

Tendances Logicielles L'architecture pour répondre aux besoins métier

Integrate Lotus Connections in your applications





Agenda

- Out-of-the-box capabilities
- Integration concepts
- Introduction to ATOM
- Business card integration
- Summary
- Q&A



Lotus Connections

Tendances Logicielles

L'architecture pour répondre aux besoin

Lotus Connections is **social software** for business that empowers you to be more **innovative** and helps you **execute more quickly** by using **dynamic networks** of coworkers, partners and customers.













Lotus Connections consists of 5 services ...



Profiles

Quickly find the people you need by searching across your organization using keywords that help identify expertise, current projects and responsibilities



Communities

Create, find and join communities of people who share a common interest, responsibility, or area of expertise



Blogs

Use a weblog to present your point of view and get feedback from others; read what others are saying



Dogear

Save, organize and share bookmarks to valued online resources, discover bookmarks that have been shared by others

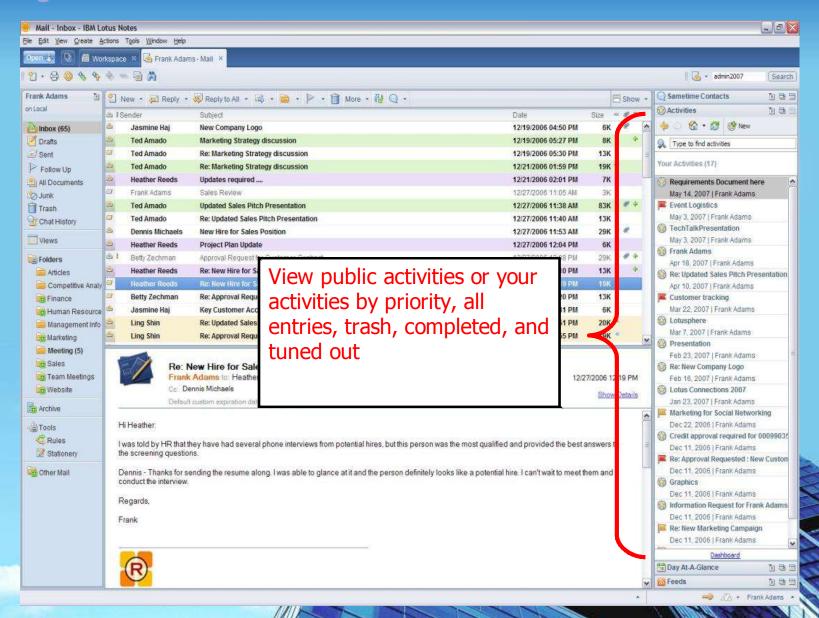


Activities

Organize your work, plan next steps, and collaborate easily with others to execute on your everyday deliverables



