



IBM Rational Software Conference 2009
As Real as It Gets!



IBM Rational Software Conference 2009

Challenges in building Enterprise Mashups for Collaborative Application Lifecycle Management

PHANI CHALLA

Development Manager – Jazz Foundation & Webtop

RICK BANERJEE

Staff Software Engineer – Jazz Foundation & Webtop

Rational software

AGENDA

- **What are Mashups?**
- **Mashups in Enterprise**
- **C/ALM & Mashups**
- **Best Practices to build Enterprise Mashups**
 - Action at a distance
 - Single Sign on
 - Integration & Traceability Relationships
 - Application Registration
 - Presentation as a Service
 - 3rd Party Widgets – Open Social
 - Security & Governance
 - Tooling Support
- **Summary**
- **Q & A**



What are Mashups?

Mashups — a "mashup" is a lightweight web application created by combining information or capabilities from more than one existing source to deliver new functions & insights.

Composite Applications (CA's) — presented as a integrated desktop interface, composite applications are:

- An assembly of user interface components.
- Each component may be a window into a disparate application or system
- The ability to *bridge multiple systems* and applications, freeing you from information *silos* and application *switching*.



Bangalore, India [Share](#) [Edit](#) [X](#)

10 Aug Monday
24°C
[only show today](#)

Tuesday 19/29°C **Wednesday** 19/30°C **Thursday** 19/29°C

10 Day Weather Forecast Powered by: The Weather Channel

Webnote [Share](#) [Edit](#) [X](#)

Type your text here

To Do List [Share](#) [Edit](#) [X](#)

nothing to do

+ New To Do

(10) Nation - Google News [Share](#) [Edit](#) [X](#)

World **India** Entertainment Sports

Monkey theft: Alipore zoo director suspended - Press Trust of India - 1 hour ago
Calcutta TelegraphMonkey theft: Alipore zoo director suspendedPress Trust of IndiaKolkata, Aug 10...

Two Indian students attacked in Australia - Press Trust of India - 6 hours ago
Two Indian students attacked in AustraliaPress Trust of IndiaMelbourne, Aug 10 (PTI) Two students...

Jammu observes violence free, disciplined shutdown - PunjabNewline.com - 2 hours ago
World NewsJammu observes violence free, disciplined shutdownPunjabNewline.comJAMMU: Perhaps for...

Speed up rehabilitation of Lankan Tamils: Karunanidhi - Times of India - 3 hours ago
Speed up rehabilitation of Lankan Tamils: KarunanidhiTimes of IndiaCHENNAI: The rehabilitation of...

Congress not to have any truck with regional parties: Tytler - Press Trust of India - 3 hours ago
Thaindian.comCongress not to have any truck with regional parties: TytlerPress Trust of IndiaPatna,...

next

Flickr Most Interesting Photos [Share](#) [Edit](#) [X](#)


