

iSeries. mySeries.



Introducing IBM eServer_® i5 & i5/OS™

Announcement Overview

and Trends & Directions for the iSeries
St. Louis, MO
Sept 9th, 2004
Denny Insell
iSeries SR Consulting Specialist (ATS Rochester, MN)
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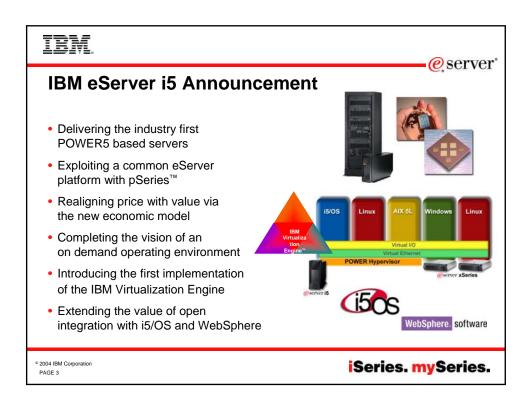
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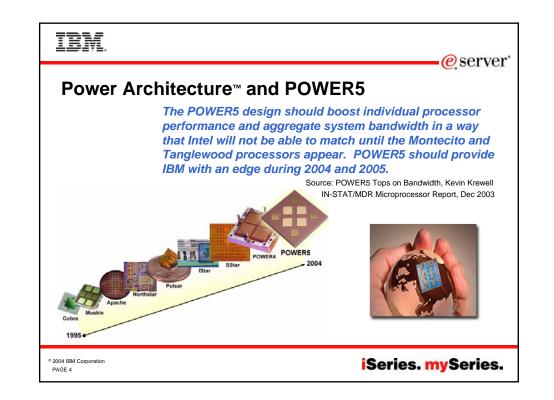


IBM eServer i5 and i5/OS V5R3 - Highlights

IBM eServer i5	The next generation of iSeries [™] servers
	 First POWER5™ processor-based servers in industry
IBM i5/OS V5R3	The next generation of OS/400®
	 Builds on and extends the capabilities of OS/400 V5R2
Simplify	 Run i5/OS, Linux, AIX 5L[™] and Windows[®] Server in a single server
Your	 Share resources, maximize utilization with IBM Virtualization Engine™
Infrastructure	Manage infrastructure with IBM Director Multiplatform
Integrate	Exploit i5/OS integration with IBM software
to	Personalize application access with WebSphere® Portal
Innovate	Foster interaction and collaboration with Lotus® Workplace
Deliver	Extend Capacity on Demand leadership with Memory & Reserve CoD
Without	Strive for continuous operations with fault tolerant technologies
Disruption	Deliver robust, open database solutions with IBM DB2® UDB

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Common eServer Platform

IBM eServer	Make no compromises, accept no limits in an on demand world
pSeries	Feature innovative and affordable POWER systems to serve the multiple workloads of the UNIX and Linux marketplace
IBM eServer i5	Simplicity in an on demand world
	Feature fully integrated solutions including IBM middleware with maximum flexibility in operating system choice

IBM eServer POWER5 Common Platform

POWER5 servers are the industry's most powerful and flexible 64-bit servers, running multiple operating environments simultaneously and dynamically adjusting to changing requirements. Exactly what you need to simplify IT infrastructure, drive down costs and drive up productivity in today's on demand world.



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Positioning eServer i5 and eServer p5



IBM eServer i5 Simplicity in an on demand world

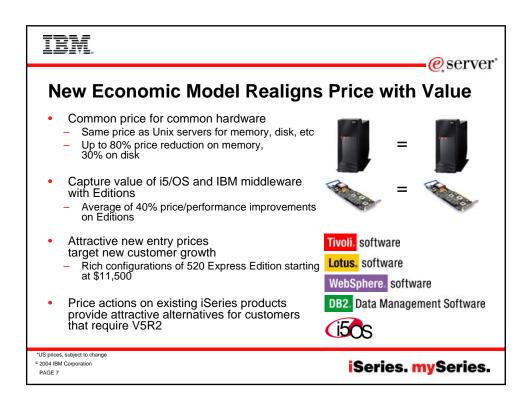
Feature fully integrated solutions including IBM middleware with maximum flexibility in operating system choice

