IBM Information On Demand:
Unlock The Business Value Of Information

Information Delivery In The Web 2.0 World

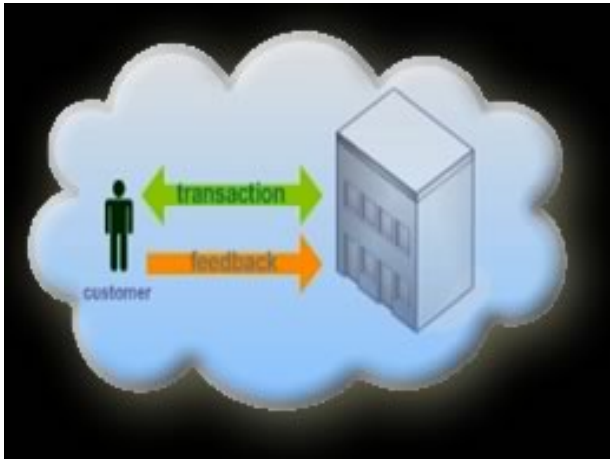
New Intelligence

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

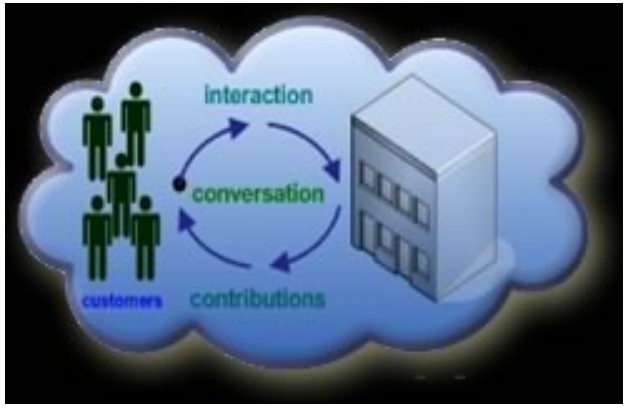
IBM

Web 2.0 Gives Us New Leverage To Access Data

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



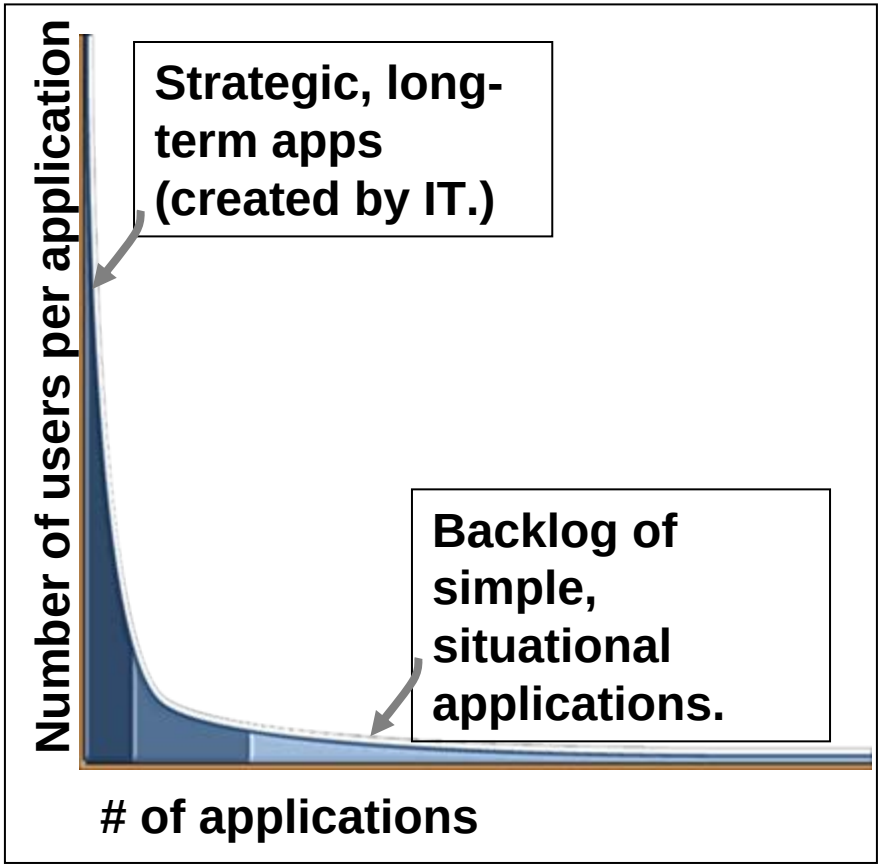
Web 2.0 is about **delivering information to humans to help them with the task at hand**



Web 2.0 applications are often called situational applications

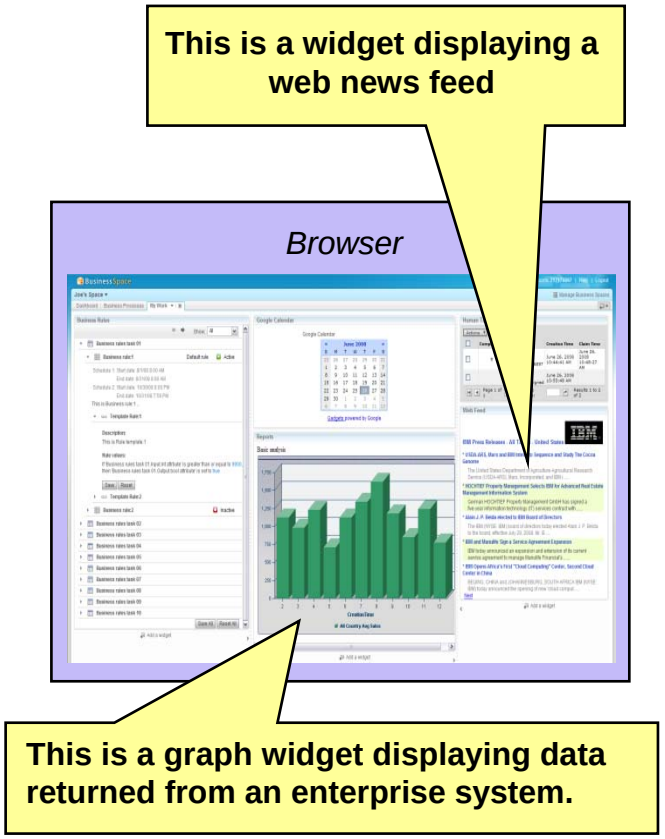
Situational Applications

- 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



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>
