IMS and Web 2.0 Go to Work

Jenny Hung
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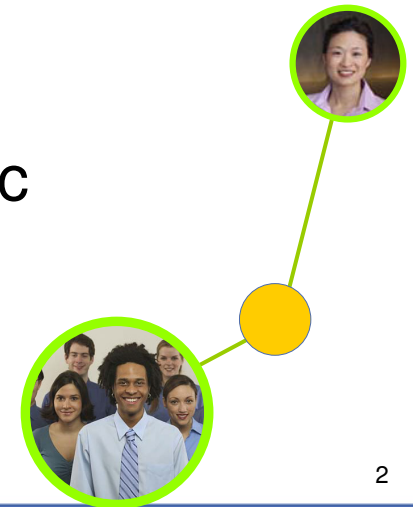Act.Right.Now.

Agenda

- Business Values of Web 2.0

- SOA and Web 2.0

- Mashups 101

  – Feed and Widget

- IBM Mashup Center (Info 2.0)

- IMS Web 2.0 Support

- Business Mashup Scenarios

- Demo: Building a Mashup

- Questions & Answers

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What is Web 2.0 all about?

Achieve Growth, Efficiency, and Collaboration with Web 2.0

- Being **more responsive** to customers, with knowledge from subject experts you may or **may not** know

- Harnessing the **knowledge of the wise**, before they retire

- Enabling employees to be **more productive, more knowledgeable,** faster

- From a technology perspective Web 2.0 uses AJAX, Mashups, and Feeds predominantly

- Mashups rated by Gartner as Top 10 Strategic Technology for 2008

Web As Platform

Personalization becomes collaborative!

Reference: http://www.gartner.com/it/page.jsp?id=530109

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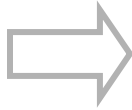© 2008 IBM Corporation

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Web 2.0 Business Benefits

Improved Growth Through Innovation ⇒
- Faster response to customer facing issues
- Improved effectiveness of intra- and inter-company communications and collaboration
- Greater hit rate / faster time to value on innovations

Faster Task Execution ⇒
- Faster access to critical information and experts
- Faster response to customer facing issues
- Real time collaboration on tasks

Improved Efficiency ⇒
- Faster ways to find experts and information
- Reduced recruiting costs for expertise already available in the company
- Reduced rework on overlapping projects
- Common collaboration platform and tools saves infrastructure costs; enables metrics by task and by person for better decisions

Increased Empowerment of Key Resources ⇒
- Greater leverage of key experts across an organization
- Improved retention of younger employees
- Faster development of high performing resources
- Easier to build "reputation capital"

Extending SOA with Web 2.0

Personalizing SOA for efficiency and innovation

Simple to use, 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.)

Web 2.0 Interface

Enterprise Content

IMS Inventory Application

DB2 Finance Application

SAP Product data

...

Web-based Content

Stock Market data

Competitor customer references

Competitor product information

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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 and insights.
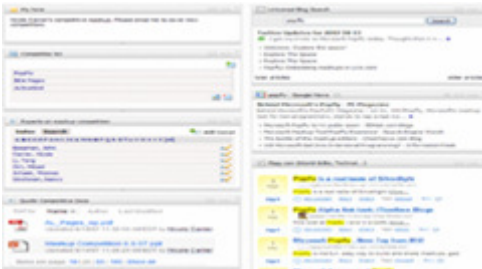
iGoogle

Zillow.com

Competitive Mashup

- What typically characterizes a mashup?

  – "Widgets" and "feeds" that are mashed together often come from independent sources **and** do not change when mashed

    ➢ New applications deliver new insights and capabilities (1+1 = 4)

  – Built on a web-oriented architecture (REST, HTTP) and leveraging lightweight, simple integration techniques (AJAX, RSS, JSON)
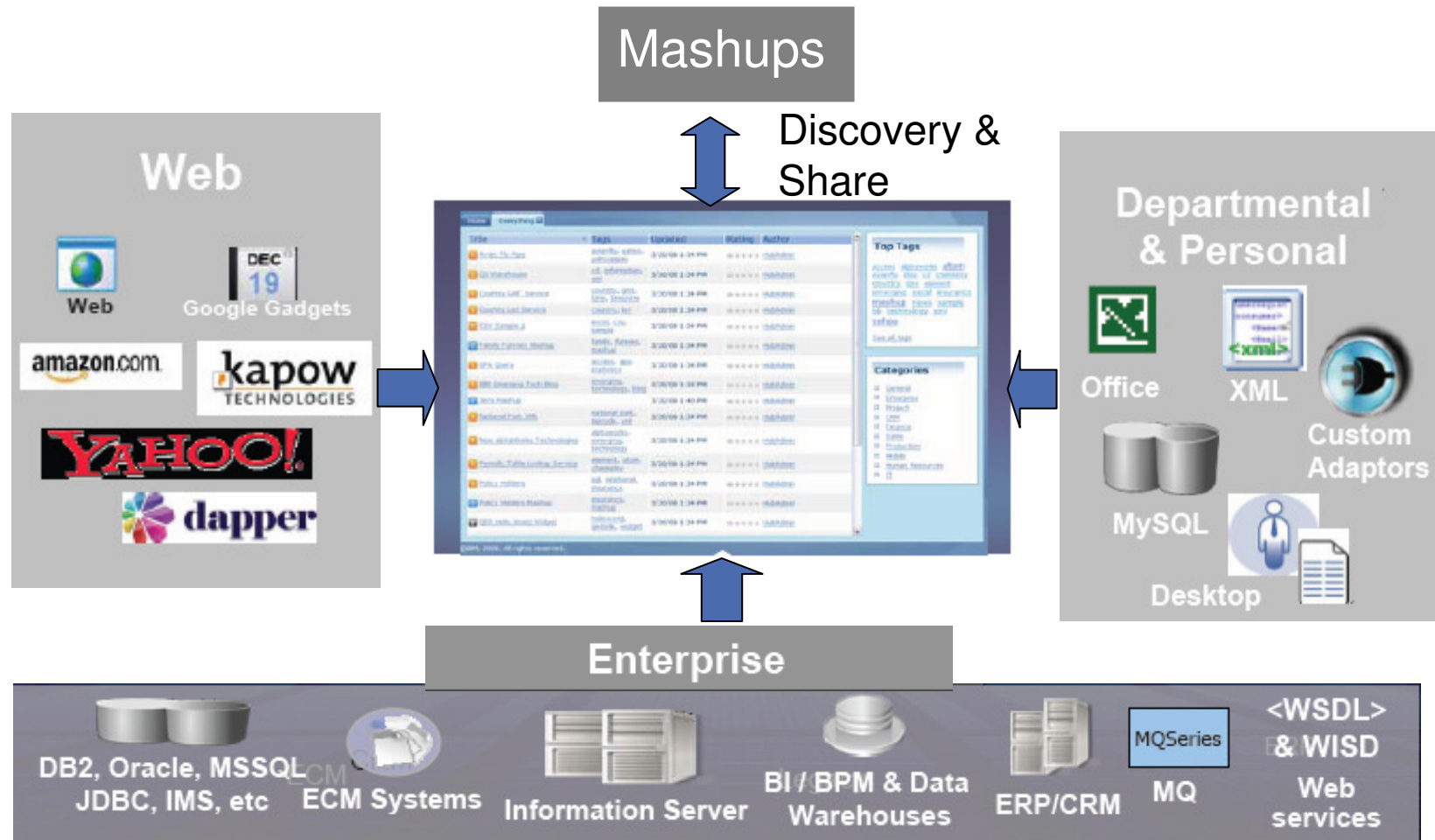
    ➢ The result is fast creation of rich, desktop-like web applications