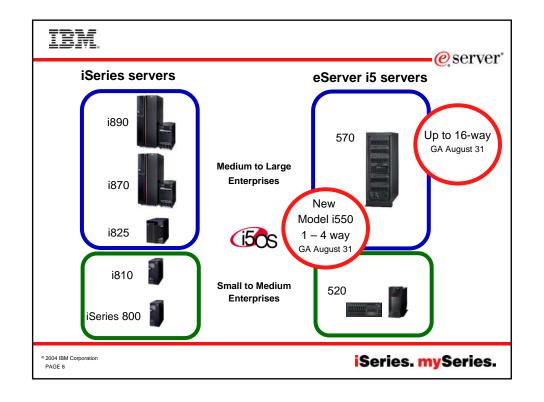
IBM eServer p5

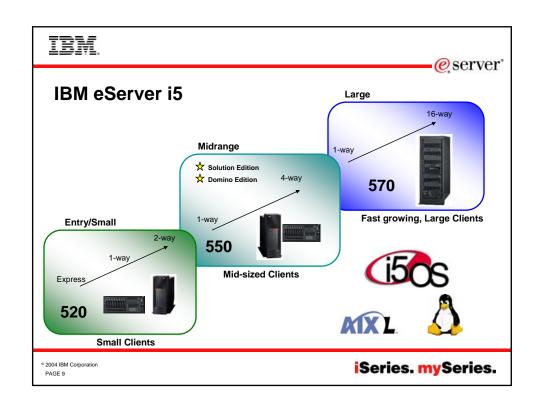
Make no compromises. Accept no limitations.

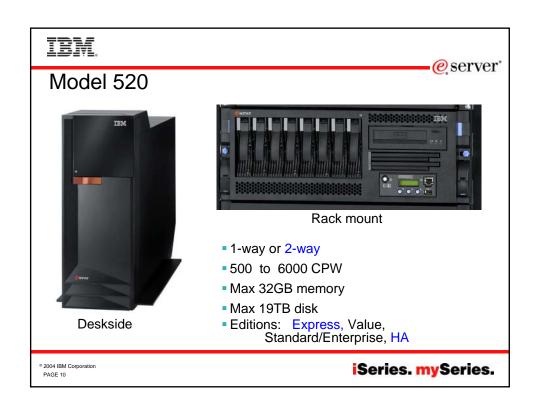
Feature innovative and affordable POWER™ systems to serve the multiple workloads of the UNIX and Linux marketplace

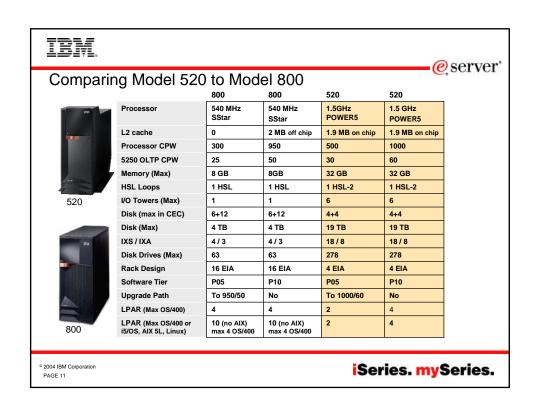
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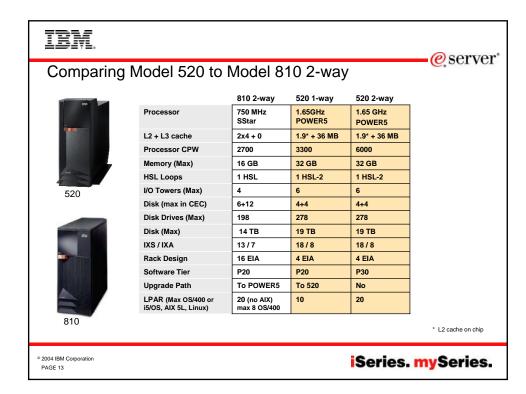


