IBM Ambassadors for Linux and Open Source

Monthly Call: February 22, 2007

ibm.com/linux
IBM Ambassadors
for
Linux and Open Source
ibm.com/opensource

AGENDA

Agenda Items	Time	Speaker
⊕**Welcome / Opening Remarks** ⊕**2006 Linux Business Results** ⊕**Open Solution Summit, NY news and updates**	**11:00 - 11:20** **(20 min.)**	**Carol Carson** Director, WW Linux and Grid Marketing
Sharing the best sales practices and experience ▪**Millward Brown** ▪**Technical University of Chemnitz** ▪**Peugeot Citron**	**11:20 - 11:35** **(15 min.)**	**Cliff Brereton** Client Executive – Public Sector IBM Sales & Distribution,, Public Sector **Tom Schwaller** Linux IT Architect IBM Strategic Growth Business, IMT Germany **Thierry Batut** Linux & Open Source Sales Manager IBM Sales & Distribution, Software Sales
Novell ▪**2007 Geographic Coverage and Resource Model** ▪**Working Better Together in 2007** ▪**Novell/Microsoft Relationship Update**	**11:35 - 11:55** **(20 min.)**	**Justin Steinman** Director of Product Marketing jsteinman@novell.com **Jack Loyd** Partner Account Manager jloyd@novell.com
⊕**Q&A/Closing Remarks**	**11:55 - 12:00** **(5 min.)**	**All**

IBM Ambassadors
for
Linux and Open Source

Full Year 2006 Linux Results

- IBM Linux revenue grew 21% YTY
  - STG grew 1% YTY
  - SWG grew 57% YTY

- Linux revenue grew 48% YTY in BRIC countries (preliminary)

- Linux/Grid Business Partner Value Network program successfully drove measurable SMB-focused repeatable solutions (106% of plan)

- IBM Ambassadors for Linux and Open Source program continued momentum with volunteer sales army growing to over 1115 participants and 2619 hours of live training

- Linux customer references increased by 355

- Growth of multi-platform Linux solutions continued with 467 applications ported by ISVs through Chiphopper

LinuxWorld OpenSolutions Summit: Feb 14th, 15th NYC

IBM Linux and Open Source Forum:

- **Attendance**
  - 200 Registrants, 60 Attendees at peak
  - Attendees engaged.. "penguins" accustomed to the elements!
  - Key Customers/ Partners that attended: BoNY, Reuters, MetLife, NW Presbyterian, US Army, St Johns U, Viacom, Ericom SW, AltaPlana

- **Content: (Scott, Deep Dives, Panel)**
  - Key Messages: Open Source Community Value to Businesses, L&OS Customer Adoption
  - Survey ratings were 4's and 5's on speakers and content (top score = 5)
  - **Scott's Strategy presentation:** Link

- **Booth Activity**
  - Ped Workers said: "Attendees were high quality, much better than SFC.. not just tire kickers"
  - 35+ Leads, one is HOT for System p and a few good ones for SWG!

- **IBM Breakout Sessions**
  - Well Attended (~40 room size).
  - Linux Client sessions- standing room only

- **Significant IBM Announcements leading up to and during LinuxWorld**
  - (See Following Pages)
  - Press response positive.

IBM Announcements Summary

New! 2007

✓ **IBM Offers Customers Freedom of Choice With New Open Client Solution for Enterprise PCs**

✓ **IBM Unveils Linux Web-Tier Consolidation Machine**

✓ **IBM, AMD and Novell Team on Linux Offering for Informix Dynamic Server**

✓ **IBM and Raytheon Deliver Technology Solution for DDG 1000 Next Generation Navy Destroyers**

✓ **IBM Supercharges Mainframe Virtualization**

✓ **Made in IBM Labs: IBM Drives "Fort Knox"-Like Security Into Virtualized Data Centers**

✓ **Made in IBM Labs: IBM Software to Safeguard Consumer Identity on the Web With "Identity Mixer"**

✓ **IBM Boosts Support for Business Partners Using Open Source Technologies**

IBM Ambassadors for Linux and Open Source

IBM Ambassadors for Linux and Open Source

IBM Offers Customers Freedom of Choice With New Open Client Solution for Enterprise PCs

New!
2/12/07

- Address market demand for innovation, flexibility and choice

- Learning from IBM's internal deployment, several customer pilots

- Solution components
  - **"Best of breed collaboration software"**
    - Lotus Notes, IBM Lotus Domino®, Lotus Sametime
    - Mozilla Firefox/Microsoft Internet Explorer access to IBM WebSphere® Portal, IBM Lotus Connections*, IBM Lotus Quickr™ software*
  - **Application development, composition, and Mashups**
    - Rich managed client: IBM Lotus Expeditor - based on Eclipse
    - WebSphere Portal, Portlet Factory, IBM Workplace Forms™
  - **Customer choice of productivity editor, Operating System, Platform****
  - **Software Services**
    - Best practices learned during IBM's own internal desktop deployment
    - End user usage Segmentation model based on roles and business processes
    - Pilot, Application migration, Management and Deployment services

- **Press release:** http://www-03.ibm.com/press/us/en/pressrelease/21060.wss
- **Additional Information: Link**

•When available, current target 1st half 2007;
** Lotus Notes 8 future plan to support Apple Macintosh, subject to change
  Currently support Red Hat Desktop, Novell SUSE Linux Enterprise Desktop, Microsoft Windows

IBM Ambassadors for Linux and Open Source

IBM Unveils Linux Web-Tier Consolidation Machine

*Leadership performance **PLUS** proven technologies designed to provide infrastructure options for rising energy and administrative costs*

New!

➕ Large Web server environments [consolidate 25 or more web servers]:
  IBM System p5™ 560Q: *leadership UNIX® operating system performer and the ultimate Linux® operating system consolidation server*

➕ Medium Web server environments [consolidate 15 or more web servers]:
  IBM BladeCenter® JS21 for Web Serving Farms: *affordable alternative to less flexible rack-based x86 servers*

➕ Small Web server environments [consolidate 2 or more web servers]:
  IBM BladeCenter JS21 system or the IBM System p5 505/505Q models: *start small, with plenty of room for growth*

Press release: http://www-03.ibm.com/press/us/en/pressrelease/21083.wss

Additional Information: Link

Watch ibm.com/systems/p for Linux Consolidation Webinar coming in March

IBM Ambassadors for Linux and Open Source

IBM Unveils Linux Web-Tier Consolidation Machine

Integrated Stack for SUSE® Linux Enterprise for IBM System p5™ and BladeCenter ® JS21

New!

Flexible Web application environment that is easy-to-use and deploy

- Enterprise strength software stack built on open source and open standards

- Automated installation for easy deployment

- Supports Web server consolidation to help increase flexibility and lower energy and administration costs

Press release:

http://www-03.ibm.com/press/us/en/pressrelease/21083.wss

Additional Information: Link

SUSE Linux Enterprise Server 10

IBM DB2® Express-C

IBM System Storage™ DS4700/4800

IBM WebSphere® Community Edition

IBM System p5 server

IBM BladeCenter JS21 server

OPTIONAL:
SAN Volume Controller
Centeris® Likewise™
Web Application Consulting Services
Advanced POWER Virtualization*

*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.

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IBM, AMD and Novell Team on Linux Offering for Informix Dynamic Server

New!

- Teaming among IBM, AMD and Novell

- Next-Gen IDS "Cheetah" Enters Open Beta Testing

- Combines IDS, SUSE Linux Enterprise Server from Novell and IBM xSeries 3105 powered by AMD Opteron 1000 Series processors

- Provides new availability and security features in a low cost solution to help small and medium businesses (SMBs) meet their critical needs.