tuneglue
musicmap

1 of 10 ⌵

<< Previous Album Next Album >>

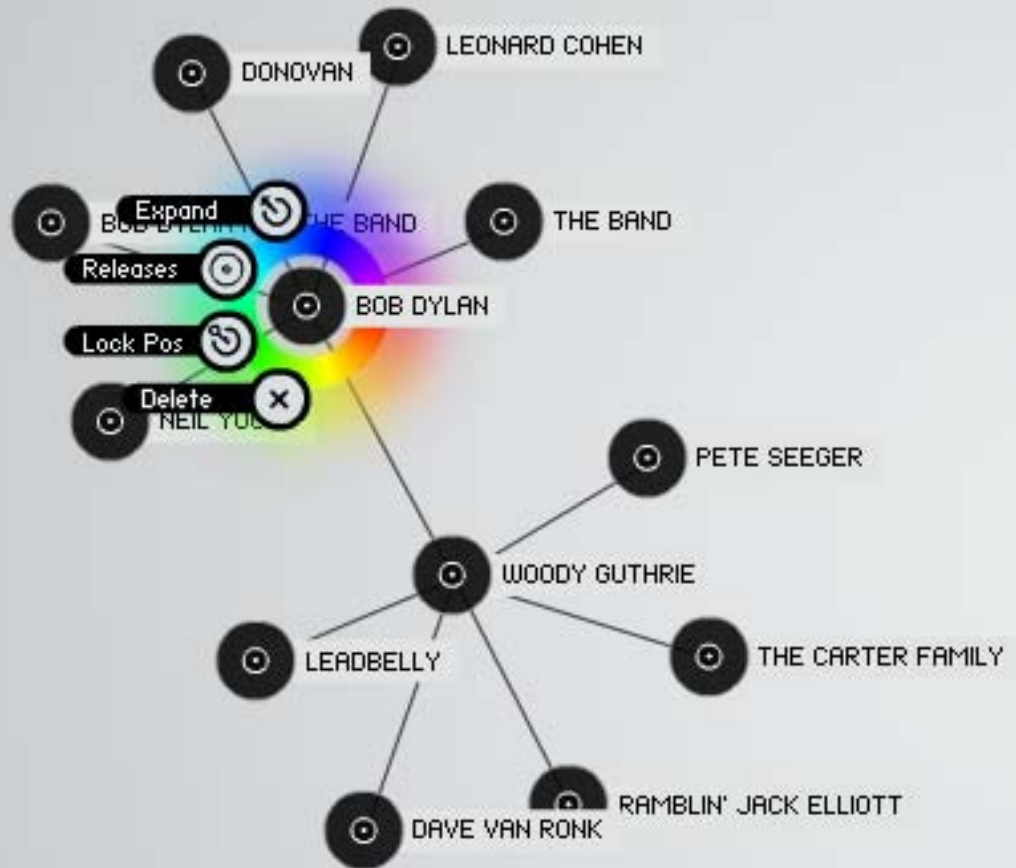
THE BASEMENT TAPES

BOB DYLAN AND THE BAND



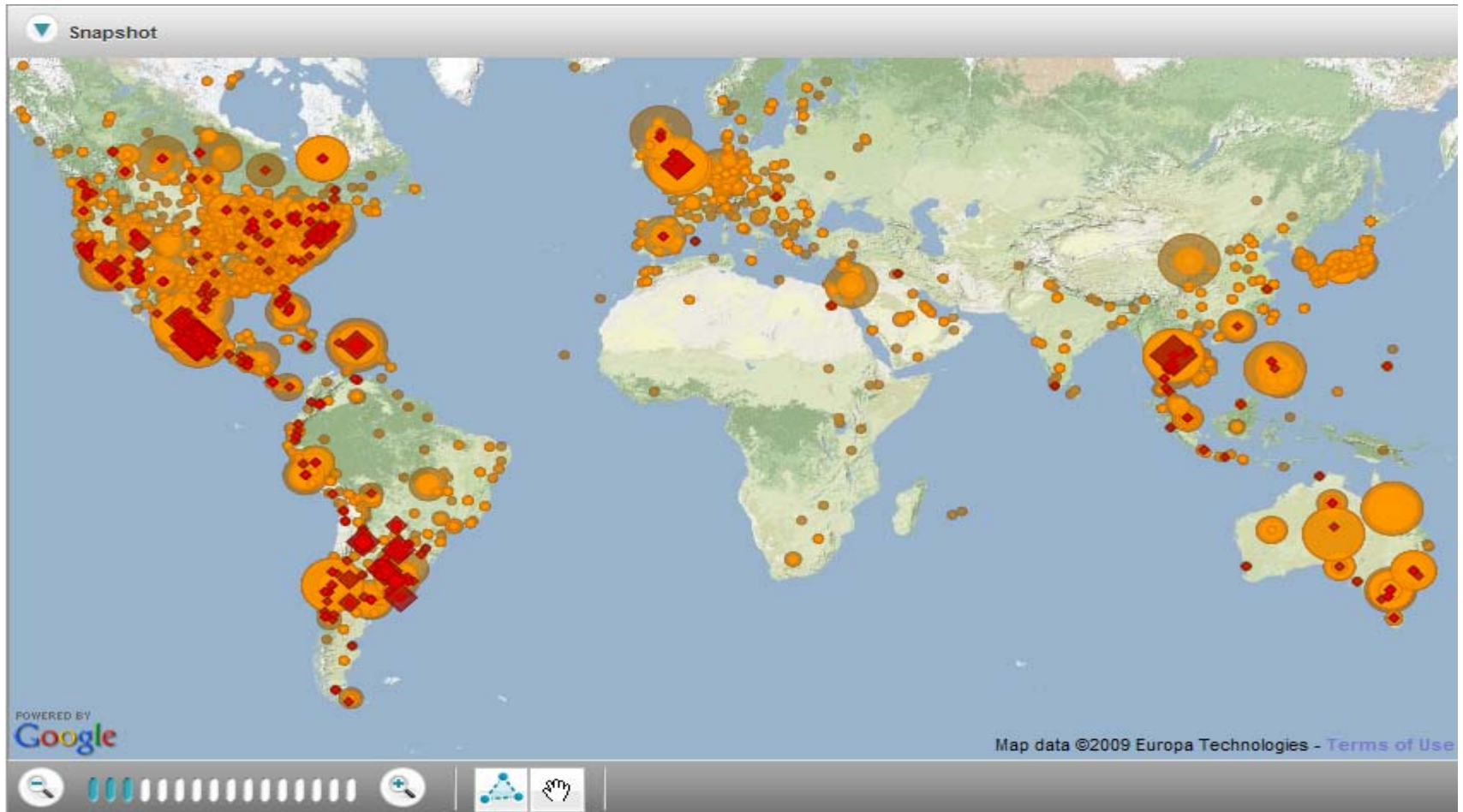
- >> Odds And Ends
- >> Orange Juice Blues
- >> Million Dollar Bash
- >> Yazoo Street Scandal
- >> Goin' To Acapulco
- >> Katie's Been Gone
- >> Lo And Behold
- >> Bessie Smith
- >> Clothesline Saga

