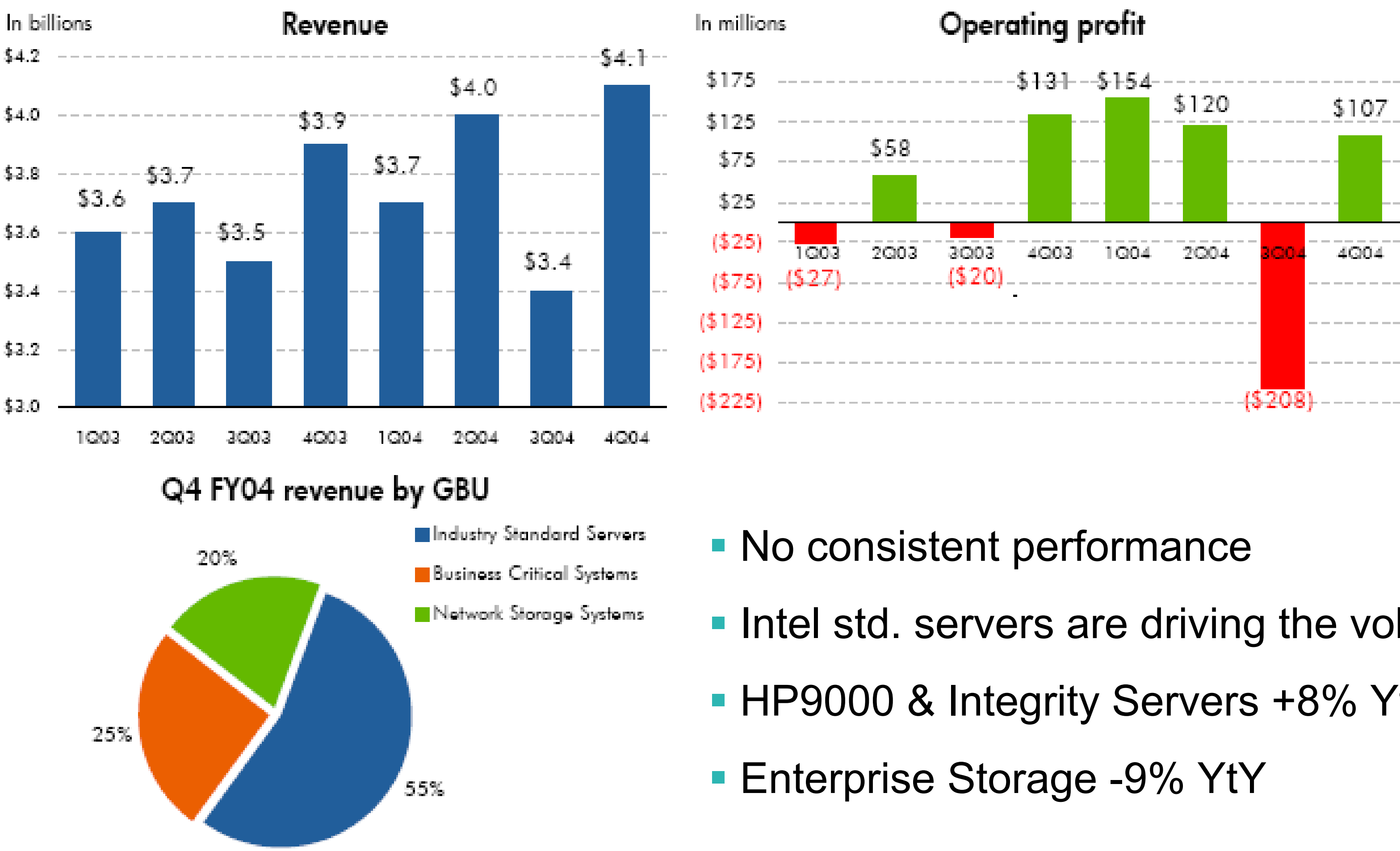
Where does the revenue come from ?





Source: HP numbers: TBR: ‘HP Q4-2003 Computer Business Quarterly’
IBM numbers: ‘IBM Annual Report 2003’

HP's Server & Storage business Q404 financials

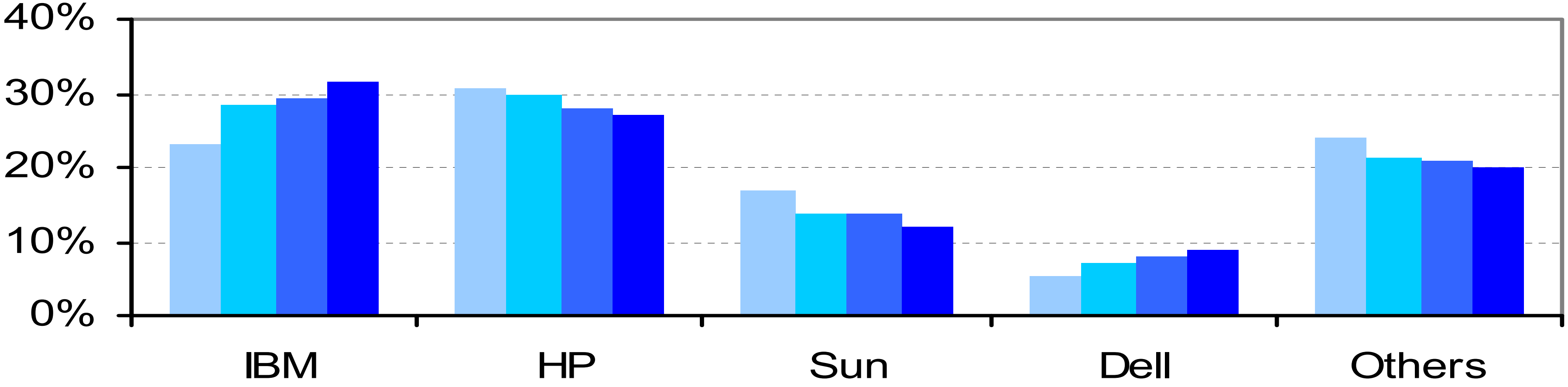


- No consistent performance
- Intel std. servers are driving the volume
- HP9000 & Integrity Servers +8% YtY
- Enterprise Storage -9% YtY

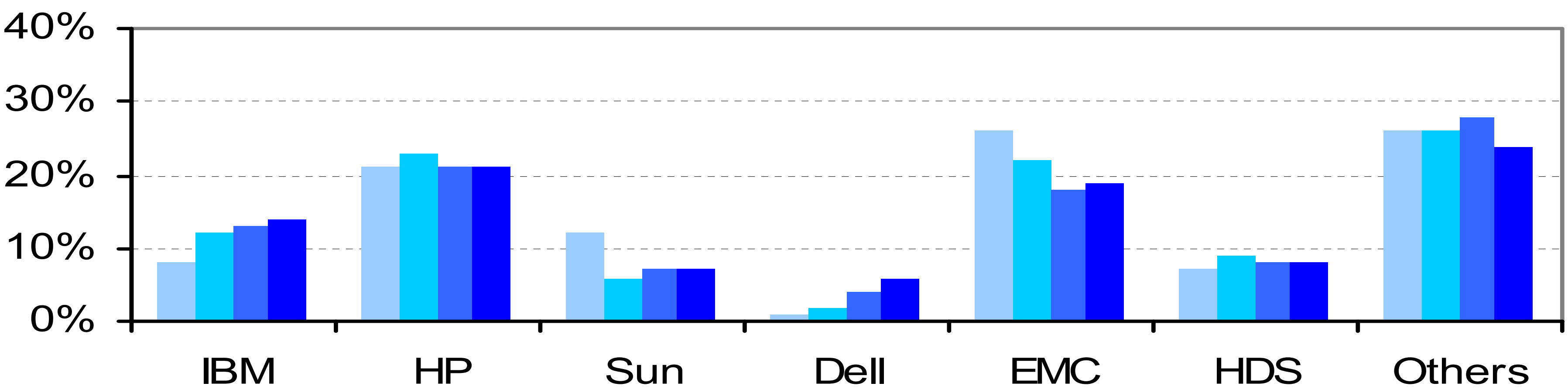
Source: HP F4Q04 Announcement, 11/16/04

WW Server & Storage Revenue share trends 2000-2003

Total Server Share 2000-2003



Total External Disk Share 2000-2003



Source IDC Server Tracker & IDC Storage Tracker Q403

Targeting HP’s Server Business

HP server and storage portfolio

Database
- ProLiant DL 700 series
- Integrity Superdome
- HP 9000 Superdome
- AlphaServer GS series
- AlphaServer SC series
- NonStop S76000/S86000

