

IMS and IBM Mashup Center – Getting more from your data

IMS Web 2.0 Solution for IBM Mashup Center V2

Agenda

- Overview and Offer
- Background and Terminology
- IMS & Mashup Center Solution Overview
- Examples of Mashups with IMS

Mashup Center Free to IMS customers

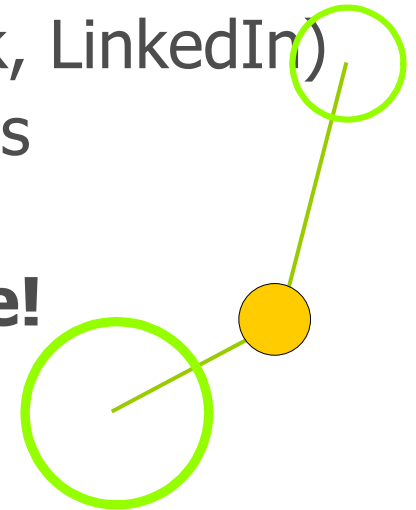
- Offer for IMS Customers
 - Mashup Center V2 to IMS 10 & IMS 11 customers for free
 - Use limited to IMS and two SQL data servers in support of IMS solution
- Enable new/expanded use of IMS TM and DB assets to new sets of users
- Distribution
 - Simple download of Mashup Center from www.ibm.com/IMS
- Expands on the IMS Web 2.0 Solutions

What is Web 2.0?

Achieve Growth, Efficiency, and Collaboration with Web 2.0

- Enabling employees to be **more productive, more knowledgeable, faster**
- From a technology perspective, Web 2.0 uses AJAX, mashups, and feeds predominantly
- Collaboration: Social networking (Facebook, LinkedIn)
- Simplification: Mashups, RIAs, Web services

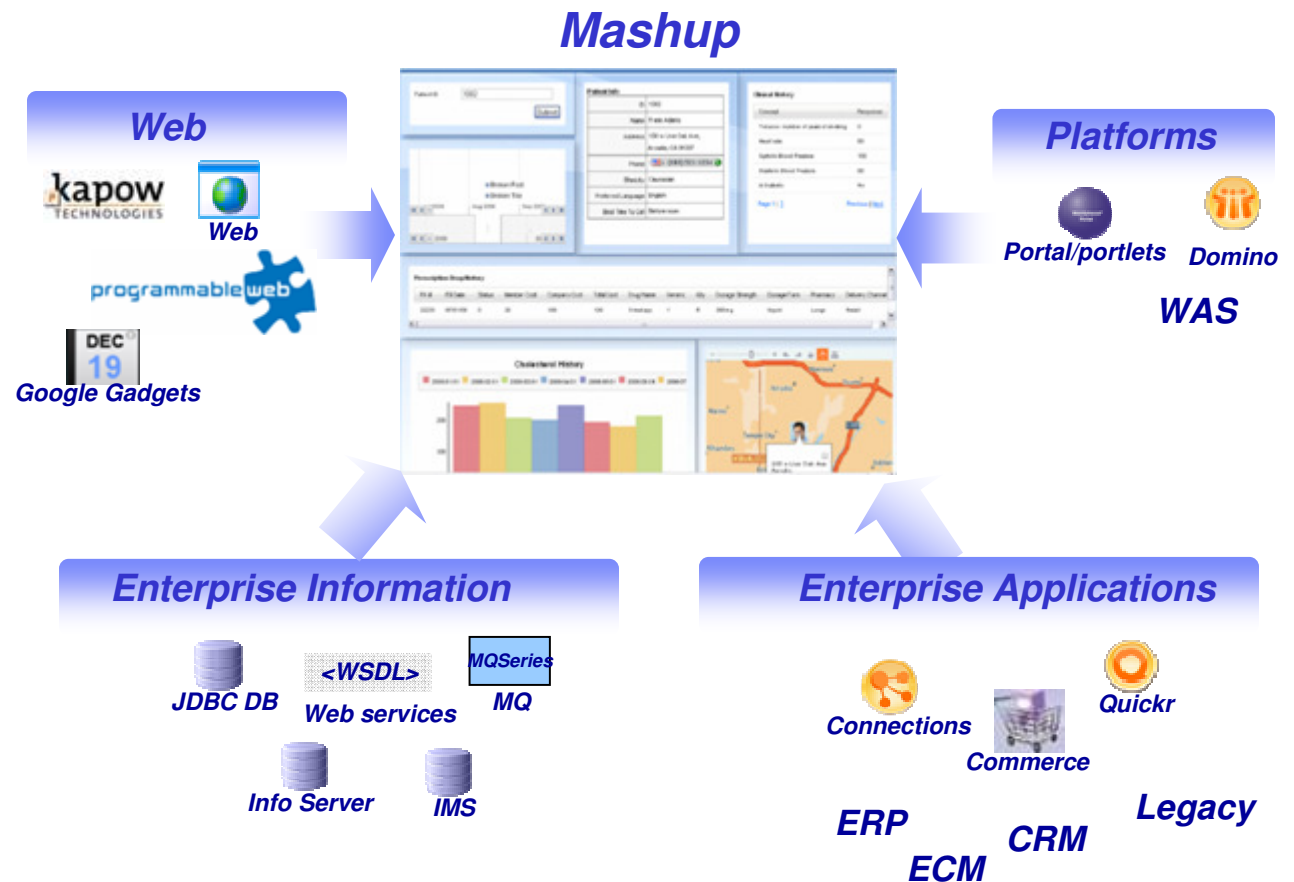
Personalization becomes collaborative!



What is a Mashup?

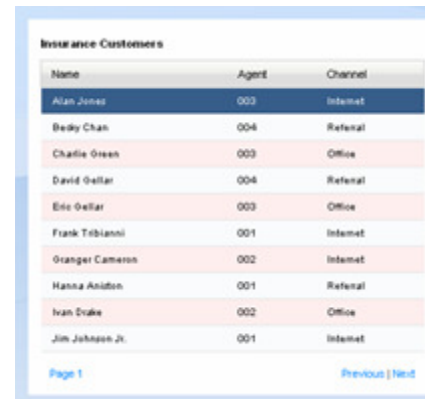
A “*mashup*” is a lightweight web application created by combining information or capabilities from more than one existing source to deliver new functions & insights.