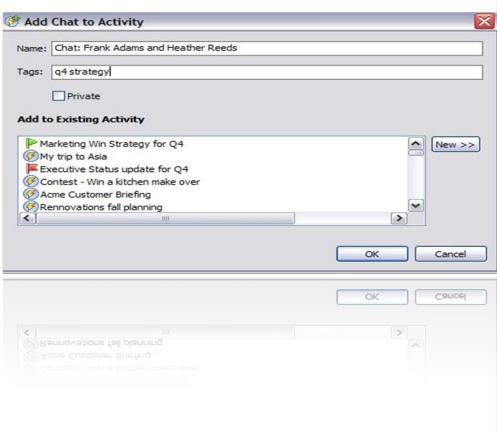
Integration with Notes 8





Integration with Sametime

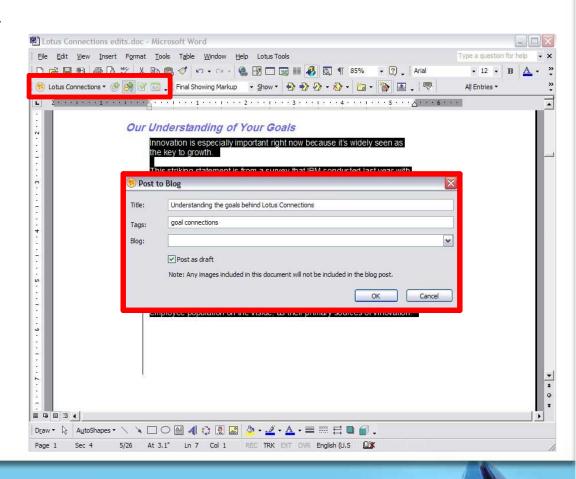






Integration with Microsoft Windows Explorer and Microsoft Office

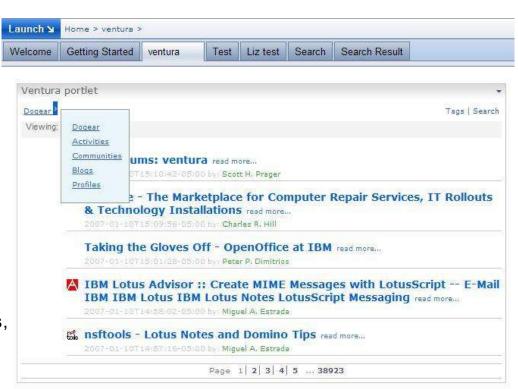
- Uses Atom/AtomPub API to publish documents to Activities and Blogs and to search Profiles
- Microsoft® Windows® Explorer
 - Post a document to Activities
- Word
- Publish a document to Activities
- Post content to a Blog
- Search Profiles
- Create a to-do list
- PowerPoint® and Excel
- Add to Activities
- Search Profiles





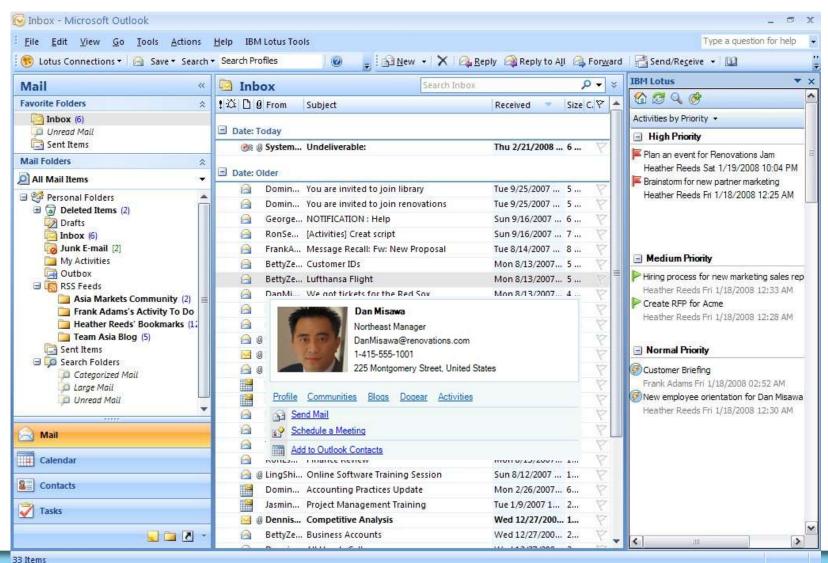
Lotus Connections and WebSphere Portal

- One portlet
- Can change to five different views
 - -Dogear
 - -Activities
 - -Communities
 - -Blogs
 - -Profiles
- Some views have additional configuration options
 - -E.g., Dogear view can be filtered to show your bookmarks, all bookmarks, popular bookmarks
- Other custom possibilities
 - Extensions to insert Dogear icon next to bookmarkable Web content
 - Insert Activities icon next to link to send to Activity





Microsoft Outlook





Integration with RIM BlackBerry

Profiles

Find the right people at the right time Build new relationships

Dogear

Leverage collective knowledge and research for true teaming Centralized bookmark storage Faster information location





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Integration patterns characteristics

Simple

- Easy to learn HTTP based API with XML, JavaScript™ and HTML formatted output
- Embraces "Amateur" as well as professional developers