- What's new about mashups?
  - Using the application includes creating and configuring the application

Act.Right.Now.
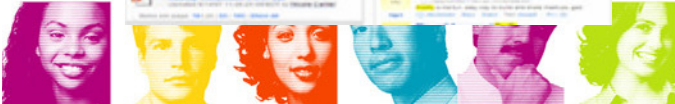
Mashable Content Can Come From Diverse Feeds

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Mashup Example: Global Telco Provider

- Customer Motivation: Combine network-based services with existing data to offer a new category of communication-aware applications

- Scenario: Trouble Ticket Tracking Mashup
  – Monitor problems associated with sales and installation situations including who is handling problem
    - Sales order tracking
    - Inventory tracking
    - Ticket resolution statistics
    - Filtered ticket list
    - Ticket details
    - Third-party call
    - Send Email
    - Send SMS

Feed

- A **web feed** is a data format in XML used for providing users with frequently updated content. Content distributors *syndicate* a web feed, thereby allowing users to *subscribe* to it. Making a collection of web feeds accessible in one spot is known as *aggregation*, which is performed by an Internet aggregator.

- A web feed is also sometimes referred to as a *syndicated feed*.

- RSS, XML, and ATOM feed format

```
<?xml version="1.0"?>
<rss version="2.0">
  <channel>
    <title>Lift Off News</title>
    <link>http://liftoff.msfc.nasa.gov/</link>
    <description>Liftoff to Space Exploration.</description>
    <language>en-us</language>
    <pubDate>Tue, 10 Jun 2003 04:00:00 GMT</pubDate>
    <lastBuildDate>Tue, 10 Jun 2003 09:41:01 GMT</lastBuildDate>
    <docs>http://blogs.law.harvard.edu/tech/rss</docs>
    <generator>Weblog Editor 2.0</generator>
    <managingEditor>editor@example.com</managingEditor>
    <webMaster>webmaster@example.com</webMaster>
    <ttl>5</ttl>

    <item>
      <title>Star City</title>
      <link>http://liftoff.msfc.nasa.gov/news/2003/news-starcity.
      <description>How do Americans get ready to work with Russia
        International Space Station? They take a crash course in
        and protocol at Russia's Star City.</description>
      <pubDate>Tue, 03 Jun 2003 09:39:21 GMT</pubDate>
      <guid>http://liftoff.msfc.nasa.gov/2003/06/03.html#item573<
    </item>

    <item>
      <title>Space Exploration</title>
      <link>http://liftoff.msfc.nasa.gov/</link>
```

...

```
      <item>
        <title>Astronauts' Dirty Laundry</title>
        <link>http://liftoff.msfc.nasa.gov/news/2003/news-laundry.asp</lin
        <description>Compared to earlier spacecraft, the International Spa
          Station has many luxuries, but laundry facilities are not one of
          Instead, astronauts have other options.</description>
        <pubDate>Tue, 20 May 2003 08:56:02 GMT</pubDate>
        <guid>http://liftoff.msfc.nasa.gov/2003/05/20.html#item570</guid>
      </item>
    </channel>
</rss>
```
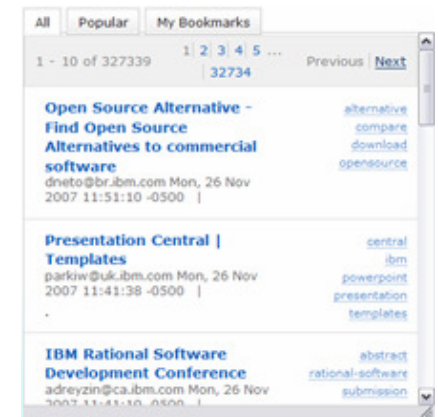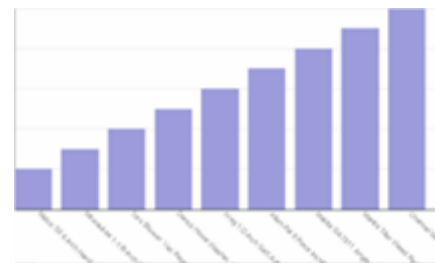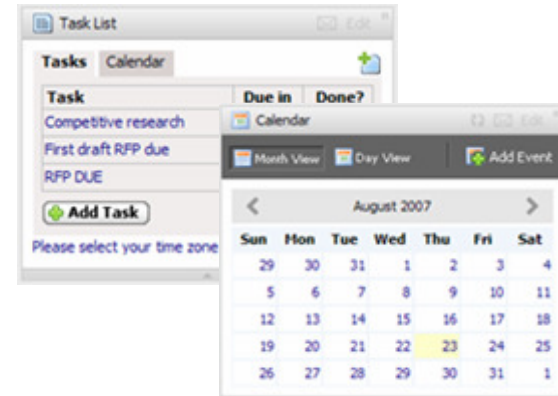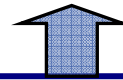
Widget

- A **widget** is a small program or piece of dynamic content that can be easily placed into a web site.

- Widgets are called different names by different vendors: gadgets, blocks, flakes.

- Widgets can be written in any language (Java™, .NET, PHP, etc.) and can be as simple as an HTML fragment.

- Widgets can be non-visual.

- Widgets often encapsulate an API.

- "Mashable" widgets pass events, so that they can be wired together to create something new.