```

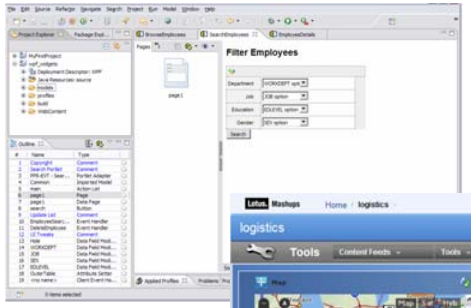
What Makes Mashup Technologies Unique?

		Mashup Development	Traditional IT
Scope	Time to value	Days to weeks	Months to years
	Lifespan	Variable, often short	Long lived
Process	Dev. phases	Ad-hoc or good-enough	Defined, scheduled
	Governance	De-centralized, community	Formal, centralized
	Evolution	Organic	Top-down, centrally driven
Users	Application builders	LOB, individuals, groups	Corporate IT
	Targeted users	Small teams or known user	Large groups
Technology	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

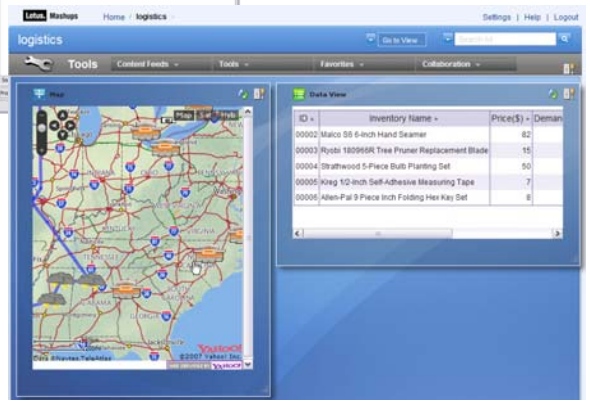
- **Create** mashup web pages by reusing existing data and services