Open

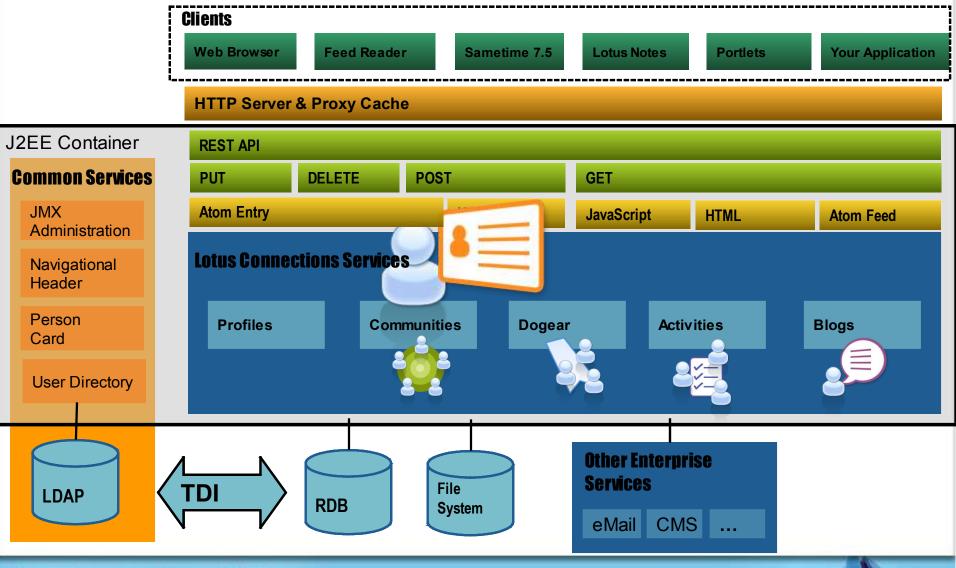
- Access for all users, regardless of client or platform
- Based on Open standards: XML, HTTP, JavaScript, Atom

Extensible

- Leverages open standards extensibility (XML, HTTP, Atom, etc...)
- Can be further extended by IBM, ISVs, etc...

IBM

Concepts: Architecture



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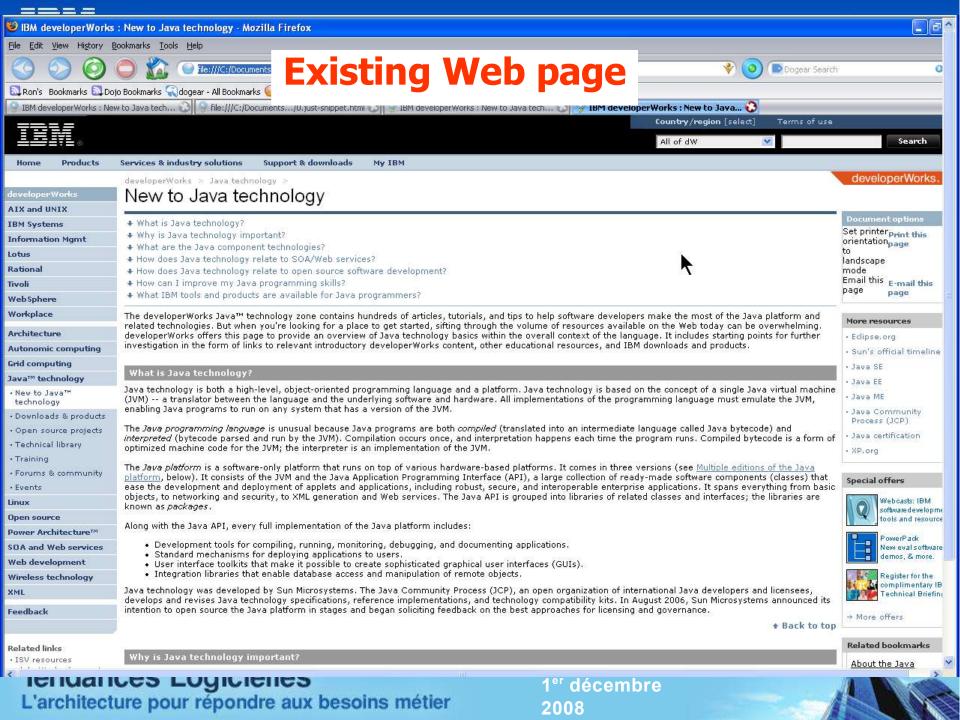
1^{er} décembre 2008