- Low administration environment needs
  - lowers the total cost of ownership
  - Frees up DBAs to focus more attention on their overall Information on Demand strategy

- Offers new capabilities to help customers meet their changing data management goals by enabling users to extract more value from their business information

- Scheduled for release in 2007

- **Press release:** http://www-03.ibm.com/press/us/en/pressrelease/21082.wss

- **Additional Information** (IDX information-to-date): Link

IBM Ambassadors for Linux and Open Source

IBM and Raytheon Deliver Technology Solution for DDG 1000 Next Generation Navy Destroyers

New!

- **Solution designed to accelerate the development of weapon systems and to help reduce the number of crew members needed to sail next-gen Navy Destroyers**

- **Navy enabled to use a single computing environment for applications that range from command-and-control, navigation, and targeting to weapons control and radar systems.**

- **Real Time Linux – Led by the IBM Linux Technology Center and built on the work of Red Hat and Open Source Community**

- **IBM System x and BladeCenter and WebSphere Real-time based solution**

  - Fully preemptive kernel, reducing critical path latencies

  - Priority inheritance enabled kernel and user space locking

  - Open Source Solution that is on track to be adopted by the Linux Mainline

  - Open Real Time Stack: RT Linux- RTSJ & RT GC RT Java- x86 Blades Reduced Risk and Reduced Total Cost of Ownership

Raytheon

- **Press release:** http://www-03.ibm.com/press/us/en/pressrelease/21033.wss

- **Additional Information:** IBM Real Time Linux: Link

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IBM Supercharges Mainframe Virtualization

- **Large, single-image, resource-balanced "Scale out" and "Scale up" support for hosting virtual server workloads**
  - Large real memory exploitation support (greater than 128 GB)
  - Single-image CPU support for 32 processors
  - Enhanced networking bandwidth and availability support with OSA-Express2 Link Aggregation (Statement of Direction)
  - HyperPAV I/O support for IBM System Storage DS8000
  - Concurrent FlashCopy I/O support for one-to-many volumes
  - Enhanced memory management for Linux guests running on System z9 servers

- **LDAP support for guest authentication**
  - Enhanced virtual server security infrastructure support

- **Staff productivity gains with IBM Director for Linux on System z**

- **Press Release:** http://www-03.ibm.com/press/us/en/pressrelease/21029.wss
- **Additional Information:** Link

New!
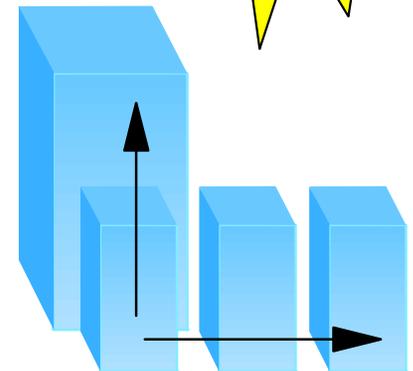
On demand *Scale Up* and *Scale Out*

Advancing System z Hypervisor Technology Support

Made in IBM Labs: IBM Drives "Fort Knox"- Like Security Into Virtualized Data Centers

New!

- Donated code to the Xen open source community to help better secure virtualization hypervisors

- New software technology from IBM Research labs designed to greatly enhance security and management capabilities in virtualized data centers

- Industry's first effort to embed trusted computing technologies directly into the virtualization and management software tools already used inside data centers.

- Technology allows for stronger data integrity guarantees and offers a higher degree of confidence that workloads and data are secure.

- **Press release:** http://www-03.ibm.com/press/us/en/pressrelease/21028.wss

- **Additional Information:** Link

IBM Ambassadors for Linux and Open Source

Made in IBM Labs: IBM Software to Safeguard Consumer Identity on the Web With "Identity Mixer"

New!

- Identity Mixer allows people to hide or anonymize their personal information on the Web, ensuring protection from identity theft and other misuse

- Enables consumers to purchase goods and services on the Internet without disclosing personal information

- For example: consumer can purchase books or clothing without revealing their credit card number. It can confirm someone's spending limit without sharing their bank balance, or provide proof of age without disclosing their date of birth.

- Protects user privacy by sharing only pseudonyms, so real identity information is never intercepted or exposed

- **Press release:** http://www-03.ibm.com/press/us/en/pressrelease/20974.wss

- **Additional Information:** Link

IBM Ambassadors for Linux and Open Source

IBM Boosts Support for Business Partners Using Open Source Technologies

New!

- Industry's most comprehensive range of resources for business partners using open source technologies

- IBM will provide companies with free access to its sales, marketing and technical consultants, allowing them to bring their offerings to market more quickly and expand into new markets

- Support available free of charge for business partners using:
    - WebSphere Application Server (WAS) Community Edition,
    - DB2 Express-C

- Gives business partners ability to generate greater revenue from their open source solutions spending less time on integration.

- **Press release:** http://www-03.ibm.com/press/us/en/pressrelease/21036.wss

- **Additional Information:** Link

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Best Wins of 2006

Best STG Win of the Year 2006	Best STG Win Of the 4Q2006	Best SWG Win of the Year 2006 and 4Q2006
Linux on System p as a consolidation platform	**IBM Linux Cluster e1350**	**Notes Client and ST 7.5 on Linux**
➢Linux on POWER Virtualization ➢Oracle Database Consolidation ➢IBM Montpellier benchmark centre – pLite process ➢Full comparative testing performed with real 400Gb database ➢No other vendor came close to the same capability ➢No other vendor devoted the resource IBM did – at least 5 heads.	➢IBM & German Business Partner Megware provided a diskless IBM Cluster e1350 ➢Innovative storage architecture which implements 10 Lustre Object Storage Servers (OSS) directly on the Linux based storage controllers and two Lustre Metadata Servers (MDS) in an active passive configuration on two x3455 nodes ➢The hardware failure rate was very low (less than 5%) and the x3455 showed the expected performance	➢Strategic importance and broke new ground with Linux desktop ➢Target Deployment of 20K Linux Desktops (out of total 75K Windows) over next three years ➢WMC and Notes Plug-in for Linux ➢Selected SLED10 over competitive offerings ➢Strong support for LIC and Novell SLES-10 Team
Cliff Brereton Manager, Linux on POWER Sales, UKISA	**Tom Schwaller** Linux IT Architect Strategic Growth Business, IMT Germany	**Thierry Batut** Linux & Open Source Sales Manager Sales & Distribution, Software Sales, France

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Experience statement – global marketing agency in UK

- **Application takes sales feeds from thousands of sources, compiles UK singles chart**
  - Fast growth as downloads increase in popularity
  - Biggest challenge in Christmas week
- **Chose Linux on POWER for Oracle database consolidation**
- **Wanted an open platform with a solid roadmap.**
  - Database too large for Intel, and growing.
  - Felt cheated by HP
- **Key virtualisation advantages:**
  - Switch capacity from virtualised overnight batch servers to development during the day, increasing developer productivity and lowering development costs.
  - Open platform – consolidated Sun, HP and DEC workloads.
  - Control of infrastructure growth – central IT can reduce to a minimum any resources wasted on dormant projects/applications. No need to get business permission – the system is still available if anyone needs it.