- **Unlock** Enterprise, Web, Personal and Departmental Information
- **Develop** widgets from enterprise systems
- **Discover** and share mashups, widgets, feeds, and services
- **Transform** information into new feeds

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



Widget IDE

Lotus Mashups



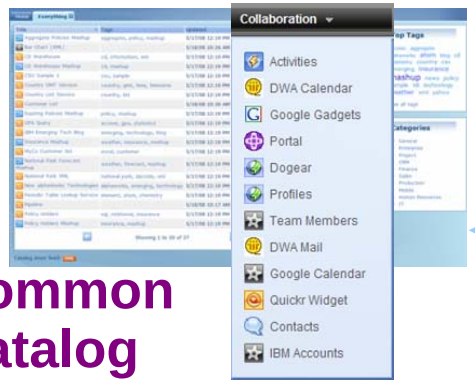
Wire Widgets & Assemble Mashups

InfoSphere MashupHub

Create REST-style Feeds

Customer Data

Stock trades

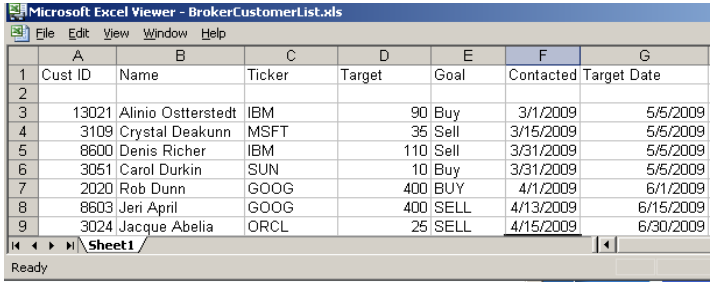


Common Catalog

Web-based widgets

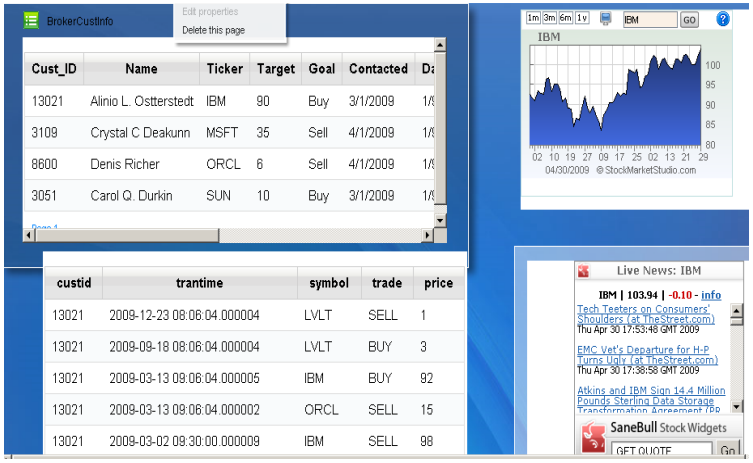
Demo: Sales Call Mashup

- Sales needs to combine personal contact info, enterprise data, and live web news



	A	B	C	D	E	F	G
1	Cust ID	Name	Ticker	Target	Goal	Contacted	Target Date