BUY ALBUM NOW



Relevance of Mashups in the Enterprise

Mashups = Consumer Space, Web 2.0



Relevance of Mashups in the Enterprise

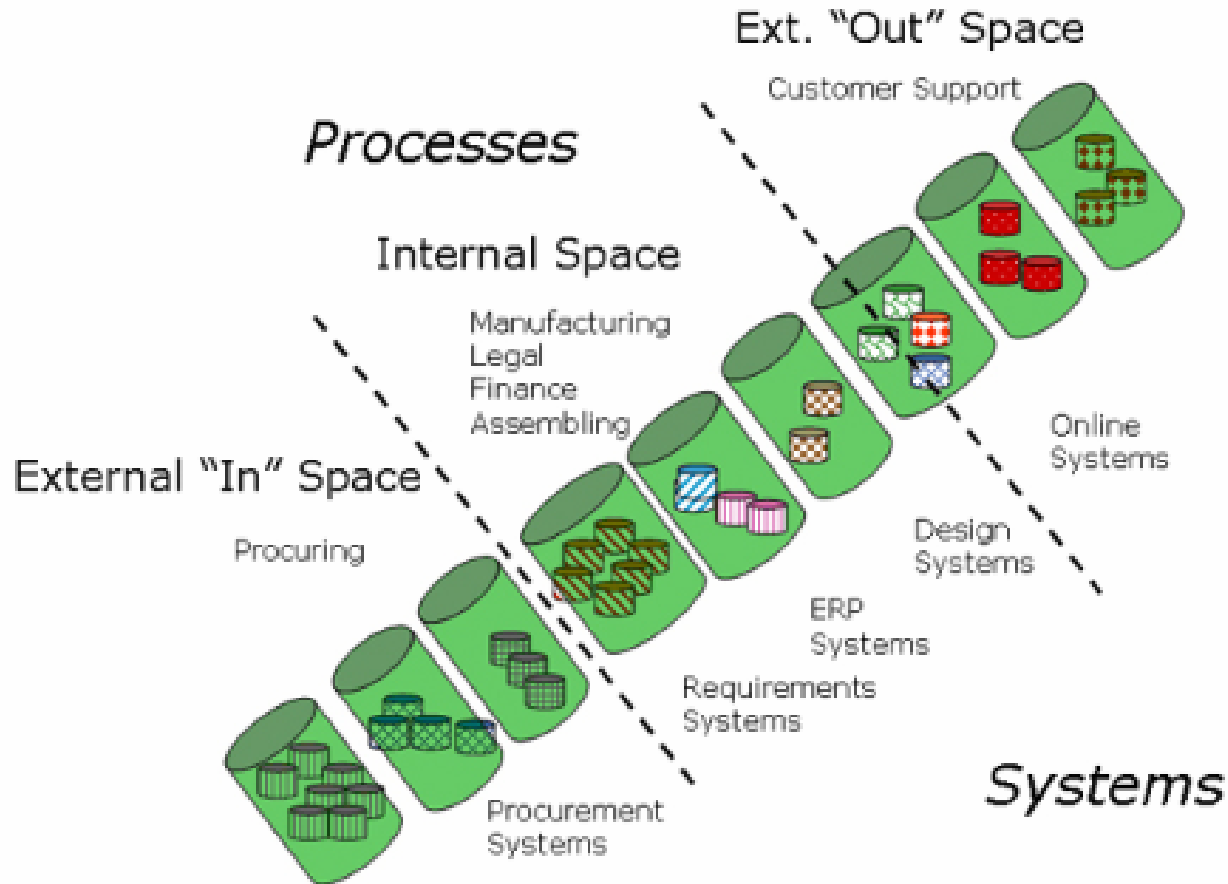


Image courtesy - <http://www.opengroup.org/projects/soa-book>



Relevance of Mashups in the Enterprise

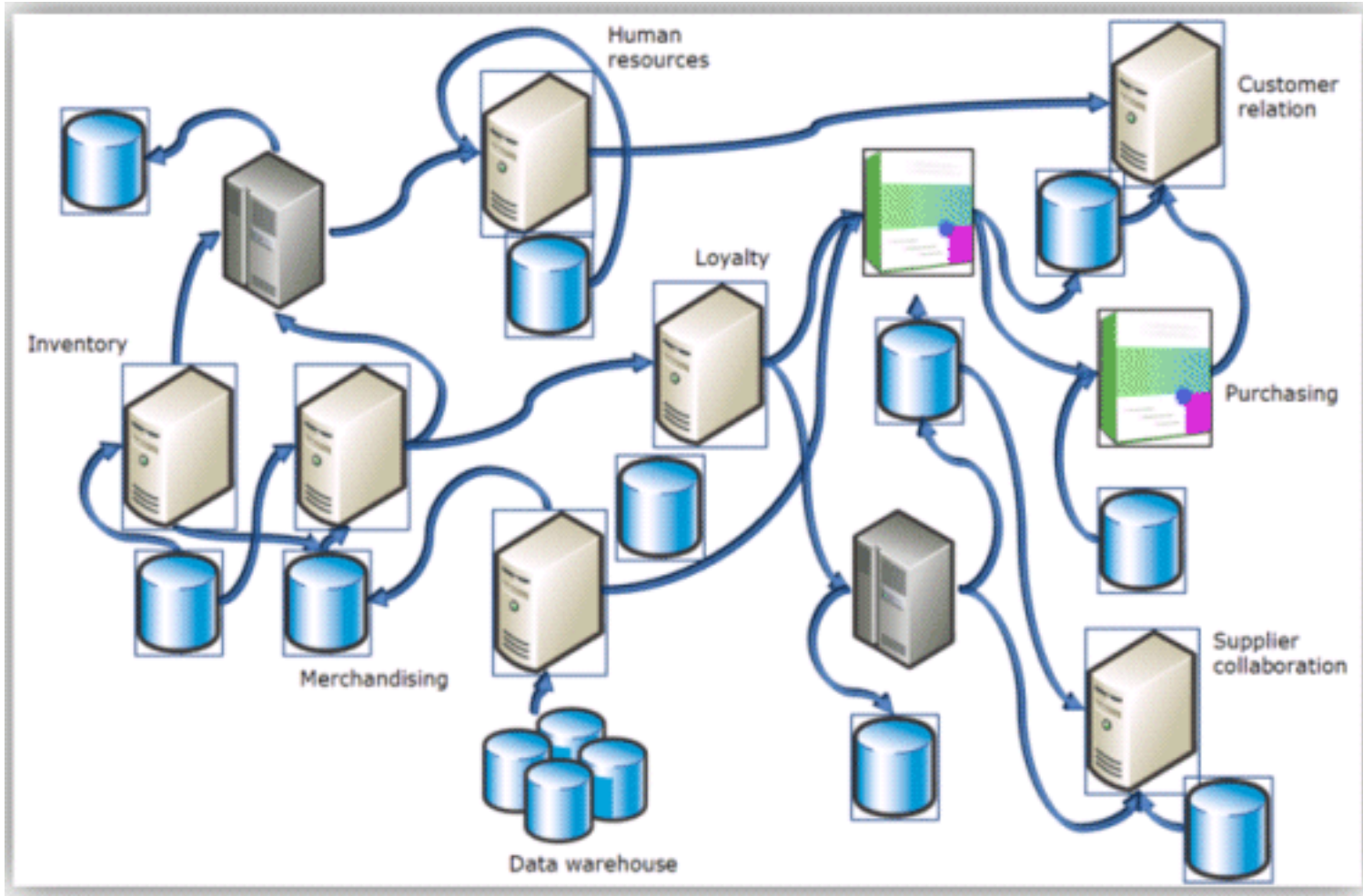


Image courtesy – MSDN Library (Microsoft)

Relevance of Mashups in the Enterprise

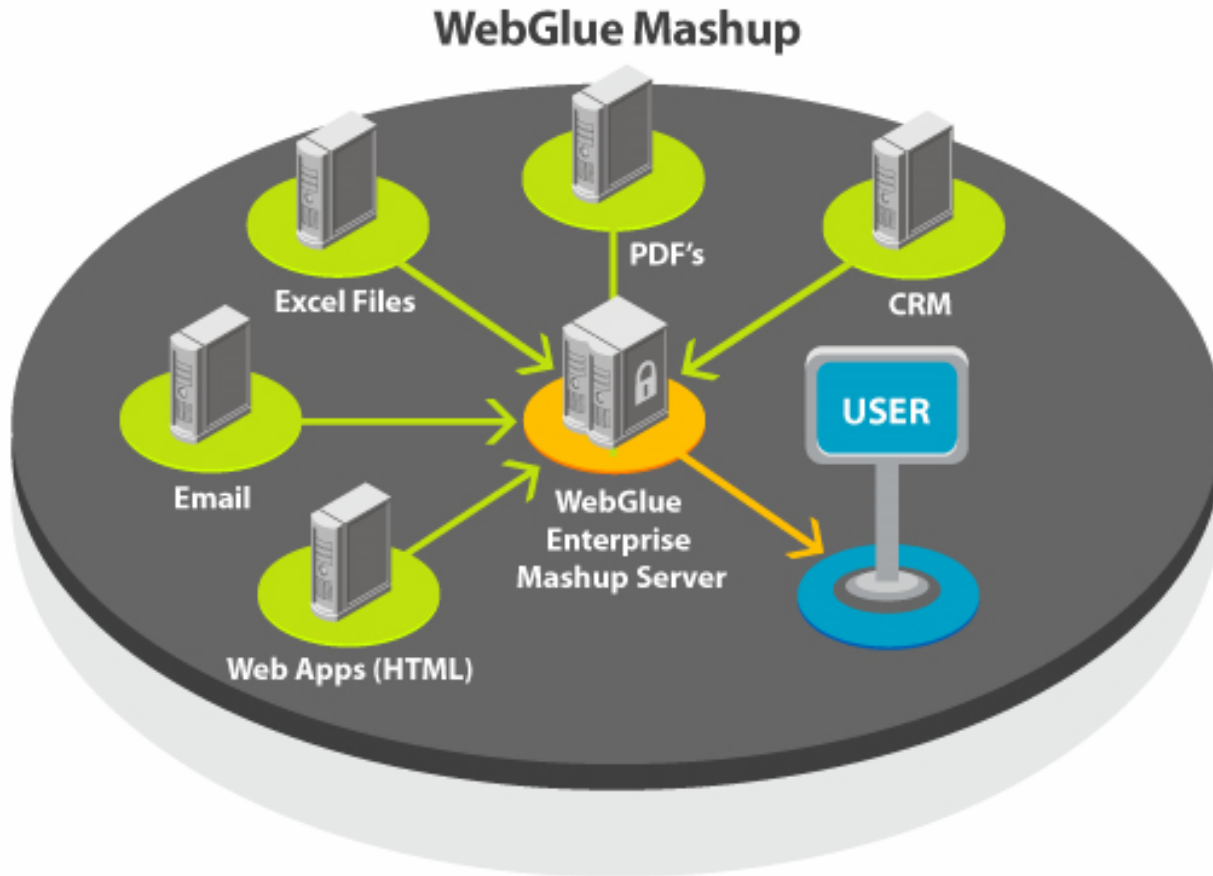


Image courtesy - <http://www.rareplay.com>



Relevance of Mashups in the Enterprise

In the old way aggregating & representation of data to provide *insight* is a **manual** process.

