

IBM Ambassadors for Linux and Open Source

IBM Ambassadors for Linux and Open Source

Seminar: *IBM Systems and Technology Group (STG) 2007 Initiatives*

February 28, 2007

© 2007 IBM Corporation

IBM and Business Partner Internal Use Only – Not to be Used with Clients





AGENDA

Agenda Items	Time	Speaker
Welcome / Opening Remarks	11:00 - 11:05	Terese Johnson, WW Linux and Open Source Strategy Team Lead
System z	11:05 - 11:10	Frank Monez, Linux Initiative Manager, IBM System z
System p	11:10 - 11:15	Katalin Bartfai-Walcott, WW Linux on Power Principal/STSM Andy Wachs, Marketing Manager, Linux on System p
System x	11:15 - 11:20	Connie Blauwkamp, Manager, Infrastructure Solutions and Linux, System x and BladeCenter
Clusters	11:20 - 11:25	Amy Freeman, IBM HPC Clusters Offering Manager
Cell	11:25 - 11:30	Sinisa Nikolic, Global Sales Executive, Deep Computing
Storage	11:30 - 11:35	Charlie Andrews, Director of Product Marketing, IBM System Storage
Deep Computing	11:35 - 11:40	Dino Quintero, WW Technical Marketing Manager Blue Gene Solutions, IBM Deep Computing
System i	11:40 - 11:41	Terese Johnson for Craig Johnson, IBM System i Product Management
Retail Store Solutions	11:41 - 11:46	Uday Watwe, Manager, WW Retail Store Solutions Offerings
Questions and Answers	11:46 - 11:55	All
Closing Remarks	11:55 - 12:00	Terese Johnson

Linux and Open Source beyond Linux continue to be critical to IBM!

Covered on January Ambassadors Call. For replay, see page 19

2007 Strategy

Linux Strategy

- IGS, SWG, STG each grow Linux business at rate greater than market
- Continue strong partnership with Red Hat, Novell, and Asianux in AP
- Advantage IBM's portfolio of products, solutions and services for Linux
- Continue Linux and Open Source community leadership via LTC and others
- Expand business partner success and collaboration with Linux (Value Network, Chiphopper, PWIN, BRIC)
- Nurture Linux-specific advantages in selected customer segments

Open Source beyond Linux Strategy

- Leverage industry changes around open source to reach new customers and generate net new revenue
- Use open source to accelerate the adoption of open standards as appropriate
- Promote the use of open source within a mixed source model as the preferred option
- Identify emerging areas and opportunities to advantage IBM and business partners
- Integrate, align, and operationalize open source initiatives across IBM

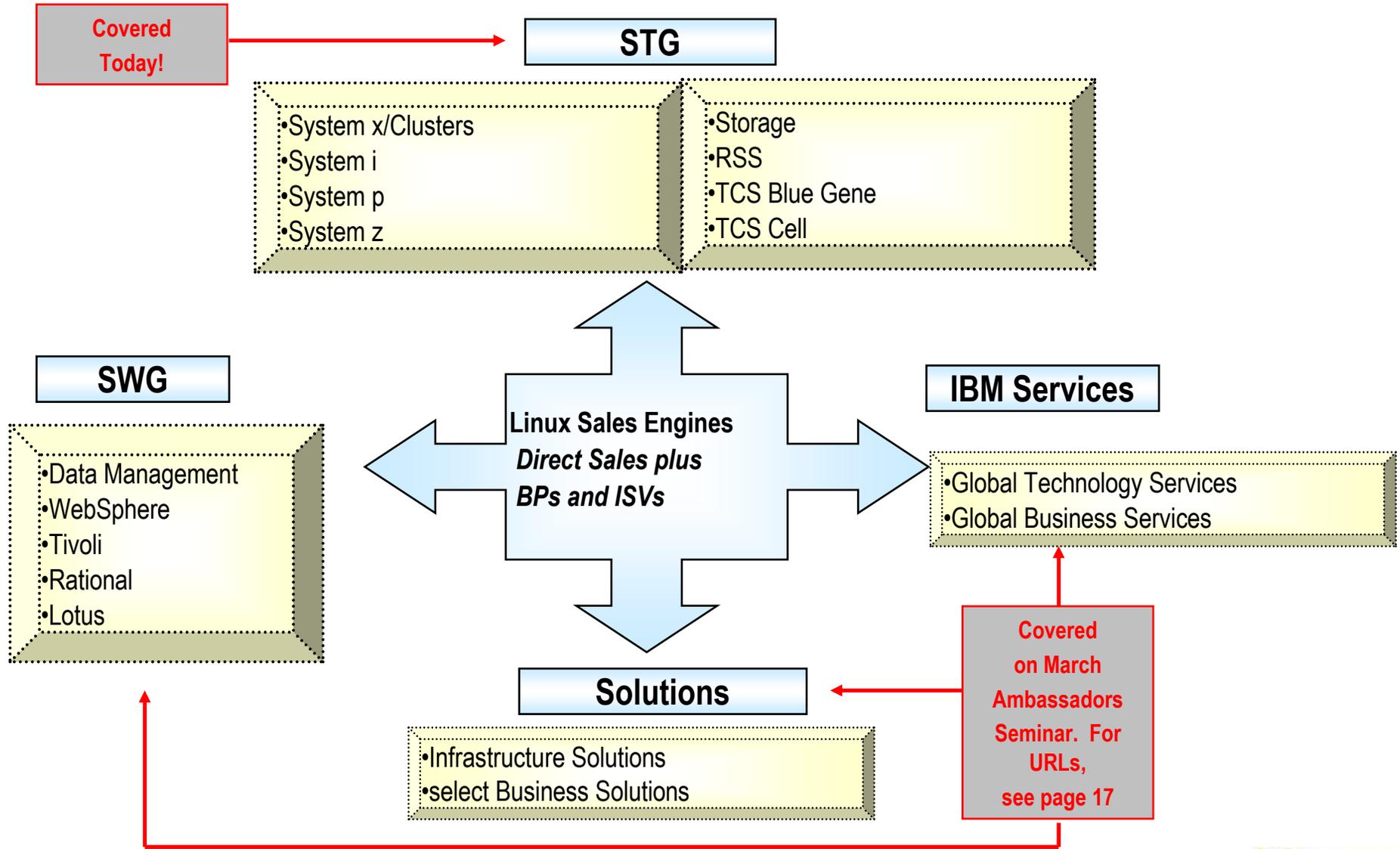
Execution

Cross-brand initiatives

Brand-specific initiatives

Covered on February and March Ambassadors Seminars

2007: Driving Linux Growth Through 17 Engines





System z in 2007

Frank Monez

Linux Initiative Manager, IBM System z

fmonez@us.ibm.com

System z Linux 2007

System z Linux 2007 Strategy

- Simplify the end to end Infrastructure – hundreds of virtual servers
- Consolidate workloads and databases from Unix and Windows
 - Web Servers
 - Internet News Servers
 - Domain Servers
 - File and Print Servers
- Expand the System Z Application portfolio by enabling key industry solutions on System z Linux
- Integrate System z Linux solutions with z/OS solutions - grow the z/OS base

Key products/solutions/offerings

- Solaris/HPUX workload consolidation
- Oracle Database Solutions –
 - Consolidate Unix, Oracle databases to System z Linux + Oracle DB
 - Migrate and consolidate Sequel Server and disparate databases to System z Linux + Oracle DB
- Oracle Application Solutions
 - Team with Oracle to deploy Siebel, PeopleSoft, and EBusiness Suite on System Z
- SAP Application Serving
 - Red Hat and Novell
- Key Sector ISV's - IFLEX, ACI, Retek, etc.
- Exploit "Secure Linux" with Red Hat in Public Sector
- Virtual Network in a server – Hipersockets unique security
- LPARs that are totally isolated and dynamic
- Clone new Linux servers in minutes

Value Proposition Themes for '07

- Energy
- Security
- Economics

Key 2007 Activities

- Extend more of the Oracle Application Portfolio to zLinux
- Collaborate with Sectors to bring additional industry Solutions for System Z for Linux
- Joint sales efforts with Red Hat in BRIC countries
- Continue joint sales and marketing efforts with Novell
- Using 5IAB planning sessions, every acct should have a documented Linux strategy
- Offer TCO study to every Consolidation Opportunity



System z Linux References 41 new references in '06, 55 planned for '07

- <http://w3-3.ibm.com/sales/ssi/apilite?apname=crmd&rttitle=yes&crv=no&additional=summary&hitlimit=150&infotype=RFL%20CR%20RFS&cras hardware=%22System%20z%20System%20z9%20or%20zSeries%20running%20Linux%22%20OR%20%22System%20z%20System%20z9%20or%20zSeries%20running%20Linux%20-%20>
- External Customer Reference Database: https://www-304.ibm.com/jct09002c/partnerworld/mem/sell/pe_crdbsplash.html
- **Contact name/email for questions/assistance:**
 Frank Monez – fmonez@us.ibm.com
 Nancy Scala - scala@us.ibm.com



System p in 2007

Katalin Bartfai-Walcott

WW Linux on Power Principal / STSM

IBM System p

kkwalcot@us.ibm.com

Andy Wachs

Marketing Manager, Linux on System p

IBM System p

awachs@us.ibm.com

Linux[®] on System p[™] Strategy

2007 Linux on System p Strategy

- Gain foot-holds and grow volumes in targeted workload segments
- Win “Business Critical” deployments with targeted offerings
 - Use client-tiring structuring to target prospects by country, by enterprise name.
- Identify Country and Industry specific hot-spots for growth in targeted workload segments
 - Web tier
 - HPC: Bioinformatics, Seismic, Rendering, Government
 - Emerging ERP suites, Emerging BI
 - Security, Digital Media
- Drive Solaris[™] & HP-UX to Linux OS migrations
- Aggressively grow in emerging / underserved markets
- Invest to build the market for POWER[™] as an industry platform
- Simplify deployment and implementation of Linux on System p offerings

	Linux on Power: Key Initiatives
Large Enterprise Drive Linux-based Web Serving, HPC and Business Critical app. Solutions	<ul style="list-style-type: none"> • Leverage LoP to drive mission critical workloads <ul style="list-style-type: none"> • Gain SOA beachheads with IBM WebSphere • Expand SAP footprints with SAP BI • Target Sun base with Sybase • Linux consolidation play with 3 Web tier solutions using APV, p AVE, SCON Factory, Integrated stack for SUSE Linux offerings
Small/Medium Enterprise (SME) Drive adoption of Linux in mission critical apps	<ul style="list-style-type: none"> • SAP[®] mySAP w/ IBM DB2[®] play w/ SAP & SWG • SAP mySAP with Oracle[®] joint play with Oracle • Sybase[®] ASE Migration, Risk Analytics & Mobility and IQ plays • Oracle RAC joint play with Oracle • BladeCenter[®] JS21 Web Serving Farm play • Integrated Stack for Linux play with SWG
Emerging Build value prop for Linux in a partition, and drive via sales incentives	<ul style="list-style-type: none"> • High-end SCON play with SCON Factory, APV, Linux license/support promotions & Migration offerings • HPC cluster w/ p5-575 into Research Labs & Petroleum • p5-595 large scale SMP into Gvnt./Defense
Competitive Intercept Solaris to Linux Migrations with Linux on Power	<ul style="list-style-type: none"> • Joint road shows/account workshops w/ Sybase leveraging ASE migrations & IQ solution • Joint road shows with Oracle leveraging Oracle RAC solution set, Rebates, Migration Factory • BladeCenter JS21 Web Serving Farm vs. Sun • High-end consolidation platform with APV, pAVE + SCON/Migration Factory offerings • BI competitive takeout with Sybase • Microsoft[®] takeout Sybase ASE – Replace SQL Server

