

Modern Application Development Featuring Web 2.0 for System z

Overview and Business Value of Web 2.0

Rational. software

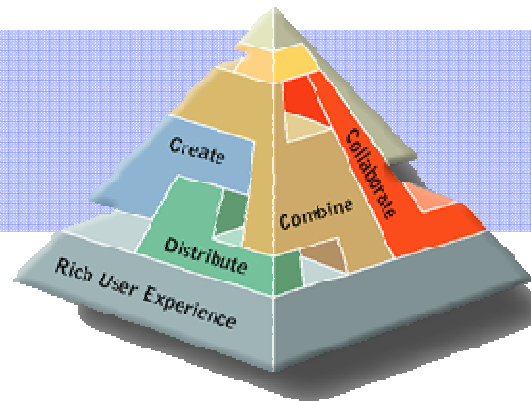
Agenda

- **Basics of Web 2.0**
 - Overview
 - Technology
- **Why Web 2.0?**
 - Business Value
 - Enterprise 2.0 Solution Patterns
 - Sample Business Scenarios
- **Enterprise Modernization and Web 2.0**
 - Identifying opportunities for your existing assets

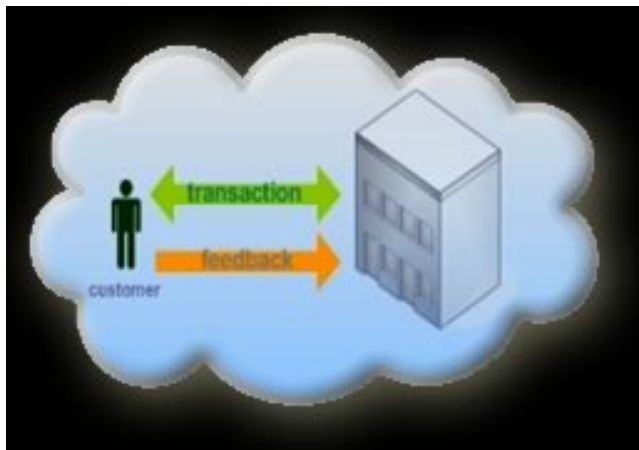
Web 2.0!

What is Web 2.0?

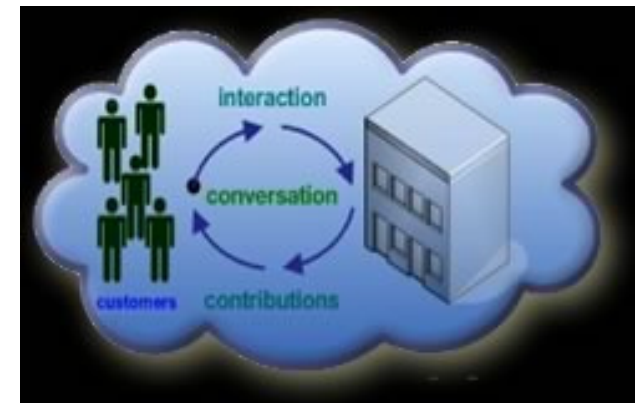
Web 1.0 was about **connecting computers** and making technology more efficient for computers.



Web 2.0 is about **connecting people**, and making technology efficient for people.



Web 2.0 changes the way businesses interact with customers



Expanding from dozens of markets with millions of people to millions of markets of dozens of people

The Web as a Platform

- Coined in 2003, first Web 2.0 expo in 2004.
- Web 2.0 is a term often applied to a perceived ongoing transition of the World Wide Web from a collection of websites to a full-fledged **computing platform** serving web applications to end users.
- Web 2.0 is a business revolution in the computer industry caused by the move to the **Internet as platform**.
- Web 2.0 is expected to replace desktop computing applications for many purposes.

Web 2.0!

Why Web 2.0?