- Rapid creation (days not months)
- Reuses existing capabilities, but delivers new functions + insights
- Requires less technical skills
- Often mixes internal and external sources



What is a Widget

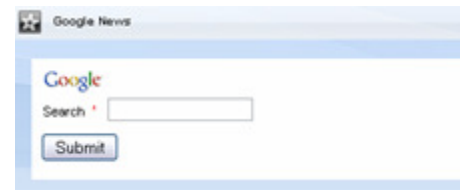
- A **widget** is a small application or piece of dynamic content that can be easily placed into a web page
- Widgets are called different names by different vendors: gadgets, blocks, flakes
- Widgets can be written in any language or and can be simply HTML
- “Mashable” widgets pass events, so that they can be wired together to create something new



Insurance Customers

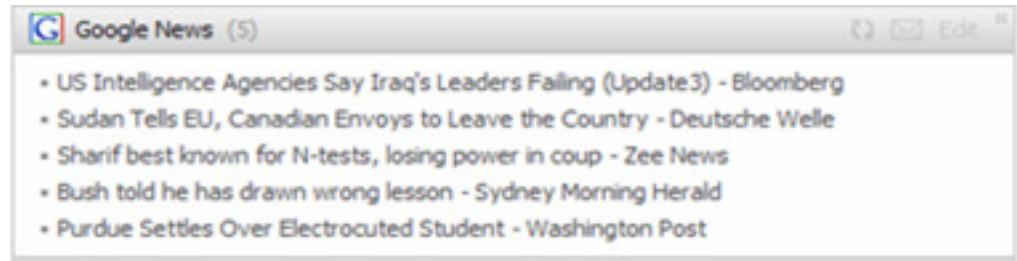
Name	Agent	Channel
Alan Jones	003	Internet
Betsy Chan	004	Referral
Charlie Green	003	Office
David Gellar	004	Referral
Eric Gellar	003	Office
Frank Tebbiani	001	Internet
Granger Cameron	002	Internet
Hanna Ashton	001	Referral
Ivan Drake	002	Office
Jim Johnson Jr.	001	Internet

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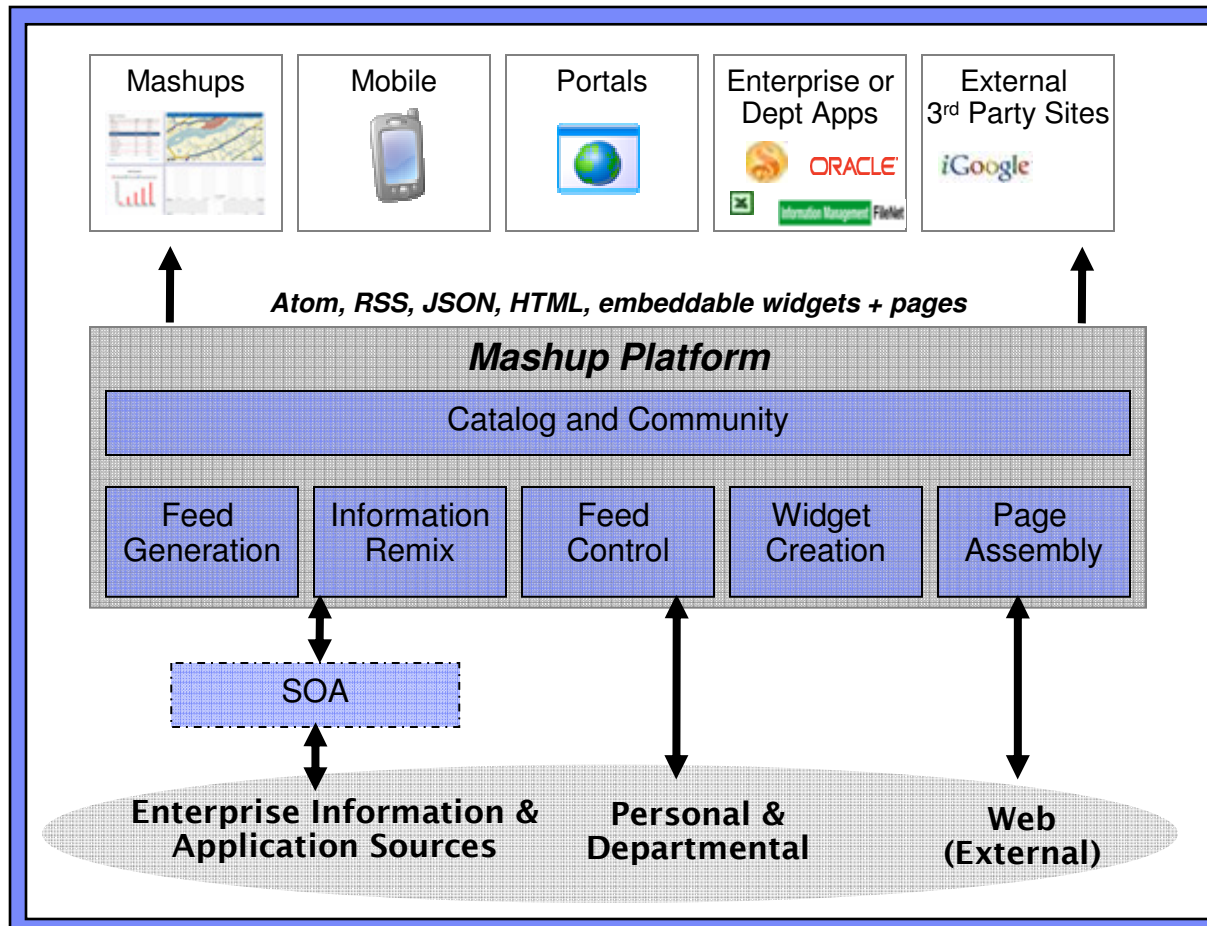
What is a Feed?

- A **web feed** is a data format used for providing users with frequently updated content
- Users can subscribe to RSS or ATOM to read or subscribe to via the feed readers in browsers
- Feeds emerging as a common way for organizations to expose existing enterprise data to be consumable
- Feeds can be created from Enterprise, Departmental, personal sources like Excel, or the Web



What is a Mashup Platform

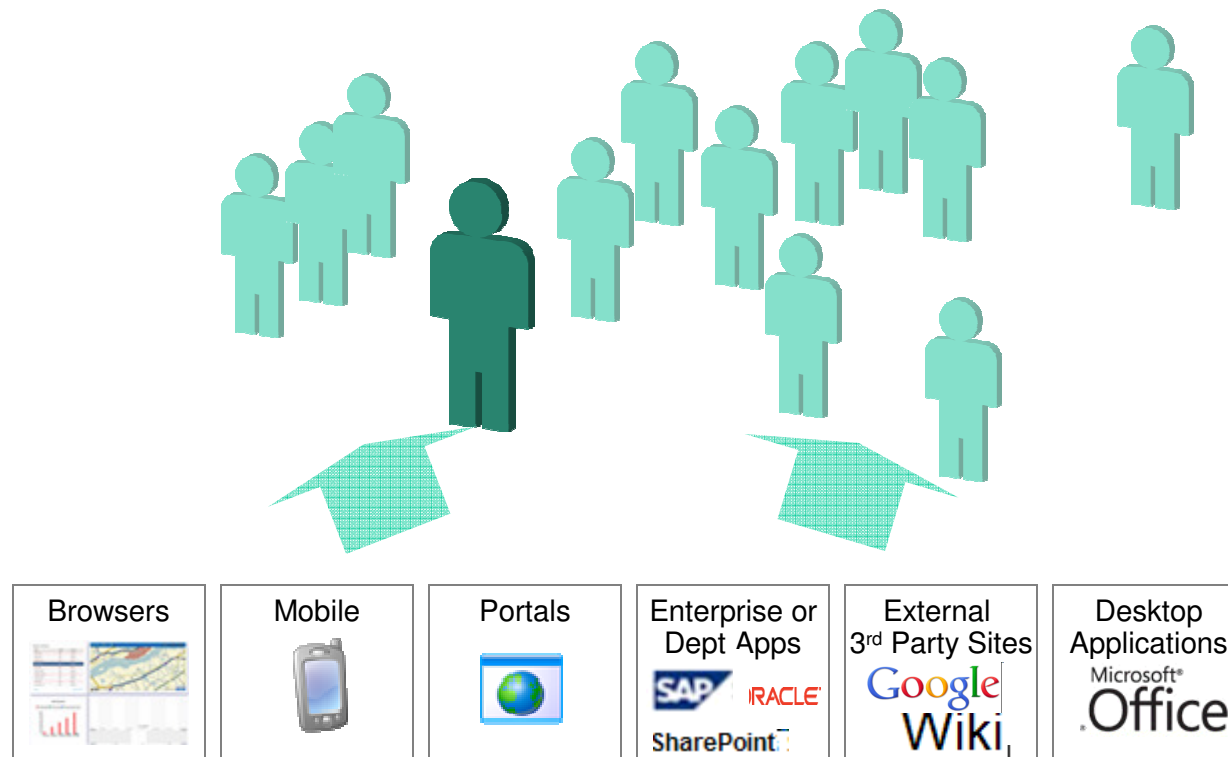
A mashup platform enables the rapid creation, sharing, and discovery of reusable application building blocks (widgets, feeds, mashups) that can be easily assembled into new applications or leveraged within existing applications, like Websphere Portal.