2							
3	13021	Alinio Ostterstedt	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

- Show creating Mashup with
  - Personal customer spreadsheet contact info
  - Customer trade data
  - Google charts on stock history



Cust_ID	Name	Ticker	Target	Goal	Contacted	Da
13021	Alinio L. Ostterstedt	IBM	90	Buy	3/1/2009	1/
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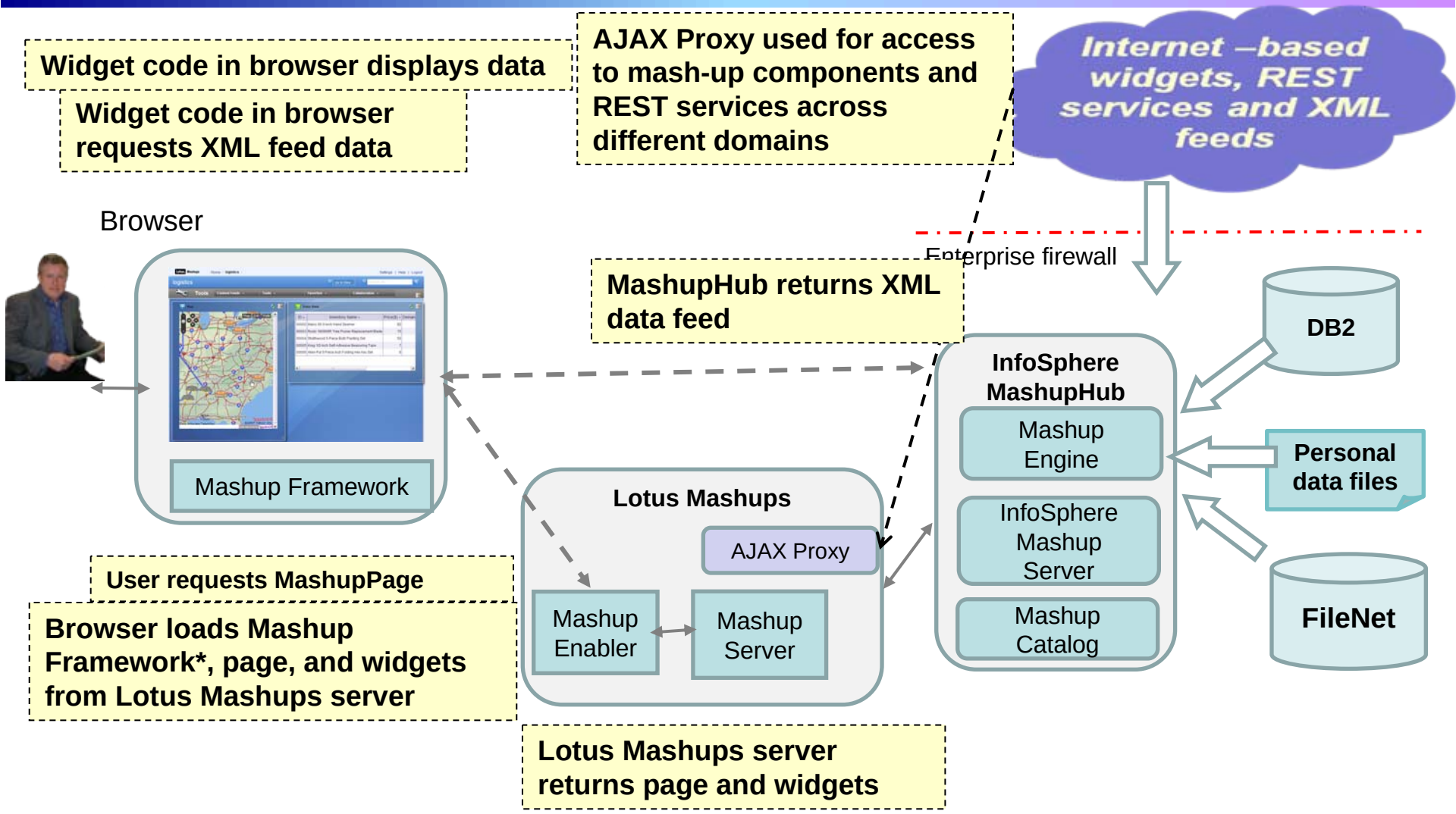
8600	Denis Richer	ORCL	6	Sell	4/1/2009	1/
3051	Carol Q. Durkin	SUN	10	Buy	3/1/2009	1/

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 09:06:04.000005	IBM	BUY	92
13021	2009-03-13 09:06:04.000002	ORCL	SELL	15
13021	2009-03-02 09:30:00.000009	IBM	SELL	98

- Sales using Mashup to prepare for customer calls.