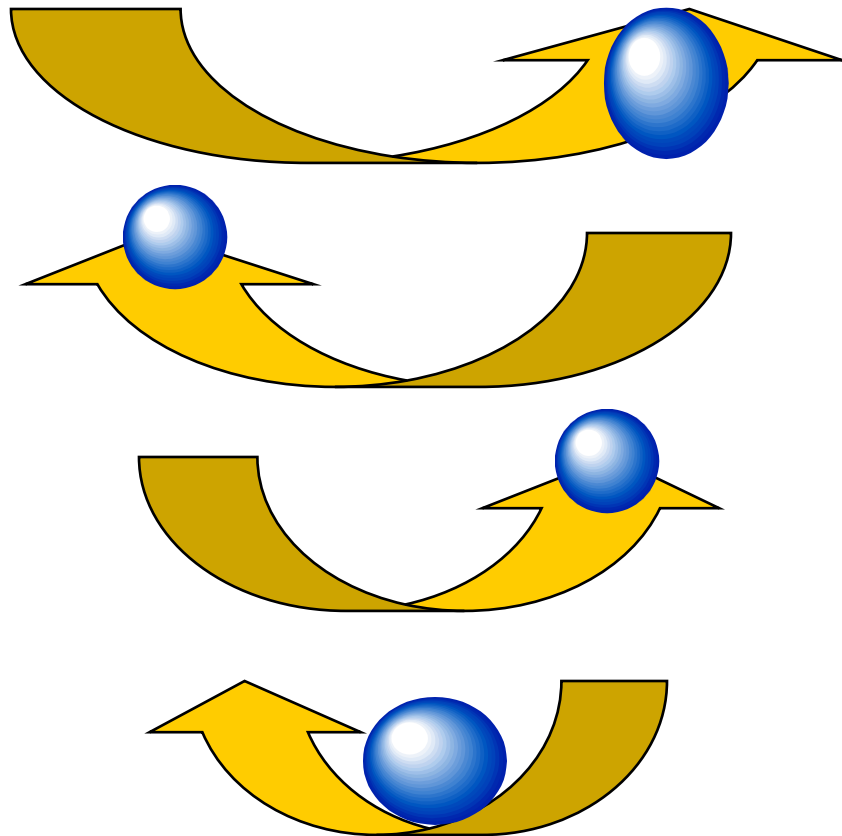
Web 2.0 technologies

- Extend the rich user experience of client/server to the web, increasing the Wow! factor of web apps
- Enable subject matter experts to build loosely-coupled composite applications via reuse and “mash-ups”
- Allow disjoint data to be quickly combined in different ways to make an immediate business impact
- Are based on standards (e.g. SOAP, REST, JSON, Atom)

Web 2.0 technologies highlight the next pendulum swing between client and server function.