Application
- ProLiant DL/ML 500 series
- ProLiant BL p-Class
- Integrity rx8620
- Integrity rx7620
- rp8420-32
- rp7420-16
- AlphaServer ES series
- NonStop S76 series

Access
- ProLiant DL/ML 100 & 300 series
- ProLiant BL e-Class
- Integrity rx5670
- Integrity rx4640
- Integrity rx2600
- Integrity rx1600
- rp4440-8
- rp3440-4
- rp3410-2
- AlphaServer DS series

Multi-OS
HP-UX 11i
Microsoft Windows Server 2003
OpenVMS

StorageWorks
- CASA
- Optical family
- XP series
- ESL series
- EVA series
- MSL series
- VA series
- Tape Autoloader series
- MSA family
- NAS family
- Tape drive families

SAN Infrastructure / Software / Media / Options

HP is Moving to 3 Server Product Lines – Built On 2 Intel Architectures, and 3+ Operating Systems

HP NonStop (MIPS) →
- HW transition to Itanium
- OS Migration (NonStop)
- Recompile applications

HP Integrity (Itanium)

HP 9000 / E3000 (PA-RISC) →
- HW transition to Itanium
- Stay on HP-UX, but different versions & features
- Recommended recompile of applications
- E3000 obsolete, move to HP-UX/Windows/Linux

HP Alpha Servers (Alpha) →
- HW transition to Itanium (box swap)
- OpenVMS Migration, Tru64 move to HP-UX
- Recompile applications

HP ProLiant (IA-32)

All commentary on this page is based upon IBM's view

Itanium is 'Industry Standard'?

- **It co**
  - Co
    (F
  - Intel itself
    architectu

"The Itanium ecosystem is as unhealthy as ever with HP totally dominating sales. HP moved 4,789 of the 5,665 boxes shipped in the second quarter, earning $250m in revenue. That total is roughly equivalent to the RISC server business done by IBM or Sun in one week.

Source: www.theregister.co.uk/2004/08/30/opteron_itanium_sales_q2/

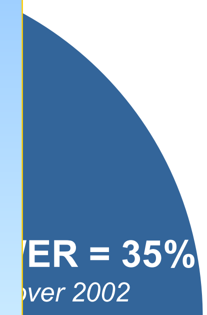
Published Monday 30th August 2004 18:37 GMT

HP knifes Itanium, cans IA-64 workstations

The Register 24th September 2004 19:22 GMT

Intel has lost the biggest customer for its ailing Itanium chip: Hewlett Packard's workstation division. HP is instead opting for total commitment to the 64-bit x86 chip market.

"In working with and listening to our high-performance workstation partners and customers, we have become aware that the focus in this arena is being driven toward 64-bit extension technology," HP said in a statement.



Microsoft Nixes Intel's Itanium Chip

'An upcoming **Microsoft** software product for clustered servers won't run on **Intel's** high-end Itanium 2 chip, according to a report first published on *News.com*. Instead, it will be optimized for a more mainstream type of server chip from Intel and rival Advanced Micro Devices' ***TheStreet.com***

Intel is killing Itanium one comment at a time

The Register, Friday 19th November 2004 21:08 GMT

Intel's erstwhile high-volume enterprise chip - Itanium - is now being positioned for the lowest-volume market of them all - the mainframe. In one of his first public interviews since being tapped as Intel's next CEO, Paul Otellini shafted the multi-billion dollar baby by declaring that Itanic's *future* lies with the dinosaurs.

HP Server transitions = IBM eServer Opportunity

- HP's roadmaps lead customers to evaluate alternatives
- IBM eServer is a strong alternative but….
  - **Understand that customers might not feel urgent need to move**
    - **You must provide 'here and now' advantage**
  - **Understand that many customers have a lot of trust in HP**
    - **You need to build that trust, get in early**
  - **HP's customers might not know IBM & our offerings very well**
    - **You need to take the time to explain IBM to HP's customers**
    - **Explain the BENEFITS of our technology, not just the technology**
  - **HP will protect their interests in installed base aggressively**
    - **Expect fierce competition and aggressive pricing**
  - **An eServer approach is crucial to succeed**
    - **Don't start the discussion on a single brand road**

All commentary on this page is based upon IBM's view

Competing with pSeries

Primary HP platform's to target: HP9000, Integrity AlphaServer

Key Selling Points

- **Stable roadmap (no transitions)**
- **Price/Performance**
  - 50 leading benchmarks
- **Outstanding virtualization capabilities (vs. npar & vpar)**
  - MicroPartitioning™ capabilities
  - Virtual LAN & I/O Partitions
- **Industry momentum**

WAKE UP TO THE POWER!

IBM @server p5 systems

Performance

POWER4+: Sustained performance leadership

POWER5**: Next-generation performance and scalability**

50 Published Benchmark Results

- **Performance leadership** across multiple workload types
- **Reduced resources** and associated **TCO savings**

The performance of the new Power5™ systems wowed competition: *“We've had folks in labs trying to tear apart their benchmarks, thinking they're doing bench marketing, not benchmarking. But the reality is the benchmarks are looking damned good,”- Larry Singer, Sun's Chief Competitive Officer.*

For the full article, http://techrepublic.com.com/5100-22_11-5411449.html

TPC-C ... result

TPC-H ... result

SPEC ... result

Siebel ... result ... ystem

Power 5 Leadership in 50 standard benchmarks at announce

OpenPower: A unique competitive advantage in the IBM portfolio for Linux

OpenPower vs. HP for Linux

Exceptional performance: floating point, Java business (SPECjbb) and database (SAP)

Price

- Extremely competitive against Itanium 2 offerings
- Competitive against Opteron offerings

Good power & cooling story

Great virtualization story

Lots of availability features

HP's Linux focus

is in the Intel/AMD-space

IBM @server xSeries®

IBM @server BladeCenter™ HS20 / JS20

IBM @server OpenPower™

IBM @server i5 / iSeries™

IBM @server p5 / pSeries®

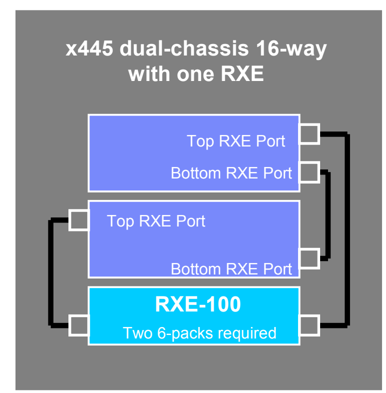
IBM @server zSeries®

Target HP with eServer xSeries

Primary HP platform's to target: Proliant, & Low-end Integrity

- **HP Product Strategy**
  - R&D is focused on Systems Management
  - Products – less competitive differentiation due to reduced R&D
  - Trying to use Opteron as a differentiator

- **Key Selling Points**
  - IBM availability features help keep customers Intel servers up
  - Leverage IBM Director and other system management tools
    - Customer using these tools are less likely to switch vendors
  - IBM is price competitive across all Intel servers
  - Leverage ability to scale from 4-way to 16-way with x445
  - If customer is set on Itanium 2 leverage the x455
  - Use OpenPower for Linux especially against Opteron