Linux on System p Pilots to Production

Overview

WW Linux on Power advanced technical sales team

- Consultative approach to customer
- Pilot based engagements
- LoP Production and Purchase goals

WW Implementation Focus

- Utilizing FTSS, ATS and Lab Services resources

Focusing on System p established and named accounts

- Customers who expressed interest in Linux and who have System p but do not currently run Linux
- Customers who expressed interest in Linux on POWER and have System p but run Linux on other hardware architectures
- Customers who have “dark processors” available on high-end System p Servers

Goals

- Establish Linux as enterprise O/S on System p
- Improve System p and POWER value proposition
- 25 accounts/engagements WW per quarter
- 100 P2P engagements WW in 2007

Contact: Katalin Bartfai-Walcott
kkwalcot@us.ibm.com



Mission and Value Add

- *Provide System p Linux technical expertise*
- *Help customers to successfully deploy production-ready Linux on POWER solutions*
- *Provide System p Linux and hybrid architecture assistance*
- *Drive Linux based System p platform implementation and additional LPAR sales*
- *Increase Linux on System p skill levels*

Linux Consolidation [\(press here\)](#)

Web tier pain points

- Web and applications infrastructure consume too much floor space
- Infrastructure energy costs are escalating
- Number of infrastructure servers create management challenges
- Web servers are at less than 15 to 20% utilization
- Service Level Agreements are getting harder to meet

Launch & Demand

- Linux Consolidation launch on February 14th
- Client Webinar & drive-to campaign (March 15)
- RoC
- Technical: Consolidation Test & White-Paper

Solutions

- LAMP consolidation
- Integrated Stack for SUSE Linux Enterprise

Clients can consolidate **EIGHT** racks of 320 Dell PowerEdge 860 servers running 320 Linux LAMP apps into **ONE** rack of five System p5 560Q systems with optional Advanced Power Virtualization *



320 1U Dell PowerEdge 860 servers****

- Dual Core Intel® Xeon™ 2.66 GHz, 4GB DDR2
- Eight 42U, 19 inch racks
- 640 integrated Ethernet adaptors
- 640 integrated 146GB disk drives
- 14 external 48 port switches



5 p5-560Q systems in ONE rack

- POWER5 1.8 GHz QCM, 96GB DDR2
- With optional Advanced Power Virtualization
- 50 integrated Ethernet adaptors **[92% fewer]**
- 30 integrated 300GB disk drives **[95% fewer]**
- Two external 48 port switches **[86% fewer]**

REDUCE floor space by an estimated 87% **

REDUCE power consumption by an estimated 66%**

REDUCE total cost of acquisition by up to 50%***

Contact: Andy Wachs
awachs@us.ibm.com

* IBM demonstrated running four LAMP applications per 560Q core in a test documented in the IBM white paper "Consolidation Test of LAMP applications on an IBM System p5 560Q Express server," dated February 14, 2007 and posted at http://www.ibm.com/common/ssi/cgi-bin/ssialias?infotype=SA&subtype=WH&appname=SS_PS_USEN&htmlid=PSW03009USEN&attachment=PSW03009USEN.PDF. Under this configuration, 64 LAMP applications can be run on a single 16-core 560Q using optional Advanced Power Virtualization, allowing 320 LAMP applications to be run on five System p5 560Q servers. This comparison is based on running a single LAMP application per Dell PowerEdge 860 server. Advanced POWER Virtualization is only standard on the IBM System p5 590 and 595 platforms. It is not available on the IBM System p5 185 platform.

** Datacenter floor space usage was estimated as of January 29, 2007 using Alinean, Inc.'s ROI Analyst software. Power consumption estimates for five System p5 560Q servers and 320 Dell PowerEdge 860 servers were based on 2600W per 560Q (IBM Facts and Features at www.ibm.com) and 120W per Dell PowerEdge 860 (Dell Datacenter Capacity Planner as of February 5, 2007 at www.dell.com). To these amounts, 40% was added as an estimate for HVAC (source: Alinean, Inc.'s ROI Analyst software).

*** As of February 3, 2007, the US List price of the five System p5 560Q servers (configured as shown above), optional Advanced Power Virtualization, OS, rack, and switches was \$979,913 (source: <http://www.ibm.com>) and the US List price of the 320 Dell PowerEdge 860 servers (configured as shown above), OS, racks, and switches was \$1,952,202 (source: <http://www.dell.com>). Prices are subject to change. Both the IBM and Dell configurations include one SUSE Linux Enterprise Server 10 with 3 year standard subscription and support license per server (source: *The reduction, if any, in floor space, power consumption, and overall total cost of acquisition depend on the specific customer, environment, application requirements, and the consolidation potential.*

**** Image is not a Dell PowerEdge 860.

System p Application Virtual Environment for x86 Linux

Statement of Direction

Allows software written for x86 Linux to just run on IBM System p servers running Linux

■ What is System p Application Virtual Environment for x86 Linux (pAVE-x86)

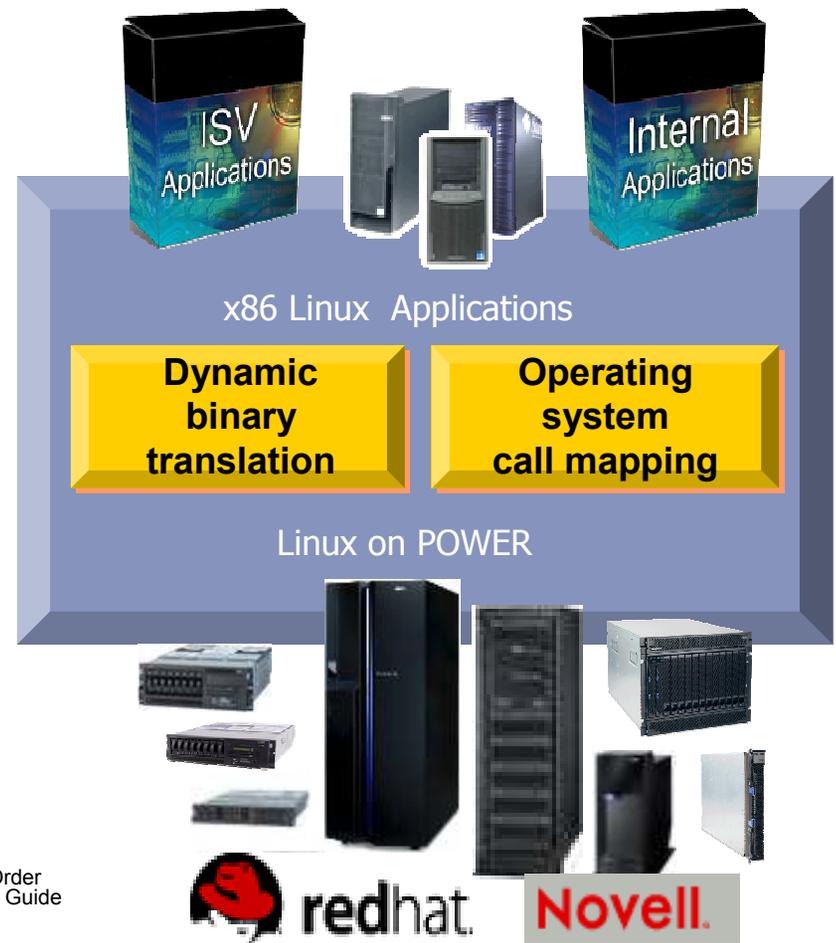
- ▶ Supports installation and running of existing 32-bit x86 Linux applications^{1,2}
- ▶ Creates an x86 Linux application environment running on Linux on System p
- ▶ Extends value of IBM System p and BladeCenter JS21 to x86 Linux apps

▶ How does it work?

- ▶ Dynamically translates and maps x86 Linux instructions to POWER
- ▶ Mapping and caching techniques are used to enhance application performance within the pAVE-x86 environment

(1) No direct hardware access and no kernel access (2) IA-32 instruction set architecture (x86) *

* As defined by the 1997 Intel Architecture Software Developer's Manual consisting of Basic Architecture (Order Number 243190), Instruction Set Reference Manual (Order Number 243191) and the System Programming Guide (Order Number 243192) all dated 1997.



All statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice. Any reliance on this statement of general direction is at the relying party's sole risk and will not create liability or obligation for IBM

System p Linux Solution Offerings

➤ New for Feb Launch

Business Applications

Business Suites

- ✓ [SSA Global SSA ERP_{LN}](#)
- ✓ [Solution Ed. Express for MySAP ERP](#)

BI

- ✓ [Sybase IQ](#)
- ✓ [Solution edition for SAP BI](#)

Industry Applications

- ✓ [Sybase Risk Analytics](#)
- ✓ [eFunds](#)

SOA

- ✓ [SOA solutions using WebSphere](#)
- ✓ [IBM System p5 for SAP's Ent. SOA](#)

HPC Infrastructure

- ✓ [Grid and Grow Express](#)

Developer SOA

Database & General

- ✓ [Sybase ASE migration](#)
- ✓ [OpenPower Consolidation Express](#)
- ✓ [Apache](#)
- ✓ [Email Security Express](#)
- ✓ [SAMBA3](#)
- ✓ [BladeCenter JS21 - Web Serving Farms](#)
- ✓ [Sybase Mobility Solution](#)
- ✓ [IBM DB2 9](#)
- ✓ [System p5 Solution Set for Oracle RAC](#)
- [ISSLE](#)

Engineering & Sciences

- ✓ [GAMESS](#)
- ✓ [CPMD](#)
- ✓ [Bioinformatics for JS21](#)
- ✓ [Thermo Electron](#)
- ✓ [Waters Micromass](#)
- ✓ [Agilent GeneSpring](#)
- ✓ [CGG Geocluster](#)
- [Dot C Rendering](#)

Operational Infrastructure

HPC



System x in 2007

Connie Blauwkamp

Manager, Infrastructure Solutions and Linux,

IBM System x and BladeCenter

conniebl@us.ibm.com

System x and BladeCenter Strategy: Sell Linux based solutions Leverage the Value Net and cloth hardware with Linux

- **Strategic objective:**
 - 21% YTY revenue growth for Linux on x86
- **Strategy:**
 - Sell our competitive product line of Linux-enabled servers
 - Red Hat and SUSE are priority 1 Sys x OS's
 - Sell Asianux on selected systems in Asia
 - Sell more with Distributors and Resellers
 - Sell standalone offerings for Linux subscriptions and Linux ServicePacs
 - Drive Linux subscription renewals
 - Sell Linux-based solutions and leverage BP Value Nets
 - Solutions for Retail, FSS, Public, Industrial, Comms
 - SMB solutions: Business in a Box, ISSLE
 - Business apps such as SAP, Oracle, DB2
 - Continue Solaris to Linux migration tactics, including Trusted Linux program
 - Solutions focused selling with Red Hat and Novell, especially virtualization and security
- **Improve profitability – Sell Linux and Support**
 - Keep competitors away from your customers
Sell a Linux offering with initial hardware order.
 - Increase your AUR and profitability
*Sell Linux to every customer.
Sell Remote Technical Support/ServicePac or SupportLine.*
 - Want a reason to go back and sell the same thing again and again?
*Sell a renewal when the subscription runs out... and sell more hardware while you're there!
Sell up and get your customer to commit for multiple years.*
 - Competitive and install opportunity: Beat LAMP solutions on Dell or white boxes
Sell Integrated Stack for SUSE Linux Enterprise.