Mashup Platforms Enable:

- **Rapid application delivery** thru a virtuous cycle of reuse
- **Design and Delivery** paradigm, helping to better align solutions to business needs
- **Agility and flexibility** to quickly assembly new apps to meet new requirements or situations
- **Self-service app development**, helping to lower IT backlog
- **Innovation** through community contribution
- **Improved insights** from assembling disparate information into one view

"They would need to consume the information "in context" – within the tools and workflows that currently support their work



Extending SOA with Web 2.0

Personalizing SOA for efficiency and innovation

Simple to use and quick to develop and deploy

- Rapidly assemble mashups
- Simply create widgets, feeds
- Reuse information and services
- Unlock enterprise and web contents
- Increase effectiveness with rich interface

Simple to access

- Access resources with simple RESTful interface
- Reduce development time and skills needed
- Quickly transform and mix information
- Wider access from a variety of consumers (web apps, outside partners, etc.)



How do Mashups lower the cost curve?

Design and Delivery

Build the prototype and deliver it instantly

Access in Place

Use data where it is, as it is without making changes

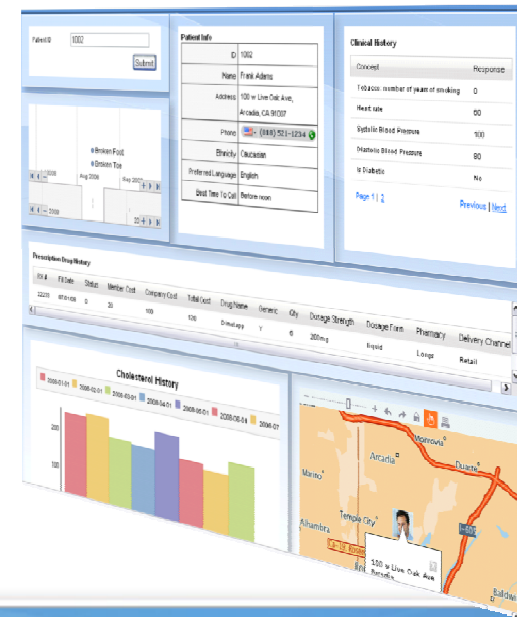
Reduce Project Uncertainty

Business knows they're getting what they need –instant feedback as its built

Virtuous Cycle

Developing a set of reusable building blocks let you build mashups faster than first one

Now combined in Mashups



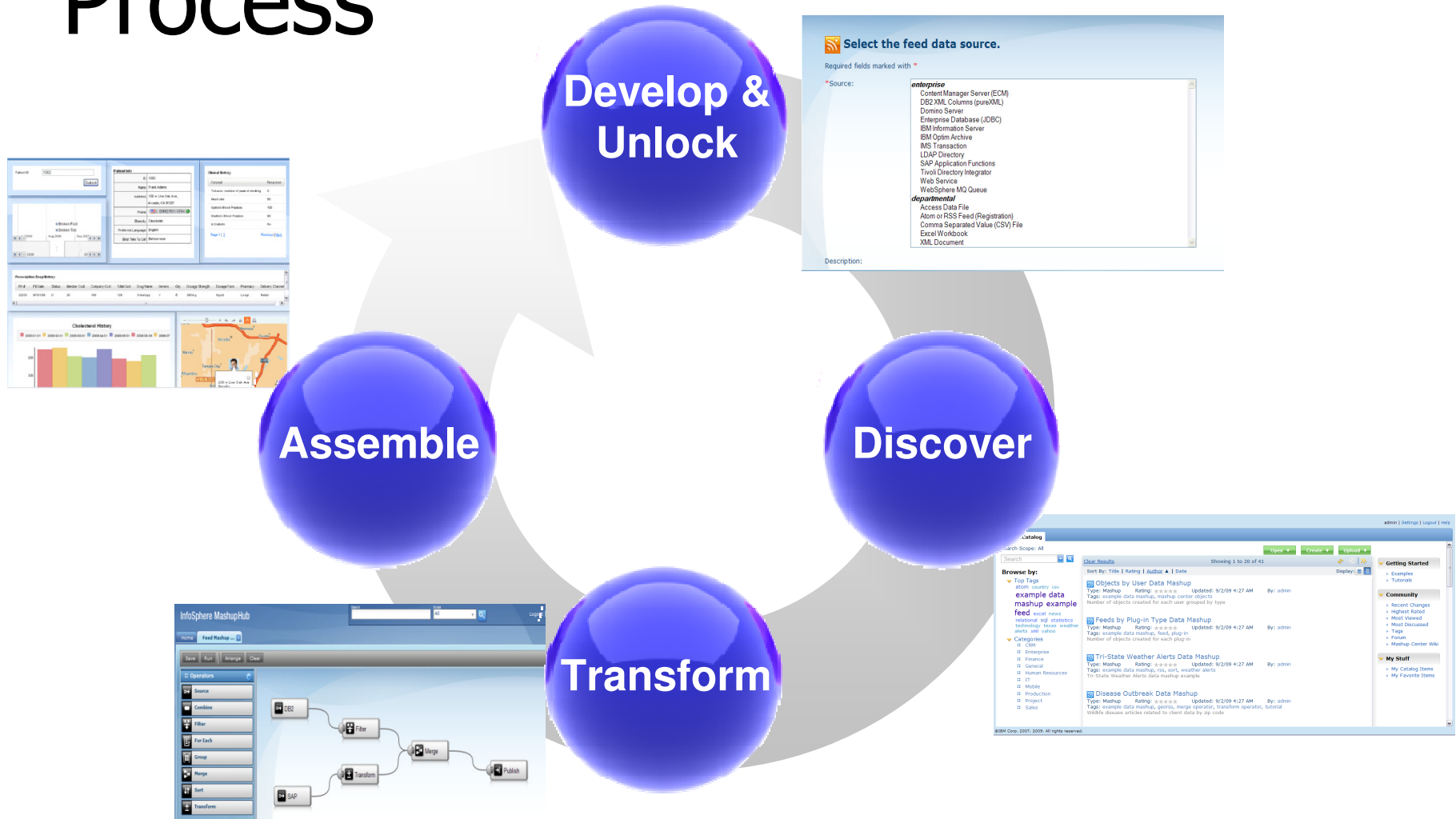
IBM Mashup Center

A end to end enterprise mashup platform, supporting rapid assembly of dynamic applications - with the security, governance and ROI that IT requires.

