Making System z Sexy Again with Social and Collaboration Software

Tuesday, August 9, 2011: 4:30 PM-5:30 PM

Paul Houde
Client Technical Professional for Collaboration Solutions on System z
Agenda

- Importance of becoming a social business
- IBM gets social on System z with IBM Connections
- Getting started with implementing social software on System z
People transforming the **way they interact and the way they purchase**. This transformation presents new challenges

<table>
<thead>
<tr>
<th>Marketers: <strong>less control over their brands</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Product development: <strong>deliver new products and services quickly and at lower cost</strong></td>
</tr>
<tr>
<td>Human resources: <strong>difficulty increasing worker effectiveness</strong></td>
</tr>
<tr>
<td>Organizations: <strong>paralyzed by security and governance concerns</strong></td>
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</tbody>
</table>
Reinvent Relationships

Business to Customer  Peer to Peer  Government to Citizen  Business to Business  Business to Employee

Social Transformation

Exceptional Web and Work Experiences
What does a Social Business look like to different business leaders?

**A Social Business**

- Builds trusted relationships and increases sales through relevant messages across all channels
- Drives brand advocacy through communities and dialog
- Shares insights to generate breakthrough ideas and speeds time to market, gaining market insight and readiness
- Reaches out to professional networks to respond faster with business decisions to new opportunities, saving money

**Traditional Business**

- 'Push' marketing via traditional channels
- Control over brand image and brand communication
- Invest in R&D
- Generate new ideas internally
- Test ideas in market
- Email and phone based communication
- Knowledge kept in silos

**Entry Point**

- Deepen client relationships
- Drive operational effectiveness
- Workforce optimization

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**Marketing, Customer Service**

**Product & Service Development**

**Operations, Human Resources**
# Get Social With Your Employees

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doing more with fewer employees?</td>
<td>Create and share content with the confidence of an end-to-end content management. <strong>Reduce duplication!</strong></td>
</tr>
<tr>
<td>Remote workforce?</td>
<td><strong>Tap the expertise</strong> of your network and collaborate instantly from within existing applications</td>
</tr>
</tbody>
</table>
| Communication across organizations? | **Assemble special project teams** quickly from top talent from across the organization using profile tagging  
Keep track of what's happening with your tasks and projects with **activities and status updates** |
| Lower travel costs              | Effective communication = fewer meetings  
Integrate **Sametime web meetings**                                                                                      |
# Get Social With Your **Customers**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce marketing costs</td>
<td><strong>Create customer communities</strong> to allow customers to interact with your brand.</td>
</tr>
<tr>
<td></td>
<td>Encourage <strong>key spokespeople</strong> to blog</td>
</tr>
<tr>
<td>Resolve customer challenges faster</td>
<td><strong>Provide live chat</strong> on your website</td>
</tr>
<tr>
<td>Foster relationships with top customers</td>
<td><strong>Virtual customer councils</strong> with forums and e-meetings</td>
</tr>
<tr>
<td></td>
<td>Allow customer to <strong>tag and rate</strong> content to gather their feedback</td>
</tr>
<tr>
<td>Faster product development</td>
<td>Get customer’s the products they ask for by creating <strong>external communities</strong></td>
</tr>
</tbody>
</table>
Power of Social Networks and Web 2.0

Ready for the Enterprise

Corporate Social Network Platform

Team Share

Individual Share

Person

Profile

Files

Blog

Bookmarks

Micro-blogging

Communities

Activities

Analytics & Compliance & APIs

facebook
delicious
twitter
LinkedIn
Google labs
Blogger
Wikipedia
IBM gets social on System z with IBM Connections
IBM Connections

Profiles
Find the people you need

Communities
Work with people who share common roles and expertise

Files
Post, share, and discover documents, presentations, images, and more

Wikis
Create web content together

Activities
Organize your work and tap your professional network

Forums
Exchange ideas with, and benefit from the expertise of others

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
New in IBM Connections 3.0.1

Media Gallery
- Share pics and video online
- More compelling web experience

Ideation Blogs
- Gather **structured feedback** on ideas
- **Promote** best reviewed ideas
Leverage Knowledge...Not Just Documents

People focused navigation and interface
Encourage Adoption

• Stay in the tools you know!
• Embed expertise when and where you need it
• Take professional networks on the road – Out of the box mobile ready

• Enabling rich integration with IBM and vendor products and solutions
Demo of IBM Use of Social

All data can be served from System z
Connections and WebSphere Portal

• Portlets that integrate with **Activities, Blogs & Bookmarks, Profiles, Wikis and Tag Clouds**
• Provides **consolidated** list of content from each of the services
• **Compact size**, can be deployed as “home page” portlets
• **Easy navigation** to content details for further information and to take additional actions