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Web Mashups- Architecture

Discover & Share
Find, rate, tag, comment, share widgets, mashups, and feeds

IT professionals

Information / Business Analyst

Business Users

Assemble Mashups

• Discover   • Wire & mash   • Utilize recommendations & filtering • Transform

Create Widgets

• Mash visualizations w/ feeds • Import HTML • Use IDE of choice

Generate Feeds
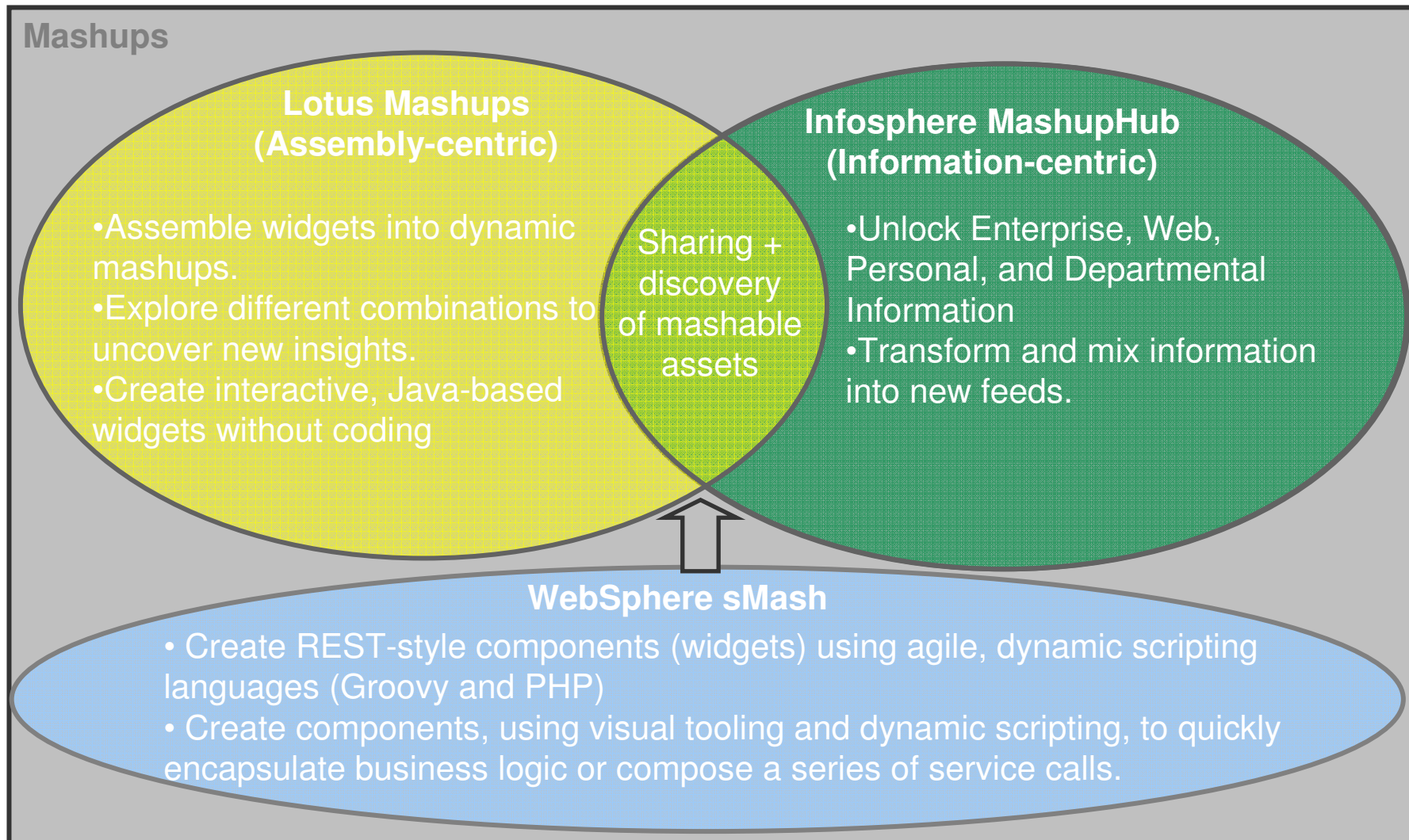
• Connect   • Transform and filter on server (Info 2.0.)

Vast Array of Information Sources

MQSeries   DEC 19   <WSDL>
                                  Web

IBM Mashup Offerings and Roles

Mashups

**Lotus Mashups
(Assembly-centric)**

•Assemble widgets into dynamic
mashups.
•Explore different combinations to
uncover new insights.
•Create interactive, Java-based
widgets without coding

Sharing +
discovery
of mashable
assets

**Infosphere MashupHub
(Information-centric)**

•Unlock Enterprise, Web,
Personal, and Departmental
Information
•Transform and mix information
into new feeds.

WebSphere sMash

• Create REST-style components (widgets) using agile, dynamic scripting
languages (Groovy and PHP)
• Create components, using visual tooling and dynamic scripting, to quickly
encapsulate business logic or compose a series of service calls.

IBM InfoSphere MashupHub

A visual tool for creating, storing, transforming, and remixing feeds to be utilized in mashup, and a central catalog for users to tag, rate, and share mashable assets.
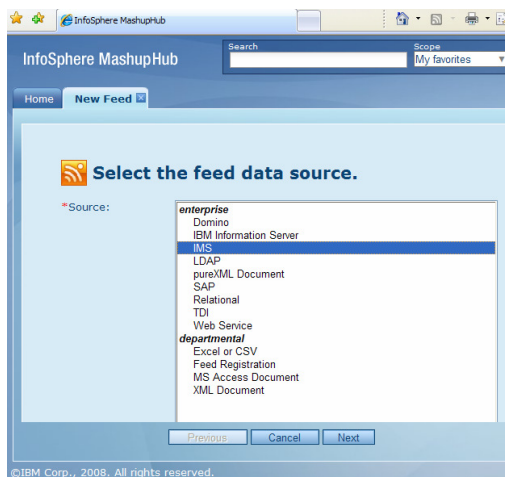
Transform and Mix:
- Importing Feeds
- Filtering Feeds
- Annotate Feeds
- Merge Feed
- Publish Feeds
- Transform Feeds
- Group / Sort / Union Feeds

Catalog
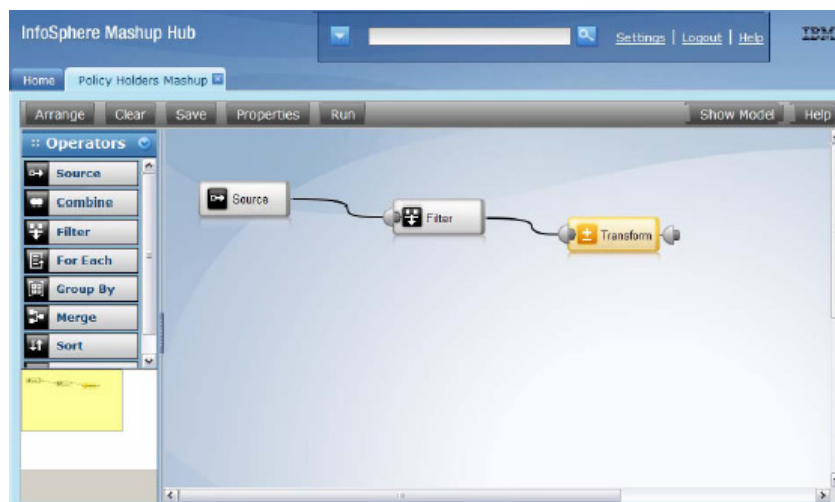Sharing & discovery of mashable assets.

