



# **IBM Information On Demand**

## **Unlock The Business Value Of Information**

Information Delivery In The Web 2.0 World

# New Intelligence

Let's look at some new technologies that make it even easier to gather all the relevant information for the task at hand.

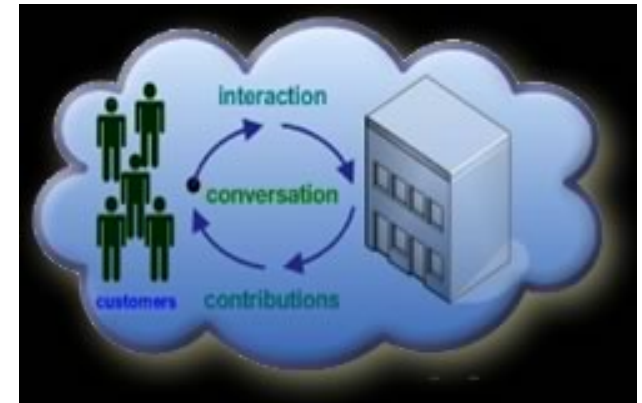
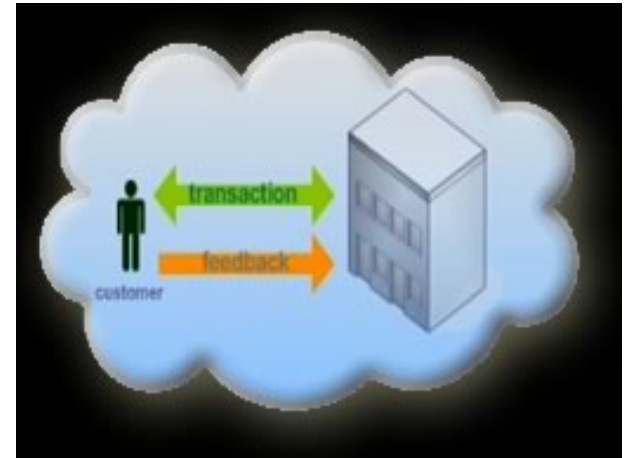


**IBM**

# Web 2.0 Gives Us New Leverage To Access Data

**Web 1.0** was about **connecting computers** and making technology more efficient for computers.

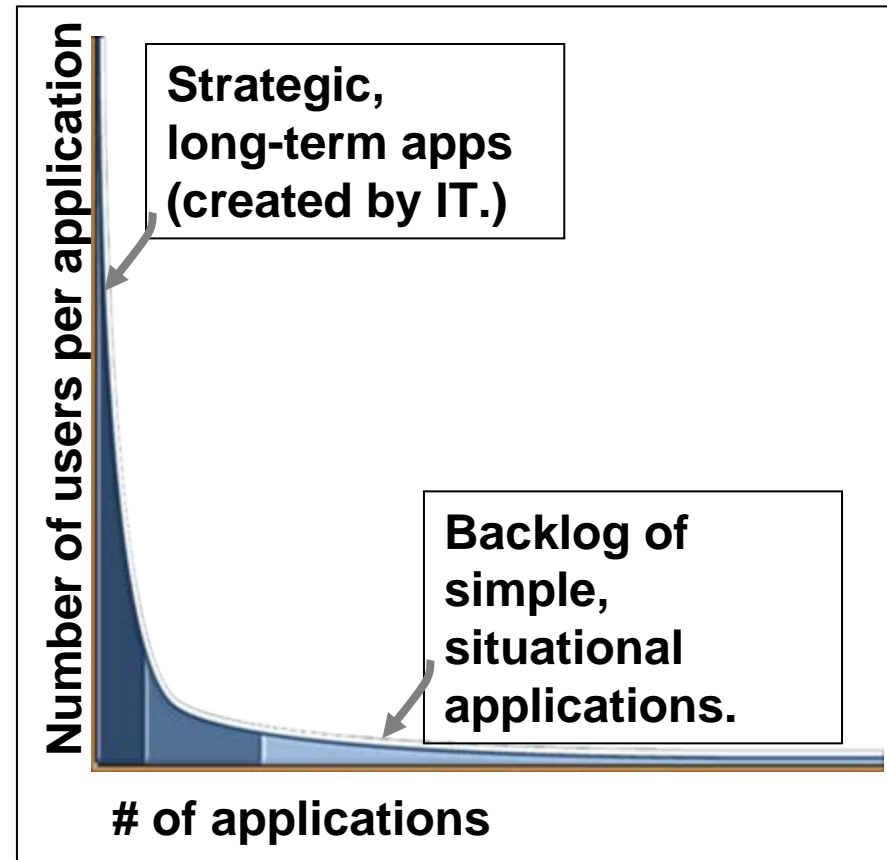
**Web 2.0** is about **delivering information to humans to help them with the task at hand**