- **Create** new applications by reusing existing data and services
- **Unlock** Enterprise, Web, Personal and Departmental Information
- **Develop** widgets from enterprise systems
- **Discover** and share mashups, widgets, feeds, and services
- **Transform** information into new feeds



Speeding the Development Process



Reuse existing assets in new combinations

Customer Patterns

Quick Applications

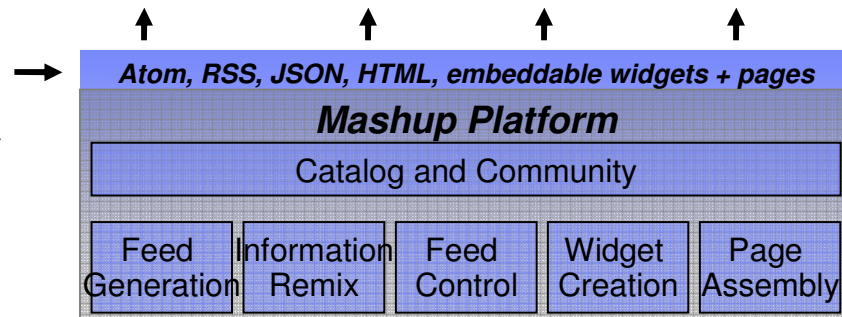
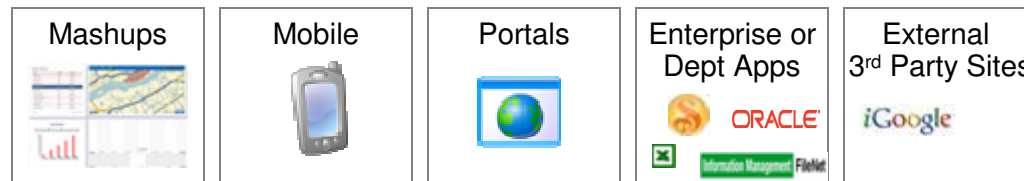


- Rapid creation of tactical or opportunistic applications
- Quick iterations for application agility
- Data Aggregation “on the fly”
- Quick solutions to automate repeatable tasks



Enterprise “Mashability”

Many sources of enterprise information, applications, and SOA being generated/transformed into feeds and widgets



Being consumed in many places

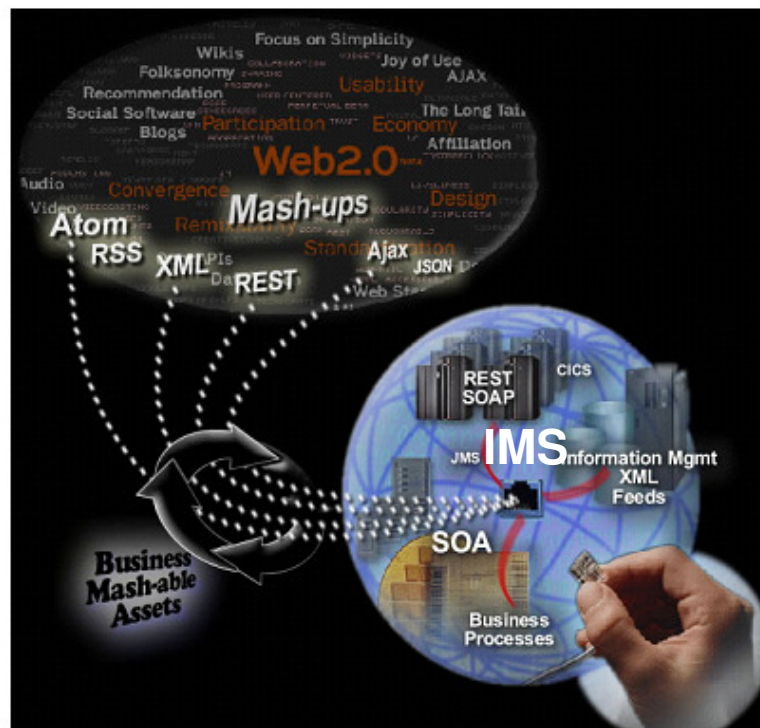
IMS and Web 2.0: Unleash and Reshape IMS

“ I want my IMS Assets to be mashable...

Enterprises will be **exposing** more services to the web, transforming the web into a platform...

...and **consuming** more services and feeds from the web

...what should I keep in mind? ”



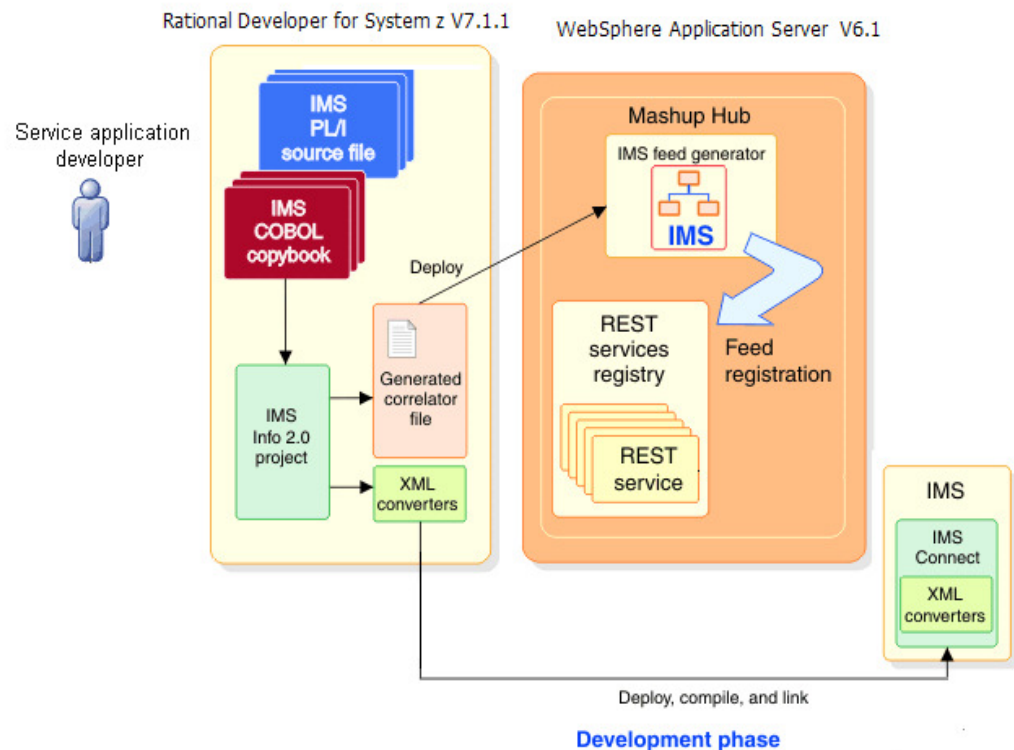
Mashup Scenarios:

- * Compose services (data or function) into a composite service
- * Compose widgets / HTML segments into a composite UI or an application template
- * Binding service (data or function) to the composite UI

Web 2.0 Support for IMS Transactions

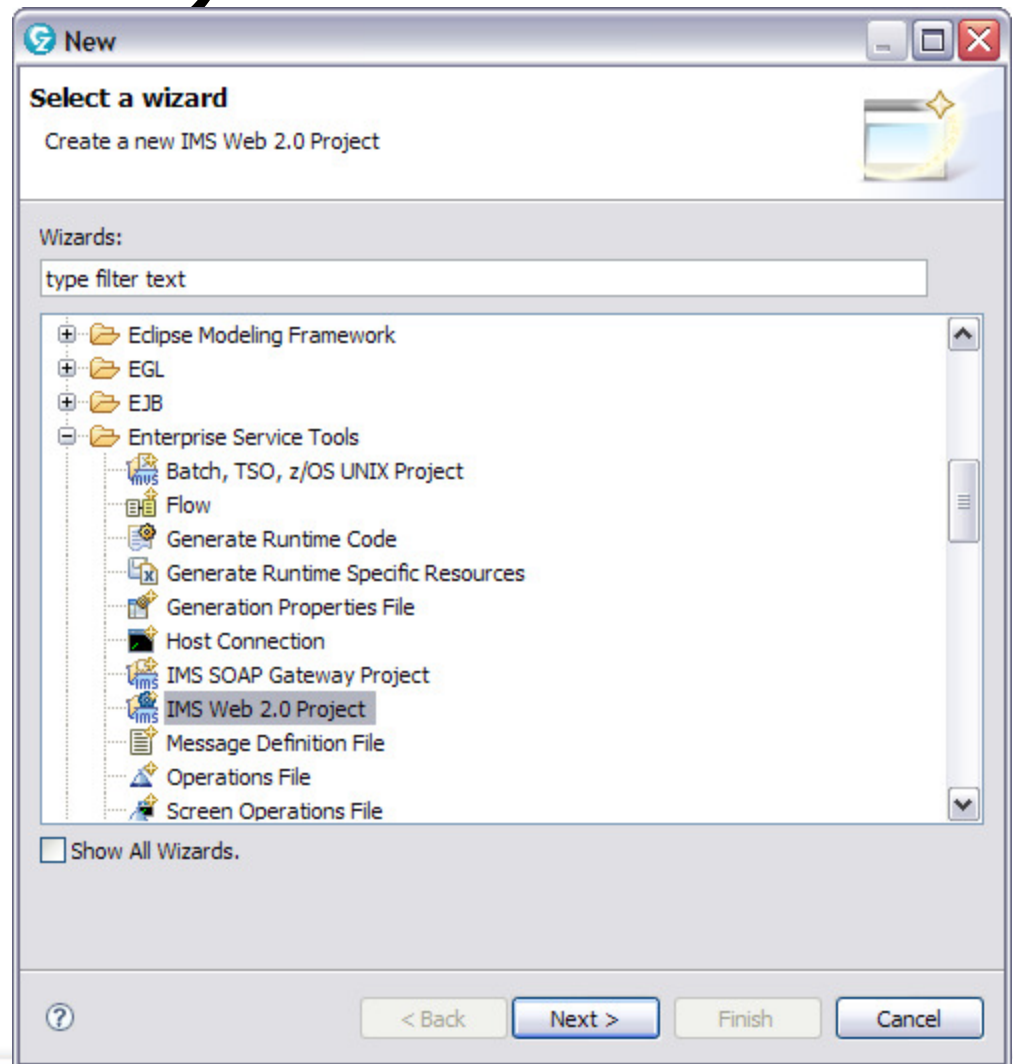
Developing a RESTful service / feed for IMS Transactions

- Generate correlator file and XML converters in Rational Developer for System z
- Create IMS Transaction feed in IBM Mashup Center



Web 2.0 support for IMS Transactions (RDz)

- Rational Developer for System z
 - Includes a new launch point for IMS Web 2.0 project as of V7.5
 - Creates IMS Web 2.0 metafiles



Web 2.0 support for IMS Transactions (IBM Mashup Center)

- IMS Transaction Editor
 - 1. Specify Connection Properties
 - Optional Security Settings
 - 2. Specify Transaction Parameter Properties
 - Default Values

InfoSphere Mashup Hub

Home Untitled 69

Creating an IMS Feed

Fields with an asterisk (*) are required.

Host Information:

- * Host Name or IP Address:
- * Port:
- * Data Store Name:

Generated Correlator File:

- * File Path:

Security Credentials:

- RACF
- SSL

Key S
Trust S
En

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Done

InfoSphere Mashup Hub

Home Untitled 69

Creating an IMS Feed

Select the parameters to hide:

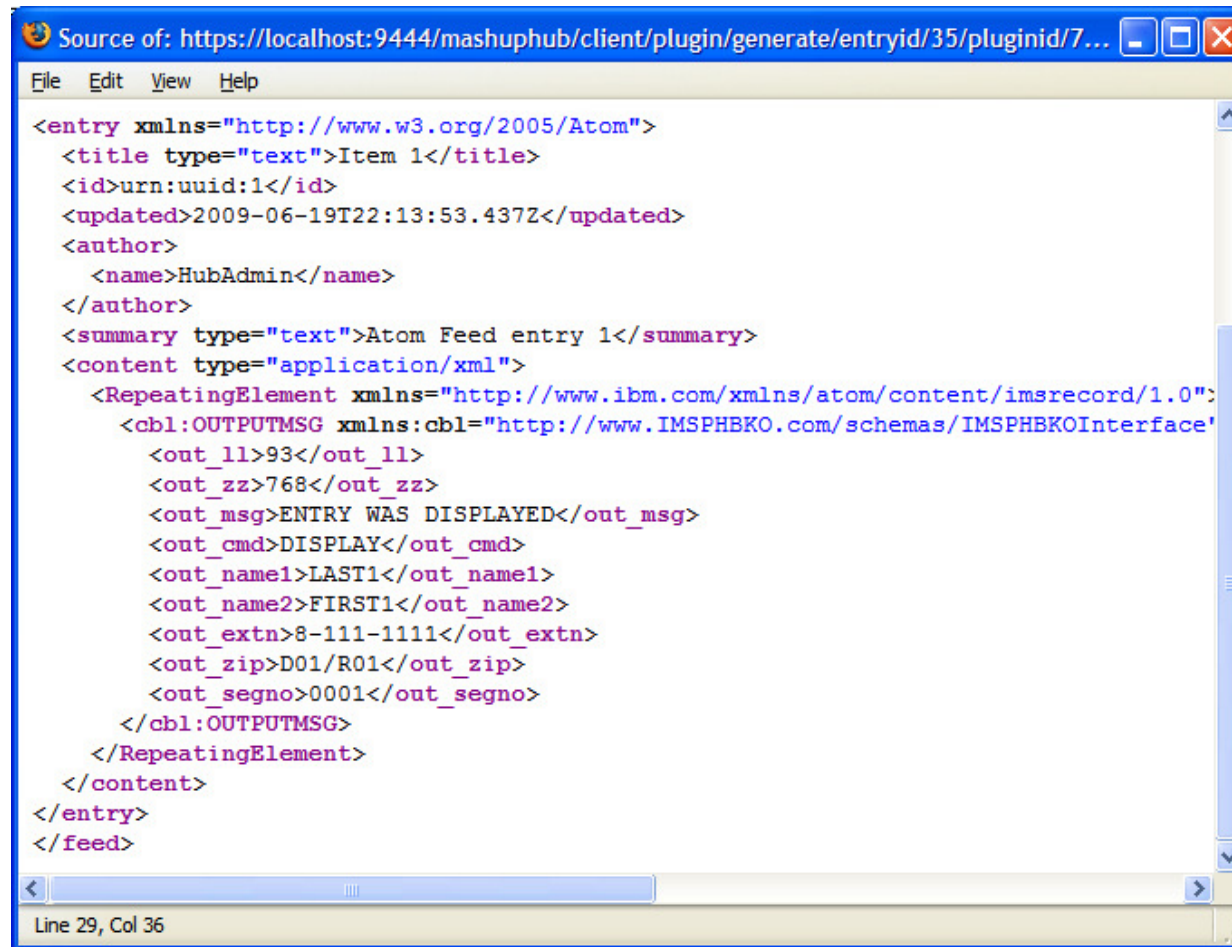
Parameter Name	Hide	Default Value
in_ll	<input checked="" type="checkbox"/>	<input type="text"/>
in_zz	<input checked="" type="checkbox"/>	<input type="text"/>
in_trcd	<input checked="" type="checkbox"/>	<input type="text" value="VTNO"/>
in_cmd	<input type="checkbox"/>	<input type="text" value="display"/>
in_name1	<input type="checkbox"/>	<input type="text" value="last1"/>
in_name2	<input type="checkbox"/>	<input type="text"/>
in_extn	<input type="checkbox"/>	<input type="text"/>
in_zip	<input type="checkbox"/>	<input type="text"/>