All commentary on this page is based upon IBM's view

Target HP with IBM BladeCenter

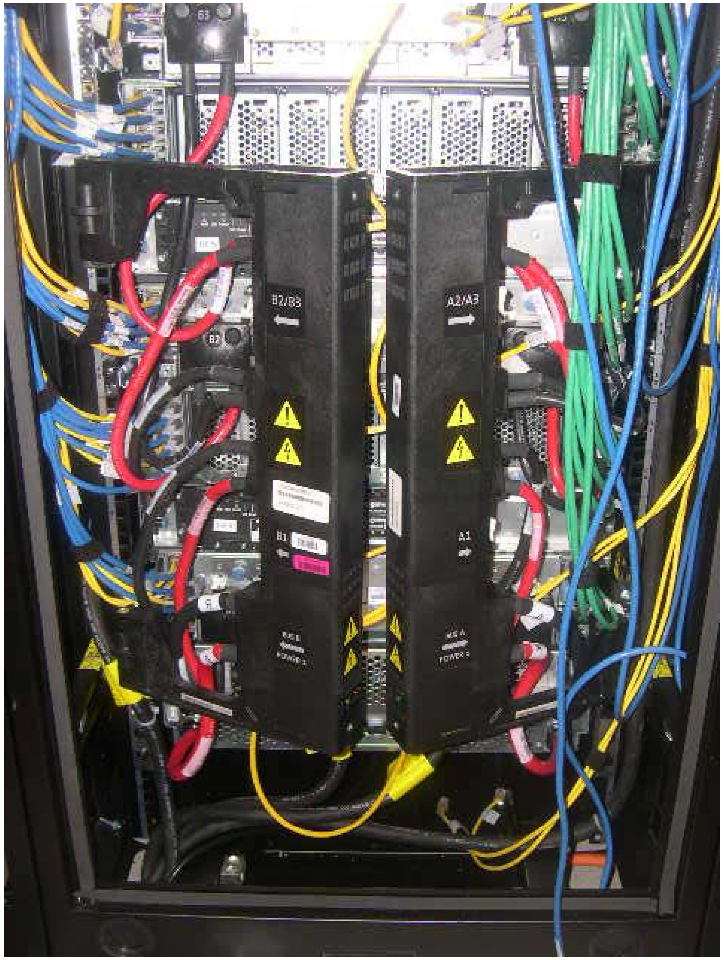
- **HP Product Strategy**
  - Interesting power design
  - Will soon try to use Opteron as a differentiator
- **Selling vs. HP**
  - Infrastructure simplification
    - Servers, Ethernet switches L2-7, SAN switches and appliances all in a chassis
  - Choice:
    - Windows, Linux or AIX
    - Intel Xeon (2-way), Intel Xeon processor MP (4-way) or PowerPC (2-way)
    - Choice of switch vendors – Ethernet and SAN
  - Ease of deployment – software and cables
    - HP has a complex power distribution setup and could require more cables especially with SAN
  - BladeCenter delivers extreme space savings
  - Power & Cooling Savings
    - Over 30%* vs. HP BL20p Intel blades - Significant savings per blade per year
  - Outstanding availability features to help keep customers Intel servers up
  - Get customers to look at costs of chassis and modules on a per blade

All commentary on this page is based upon IBM's view

*Source: Gartner Research "Electrical Requirements for Blade Servers" Jane Wright G00120690 April 24, 2004

BladeCenter – Ease of use

HP



- **Things to consider**
  - Time spent setting up
  - Time spent servicing
  - Path of Air flow for cooling
  - Potential blocked space due to bus bars

IBM

BladeCenter – Ease of use .....continued

This is the front of the rack! Not the back!

HP

IBM

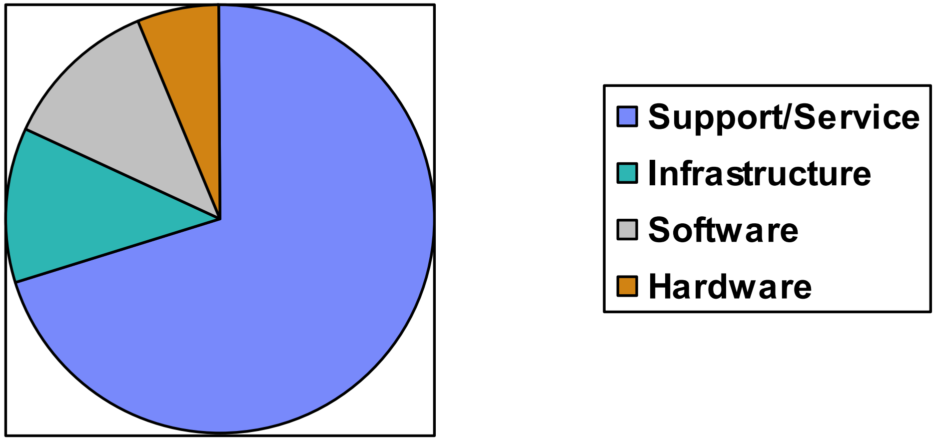
This is a picture of and HP implementation using the ProLiant BL p-Class RJ-45 Patch Panel 2 for Fibre Channel

Target HP with iSeries

Primary HP platform's to target: HP3000/MPE,Alpha Server/OpenVMS

- iSeries **integrated** solution provide industry **low Total Cost of Ownership** – requires less manpower
- **Consolidation** of Windows, Linux and AIX on the iSeries
- When **reliability & security** are key
- Shared technology with pSeries
- iSeries owners are your friends!

Ask customers how their IT Budget is spent, you might get something like this.



All commentary on this page is based upon IBM's view

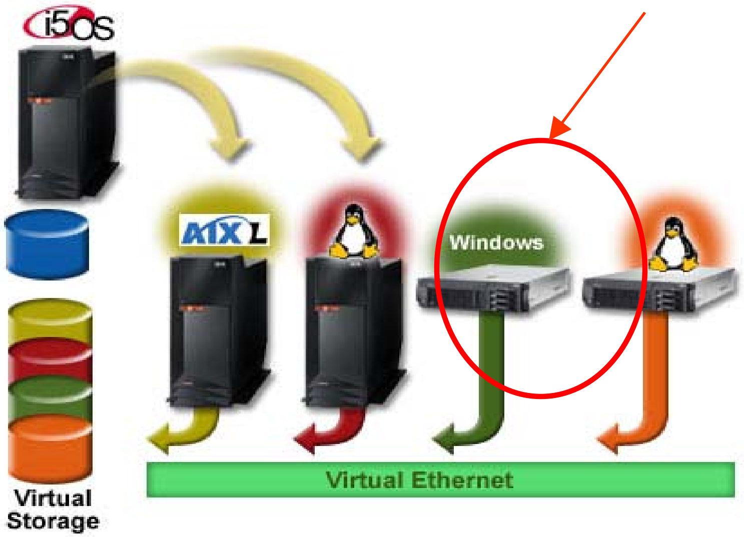
iSeries Consolidation of Windows, Linux and AIX

Keep Intel servers out of your iSeries account with IXS/IXA

Reduce complexity and costs by leveraging…

- Consolidated User, Server & Disk Administration
- Reliability & Availability
- Centralized Backup, SW Distribution, Testing, Virus recovery, Hot Spare and more etc..

References: BNP Paribas, Passina Products BV, Woolworths, FAPIM, Everfresh Group AB etc……



