



IBM Software Group

# Enterprise Mashups: An Industry Case Study

## *PHP meets Web 2.0*

WEB OF THE FUTURE

...a web of data sources,  
services for exploring &  
manipulating data, and  
ways that (end) users can  
connect them together

**Instantly**

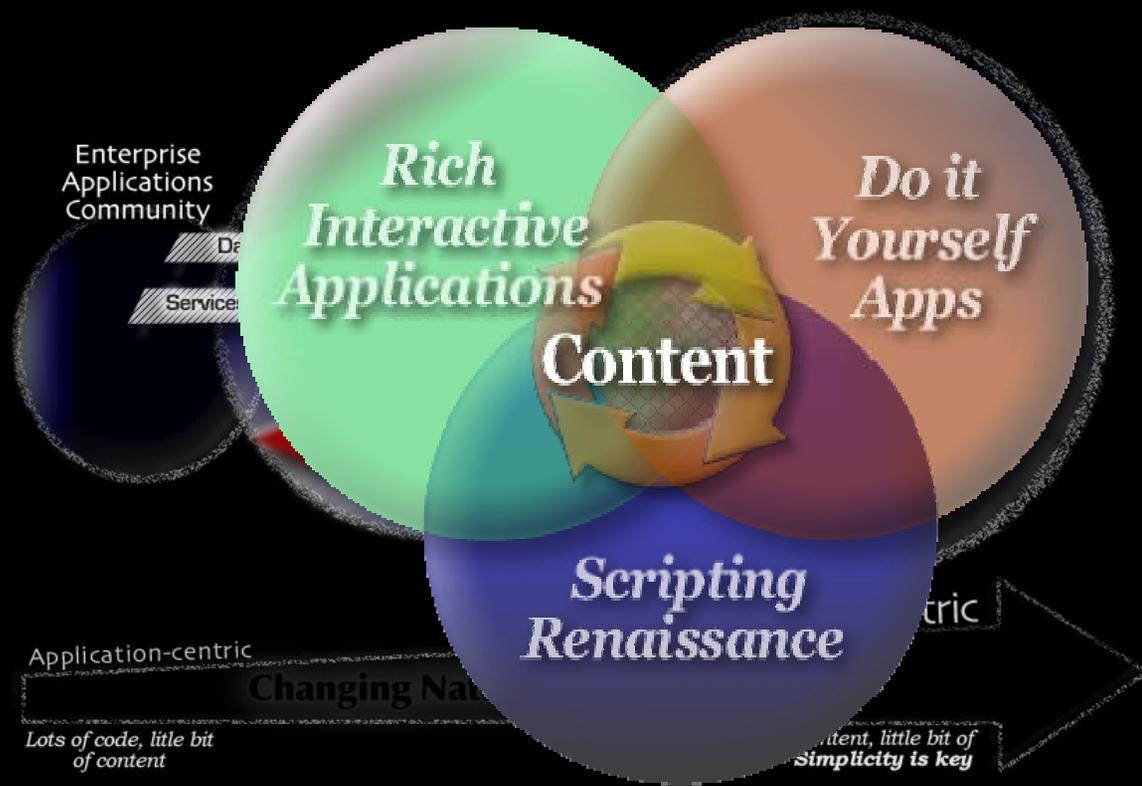
Tom Coates/Yahoo

**New York PHP Conference & Expo 2006**  
THE PHP BUSINESS COMMUNITY

# Why is IBM investing in PHP?

## Enterprise Mashups: An Industry Case Study

- PHP empowers another segment of developers - expanding solutions for customers
- Broad community support & participation
  - Architecture by Participation
  - Users as co-developers - DIY Apps
  - Re-use & assembly culture
- Light weight programming model thru web services & REST
  - Embracing values for integration & interoperability
- Strong business value synergy & linkages
  - SMB & mid-market
  - Departmental
  - IT



### IBM Initiatives

- Zend Core for IBM - Information Management
- Zend Core for iSeries

### SWG Emerging Technologies

- PHP + SOA
- Web 2.0 Instant Apps
- Ajax Tooling & toolkits

Next Target customer:

- Self Empowered business professional
- Immediate business value/feedback
- Designed for "Instant" deployment
- Activity based programming models
- "Personal/group web" applications