Mashups **automate** aggregation and representation of data from diverse sources. Mashups would therefore enable **convenient** and **intuitive process compliance** in enterprises.

Image courtesy - <http://www.rareplay.com>



C/ALM & Mashups



image[1]

Image courtesy - www.clemensreijnen.nl/



ALM & Mashups

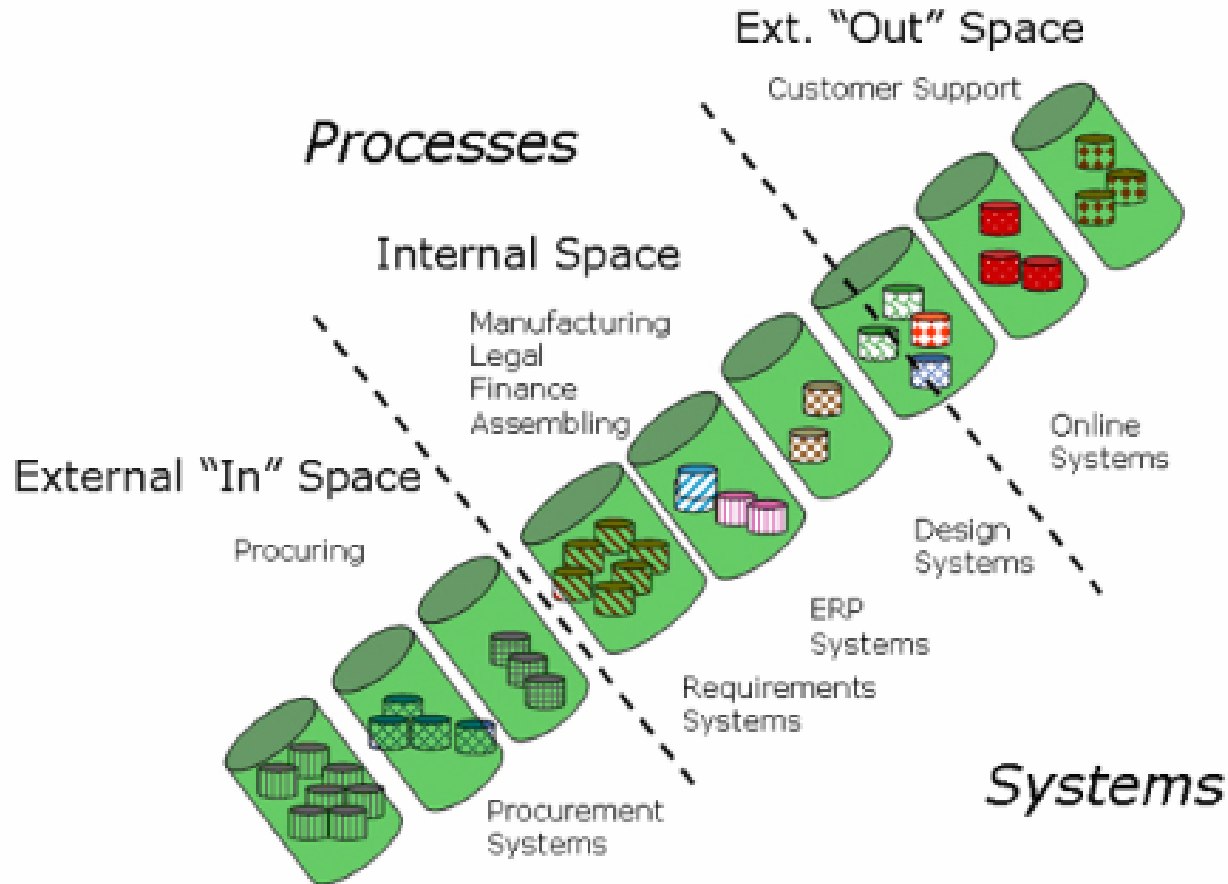


Image courtesy - www.clemensreijnen.nl/



ALM & Mashups

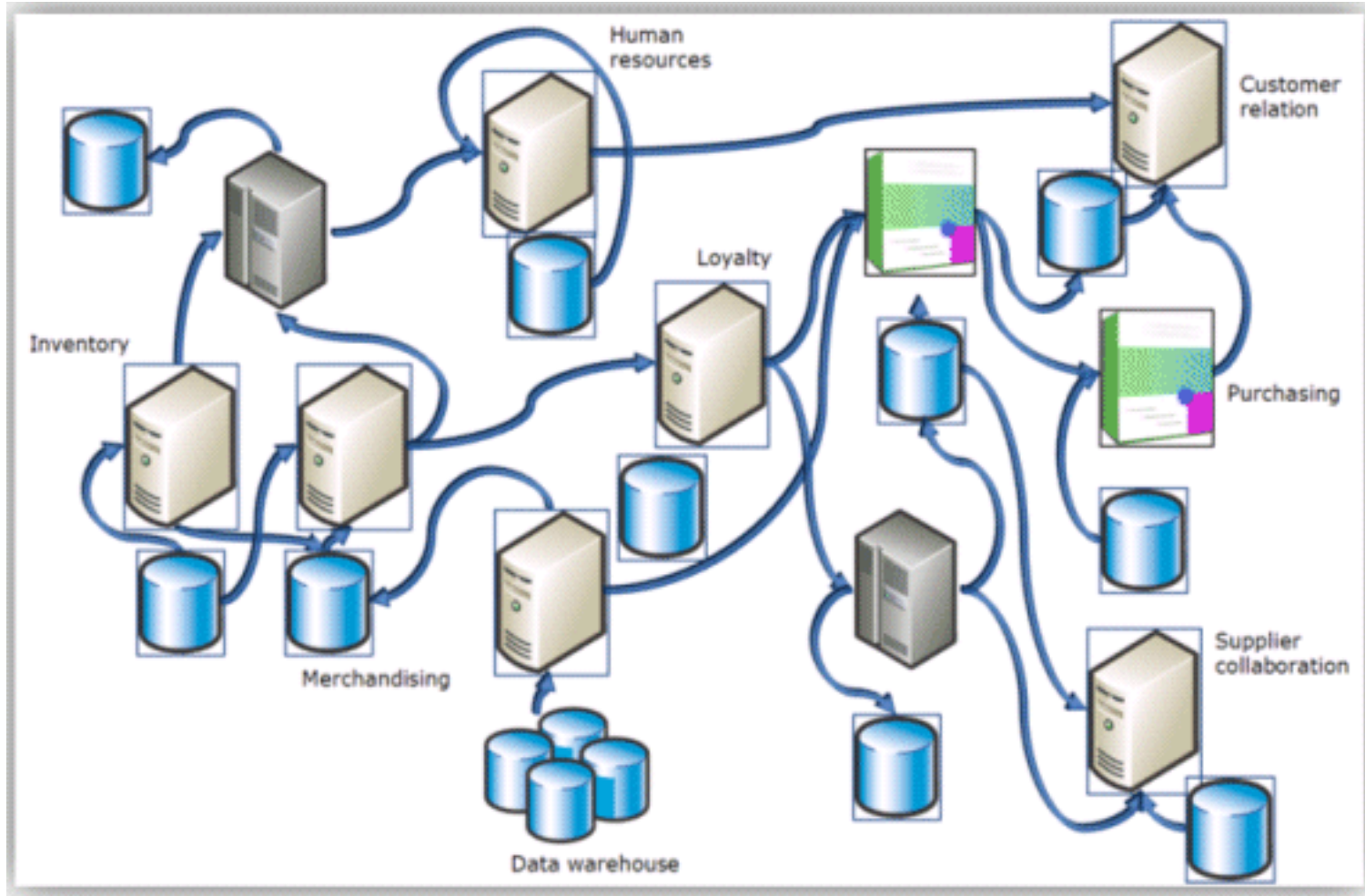
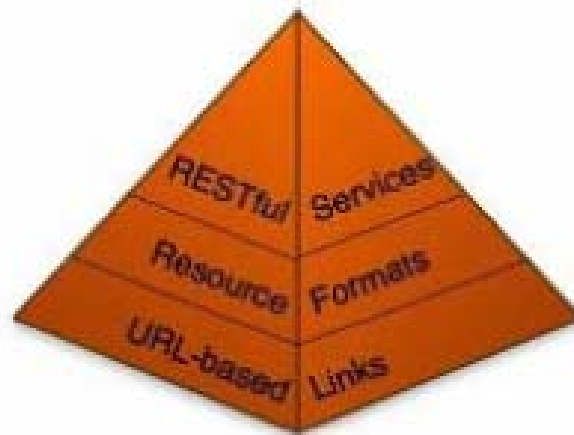


Image courtesy – MSDN Library (Microsoft)

OSLC – Building the groundwork for an E-Mashup