Sell RHEL and SLES with System x/ BladeCenter

External web pages:

Red Hat: <http://www-03.ibm.com/systems/x/solutions/os/linux/rhel.html>

Novell: <http://www-03.ibm.com/systems/x/solutions/os/linux/sles.html>

Contact: Pat Byers, pbyers@us.ibm.com

Integrated Stack for SUSE Linux Enterprise (ISSLE)

External web pages:

<http://www.novell.com/ibmstack>

<http://www.ibm.com/linux/integration>

Contacts:

Omar Pena, IBM WW offerings manager, omarpena@us.ibm.com

Brad Young, Novell program manager, bryoung@novell.com

Sell IBM's Portfolio of Linux based solutions for System x and BladeCenter

■ Did you know?

- More than 50% of all BladeCenter® systems are running Linux workloads
- More than 30% of all System x™ systems are running Linux workloads

- | | | |
|------------------------|------------------------------|--|
| ■ File/print workloads | ■ SAP with DB2 | ■ Security solutions |
| ■ Web solutions | ■ SAP with Oracle DB | ■ Systems Solution for Branch Banking |
| ■ Databases | ■ SAP BIA with SLES | ■ Grid Medical Archive Solution |
| ■ Middleware | ■ Oracle applications | ■ BladeCenter business express |
| ■ High availability | ■ Oracle DB | ■ Express Data Protection with TSM Express |
| ■ Grid solutions | ■ Digital Video Surveillance | ■ Express Collaboration solution |
| ■ Clustered solutions | ■ VOIP | |

IBM Systems solution for BI accelerator from SAP

Sales kits:

- Internal Sales Kit: http://w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f220s240&geoID=All&prodID=IBM%20Systems&docID=sxSAPBlaccIBMrk
- Partner Sales Kit: http://w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f220s240&geoID=All&prodID=IBM%20Systems&docID=sxSAPBlaccBPrk

Contact: Jan De Boer, IBM SAP Alliance, Worldwide Sales, JANDB@nl.ibm.com

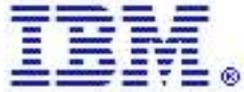
Oracle/Linux play

Sales kits:

- Internal Sales Kit: http://w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f220s240&geoID=null&prodID=null&docID=xslxoracle.skkit&docType=SalesKit&skCat=DocumentType
- Partner Sales Kit: http://www-1.ibm.com/partnerworld/sales/systems/myportal/_s.155/250?navID=f220s240&geoID=All&prodID=xSeries&docID=xslxoracle.skkit&docType=SalesKit&skCat=DocumentType

Contact: Steve Fry, WW Sales Executive, IBM System x, frys@us.ibm.com

Key Linux Contacts



IBM Sales Executives

WW RH - Brian Fullington, bpf@us.ibm.com

Americas - Doug McGuire, dmcguire@us.ibm.com

EMEA - Adrian Slater, a_slater@uk.ibm.com

Asia Pacific - Suat Cheng Lee, lscheng@my.ibm.com

Japan - Michinori Nakahara, BEAGLE@jp.ibm.com

System x/BladeCenter WW System x Marketing

Connie Blauwkamp, conniebl@us.ibm.com

Pat Byers, pbyers@us.ibm.com

Daryl Stokes, sdaryl@us.ibm.com



Red Hat Sales Executives

WW - Tim Deren, tderen@redhat.com

NA West - Anuj Kumar, anujk@redhat.com

NA East - Phil Carty, pcarty@redhat.com



Novell Sales Executives

AG - Jocelyn Parker, jocelyn@novell.com

EMEA - Werner Luetkemeier, wluetkemeier@novell.com

AP - Greg Kieser, gkieser@novell.com



Clusters in 2007

Amy Freeman

IBM HPC Clusters Offering Manager

IBM System x

matas@us.ibm.com



Current strength - IBM System Cluster 1350

■ How customers use our clusters

- Helping to *find cures* for hypertension, stroke, arthritis, Parkinson's disease and HIV/AIDS (Boehringer Ingelheim)
- Enhancing *manufacturing* processes (leading auto manufacturer)
- Speeding up *genetic analysis* (well-known Asia Pacific university)

■ IBM Leadership in high end clusters

- *Decades in HPC leadership* in the marketplace
- Continued *dominance of the Top 500* (November 2006):
- Over a decade of *experience in clustering solutions* around the globe

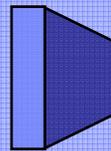


Driving HPC Cluster Solutions using Building Blocks

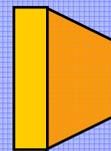
Industry Applications	Computer Aided Engineering (CAE)	Electronic Design Automation	Petro/Seismic	Financial Svcs	Life Sciences

Validated and Tested Building Blocks

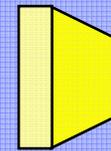
- Repeatable and customizable
- Prescriptive guidance (implementation, sizing, marketing) to BPs and Sales



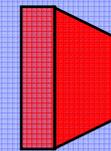
IBM systems and storage portfolio



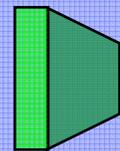
Blade.org & Partner alliances



IBM software differentiators (ex. GPFS)



Industry Leading ISV Portfolio



Open Source Community



**System x and BladeCenter
System Storage
IBM System Cluster 1350**





Cell in 2007

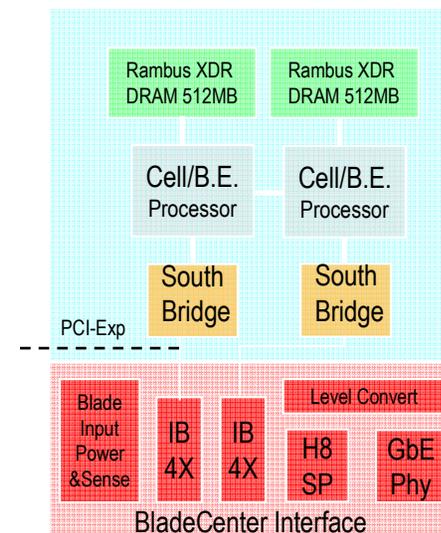
Sinisa Nikolic

Global Sales Executive, IBM Deep Computing

snikolic@us.ibm.com

Introducing IBM BladeCenter QS20...

- The first IBM system in a family of systems based on Cell/B.E. processors, a 64 bit Power Architecture with high bandwidth memory and multi-core technology
- Particularly suitable for rich media applications and/or workloads that require parallel processing, real time processing, pattern matching such as Rendering, Medical Imaging, Seismic, EDA, FSS, etc.
- Very high performance (up to 410 GFLOPS peak) double-wide blade for IBM BladeCenter
- Combining with System p, System x servers, it can significantly boost the overall system performance by speeding-up the floating point and graphics-heavy computation of HPC workloads
- Sold as part of 1350 Linux Cluster
- QS20 is currently best suited for early adopters, innovators, customers, and ISV's

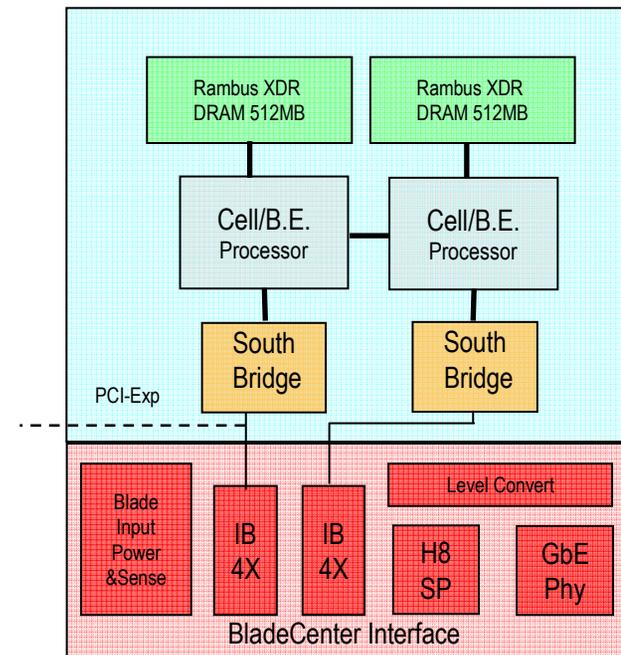


IBM BladeCenter QS20 Overview

- **Cell/B.E. Processor Blade (~410 GFLOPS peak)**
 - Dual 3.2GHz Cell/B.E. Processor Configuration
 - 1GB XDRAM (512MB per processor)
 - Blade-mounted 40GB IDE HDD
 - Dual Gigabit Ethernet (GbE) controllers
 - Double-wide blade (uses 2 BladeCenter slots)
 - Infiniband (IB) Option:
 - Qty 0-2 IB 4x Host Channel Adapters

- **Operating Systems**
 - Fedora core 5-based Linux® available at <http://www.bsc.es/projects/deepcomputing/linuxoncell/>

- **BC Chassis Configuration (~2.8TFLOPS peak)**
 - Standard IBM BladeCenter One
 - Max. 7 Blades per chassis (QS20 - 2 slots each)
 - 2 Gigabit Ethernet switches
 - External IB switches required for IB option



Note: Intermixing Cell Blades with other blades in same chassis is not supported; BladeCenter-H not supported;

Find out more ...