Create Feed from:

- Domino
- IBM Information Server
- **IMS Transaction**
- LDAP
- pureXML Document
- SAP
- Relational
- TDI
- Web Service

- Excel or CSV
- Feed Registration
- MS Access Document
- XML Document

Webcast: "Harnessing the power of Web 2.0 and enterprise mashups"
http://www.ibm.com/developerworks/db2/events/info20.html

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IBM Lotus Mashups

Quickly Assemble and Share New Mashups

Browser-based tool supports quickly and easily on-the-glass assembly of situational applications by non-technical users.

– Easily Mix and Mash content without coding!

– Rapidly creation to address an immediate need of an individual or community

– Just-in-time solution

– Intuitive, on-the-glass wiring of widgets & feeds

– Increase agility by fostering reuse and rapid remix of content into new, compelling Web applications

– Support innovation and new business opportunities

•Share –public or by user/group.
•Automatic wiring
•Embed
•Save new assemblies as widgets
•Edit Source

IMS Web 2.0 Solution

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?"
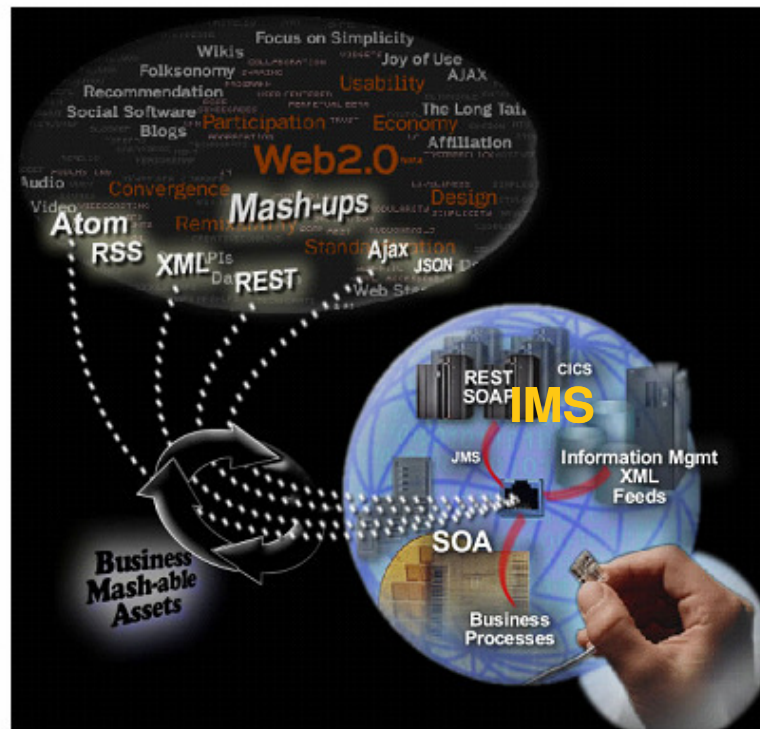
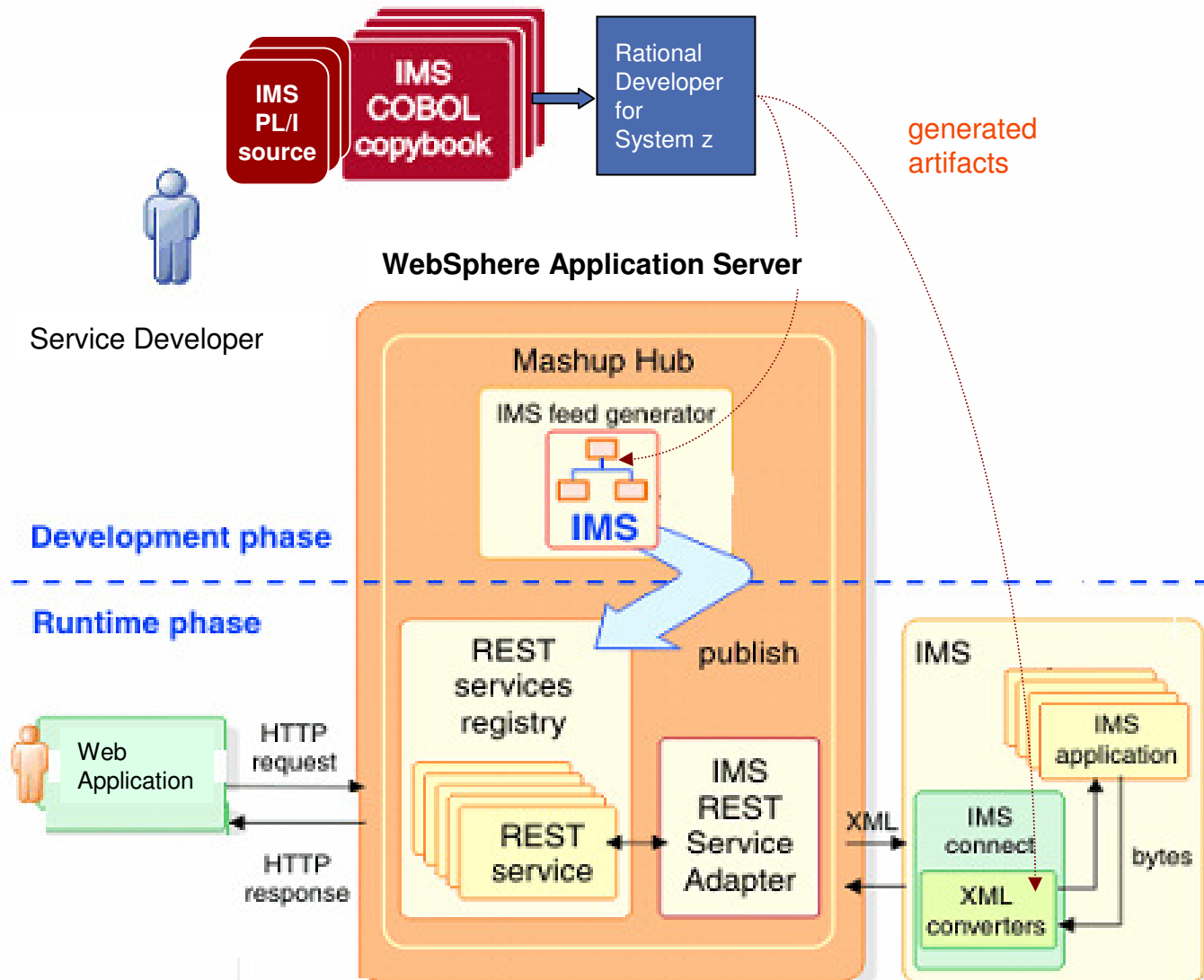