**Web 2.0 applications are often called situational applications**

# Situational Applications

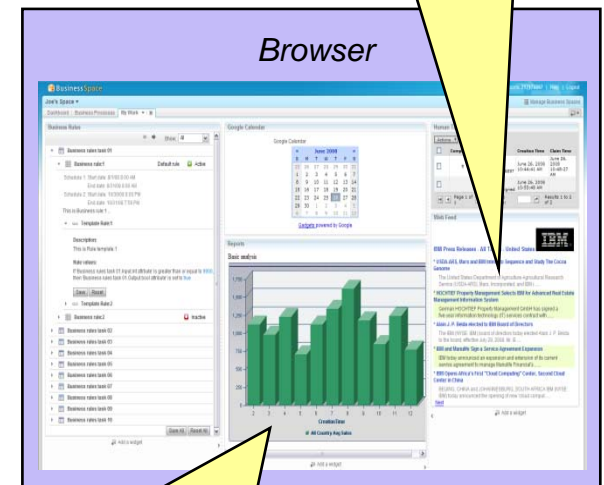
- IT focuses on the development of strategic long term applications
  - ▶ Simple short term and tactical applications are often unaddressed
- Web 2.0 is a new technology that makes it dramatically easier to create situational applications



# Example Of A Situational Application

- Web pages are assembled by dragging and dropping widgets
- Widgets
  - ▶ Small program components that deliver a specific service
- Mashup
  - ▶ A lightweight application assembled from widgets wired together and sharing data
  - ▶ Little to no technical skills required

This is a widget displaying a web news feed



This is a graph widget displaying data returned from an enterprise system.

# Where Do Widgets Come From?

- 1) A distant planet in a galaxy far, far away
- 2) A high school kid working in his basement late at night
- 3) Included in the Internet's Web 1.0 to Web 2.0 conversion kit
- 4) None of the above

## Web



## IBM

InfoSphere Mashup Center  
Lotus Greenhouse Optim  
Cognos Filenet/ECM

## Build Your Own

Any language – Ajax, HTML, etc

Widget Factory in Mashup Center      WebSphere sMash

# What Is A Data Feed?

- A **data feed** is an XML data format used for providing users with frequently updated content
- XML data feeds are emerging as a common way for organizations to expose existing enterprise data
- XML data feeds can be created from Enterprise, departmental, and personal sources like Excel
- ATOM and RSS are the two most common format data feeds
- A widget that reads and displays a data feed is referred to as a “feed reader”



## Example of an Atom 1.0 Feed

An example of a document in the Atom Syndication Format:

```
<?xml version="1.0" encoding="utf-8"?>
<feed xmlns="http://www.w3.org/2005/atom">

  <title>Example Feed</title>
  <subtitle>A subtitle.</subtitle>
  <link href="http://example.org/feed/" rel="self"/>
  <link href="http://example.org/" />
  <updated>2003-12-13T18:30:02Z</updated>
  <author>
    <name>John Doe</name>
    <email>johndoe@example.com</email>
  </author>
  <id>urn:uuid:60a76c80-d399-11d9-b91c-0003939e0af6</id>

  <entry>
    <title>Atom-Powered Robots Run Amok</title>
    <link href="http://example.org/2003/12/13/atom03"/>
    <id>urn:uuid:1225c695-cfb8-4ebb-aaaa-80da344efa6a</id>
    <updated>2003-12-13T18:30:02Z</updated>
    <summary>Some text.</summary>
  </entry>

</feed>
```

# What Makes Mashup Technologies Unique?

		<b>Mashup Development</b>	<b>Traditional IT</b>
<b>Scope</b>	Time to value	Days to weeks	Months to years
	Lifespan	Variable, often short	Long lived
<b>Process</b>	Dev. phases	Ad-hoc or good-enough	Defined, scheduled
	Governance	De-centralized, community	Formal, centralized
	Evolution	Organic	Top-down, centrally driven
<b>Users</b>	Application builders	LOB, individuals, groups	Corporate IT
	Targeted users	Small teams or known user	Large groups
<b>Technology</b>	Technology	Mashup, REST, RSS, ATOM, AJAX, XML, etc.	Portal, SOAP, WS-*, J2EE,, etc.

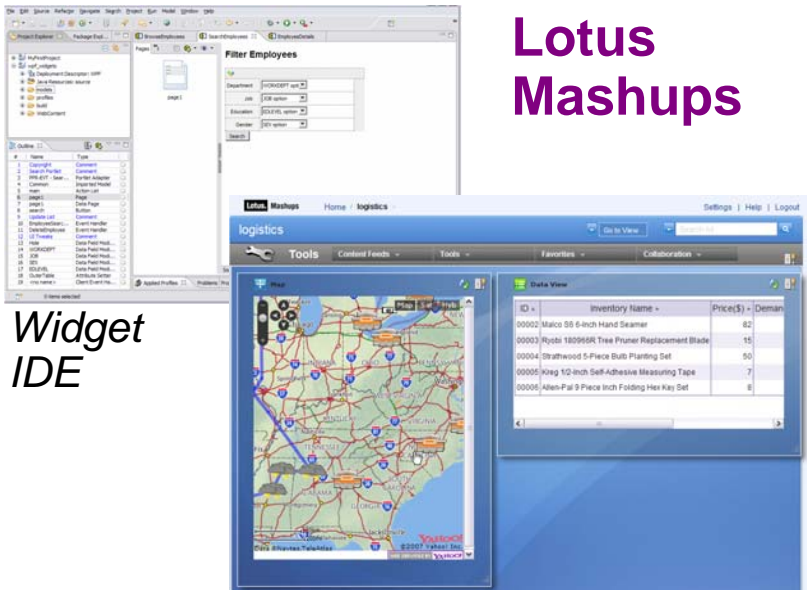


# IBM Mashup Center Is A Complete Platform To Create And Deliver Mashup Situational Applications

- **Create** mashup web pages 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