- **QS20 sales kit**
 - <http://w3-1.ibm.com/sales/systems/portal/s.155/254?navID=f220s240&geolD=All&prodID=BladeCenter&docID=blQS20sk.skkit&docType=SalesKit&skCat=DocumentType>

- **Cell Broadband Engine resource center @ IBM developerWorks**
 - <http://www-128.ibm.com/developerworks/power/cell/>
 - <http://www-128.ibm.com/developerworks/power/library/pa-cellperf/>

- **Cell/B.E. forum**
 - http://www-128.ibm.com/developerworks/forums/dw_forum.jsp?forum=739&cat=46

- **Cell/B.E. technology @ IBM alphaWorks**
 - <http://www.alphaworks.ibm.com/topics/cell>

- **Barcelona Supercomputing Center**
 - <http://www.bsc.es/projects/deepcomputing/linuxoncell>

- **IBM Systems Journal – Online Game Technology**
 - <http://www.research.ibm.com/journal/sj>

- **Flash Animations, Movies etc**
 - <http://ehngsa.ibm.com/gsa/ehngsa/home/m/e/mengler/web/public/>

2007 Target Segments/Workloads and Offerings Focus

Clients adopting Cell/B.E. technology have diverse offering needs

Segment	Target Workloads	Target Clients
	Offering Focus	
A&D	Avionics, Signal processing, Terrain Rendering, Intelligence analytics	A&D prime contractors, Defense and Intelligence agencies
	Design Services and COTS & custom boards, Cell Blades for HPC	
Medical	Medical Imaging (CT, MRI, PET, US, DX, PACS); Molecular diagnostics	Medical Imaging OEMs, Medical Research Centers, & Pharma's
	Design Services and COTS & custom boards; Cell Blades for HPC	
Financial	Real time portfolio analytics, Risk management	Banking Insurance
	Software dev services, Cell Blades for HPC	
Petroleum	Seismic analytics, Reservoir simulation, Visualization	Seismic Processing Oil & Gas Exploration
	Software dev services, Cell Blades for HPC	
EDA	Imaging, manufacturing inspection, large scale visualization, virtual prototyping	EDA Providers
	Software dev services, Cell Blades for HPC	
Digital Media	Content creation, rendering, relighting, compositing, hosting, transcoding; Game consoles, DTV, STB, Printers, Cell Blades for rendering	Production Studios, Consumer Electronics OEMs
	Blades for DCC, DVS; Design Services for high volume CE segments	
Telecom	Wireless (SDR), Network security, Deep Packet Processing	Network Equipment Providers
	Board Design Services in support of chip sales; Chip Design Svcs	
Public	Simulation, Visualization, Signal & Image processing, Real time analytics	Government Labs, Universities
	Cell Blades as accelerator nodes to HPC applications	



Indicated focus segment for 2007



Storage in 2007

Charlie Andrews

Director of Product Marketing, IBM System Storage

andrewsc@us.ibm.com

IBM System Storage - Strategy

Intelligent Management. Protected Information. Smarter Insights.

Leverage Information

- ✓ Capitalize on data sharing for collaboration
- ✓ Align storage investment, information value

Mitigate Risk

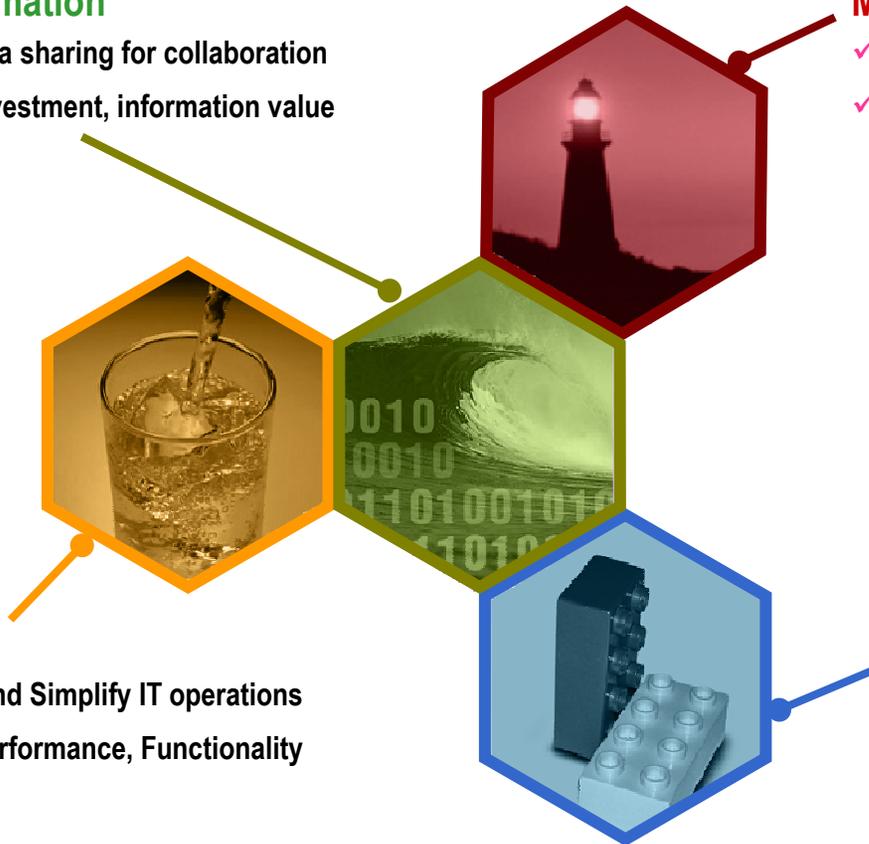
- ✓ Comply with regulatory, security requirements
- ✓ Keep your business running continuously

Optimize IT

- ✓ Automate and Simplify IT operations
- ✓ Optimize Performance, Functionality

Enable Business Flexibility

- ✓ Flexible, On Demand IT infrastructure
- ✓ Protect your IT investment



Get the most value from your information

IBM System Storage and Linux

- IBM has the broadest portfolio of storage solutions in the industry
 - Disk subsystems: DS family FC disk, N series NAS solutions, and SAN infrastructure components
 - Tape subsystems: Industry leading TS1120 enterprise tape, LTO, and automation offerings
 - Storage Virtualization: SVC disk virtualization and TS7500 tape virtualization
 - Storage management software: TPC and Tivoli management software

- IBM System Storage has broad support for Linux across the portfolio, and is the perfect complement to any Linux solution
 - Add storage to every server opportunity
 - Match server brand with the right storage offerings
 - System x: DS4000, N series, LTO tape automation, SVC, and TPC
 - System z: DS8000, TS1120 and tape automation, and TPC
 - System p: DS4000, N series, LTO tape automation, SVC, and TPC
 - System i: DS4000, LTO tape automation, and TPC

- IBM storage and IBM systems go together
 - Expand revenue opportunities by including storage
 - Deliver complete systems that address clients' business needs

- More information available!
 - General storage information: <http://www-03.ibm.com/systems/storage/index.html>
 - Sales support information: <http://w3-1.ibm.com/sales/systems/portal/s.155/253>
 - Solutions that are "IBM System Storage Proven": http://www-03.ibm.com/servers/storage/proven/all_solutions.html
 - Contact: Charlie Andrews, Director System Storage Marketing, andrewsc@us.ibm.com





Deep Computing in 2007

Dino Quintero

WW Technical Marketing Manager, Blue Gene Solutions,

IBM Deep Computing

dino.quintero@us.ibm.com

IBM Systems Blue Gene® Solution

Enabling breakthrough Science

- ☑ Addressing the most computationally challenging science problems
- ☑ Remarkably reliable and scalable
- ☑ Lower cost of ownership and window to the future of lower power

Offerings

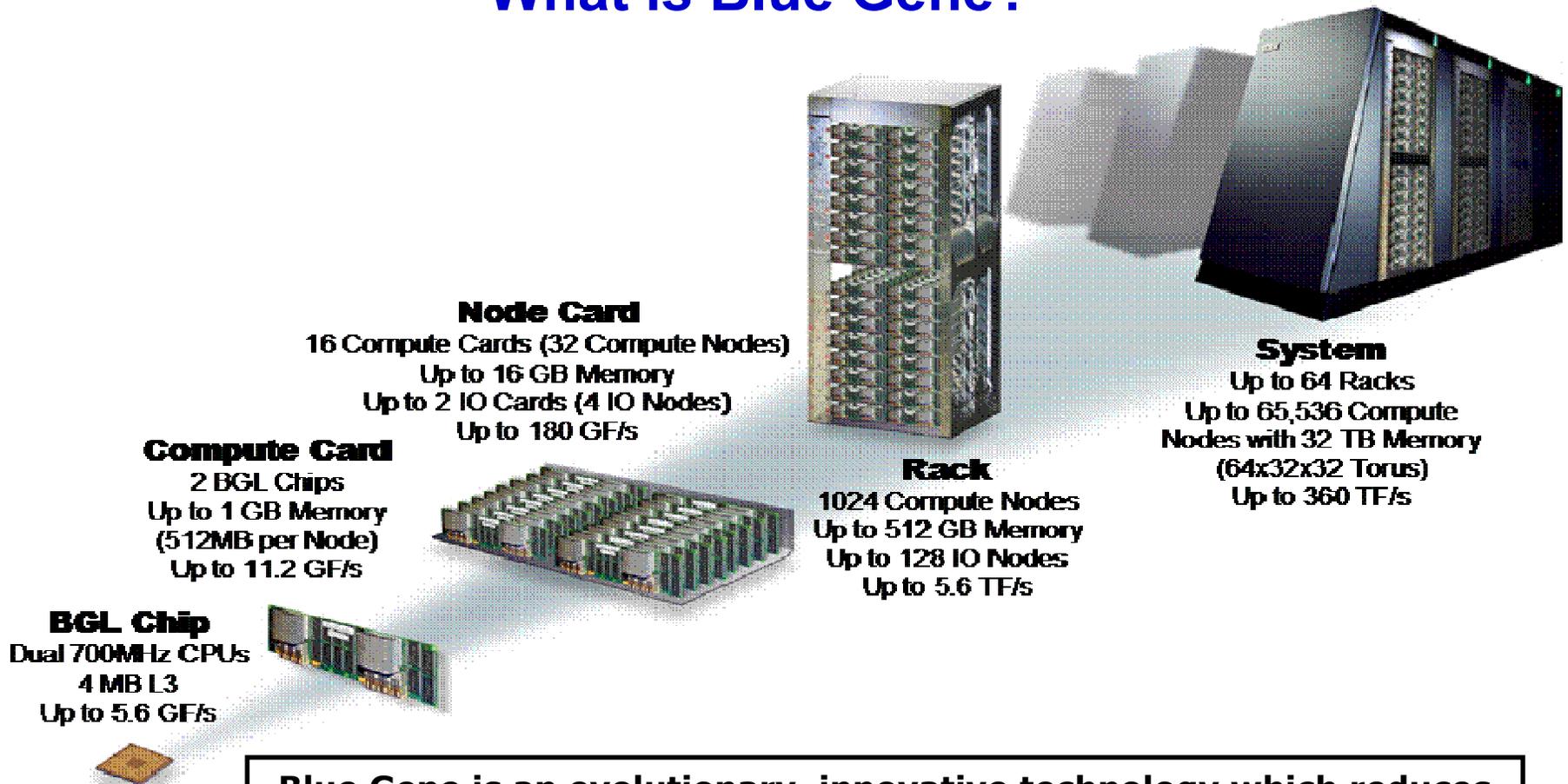
- ☑ IBM System Blue Gene Solution (new price actions)
 - on the 512 MB SDRAM-DDR model
 - and the 1GB SDRAM-DDR model
- ☑ Deep Computing Capacity on Demand (DCCoD)
- ☑ Application center of competency
- ☑ Strong demand continue
- ☑ Intending to announce the next generation solution



- World's fastest supercomputer (www.top500.org)
- World's most efficient supercomputer
- Ultra floor space density
- Ultra performance per kW of power
- Innovative architecture and system design
- Familiar programmer/user Linux-based environments

Flexible and convenient access to Blue Gene technology for clients and developers via the Deep Computing Capacity on Demand Center (DCCoD)

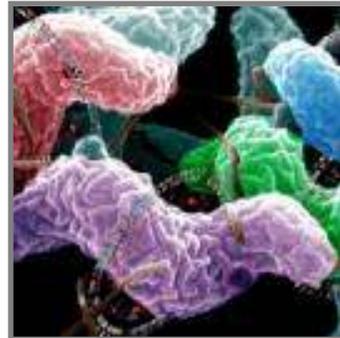
What is Blue Gene?