# Web 2.0 - What technologies are we talking about?

*Enterprise Mashups: An Industry Case Study*

- Many Web 2.0 Technologies still in innovation stage
- Customer Interest High In:
  - ✓ AJAX is most tangible in terms of potential business value
  - ✓ RSS/Atom - RSS & Atom/APP being seen as potential approaches to simplify specific content centric application architectures
  - ✓ Programmable Web - potential seen in building/extending business ecosystems
  - ✓ Web 2.0 "instant" applications



# Web 2.0 - What customer pain points can it address?

## Customer Pain Points

- Internet technologies continue enabling Businesses to **expand their ecosystems & partnerships**
- Partnerships cause **integration** work items it IT - usually requiring a minimum of 6 months per request
- **Change Happens** a number of business collaborations last less than 12 months - do the math
- **Attention Economy Factor** keeping a pulse on external business data that *could* impact results is constantly changing

A whole bunch of apps not being written today because they're not affordable

# What's Should Businesses Do?



# Web 2.0 - Rethinking Application Assumptions

How would we design middleware if assume:

- business organizations & relationships are continually changing - therefore solutions need are situational
- LOB teams *just enough* IT savvy to create their own services/solutions that drive their part of the business (Igniting the Phoenix: A New Vision for IT/Sapir)
- ...applications are disposable

## "Situational" Apps

- Built to solve an immediate, specific business problem
- Blending externalities with business-private content & services
- Manipulates static & increasingly dynamic content ~information-centric
- Accelerated by community-based collaborations



# QEDwiki - Wiring the Web

*Mash-up Maker*

Application Wikis are environments for *collaborative*, situational (ad hoc) dynamic content development

- Facilitate web solutions for non-programmers who are domain experts - i.e. Mash-ups, dashboards, etc..
- Further mark-up based client development strategy - plug-in model for easy extensibility
- Weave together a "good enough" solutions by scripters
- Combined runtime & light weight assembly capabilities



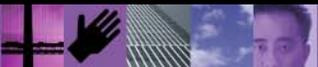
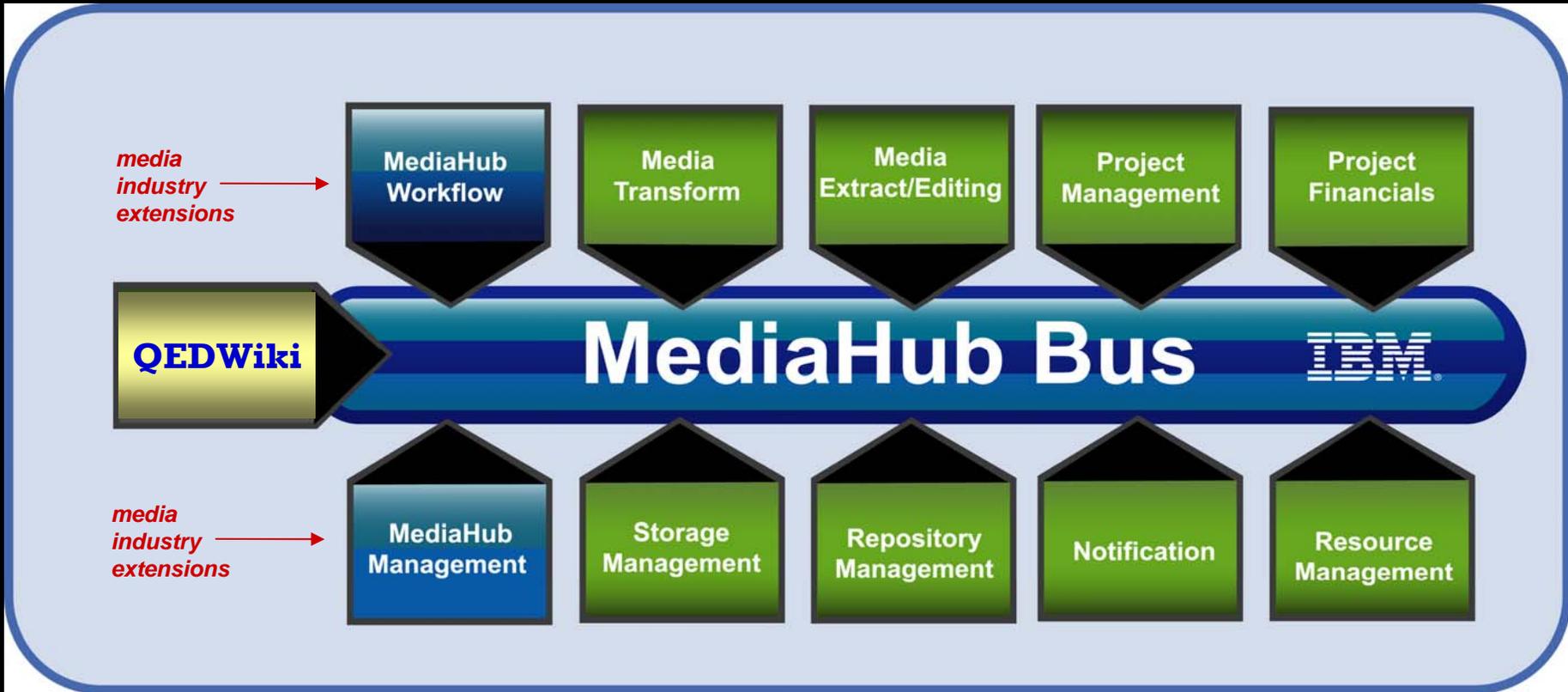
# Case Study: Media & Entertainment Industry