Target HP with zSeries

Primary HP platform's to target: Non-Stop, High-End UNIX

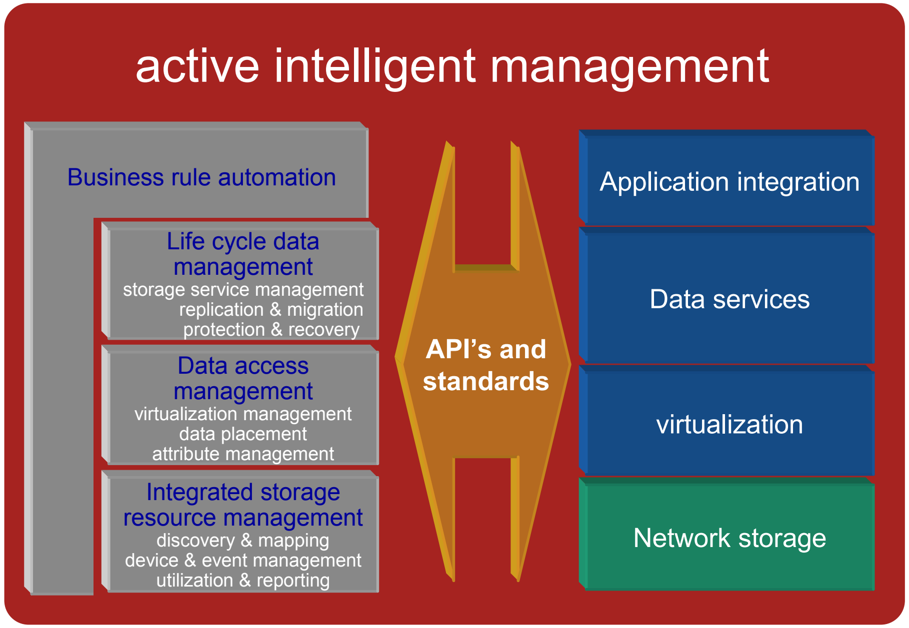
- **Industry Leader in Availability.**
- **Ability to run mixed workloads.** Through the use of automated Workoad Management (WLM) and Intelligent Resource Director (IRD), workload placement is not a constraining factor on system design as these functions ensure that workloads are managed to user specified goals.
  - HP's Non-Stop missing tools like WLM & IRD
- **Linear scaling.** WLM/IRD enable all processor resources to run at very high utilization throughout growth curve.
  - HP's Non-Stop
- **Partitioning.** LPAR/PRSM and/or zVM
  - Not found on HP's Non-Stop
- **Proven compatibility.** Very long track record of upward compatibility. Completely binary.
- **Single-system image.** Single view of system and I/O connections

Source: EMEA CompeteCenter, Claus Koefoed, 22/11 2004

Targeting HP’s Storage Business

HP Storage Strategies

- **ENSA Extended Architecture**
  - Open, adaptive
  - Heterogeneous environment
  - Enterprise Storage Utility
  - Evolves with Business requirements
- **StorageWorks Grid Strategy**
  - Utility-based architecture using Smart Cells
  - Smart Cell self contained system
    - Own storage
    - Processors
    - Search engine
    - Database
    - Indexing capability
    - Management layer



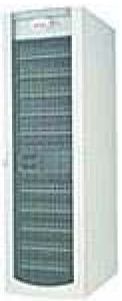
- **User concerns**
  - Limited development resources
  - Of no relevance for todays requirements
  - Futuristic concept

HP Storage Families

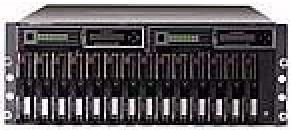
- **High-End Storage Arrays**
  - HDS OEM XP series with mainframe support
    - XP12000
    - XP1024
    - XP128
  - Enterprise Virtual Array (EVA) 5000
    - EVA5000
- **Midrange Storage Arrays**
  - Virtual Array (VA)
    - VA7110
    - VA7410
  - Enterprise Virtual Array (EVA)
    - EVA3000
- **Entry Storage Arrays**
  - Modular Smart Array (MSA) for ProLiant
    - MSA1000
    - MSA1500cs
  - SCSI or SATA
  - Host-based copy functions
- **Software**
  - Platform-specific software stacks
  - OpenView

XP

EVA



MSA



Key IBM selling points against HP Storage

- **What is really here today**
  - SAN-wide virtualization today – 800 customer installations
  - Heterogeneous Metro- and global business continuance solutions
  - IBM TotalStorage Open Software Family
- **Strong and constantly refreshed product families**
  - Entry level: DS300/DS400
  - Midrange: DS4000/DS6000
  - High-end: DS8000
- **Customer investment protection**
  - 3 year SW warranty, 4 years total warranty for DS6000/DS8000
  - DS4000 Data-in-place upgrades
  - Competitive pricing
  - SVC supports heterogeneous storage grids and ensures smooth transitions
- **HP is struggling to integrate HW and SW from these diverse storage platforms into a single architecture**

All commentary on this page is based upon IBM's view

IBM Strategies and Tactics

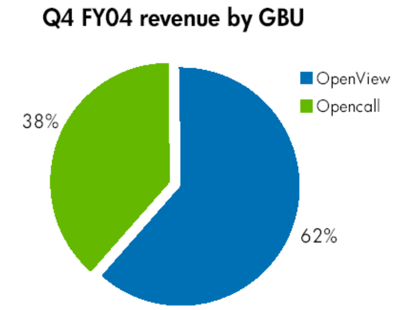
- **IBM's superior enterprise storage experience vs. HP's dependence on HDS' support staff for high-end**
- **Make your customer aware of ESS/DS6000/8000 superior disk-related performance, greater I/O capability, and multi-unit scaling capability**
- **Talk about superior virtualization, consolidation, performance, and TCO of DS4000**
- **Talk about MSA1000's out-of-date technology which provides inferior performance vs. competitive entry-level offerings**
- **HP's software portfolio is unorganized and segmented. Many independent products are required for coverage, adding complexity and cost.**
- **IBM either does not charge for these features or charges a flat fee and not on a capacity-basis.**
- **Sell the cohesiveness of IBM's current offerings and its strategy for autonomic computing**

All commentary on this page is based upon IBM's view

Targeting HP's Software, Services Businesses & Partnerships

HP Software

- Represents 1.1% of FY04 revenue and -16% OP
- Considered investment area for HP
- HP software is HP OpenView & HP OpenCall
- OpenView is key for HP's Adaptive Enterprise solution
- OpenView has good market acceptance and growing
- Acquisitions made to complete portfolio (*name them here*)



Tivoli. software

Lotus. software

WebSphere. software

DB2. Information Management Software

Rational. software

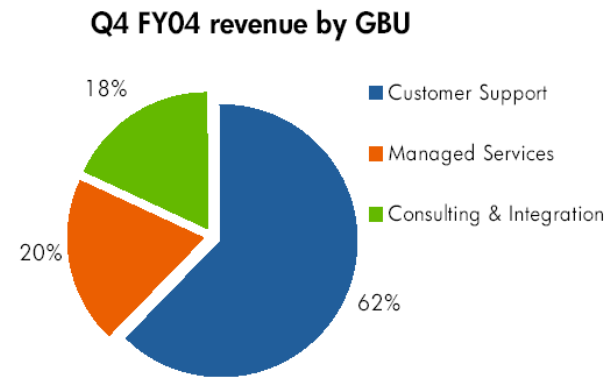
} Competition is HP OpenView

} Competition is HP and 'partners'
- Microsoft
- Oracle
- BEA
- Etc.

Source: HP F4Q04 Announcement, 11/16/04

HP Services

- Represents 17% of FY04 revenue and 9.2% OP
- 2/3 is traditional customer support
- Considered investment area for HP
- Acquisitions made to complete portfolio (name them here)
- Outsourcing is showing strong growth (38% FY04 vs. 03)



Leverage your advantages:

- HP does not have a BCS equivalent
  - turns to Accenture for true Business Consultancy
- You don't **need** to partner to provide full service coverage
- In most regions we outnumber HP in service 'resources'
  - Your chance to provide 'local experts'
- Our deeper experience counts, specially in large deals

Source: HP F4Q04 Announcement, 11/16/04

Battling HP's Partnerships

- HP touts to be 'partner of choice' for many SW vendors & SI's
  - **Microsoft, Oracle, SAP, BEA, Accenture etc.**
- HP positions this as being 'open' vs IBM wanting to control everything

How to react ?

- HP is forced to partner to make up for lacking products & competencies
- No partnership is exclusive !
- No vendor can afford to disregard marketshare !
  (i.e. Unix market = 1/3 IBM,Sun,HP roughly)
- None of HP's partners would say no to an opportunity with IBM !
- IBM has strong relationships to major SW vendors as well
- Key to succeeding with partners is LOCAL RELATIONSHIP
  - **Know your Peer**
  - **Build trust and respect**
  - **Acknowledge that sometimes we compete, and make it clear when**
- Make sure your **customer** understands that we can partner !