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Done localhos

Web 2.0 Support for IMS Transaction – ATOM Output

IMS Web 2.0 service adapter for Phonebook application on Firefox Web browser



The screenshot shows a Firefox browser window with the address bar displaying the URL: `https://localhost:9444/mashuphub/client/plugin/generate/entryid/35/pluginid/7...`. The browser's content area displays the following XML output:

```
<entry xmlns="http://www.w3.org/2005/Atom">
  <title type="text">Item 1</title>
  <id>urn:uuid:1</id>
  <updated>2009-06-19T22:13:53.437Z</updated>
  <author>
    <name>HubAdmin</name>
  </author>
  <summary type="text">Atom Feed entry 1</summary>
  <content type="application/xml">
    <RepeatingElement xmlns="http://www.ibm.com/xmlns/atom/content/imsrecord/1.0">
      <cb1:OUTPUTMSG xmlns:cb1="http://www.IMSPHBKO.com/schemas/IMSPHBKOInterface"
        <out_ll>93</out_ll>
        <out_zz>768</out_zz>
        <out_msg>ENTRY WAS DISPLAYED</out_msg>
        <out_cmd>DISPLAY</out_cmd>
        <out_name1>LAST1</out_name1>
        <out_name2>FIRST1</out_name2>
        <out_extn>8-111-1111</out_extn>
        <out_zip>D01/R01</out_zip>
        <out_segno>0001</out_segno>
      </cb1:OUTPUTMSG>
    </RepeatingElement>
  </content>
</entry>
</feed>
```

The status bar at the bottom of the browser window indicates the cursor is at Line 29, Col 36.

Example - Web Mashup leveraging IMS Assets

NT_RC National Tractor Company 2.0

LS450 Lawn Tractor
\$1849.00

A 21-hp National Tractor Co. twin engine has plenty of power and torque to handle tough mulching, mowing, and bagging conditions.

One-piece frame is constructed of 10-gauge steel.

Automatic transmission control for easy speed and direction changes on all surfaces.

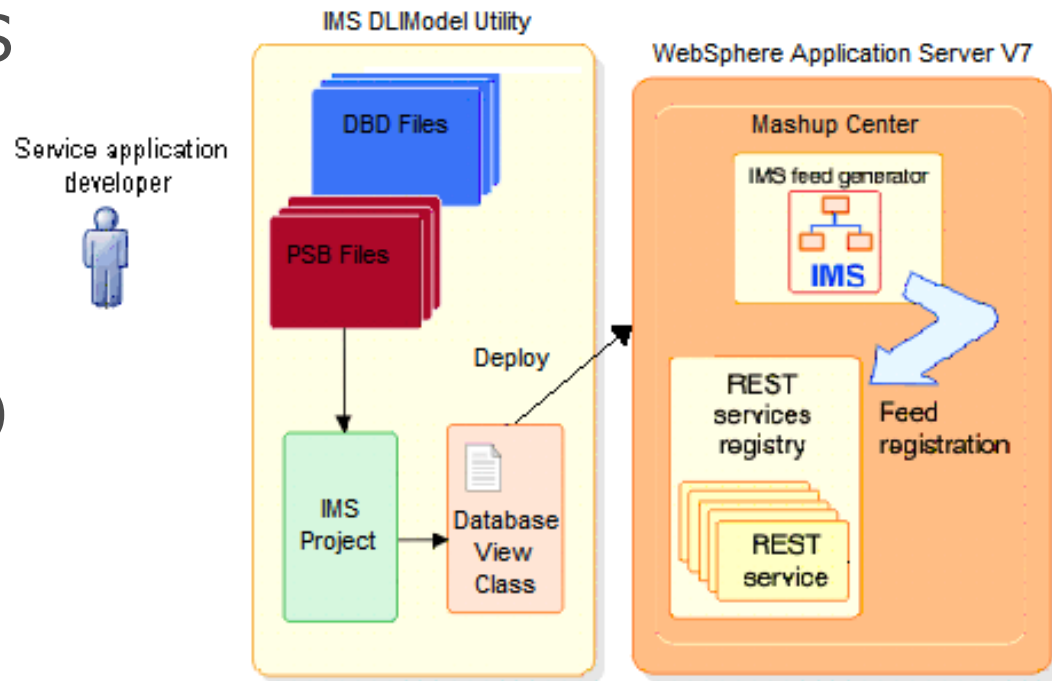
name	address	phone	quantity
INDUSTRIAL EQUIPMENT LAWN N GARDEN	4100 Bohannon Dr Menlo Park CA 94025	(650) 926-6300	1
MIDSIZE TRACTORS	18880 Homestead Rd Cupertino CA 95014	(408) 863-9900	3
THE TRACTOR CO OF NOR CAL	650 Harry Road San Jose CA 95120	(408) 927-1080	2
TRACTOR EQUIPMENT CO.	19997 Shadow Creek Cir Castro Valley CA 94552	(510) 583-5092	4
TRACTOR MEDIC CO.	50 California St# 1500 an Francisco CA 94111	(415) 439-5255	3

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Transferring data from www.google.com...

