



## Social Business in a Heterogeneous Private Cloud: How to do more, Faster than before with Less

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# Agenda

- What is Social Business?
- Why is it important to your Business?
- How does System z participate in this environment
- Why does System z provide a superior TCO and a better ROI?





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# Social Media amplifies the impact of the network



2 billion YouTube videos a day Daily – 1 million New LinkedIn users







The forces driving a smarter planet are having a remarkable impact on how people interact





#### Instrumented

smartphone shipments will outpace PCs by 2012



#### Interconnected

social networking accounts for 22% of all online time



#### Intelligent

the social data analytics opportunity has grown to 1 Zettabyte by 2011









# As a result, people get things done in entirely new ways



#### How I Buy

Interacting with peers and engaging with the company.

# <image>

#### **How I Work** Collaborating from anywhere at any time.

#### **How I Create** Tapping into a wide variety of insight and expertise.

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# Web use is growing, usage shifting



Social Networking is the most popular online activity- accounting for 1 in 5 online minutes. Social Networks reach 82% of the worlds Internet population - over 1.2B people. ComScore



#### 010/11001101010

Source: Social Networking Leads As Top Online Activity Globally, comscore, December 2011. WW Internet Users: www.internetworldstats.com. March 2011, Copyright © 2001 - 2011, Miniwatts Marketing Group. Online behavior: Pew Internet & American Life Project, Surveys of Adult American Internet Use, 2000-2011. www.pewinternet.org., Mobile growth: Global Mobile Statistics 2011, mobile Thinking.



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# Social Media vs Social Business



#### Social Media



#### Social Business



Primarily Marketing and PR outreach Encompasses organization and business processes

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# Social business for a smarter planet





On a smarter planet, people are transforming the way they interact... and this transformation is impacting the way business is being done

Why Social Business is important to our clients...

95% of standout organizations will focus more on "getting closer to the customer" over the next 5 years.

– IBM CEO Study 2010

69% of respondents report measurable business benefits from Web 2.0 tools, including better access to knowledge, lower costs of doing business, and higher revenues.

- McKinsey Global Survey 2009

Standout organizations are 57% more likely to allow their people to use social and collaborative tools.

- IBM CHRO Study 2010







According to the 2010 IBM CEO Study:

**Creativity** is viewed as the **#1** most important leadership quality for the next 5 years.

81% of CEOs will focus more on their **people's skills** in the next 5 years.

#### According to the 2011 IBM CIO Study:

66% of CIOs from top-performing organizations see internal communication and collaboration as key to innovation

74% of CIOs see collaboration and communication as a key driver in transforming their organizations Nearly **3 times** as many CIOs in top-performing organizations view Social Network Analysis as a **top priority** 

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Social Businesses have distinct characteristics that distinguish them from other organizations



They activate networks of people that apply relevant content and expertise to improve and accelerate how work gets done, delivering unprecedented return for the time invested.

At their core, they are...

**Engaged** deeply connecting people to be involved in productive, efficient ways

**Transparent** providing line of sight across traditional boundaries and better aligning actions to needs

**Nimble** speeding up business with insight to anticipate and address evolving opportunities









A Social Business embraces networks of people to create business value



#### Consider the current social trends...

**Employees** are connecting in new ways in all facets of their life, including work **Customers** discussing you and setting your brand today

#### **Competitors**

wd-sourcing ideas to bring new solutions to market



#### Organizations that evolve with this trend will outperform their competitors

Source: IBM CIO Study, 2010 Source: McKinsey Study of 1,700 executives

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# Why the Focus on Customer?

Why the Focus on Customers? *Retaining customers is linked to increased profitability* 



2% increase in customer retention has the same effect on profits as cutting costs by 10%

5% reduction in customer defection rate can increase profits by 25-125%, depending on the industry

Acquiring new customers can **cost 5x more** than satisfying and retaining current customers



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# Demand for Growth drives the need for Innovation



- Innovators grow faster
- 79% of CEOs indicated that collaboration was important to innovation
- Top sources of innovation were employees, business partners and customers



IBM Institute for Business Value. CEO Study

"It's not what work you expect Employee #1234 to accomplish per personmonth of work. - It's the work you never expected would happen, that suddenly creates new business."







#### CEOs: sources of new ideas and innovation



Connections - Results

# **Customer Painpoints**



I need HELP NOW! Where do I search and find the best answers?









Coordinate resources and get work done







# Social Everywhere

#### SHARE

- Over 85% of new handsets will have mobile Web access by 2011
- There will be 5.3 billion mobile subscriptions by the end of 2010 (that's almost 80% of the world population)
- Almost one in five global mobile subscribers have access to fast mobile Internet (3G or better) services
- The number of people accessing the **mobile Internet** is growing fast and is **expected to overtake the PC** as the most popular way to get on the Web within five years.