- **OSLC is a vendor neutral approach to lifecycle integration**
- **Has 3 stages:**

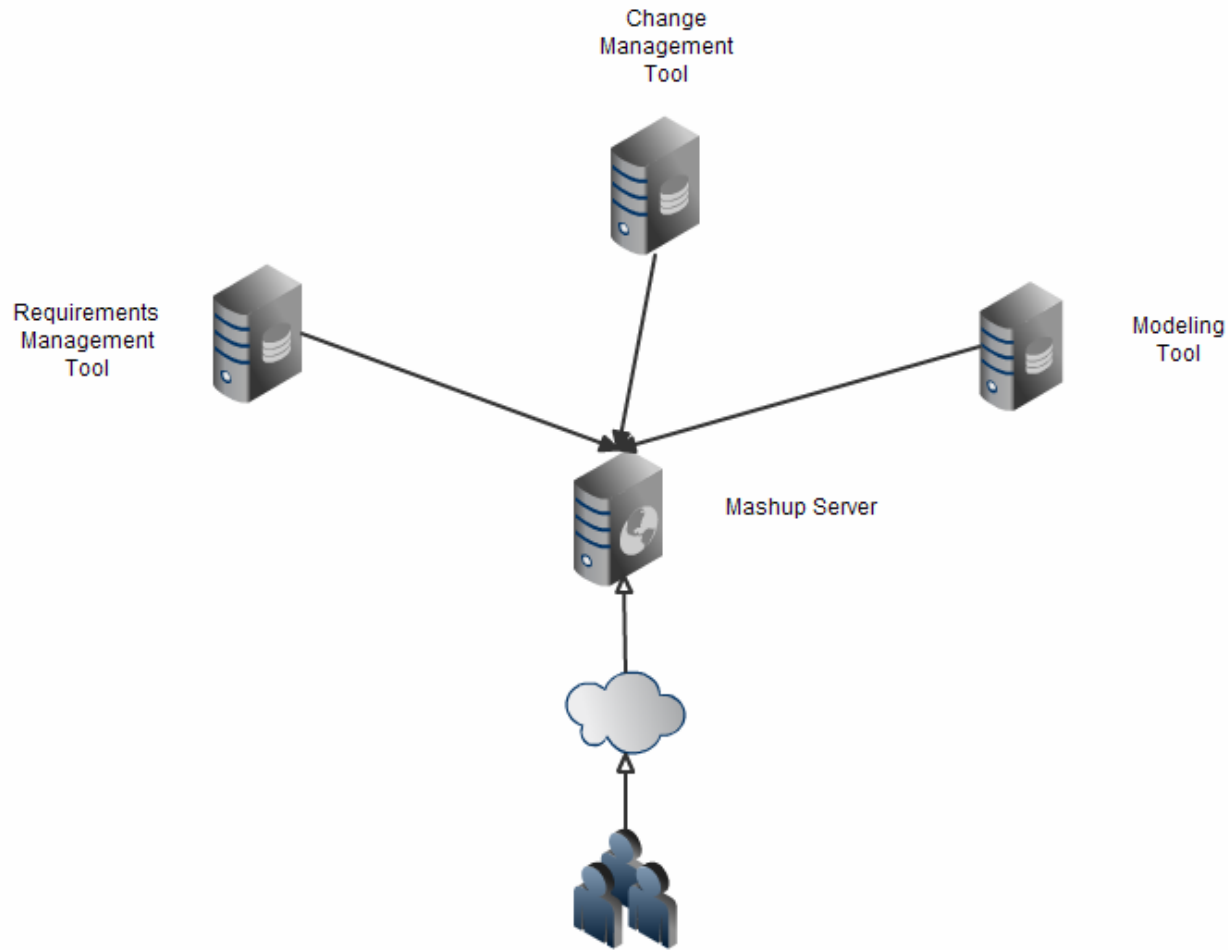


The C in C/ALM & Web 2.0

- **Development is social**
- **Team works on shared objects like source code, artifacts, builds etc**
- **Collaboration and easier communication in the team will improve productivity in a big way**
- **Web 2.0 technologies facilitate collaboration**
- **Mashups and OpenSocial are good integration and collaboration patterns**



C/ALM & Mashups



C/ALM & Mashups

Traceability across Resources

Accountability across Processes

...

Without **manual** overhead!