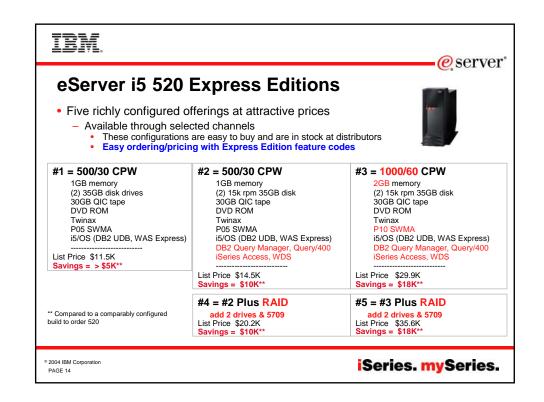






Comparing N	/lodel 52	o to Moc	del 810 1	-way		eserv
	810 1-way	810 1-way	810 1-way	520 1-way	520 1-way	520 1-way
Processor	540 MHz SStar	540 MHz SStar	750 MHz SStar	1.5GHz POWER5	1.5GHz POWER5	1.65GHz POWER5
L2 + L3 cache	2+0	2+0	4+0	1.9* + 0	1.9* + 0	1.9* + 36 MB
Processor CPW	750	1020	1470	1000	2400	3300
Memory (Max)	16 GB	16 GB	16 GB	32 GB	32 GB	32 GB
HSL Loops	1 HSL	1 HSL	1 HSL	1 HSL-2	1 HSL-2	1 HSL-2
I/O Towers (Max)	4	4	4	6	6	6
Disk (max in CEC)	6+12	6+12	6+12	4+4	4+4	4+4
Disk Drives (Max)	198	198	198	278	278	278
Disk (Max)	14 TB	14 TB	14 TB	19 TB	19 TB	19 TB
IXS / IXA	13/7	13/7	13/7	18/8	18/8	18/8
Rack Design	16 EIA	16 EIA	16 EIA	4 EIA	4 EIA	4 EIA
Software Tier	P10	P10	P10	P10	P10	P20
Upgrade Path	To 810 or 520	To 810 or 520	To 810 or 520	To 520	To 520	To 520
LPAR (Max OS/400 or i5/OS, AIX 5L, Linux)	10 (no AIX) max 4 OS/400	10 (no AIX) max 4 OS/400	10 (no AIX) max 4 OS/400	4	10	10
						* L2 cache on ch







Introducing the IBM eServer i5 550



Deskside

- 1/4-way server
- 1 license of i5/OS
- Similar capability to i5 570 2/4-way
- Multiple Editions Standard, Enterprise, Solution, Domino

- Flexible on demand pricing in a midrange server
- · Exceptional flexibility for consolidating servers and applications
- Supports up to 40 partitions
- Lower priced, 4-way capable server







Rack mount

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IBM eServer i5 550

- Configuration options
 - Desk side or rack mount
 - 1/4-way 1.65 GHz POWER5 processor
- · Flexible on demand pricing
 - 1 license i5/OS
 - 3 processors available for growth/consolidation
 - Choice to deploy i5/OS, AIX 5L, Linux
- Growth options
 - Starts at 3,300 CPW, up to 12,000 CPW
 - Up to 64 GB memory
 - Up to 38 TB disk storage
- Features Standard, Enterprise, Solution and Domino Editions
 - Second processor activation included on all editions

e server

Rack mount



Desk side



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Announcing the IBM eServer i5 Solution Edition

- Helps increase application choice and flexibility through –
 - Support for multiple operating systems i5/OS, AIX 5L, Linux and Windows (via IXA or IXS) running simultaneously
- Helps manage dynamic and unpredictable changes in business demand through –
 - Capacity on Demand and IBM Virtualization Engine system technologies such as Micro-Partitioning ™, POWER Hypervisor ™, Virtual Ethernet ...
- Can simplify IT infrastructure management by providing –
 - Fully integrated DB2 UDB relational database, automated workload management, security, Web enablement ...

- Solution Edition includes
 - One i5/OS license (includes WebSphere Express & IBM Director Multiplatform)
 - Additional processor activation
 - One Enterprise Enablement feature (OLTP application support)
 - One Integrated xSeries Server
 - WebSphere Portal Express Plus (40 seats)
 - DB2 Query Mgr/SQL Dev Toolkit (1 license)
 - One Service Voucher for Linux, Windows Integration, AIX 5L or WebSphere