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IBM Montpellier benchmark centre – pLite process

- **Given the workload, we <u>proved</u> the IBM advantage at no cost to the client.**
  - Elimination of risk in platform or Linux migration

- **A chance for the techies to get their hands on and see for themselves that it wasn't scarily different or difficult.**
  - Continued VPN access from the UK after the test

- **Why Montpellier?**
  - Large pool of skilled resource – Oracle Joint Solution Centre for Europe
  - Where else but an IBM manufacturing plant would we lay our hands on an extra terabyte of disk at 20 minutes' notice, cabled in hot from another room?
  - Bonus: Great weather, great food!
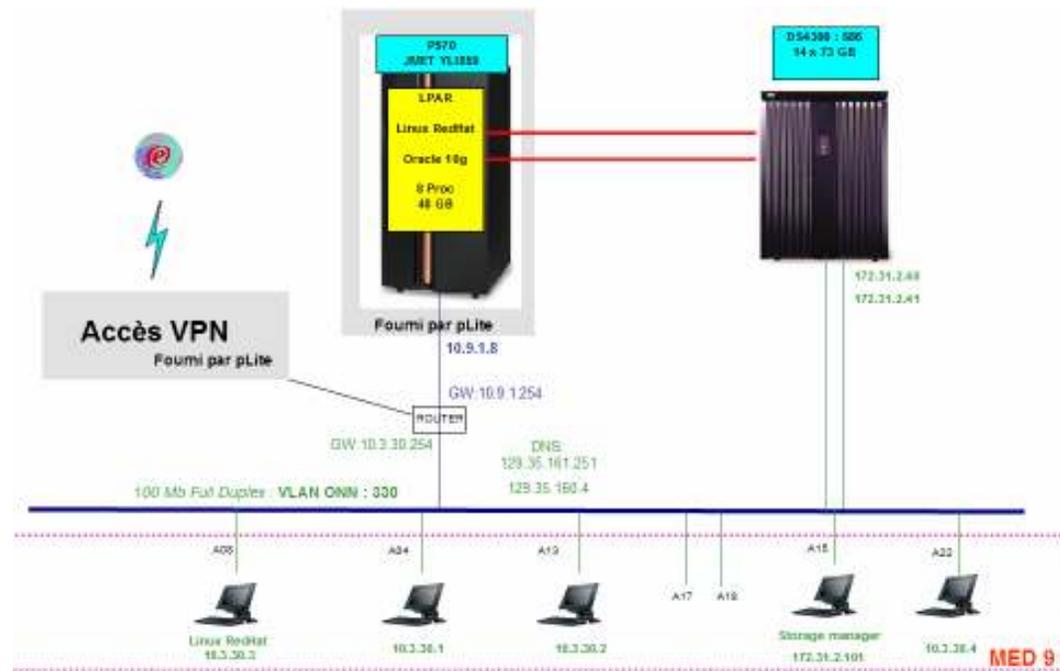
Why IBM?

- **Full comparative testing performed with real 400Gb database**
- **No other vendor came close to the same capability**
- **No other vendor devoted the resource IBM did – at least 5 heads.**

Sun Fire V890	HP Integrity rx4640
Turbulent roadmap – transition to Fujitsu processors within 12 months, then another transition to "Rock"?	**Out of control – Intel failed to deliver Montecito (dual core Itanium2) on time, HP had to ship new sx2000 without it. Montecito delayed to at least 3Q 2006**
http://www.theregister.co.uk/2005/10/25/fujitsu_sparc_deets/	http://www.theregister.co.uk/2006/03/10/intel_heat/
http://www.theregister.co.uk/2006/03/14/sun_rock_deets/	http://www.theregister.co.uk/2006/02/28/no_monty_hp/
Limited Virtualisation (same copy of Solaris, no good for mixing prod and dev on same machine)	**Linux available, but no virtualisation at all. Would need to buy double the number of servers.**
Only 2.5x performance of legacy system (IBM achieved 5x with half the CPU cores)	**High heat output of these machines (more than double the IBM equivalent)**
No Linux option	
High cost of maintaining Oracle – twice the CPU cores.	

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Lessons Learned

- **Take care of the client – Montpellier trip was fantastic for relationship building, when else do you get to spend 48 hours with the client?**

- **Client was impressed by the scale of Montpellier and the number of people we devoted to their project.**
  - Alain Roy (plus team of 6) in France, Nigel Griffiths in UK (plus SAR team of 5) and STG services (team of 2)

- **Patience – we lost some credibility by attempting a 1Q close, with a config that was outside their budget. In our defence, we were egged on by the lead techie…**

- **A business partner with a "can do" attitude is a huge advantage**

- **Team IBM to the fore in this winback sale**
  - Battering doors down for the rest of IBM – sold 5 system x servers and opened up a larger opportunity
  - However, leads to complexity – different channels for x and maintenance.
  - special bid works against us.

Technical University of Chemnitz

TECHNISCHE UNIVERSITÄT
CHEMNITZ

IBM Linux Cluster e1350 win in Q4 2006

Revenue:
• IBM & German Business Partner Megware won the **2.3 M Euros** to provide a diskless IBM Cluster e1350

Solution:
• 538 x3455 compute nodes (each with 2 AMD Revision F dual core processors and at least 4 GB Memory),
• 4 x3755 (2 management and 2 login nodes)
• 12 Intellistations A Pro with NVIDIA Quadro FX 4500 X2 graphics cards as visualization nodes
• Voltaire Infiniband interconnect technology (2 ISR 9288, 46 ISR 9024, 1 ISR 9096 in a fully nonblocking configuration)

Challenges:
• Answering the proposal by the end of July 2006 (before the official IBM announcement of its new AMD Revision F portfolio)
• Reassembly by Megware of the whole cluster hardware in 18 water cooled Knürr racks
• Integration with the 60 TB Infiniband RAID 6 Storage from Xiranet using the Lustre filesystem (RFP 3)
• Aggressive installation schedule (deadline was Dec 1, 06 which could only be met by a great team effort at IBM & Megware)
• Setting up the cluster management software xcat/Warewulf using Scientific Linux 4.3 / 4.4 (Cluster Enablement Team (CET))
• Testing the new Voltaire PXEBoot/Infiniband mechanism for diskless nodes
         • with a patched DHCPServer using the GUIDs of the HCAs, no MAC addresses
• Aggressive timescales for benchmark and acceptance tests (sustained performance: **8.21 TFlop/s** (Linpack))

Highlights:
• The hardware failure rate was very low (less than 5%) and the x3455 showed the expected performance
• Stability of the systems using a 24 hour stress test power cycling the machine every 5 minutes (after BIOS, BMC, CPLD Update)
• Innovative storage architecture which implements 10 Lustre Object Storage Servers (OSS) directly on the Linux based storage
  controllers and two Lustre Metadata Servers (MDS) in an active passive configuration on two x3455 nodes
                    Dec 06 and testing the overall cluster performance with benchmarks like HPPC
• Excellent collaboration and relationship with the customer developed during the last 2 years
• Superb team effort to sell and implement the solution

Novell PSA Peugeot Citroen Announcement

Giant French Automaker to Deploy Linux Desktops, Citing Cost, Usability, Integration and Support

- PARIS, Solutions Linux 2007, Jan. 30

- PSA Peugeot Citroen, the second-largest automobile manufacturer in Europe, and Novell just signed a multiyear contract allowing the deployment of up to 20,000 Linux desktops plus 2,500 Linux servers from Novell.

"We found SUSE® Linux Enterprise Desktop to be well supported and extremely user friendly,"

"Novell's commitment to open source and close collaboration with leading hardware and application vendors to ensure the support of our IT requirements were key factors in our choice. In addition, SUSE Linux Enterprise Desktop integrates seamlessly in our Windows-based infrastructure. »

- http://www.novell.com/news/press/item.jsp?id=1274

What is this Announcement ?