Mashup Scenarios:

* 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

IMS info 2.0 : Web 2.0 Goes to Work

IMS Info 2.0 demo video on YouTube: http://www.youtube.com/watch?v=BWJGSC-RyXQ
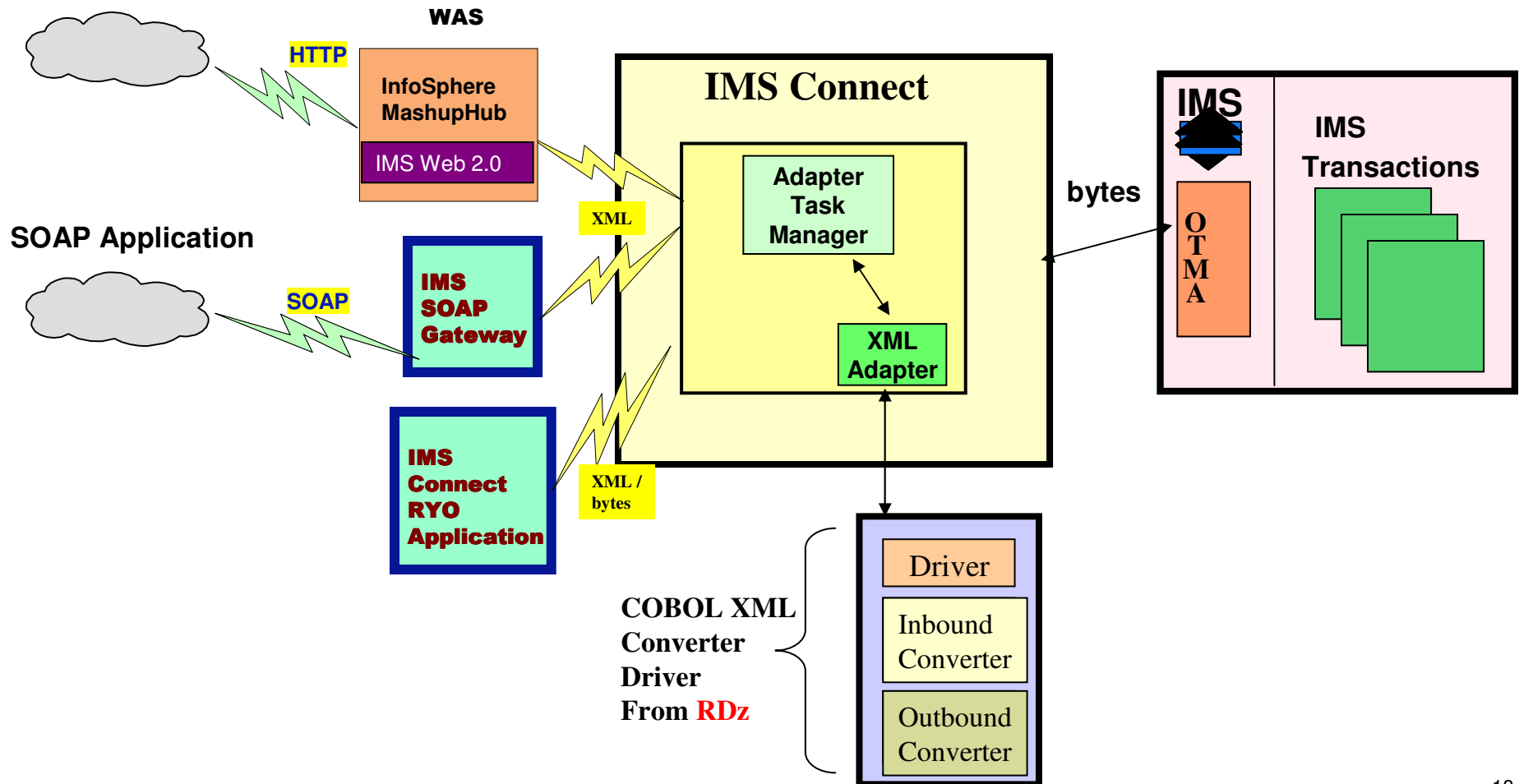
Prerequisites and Restrictions

- Software requirements
  - IMS V10+, IMS Connect V10+
  - Rational Developer for System z V7.1.1+
  - InfoSphere Mashup Center V1.0
    - bundles InfoSphere MashupHub Enterprise Edition
    - bundles Lotus Mashups
    - bundles WebSphere Application Server V6.1.0.13
  - Windows 2003 Server
  - Internet Explorer V6, Internet Explorer V7, Firefox V2, and Safari V3

- Restrictions
  - Single Segment message support only
  - No conversation support
  - No callout support
  - Commit Mode 1 and Sync Level None support only

How IMS Web 2.0 Solution Fit in with IMS On Demand?