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[Blogs Summary]

<table>
<thead>
<tr>
<th>Blogs Summary</th>
<th>Activities Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs</td>
<td>Activities</td>
</tr>
<tr>
<td>1 - 5 of 5</td>
<td>1 - 5 of 9</td>
</tr>
<tr>
<td>Show: 5</td>
<td>Sort By: Date</td>
</tr>
<tr>
<td>10</td>
<td>Title</td>
</tr>
<tr>
<td>15</td>
<td>Most Recommendations</td>
</tr>
<tr>
<td>20</td>
<td>Most Comments</td>
</tr>
<tr>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

- **Workong with a Smart Planet**
  - Created By: Frank Adams
  - Updated: Tuesday 5 56 Pi

- **Be Careful Florida!**
  - Created By: Frank Adams
  - Updated: Aug 5

- **Greener Cars**
  - Created By: Frank Adams
  - Updated: Aug 5

- **Think about that coffee cup**
  - Created By: Ted Amado
  - Updated: Aug 3

- **Warehousing TIP 1**
  - Created By: Ted Amado
  - Updated: Aug 3

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[Bookmarks Summary]

<table>
<thead>
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</tr>
</thead>
</table>

- **Federal Chief Financial Officers Council**
  - Created By: Ron Eberstine
  - Updated: Aug 3

- **CFO.com - News and Insight for Financial Executives**
  - Created By: Ron Eberstine
  - Updated: Aug 3

- **IBM social software for business - Lotus Connections**
  - Created By: Ron Eberstine
  - Updated: Aug 3

- **IBM social software for business - Lotus Connections**
  - Created By: Ron Eberstine
  - Updated: Aug 3

- **IBM social software for business - Lotus Connections**
  - Created By: Betty Zichmann
  - Updated: Jul 31

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[SHARE in Orlando 2011]
Plugins for Notes/Outlook and Sametime

- Notes plugins for social feeds, activities, files, bookmarks, microblogging
- Drag and drop from Notes/Outlook into Connections
- Many features available in Sametime chat window
Symphony/Office/Sharepoint/Explorer

- Add files to an activity via Windows Explorer
- Connections business cards, Profiles search in Sharepoint
- Publish Office docs to Blogs
- Office: Highlight name and get automatic Profiles lookup
- Office: One click publish to Activities
Lotus Greenhouse

- Find **additional plugins and widgets** on Lotus Greenhouse
- Access and **use** full suite of collaboration software (Portal, iNotes, Quickr, Sametime, Connections)
- **http://greenhouse.lotus.com**
Administration UI

- **Customize** Connections interface
- Add/remove content (widgets)
- **Manage content** in blogs, wikis, etc and flag content

- Control **access** of individual users
- **Limit file upload** / download limits
Integrated Solutions Console

- Restrict user access to particular feature through ISC
- Familiar functionality for WAS administrators
- Role based access can be given to everyone or particular LDAP groups or users
Built-in Usage Stats

- Track usage of all Connections features individually
- Numbers can be utilized to **increase product adoption** and plan for proper **system sizing**
- Use scripts to write usage output to files (keep a history)
  - Statistics in .CSV format for use in spreadsheets

<table>
<thead>
<tr>
<th>Profiles Metrics</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>As of: 6/15/11 2:55 PM</td>
<td></td>
</tr>
<tr>
<td>Total number of employees</td>
<td>22</td>
</tr>
<tr>
<td>Number of employees in the profiles database</td>
<td></td>
</tr>
<tr>
<td>Number of employees who have updated their background</td>
<td>3</td>
</tr>
<tr>
<td>Number of employees in the profiles database who have updated their background</td>
<td></td>
</tr>
<tr>
<td>Number of employees with a picture supplied</td>
<td>7</td>
</tr>
<tr>
<td>Number of employees in the profiles database who have supplied a picture</td>
<td></td>
</tr>
</tbody>
</table>
Compliance and Auditability

- Enable the capability to **track all data changes** in all Connections components
- Enable the ability to **track key words or phrases** even when content has been deleted or updated
- Fully **compliant with U.S. Federal government regulations** for accessibility

*Value = Boost productivity while meeting regulations*
Getting started with implementing social software on System z
Security of Increasingly Crucial Data

- Securing data
- Proximity to data
  - Never have to leave the hardware
  - Multi tier applications on same box
  - Web server > Portal > Data resources
  - Reduces intrusion points!
- Access to sensitive host applications
- All strengths of System z!!
Leverage Existing Skill Sets

**WebSphere** software
- All products run as WebSphere Application Server applications
- Does not require additional licensing for WAS