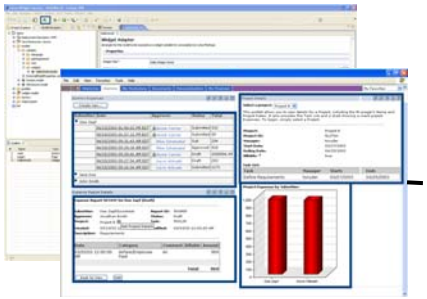
IBM Mashup Center Runtime Environment



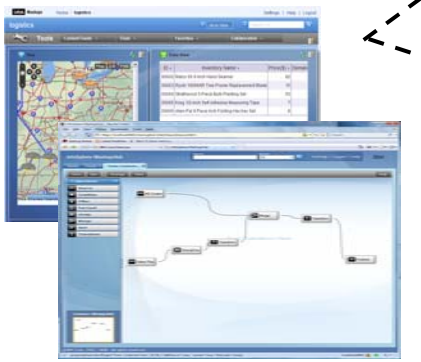
*Framework only loaded on initial login

Browser Based Tools Create Mashups And Feeds

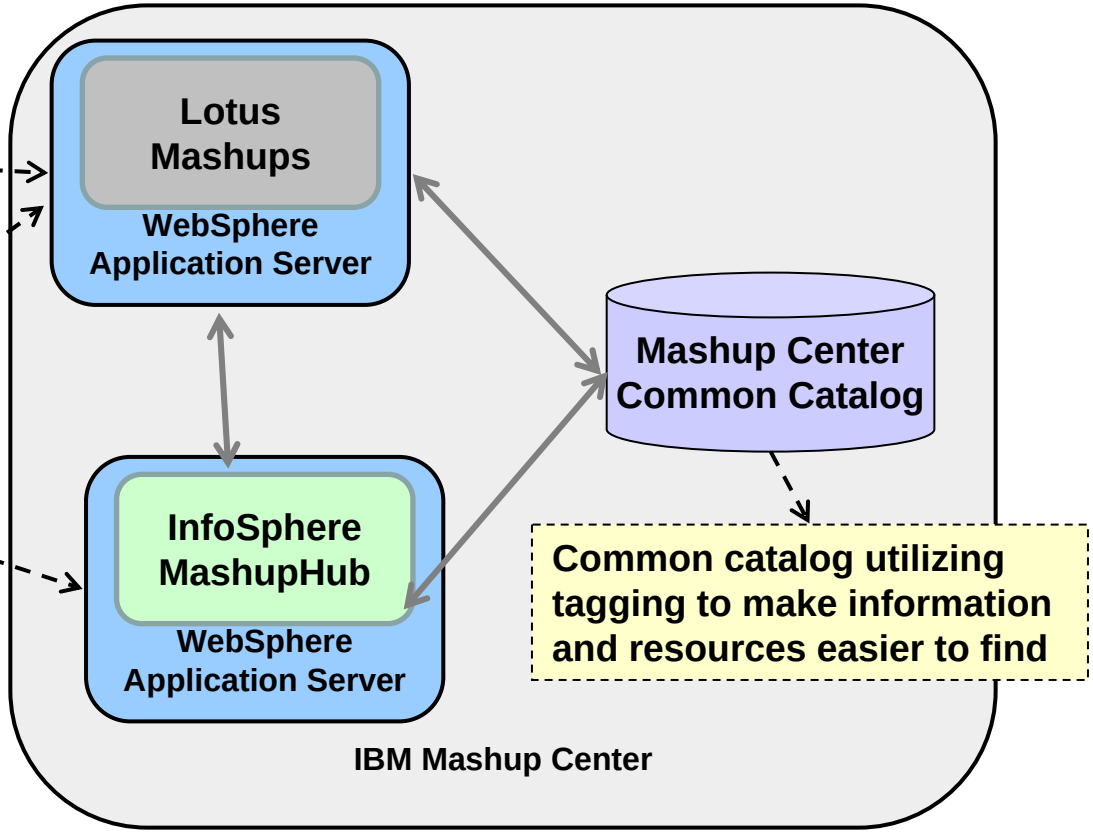
Lotus Widget Factory



Wizard driven Eclipse based tooling for custom widgets



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



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

Google Gadgets

programmableweb