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Participating ISVs



ISV	Description	Industries
Clear Technologies, Inc.	C2 CRM Application	Cross Industry
IBS	Enterprise Applications	Cross Industry
Integrated Distributed Solutions, LLC.	Enterprise Applications: Power Enterprise (ERP for Food Distribution)	Food Distribution
Intentia	Enterprise Applications	Cross Industry
Lawson®	Enterprise Applications for: Financials, HR, Procurement, Healthcare SCM, Distribution, Retail, and Service Process Optimization	Cross Industry
Manhattan Associates	SCM: Warehouse Management and Transportation Execution Solutions	Retail, Consumer Goods, CPG, High Tech, Government, Life Sciences, Industrial, Wholesale
MAPICS	Enterprise Applications	Industrial
PeopleSoft	Enterprise Applications	Cross Industry
SSA Global™	Enterprise Software Solutions	Cross Industry

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IBM eServer i5 Domino Edition

- eServer i5 550 feature code #7530
 - 2 active processors and 2 i5/OS licenses
 - P20 software tier
 - No Enterprise Enablement feature
 - No additional software
 - 14,100 MCU rating for 2-way
- Priced below Standard Edition
 - Domino Edition is approximately 48% less for processor + 1 year SWMA
 - Domino Edition is approximately 42% less for processor + 3 years SWMA
- Requires proof of license:
 - 2 Domino® server licenses
 - 1500 Lotus[®] client licenses (Notes[®], Sametime[®], QuickPlace[®])





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Domino Edition Compare

Model	550 Domino P20	550 Standard P20	570 Standard P30
	1 / 4 way	1 / 4 way	2 / 4 way
Total Active Processors	2	2	2
Base i5/OS Licenses	2	1	1
Provide i5/OS CPW	6,350	6,350	6,350
Provide Domino MCU	14,100	14,100	14,100
CEC Price	\$56,000	\$74,000	\$82,000
Add'l i5/OS License	\$0	\$45,000	\$45,000
Processor Activation	\$0	\$0	\$0
Memory	\$5,050	\$5,050	\$9,640
3 Yr SWMA	\$30,375	\$30,375	\$69,095
Total	\$91,425	\$154,425	\$205,735
\$ / MCU	\$6.48	\$10.95	\$14.59

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eserver*

IBM eServer i5 model 570

Flexible configuration options

- Rack mount featuring Capacity on Demand options
- 1/2-way, 2/4-way POWER5 processor
- Highly scalable growth options
 - Starts at 3300 CPW, up to 11700 CPW
 - Up to 64 GB memory
 - Up to 39 TB disk storage
- Features Standard and Enterprise Edition options*
- Upgrades from i810, i820, i825, i830 and i870 (5/8-way) into 570

Rack mount only



*HA, CBU are product previews - planned 2H04

*HA Edition planned for 3Q'04 This presentation contains information about IBM's plans and directions. Such plans are subject to change without notice

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Model 570 (May Announcement) -1/2-way or 2/4-way -3,300 to 11,700* CPW -Capacity on Demand -Max 64 GB memory -Max 38 TB disk -Editions: Standard/Enterprise

eserver*

Model 570 (July Announcement)



- ■1/2-way to 13/16-way
- **3,300** to **44,700** CPW
- Capacity on DemandPlus memory, reserve, trial
- Max 512 GB memory
- ■Max 96 TB disk
- Editions: Standard/Enterprise, HA, CBU

Rack mount only

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eserver*

570 - Building Blocks

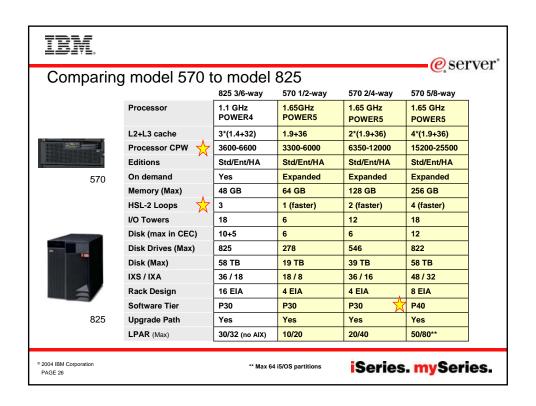
Single block 1/2-w and 2/4-w announced May. Up to 4 blocks announced July

