Enterprise Mashups
why do I care?
Ross Mason, MuleSoft
Agenda

What?

Why?

How?
Mashups
Mashup Stats

ProgrammableWeb.com 03/02/10
What is being mashed

REST Services
RSS/ATOM Feeds
Email
Web Pages
XML
JSON
Database
Mashups
Enterprise Mashups
What is being mashed

Enterprise Mashups

- Binary (PDF, Excel)
- Enterprise Apps
- CSV, Text
- JSON
- Database
- XML
- Web Pages
- Email
- RSS/ATOM Feeds
- REST Services
- Messaging (JMS, AMQP)
- File / FTP

MuleSoft™
# Web vs Enterprise

<table>
<thead>
<tr>
<th>Web Mashups</th>
<th>Enterprise Mashups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual centric</td>
<td>Data &amp; Information centric</td>
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<tr>
<td>Simple Data relationships</td>
<td>Deep transformation &amp; semantic relationships</td>
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<tr>
<td>End-user driven</td>
<td>Developer &amp; business analyst driven</td>
</tr>
<tr>
<td>Use Public APIs</td>
<td>Combination of Public and internal services</td>
</tr>
<tr>
<td>No QoS guarantees</td>
<td>Enterprise QoS</td>
</tr>
<tr>
<td>Simple Web Security</td>
<td>Policy-based security</td>
</tr>
</tbody>
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Recent Mashup Stats

- social (18%)
- storage (12%)
- mapping (12%)
- photo (12%)
- video (9%)
- realtime (9%)
- enterprise (9%)
- visualization (6%)
- mobile (6%)
- sports (6%)

ProgrammableWeb.com 03/02/10
The Looooong Tail

- IT focuses on 20% of problems that affect 80% of their users
You can’t build a business case for Enterprise Mashups

...you can’t build a general business case for mashups, [but] you can build a specific mashup-centric business cases

- Anthony Bradley
  Gartner
Mashups: fail

- Hard to define
- Aimed at “users” not “developers”
- No single value prop
- Difficult to sell to the business
- Tens of mashup platforms shut down
Brighter Future

• We don’t throw anything away
• 88.23% of applications need to integrate with other applications
• Wealth of public APIs is growing rapidly
• Evolution of SOA in the enterprise
• Wealth of rapid development frameworks
Users vs Developers

• Users don’t build software
• Mashup platform, foreign concept
• Mashup in context
• Need data in consumption form
• Microsoft Excel has the right balance
Mashup timeline

1993
- MS Excel mashups emerge
- Term SaaS coined

1998
- Yahoo! & others introduce Web portals

1999
- Enterprise Portals and JSR-168 started

2000
- Mozilla introduce Javascript XMLHttpRequest

2001/2
- AJAX is coined, Fuels Web 2.0

2003
- Google Maps API launched
- Mule, first open source ESB

2004
- Enterprise mashup platforms emerge
- Salesforce.com IPO.

2005
- Yahoo! Pipes launched

2006
- Enterprise 2.0; $4.6bn Industry By 2013

2007
- Open Mashup Alliance founded

2008

2009
- MySpace & Google team up: OpenSocial
- 1,782 APIs on prog..web.com
What about SOA?

• Enterprise mashups, SOA’s killer App?
Mashups and the Cloud

- New lease of life for Mashups
- Natural fit, common context
- PaaS = Next Gen. Mashup platform
- Developer-focus
The Smart Revolution

- Geo-location
- Situational data
- Telephony services
- Barcode scanning
- Image-recognition
- Augmented reality
Where is the killer app?

The mashup's strength lies in discovering the atypical, in exploiting data in new ways.

- Dion Hinchcliffe
Patterns
MASHUP PATTERNS
Designs and Examples for the Modern Enterprise

Change is coming.

MICHAEL OGRINZ
Patterns

<table>
<thead>
<tr>
<th>Harvest</th>
<th>Enhance</th>
<th>Assemble</th>
<th>Manage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alerter</td>
<td>Accessibility</td>
<td>Content Aggregation</td>
<td>Content Migration</td>
</tr>
<tr>
<td>API Enabler</td>
<td>Feed Factory</td>
<td>Dist. Drill down</td>
<td>Portal Enabler</td>
</tr>
<tr>
<td>Competitive Analysis</td>
<td>Field Medic</td>
<td>Emergency Response</td>
<td>Quick PoC</td>
</tr>
<tr>
<td>Infinite Monkeys</td>
<td>Folksonomy Enabler</td>
<td>Content Integration</td>
<td>Single Sign-on</td>
</tr>
<tr>
<td>Leading Indicator</td>
<td>Smart Suggestions</td>
<td>Fliter</td>
<td>Widget Enabler</td>
</tr>
<tr>
<td>Reality Mining</td>
<td>Super Search</td>
<td>Location Mapping</td>
<td></td>
</tr>
<tr>
<td>Reputation Mgmt</td>
<td>Translation</td>
<td>Splinter</td>
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<td>Time Series</td>
<td>Workflow</td>
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Super Search

- Search Mashup
  - aggregated data
- Super Search
  - Search data
    - Search Engine
    - Relational Database
    - Data APIs
    - Content Management System
    - File System
Pipeline

Data Source → Transformer

Transformer → Web Service Call

Web Service Call → Transform

Transform → Route

Route → Mashup
iBeans

easy mashups
Foundation

- Abstraction for the complexity of SOA
- Open source framework
- Lineage, pedigree of Mule ESB
- 15+ iBeans ready for production

“Micro-light ESB”
Communication

• Reusable Java modules
• Bean interface to networked services
  – Not just SOAP, REST
• Communications channels
  – Ajax from JavaScript
  – RPC
  – Java
Use cases

• Situations where an **ESB is too heavy**
• Social media app integrations
• Easy cross-webapp reuse
• Point-to-point integration
• Seamless migration path to Mule ESB
GPS Walker demo
http://?.?.?.?:8080/gpswalker/cursor.html
Overview
The pieces

Runtime Container: Tomcat, Tcat, (Mule)

iBeans Runtime

- Channels: HTTP, SMTP, IMAP, REST, JDBC, JMS, XMPP, FTP
- Formats: JSON, RSS,ATOM, XML, SOAP
- Scheduler
- Transform and Bindings
- Application Annotations
- iBean Objects

Web apps

- console
- your
- web
- apps
Summary

• Growing need to serve the long tail of applications
• User-focused mashups unsuccessful
• SOA and Web 2.0 keeps driving reuse
• iBeans offers a developer-focused approached