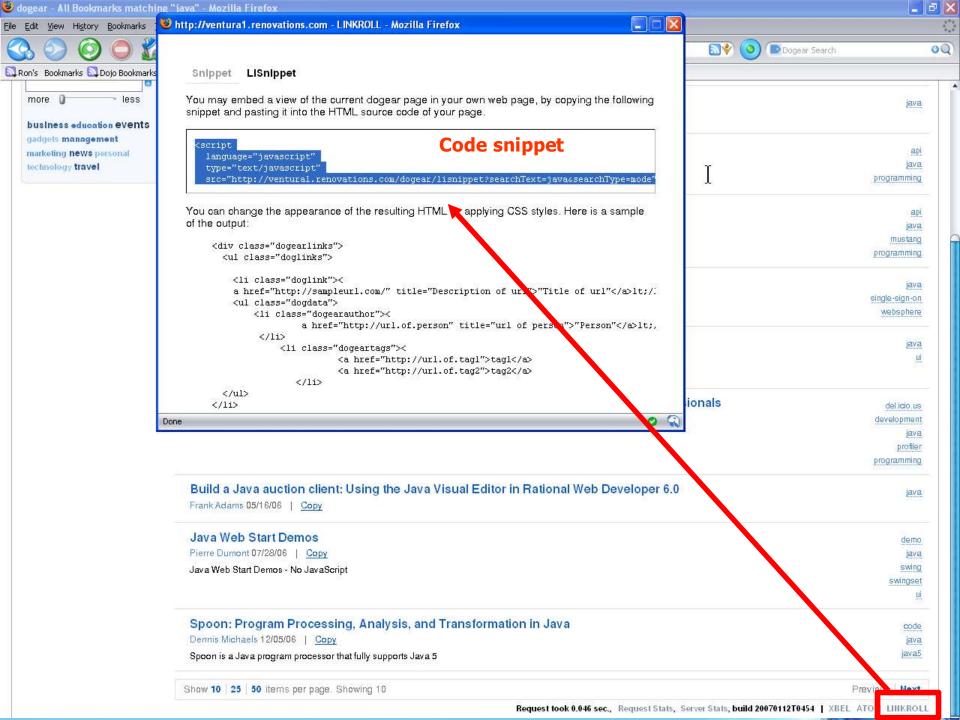


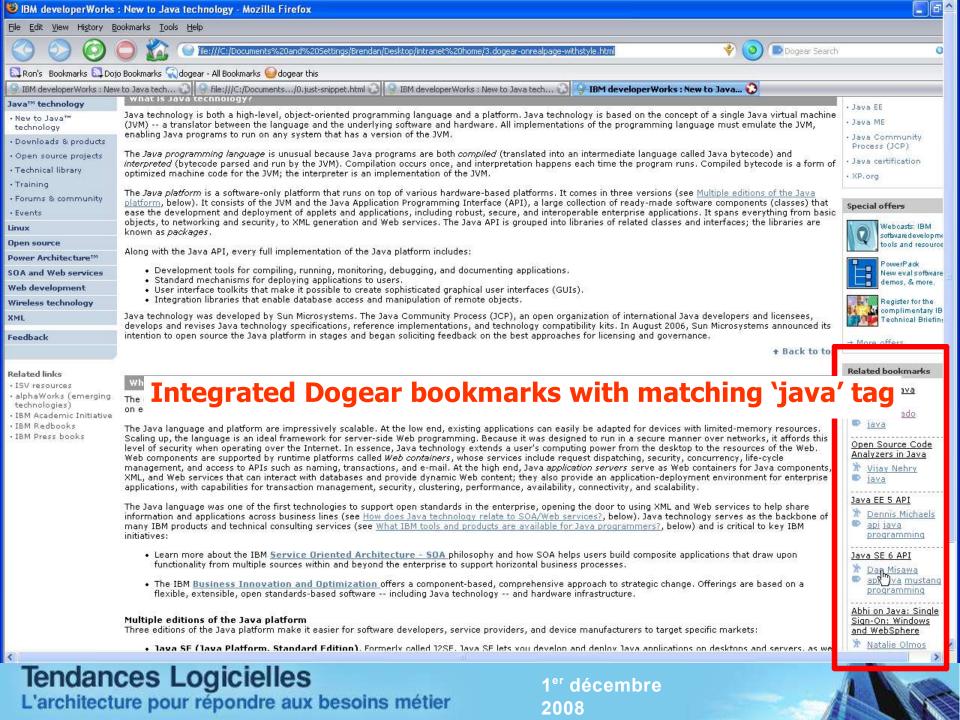
Concepts: "embedded" HTML basics

- "Linkrolls" pattern to display rolls of links in blogs
- Used to insert HTML formatted code from one website to another
- Lotus Connections Services deliver HTML formatted code based on URL request
- Used when embedding application needs layout provided by service and can just provide style
- Example: using existing embeddable business card with information from profiles

```
<script source="http://connections.demoibm.com/profiles/html/card">
document.write ("Name: Frank Olmos");
```







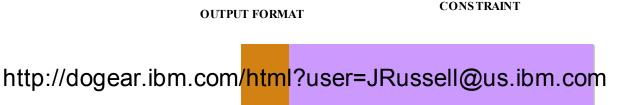


Concepts: REST architectural style

- Stateless service
 - Well suited for clusters, proxy caches, and remote client mashups.
- URI addressable resources
 - Nouns in address are clearly defined and easily manipulated by client applications.
- Standards driven interfaces
 - -ATOM, RSS, XBEL, JavaScript
- Layered
 - Leverage the scalability and security of existing proxy caches and firewalls.



REST architectural style, Dogear example



OUTPUT FORMAT

CONSTRAINT

CONSTRAINT

http://dogear.ibm.com<mark>/atom</mark>?tag=marketing&user=JRussell@us.ibm.com

OUTPUT FORMATS

/html
/rss
/atom
/js
/xbel

CONSTRAINTS

tag=
user=
searchText=
network=
access=



Concepts: JavaScript Object Notation (JSON) basics