# With The IBM Mashup Center You Can Build Widgets, Create Feeds, Assemble, And Deliver Mashups



**Lotus Mashups**

*Widget IDE*

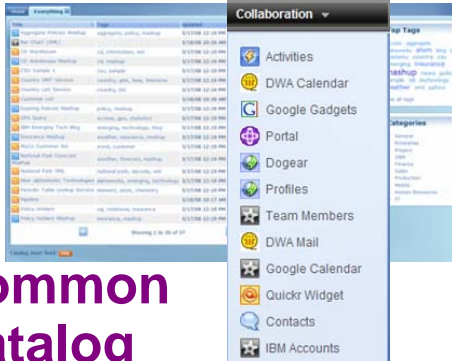
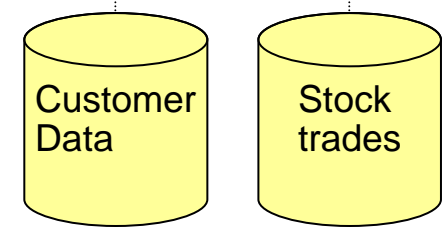
*Wire Widgets & Assemble Mashups*

ID	Inventory Name	Price(\$)	Deman
00002	Malco SS 6-inch Hand Seamer	82	
00003	Ryobi 180956R Tree Pruner Replacement Blade	15	
00004	Strathwood 5-Piece Butt Planting Set	50	
00005	Kieg 1/2-inch Self-Adhesive Measuring Tape	7	
00006	Allen-Pal 9 Piece Inch Folding Hex Key Set	6	



**InfoSphere MashupHub**

*Create REST-style Feeds*



**Common Catalog**

- Activities
- DWA Calendar
- Google Gadgets
- Portal
- Dogear
- Profiles
- Team Members
- DWA Mail
- Google Calendar
- Quickr Widget
- Contacts
- IBM Accounts



# Demo: Sales Call Mashup

- Sales needs to combine personal contact info, enterprise data, and live web news
- Show creating Mashup with
  - ▶ Personal customer spreadsheet contact info
  - ▶ Customer trade data
  - ▶ Google charts on stock history
- Sales using Mashup to prepare for customer calls.

Microsoft Excel Viewer - BrokerCustomerList.xls

	A	B	C	D	E	F	G
1	Cust ID	Name	Ticker	Target	Goal	Contacted	Target Date
2							
3	13021	Alinio Osterstedt	IBM		90 Buy	3/1/2009	5/5/2009
4	3109	Crystal Deakunn	MSFT		35 Sell	3/15/2009	5/5/2009
5	8600	Denis Richer	IBM		110 Sell	3/31/2009	5/5/2009
6	3051	Carol Durkin	SUN		10 Buy	3/31/2009	5/5/2009
7	2020	Rob Dunn	GOOG		400 BUY	4/1/2009	6/1/2009
8	8603	Jeri April	GOOG		400 SELL	4/13/2009	6/15/2009
9	3024	Jacque Abelia	ORCL		25 SELL	4/15/2009	6/30/2009

BrokerCustInfo

Cust_ID	Name	Ticker	Target	Goal	Contacted	D:
13021	Alinio L. Osterstedt	IBM	90	Buy	3/1/2009	1/A
3109	Crystal C. Deakunn	MSFT	35	Sell	4/1/2009	1/A
8600	Denis Richer	ORCL	6	Sell	4/1/2009	1/A
3051	Carol Q. Durkin	SUN	10	Buy	3/1/2009	1/A

IBM | 105.94 | -0.10 - info

IBM

Live News: IBM

IBM | 105.94 | -0.10 - info

Tech Testers on Consumers' Shoulders (at TheStreet.com) Thu Apr 30 17:53:48 GMT 2009