**IBM DB2**
- IBM Connections requires a database back end
- DB2, Oracle, SQL Server, Derby, etc

**Tivoli** software
- LDAP server required (Tivoli Directory Server, Active Directory, etc)
- IBM Connections utilizes Tivoli Directory Integrator for keeping LDAP and database in sync
High Level Connections Architecture

- TDI syncs Connections users from LDAP to DB2
- Connections app uses WAS security to authenticate users
- License for TDI and DB2 included with Connections
- Preferable to deploy TDI and DB2 on separate Linux image
Architecting for Volume and Availability

*Tier 1 Web Front Ends*

- IBM Connections is a typical 3 tiered web application
- **Tier 1** – Accessible to internet if external facing site
  - Load balancers / http servers
  - 70% of traffic is from feed readers that can be serviced by caching proxies
  - Reduce load on WAS tier 2

<table>
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<tbody>
<tr>
<td><strong>Tier 1</strong></td>
</tr>
<tr>
<td>HTTP Servers</td>
</tr>
<tr>
<td>Caching Proxies</td>
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<tr>
<td>Load Balancers</td>
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<table>
<thead>
<tr>
<th><strong>Tier 2</strong></th>
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<tbody>
<tr>
<td>WAS Clusters</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Tier 3</strong></th>
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<tbody>
<tr>
<td>LDAP, DBMS, TDI, File Storage</td>
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Tier 2 – WebSphere Application Server

- Connections applications run in WAS clusters
- **Small deployment** = All apps in 1 cluster
- **Medium deployment** = Apps grouped into clusters
- **Large deployment** = Each application its own cluster
- Heavily used components can be **scaled individually**
- Create more cluster members for highly used functions
  - Clusters have 1 member by default
- Number of Linux VMs based on type of deployment and desired number of nodes
Tier 3 – DBMS, LDAP, TDI, File Storage

- Backend data components
- Supports many LDAP server types
- Internal usage patterns in IBM indicate that the RDBMS is one of the most heavily utilized components of the architecture.
- Activities, Blogs, Files, Wikis use the file system
- Tivoli Directory Integrator is used to aggregate data into the PEOPLEDB (Profiles)
- LDAP/NFS may already exist in your infrastructure
Planning for Disk Space & Memory

- Heavily **dependent on the number of users** and what functions each user is taking advantage of
  - IBM will **size for CPU** but not memory and disk
  - Best to start with “**systems requirements**” doc and adjust as adoption of product increases (**scalability**)
- File system storage
  - Stores search index, UI components, and uploads
  - Limit upload **file size, retention period** to save disk
  - Can be done via Connections admin panels
- **Relational DB** used to store Connections-specific data
  - Bookmarks, tags, etc
  - Can be part of existing instance or have its own instance
More Planning Considerations

- How many user repositories do you have?
  - TDI can integrate **multiple directories** into one repository
  - Used for authentication and profile information
  - Profile database contains complete user community

- **Common file share** for Activities Blogs, Communities, Wikis and Files services
  - Can be done via NFS mount or linked VM directory
  - **Monitor** space usage
    - Disk can fill quickly when uploading files, creating blogs, etc
Steps for a small deployment

- Install Rational Installation Manager (used for many products)
  - Start with **1.4.2 of RIM** rather than Connections provided version (no 64-bit!)
- Install WAS + maintenance
- Install DB2 and create instance
- Install Tivoli Directory Integrator and apply FP 5
- Enable WAS security by adding **LDAP as a federated repository**
- Create a linux user ID to run the Connections process
- Create the databases using the **database wizard** (GUI or silent)
- Populate the database using the **population wizard** (GUI or silent)
- Install IBM Connections code

Install doc for small deployment
Once Connections Is Running

- Sync **LDAP changes with DB2** using TDI
  - Allows new people in LDAP to use Connections
  - Changes in job role, title, etc will get reflected in Connections
    - Can resync **entire LDAP** or do a **changes-only** sync
- Create backups of **all components**
  - DB2, WAS, File System
- Monitor disk space usage
  - **Can increase quickly** when uploading documents
References

• Download Connections 3.0.1
  • https://www-304.ibm.com/support/docview.wss?uid=swg24029337&wv=1

• System requirements
  • https://www-304.ibm.com/support/docview.wss?uid=swg27021342&wv=1#Linux_Operating_Systems

• Greenhouse or LotusLive to try Connections
  • http://greenhouse.lotus.com
  • www.lotuslive.com
Goals

1. Show that social is important form of communication

2. Prove that System z is an excellent platform for implementing your social strategy

To continue discussion, contact me during or after Share:
Paul Houde – phoude@us.ibm.com