Image courtesy - <http://www.rareplay.com>



Best Practices / Design Guidelines to build Enterprise Mashups

- **Action at a distance**
- **Application Registry**
- **Single Sign On**
- **Presentation as a Service**
- **Linking Resources**
- **3rd Party Widgets**
- **Tooling**



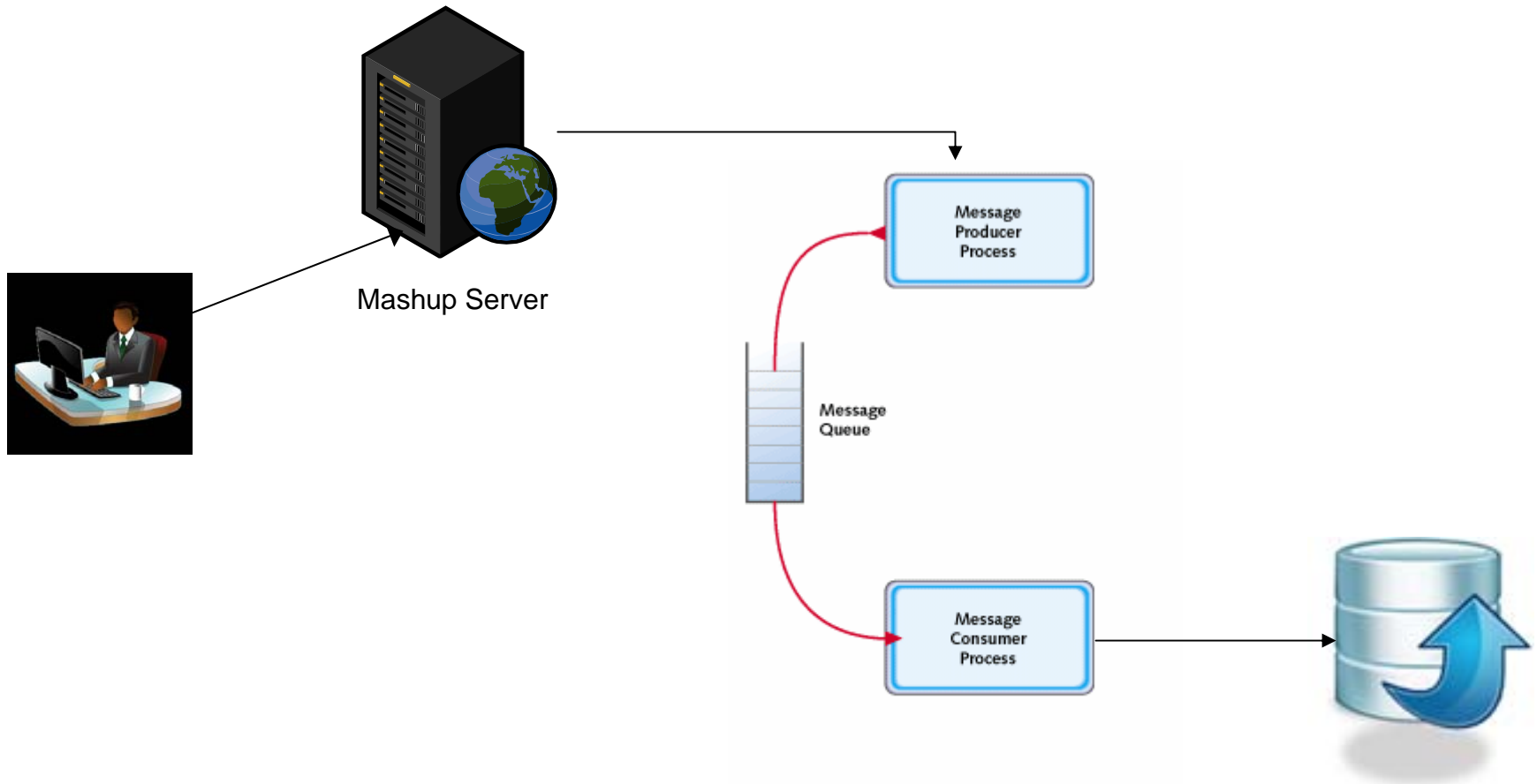
Action at a distance

..being able to direct requests to a tool, somewhere in the enterprise network and have it understand these requests and respond meaningfully.

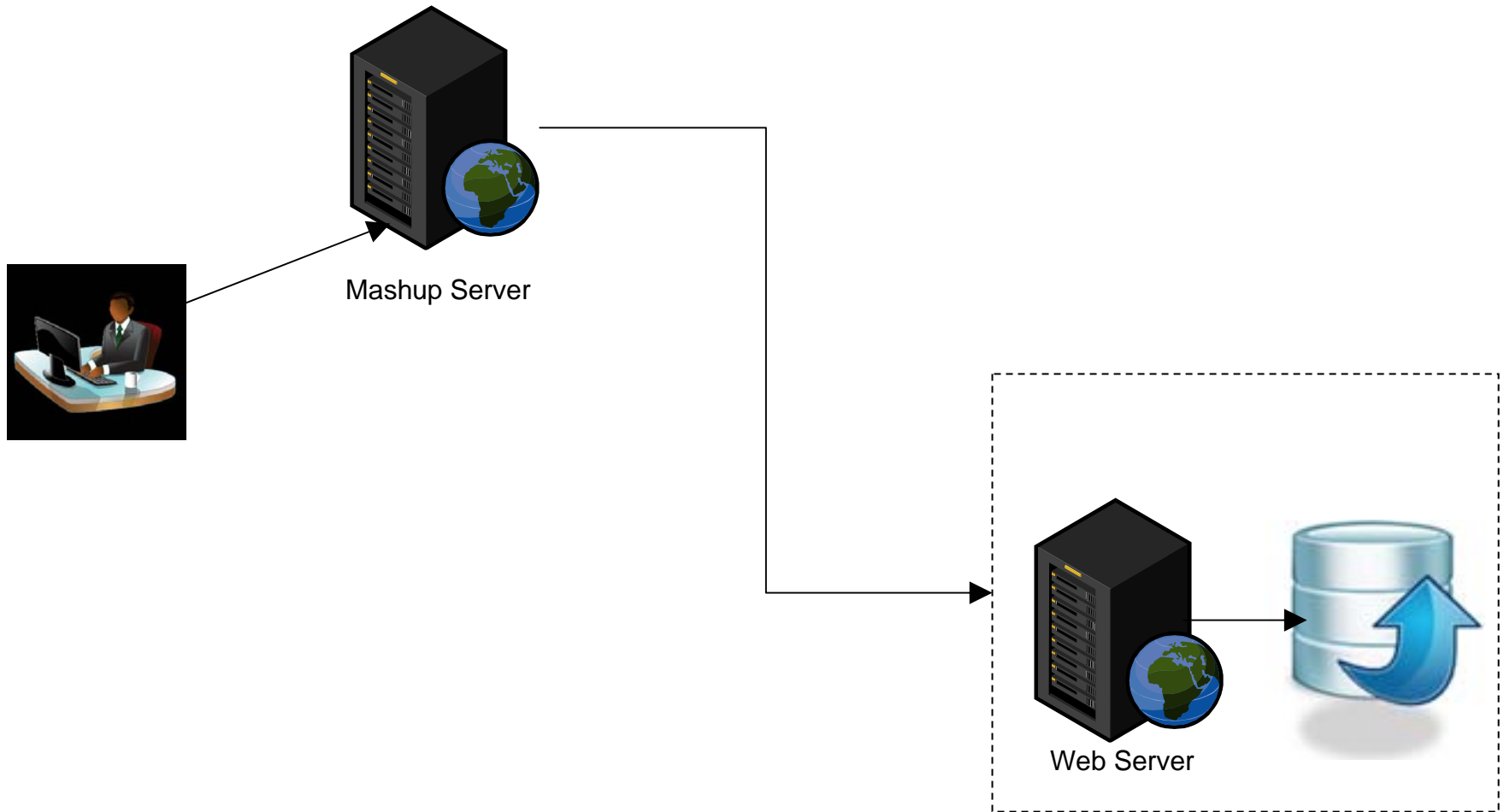
Image courtesy - <http://www.rareplay.com>