# In this new world, is email "dead"?



- "9 Reasons why email is dead"
- John C. Dvorak, March 16, 2009
- "The end of the email era..."
- Wall Street Journal, October 12, 2009
- "...so email...is probably going away..."
- Sheryl Sandberg, COO, Facebook, June 24, 2010



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#### "The report of my death was an exaggeration..." - Mark Twain

# Corporate emails / day: 87.2 BILLION

Source: Radicati Group, "Email statistics report 2011"

Facebook posts / day: 1.79 BILLION Source: Digital Buzz Blog, Jan 2011

> Tweets / day: 144 MILLION Source: Twitter, Mar 2011

> > © 2012 IBM Corporation





Connections + Result

## Social mail is the evolution of messaging into a social capability, delivered in context to where you work



# <section-header><complex-block><complex-block><complex-block>

Add value with workflow and social applications





# Social is mobile with IBM Lotus Notes Traveler: work anytime, anywhere, securely!





- Automatic wireless delivery of Lotus Domino<sup>®</sup>
  - Email and PIM Data
  - Device security settings
- 2-way synchronization
- Over-the-air client or profile installation
- Native applications for best integration (except Android)
- Works over all wired / wireless connections (CDMA, GPRS, GSM, WiFi, etc.)
- Administration support for device security policies and remote wipe





# Be in mail without being "in" mail...

Technology - Connections - Results

Firefox  Social Mail Showcase2.potesdev.i	+ ibm.com/socmail-client/index-phase1only.html?db=/mail/pclemmon.nsf	🚖 - C	
		URL! 📴 IBM 🗋 Save to TripTrace 📧 Profiles Home 🖲 Amazon 🛷 Renovations Help Des	Bookm
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Innovation Marketing Research	Frank Adams commented 10:33 AM Could someone please take a look at this customer situation and We don't seem to have enough coverage on this right now.	d comment?	
	Heather Reeds I'm traveling to Europe next week - if anyone in the Lon to meet up, let me know! 10:33 AM	don team wants	
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Bill Ranney added a task in Planning Activity



I...

Profiles

**Files** 

Wikis

**Activities** 

Forums

**Communities** 



Find the people you need

Work with people who share

common roles and expertise

Post, share, and discover documents,

presentations, images, and more

Organize your work and tap your

Exchange ideas with, and benefit from

Add sizzle by sharing rich media like Photos

Create web content together

professional network

the expertise of others

**Media Gallery** 

and Videos

# **IBM** Connections



#### Home page

See what's happening across your social network



#### **Social Analytics** Discover who and what you don't know via recommendations



#### Micro-blogging Reach out for help your social network



#### **Bookmarks**

Save, share, and discover bookmarks



Blogs

Present your own ideas, and learn from others

**Ideation Blogs** 

Create ideas and leverage the crowd to develop them



#### **Document Libraries**

Securely manage and collaborate on business documents









Email will continue to remain critical because workplace behavior doesn't change overnight

#### Digital Natives "New ways to work"

#### Digital Immigrants "I live in my inbox"







# It's About...





It's about social and business transformation





It's about creating a culture for innovation It's about trusted relationships



# It's about creating a social business.

http://www.ibm.com/socialcollaboration

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# Today's Demands on IT





- 32.6 million servers worldwide
- 85% idle computer capacity
- 15% of servers run 24/7 without being actively used on a daily basis



Zetabytes (+1 trillion gigabytes) **exist in the "digital universe**"

- 50% YTY growth
- 25% of data is unique; 75% is a copy



#### Between 2000 and 2010

- servers grew 6x ('00-'10)
- storage grew 69x ('00-'10)
- virtual machines grew 51% CAGR ('04-'10)



Data centers have doubled their energy use in the past five years

18% increase in data center energy costs projected



Internet connected devices growing 42% per year



Since 2000 security vulnerabilities grew eightfold

... while IT budgets are growing less than 1% per year.





# **Islands of Computing**





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# Hybrid Social Business in a Multi-Tenant Private Cloud







#### **Tomorrow's Possibilities**



BlackBerry on zBX x86 SameTime Video on zBX UNIX Domino/Connections on Linux for System z Managed as a single Business unit of work One single heterogeneous server High Speed private virtual networks

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# **Operational Controls**



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Hypervisor Management and Virtual Server Management



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- Manage resources across virtual machines
- Detect that a virtual machine is part of Workload not achieving goals
- Determine that the virtual machine performance can be improved with additional resources
- Project impact on all effected Workloads of moving resources to virtual machine
- If good trade-off based on policy, redistribute resources
- Initially support CPU management, will extend to memory and other resources

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# Java SDK 6.0.1 Performance:

Aggregate HW and SDK Improvement z10, z196, Java6 to Java6.0.1





(Controlled measurement environment, results may vary)





Cost Per Image for Linux Workloads (5 Yr TCO)