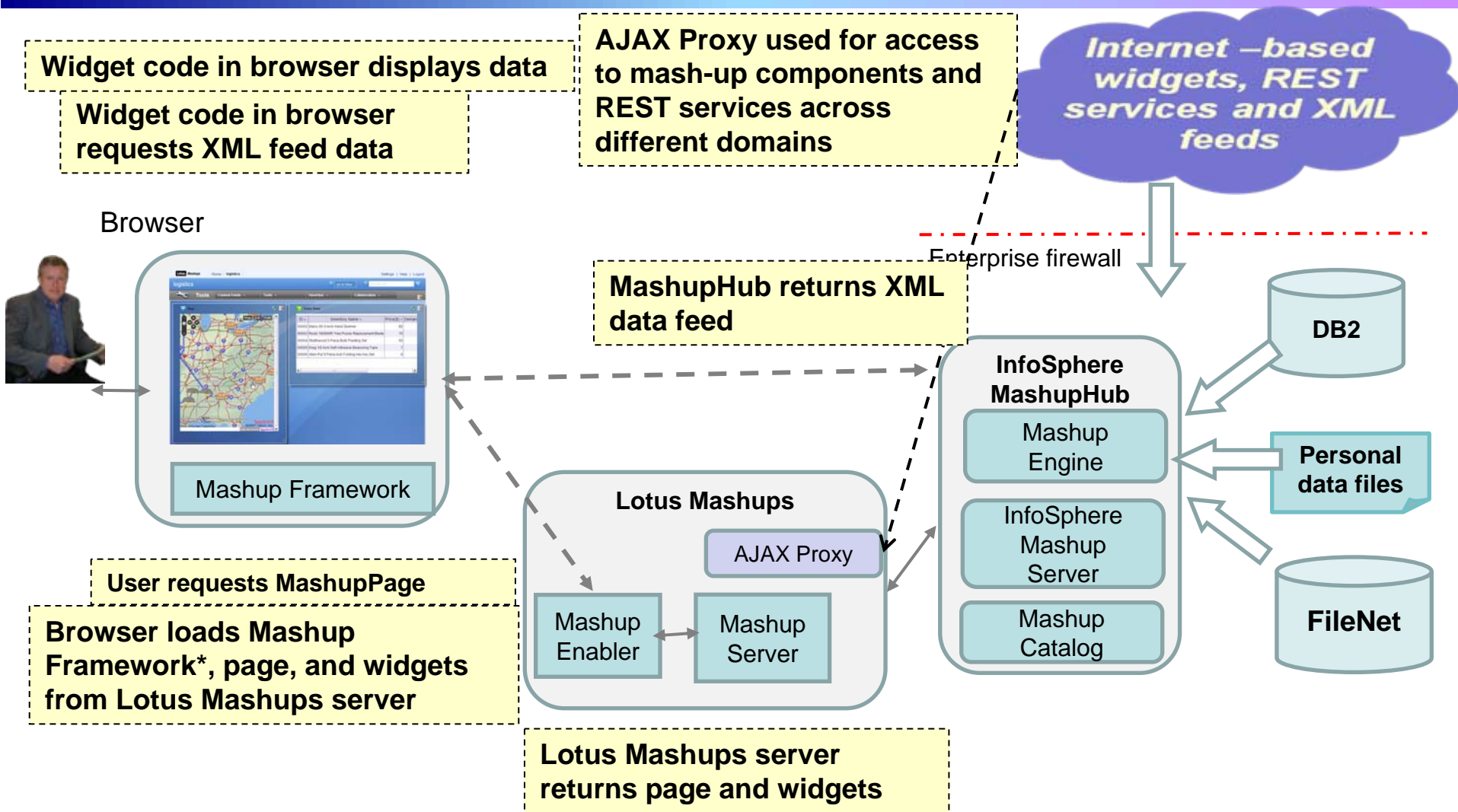
EMC Vet's Departure for H-P Turns Ugly (at TheStreet.com) Thu Apr 30 17:53:48 GMT 2009

Atkins and IBM Sign 14.4 Million Pounds Sterling Data Storage Transformation Agreement (at TheStreet.com)

SaneBull Stock Widgets

custid	trantime	symbol	trade	price
13021	2009-12-23 08:06:04.000004	LVLT	SELL	1
13021	2009-09-18 08:06:04.000004	LVLT	BUY	3
13021	2009-03-13 08:06:04.000005	IBM	BUY	92
13021	2009-03-13 08:06:04.000002	ORCL	SELL	15
13021	2009-03-02 08:30:00.000009	IBM	SELL	98