- **Background**
  - Provide members of National Association of Broadcasters within the Media & Entertainment industry with lifecycle enabling tools for all aspects of media production.
- **Challenge**
  - Typical media production projects are of short durations (3 weeks, 3 months, 6 months..) thereby limiting justification for IT investment
  - Media production lifecycle solutions are often standalone and proprietary
  - Application development resources are siloed and disjoint from infrastructure IT
- **Solution**
  - Deploy IBM's Media Hub, an enterprise service bus with media extensions and workflow capability
  - Integrate QEDWiki to provide
    - informal, just-in-time access to domain content supplied by Media Hub
    - Production assistants with the ability to create their own situational application for each individual project
    - IT groups with the ability to support hundreds of situational applications for short-term projects
- **Benefit**
  - Media production teams are empowered to create short-lived ad-hoc applications
  - Single point of visibility throughout entire organization
  - Flexibility of application tailoring for a variety of users
  - Potential simplification of support for IT organization
  - Ability to provide applications for shorter term projects. (3 weeks - 3 months)



# Case Study: Solution Architecture

**Media Hub is an enterprise-service-bus with media extensions and workflow capability based on IBM's service-oriented-architecture using IBM's WebSphere Application Server.**



# Case Study: Demo

- Created for the Annual National Association of Broadcasters Conference
  - Example *Mashboards*
    - Long Form production Workflow
      - Content management for media production Editors, Producers and Directors
      - **Resource Utilization Monitor**
  - Short Form Production Workflow
    - Event based resource allocation for Journalists