kapow TECHNOLOGIES

AccuWeather.com®

STRIKEIRON DATA AS A SERVICE

IBM

InfoSphere Mashup Center

Lotus Greenhouse **Optim**

Cognos **Filenet/ECM**

Build Your Own

Any language – Ajax, HTML, etc

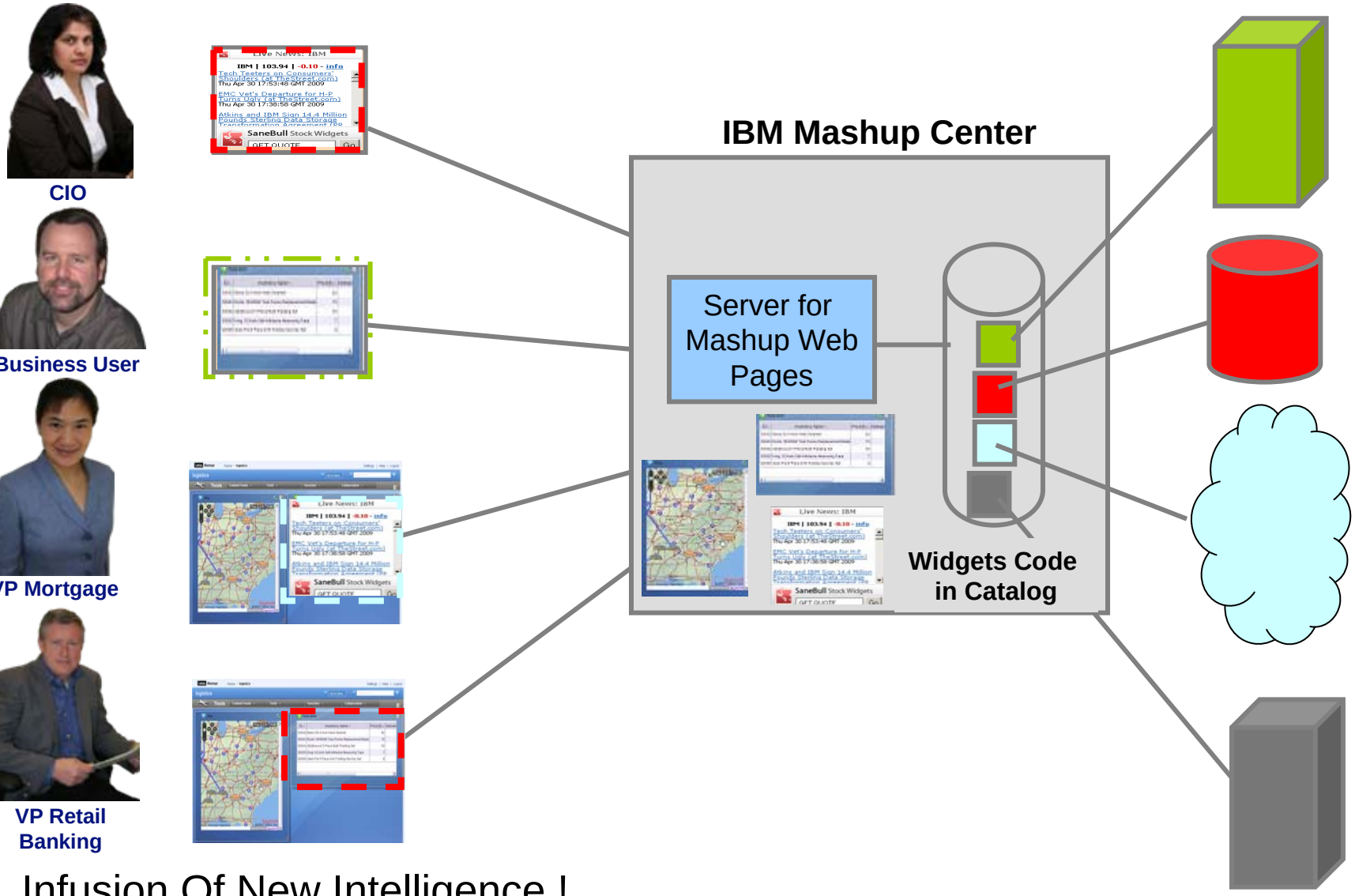
Widget Factory in Mashup Center

WebSphere sMash

Mashup Catalog Facilitates Easy Sharing And Reuse Of Resources

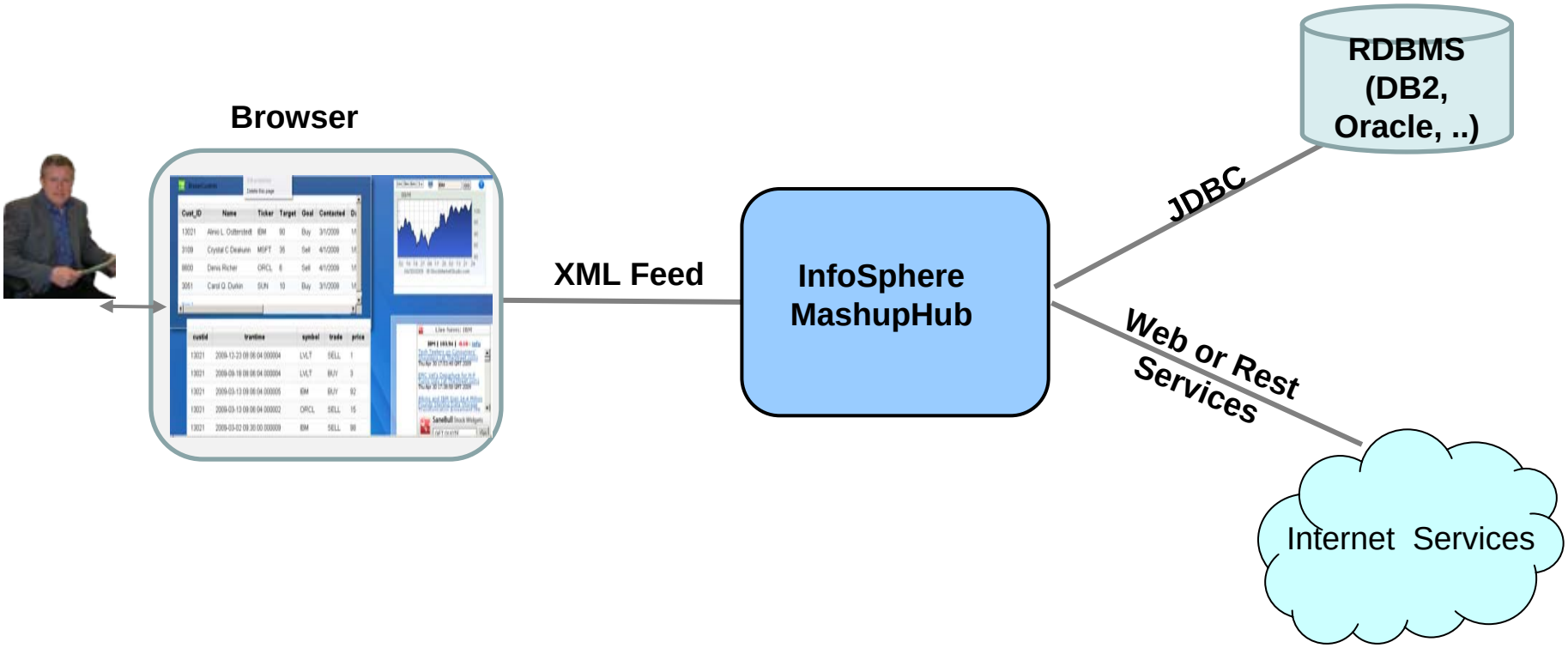
- A single common central catalog for mashup resources
- Enables easy discover and sharing of Mashups, Widgets, and Feeds