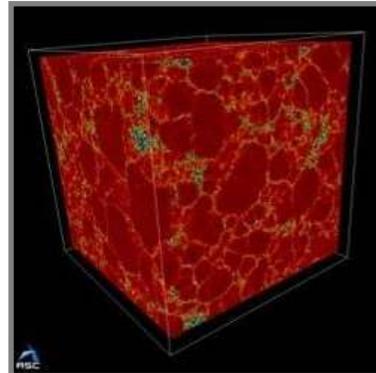
Blue Gene is an evolutionary, innovative technology which reduces “time to solution” for many computational science problems through **ultrascalability** and **modularity** with the **lowest power consumption, smallest footprint, highest reliability and easiest manageability** in the industry.

What is Blue Gene used for?

Genome Sequencing



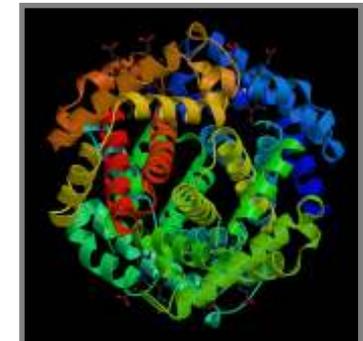
Biological Modeling



Materials Science

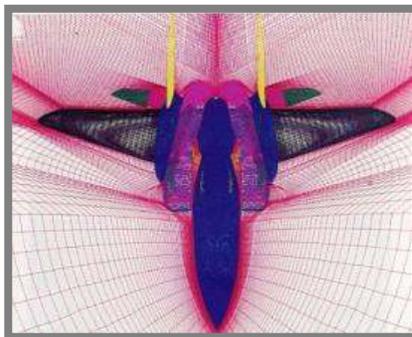


Pandemic Research



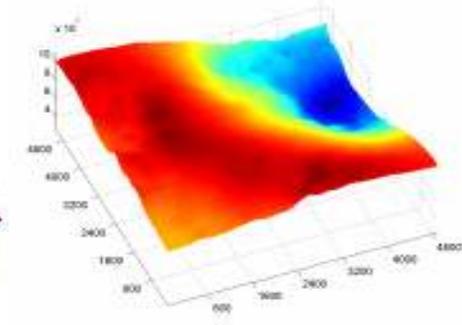
Drug Discovery

Fluid Dynamics



Climate Modeling

Financial Modeling



Geophysical Data Processing

Top 10 reasons that you need Blue Gene



1. Ultra-scalability for breakthrough science
 - BG: up to 131,072 ways,
 - Cluster: typically 512-1024 ways or less.
2. Highest capability machine in the world (5.4X SGI/NASA Columbia Cluster)
3. Highest reliability, highest HPC MTBF/TF (10-100X), low maintenance staff
4. Low power (~4-10X), smallest footprint, lowest TCO (total cost of ownership)
5. Broad range of scientific applicability at superior cost/performance
6. High bandwidth for interprocessor communication (7.5X compared to typical clusters)
7. Low latency, high bandwidth memory system and interprocessor communication system
8. Familiar programming models: MPI, OpenMP, POSIX I/O
9. Reproducible, deterministic runs, easy to trace errors, and tune performance
10. Huge total memory bandwidth for data intensive applications such as search

Call to Action

How to identify, qualify and validate Blue Gene opportunities?

- ✓ Start with the science, focus on business value
- ✓ How would faster “time to solution” change your business?
- ✓ How much compute power do you have? How much do you need?
- ✓ How are you going to get there? What are the obstacles?
- ✓ Are your applications parallel? Are the scalable?
- ✓ Are there benchmark requirements?
- ✓ How much funding? When is it available?
- ✓ Who do you contact?

GES/Blue Gene	Deep Computing
WW: Pat Carey, Ralph Warmack	
AG: Bryan Hartlen, Ralph Warmack	Joe Lopez, Rajiv Bendale, Jim Gleason
EMEA: Gabriele Persch-Schuy	NE - Chris Cooper, Andy Grant SW - Philippe Bricard, Patrick Deniau
AP: Yasuo Kurita	Jeff Dunn, Subramanian Kannan

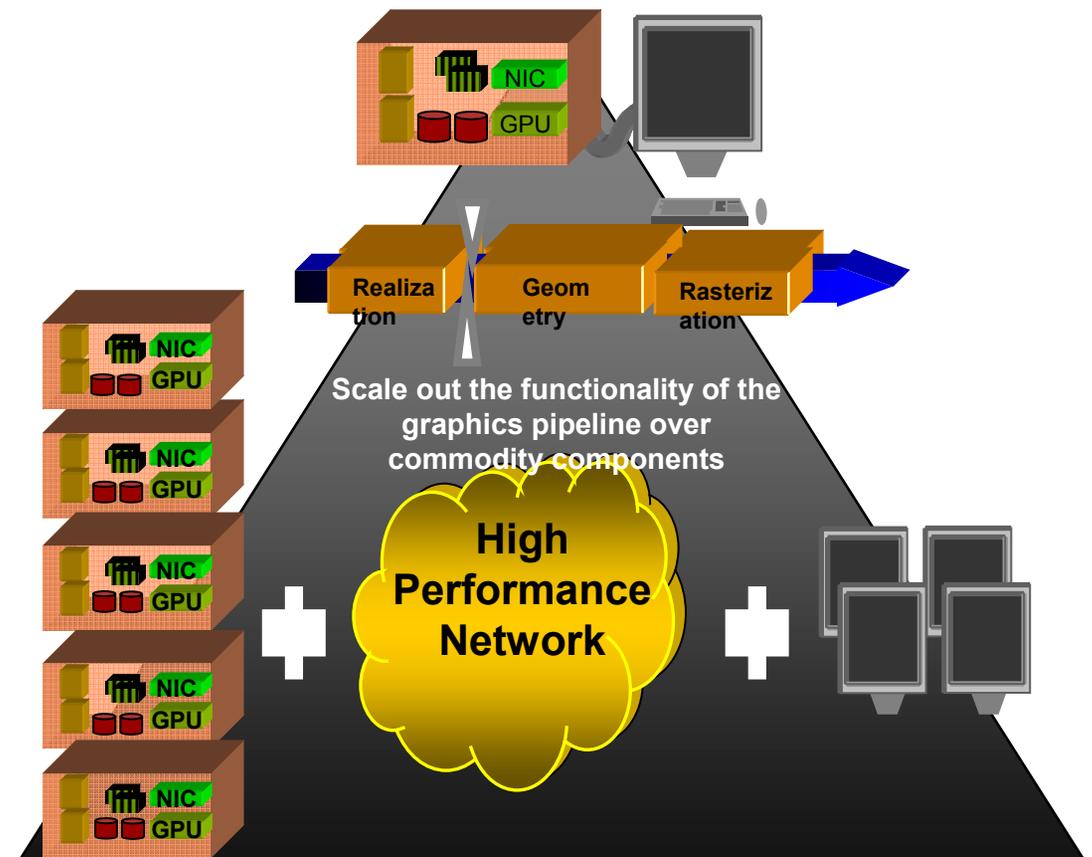
What's new on the Web site and sales kit?

- **New** Blue Gene press releases, application enablement news, literature, newsletter sign up, events schedule:
 - <http://www.ibm.com/servers/deepcomputing/bluegene.html>
- **New** presentation on the Mayo Clinic and IBM Collaboration with IBM Blue Gene Solution (Blue Gene/L)
 - <http://w3-1.ibm.com/sales/systems/portal/s.155/254?navID=f220s240&geoID=AM&prodID=IBMSystems&docID=hpcbluegenesk.skit&docType=SalesKit&skCat=DocumentType>

Deep Computing Visualization (DCV)

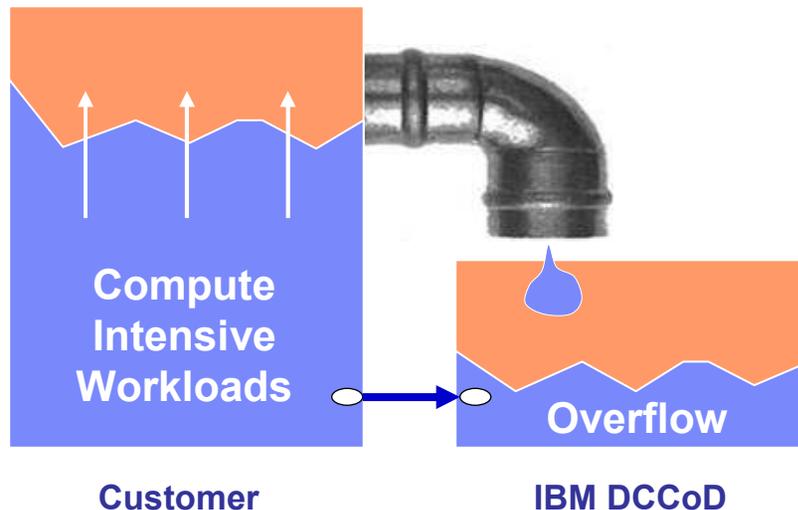
IBM's cost-effective, scalable, 3D visualization solution provides customers *more insight* into complex information, enables *better decisions* and *collaboration*

- IBM DCV integrated offering consists of
 - Rack-mounted clusters of IntelliStations
 - Cluster rendering software
 - Supports Linux™ or Microsoft® Windows® (new!)
- Enables local, large-scale and remote visual collaboration over networks
- Ideal for Petroleum, Aerospace, Auto, Govm't, Life Sciences...
- Sales Enabler / Deal Maker
 - Drags along servers, workstations and services
 - May be required to play