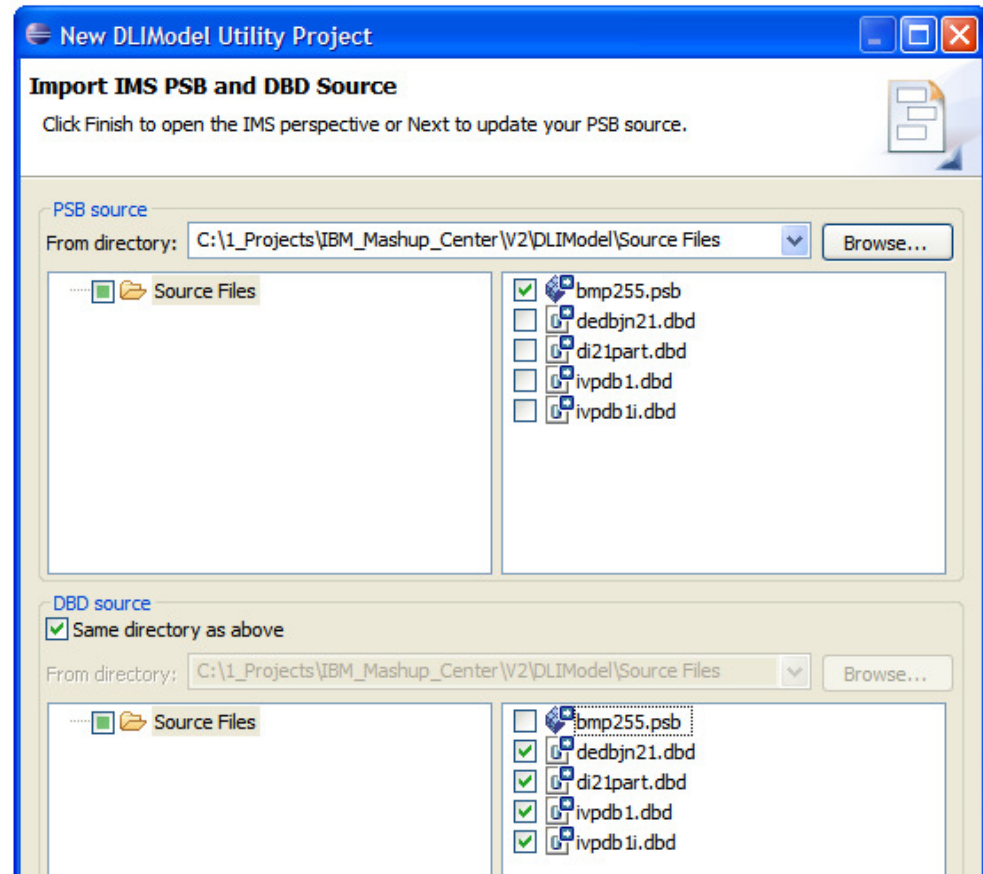
Web 2.0 Support for IMS Data

- Developing a RESTful service / feed for IMS Data
 - Generate meta files from IMS DB in DLIModel Utility (IMS Enterprise Suite)
 - Create Enterprise Database feed from IMS source in IBM Mashup Center




Web 2.0 Support for IMS Data (DLIModel Utility)

- IMS DLIModel Utility (IMS Enterprise Suite)
 - Generates DatabaseView class files
 - DatabaseView files provide a relational view of an IMS database



Web 2.0 Support for IMS Data (IBM Mashup Center)

- Enterprise Database Plugin
 - Allows users to create feeds from any Database that supports a JDBC driver
- Supports the following databases:
 - DB2, Derby, IDS, **IMS**


 **Select the feed data source.**

Required fields marked with *

*Source:

enterprise
Content Manager Server (ECM)
DB2 XML Columns (pureXML)
Domino Server
Enterprise Database (JDBC)
IBM Information Server
IBM Optim Archive
IMS Transaction
LDAP Directory
SAP Application Functions
Tivoli Directory Integrator
Web Service
WebSphere MQ Queue
departmental
Access Data File
Comma Separated Value (CSV) File
Excel Workbook
Existing RSS or Atom Feed (Registration)
XML Document

Description: Create a feed from a relational or IMS database

 **Please specify the database connection to use.**

Required fields marked with *

*Connection Profile:

*Profile Name:

*Type:

*Connection Type:


*DB Name:

*Host:

*Port:

Web 2.0 Support for IMS Data (IBM Mashup Center)

- Features:
 - Support both managed and unmanaged connections
 - Can store connection profile information for reuse

 **Please specify the database connection**

Required fields marked with *

*Connection Profile:

*Profile Name:

*Type:

*Connection Type:

*DB Name:

*Host:

*Port:

*Username:

*Password:

*Metadata URL:

 **Please specify the database connection to use.**

Required fields marked with *

*Connection Profile:

*Connection Profile Name:

*Database Type:

*Connection Type:

*JNDI Name:

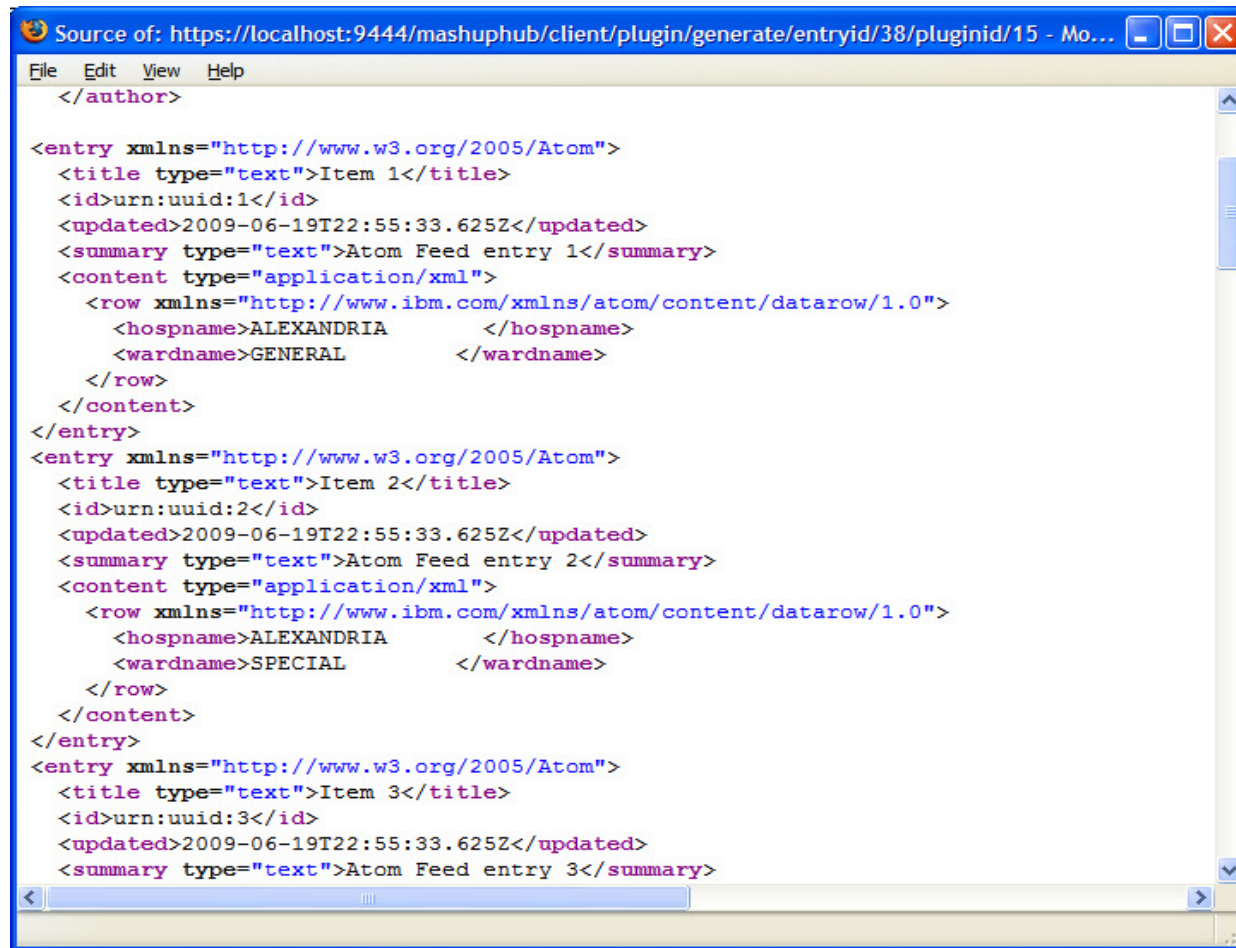
Web 2.0 Support for IMS Data (IBM Mashup Center)