- Provides common place for security and to govern access and use
- Uses Web 2.0 social computing conventions of tagging and rating to promote collaboration and re-use
- Assemble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

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



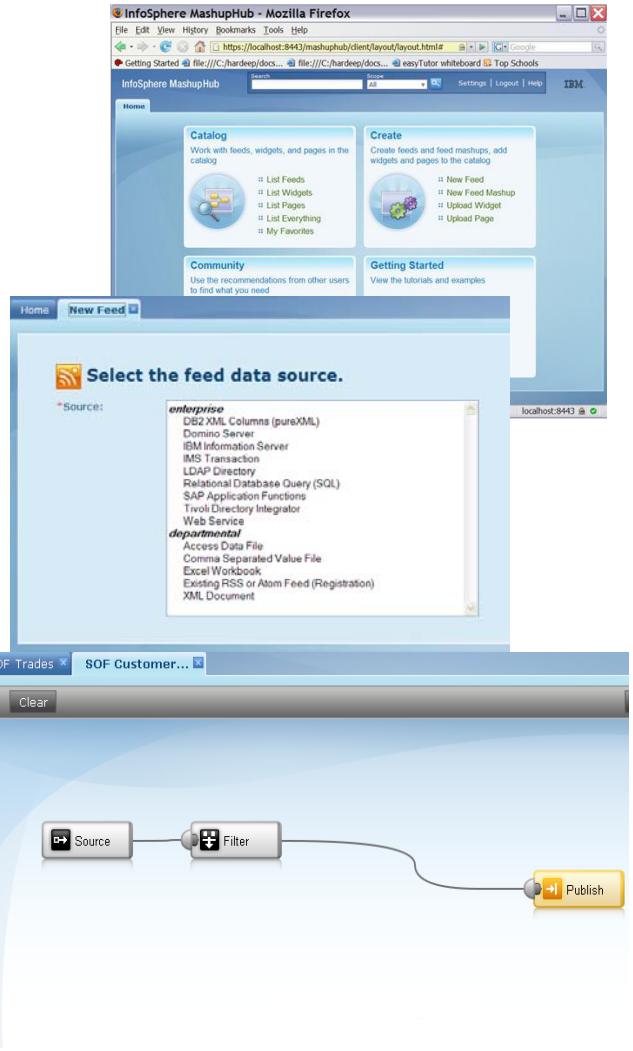
IBM Mashup Center Leads In Mashup Capabilities

- Easily create feeds from enterprise, personal, and web sources