IBM is the clear leader - on demand is in demand

- **Deep Computing Capacity on Demand - a flexible solution to provide compute intensive resources on a flexible basis**
 - **Dedicated** (1-3 year commitment)
 - **Variable** (weekly commitment)
 - **Dynamic** (hourly commitment)



- **IBM unique offering – “offsite computing”**
 - Rental/lease of hardware with space, power, cooling and asset management
 - Usage-based pricing
 - Enables rapid deployment, predictable costs
- **Four global DCCoD centers**
 - Locations: NY, Rochester, London (2)
 - Capacity: > 20, 000 processors
- **Choice of technology**
 - BladeCenter®, System x™ clusters, System p™, Blue Gene®
- **Value added services (e.g. Tivoli®)**
- **Flagship customers**
 - Investment banking, Insurance
 - Automotive, Aerospace, Petroleum
- **IBM grew DCCoD business 7x in 2006!**
- **IBM is the market leader (>60% share*)!**
- **Testdrive a Linux® Cluster today**
 - Go to: ibm.com/servers/deepcomputing/cod

*Source: IDC Technical Utility Grid market forecast 2005-2010, November 2006



System i in 2007

Terese Johnson for

Craig Johnson

Product Management - AIX 5L, Linux, PHP, IBM System i

johnsonc@us.ibm.com

System i - Innovate with System i Solutions

Open source: PHP for i5/OS



Zend Core and Zend Studio for i5/OS

- For System i customers needing an easy web application development and deployment environment.
- Zend Core and Zend Studio for i5/OS with 3 years of standard support are available at no charge from www.zend.com
- Zend's products provide PHP applications with easy and fast access to i5/OS applications and data

•System i and PHP Sales Kit:

•IBMers: <http://w3-1.ibm.com/sales/systems/portal/s.155/254?navID=f220s240&geoID=All&prodID=IBM%20Systems&docID=systemizendphpsk.skit&docType=SalesKit&skCat=DocumentType>

•Business Partners : [http://www-](http://www-1.ibm.com/partnerworld/sales/systems/myportal/s.155/307?navID=f220s240&geoID=All&prodID=IBM%20Systems&docID=systemizendphpsk.skit&docType=SalesKit&skCat=DocumentType)

[1.ibm.com/partnerworld/sales/systems/myportal/s.155/307?navID=f220s240&geoID=All&prodID=IBM%20Systems&docID=systemizendphpsk.skit&docType=SalesKit&skCat=DocumentType](http://www-1.ibm.com/partnerworld/sales/systems/myportal/s.155/307?navID=f220s240&geoID=All&prodID=IBM%20Systems&docID=systemizendphpsk.skit&docType=SalesKit&skCat=DocumentType)

Linux: System i IP Telephony



System i IP Telephony is powered by 3Com

- Lower your traditional telephony costs and enhance productivity with IP Telephony
- Implement a complete IP telephony solution on one easy-to-manage system using the System i management tools you already know
- Extend the System i benefits of simplicity, integration, vertical growth and security to IP Telephony
- **New Capabilities:** Integrate IP telephony with existing collaboration and business applications. Improve employee productivity, increase customer satisfaction, and streamline operations.

•System i and IP Telephony sales kit:

•<http://www.ibm.com/systems/i/solutions/iptelephony/sales/>



Retail Store Solutions in 2007

Uday Watwe

Manager, WW Retail Store Solutions Offerings

uday@us.ibm.com

Retail Store Solutions 2007

– Retail Store Solutions Linux 2007 Strategy

- Linux isn't just for the enterprise anymore... IRES is a robust, secure Linux OS to manage store Point-of-Sale (POS).

– Key products/solutions/offerings

- IBM Retail Environment for SUSE Linux (IRES) is a retail-optimized solution to manage retail store POS environments:
 - Improving security with Linux
 - Simplifying configuration and installation
 - Improving Systems Management
 - Offering High Availability configuration and installation scripts
 - Fully tested and supported on RSS hardware
 - 24 x 7 IBM support

– Key 1Q07 Marketing Programs & Sales Plays

- Evaluate the value of IRES – talk to RSS about getting retailers to participate in an evaluation program of Linux to manage their store POS.
- Is your customer a retailer using Linux at the enterprise? Use the Linux vs. WEPOS value proposition work to drive more business on Linux at the store for POS
 - w3retail.boulder.ibm.com/rss/rsscmt.nsf/vwAllContentLookup/Product+resources~~Software~~Retail+Environment+for+SUSE+LINUX~~Sales+support~~IRES+vs+WEPOS+2006

– IRES Linux References

- Duty-Free Shops (DFS) in AP: w3-3.ibm.com/sales/ssi/fcgi-bin/ssialias?infotype=RF&subtype=CS&htmlfid=ARAT-6CZPNG&appname=crmd
- Grupo Sanborns in Mexico: w3-3.ibm.com/sales/ssi/fcgi-bin/ssialias?infotype=CR&subtype=NA&htmlfid=0GLOS-6LL3KY&appname=crmd
- Matalan in UK: w3-3.ibm.com/sales/ssi/fcgi-bin/ssialias?infotype=CR&subtype=NA&htmlfid=0GLOS-6EUFS5&appname=crmd
- Pep Boys in USA: w3-3.ibm.com/sales/ssi/fcgi-bin/ssialias?infotype=RF&subtype=CS&htmlfid=SCHS-6HRTF7&appname=crmd
- Scheels All Sport in USA: w3-3.ibm.com/sales/ssi/fcgi-bin/ssialias?infotype=CR&subtype=NA&htmlfid=0GLOS-6VYPL4&appname=crmd

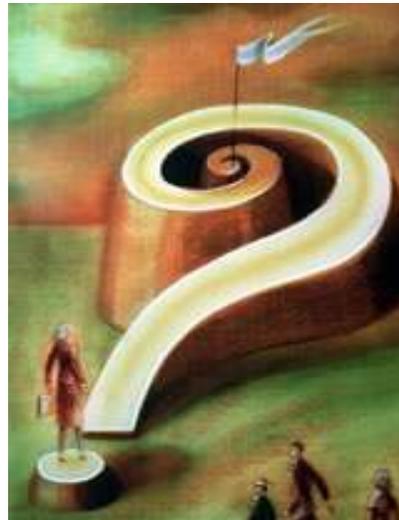
– IRES Resources

- IBM: w3retail.boulder.ibm.com/rss/rsscmt.nsf/vwAllContentLookup/Product+resources~~Software~~Retail+Environment+for+SUSE+LINUX~~Overview
- Business Partner: www-03.ibm.com/products/retail/products/software/ires/

– Contact name/email for questions/assistance:

- Americas: Leon Milnes, lmilnes@us.ibm.com
- EMEA NE: Andrea Klein, anklein@de.ibm.com
- EMEA SW: Luigi Loda, luigi_loda@it.ibm.com
- Asia Pacific: Errol Pereira, pereirae@sg.ibm.com
- WW: Uday Watwe, uday@us.ibm.com

Questions and Answers



What's next...

- **PLEASE DON'T FORGET** to **MARK YOUR CALENDAR** for the IBM Ambassadors for Linux and Open Source Calls in March

For call details, charts, and replay files:

- **Monthly Call:** March 15, 11am-12pm U.S. Eastern time, 15:00 GMT

IBMers: <http://w3-1.ibm.com/sales/systems/portal/s.155/254?navID=f220s240&geolD=All&prodID=Linux&docID=lxeeambassador0207>

IBM Business Partners: http://www-1.ibm.com/partnerworld/pwhome.nsf/weblook/pat_linux_learn_amb_kits_call3.html

- **Seminar: SWG and Services 2007 Initiatives;** March 28, 11a.m.-12pm U.S. Eastern time, 15:00 GMT

IBMers: <http://w3-1.ibm.com/sales/systems/portal/s.155/254?navID=f340s260&geolD=All&prodID=Linux&docID=lxeeseries0307>

IBM Business Partners: http://www-1.ibm.com/partnerworld/pwhome.nsf/weblook/pat_linux_learn_amb_kits_sem3.html

...and don't forget!

- **Submit your Linux questions and get them answered on the next call**

- Send note to linuxamb@us.ibm.com
- Put “Linux/Open Source Question” in subject line

- **If we didn't have time on the call to answer the question you sent us, check out the call web site for Q&A the week after the call...we post written answers to your questions!**

- **Don't miss the latest news on upcoming calls and events – click to**

- IBM business partners, please send note to linuxamb@us.ibm.com



- **Missed a call? Listen to the replay! MP3 recordings (along with call charts and Q&A) of every call are available all year:**

- IBMers: http://w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f220s240&geolD=All&prodID=Linux&docID=lxambassadorcallsrk
- IBM business partners:
http://www-1.ibm.com/partnerworld/pwhome.nsf/weblook/pat_linux_learn_amb_program.html

- **Questions? Input? Feedback? Contact Jai Singh Arun – jai@us.ibm.com**

Sales Resources



Sales Resources

- Linux Portal: w3.ibm.com/linux/sales
- Systems Sales kit – w3.ibm.com/sales/systems/linux
- Extreme Leverage portal (SWG) - <http://w3-103.ibm.com/software/xl/portal/!ut/p/ s.7 0 A/7 0 LT?nb=ms&ni=linux&e=linux>
- Infrastructure Solutions Site: <http://w3.ncs.ibm.com/solution.nsf/TopPage?ReadForm&Enterprise+Solutions=infrastructure>
https://www.developer.ibm.com/partnerworld/mem/strategy/ebod_playbooks.html
- Business Solutions Site: http://w3-03.ibm.com/services/bcs/news_pubs/features/2005/0225_ibm_solutions.html
- SWG Linux Sales Plays: <http://w3 103.ibm.com/software/xl/portal/viewcontent?type=doc&srcID=XT&docID=S358039E05582J75>
- Client - Business Partners - http://www-1.ibm.com/linux/va_12.shtml
- IBM Business Partners and Linux Sheet - [http://w3-03.ibm.com/software/sales/saletool.nsf/salestools/Developer+Relations\\$ISVCentral](http://w3-03.ibm.com/software/sales/saletool.nsf/salestools/Developer+Relations$ISVCentral)
- Linux Speaker's Bureau - http://w3.linux.ibm.com/marketing/speakers_bureau.php
- IBM Ambassadors for Linux and Open Source:
 - <http://w3-1.ibm.com/sales/systems/portal/ s.155/254?navID=f220s240&geoID=AM&prodID=Linux&docID=lxambassadorcallsrk>
 - <http://www-1.ibm.com/partnerworld/sales/systems/myportal/ s.155/307?navID=f220s240&geoID=All&prodID=Linux&docID=lxambassadorcallsrk>
- Competitive Support
 - **Linux at IBM Competitive Advantage Site** - http://www-1.ibm.com/linux/va_4067.shtml
 - **Sun to Linux Business Partner Sales Kit** - http://www-1.ibm.com/linux/va_4072.shtml
 - **Solaris to Linux Business Partner Web Site** - http://www-1.ibm.com/partnerworld/pwhome.nsf/weblook/pat_linux_learn_why_solaris.html
 - **SMBA Web Site - Linux Spotlight** - https://www.developer.ibm.com/partnerworld/mem/strategy/smb_offerings_sol_linux.htm
- Linux Technology Center (LTC) On Demand - <http://ltc.linux.ibm.com/ltc/ondemand/index.html>
- Linux Centers of Competency -- <http://www-1.ibm.com/linux/ltc/centers.shtml>
- Linux Integration Centers: --<http://lic.austin.ibm.com/>