Client

Server



Mainframe computing

“Dumb” green screen clients
Omnipotent big mainframe servers

Client-server computing

“Smart” Personal Computer clients
Simple file and database servers

Web (1.0) computing

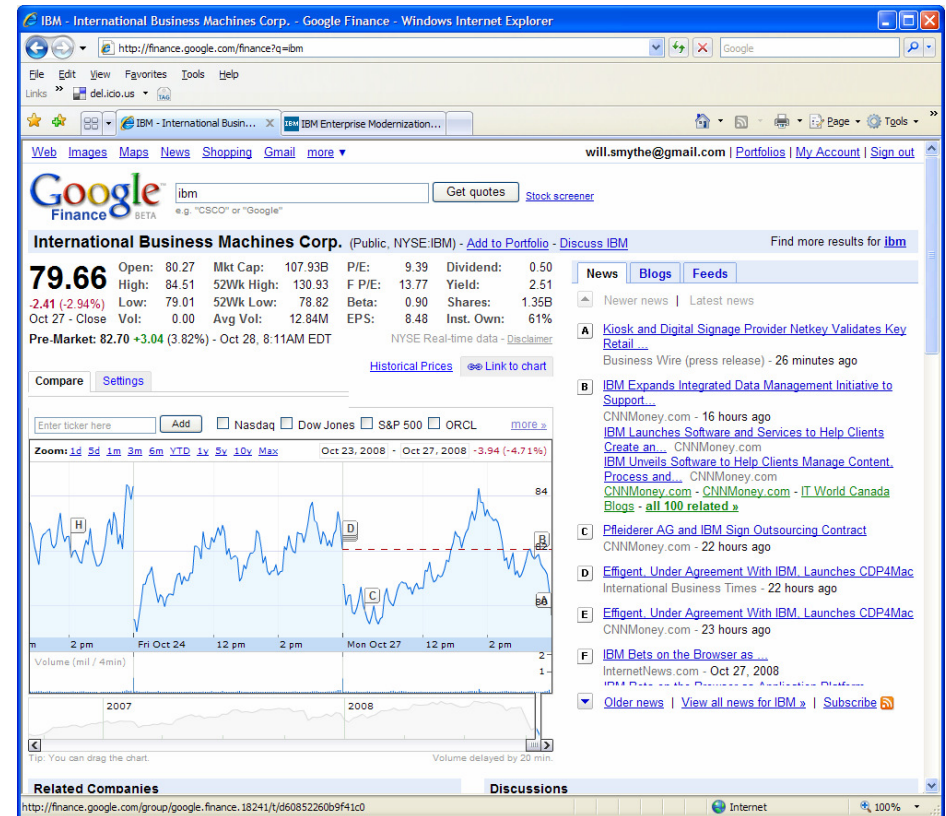
Light Web Browser clients
Rich application and database servers

Web 2.0 computing

Rich Internet Application clients
Lighter application and database servers

Web 2.0 / Rich Internet Application Characteristics

- Rich user experience
 - Minimal page transitions
 - Dynamic content
 - Data asynchronously retrieved via REST or SOAP service calls
 - Client-side validation
 - Simplified user interface
- User encouraged to add value
- Integration of relevant data from multiple sources



Mashups

Combine content from more than one source into an integrated experience

Google Map

Hotel information — separate database

Directions — come from somewhere else

Send to a phone — Additional functionality

Disney's Yacht & Beach Club Resorts Yacht Club
★★★★☆ 430 reviews - [more info](#)
1800 Esplan Blvd.
Lake Buena Vista, FL 32830
(407) 934-8000
[go.com](#)

[Get directions](#) - [Search nearby](#)
[Save to My Maps](#) - [Send to phone](#)

Why?

- Rapid application development
- Reuse existing services
- Avoid reinventing the wheel
- Empowers users

Technology Attributes of Web 2.0

Rich User Experience

AJAX incorporating: XHTML and CSS, DOM, XML and XSLT, XMLHttpRequest and JavaScript allowing information to be mashed up into new interactive portals."

Lightweight Programming Model

XML or JSON data over HTTP, in a lightweight approach sometimes referred to as **REST** (Representational State Transfer) as an alternative to SOAP.

Info-ware

"DATA is the new HTML." Database management is a core competency of Web 2.0 companies.

Feeds

RSS/ATOM allows someone to link not just to a page, but to **subscribe** to it, with notification every time that page changes.

Perpetual Beta

Users must be treated as co-developers, in a reflection of open source development practices. The open source dictum, **"release early and release often"**



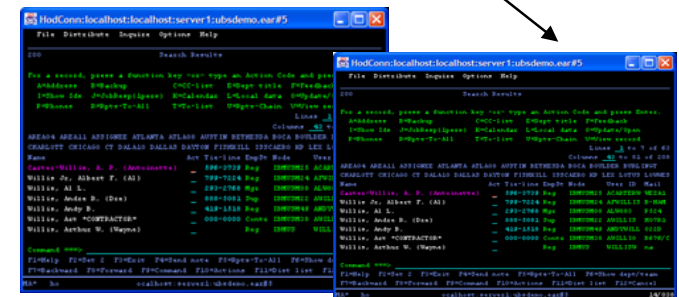
Google Finance

Value of Existing Applications

30 million lines of code could be worth \$3 billion!