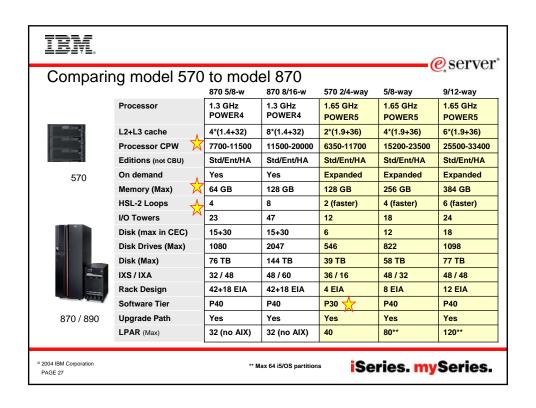


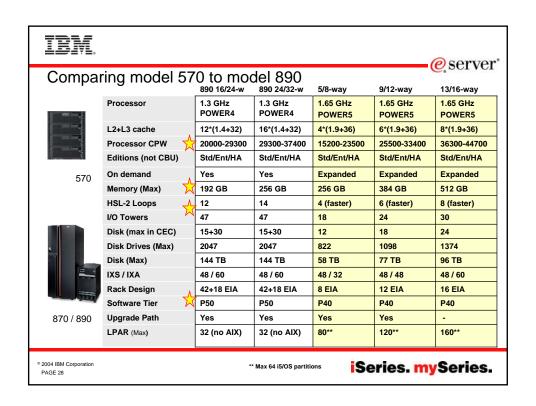
- Block 1 1/2-way or 2/4-way
- Block 2 + 4 5/8-way
- Block 3 + 4 9/12-way
- Block 4 + 4 13/16-way
- Building block (enclosure) enables balanced upgradeability in 570
- Each additional enclosure adds memory and I/O capacities.

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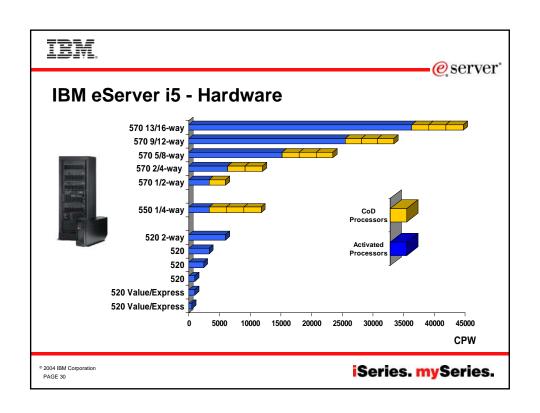
Model 570 Specifications						@serv
iodei 370 Spe	1/2-way	ა 2/4-way	5/8-way	9/12-way	13/16-way	2/16-way
Processor (1-Way)	1.65GHz POWER5	1.65 GHz POWER5				
L2+L3 cache	1.9+36	2*(1.9+36)	4*(1.9+36)	6*(1.9+36)	8*(1.9+36)	8*(1.9+36)
Processor CPW	3300-6000	6350-12000	15200-23500	25500-33400	36300-44700	6350-44700
Editions	Std/Ent/HA	Std/Ent/HA	Std/Ent/HA	Std/Ent/HA	Std/Ent/HA	СВИ
On demand	Expanded	Expanded	Expanded	Expanded	Expanded	Yes
Memory (min/Max)	2 / 64 GB	4 / 128 GB	8 / 256 GB	12 / 384 GB	16 / 512 GB	16 / 512 GB
HSL-2 Loops (Max)	1	2	4	6	8	8
I/O Towers	6	12	18	24	30	30
Disk (max in CEC)	6	6	12	18	24	24
Disk Drives (Max)	278	546	822	1098	1374	1374
Disk (Max)	19 TB	38 TB	58 TB	77 TB	96 TB	96 TB
IXS / IXA	18 / 8	36 / 16	48 / 32	48 / 48	48 / 60	48 / 60
Rack Design	4 EIA	4 EIA	8 EIA	12 EIA	16 EIA	16 EIA
Software Tier	P30	P30	P40	P40	P40	P30
Upgrade Path	Yes	Yes	Yes	Yes	Yes	Yes
LPAR (Max)**	10/20	20/40	50/80	90/120	120/160	20/160