Web Application

WAS

InfoSphere MashupHub

IMS Web 2.0

HTTP

SOAP Application

SOAP

IMS SOAP Gateway

IMS Connect RYO Application

XML

XML / bytes

IMS Connect

Adapter Task Manager

XML Adapter

bytes

IMS

O T M A

IMS Transactions

COBOL XML Converter Driver From **RDz**

Driver

Inbound Converter

Outbound Converter

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IMS On Demand Overview
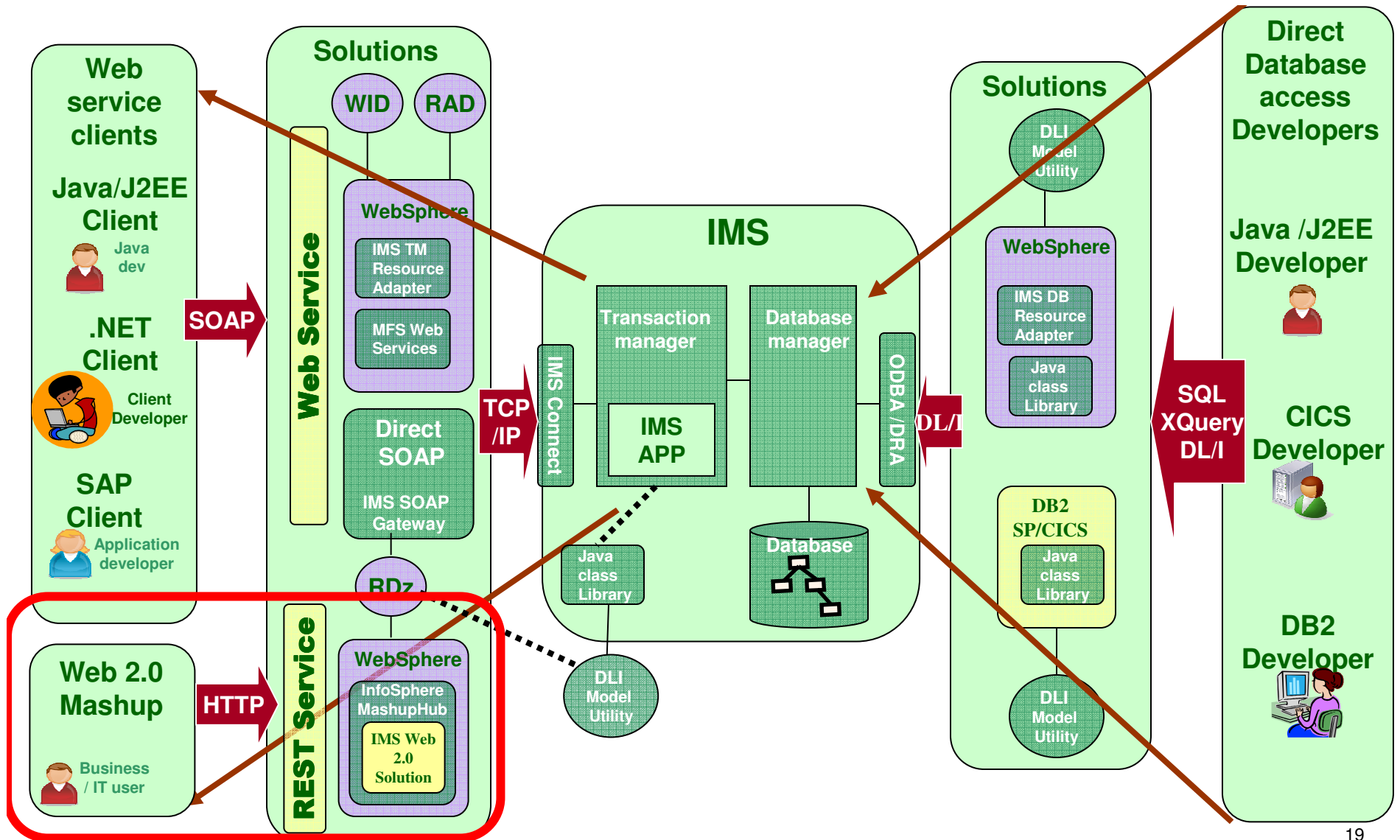
Business Scenario 1: Rapidly Extend Business Logic

Customers can extend their IMS investment by converting an IMS asset into an IMS RESTful service, which has the ability to consume and be consumed by other Web 2.0 services.

IMS customer can then remix and mashup their data rapidly with IBM Info 2.0 tools to extend their business logic without the need to write a single line of code.

Business Scenario 2: Extending Business Value

By publishing an IMS RESTful Service to the Web 2.0 community, this opens up the possibility of 3rd parties to generate creative mashups which can benefit both 3rd party developers as well as the original IMS service provider. The 3rd party developer will now have IMS assets available to them. While, the IMS service provider can benefit from new business opportunities and increased partnership on the web.

Existing web page / portal

New Mashup

IMS Inventory and branch locations

Other web feed

Mashup Example: Customer Quick View

Mashup Example: Healthcare Record System

Featured Client

Kennedy Krieger Institute
Research. Treatment. Education.

Challenge:
Attract referring physicians with the more leading edge, easy to use technology.

Solution:
A user-driven web 2.0 electronic health record system and a patient scheduling system.

Benefit:
Provided accurate and time sensitive information to those who needed it, while also providing a more efficient & user-friendly patient care management system that integrates multiple information sources.

Hospital Computer System

Electronic Medical Record (EMR)

Electronic Health Record (EHR)

HIS
Hospital Information System

CIS
Clinical Information System

PRESTO

ENTERPRISE MASHUP

ACCESS

CUSTOMIZE

COLLABORATE

Doctor

Nurse

Resident

Scheduler

Admin

Clinician
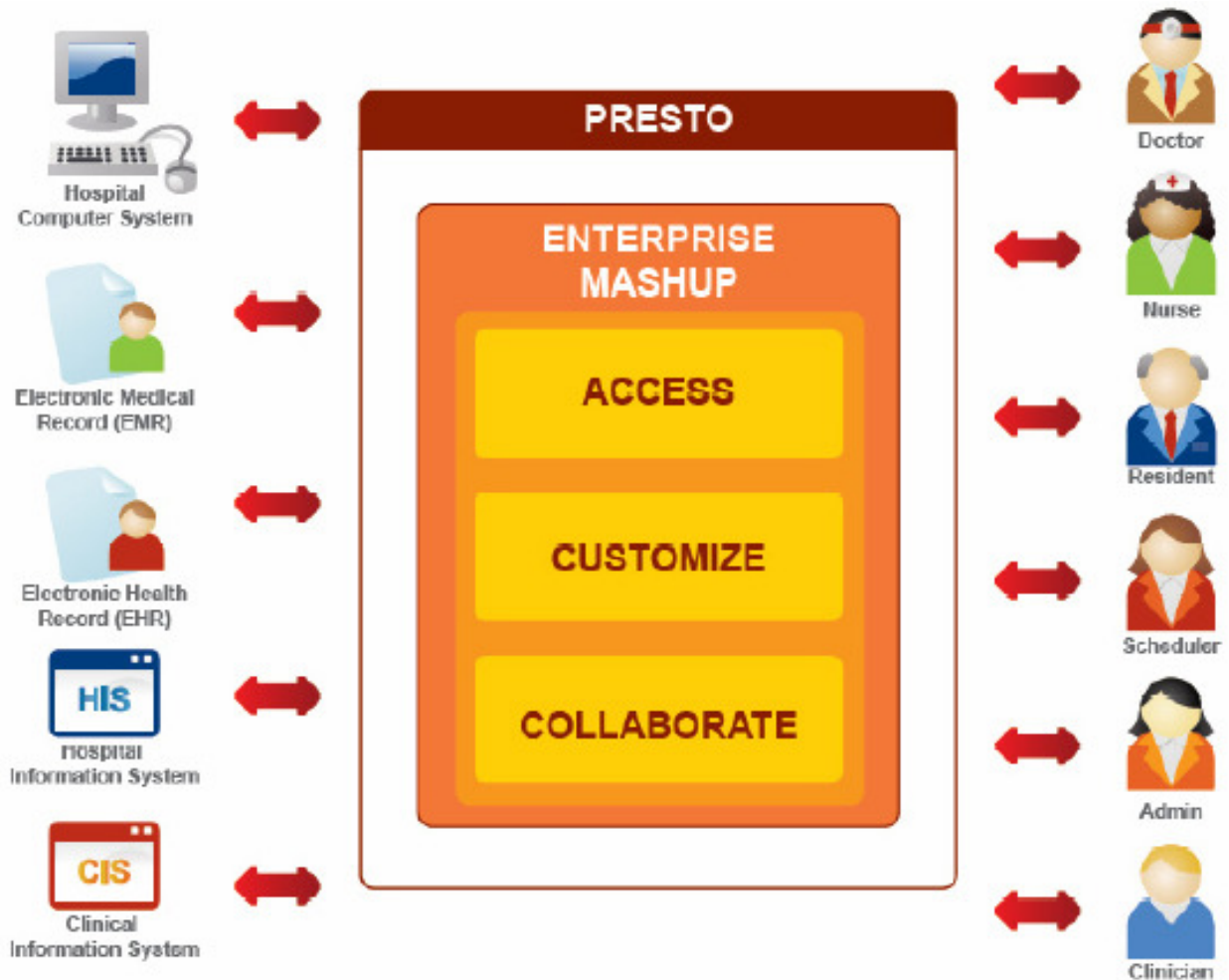
Reference: http://www.jackbe.com/downloads/JackBe_Mashups_for_Healthcare_Feb2008.pdf