- Used to retrieve content for usage in JavaScript applications from one website to another
- Lotus Connections Services deliver JavaScript formatted code based on URL request
- Used when embedding application needs maximum control of layout and style
- Example: creating a customized embeddable business card with information from profiles

```
<script source="http://connections.demoibm.com/profiles/json/card">
businessCard.nameProperty = "Frank Olmos";
```



Concepts: "Bookmarklets"

- Used to create information in other website from data in existing site
- Uses javascript: URL capability from browser
 - Javascript:alert ("hello world");
- Obtains information from existing application web page and encodes as URL arguments
- Manufactures URL for sending information onto separate website

```
https://server/service/function?arg=encodedArgs
```

Example



IBM

Lotus Connections services





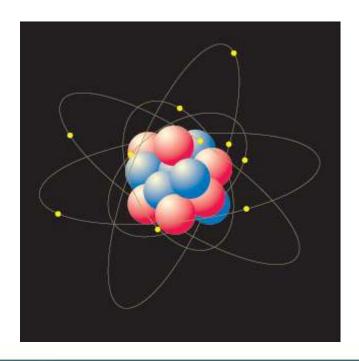
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Lotus Connections APIs

- Lotus Connections APIs are based on Atom standard
- No!
 - You don't need to use your college Physics textbook





Introduction to Atom

- What is Atom?
 - Similar to RSS places content into machine parseable file
 - RSS 1.0 --> Too complicated
 - RSS 2.0 --> Too loosely defined
- Atom spec developed by volunteers using a Wiki
- It's really a pair of standards



Introduction to Atom (cont'd)