How IBM is helping PSA ?

PSA PEUGEOT CITROËN

IBM Ambassadors for Linux and Open Source

Inside the Novell Deal

- **3 years contract with Premium Services**

- **20 000 Novell Suse Desktop (SLED 10)**

- **2500 Novell Servers (SLES 10)**

  – SLES 10 for HPC

    • Will replace « in house » Linux (managed by 4 FTE)
    • New deployment on IBM Server (winback on Fujitsu)

  – SLES 10 « Classic »

    • New Intel/AMD Virtualized infrastructure
    • Will compliment the current System p and Sun infrastructure
    • IBM BladeCenter currently under POC

Inside the Desktop Deal

- ## PSA is currently deploying SLED 10 with IBM Lotus Notes 7.01 and IBM Sametime 7.5
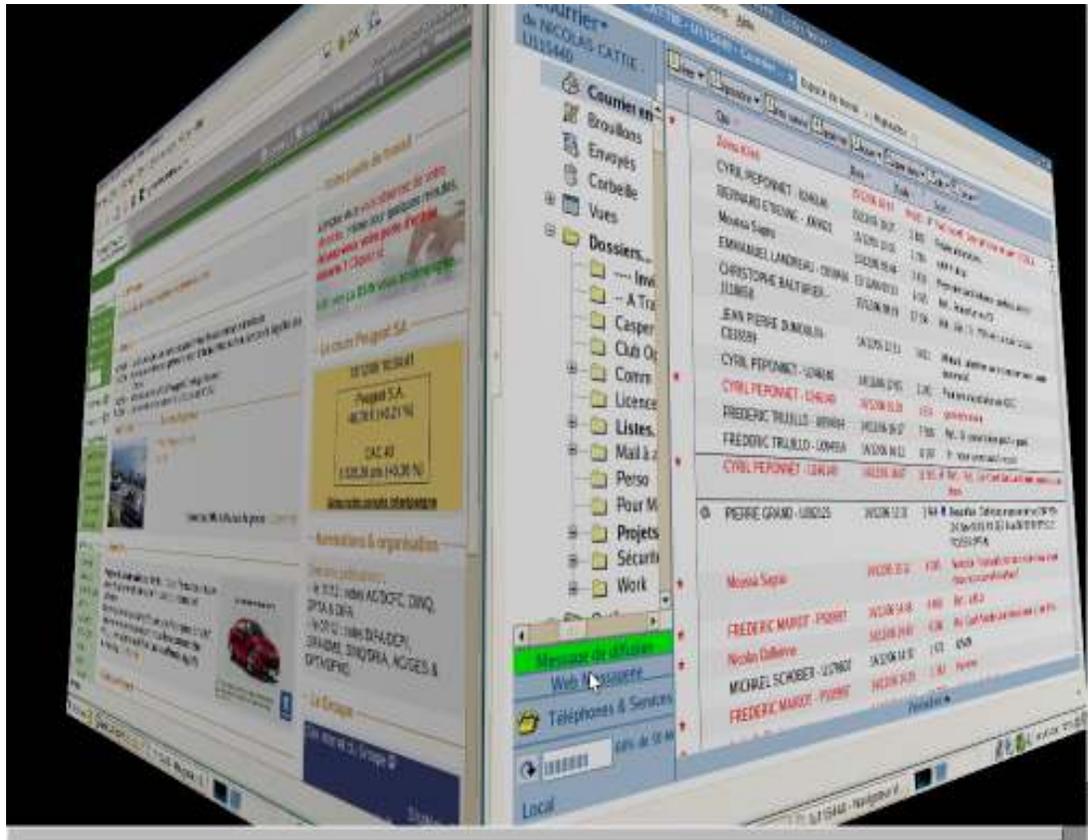
- **First meeting at PSA Feb 2006**

- **Novell selected in March**

- **IBM Lotus/Novell meeting in March**

- **IBM Executive Briefing in Cambridge May**

- **First Beta Code on June**

- **SLED 10 GA mid of July**

- **Official IBM Support in October**

Why a Linux Desktop Project ?

- **Existing PSA desktop architecture is « PSAV3 »**
  - 76.000 PC's worldwide (Mainly MS Windows 2000)

- **The next desktop Architecture will be « PSAV4 » including:**
  - Linux Desktops (beginning in 2006)
  - Vista Desktops (Just starting - not before 2008)

- **Target :**
  - 10.000 to 20.000 Linux Desktops at the end of 2008
  - Standard Thin clients in PSA Plants

Why a Linux Desktop Project ?

- **Linux will most likely not replace all Windows Desktops .**

- **The idea is to provide a cheaper and easier alternative for people who only need standard functionalities. The Linux Desktop will also help PSA to maintain the number of Microsoft licenses within the optimal « range » of the existing contract.**

- **TCO point: Put the pressure on the desktop, no change to the back office servers (Domino, Web, MS AD, Admin Tools, …)**

How does PSA deploy Linux ?

- **Same provisioning tool for Windows and Linux, servers and PCs (developed internally like IBM ISSI).**

  – OS deployment is done by PXE with Rembo Tool (now Tivoli Provisionning for OS) working for Windows and Linux too.

  – End user selects the mandatory and optional packages

- **Softwares are (re)packaged as RPMs and managed as components.**

  – A product can have several (shared) com

- **Only one paper folder for user training**

  • 100 desktops deployed in Q4 (pre-pilot)
  • Now 300/400 desktops are deploying
  • End user feedback is excellent

What do you need to know?

- **Lotus Notes Version 7**
  - Some difference from MS Windows with Smarticons, Desktop conf. Files, no Sametime integration
  - PSA developed a new template with new icons
  - Full support and easy to deploy and maintain (vs wine)
- **PSA is very happy with the Novell/Microsoft agreement**
- **IBM does have a great value: Skills and experiences**
  - IBM Internal Deployment: John Walicki
  - IBM Linux Integration Center: Faheem Altaf
- **Lotusphere 2007 slides available**
  - ID108: IBM Lotus Notes 7 for Linux Client Deployment Experiences and Roadmap
- **IBM Internal Only Customer Reference to be available**

Update on Microsoft Announcement and Go-to-Market Model

Justin Steinman,
Director of Product Marketing
jsteinman@novell.com

Jack Loyd,
Partner Account Manager
jloyd@novell.com
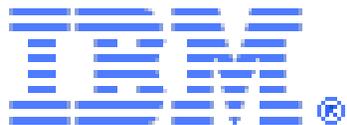
Agenda

- 2007 Geographic Coverage and Resource Model

- Working Better Together in 2007
  – IBM Business Partners
  – IBM Sales Teams

- Novell/Microsoft Relationship Update
  – Delivering Customer Value
  – Noteworthy Accomplishments
  – Technical Collaboration Scope and Roadmap