IBM Ambassadors for Linux and Open Source -- Key Contacts

- IBM Sponsor – IBM Ambassadors for Linux and Open Source:
Scott Handy, VP WW Linux and Open Source
shandy@us.ibm.com
 914-766-3610

- Program Manager for IBM Ambassadors for Linux and Open Source:
Jai Singh Arun, WW Linux and Open Source
jai@us.ibm.com
 919.543.2975

- Program Manager for Quarterly Linux Sales Updates:
Amy Sammons, STG Communications
amysamm@us.ibm.com
 1-877-205-4322

- Linux web contact for IBM business partners:
 –<http://www.ibm.com/partnerworld/linux>

- URLs for IBM Ambassadors for Linux and Open Source information:

IBM	IBM Business Partner (IBM ID and password required)
http://w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f220s240&geoID=All&prodID=Linux&docID=lxambassadorcallsrk	http://www-1.ibm.com/partnerworld/pwhome.nsf/weblook/pat_linux_learn_amb_program.html

STG WW Brand Contacts

WW Sales		
Bob Hoey	VP, WW System z Sales	rjhoey@us.ibm.com
Stephen Leonard	VP, WW System p Sales	sleonard@uk.ibm.com
Wayne Flaggs	VP, WW BladeCenter Sales	wflaggs@us.ibm.com
John Teltsch	VP, WW System x Sales	jtg@us.ibm.com
Bill Donohue	VP, WW System i Sales	wcdonoh@us.ibm.com
Elly Keinan	VP, WW System Storage Sales	ellyk@us.ibm.com
John Gaydac	Business Line Executive, Retail Store Solutions	gaydac@us.ibm.com
WW Marketing/BUE		
Florence Hudson	VP, WW System z	tvirniq@us.ibm.com
Per Larsen	VP, WW System p	larsenp@us.ibm.com
Leo Suarez	VP, WW System x	lsuarez@us.ibm.com
Doug Balog	VP, WW BladeCenter	dbalog@us.ibm.com
Elaine Lennox	VP, WW System i	elennox@us.ibm.com
Kristie Bell	VP, WW Storage System	bell@us.ibm.com
John Gaydac	RSS Marketing	gaydac@us.ibm.com

STG Geo Brand Sales Leads

System i Linux Sales		
Matt Schellenberg	Americas System i Sales	matthews@ca.ibm.com
Francine Wiener	NE/SW IOT System i Sales	francine_wiener@be.ibm.com
Mahesh Ramanayake	AP System i Sales	mahेशr@au1.ibm.com
System p Linux Sales		
Christopher Hicks	Americas System p Sales	chicks@us.ibm.com
Michael Mauchline	NE & SW IOT System p sales	mauchline@uk.ibm.com
Fatima Martin Porta	SW IOT System p Sales	fatimamartin@es.ibm.com
Jeffrey Lee Dunn	AP System p Sales	dunnjl@sg.ibm.com
System z Linux Sales		
Doris Benson	Americas System z Sales	dwbenson@us.ibm.com
Olle Ang	NE IOT System z Sales	olle_ang@se.ibm.com
Derya Ozguven	SW IOT System z Sales	DERYA@tr.ibm.com
Richard Pape	AP System z Sales	paperj@sg.ibm.com

STG Geo Brand Sales Leads (continued)

System x Sales		
Leona Mitchell	Americas System x Sales	lmitche@us.ibm.com
Marcus Alexander Mac Dougall	NE IOT System x sales	macdougall@de.ibm.com
Patrick Gilhard	SW IOT System x sales	GILHARDP@fr.ibm.com
John Boyd and Sanjeev Magotra	AP System x sales	johnboyd@au1.ibm.com SANJEEVM@sg.ibm.com
BladeCenter Sales		
Walter Merrill	Americas BladeCenter Sales	walter_merrill@us.ibm.com
Jacob Lindgreen	NE & SW IOT BladeCenter Sales	jacob_lindgreen@uk.ibm.com
Sanjeev Magotra	AP BladeCenter Sales	SANJEEVM@sg.ibm.com
Blue Gene Sales		
Patrick Carey	WW Blue Gene Sales Leader	pfcarey@us.ibm.com

STG Geo Brand Sales Leads (continued)

Geo System Storage Sales Leads		
John Oldham	Americas System Storage Sales	joldham@us.ibm.com
Andy Cash	NE IOT System Storage sales	cash@uk.ibm.com
Daniel Sazbon	SW IOT System Storage sales	Daniel.Sazbon/France/IBM@IBMFR
Wally Tung	AP System Storage sales	tungw@hk1.ibm.com
RSS Sales leads		
Jill Puleri	Americas RSS sales	jpuleri@us.ibm.com
Neil Holland	NE IOT RSS sales	HOLLANN@uk.ibm.com
Luigi Loda	SW IOT RSS sales	luigi_loda@it.ibm.com
Errol Pereira	AP RSS Sales	pereirae@sg.ibm.com

SWG Linux Sales

WW SWG Linux Sales		
Nallu Reddy	Director, WW Open Source and Linux Sales	nreddy@us.ibm.com
Manny Arino	WW SWG Linux Sales	arinom@us.ibm.com
Ajay Kadakia	WW SWG Linux Technical Enablement	ajayk@us.ibm.com
Geo SWG Linux Sales		
Dave DiCarlo	Americas SWG Linux Sales	dave_dicarlo@us.ibm.com
Gary Troup	Americas SMB - Linux Middleware Sales	gwtroup@us.ibm.com
Andreas Pleschek	Northeast IOT Linux Sales	andreas_pleschek@de.ibm.com
Frank Zaengle	Southwest IOT Linux Sales	ZAE@de.ibm.com
Steve Kang	AP SWG Linux Sales	skang@cn.ibm.com

IGS Linux Sales

WW IGS Linux Sales		
Ralph Nelson	BCS Leader	nelsonre@us.ibm.com
Rajiv Sachdev	ITS Leader	rsachdev@in.ibm.com
Scott LaBombard	SO Leader	labomb@us.ibm.com
Geo IGS Linux Sales		
Nancy Madsen	Americas	nmadsen@us.ibm.com
John Palfreyman	NE & SW IOT	2DSEGMA@uk.ibm.com
Tadamasa Takami	AP	TTAKAMI@jp.ibm.com
Radhika Samant	Linux on Desktop Americas ITS	samant@us.ibm.com
Martin Schmidt	Linux on Desktop & Migration NE & SW IOT ITS	martin_schmidt@de.ibm.com
Rakesh Ahuja	Linux on Desktop & Migration AP	rahuja@cn.ibm.com
Evan Salop	Americas Server Migration ITS	esalop@us.ibm.com
Tom Tobin	Americas Installation ITS	tctobin@us.ibm.com

WW Infrastructure Solutions Sales

WW Infrastructure Solution Sales		
George Khatchadourian	Global VP IS Sales	gkhatcha@us.ibm.com
Steven Schwartz	Global VP, WW Infrastructure Sales (ITS, SWG & SMB)	sgs@us.ibm.com
Mark Zingery	Global Sales Operations	mzingery@us.ibm.com
Barbara Deibero	Distribution sector, Business Continuity	barbde@us.ibm.com
Kathy Grondin	Retail, Electronics, Total Store	kgrondin@us.ibm.com
Rajeev Kamath	SWG, Service Oriented Arch.	rvkamath@us.ibm.com
Barbara Korte	Virtualization, IT Resource Optimization	bkorte@us.ibm.com
Kevin Pleiter	FSS sector, IT Security	kpleiter@us.ibm.com
Ron Watkins	Public sector, Business Intelligence	watkinsr@us.ibm.com
Tony White	Communications sector, Kickoff events Information Lifecycle Management	atwhite@us.ibm.com
Laura Yandow	Industrial sector, User Platform	lkroubal@us.ibm.com

Linux Distribution Partner (LDP) Alliances

	WW and AG	Europe	AP Outside Japan	Japan
Linux Alliance	Deirdre Fricke – VP Linux Alliance dfricke@us.ibm.com	Deirdre Fricke	Takayuki Hamaguchi WYVERN@jp.ibm.com Hideki Osada hiosada@jp.ibm.com	Takayuki Hamaguchi Michinori Nakahara beagle@jp.ibm.com
Red Hat	Joe Rhoden – Global Account Executive rhoden@us.ibm.com Brian Fullington – Global and AG Sales bpf@us.ibm.com	Asif Afridi aafridi@uk.ibm.com	Suat Cheng Lee lscheng@my.ibm.com	Harunori Adachi adachi@jp.ibm.com
Novell	Chad Schittone – Global Account Executive chad@us.ibm.com Tim McEvoy – Global and AG Sales mcevoy@us.ibm.com	Alan Morgan AlanMorgan@uk.ibm.com	Suat Cheng Lee	Mami Saitoh (Ms.)

Trademarks and Presentation Notes/Disclaimers

- The following are trademarks or registered 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: eServer, System p, System z, System x, System p5, System i5, AIX, BladeCenter
- The following are trademarks or registered trademarks of other companies:
- Java and all Java based trademarks and logos are trademarks of Sun Microsystems, Inc., in the United States and other countries or both
- Microsoft, Windows, Windows NT and the Windows logo are registered trademarks of Microsoft Corporation in the United States, other countries, or both.
- Linux is a trademark of Linus Torvalds in the United States, other countries, or both.
- Other company, product, or service names may be trademarks or service marks of others.
- Any statements about support or other commitments may be changed or cancelled at any time without notice. All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. Information is provided "AS IS" without warranty of any kind.
- 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.
- 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.
- 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.
- Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.
- IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. Send license inquires, in writing, to IBM Director of Licensing, IBM Corporation, New Castle Drive, Armonk, NY 10504-1785 USA.
- IBM makes no representation or warranty regarding third-party products or services including those designated as ServerProven, ClusterProven or BladeCenter Interoperability Program products. Support for these third-party (non-IBM) products is provided by non-IBM Manufacturers.

STG 2007 Initiatives Backup

Special Notices

This document was developed for IBM offerings in the United States as of the date of publication. IBM may not make these offerings available in other countries, and the information is subject to change without notice. Consult your local IBM business contact for information on the IBM offerings available in your area.