- More specifically, it uses Atom Publishing Protocol (APP)
 - HTTP-based application-level protocol for publishing using Atom Syndication Format (ASF)
 - Requires two documents: Service and Category
 - · Service allows feed discovery
 - Category lists categories for collections / web content
 - ASF is a well-formed XML
 - Commonly used for blog feeds (similar to RSS)



Atom vs Web Services

- How does Atom compare to SOAP / Web Services ?
- SOAP is open-ended service defines the XML
- Atom already has constructs defined
 - Person
 - Entry
 - Feed, etc
- You can have your own elements by extending XML
- Atom leverages existing HTTP actions: GET, POST, PUT, DELETE
 - No longer need to write your own web service (getPost(), createPost(), etc...



The nitty-gritty

- Atom has two types of documents:
 - Feed
 - Entry
- A feed document contains metadata about itself and 1 or more entries
- An entry contains elements such as 'id', 'title', and 'content'



Developing Atom apps

- Apache has open-source project called Abdera
- Provides a development toolkit
- Can be used to develop Atom clients



Getting someone's bookmarks

```
public static void main(String[] args) {
    // Initialize the Atom call
    AtomService as = new AtomService("http", "dogear.tap.ibm.com", "luis_ben
    // get a user's bookmarks
    HashMap bookmarks = as.getUserBookmarks("laurisa@us.ibm.com");
    Set keys = bookmarks.keySet();
    Iterator it = keys.iterator();
    while (it.hasNext())
        Object key = it.next();
        Object keyValue = bookmarks.get(key);
        System.out.println("Key: " + key + " and value:" + keyValue);
* @param emailAddress
* @return
public HashMap getUserBookmarks(String emailAddress)
    // Call the Atom API and parse the resulting feed into a HashMap
    return parseBookmarksFeed("/atom?ps=50&email=" + emailAddress);
```

```
public HashMap parseBookmarksFeed(String atomPath)
    response = client.get(start + atomPath);
    HashMap hashMap = null;
    try
        if (response != null && response.getStatus() == 200)
            hashMap = new HashMap();
            InputStream in = response.getInputStream();
            if(in != null)
                Parser parser = abdera.getParser();
                Document doc = (Document)parser.parse(in);
                Feed feed = (Feed)doc.getRoot();
                if (feed != null)
                    List links = feed.getEntries();
                    if ( links != null)
                        Iterator iterator = links.iterator();
                        while ( iterator.hasNext())
                            Entry entry = (Entry)iterator.next();
                            if ( entry != null)
                                List entryLinks = entry.getLinks();
                                Link link = (Link) entryLinks.get(0);
                                if(link != null)
                                     hashMap.put(link.getHref(), entry);
                            }// end of if entry != null
                        } // end of while loop
                    }//end of links ! = null
                }//end of if( feed != null )
```

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Business card integration

- Lotus Connections Profiles provides a 'business card' service
- You can work with business cards in Profiles in the following ways:
 - Add them to a Web page.
 - Customize them by adding extra fields.
- Allows developers to expose Profile information on their apps
 - Rich client
 - Web
 - Etc







Business card integration

- Customizable via XML definition LotusConnections-config.xml
- Surfaced in web applications via javascript / JSON injection
- Sametime awareness capable

First step: include the semantic tag JavaScript on your HTML's HEAD element

```
<script type="text/javascript" src="http://profiles.demoibm.com/profiles/
  ibm_semanticTagServlet/javascript/semanticTagService.js" >
</script>
```



Business card integration

• For inline:



vincent perrin@fr.ibm.com Profile Communities Blogs Dogear Activities Files More Actions •

Pop-up card:





1er décembre

2008



Business Card XML Extensions

 Via Lotus Connections-config.xml file, you can add third-party links to the Profiles business card.