# IBM Mashup Center Runtime Environment



\*Framework only loaded on initial login

# Browser Based Tools Create Mashups And Feeds

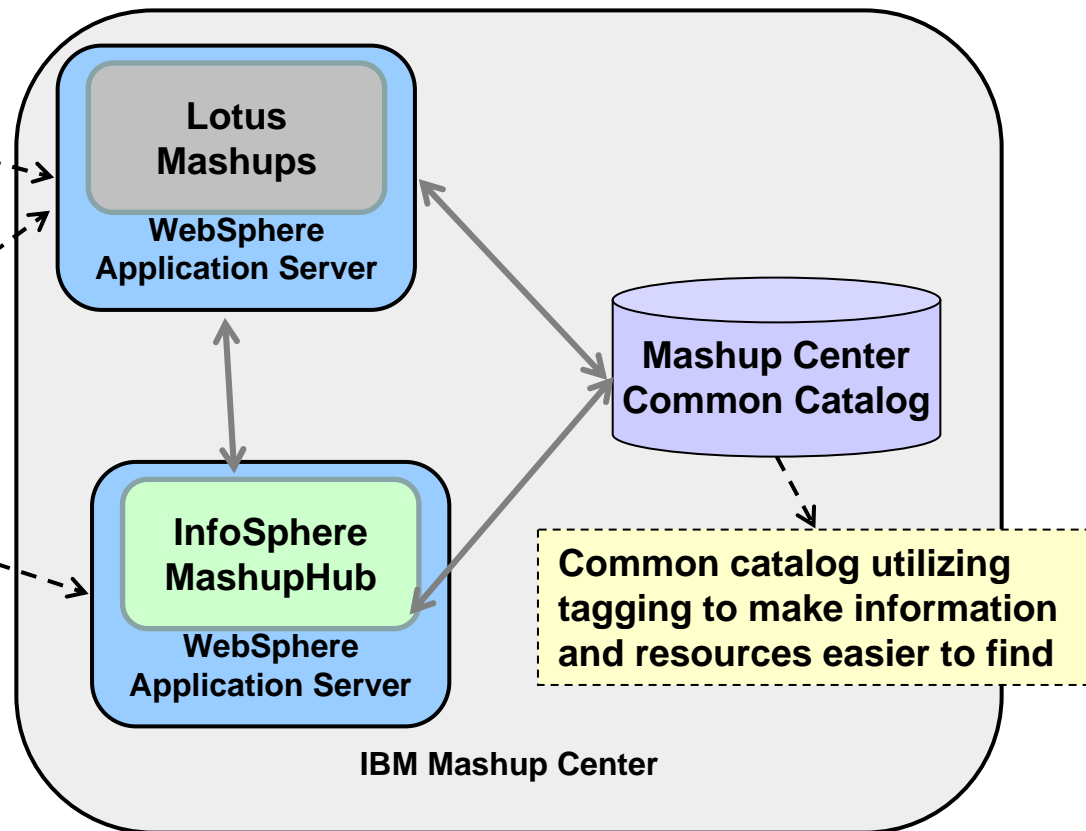
## Lotus Widget Factory



Wizard driven Eclipse based tooling for custom widgets



Web tooling for building mashup pages, and to expose Enterprise data as XML data feeds



Common catalog utilizing tagging to make information and resources easier to find

# Mashup Catalog Facilitates Easy Sharing And Reuse Of Resources

- A single common central catalog for mashup resources
- Enables easy discover and sharing of Mashups, Widgets, and Feeds
- Provides common place for security and to govern access and use
- Uses Web 2.0 social computing conventions of tagging and rating to promote collaboration and re-use
- Assemble re-usable mashups, widgets, and feeds into situational applications as needed

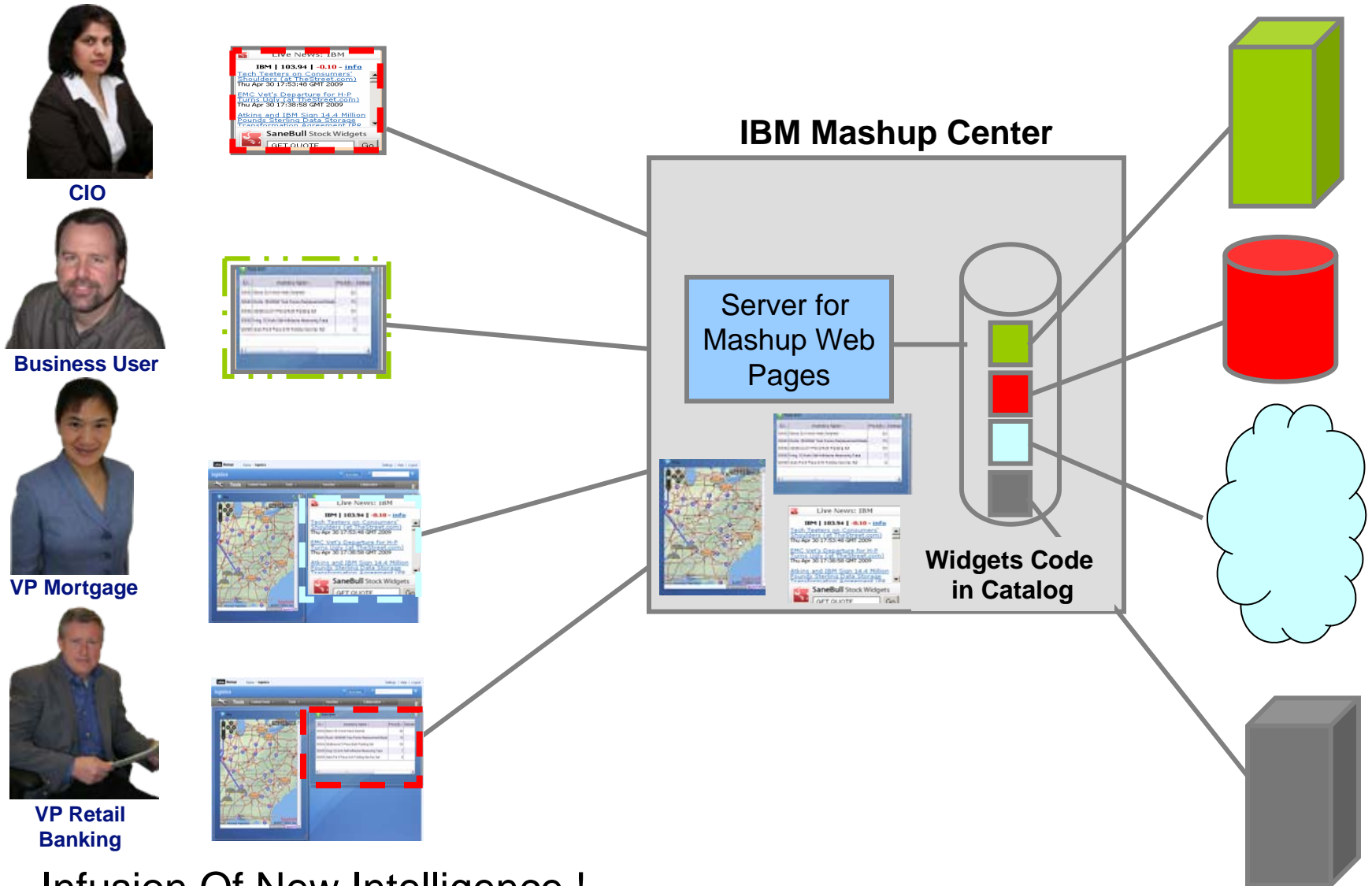
Title	Tags	Updated	Rating	Author
Aggregate Policies Mashup	aggregate, policy, mashup	5/17/08 12:19 PM	*****	nicole
Bar Chart (XML)		5/18/08 10:26 AM	*****	nicole
CD Warehouse	cd, information, xml	5/17/08 12:19 PM	*****	nicole
CD Warehouse Mashup	cd, mashup	5/17/08 12:19 PM	*****	nicole
CSV Sample 1	csv, sample	5/17/08 12:19 PM	*****	nicole
Country GMT Service	country, gmt, time, timezone	5/17/08 12:19 PM	*****	nicole
Country List Service	country, list	5/17/08 12:19 PM	*****	nicole
Customer List		5/18/08 10:39 AM	*****	nicole
Expung Policies Mashup	policy, mashup	5/17/08 12:19 PM	*****	nicole
GPA Query	access, gpa, statistics	5/17/08 12:19 PM	*****	nicole
IBM Emerging Tech Blog	emerging, technology, blog	5/17/08 12:19 PM	*****	nicole
Insurance Mashup	weather, insurance, mashup	5/17/08 12:19 PM	*****	nicole
MyCo Customer list	excel, customer	5/17/08 12:19 PM	*****	nicole
National Park Forecast Mashup	weather, forecast, mashup	5/17/08 12:19 PM	*****	nicole
National Park XML	national park, zipcode, xml	5/17/08 12:19 PM	*****	nicole
New alphaWorks Technologies	alphaworks, emerging, technology	5/17/08 12:19 PM	*****	nicole
Periodic Table Lookup Service	element, atom, chemistry	5/17/08 12:19 PM	*****	nicole
Pipeline		5/18/08 10:17 AM	*****	nicole
Policy Holders	sql, relational, insurance	5/17/08 12:19 PM	*****	nicole
Policy Holders Mashup	insurance, mashup	5/17/08 12:19 PM	*****	nicole