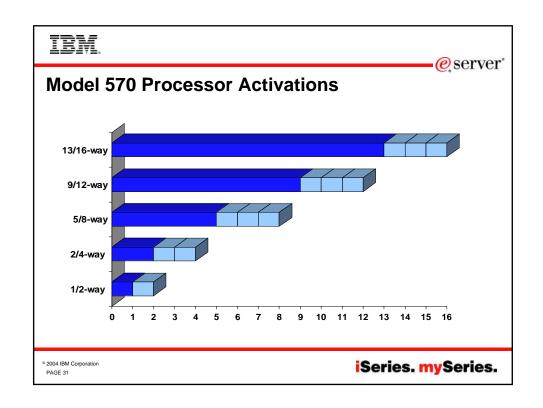


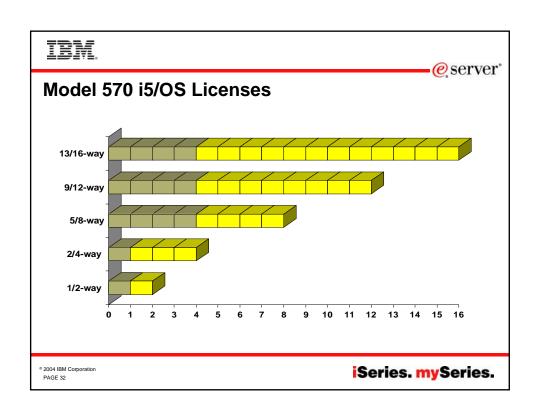


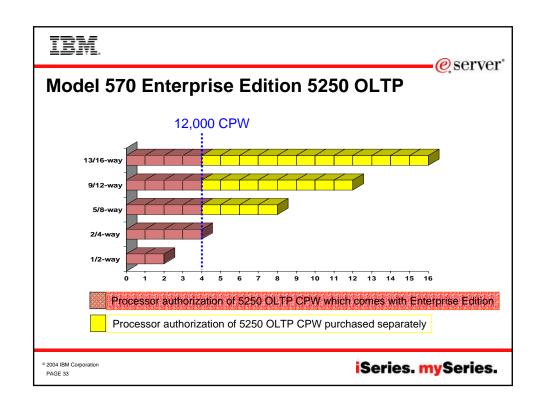


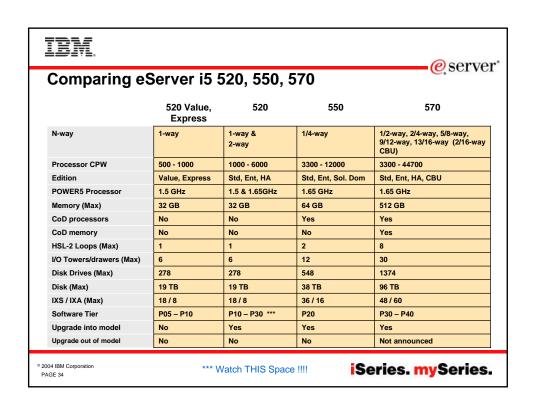
eServe							server		
eServer i5 520, 550 and 570 Editions									
Value	Express	Standard	Enterprise	Solution	W.Domino	High Availability	Capacity BackUp		
520 x	х	х	х			х			
550		х	х	Х	Х				
570		х	х			х	Х		















Optimize IT Resources to Changing Business Needs



- · Memory Capacity on Demand
 - 4/8GB memory & 1GB activation features
 - Capacity Upgrade on Demand (permanent) or On/Off Capacity on Demand
- Reserve Capacity on Demand
 - Purchase blocks of 30 processor days
 - No contracts or usage reporting required
 - Automatically used by server when utilization hits 100%
- Trial Capacity on Demand
 - 30 consecutive days at no charge
 - Opportunity to test proposed capacity
 - Inactive processors and memory enabled
 - One-time use ... reset after processor upgrade or processor activation
- Note: CoD processor activation and Edition prices have been rebalanced to be consistent with eServer p5 processor activation price

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HA and CBU Edition



- · High Availability Edition for 520 and 570
 - Like HA Edition for 810, 825, 870 and 890
 - Lower priced edition with less content compared to Enterprise Edition
 - Only eligible sales situations can use this
 - Available for all 520 and 570 processor which have Enterprise Edition
 - See http://www.ibm.com/servers/eserver/iseries/hardware/is4ha/
- Capacity BackUp Edition for 570 (2/16-way)
 - Like CBU Edition for 890
 - Only 2 processors are ever permanently activated. In disaster, other processors can be used at no charge
 - · No eligibility requirements
 - See http://www.ibm.com/servers/eserver/iseries/hardware/is4cbu/