Ready to win

Common Geographic Structure

EVP WW Sales						

GEO President						

Partners	Areas	Impact Teams	Consulting	NTS	Training	Finance
Global Solution Partners	Principal	Focused Sales	Consulting Practices	Support & Problem Mgmt	Onsite Training	Marketing
Resellers, Sol'n Providers	Growth	Focused Specialists		Premium Offerings	Certifications & ATT Training	Operations
				Managed Services	Performance Improvement	HR
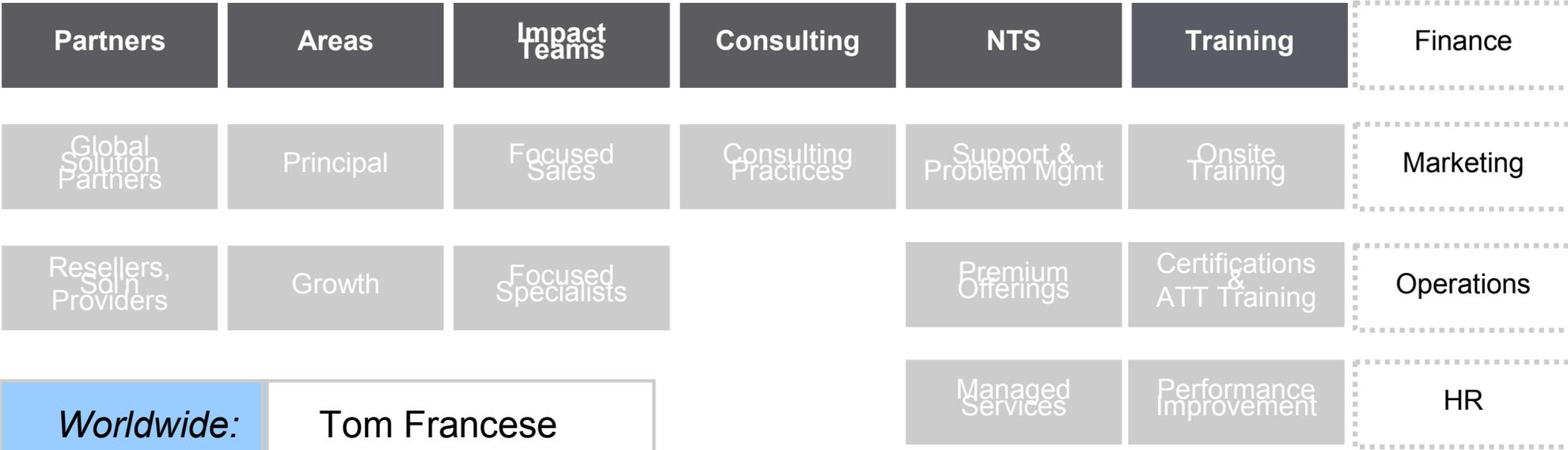
Worldwide:	Tom Francese
Americas:	Troy Richardson
Asia Pacific:	Maarten Koster
EMEA:	Volker Smid

Ready to win

Global Field Coverage Model

🌐 Designed to capture market share through new customer acquisition while supporting our install base

Open Platform Solutions

Identity & Security Management

Systems & Resource Management

Workgroup

Very Large/ Large Enterprise

Medium Enterprise

Small Enterprise HO/Consumer

Principal Areas

Growth Areas
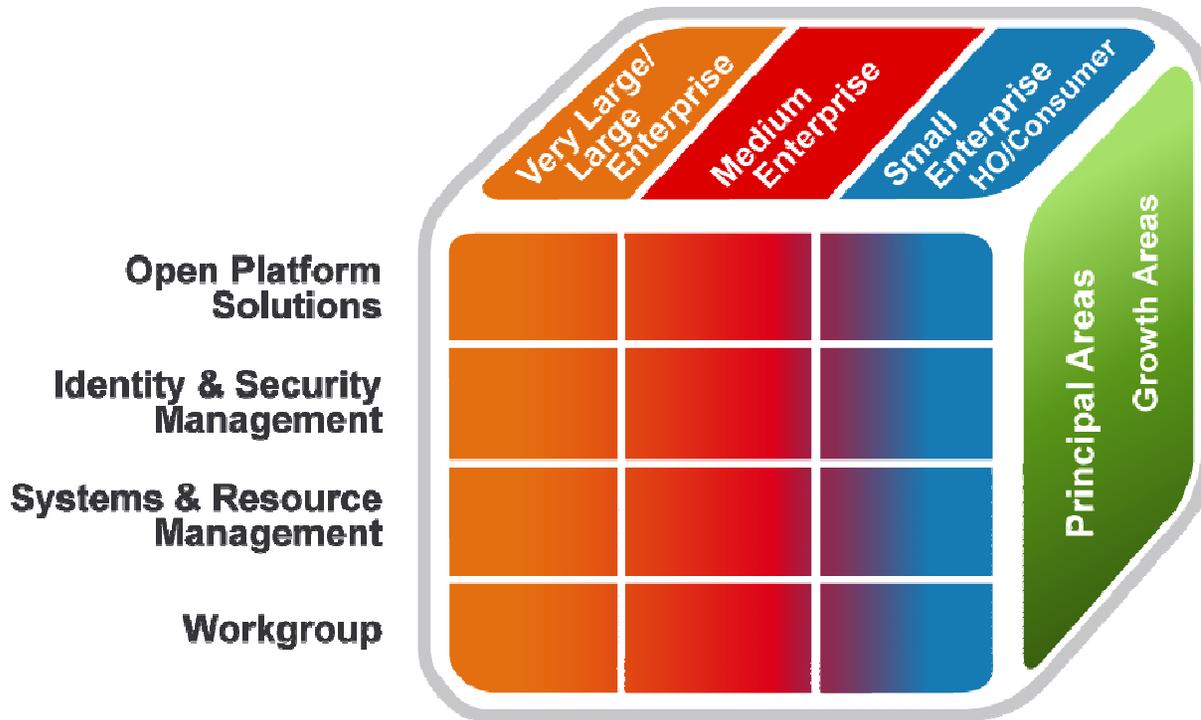
Focused Investments

- Direct / Indirect Coverage
  - Client Execs, Mgrs*
  - Partner Sales Mgrs*
  - Partner Execs*
- Partners
- Impact Teams
- Specialists
- TeleWeb

Carry OPS/Linux Quota

Ready to win

2007 Resource Model for IBM Alliance

Ron Hovsepian, CEO
Tom Francese, President of WW Sales
- John Judge, VP WW Alliances
  - *Stuart McClain - Director WW Alliance - IBM*
  - *Jack Loyd - Partner Development Manager - IBM*
  - *Starla Cox - Global Strategic Partner Marketing - IBM*
  - *Joerg Eberwein - Partner Product Management - IBM*
  - *Dave Wright, - GSP Alliance Contracts - IBM*

Americas

Troy Richardson – President

🌐Steve Erdman – VP Partners/Channels

🌐Ted Milkovich – Director of GSP Alliance Teams

- *Jocelyn Parker –East*
- *Bill Sears – Central & Canada*
- *Charles Martin – West & Latin America*

EMEA

Volker Smid – President

•Johan Rosius – VP Partners/Channels

•*Werner Lutkemeier – Director - IBM EMEA*

- *Lars Hermind – Netherlands & Russia*
- *TBD South IOT*
- *TBD North IOT*

Asia Pacific

Maarteen Koster - President

•Masanobu Hirano – VP Partners/Channels

- *Greg Kieser – Australia*
- *TBD – China*
- *Toshiki Iida – Japan*

Ready to win

Working Better Together

For Business Partners:

Join **Novell PartnerNet!**
www.novell.com/linux/ibmleadersforlinux/

Promotional code: IBM Leaders for Linux

Gain access as a "silver-level" Linux specialist free of charge for the first year of membership.

For IBM Employees:

Expand your world with Champions Club. Enroll today and get access to all the training and information you require to better support SUSE Linux.

www.novell.com/ibm/club

Ready to win

Technical Collaboration Roadmap

Novell   **Microsoft**

February 11, 2007

Bridging the Divide

November 2, 2006

- Microsoft and Novell announced a landmark agreement

Delivering unprecedented customer value

- IP Assurance

- Interoperability

  - Virtualization

  - Heterogeneous systems management

  - Directory and Identity Federation

  - Document format compatibility

Customers Have Embraced the Alliance

Accomplishments

- Announced Customers
  - AIG
  - Credit Suisse
  - Deutsche Bank
  - Wal-Mart

- 35,000 certificates activated

- Very strong customer pipeline

- Overwhelming customer support data
  - More than 90% of respondents approve of the Microsoft and Novell collaboration*
  - 97% said they wanted platform providers to improve interoperability*
  - 67% said they're more likely to consider deploying SUSE® Linux Enterprise*

Novell.