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7 Mashups Starters

1. Customer Service: Mashup your call center application with package tracking

2. Client Prospecting: Mashup your sales prospects with external news, stock and company information.

3. Human Resources: Mashup your internal job postings with external resume services

4. Competitive: Mashup your competitive position in the marketplace.

5. Community: Mashup your product defect tracking with code management, time-tracking systems and blog commentary.

6. Research Information: Mashup relevant Medical, scientific and Law research with your own internal data.

7. Decision Dashboards: Mashup your product specifications, revenue planning, and product information with other products in the market.

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Demo

Create Feeds from:

Create Feeds from:
- *Domino*
- *IBM Information Server*
- *IMS Transaction*
- *LDAP*
- *pureXML Document*
- *SAP*
- *Relational*
- *TDI*
- *Web Service*
- *Excel Spreadsheet*
- *Feed Registration*
- *MS Access Document*
- *XML Document*
- *IMS Database (Future)*

...

Start Demo

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Choose a model and year below to begin your search.

Model

Select a Model ▾

Year

Select a Year ▾

[Submit]

InfoSphere MashupHub

IBM.

Search

Scope
All ▼ 🔍

Settings | Logout | Help

Home | **Feed Mashup 59** ☒

Save | Run | | Arrange | Clear

Help

:: Operators ⊙

➡	**Source**
👓	**Combine**
⬇	**Filter**
📇	**For Each**
🎛	**Group**
🔀	**Merge**
⬍	**Sort**
±	**Transform**

Canvas Viewpoint

Drag Operators Here

➡ ModelInv

✂

👓 Part Cost

➡| Publish

➡ PartOrder

InfoSphere MashupHub

Search

Scope
All ▼ 🔍

Settings | Logout | Help

Home   **Feed Mashup 59** ✕

Save   Run | Arrange   Clear   Help

:: Operators ⊙

⊡→	**Source**
⊡⊡	**Combine**
⬇	**Filter**
⊞	**For Each**
⊞⊞	**Group**
⊡⊡	**Merge**
↕	**Sort**
±	**Transform**

Canvas Viewpoint

Drag Operators Here

⊡→ LaborCst

⊡→ PartCst

⊡→ RentalCst

⊡⊡ RecallCst

→| Publish

JK Motors

Corporate Home | **Recall Analyzer** | Parts Locator
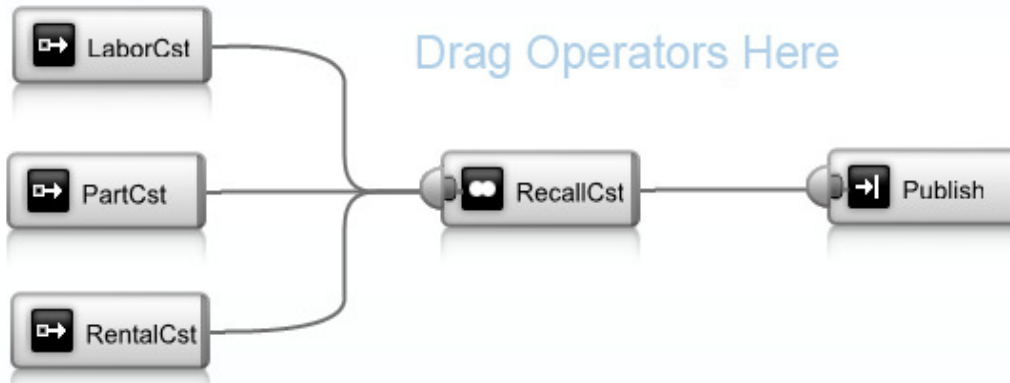
Choose a model and year below to begin your search.

Model

Riposte ▾

Year

2007 ▾

Submit

JK Motors ❌   ▾ Go to Edit   Search All   🔍

📋 2007 Riposte Settlement Report

Vin #	Location	Cause	Fatality	Settlement
ABCCA99EXKA123457	Denver, CO	Air Bags	0	$30,000
ABCCA99EXKA112414	Lancaster, PA	Air Bags	1	$100,000
ABCCA99EXKA123459	Boston, MA	Air Bags	1	$100,000
ABCCA99EXKA124141	Denver, CO	Air Bags	0	$15,000
ABCCA99EXKA123461	Chicago, IL	Air Bags	0	$30,000
ABCCA99EXKA123412	Lake Geneva, WI	Air Bags	0	$30,000
ABCCA99EXKA148222	Denver, CO	Air Bags	1	$100,000
ABCCA99EXKA145732	Saint Paul, MN	Air Bags	2	$200,000
ABCCA99EXKA568468	San Jose, CA	Air Bags	3	$300,000
ABCCA99EXKA376355	Biloxi, MS	Air Bags	0	$15,000
ABCCA99EXKA246266	Saint Paul, MN	Air Bags	0	$15,000
ABCCA99EXKA124662	New York, NY	Air Bags	4	$400,000
ABCCA99EXKA115212	Saint Paul, MN	Air Bags	0	$45,000
ABCCA99EXKA123476	Saint Paul, MN	Air Bags	3	$300,000
ABCCA99EXKA172472	New York, NY	Axle	0	$15,000
ABCCA99EXKA123456	Denver, CO	Brakes	0	$15,000
ABCCA99EXKA165372	San Jose, CA	Brakes	1	$100,000
ABCCA99EXKA123468	Nashville, TN	Brakes	0	$30,000
ABCCA99EXKA187642	New York, NY	Brakes	0	$30,000

🅶 Map of 2007 Riposte Airbag Accidents
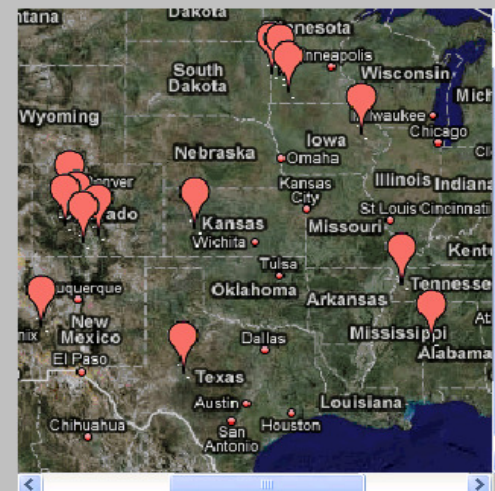
🎛 Recall Analysis for Airbags