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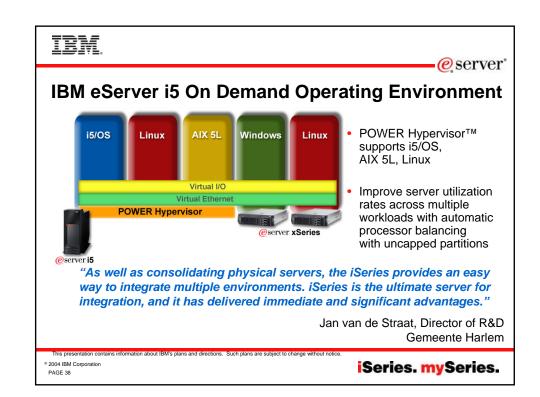


Model 570 CoD - July Additions

- Capacity on Demand resources
 - 4/8GB memory & 1GB activation features
 - · Capacity Upgrade on Demand (permanent) or On/Off Capacity on Demand
- Capacity on Demand options
 - Reserve Capacity on Demand
 - Purchase blocks of 30 processor days in advance
 - No contracts or usage reporting required
 - Automatically used by server when utilization hits 100%
 - Trial Capacity on Demand
 - 30 consecutive days at no charge
 - · Opportunity to test proposed capacity increase or use for test window
 - Inactive processors and memory released together
 - One-time use ... reset after processor upgrade or processor activation

For more information: www.ibm.com/servers/eserver/iseries/ondemand/cod

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Hardware Management Console (HMC)





7310-C03 (desktop)

- HMC is dedicated to console function
- Required on POWER5 servers to create/change partitions or to use Capacity on Demand
- Not required to operate the partition
- Saves the cost of typical primary partition

July announcements:

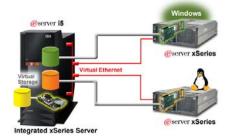
- Max 64 partitions per HMC across up to 16 servers
- Max two HMCs per server

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IRM.



Integrating Intel Based Infrastructure Servers



"The superior manageability of this system helps us reduce costs and realize impressive return on investment. Everything—from daily management of the servers to new software installation—has been easy with the iSeries and xSeries environment."

Jim Horio IT Director, Asian Art Museum

- Consolidate Intel[®] processor-based servers with the Integrated xSeries[®] Solutions
- New support for Linux on IXS/IXA

* Product Preview. Planned availability 3Q 2004 This presentation contains information about IBM's plans and directions. Such plans are subject to change without notice

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xSeries

Linux on Integrated xSeries Solutions

Linux enabled on Integrated xSeries Solutions

- Red Hat Enterprise Linux 3 AS or ES supported on Xeon Integrated xSeries Servers (IXS) and Xeon xSeries attached via Integrated xSeries Adapter (IXA)
- SUSE LINUX Enterprise Server 8 supported on Xeon xSeries attached via Integrated xSeries Adapter (IXA)
- OS/400 V5R2 or i5/OS V5R3 PTF's required
 - See www.ibm.com/eserver/iseries/integratedxseries/linux for details

Deliver support for Intel-based Linux applications

- Leverage iSeries virtual storage
- Share iSeries tape, CD, DVD
- Consolidate Windows & Linux backup
- Note: Virtual Ethernet is not enabled at this time

Provide a path to Linux on POWER

- General Availability
 - Starting August 31st
 - See www.ibm.com/eserver/iseries/integratedxseries/linux for details



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*Planned availability 3Q, 2004 This presentation contains information about IBM's plans and directions. Such plans are subject to change without notice.

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AIX 5L and IBM eServer i5°

"The IBM eServer i5 enables
PeopleSoft customers to run our
applications across multiple operating
environments without adding
complexity. Now customers can
deploy AIX-based PeopleSoft
Enterprise Advanced Supply Chain
Planning to run co-resident, allowing
customers to build on their existing
skill base and infrastructure."

Les Wyatt, General Manager PeopleSoft EnterpriseOne

- Consolidate and manage UNIX® solutions
- Run standard AIX 5L with native performance



Product Preview. Planned availability for AIX5L 5.2 on eServer i5 is 3Q 2004 This presentation contains information about IBM's plans and direction

uch plans are subject to change without notice

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