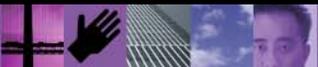
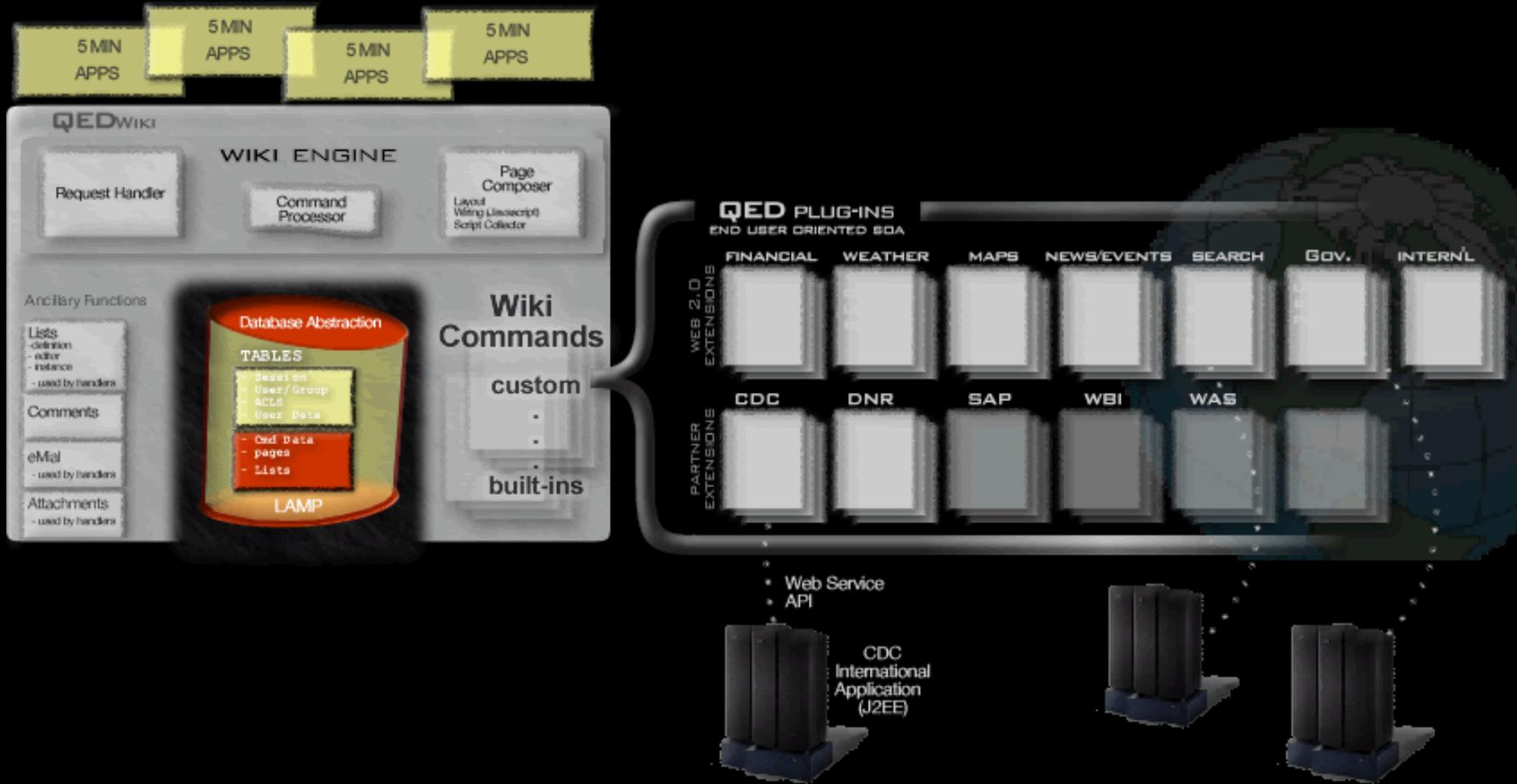


# Case Study: Resource Utilization Monitor

- Scenario:
  - Within the Media industry the majority of workers use timecards to track resource activity pertinent to a specific project.
  - Our Project Manager for the “Picasso Code” documentary needs a resource utilization mashboard to manage resource allocations for the project.
- Demo
  - Our current production project, code named *Guernica* after the famous Picasso painting, contains several production editors located in remote locations across the country.
  - Each editor is billing us at different contract rates and they are utilizing editing bay facilities that range in cost per location.
  - Our demo allows us to see that:
    - Peter has been inefficient, going over his time and cost budgets
    - Ed has been tracking inline with his budget
    - Fred has been very efficient, tracking under his time and cost budgets