  - Supports relational dabases (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."

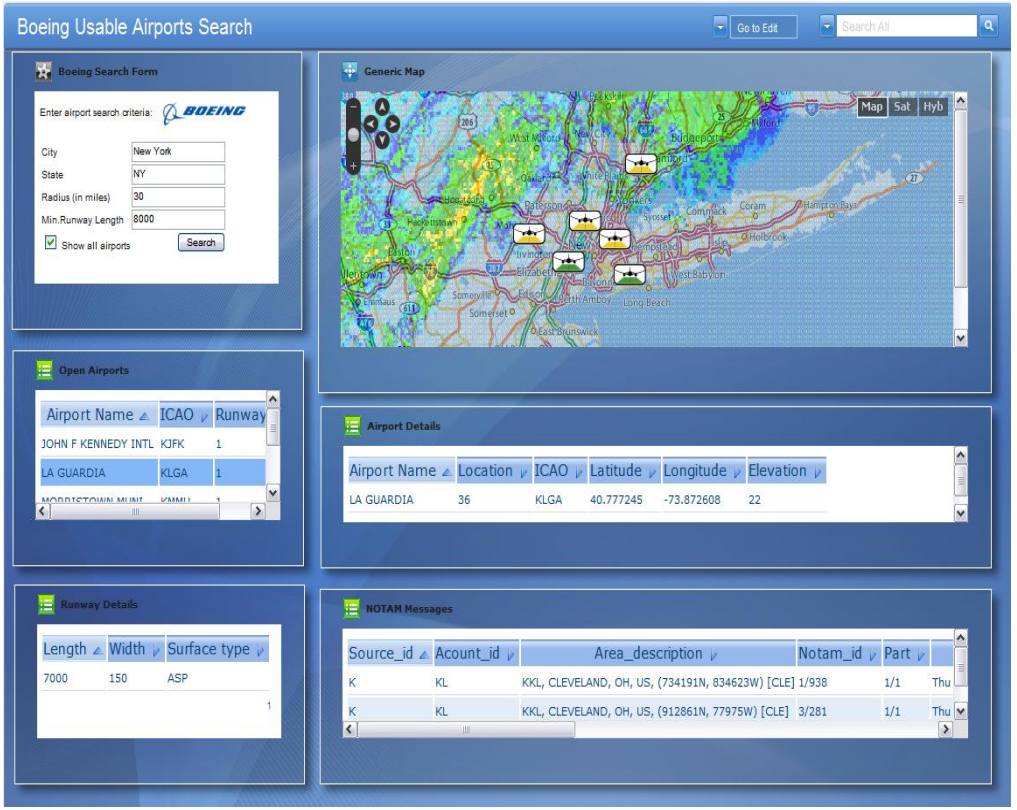
"Gartner analyst Anthony Bradley credits IBM with being the first major enterprise player to put together a "coherent mashup platform"

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

Usable Airport Search Mashup

Boeing Air Traffic Management

- 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.



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."