All commentary on this page is based upon IBM's view

HP Adaptive Enterprise

- **HP Adaptive Enterprise strengths**
  - ~~Utility Data Center~~
  - On Demand pricing solutions
  - Partnerships – especially Microsoft, BEA, Accenture
  - Customer references and testimonials
  - “Demand More” advertising campaign
  - Recent success in outsourcing services “mega-deals”
  - HP’s own internal use of adaptive enterprise concepts
- **HP Adaptive Enterprise weaknesses**
  - Dependence on partners for core capabilities
  - Lack of middleware capabilities
  - Lack of focus on customer business transformation
  - Lack of IBM’s broad, deep services experience and skills
  - Weak performance of HP Enterprise Systems business

Source: SG MI March '03 updates, HP Public Documents

Winning Against HP

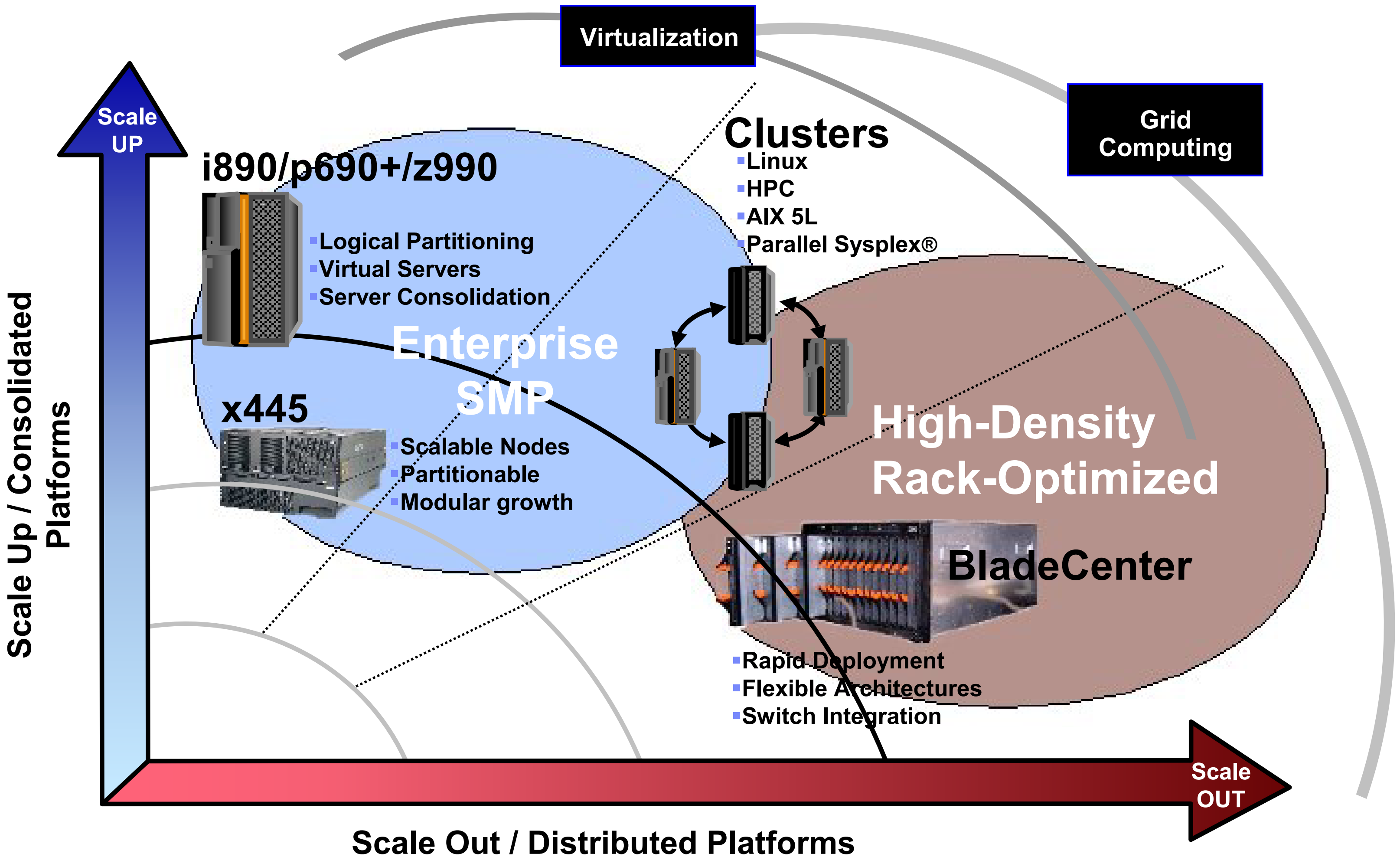
What HP May Say About IBM Server & Storage Solutions

- **IBM on demand business offerings are only a vision. HP can show products today**
- **IBM has a fragmented chip strategy. Why does IBM need three microprocessors? Why hasn't IBM merged them to give customers value and performance?**
- **IBM has no clear server direction. Their server lines are segmented, with four server lines that compete against each other**
- **IBM's server family is so complicated, sales representatives are knowledgeable only about their own narrow brand**
- **The IBM eServer iSeries is old technology and non-strategic**
- **IBM has a weak, fragmented storage line**

Source: SG MI March '03 updates, HP Public Documents

All commentary on this page is based upon IBM's view

Use all your options and beat HP



On Demand

Business Consulting Technical Services Software TotalStorage

Resources

Competitive Resources to support you

- **WW IS&T Competitive Marketing Portlet (COMP)**
  - **Includes xSeries, BladeCenter, pSeries and TotalStorage**
  - 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**
- **Competitive Sales Tool, xSeries/BladeCenter, pSeries, TotalStorage**

COMP

POP Finder
Programs Offerings Plays

competitive
Profiles

Competitive sales assistance

- **Pre sales competitive support**
  - **Americas CompeteLine**
    - **Intranet:http://w3-1.ibm.com/support/americas/competeline.html**
    - **Business Partners must contact Partnerline: 1-800-426-9990**
  - **EMEA CompeteCenter**
    - **Intranet:http://cmsc.dk.ibm.com**
    - **Business Partners: Phone: +45 45234450 or mail: comp@dk.ibm.com**

Legal Notes

The following are trademarks of the International Business Machines Corporation in the United States and/or other countries. For a complete list of IBM Trademarks, see www.ibm.com/legal/copytrade.shtml: AS/400, DBE, e-business logo, ESCO, eServer, FICON, IBM, IBM Logo, iSeries, MVS, OS/390, pSeries, RS/6000, S/30, VM/ESA, VSE/ESA, Websphere, xSeries, z/OS, zSeries, z/VM

The following are trademarks or registered trademarks of other companies

Lotus, Notes, and Domino are trademarks or registered trademarks of Lotus Development Corporation

Java and all Java-related trademarks and logos are trademarks of Sun Microsystems, Inc., in the United States and other countries

LINUX is a registered trademark of Linux Torvalds

UNIX is a registered trademark of The Open Group in the United States and other countries.

Microsoft, Windows and Windows NT are registered trademarks of Microsoft Corporation.

SET and Secure Electronic Transaction are trademarks owned by SET Secure Electronic Transaction LLC.

Intel is a registered trademark of Intel Corporation

* All other products may be trademarks or registered trademarks of their respective companies.

NOTES:

Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.

IBM hardware products are manufactured from new parts, or new and serviceable used parts. Regardless, our warranty terms apply.

All customer examples cited or described in this presentation are presented as illustrations of the manner in which some customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual customer configurations and conditions.

This publication was produced in the United States. IBM may not offer the products, services or features discussed in this document in other countries, and the information may be subject to change without notice. Consult your local IBM business contact for information on the product or services available in your area.

All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

Information about non-IBM products is obtained from the manufacturers of those products or their published announcements. IBM has not tested those products and cannot confirm the performance, compatibility, or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

Prices subject to change without notice. Contact your IBM representative or Business Partner for the most current pricing in your geography.

References in this document to IBM products or services do not imply that IBM intends to make them available in every country.

Any proposed use of claims in this presentation outside of the United States must be reviewed by local IBM country counsel prior to such use.

The information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Special Notices (Cont.)