Cost of settlement vs recall (airbags)
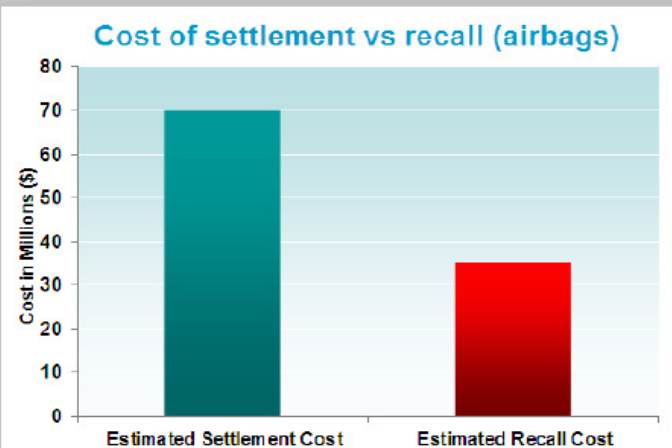
📶 News on 2007 Riposte Airbag Accidents

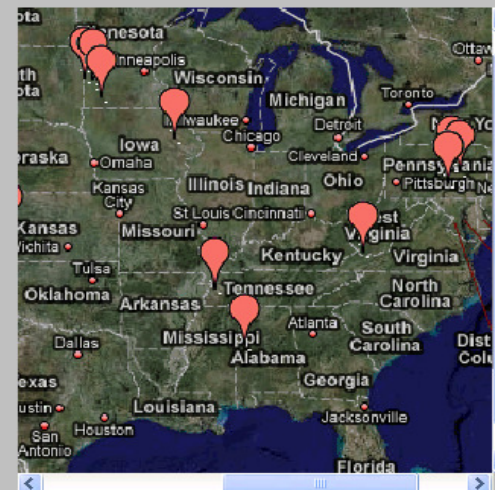YAHOO! NEWS

1 Airbag malfunction in 2007 Riposte causes 4 hr traffic jam
AP - An airbag malfunction in a 2007 model of JK Motor's Riposte delayed peak-time commute traffic by 4 hours in Houston this morning......

2 Infant taken to ER after Riposte airbag bursts
AP - An 11-month old infant was taken to the emergency room today after the side passenger airbag unexpectedly burst open......

3 Riposte airbag fails to protect passengers in accidents
AP - In a recent crash test report, the 2007 Riposte car performed worst of 11 car models tested. The main reason for the poor performance is attributed to its airbags......

JK Motors ⊗   ▾ Go to Edit   Search All   🔍

2007 Riposte Settlement Report

Vin #	Location	Cause	Fatality	Settlement
ABCCA99EXKA123412	Lake Geneva, WI	Air Bags	0	$30,000
ABCCA99EXKA148222	Denver, CO	Air Bags	1	$100,000
ABCCA99EXKA145732	Saint Paul, MN	Air Bags	2	$200,000
ABCCA99EXKA568468	San Jose, CA	Air Bags	3	$300,000
ABCCA99EXKA376355	Biloxi, MS	Air Bags	0	$15,000
ABCCA99EXKA246266	Saint Paul, MN	Air Bags	0	$15,000
ABCCA99EXKA124662	New York, NY	Air Bags	4	$400,000
ABCCA99EXKA115212	Saint Paul, MN	Air Bags	0	$45,000
ABCCA99EXKA123476	Saint Paul, MN	Air Bags	3	$300,000
ABCCA99EXKA172472	New York, NY	Axle	0	$15,000
ABCCA99EXKA123456	Denver, CO	Brakes	0	$15,000
ABCCA99EXKA165372	San Jose, CA	Brakes	1	$100,000
ABCCA99EXKA123468	Nashville, TN	Brakes	0	$30,000
ABCCA99EXKA187642	New York, NY	Brakes	0	$30,000
ABCCA99EXKA167246	New York, NY	Brakes	0	$15,000
ABCCA99EXKA123523	Saint Paul, MN	Brakes	1	$100,000
ABCCA99EXKA753856	Denver, CO	Brakes	0	$15,000
ABCCA99EXKA943572	San Jose, CA	Brakes	1	$100,000
ABCCA99EXKA234856	San Jose, CA	Brakes	0	$30,000

Map of 2007 Riposte Brake Accidents

Recall Analysis for Brakes

Cost of settlement vs recall (brakes)
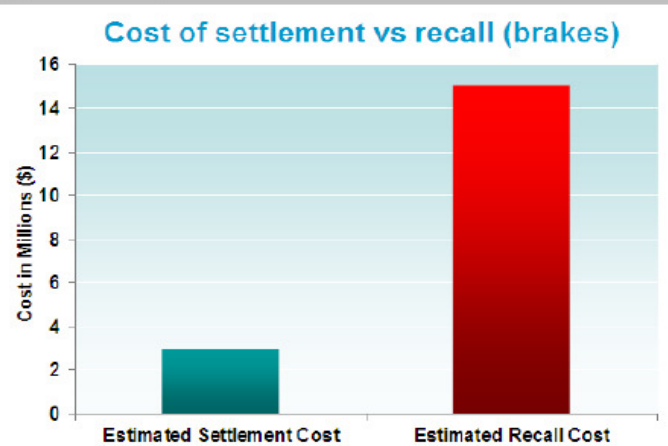
News on 2007 Riposte Brake Accidents

YAHOO! NEWS

1 Brakes in popular 2007 Riposte car lock up from ice
AP – Sub-zero temperatures in Minnesota cause brakes to lock up in the popular 2007 Riposte car model from JK Motors......

2 Student driver veers into lake upon brake failure
AP – A Denver teen ended up in Sloan Lake when the car brakes failed during his daily driving lesson. The father and owner of the 2007 Riposte car said they ......

3 JK Motors sees increase in Riposte brake complaints
AP – JK Motors reported an increase in the number of Riposte brake complaints received over the past month. Tom Steely, spokesperson for the company, addressed...

How to Get Started

- Watch the IMS Web 2.0 Demo on youtube
  - http://www.youtube.com/watch?v=nbognkeU_sI

- IMS Web 2.0 Solution website
  - http://www-01.ibm.com/software/data/ims/mashup.html

- IBM Mashup Center website
  - http://www-01.ibm.com/software/info/mashup-center

- IBM Rational Developer for System z website
  - http://www-01.ibm.com/software/awdtools/rdz/

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Enterprise social software. Unleash the power of us.