# **Overview of IBM's Deployment**



- Domino on Linux for System z is IBM's strategic direction
  - Part of Project Big Green
  - Application servers went first- Completed in 4Q 2009
    - +40K Domino application databases
  - Mail is ongoing within all Geos at different states
    - Currently worldwide over 160K IBMers are on Domino on Linux for System z
  - Not just Domino servers, but entire messaging infrastructure
    - Hubs, Admin servers, etc...
  - Designed to save
    - Space
    - Energy
    - Money







#### **Domino Server Platforms**



Platform	Users
System z <sup>®</sup> , Linux <sup>®</sup>	63%
System p®, AIX®	34%
System i®, OS/400®	2%
Other OS	< 1%





# **Connections Growth at IBM**



- Unique visitors increased by 90-110% across all geographies in 1 year
- Blog entries have grown by 21% in 6 months
- File storage is growing 8% per month (152% annually)
- Largest usage by Sales, IT Specialists
- API usage grown to 25% of HTTP traffic
- Primarily deployed on Linux for System z

Components of Connections	Intellectual Capital	Nov 2011 metrics
Communities	72,710 communities	200K Unique visitors (32% of users)
Wikis	52,291 wikis	236K Unique visitors (37% of users)
Blogs	21,312 blogs	62K Unique visitors (10% of users)
Activities	237,042 activities	63K Unique visitors (10% of users)
Files	509,720 Files	80K Unique visitors (13% of users)
profiles	634,451 Employee profiles	387K Unique visitors (61% of users)
Bookmarks	Over 1 million bookmarks Over 3 million tags	







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Connections + Result



ARE

### **IBM IT Transformation**



**Operating Cost: Distributed vs. Mainframe** Labor Connectivity Relative Cost Software HW Maintenance HW Acquisition Facilities **Distributed Cost** System z Linux Cost Potential Savings: Categories as a % of Gross Savings HW Maintenance HW Acquisition\* 11% 17% Facilities 6% Software Labor 45% Connectivity 19% 2%

\* HW Acquisition compares server/disk refresh of distributed environment to the cost of acquiring new mainframes/storage

Unit	Distributed	System z Linux	% Reduction		
Software Licenses	26,700	1,800	93%		
Ports	31,300	960	97%		
Cables	19,500	700	96%		
Physical Network Connections	15,700	7,000	55%		

**Dramatic Simplification** 

Results will vary based on several factors including # of servers and work load types





# IBM IT Transformation = Cost Savings



- Consolidated and virtualized over 3,900 server images onto 30 System z servers
- 80% less energy used
- 85% less floor space ... a 16,500 sq. ft. reduction
- Cumulative benefit yield of \$4.1B
   over the last 5 years



	1997	Today
Host Data Centers	155	7
Web Hosting Centers	80	5
Network	31	1
Applications	15,000	4,700





## **TCO Case Study**





An 88% Reduction in the number of Domino Images

An 94% Reduction in OS Images

Around a 98% reduction in physical boxes No new z footprint, just upgrades to existing z footprints No increase in the z staff to support new workload

Forklift Upgrades: Fast, Easy, Upwardly Compatible



Technology Refresh in about 2 hours

IBM System z10

IBM zEnterprise System

"One of the key advantages we see of running Linux on System z is as new generations of hardware technology are introduced, we're able to basically do a forklift upgrade – we don't have to re-certify applications as we have had to do on other platforms in the past." – IT Manager, Delivery Industry Company





- Domino is a OODBS product and Connections is a DB/2 & Portal product both with **very large** IO requirements.
  - > z is recognized as the platform with the best IO infrastructure
  - Domino has been running as a mixed workload on a single box since 1997
- Connections is a large DB/2 & Portal based application
- Ability to virtualize with the lowest overhead cost and greatest scalability
  - Hardware all the way through software virtualization integration
- Vertical scalability vs horizontal scalability
  - Lower cost to Customers the greater the vertical scalability
- zBX allows for integration of a mixed architecture solution in a multi-tenant shared environment

Lowest TCO

Admin, backup/restores, Capacity on Demand, growth without adding in support staff, vertical scalability, security, etc...











# Addressing your Pain Points

- Weekly Patch Upgrades
  - People intensive
  - Outages when applying updates/synchronization issues
- Network Growth/bottlenecks
- IO Growth/bottlenecks
- Rapid Growth of server farm
  - Data Center floor space, cost, cooling
  - 40% of the CIO are looking at data center expansion in the next two years
- Reduce infrastructure cost and allow more of the IT budget for new Business/Competitive value
  - Administration People
  - Distributed Licensing fees
    - 100's of Distributed licenses versus 10's
- Slow to respond to business needs















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#### Connect with me...

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Social Business on System z

IBM Sales and Distribution



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or still 'old-fashion email' mwojton@us.ibm.com

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