The following terms are registered trademarks of International Business Machines Corporation in the United States and/or other countries: AIX, AIX/L, AIX/L(logo), alphaWorks, AS/400, Blue Gene, Blue Lightning, C Set++, CICS, CICS/6000, CT/2, DataHub, DataJoiner, DB2, DEEP BLUE, developerWorks, DFDSM, DirectTalk, DYNIX, DYNIX/ptx, e business(logo), e(logo)business, e(logo)server, Enterprise Storage Server, ESCON, FlashCopy, GDDM, IBM, IBM(logo), ibm.com, IBM TotalStorage Proven, IntelliStation, IQ-Link, LANStreamer, LoadLeveler, Lotus, Lotus Notes, Lotusphere, Magstar, MediaStreamer, Micro Channel, MQSeries, Net.Data, Netfinity, NetView, Network Station, Notes, NUMA-Q, Operating System/2, Operating System/400, OS/2, OS/390, OS/400, Parallel Sysplex, PartnerLink, PartnerWorld, POWERparallel, PowerPC, PowerPC(logo), Predictive Failure Analysis, pSeries, PTX, ptx/ADMIN, RISC System/6000, RS/6000, S/390, Scalable POWERparallel Systems, SecureWay, Sequent, ServerProven, SP1, SP2, SpaceBall, System/390, The Engines of e-business, THINK, ThinkPad, Tivoli, Tivoli(logo), Tivoli Management Environment, Tivoli Ready(logo), TME, TotalStorage, TURBOWAYS, VisualAge, WebSphere, xSeries, z/OS, zSeries.

The following terms are trademarks of International Business Machines Corporation in the United States and/or other countries: Advanced Micro-Partitioning, AIX/L(logo), AIX 5L, AIX PVMe, AS/400e, BladeCenter, Chipkill, Cloudscape, DB2 OLAP Server, DB2 Universal Database, DFDSM, DFSORT, Domino, e-business(logo), e-business on demand, eServer, GigaProcessor, HACMP, HACMP/6000, Hypervisor, i5/OS, IBMLink, IBM Virtualization Engine, IMS, Intelligent Miner, Micro-Partitioning, iSeries, NUMACenter, OpenPower, POWER, Power Architecture, Power Everywhere, PowerPC Architecture, PowerPC 603, PowerPC 603e, PowerPC 604, PowerPC 750, POWER2, POWER2 Architecture, POWER3, POWER4, POWER4+, POWER5, POWER5+, POWER6, Redbooks, Sequent (logo), SequentLINK, Server Advantage, ServeRAID, Service Director, SmoothStart, SP, S/390 Parallel Enterprise Server, ThinkVision, Tivoli Enterprise, TME 10, TotalStorage Proven, Ultramedia, VideoCharger, Visualization Data Explorer, X-Architecture, z/Architecture.

A full list of U.S. trademarks owned by IBM may be found at: http://www.ibm.com/legal/copytrade.shtml.

UNIX is a registered trademark in the United States, other countries or both.

Linux is a registered trademark of Linus Torvalds in the United States, other countries or both.

Microsoft, Windows, Windows NT and the Windows logo are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Intel, Itanium and Pentium are registered trademarks and Intel Xeon and MMX are trademarks of Intel Corporation in the United States and/or other countries

AMD Opteron is a trademark of Advanced Micro Devices, Inc.

Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States and/or other countries.

TPC-C and TPC-H are trademarks of the Transaction Performance Processing Council (TPPC).

SPECint, SPECfp, SPECjbb, SPECweb, SPECjAppServer, SPEC OMP, SPECviewperf, SPECapc, SPEChpc, SPECjvm, SPECmail, SPECimap and SPECsfs are trademarks of the Standard Performance Evaluation Corp (SPEC).

NetBench is a registered trademark of Ziff Davis Media in the United States, other countries or both.

Other company, product and service names may be trademarks or service marks of others.

Revised August 23, 2004

EMEA ONLY SLIDES

Focal point for support and education in competitive situations for IBM and Business Partner sales

EMEA CompeteCenter:

IBM

pSeries	**Linux**
xSeries	**Software**
iSeries	**Services**
zSeries	**Consulting**
Storage	**Strategies**

Versus..

COMPETITORS

Dell	**Microsoft**	**Accenture**
EMC	**Oracle**	**Unisys**
HP	**CA**	**EDS**
Sun	**Bea**	**Etc..**
HDS	**NCR**	
Fujitsu-Siemens	**Nettapp**	

What we provide…

- ***Customer Case Support***
  - Hotline support
  - On-site customer call support
  - WW network of IBM competitive consultants
- ***Marketing Support***
- ***Education***
  - eLearning modules, competitive updates, presentations
  - Roadshows across EMEA
- ***Information, On-line Tools & Deliverables:***
  - Competitive info: COMP Database
  - Competitive programs and offerings: POP Finder
  - Competitive pricing and specs: Ideas Internationa
  - xSeries/BladeCenter, pSeries, TotalStorage competitive sales tool

COMP

POP Finder
Programs Offerings Plays

competitive
Profiles

The CompeteCenter can help you with:

Competitive Sales Assistance

- **Email: comp@dk.ibm.com**
- **IBM Intranet: http://cmsc.dk.ibm.com**
- **Phone: +45 4523 4450**

Self service information

- **Find link to all competitive tools in COMP including POP Finder and Ideas International (under ‘third party tools’):**
  - **COMP BP: http://www.ibm.com/partnerworld**
  - **COMP IBM: http://w3.ibm.com/sales/competition**

Backup & raw material

IBM Resources

IBM BladeCenter / xSeries Competitive Sales Tool
Hotlink

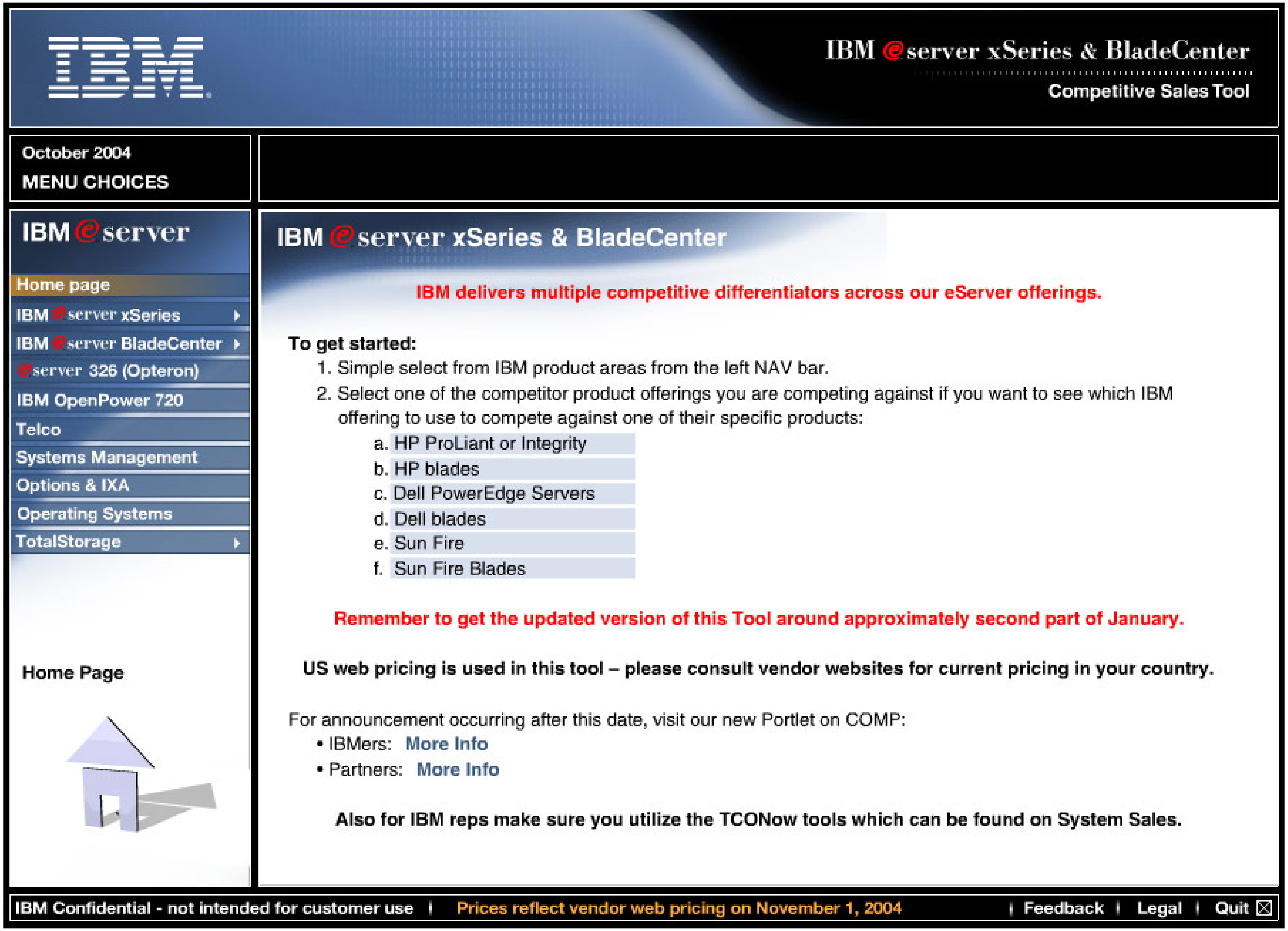
IBM pSeries Competitive Sales Tool
Hotlink