- Existing applications are among the most valuable assets a company owns
 - Fully functional applications that run the business today
 - Significant investments over the years
 - Fine-tuned for dependable optimal performance
 - Run within fine-tuned reliable, robust, scalable IT infrastructure and platforms
- Accessed via character / text based terminals
 - Non-intuitive, difficult to navigate user interfaces
 - Difficult to integrate in modern business processes
- 5X less expensive to reuse existing applications than to write new applications from scratch
- Reusing proven, time-tested applications can result in significantly lower risk and faster time to market



Why Web 2.0 for the Enterprise?

- **Web 2.0 is**

- Creating new markets
- Lowering competitive barriers
- Encouraging creativity to come from anywhere
- Harnessing community created media
- Tapping into the wisdom of the crowds
- Enhancing communications and making information more impactful

- **What does it means for the enterprise?**

- Greater collaboration and innovation across the value chain
- Increased levels of customer intimacy
- Simplification of complex IT and business infrastructure
- Business model flexibility to capitalize on new market opportunities

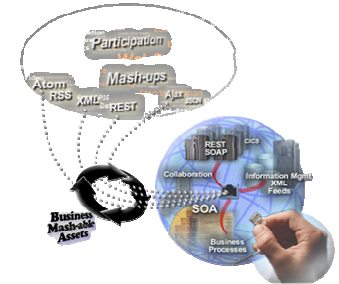
It's fast becoming a Web 2.0 business world, but innovation never goes out of style.

According to Gartner:

By 2008, the majority of Global 1000 companies will have adopted several technology-related aspects of Web 2.0

Missing out on the non-technology aspects of Web 2.0 means that many organizations will also miss out on some of the positive business benefits

New Business Opportunities



- **For example...**

- Leverage Web 2.0 in your business critical applications
- Investigate customization, integration and services opportunities in rolling out web 2.0-based community collaboration environments.

- **Benefits to your customers:**

- Instant business value through rapid new product deployment, with reduced costs
- Reduction in time to market opens new business opportunities
- Reducing costs through customer self-service
- Unlocking valuable business data opens new business opportunities
- Extracting value by collecting and sharing the wisdom in the organization

Modernization with Web 2.0

Reuse what you already have!

- Build a new Web front-end for your existing order entry application, but continue to use your proven business logic.
- Create a self-service portal that provides your customers with details about past and business logic to perform a calculation.
- Expose a portion of current orders.
- Mashup information from multiple CRM systems.
- Reuse existing COBOL customer data locked away in a green screen application to another team in your organization.
- **Web 2.0 is not just for Internet-accessible applications – can be used to improve productivity of internal users!**



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Real Estate Demo Application Overview