Action at a distance – via message queues



Action at a distance – via HTTP



Application Registry



Application
Registry Server



Tool1 – IP: 192.168.1.255



Tool2 – IP: 92.168.1.200



Tool3 – IP: 8.56.98.01

Application Registry

Demo



Single Sign On

Motivation

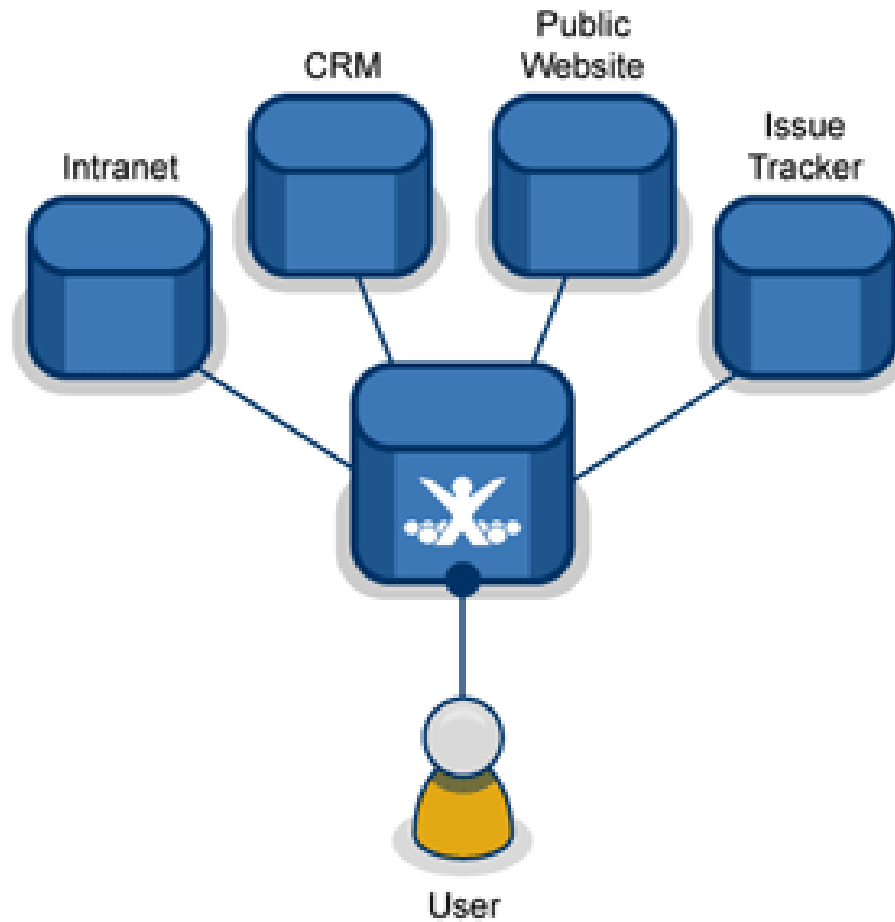
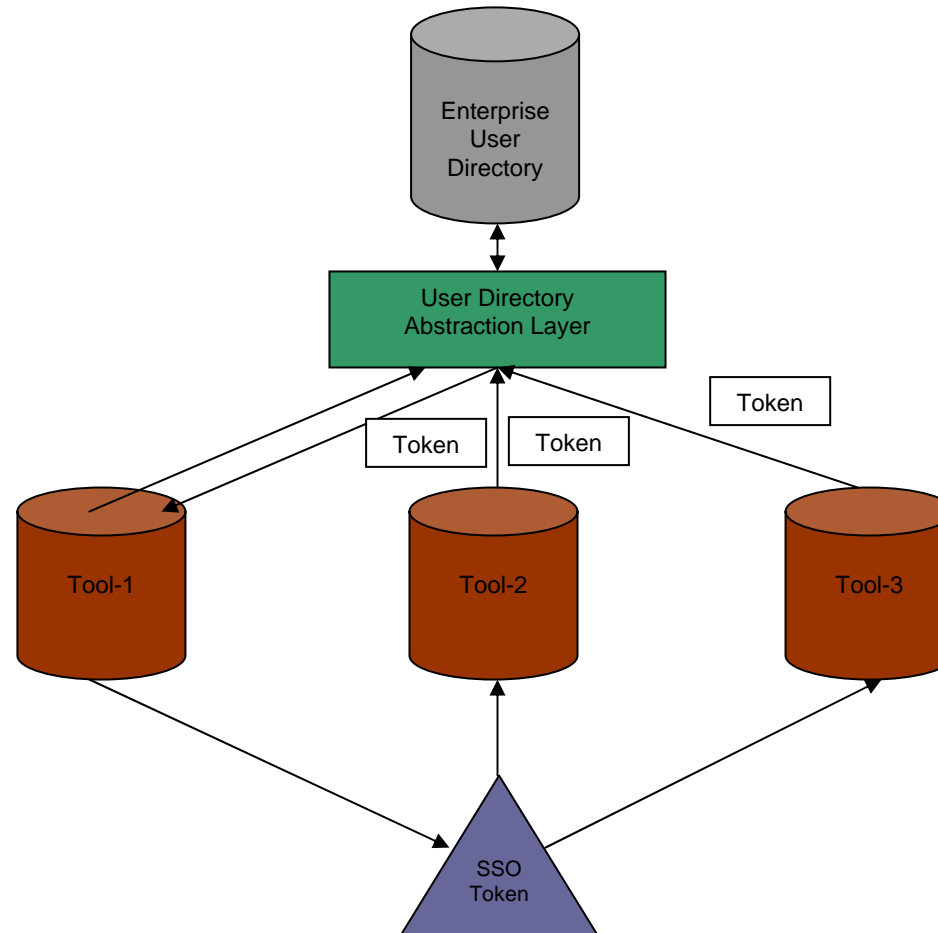