Showing 1 to 20 of 27

Top Tags: access, aggregate, alphaworks, atom, blog, cd, chemistry, country, csv, emerging, insurance, mashup, news, policy, sample, td, technology, weather, xml, yahoo

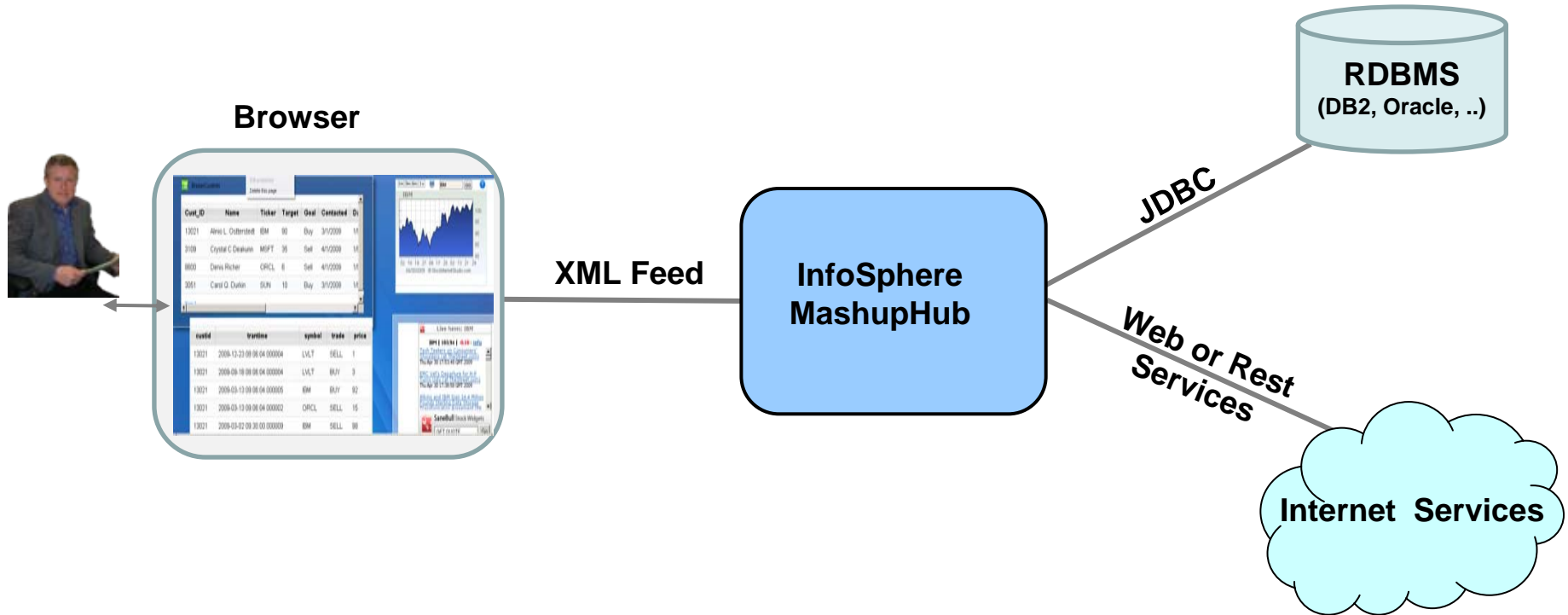
Categories: General, Enterprise, Project, CRM, Finance, Sales, Production, Mobile, Human Resources, IT