Rational. software

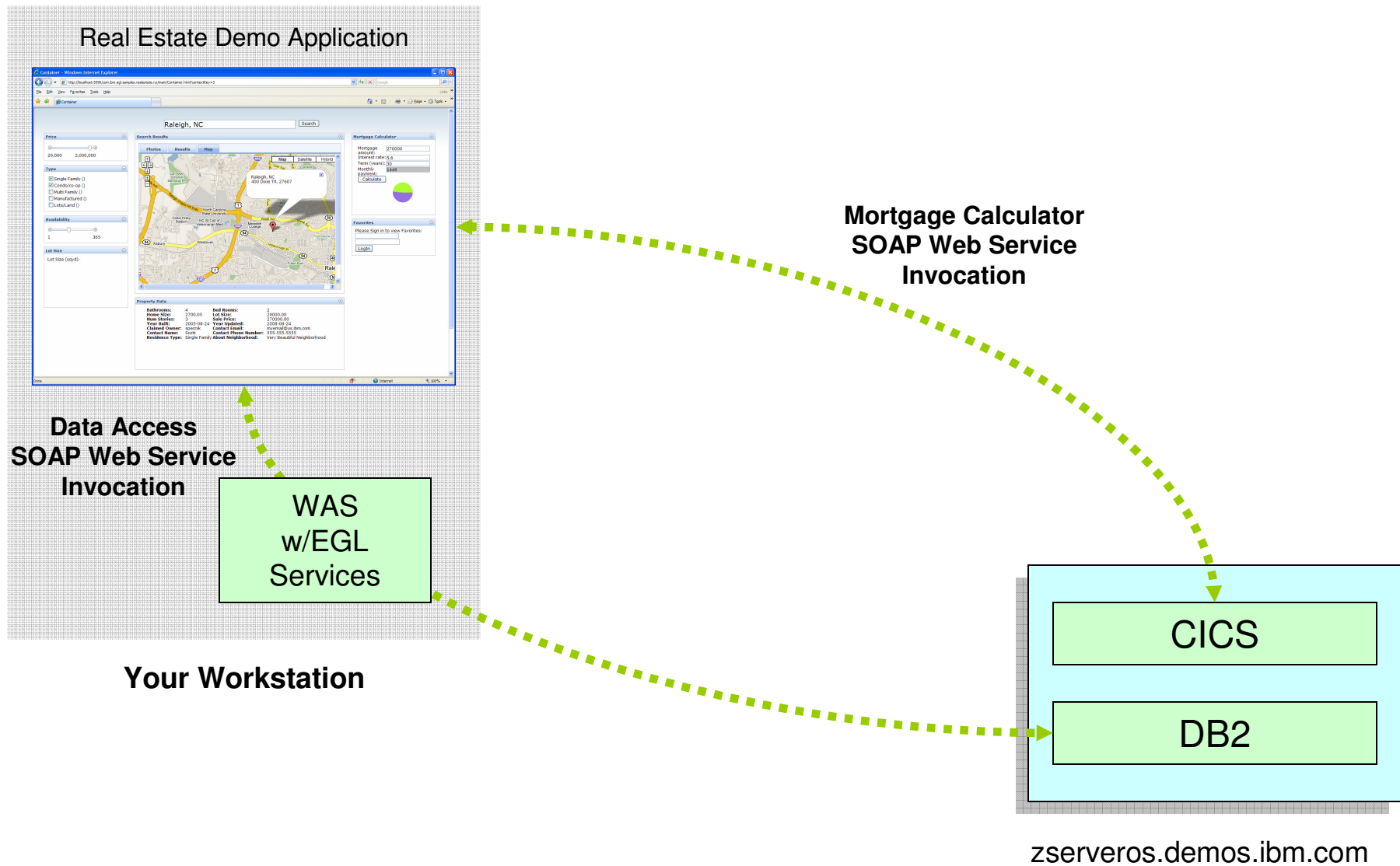
Overview

- Throughout the day, we will be working with a sample real estate application that has been created for this seminar. This application shows how existing data and applications can be easily exposed in a new Web 2.0-style application.

The screenshot shows a web browser window titled "Container - Windows Internet Explorer" displaying a real estate application. The address bar shows the URL: `http://localhost:5590/com.ibm.epl.samples.realestate.ru/main/Container.html?contextKey=3`. The application interface includes a search bar at the top with "Raleigh, NC" entered. Below the search bar are several filter panels: "Price" with a slider from 20,000 to 2,000,000; "Type" with checkboxes for Single Family, Condo/co-op, Multi Family, Manufactured, and Lots/Land; "Availability" with a slider from 1 to 365; and "Lot Size" with a text input field. The main content area is titled "Search Results" and features a map of Raleigh, NC, with a red pin marking a property at "Raleigh, NC 400 Dixie Trl, 27607". To the right of the map is a "Mortgage Calculator" with fields for Mortgage amount (270000), Interest rate (5.6), Term (years) (30), and Monthly payment (1449), along with a "Calculate" button and a pie chart. Below the map is a "Property Data" section with the following information:

Bathrooms:	4	Bed Rooms:	2
Home Size:	2700.05	Lot Size:	29000.00
Num Stories:	3	Sale Price:	270000.00
Year Built:	2005-08-24	Year Updated:	2008-08-24
Claimed Owner:	specnik	Contact Email:	myemail@us.ibm.com
Contact Name:	Scott	Contact Phone Number:	555-555-5555
Residence Type:	Single Family	About Neighborhood:	Very Beautiful Neighborhood

Architecture Overview





Real Estate Demo Application