- Supports generating SQL queries via a GUI interface
- Supports manual entry of SQL statements
- SQL Statements with Parameters deliver Dynamic Feeds
- A list of IMS supported SQL statements can be found at http://dzictestsrv.svl.ibm.com:8035/help/index.jsp?topic=/com.ibm.ims11.doc.apg/ims_jdbcspecificsemantics.htm

The screenshot shows the 'SQL Query Builder' interface. It has a header with the title 'SQL Query Builder' and a note 'Required fields marked with *'. Below the header, there are two main sections: 'Check the tables that you want to query' and 'Check the columns that you want to include in the result'. The table selection section shows 'CLAIMPCB.CLAIMS' selected with a checkmark. The column selection section shows several columns selected with checkmarks: 'CLAIMPCB.CLAIMS.CEMPST', 'CLAIMPCB.CLAIMS.COCCUP', 'CLAIMPCB.CLAIMS.COLIZUN', and 'CLAIMPCB.CLAIMS.PDA'. Below these sections, there are fields for 'Order By', 'Sort' (set to 'Ascending'), and 'Max Rows'. There are 'Reset' and 'Preview' buttons. At the bottom, there is an 'Advanced' section with a text area for entering a custom SQL query. The query text is: 'SELECT "CLAIMPCB"."CLAIMS"."CEMPST", "CLAIMPCB"."CLAIMS"."COCCUP", "CLAIMPCB"."CLAIMS"."PDA", "CLAIMPCB"."CLAIMS"."COLIZUN" FROM "CLAIMPCB"."CLAIMS" where VTYPE=:type'. There are 'Generate SQL' and 'Preview Advanced' buttons at the bottom of the advanced section.

Web 2.0 Support for IMS Data – ATOM Output

IMS Web 2.0 service adapter for Hospital database on Firefox Web browser



```
Source of: https://localhost:9444/mashuphub/client/plugin/generate/entryid/38/pluginid/15 - Mo...
File Edit View Help
</author>

<entry xmlns="http://www.w3.org/2005/Atom">
  <title type="text">Item 1</title>
  <id>urn:uuid:1</id>
  <updated>2009-06-19T22:55:33.625Z</updated>
  <summary type="text">Atom Feed entry 1</summary>
  <content type="application/xml">
    <row xmlns="http://www.ibm.com/xmlns/atom/content/datarow/1.0">
      <hospname>ALEXANDRIA </hospname>
      <wardname>GENERAL </wardname>
    </row>
  </content>
</entry>
<entry xmlns="http://www.w3.org/2005/Atom">
  <title type="text">Item 2</title>
  <id>urn:uuid:2</id>
  <updated>2009-06-19T22:55:33.625Z</updated>
  <summary type="text">Atom Feed entry 2</summary>
  <content type="application/xml">
    <row xmlns="http://www.ibm.com/xmlns/atom/content/datarow/1.0">
      <hospname>ALEXANDRIA </hospname>
      <wardname>SPECIAL </wardname>
    </row>
  </content>
</entry>
<entry xmlns="http://www.w3.org/2005/Atom">
  <title type="text">Item 3</title>
  <id>urn:uuid:3</id>
  <updated>2009-06-19T22:55:33.625Z</updated>
  <summary type="text">Atom Feed entry 3</summary>
```

IMS Insurance Demo

Scenario:

In the Insurance industry, Actuaries are responsible for building and changing Insurance policies. In doing so, they require to analyze internal claim data and external information based on a variety of statistics. In particular, for auto insurance Actuaries compare Demographic claim information from the Insurance Industry with the existing internal Claim data. Many Insurance companies capture claim information in the IMS system. Actuarial work is very valuable to the profitability of the company as Actuaries need to manage risk and maximize return.

Powerful Actuaries - IMS

Challenges

This process is iterative and highly data centric. In many cases today, this information is downloaded into Excel or Access to do the Actuarial analysis which is difficult to share and re-populate if new analysis is needed.

Our Powerful Actuaries have hunch that some styles of car identify with certain styles of drivers. In particular the Hybrid a relative new style of car may present opportunity for the Insurance company to differentiate itself. Using a Mashup the Actuary can work with the data from multiple sources to provide statistical proof that this is the case.

Powerful Actuaries Made Easy

IMS Powerful Actuaries Go to Edit

Select Criteria

Model:

Vehicle Type:

Driver Age:

Vehicle Age:

Population Claims

PersonalDamage	Collision	Occurrences	AverageCollision	AveragePersonalDamage
\$880,031,011	\$8,555,500	56	\$152,776	\$15,714,839

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Our Claim Data

PersonalDamage	Collision	Occurrences	AverageCollision	AveragePersonalDamage
\$595,458,398	\$5,284,029	29	\$182,208	\$20,533,048

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Internal External Collision Averages

■ Report Data for 'Prius' and 'Hybrid'

Category	Cost
Internal_Collision	\$1,500,000
External_Collision	\$1,200,000

Internal External PDA Averages

■ Report Data for 'Prius' and 'Hybrid'

Category	Cost
Internal_PDA	\$2,000,000
External_PDA	\$1,500,000

Prerequisites

- IMS Transaction
 - Software Requirements
 - IMS V10+, IMS Connect V10+
 - IBM Mashup Center V1+
 - Tooling Details
 - Rational Developer for System z (RD/z) V7.5+
- IMS Data
 - Software Requirements
 - IMS V11, IMS Connect V11
 - IBM Mashup Center V2
 - Tooling Details
 - IMS DLIModel Utility

Mashup Center Free to IMS customers

- Offer for IMS Customers
 - Mashup Center V2 to IMS 10 & IMS 11 customers for free
 - Use limited to IMS and two SQL data servers
- Enable new/expanded use of IMS TM and DB assets to new sets of users
- Distribution
 - Simple download of Mashup Center from www.ibm.com/IMS
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- ▶ Replay previously broadcast teleconferences
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