Microsoft

Customers Have Spoken

AIG

"It's critical that our technology offerings be forward-looking and be integrated and positioned to support our mission of delivering high value at a market price. Microsoft and Novell's commitment to working together to deliver interoperability and IP assurance helps us achieve that mission."

Mark Popolano, Chief Information Officer

Credit Suisse

"For us, interoperability is key. We see both Windows and SUSE Linux Enterprise as strategic platforms going forward, and we're very pleased to see Microsoft and Novell, who support these platforms, step up and work on interoperability."

Tom Sanzone, Chief Information Officer

Deutsche Bank

"Microsoft and Novell's agreement gives us the benefit of choice in platforms and tremendous flexibility that will help make our company more competitive and efficient"

Clemens Jochum, Chief Technology Officer

Wal-Mart

"We have wanted information technology vendors to deliver interoperability and IP assurance between multiple platforms for some time now, and we are pleased that Microsoft and Novell are committed to fulfilling that need."

Nancy Stewart, Senior Vice President and Chief Technology Officer

Technical Collaboration Scope

Virtualization

- Interoperability between Microsoft® Virtual Server, Windows Server®, Longhorn and SUSE® Linux Enterprise

Heterogeneous Systems Management

- Interoperability for managing mixed environments (WS-Management)

Directory and Identity Interoperability

- Improve identity interoperability between Microsoft and Novell® products

Document Format Compatibility

- Enhance interoperability for Open XML Format and ODF documents between Microsoft® Office and OpenOffice.org Novell Edition

Server Virtualization Today

Customers are leveraging virtualization to improve server utilization, decrease power consumption, increase business continuity

- Lack of interoperability offsets some of the virtualization benefits

Microsoft and Novell are working to create an optimized virtualization solution

- Enable customers to run SUSE® Linux Enterprise virtualized on Windows ® Server codenamed "Longhorn" and Windows Server codenamed "Longhorn" virtualized on SUSE Linux Enterprise

OS Level Server Virtualization Architecture
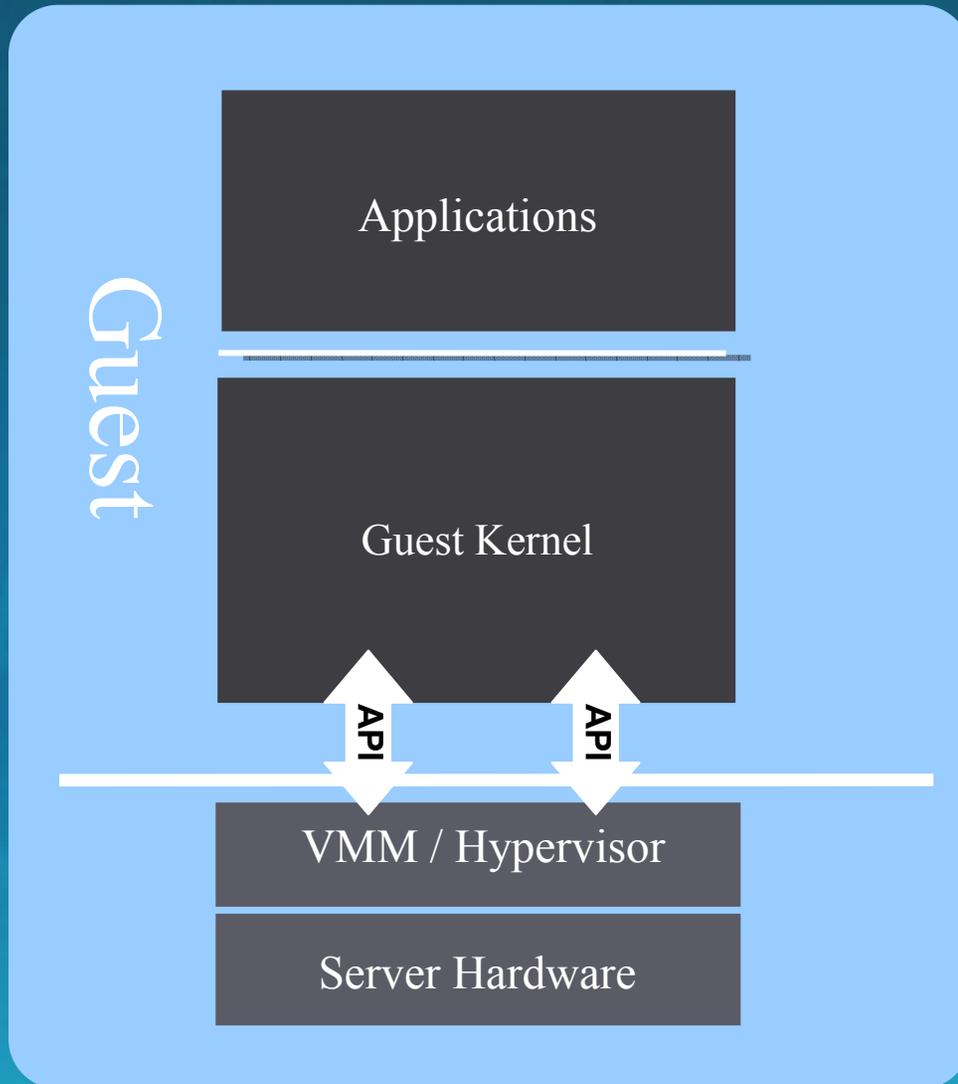
Guest OS is tuned to run on respective hypervisors

- Novell calls it "paravirtualized"

- Microsoft calls it "enlightened"

- API's into hypervisor also provide better performance

- But… APIs and tuning are specific to implementation and don't promote interoperability!

Guest

Applications

Guest Kernel

API   API

VMM / Hypervisor

Server Hardware

Novell.