Information in this document concerning non-IBM products was obtained from the suppliers of these products or other public sources. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. Send license inquires, in writing, to IBM Director of Licensing, IBM Corporation, New Castle Drive, Armonk, NY 10504-1785 USA.

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

The information contained in this document has not been submitted to any formal IBM test and is provided "AS IS" with no warranties or guarantees either expressed or implied.

All examples cited or described in this document are presented as illustrations of the manner in which some IBM products can be used and the results that may be achieved. Actual environmental costs and performance characteristics will vary depending on individual client configurations and conditions.

IBM Global Financing offerings are provided through IBM Credit Corporation in the United States and other IBM subsidiaries and divisions worldwide to qualified commercial and government clients. Rates are based on a client's credit rating, financing terms, offering type, equipment type and options, and may vary by country. Other restrictions may apply. Rates and offerings are subject to change, extension or withdrawal without notice.

IBM is not responsible for printing errors in this document that result in pricing or information inaccuracies.

All prices shown are IBM's United States suggested list prices and are subject to change without notice; reseller prices may vary.

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

Any performance data contained in this document was determined in a controlled environment. Actual results may vary significantly and are dependent on many factors including system hardware configuration and software design and configuration. Some measurements quoted in this document may have been made on development-level systems. There is no guarantee these measurements will be the same on generally-available systems. Some measurements quoted in this document may have been estimated through extrapolation. Users of this document should verify the applicable data for their specific environment.

Revised September 26, 2006

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, BladeCenter, Blue Gene, Blue Lightning, C Set++, CICS, CICS/6000, ClusterProven, CT/2, DataHub, DataJoiner, DB2, DEEP BLUE, developerWorks, DirectTalk, Domino, DYNIX, DYNIX/ptx, e business(logo), e(logo)business, e(logo)server, Enterprise Storage Server, ESCON, FlashCopy, GDDM, i5/OS, IBM, IBM(logo), ibm.com, IBM Business Partner (logo), Informix, 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, Passport Advantage, POWERparallel, Power PC 603, Power PC 604, PowerPC, PowerPC(logo), Predictive Failure Analysis, pSeries, PTX, ptx/ADMIN, RETAIN, RISC System/6000, RS/6000, RT Personal Computer, S/390, Scalable POWERparallel Systems, SecureWay, Sequent, ServerProven, SpaceBall, System/390, The Engines of e-business, THINK, 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 5L, AIX PVM, AS/400e, Chiphopper, Chipkill, Cloudscape, DB2 OLAP Server, DB2 Universal Database, DFDSM, DFSORT, DS4000, DS6000, DS8000, e-business(logo), e-business on demand, eServer, Express Middleware, Express Portfolio, Express Servers, Express Servers and Storage, GigaProcessor, HACMP, HACMP/6000, IBM TotalStorage Proven, IBMLink, IMS, Intelligent Miner, iSeries, Micro-Partitioning, NUMACenter, On Demand Business logo, OpenPower, POWER, PowerExecutive, Power Architecture, Power Everywhere, Power Family, Power PC, PowerPC Architecture, PowerPC 603, PowerPC 603e, PowerPC 604, PowerPC 750, POWER2, POWER2 Architecture, POWER3, POWER4, POWER4+, POWER5, POWER5+, POWER6, POWER6+, Redbooks, Sequent (logo), SequentLINK, Server Advantage, ServeRAID, Service Director, SmoothStart, SP, System i, System i5, System p, System p5, System Storage, System z, System z9, S/390 Parallel Enterprise Server, Tivoli Enterprise, TME 10, TotalStorage Proven, Ultramedia, VideoCharger, Virtualization Engine, Visualization Data Explorer, X-Architecture, z/Architecture, z/9.

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 of The Open Group in the United States, other countries or both.

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

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

Intel, Itanium, Pentium and Xeon are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States, other countries or both.

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, other countries or both.

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

SPECint, SPECfp, SPECjbb, SPECweb, SPECjAppServer, SPEC OMP, SPECviewperf, SPECcapc, SPECchpc, 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.

AltiVec is a trademark of Freescale Semiconductor, Inc.

Cell Broadband Engine is a trademark of Sony Computer Entertainment Inc.

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

Revised December 12, 2006

Notes on Benchmarks and Values

The IBM benchmarks results shown herein were derived using particular, well configured, development-level and generally-available computer systems. Buyers should consult other sources of information to evaluate the performance of systems they are considering buying and should consider conducting application oriented testing. For additional information about the benchmarks, values and systems tested, contact your local IBM office or IBM authorized reseller or access the Web site of the benchmark consortium or benchmark vendor.

IBM benchmark results can be found in the IBM System p5, eServer p5, pSeries, OpenPower, RS/6000 and BladeCenter Performance Report at http://www.ibm.com/systems/p/hardware/system_perf.html.

All performance measurements were made with AIX or AIX 5L operating systems unless otherwise indicated to have used Linux. For new and upgraded systems, AIX Version 4.3 or AIX 5L were used. All other systems used previous versions of AIX. The SPEC CPU2000, LINPACK, and Technical Computing benchmarks were compiled using IBM's high performance C, C++, and FORTRAN compilers for AIX 5L and Linux. For new and upgraded systems, the latest versions of these compilers were used: XL C Enterprise Edition V7.0 for AIX, XL C/C++ Enterprise Edition V7.0 for AIX, XL FORTRAN Enterprise Edition V9.1 for AIX, XL C/C++ Advanced Edition V7.0 for Linux, and XL FORTRAN Advanced Edition V9.1 for Linux. The SPEC CPU95 (retired in 2000) tests used preprocessors, KAP 3.2 for FORTRAN and KAP/C 1.4.2 from Kuck & Associates and VAST-2 v4.01X8 from Pacific-Sierra Research. The preprocessors were purchased separately from these vendors. Other software packages like IBM ESSL for AIX, MASS for AIX and Kazushige Goto's BLAS Library for Linux were also used in some benchmarks.

For a definition/explanation of each benchmark and the full list of detailed results, visit the Web site of the benchmark consortium or benchmark vendor.

TPC	http://www.tpc.org
SPEC	http://www.spec.org
LINPACK	http://www.netlib.org/benchmark/performance.pdf
Pro/E	http://www.proe.com
GPC	http://www.spec.org/gpc
NotesBench	http://www.notesbench.org
VolanoMark	http://www.volano.com
STREAM	http://www.cs.virginia.edu/stream/
SAP	http://www.sap.com/benchmark/
Oracle Applications	http://www.oracle.com/apps_benchmark/
PeopleSoft - To get information on PeopleSoft benchmarks, contact PeopleSoft directly	
Siebel	http://www.siebel.com/crm/performance_benchmark/index.shtm
Baan	http://www.ssaglobal.com
Microsoft Exchange	http://www.microsoft.com/exchange/evaluation/performance/default.asp
Veritest	http://www.veritest.com/clients/reports
Fluent	http://www.fluent.com/software/fluent/index.htm
TOP500 Supercomputers	http://www.top500.org/
Ideas International	http://www.ideasinternational.com/benchmark/bench.html
Storage Performance Council	http://www.storageperformance.org/results

Revised April 27, 2006

Red Hat Enterprise Linux Available from System x



RHEL 4 Offering	\$**	HVEC Option	PID	Feature Code*
RHEL AS Standard Red Hat Support 1 yr	\$1499	39Y5305	5639-RXS	4395
RHEL AS Premium Red Hat Support 1 yr	\$2499	39Y5308	5639-RXS	4396
RHEL AS Standard 1 yr (sell with IBM Support)	\$799	39Y5306	5639-RXS	4393
RHEL AS Standard 3 yr (sell with IBM Support)	\$2159	39Y5307	5639-RXS	4394
RHEL ES Standard Red Hat Support 1 yr	\$799	39Y5310	5639-RXS	4399
RHEL ES Standard 1 yr (sell with IBM Support)	\$399	39Y5312	5639-RXS	4397
RHEL ES Standard 3 yr (sell with IBM Support)	\$999	39Y5314	5639-RXS	4398
**Local pricing may vary				* US and Canada

RHEL 4 Cluster Node Offering	\$**	HVEC Option	PID	Feature Code*
RHEL HPCC 1-2 Socket Standard 1 YR (no IBM Support)	\$79	39R7026	5639-RXS	4403
RHEL HPCC 1-2 Socket Standard 3 YR (no IBM Support)	\$225	39R7030	5639-RXS	4404
RHEL HPCC 1-4 Socket Standard 1 YR (no IBM Support)	\$159	31R1770	5639-RXS	4640
RHEL HPCC 1-4 Socket Standard 3 YR (no IBM Support)	\$449	31R1772	5639-RXS	4641
RHEL HPCC Media Kit	\$99	31R1768	5639-RXS	4405
**Local pricing may vary				*US and Canada

SUSE Linux Enterprise Server Available from System x



SLES 9 or 10 Offerings	\$*	SW MTM US SEO	Canada SEO	PID	US Feature Code	Canada Feature Code
SLES 1-32 socket 1 Year	\$349	48153QU	42C6551	5639-S1X	0001	D2WD
SLES 1-32 socket 3 Year	\$870	48153RU	42C6552	5639-S1X	0002	D2WE
SLES 1 socket 1 Year	\$175	48151QU	42C6553	5639-S1X	0003	D2WF
SLES 1 socket 3 Year	\$438	48151RU	42C6554	5639-S1X	0004	D2WG
BladeCenter Chassis 1 Year	\$2443	4815CQB	42C6555	5639-S1B	0001	D2UB
BladeCenter Chassis 1 Year	\$6090	4815CRB	42C6556	5639-S1B	0002	D2UC
BladeCenter T Chassis 1 Year	\$1396	4815TQU	42C6557	5639-S1B	0007	D3AH
BladeCenter T Chassis 1 Year	\$3480	4815TRU	42C6558	5639-S1B	0008	D3AJ

SLES 9 or 10 HPCC Offerings	\$*	HVEC Option	PID	US Feature Code
SLES HPCC 1-8 socket 1 Year	\$100	31R1438	5639SLE	3008
SLES HPCC 1-8 socket 3 Year	\$189	31R1440	5639SLE	3009
* Local prices may vary				

IBM Linux Support Options

Either IBM Remote Technical Support ServicePac or Support line can be chosen.

	RTS/ServicePac*	SupportLine
How sold	Have xSeries part numbers and can be ordered by the sales channel or via the web	By generating a Support Line contract via IGS.
System Coverage	Priced and purchased for each unique System x servers.	Covers a customer's servers as a group of systems.
Which do I lead with?	Lead with RTS/ServicePac when the deal includes less than 25 servers.	Lead with a SupportLine contract if deal includes 25 or more servers.
Average Pricing	1 CPU ~ \$300 2 CPU ~ \$500 4 or more CPU ~ \$700	Priced per server and is based upon the number of servers.

- Comparison above describes the RTS/ServicePac offering in USA. Comparisons will vary by geo/country.
- VMware support is extra.