IBM WorldWide Competitive Portal
http://w3-03.ibm.com/sales/competition/compdlib.nsf/pages/COMP

IBM System Sales
http://w3-1.ibm.com/sales/systems/portal/_s.155/253

ADD STORAGE TCO Now!
(link)

Example of Competitive Sales Tool



TCOnow!™ a *strategic* statement

- Minimum of 3 years
- 10 major cost elements
- TCO driven by technology

TotalStorage TCOnow

General Availability

NOW!!!

at

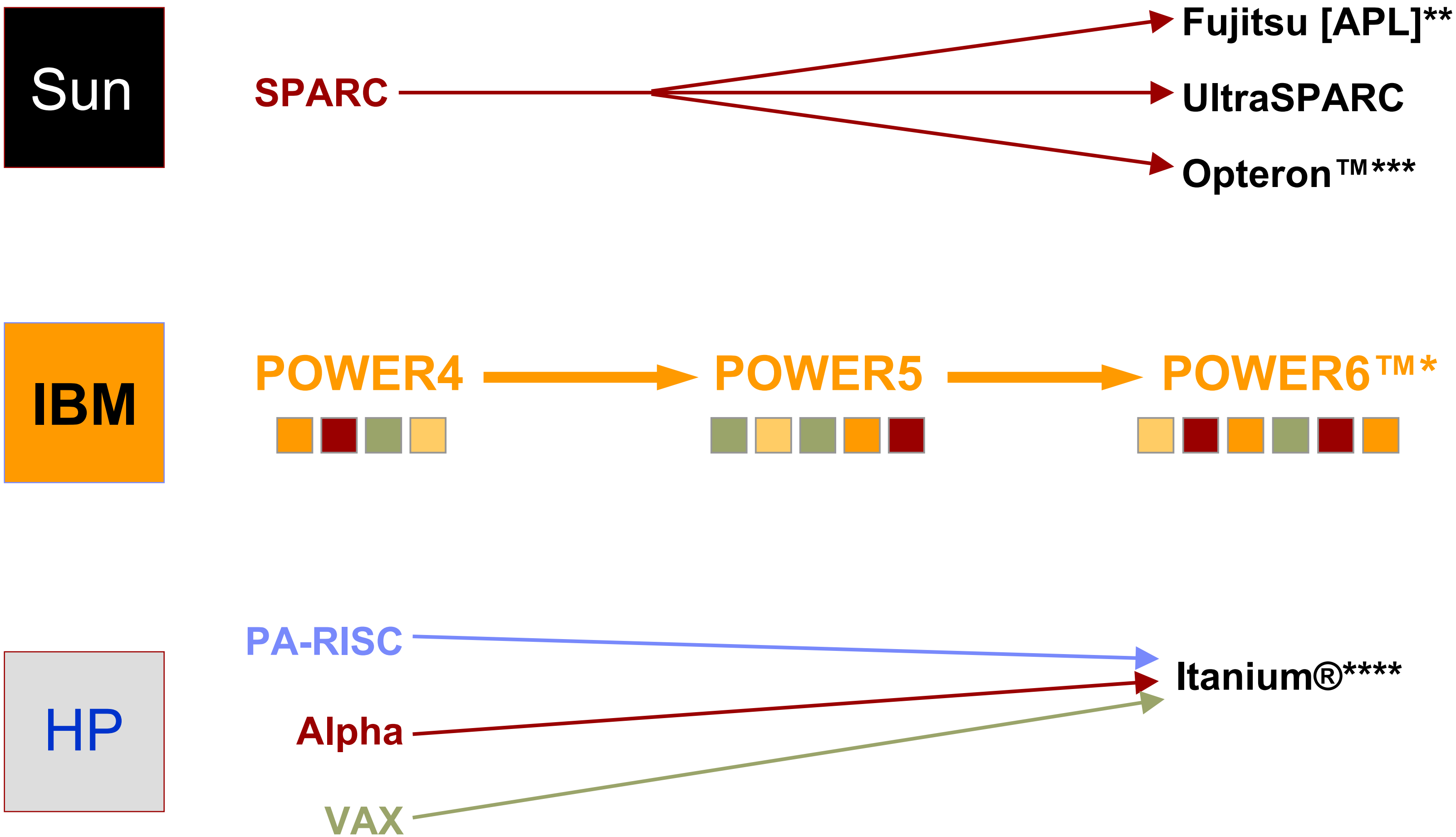
IBMers

http://w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f220s260&geoID=All&prodID=IBM%20TotalStorage%20Products&docID=tsshstoragetconow