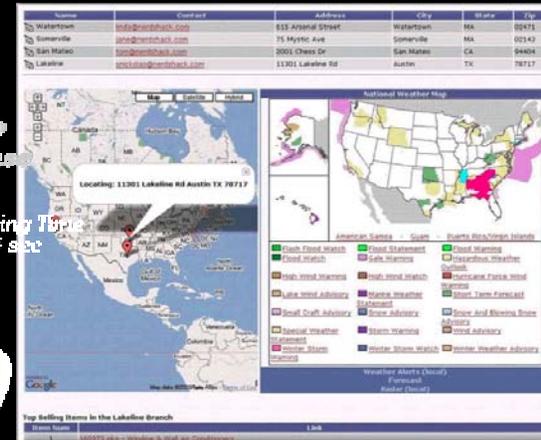
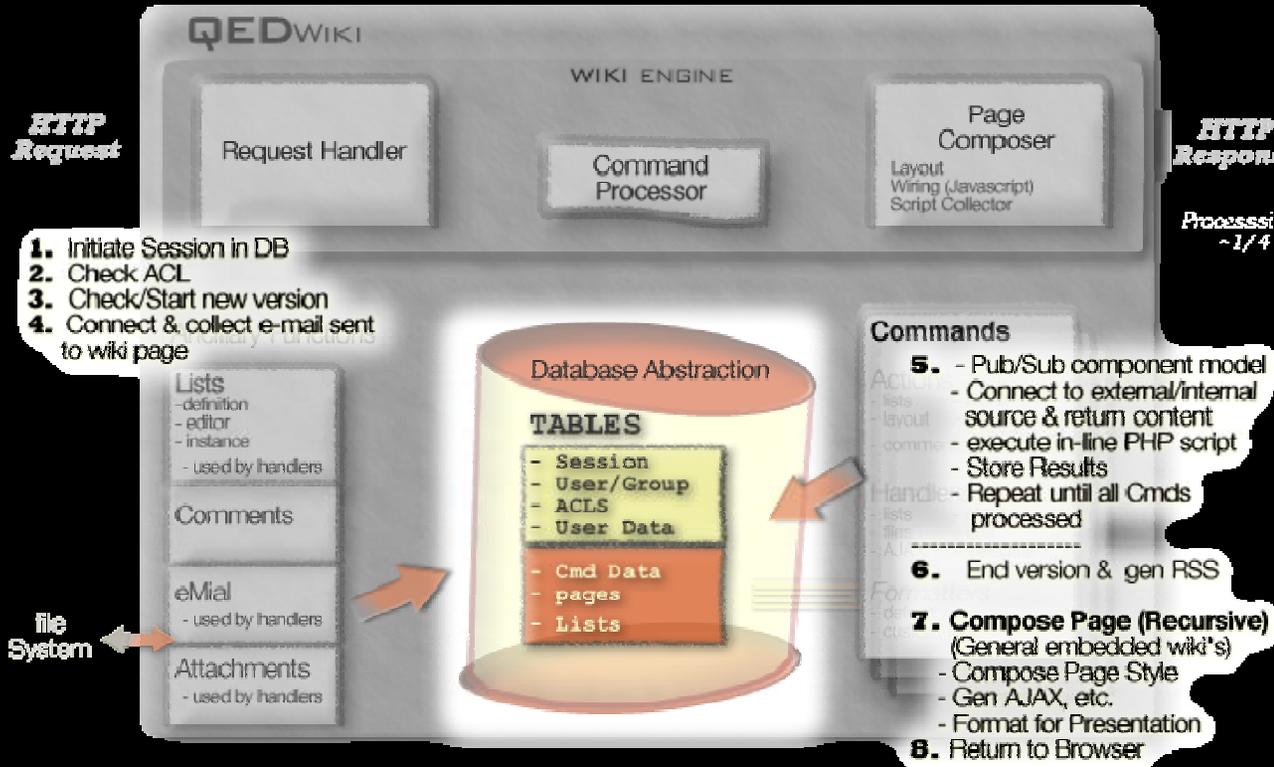


# QEDwiki - Architecture Overview



# QEDwiki - Architecture Overview

Web 2.0 Instant Applications



```

QEDwiki in action
/** Results from Google will be displayed
** in a table. Items will have a drag icon
** on the right column. Dragging onto Yahoo maps to
** immediatly locate an office & see any weather related info.
** /

({ google      search="IBM New York Address" data="results" drag="true" })
({ yahooMap   id="map"      acceptLists="*" })
({ noaaForecast })
({ rssfeed    url="http://ww.weather.gov/alerts/ts.rss" })

/** End of WikiPage, versioned, saved & immediatly deployed
    
```

# Conclusions & Summary

## Information

- Content thru feeds, messages & documents
- data integrity for transactions

## Integration

- Mash-ups - bringing together content from multiple sources
- seamless collaborations across business boundaries

## Independence

- freedom to employ any & all applications/services
- application, platform, programming language, and delivery device

## Interoperability

- sharing content across applications & platforms
- loosely-couple programming model

## Internationalization

- globally linking businesses

*PHP is going to continue fueling the Business Innovation-Integration cycle*

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