Microsoft

OS Level Server Virtualization Architecture

Guest

Applications
Guest Kernel
↕ API ↕ API
VM Adapter
↕ API ↕ API
VMM / Hypervisor
Server Hardware
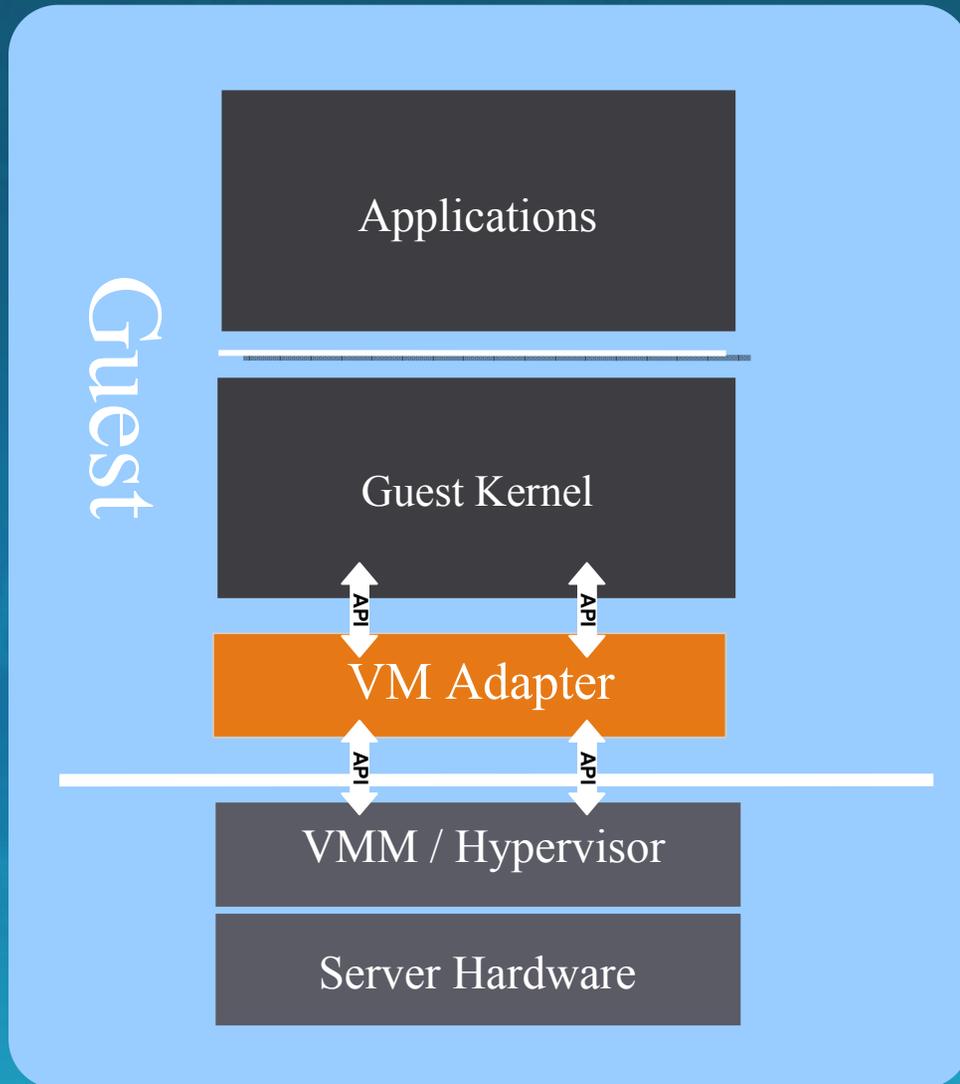
Mutual collaboration on software adapters that translate APIs between respective hypervisor technologies

- Novell delivering adapter that enables Windows, codenamed "Longhorn," Server to interface with SUSE Linux Enterprise Server using Xen

- Microsoft delivering adapter that enables SUSE Linux Enterprise Server to interface with Windows server virtualization

Novell.

Microsoft

Virtualization Milestones

Collaboration on software to enable SUSE® Linux Enterprise Server 10 to run as fully virtualized guest on service pack 1 Virtual Server 2005 R2

- SUSE Linux Enterprise Server 10 add-ins available in H1 CY 2007

Collaboration on software that translates between virtualization technologies

- Windows Server codenamed "Longhorn" supporting paravirtualized SUSE Linux Enterprise Server 10 guest[1]

- SUSE Linux Enterprise Server 10 supporting enlightened Windows Server "Longhorn" guest[2]

[1] Available when Windows Server virtualization releases w/in 180 days of Windows Server codename "Longhorn" in H2 CY 2007

[2] Available when "Longhorn" releases in H2 CY 2007

Virtualization Roadmap

Q4'06	H107	H207
Collaboration Announcement		
	"Longhorn" Beta 3 Windows Server virtualization Broad Beta	"Longhorn" RTM Windows Server virtualization RTM 0-180 days of "Longhorn" RTM
	SLES10 Add-ins for Virtual Server R2	*Beta:* SLES10 on WSV — *RTM :* SLES10 on WSV (at WSV RTM)
	Beta 1: "Longhorn" on SLES 10	*Beta 2:* "Longhorn" on SLES 10 — *RTM :* "Longhorn" on SLES 10

■ Novell   □ Microsoft

Novell.

Microsoft

Systems Management Today

Control Panel / Server Manager	YaST
Microsoft ® System Center	Novell® ZENworks®
Windows ® Update/Microsoft Update	Novell Customer Center and ZENworks Linux Management
Third-party Tools	Third-party Tools / Open Source
Active Directory ®	Novell eDirectory™, OpenLDAP

Novell.

Microsoft

Standards-based Systems Management

WS-Management is a specification in support of the DMTF initiative to expose model agnostic management resources via a set of Web services protocols.

- Provides a universal management protocol

- Enables IT managers to remotely access heterogeneous devices

- Introduces uniformity of operations

- Interoperable with non-Microsoft operating systems

- Addresses customers' concerns managing heterogeneous data centers.

WS-Management Interoperability

WS-Management

- Microsoft and Novell technical collaboration with the WS-Management open source community

- Novell is working directly with the open source community to develop an open source implementation of the WS-Management specification.

- Novell and Microsoft to identify items from the WS-Management specifications for implementation and interoperability of WS-Management stacks.

- Verify interoperability between Novell's and Microsoft's WS-Management implementations via joint interoperability scenarios and test plans

- Additional details available at the end of Q1 CY 2007

Directory and Identity Interoperability Goals

Microsoft and Novell are working toward improving directory and identity interoperability between Microsoft products and Novell® products using standards-based protocols (CY '07)

- Improved access control for IT resources managed with either Novell eDirectory™ or Active Directory®.

- Authorized users can seamlessly access Web-based services whether their user accounts principally reside in Novell eDirectory or Active Directory.

Directory and Identity Interoperability

Developing interoperability demos based as follows:

- Linux application access to Windows SharePoint Server: Utilization of interoperable identities based on Active Directory or Novell® eDirectory™ to access Microsoft SharePoint® assets.

- Novell / Microsoft identity products seamlessly interoperate: Interoperable methods to obtain a high-quality, standard, secured and auditable identity to satisfy credential requirements in Web applications.

- Identity interoperability in a mixed Novell and Microsoft environment.

Focus on Interoperability between technologies & products:

- Novell: eDirectory, Access Manager 3, SUSE® Linux Enterprise, Firefox, OSIS (Open-Source Identity System), Bandit™, Higgins

- Microsoft: Active Directory, Active Directory Federation Services, Windows Vista™, Windows XP, Internet Explorer, Windows CardSpace, SharePoint®.

Additional details available at the end of Q1 CY '07

Document Compatibility

Open XML Format

Open standard file format for office applications that can be freely implemented by multiple applications on multiple platforms used in the 2007 Microsoft Office system

Open Document Format

ISO-standardized, XML-based file format specification for office applications maintained by the open source community, developed by the OASIS industry consortium and used in OpenOffice.org

Microsoft / Novell Collaboration

Bi-directional open source translators for word processing, spreadsheets and presentations between OpenOffice.org and Microsoft Office

Novell.

Microsoft

Bi-Directional Format Translation

Document Compatibility

- Novell is participating in the ODF-converter project to provide an add-in to Microsoft Word 2007 that enables opening and saving ODF files in Word and Open XML Format files in OpenOffice.org.

- Add-ins for Microsoft Excel® and PowerPoint® are expected in 2H CY 2007.

- Novell will resource projects to provide native built-in converters and re-use existing OpenOffice.org code to provide Open XML import/export capabilities by mid CY 2008.

Novell.