# IBM Mashup Center Makes It Easier To Gather Information For Each Task At Hand



Infusion Of New Intelligence !

# MashupHub Creates Data Feeds For Use By Feed Readers



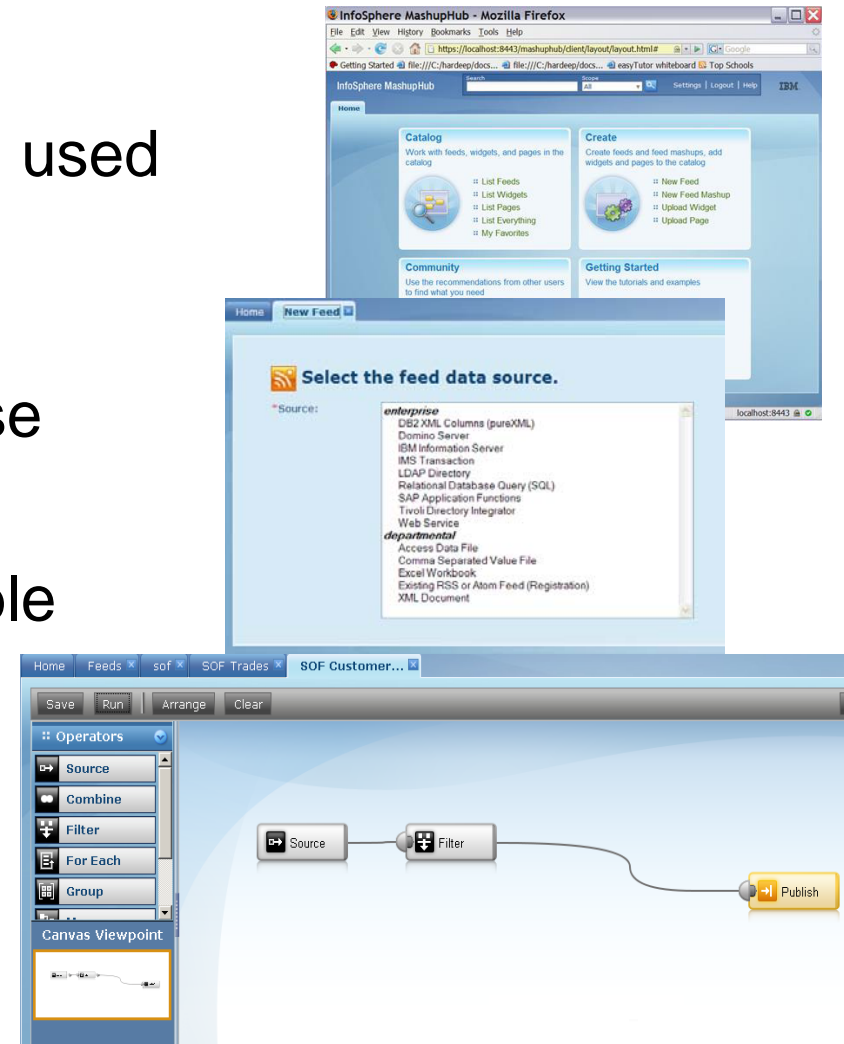


# IBM Mashup Center Leads In Mashup Capabilities

- Easily create feeds from enterprise, personal, and web sources
  - ▶ Supports relational databases (SQL), DB2 pureXML, SAP, IMS, Web Services, Domino, ...
  - ▶ And Microsoft Access, Excel spread sheets, XML, RSS feeds
  - ▶ Microsoft Popfly has no way to create direct feeds to databases or other sources
  - ▶ Microsoft Popfly is a hosted service, accessing enterprise data creates a security risk.
  - ▶ BEA Portal needed to access enterprise data sources
- Supports standard format data feeds (ATOM, RSS, and XML)
  - ▶ Oracle Ensemble has no ATOM or RSS support
- Graphical tool to mashup data feeds
  - ▶ Can easily combine, merge, filter, transform incoming feeds to create feed with the data you need
  - ▶ Oracle Ensemble data feeds require hand coding
  - ▶ BEA Pages lack data mashup capabilities
  - ▶ Microsoft Popfly lacks mashup capabilities

# Demo: InfoSphere MashupHub

- MashupHub demo showing construction of enterprise feed used in previous demo.
- Create access to host database
- Create “filter” to subset data
- Create “feed” to make it useable
- Publish in catalog for reuse



# Analysts Cite IBM's Leadership In The Space.....



“What IBM is offering here...is a full suite of products designed to address the needs of developers, while providing a front-end, self-service mashup composition product for business users.” \*

"Mashups hold the promise of widening access to enterprise data by freeing it from the application in which it is stored. For some IT organizations, mashups provide a business-ready proving ground for the investments they have made in an SOA."