Attribute	Description
person_card_service_url_pattern	Represents the URL pattern that is used when a user clicks on the service link. "&" must be expressed as "&" in the pattern. This attribute takes a string value.
person_card_service_name_js_eval	Represents a JavaScript™ statement that is used by the framework to generate the text displayed in the business card for the given service. This attribute takes a string value.

```
<sloc:serviceReference serviceName="googleService"
href="http://www.google.com" enabled="true"
ssl_href="http://www.google.com" ssl_enabled="false"
person_card_service_url_pattern="/search?hl=en&amp;q={email}&amp;btnG=Google
+Search"
person_card_service_name_js_eval="'Google Me"'/>

<sloc:serviceReference serviceName="quickr"
href="http://quickrdomino.tap.ibm.com/servlet" enabled="true"
ssl_href="https://quickrdomino.tap.ibm.com/servlet" ssl_enabled="true"
person_card_service_url_pattern="/QuickrEntry?email={email}"
person_card_service_name_js_eval="generalrs.label_personcard_quickrlink"/>
```

Edit the service-location.xsd file to define the service names used.

```
<xsd:simpleType name="serviceNames">
    <xsd:restriction base="xsd:string">
    ...
    <xsd:enumeration value="personTag" />
        <xsd:enumeration value="homepage" />
        <xsd:enumeration value="googleService" />
        <xsd:enumeration value="quickr" />
        </xsd:..>
</xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:..></xsd:...></xsd:...></xsd:...></xsd:...></xsd:...></xsd:...></xsd:...></xsd:...></xsd:...></xsd:...</xsd:...></xsd:...></xsd:...></xsd:...></xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:...</xsd:..
```



Business Card XML Extensions



```
<sloc:serviceReference serviceName="quickr"
href="http://www.myquickrserver.mycompany.com/servlet"
enabled="true"
ssl_href="https://<www.myquickrserver.mycompany.com>/servlet"
ssl_enabled="true"
person_card_service_url_pattern="/QuickrEntry?email={email}"
person_card_service_name_js_eval="generalrs.label_personcard_quickrlink"/>
```



Business Card: Javascript Extensions

- You can add third-party links to the Profiles business card using JavaScript™.
- Invoke SemTagPerson.services.push from your JavaScript code to add an additional service, and define the following parameters:

Parameter	Description
name	Used internally by the framework to identify the service. This value must be unique. This parameter takes a string value.
url_pattern	Equivalent to the person_card_service_url_pattern attribute in the XML configuration document. This parameter takes a string value.
js_eval	Equivalent to the person_card_service_name_js_eval attribute in the XML configuration document. This parameter takes a string value.
location	The location and url_pattern are combined into one URL before the link is displayed.



Business Card: Javascript Extensions

```
<script>
function addServiceLinks()
{
  var callback = function()
  {
    SemTagPerson.services.push({name: 'googleService',
    url_pattern: '/search?hl=en&q={displayName}&btnG=Google
+Search',
    js_eval: "'Google Me"',
    location: 'http://www.google.com'});
  }
  setTimeout(callback, 1000); //allow time for js code to be
  downloaded
}
</script>
<body onload="addServiceLinks()">
```





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Open

- Access for all users, regardless of client or platform
- Based on Open standards: XML, HTTP, JavaScript, Atom.

Extensible

- Leverages open standards extensibility (XML, HTTP, ATOM, etc...)
- Can be further extended by IBM, ISVs, etc...



References

- ATOM:
 - General information on Atom Syndication Format:

 http://www.atomenabled.org/developers/syndication/atom-format-spec.php
 - For more information on Atom Publishing Protocol: http://www.ietf.org/html.charters/atompub-charter.html
- Lotus Connections on YouTube:

http://www.youtube.com/watch?v=LBvIeFbta9I

The Web Site:

http://www-306.ibm.com/software/lotus/products/connections/

- Lotus Connections API Guide
 - http://publib.boulder.ibm.com/infocenter/ltscnnct/v1r0/index.jsp?topic=/com.ibm.help.lotus.connections.api.doc/html/lcapi_welcome.html
- IBM developerWorks®

http://www.ibm.com/developerworks/lotus/library/connections-deploy-pt1/

http://www.ibm.com/developerworks/lotus/library/connections-deploy-pt7







Спасибо

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Grazie



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ありがとうございました

감사합니다