Image courtesy - <http://www.atlassian.com>



Single Sign On



Presentation as Service

- **Service Oriented Architecture extended to presentation at browser end**
- **Browser as a platform for Integration**
- **Increasing need for reusability on the browser side**
- **Evolution of java script toolkits**
- **Products moving their user interfaces to web**
- **Collaboration becoming increasingly important**
- **AJAX improved performance and usability**



Traceability Relationships/Linking Resources

- **Relationship between data elements from disparate products**
- **Navigation from one end of the relationship to another end**
- **Traceability relationships: a use case for Mashups**
- **Mashups only possible after composition: Relationships only possible after seeing widgets from different products in a single browser**
- **Traceability relationships, a good example of how integration can be solved using Mashups**

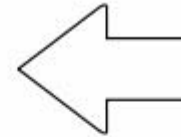


Traceability Relationships/Linking Resources

Demo



3rd Party Widgets - Open Social



Also: iGoogle, GMail,
Google Wave,
Atlassian
Dashboards, etc.

3rd Party Widgets - Open Social

- **Portability of widgets across different open social containers**
- **Adoption for enterprise still needs to be achieved**
- **One can see project artifacts, workitems alongside Google mails if widgets/gadgets are built with open social standards**
- **Ability to run third party widgets in a product's browser environment**
- **Network externalities yet to come into play in enterprise world for wider adoption of Open Social**
- **Has the potential to develop as a method for integration**

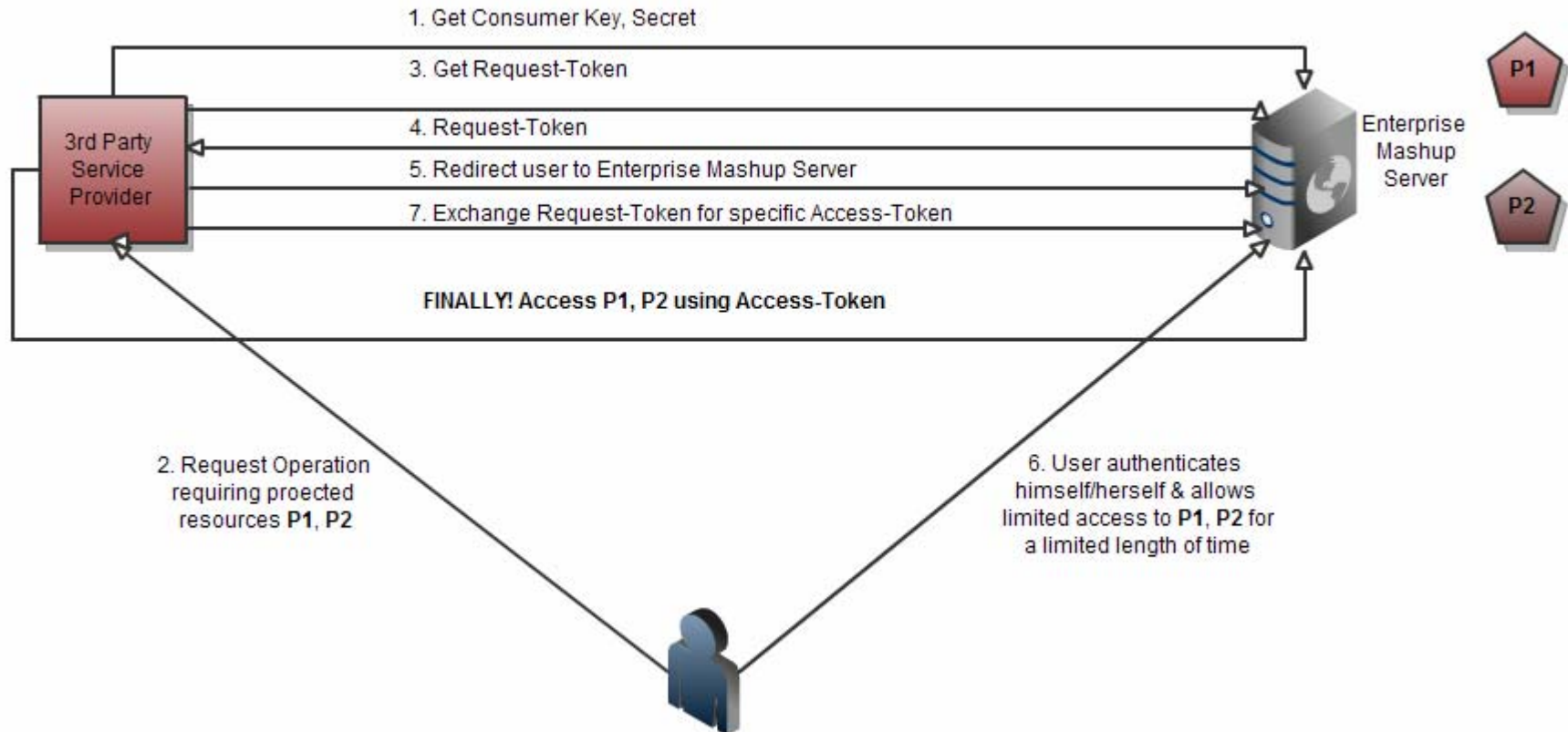


Security and Governance

- **Security and related usability is a challenge when third party widgets run in products browser environment and vice versa**
- **OAuth is the way today to ensure security. It does “access delegation”**
 - “OAuth: Your valet key for the Web”.
 - OAuth allows you to share your private resources stored on one site with another site without having to hand out your username and password.
- **OAuth and similar such mechanisms are the way forward for solving security issues with Mashups and Open social**
- **Governing which third party widgets can run in a product and enterprise environment is important. Who does it and how to do it**



The OAuth Dance



Productivity and Tooling

- **Productivity at browser end is roughly 1/3 compared to productivity at server end**
- **Javascript toolkits are still in evolution**
- **Weakly typed language**
- **Browser portability**
- **Tool support**
 - Development tools
 - Testing tools
 - Unit testing
 - Proven Frameworks



Summary

- Mashups solve enterprise integration problems
- Mashups can be effective in solving C/ALM
- There are some basic practices to follow when building a mashup to solve C/ALM viz. a viz. – SSO, 3rd Party Widgets (OpenSocial), Application Registry
- Mashups facilitate collaboration and enables integration thus enhancing team productivity



Q & A



Thank
you

© Copyright IBM Corporation 2009. All rights reserved. The information contained in these materials is provided for informational purposes only, and is provided AS IS without warranty of any kind, express or implied. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, these materials. Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software. References in these materials to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates. Product release dates and/or capabilities referenced in these materials may change at any time at IBM's sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way. IBM, the IBM logo, Rational, the Rational logo, Telelogic, the Telelogic logo, and other IBM products and services are trademarks of the International Business Machines Corporation, in the United States, other countries or both. Other company, product, or service names may be trademarks or service marks of others.