Microsoft

Document Format Compatibility Roadmap

2007 Microsoft
System
with translator
hooks to support
ODF

Novell OpenOffice.org
ver 2.0.4
with translator
hooks to support Open XML

Word Translator ver 1.0
Novell RTM

Presentation /
Spreadsheet
Translator
Novell RTM

Q4'06	H1'07	H2'07

Collaboration
Announcement

Word processor
translator
ver 0.3
Project Site*

Word processor
translator
ver 1.0
Project Site*

Word processor
translator
ver 1.1
Project Site*

Presentation /
Spreadsheet
Translator
Project Site*

■ Novell ☐ Microsoft

* Open Source Project

http://sourceforge.net/projects/odf-converter

Novell.

Microsoft

Summary

- Engage locally with your dedicated Novell/IBM selling team to explore new customer opportunities

- Enroll as a Linux Specialist in Novell's PartnerNet program (business partners)

- Champions Club programs for greater enablement opportunities (IBM Sales teams)

- Good selling!

Ready to win

Questions

What's next…

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

  For call details, charts, and replay files:

  –<u>Seminar</u>: **STG Brands' Specific Initiatives**; Feb. 28 11am-12pm U.S. Eastern Savings time, 15:00 GMT

  –**http://w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f220s240&geoID=All&prodID=Linux&docID=lxeeseries0207**

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

  –**http://w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f220s240&geoID=All&prodID=Linux&docID=lxeeambassador0207**

  –**March Seminar: SWG and Services Brands' Specific Initiatives**; March 28 11a.m.-12pm Eastern time, 15:00 GMT

  –**http://w3-1.ibm.com/sales/systems/portal/_s.155/254?navID=f340s260&geoID=All&prodID=Linux&docID=lxeeseries0307**

IBM Ambassadors for Linux and Open Source

…and don't forget!

- Submit your Linux questions
  - **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&geoID=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

How to get started with Open Source and IBM

- **IBM Open Source Portal**

  – ibm.com/opensource

- **developerWorks Website**

  – ibm.com/developerworks/opensource

- **IBM's Open Computing Development Environment**

  – WAS CE, DB2 Express-C, Eclipse

  – ibm.com/developerworks/kickstart

- **IBM Systems Journal**

  – "Open Source" edition - Vol 44, No 2, 2005

  – www.research.ibm.com/journal/sj44-2.html

IBM Ambassadors for Linux and Open Source
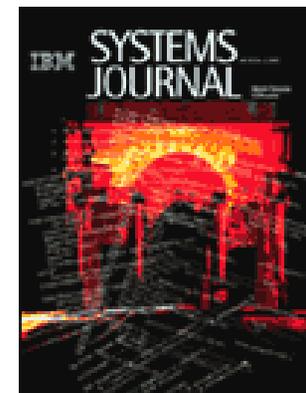
Sales Resources

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

- 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/

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- 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

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Backup

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IBM's open client solution for Enterprise PCs

"With Open Client and other initiatives, IBM's now seeking to differentiate its Lotus Collaboration Software from Microsoft's Exchange offering by stressing its multiplatform capabilities." IDG News Service

"IBM aims to lower cost of using Linux, Apple PCs" Reuters

"Dana Gardner, an analyst with Interarbor said the IBM offering could have promise for businesses that want more choice of user operating systems"

COMPUTERWORLD

Rich → **Thin**

Applications

Lotus Notes 8   Editors   Lotus Sametime 7.5

Lotus Expeditor

eclipse

Browser Access Portal, Connections Apps

Choice of Operating System

Windows   **Mac OS X**
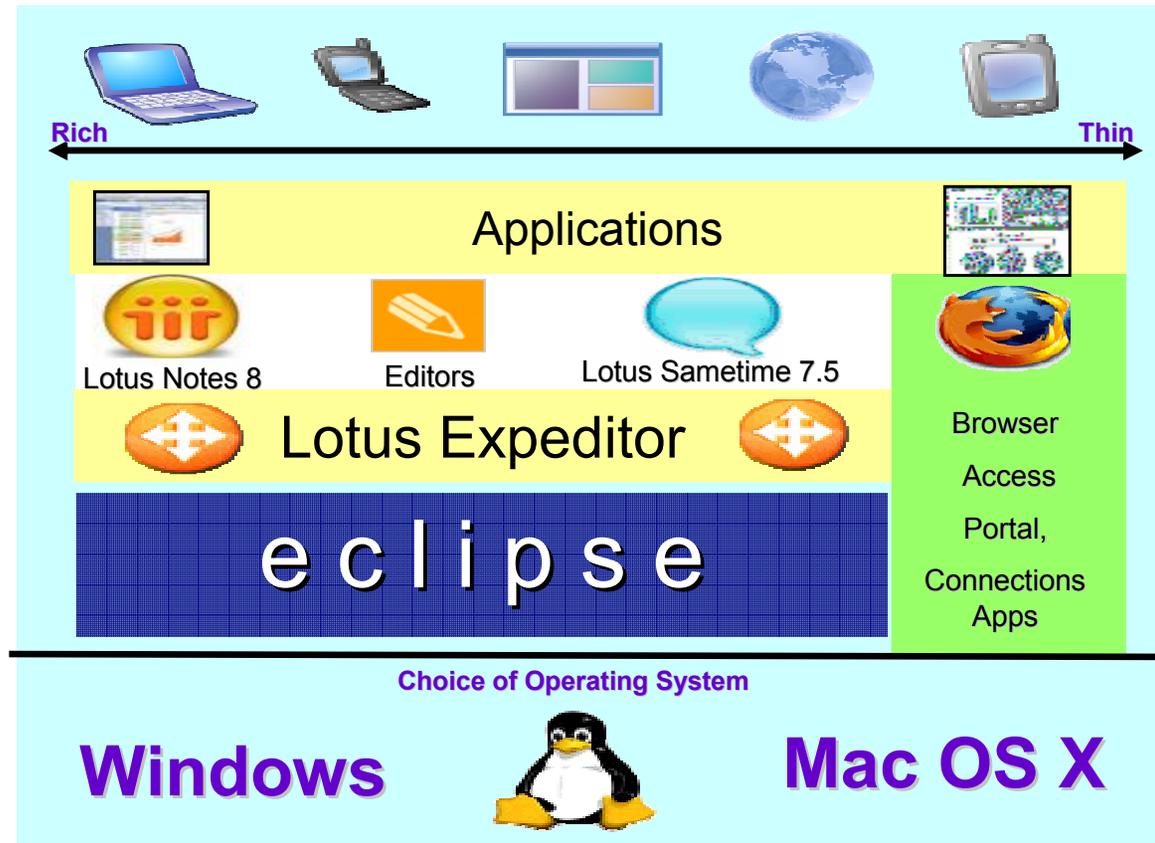
Web Application Servers: Integrated Stack for SUSE® Linux Enterprise for IBM System p5™ and BladeCenter ® JS21

New!

Flexible Web application environment that is easy-to-use and deploy

- Enterprise strength software stack built on open source and open standards

- Automated installation for easy deployment

- Supports Web server consolidation to help increase flexibility and lower energy and administration costs

SUSE Linux Enterprise Server 10

IBM DB2® Express-C

IBM System Storage™ DS4700/4800

IBM WebSphere® Community Edition

IBM System p5 server

IBM BladeCenter JS21 server

OPTIONAL:
SAN Volume Controller
Centeris® Likewise™
Web Application Consulting Services
Advanced POWER Virtualization*

*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.

Web Application Servers: Clients can consolidate **EIGHT racks** of 320 Dell PowerEdge 860 servers running 320 Linux LAMP applications into **ONE rack** of System p5 560Q systems

with optional Advanced Power Virtualization

New!

- + *REDUCE floor space by an estimated 87%***
- + *REDUCE power consumption by an estimated 66%***
- + *REDUCE total cost of acquisition by up to 50%****

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

Five 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]**