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“Gartner analyst Anthony Bradley credits IBM with being the first major enterprise player to put together a "coherent mashup platform"

\* Source for Gartner/IDC: “Application Development Trends: “IBM's Mashup Play”, John K. Waters. June 9, 2008.

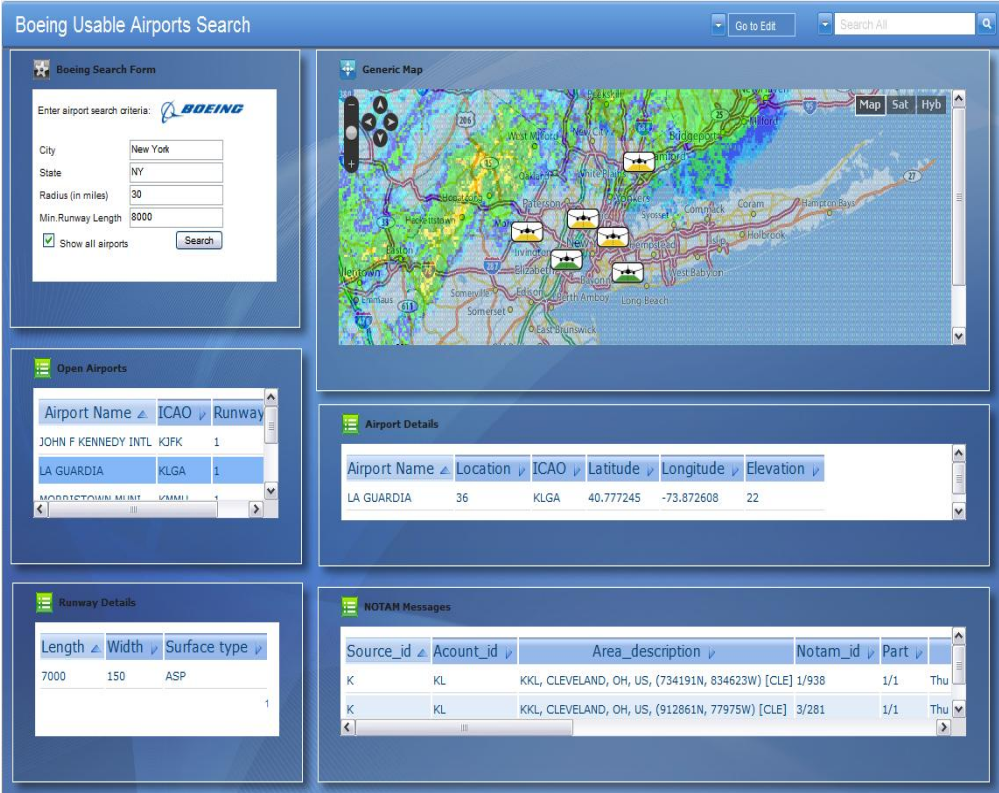
# Usable Airport Search Mashup

## Scenario:


- ▶ Need for authorities to use existing data and systems to react to unexpected events and develop new capabilities.
- ▶ During Hurricane Katrina authorities could not quickly use existing systems to find airports that were opened and had runways with enough capacity to land transport planes carrying relief supplies.

## Results:

- ▶ Within three weeks Boeing and IBM had deployed mashup capability using IBM's Mashup Center. Boeing successfully demonstrated the capability to FAA, DoD, DHS.



**Boeing Usable Airports Search**

Enter airport search criteria: 

City: New York  
State: NY  
Radius (in miles): 30  
Min. Runway Length: 8000  
 Show all airports

**Generic Map**

**Open Airports**

Airport Name	ICAO	Runway
JOHN F KENNEDY INTL	KJFK	1
LA GUARDIA	KLGA	1
MOORESTOWN MILIT	YAMM	1

**Airport Details**

Airport Name	Location	ICAO	Latitude	Longitude	Elevation
LA GUARDIA	36	KLGA	40.777245	-73.872608	22

**Runway Details**

Length	Width	Surface type
7000	150	ASP

**NOTAM Messages**

Source_id	Account_id	Area_description	Notam_id	Part	
K	KL	KKL, CLEVELAND, OH, US, (734191N, 834623W) [CLE] 1/938	1/1	1/1	Thu
K	KL	KKL, CLEVELAND, OH, US, (912861N, 77975W) [CLE] 3/281	3/281	1/1	Thu

*Samet M. Ayhan, Boeing: "The IBM Mashup tool offers a new approach for quick web application development, where disparate data sources can be fused on a single environment with reusable components in order to make better decisions."*