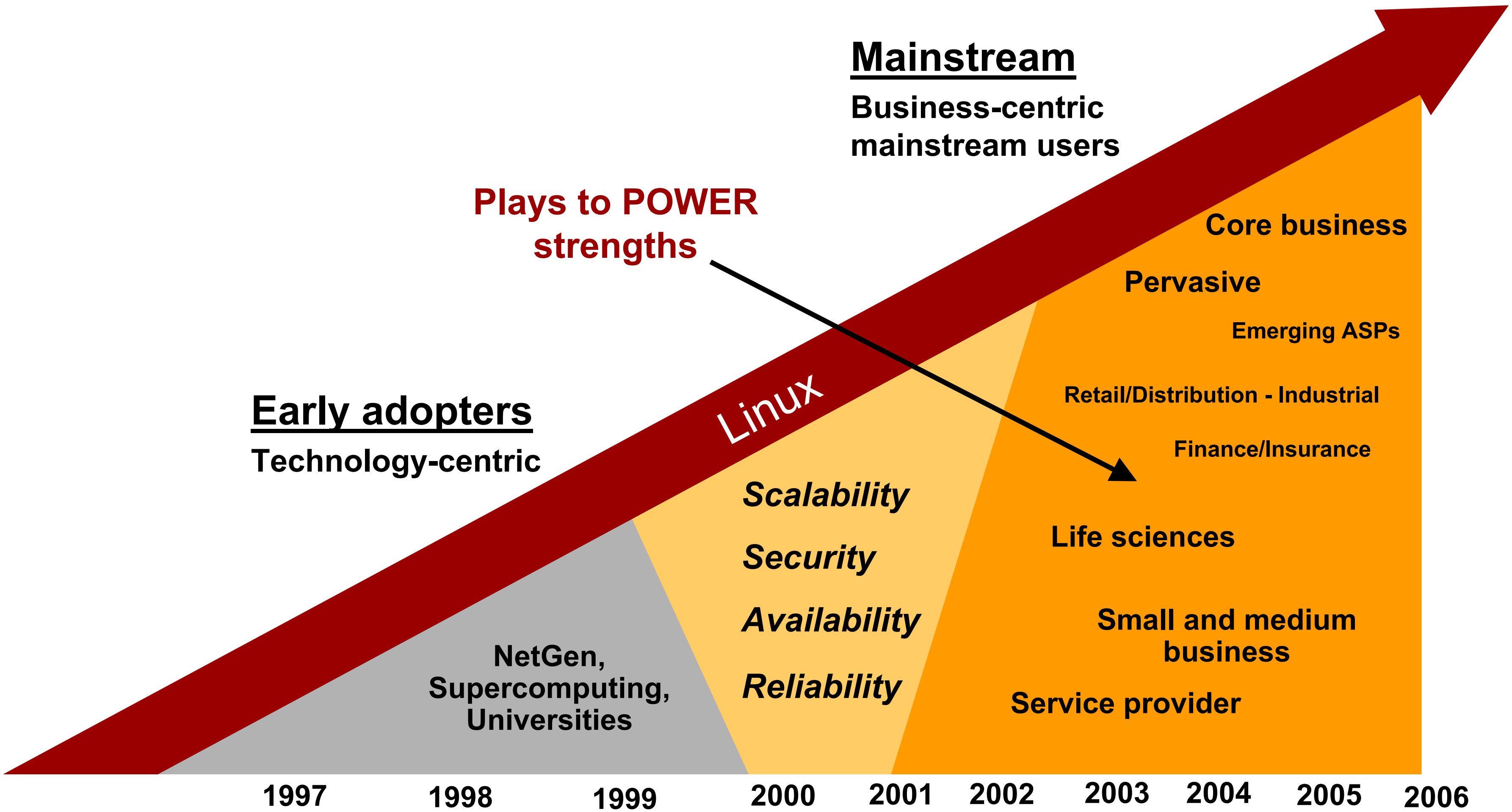
Business Partners

http://www.ibm.com/partnerworld/sales/systems/

A Stable Roadmap………
New, innovative technology should not be disruptive



Taking Linux mainstream



HP´s npar and vpar

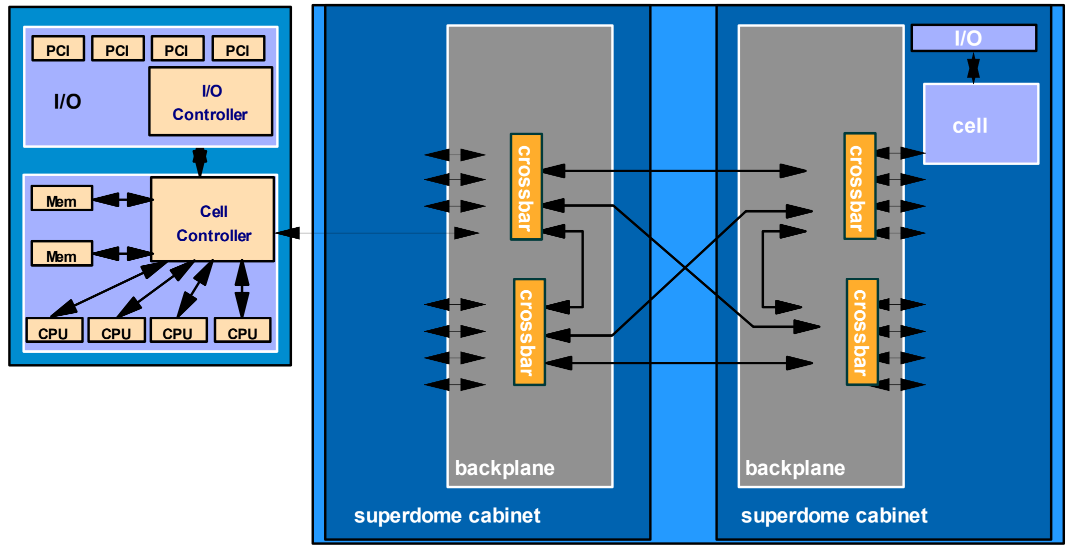
Physical - npar

- cellboard granularity
- 16 npar in SD
- Integrity SD (Itanium):

  separate operating systems

  (Linux, Windows 2003,

  HP-UX 11i v2 for Itanium)

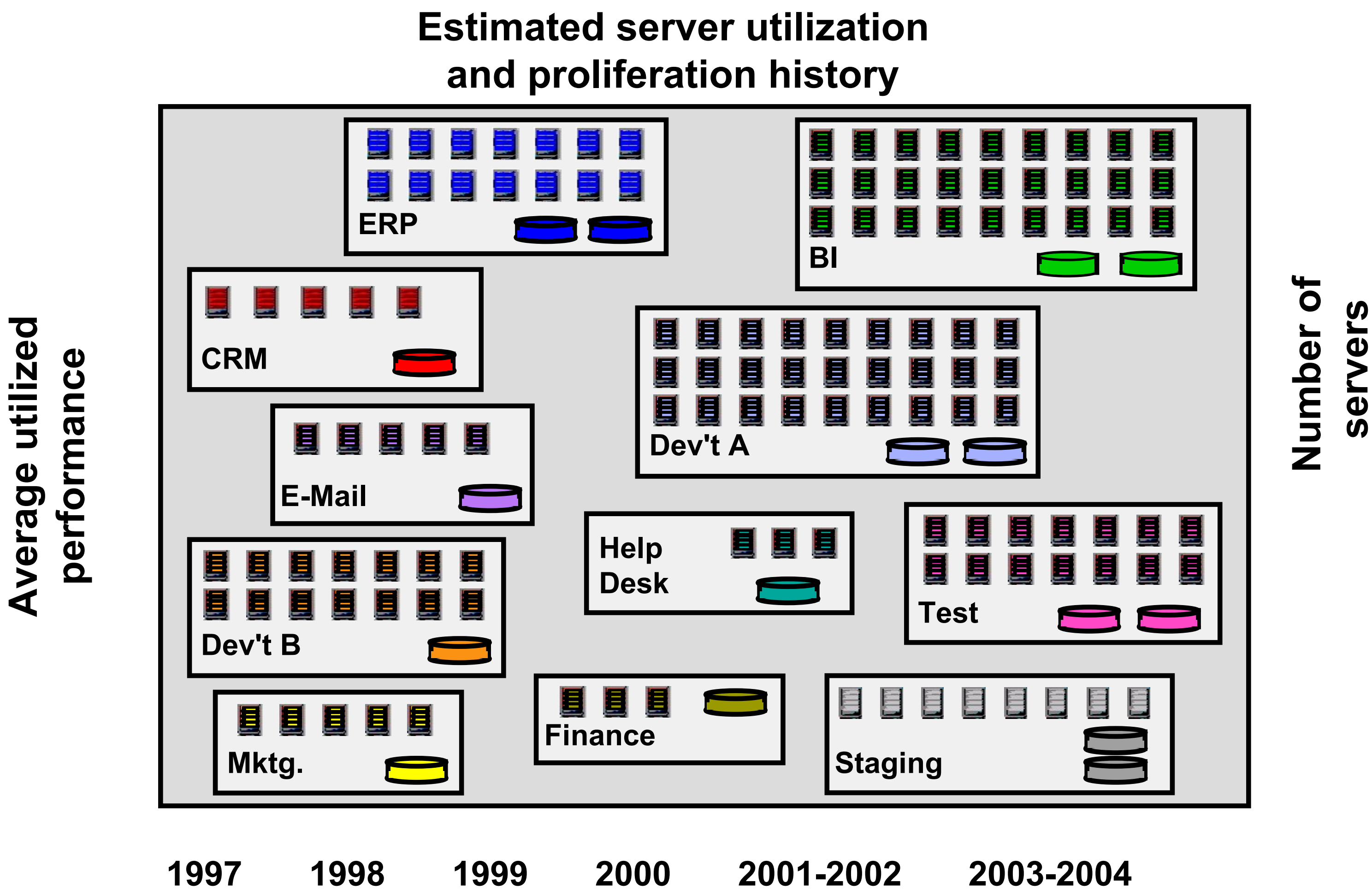


Software - vpar

- software implementation with HP-UX only
- root user access across all vpars
- only processors may be dynamic moved (across vpars within npar)
- system management is complex

Nov, 03: delay - vpar for HP-UX Itanium systems will be released in 2H2005

Today's UNIX and Intel servers are relatively inefficient. Resources are generally dedicated to specific workloads



IBM advanced virtualization technologies for infrastructure simplification are designed to address this IT challenge.