CUSTOMIZE & SECURE YOUR ENTERPRISE MOBILE SALESFORCE INTEGRATIONS LIKE RED HAT

Featuring Red Hat Mobile Application Platform, 3Scale by Red Hat, and Red Hat JBoss Fuse

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Christina Lin - JBoss Technical Evangelist, Red Hat
Tom Corcoran - Sr. Solution Architect, 3Scale & API Management, Red Hat

May 2, 2017
Agenda

- Integrating Salesforce.com with Red Hat Products
- Red Hat Portfolio
- Use cases for today demo
- Demos
- Red Hat Mobile Application Platform
- 3Scale by Red Hat
- Red Hat Fuse Integration
Integrating Salesforce.com with Red Hat Products

- JBoss
- Middleware
- Fuse
Today’s demo!

1. Stage is refreshed for the opportunity

2. Change Stage in Opportunity to Closed Won

3. 3scale

4. Red Hat Mobile Application Platform

5. RED HAT JBOSS FUSE
   - camel-salesforce
   - camel-servlet
   - Spring Boot

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DEMO!
List & Update Salesforce.com Opportunities
Salesforce.com Opportunity
Red Hat Mobile Application Platform (RHMAP)
<table>
<thead>
<tr>
<th>MOBILE BACKEND-AS-A-SERVICE</th>
<th>STUDIO</th>
<th>APP DEVELOPMENT</th>
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<tr>
<td>CLOUD CODE</td>
<td>CORE</td>
<td>TEMPLATES</td>
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<tr>
<td>BUSINESS LOGIC</td>
<td>LIFECYCLE MANAGEMENT</td>
<td>NATIVE &amp; HYBRID SDKs</td>
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<td>INTEGRATIONS</td>
<td>ANALYTICS &amp; ALERTS</td>
<td>FORMS BUILDER</td>
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<td>MICROSERVICES</td>
<td>PRIVATE APP STORE</td>
<td>TUTORIALS</td>
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<tr>
<td>DATA SYNC</td>
<td>GIT REPOSITORIES</td>
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<tr>
<td>CACHING</td>
<td>UNIFIED PUSH SERVER</td>
<td>CREDENTIALS MGMT</td>
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<tr>
<td>STORAGE</td>
<td>USER MANAGEMENT</td>
<td>DEVELOPMENT TOOLS</td>
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<tr>
<td>AUTHENTICATION</td>
<td>TEAMS</td>
<td>COMMAND LINE (CLI)</td>
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<tr>
<td>PUSH NOTIFICATIONS</td>
<td>COLLABORATION</td>
<td></td>
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</tbody>
</table>
OPENSHIFT VIEW OF RHMAP ARCHITECTURE

Complex architecture, same great RHMAP user experience

OpenShift Container Platform

OpenShift Master Nodes
- Authentication
- Data Store
- Scheduler
- Health/Scaling

OpenShift Infra Nodes
- Routers
- Registry
- etcd

RHMAP Core Infra Nodes
- Routers
- etcd
- Data Store
- Scheduler
- Health/Scaling

MBaaS Infra
- Pod

Mobile App Node
- Mobile App Node

Other App Nodes
- Pod
- Pod
- Pod
- Pod
- Pod
- Pod
- Pod
- Pod

JBoss EAP

JBoss Fuse

JBoss BPM
Multiple services and large payloads, i.e. enterprise system, database, private cloud system, public API from internet

Reduced number of calls to client app
SUMMARY OF MOBILE APPS WITH RHMAP

- Data from multiple sources
- To hundreds and thousands of devices

**ENTERPRISE SYSTEMS**

**PUBLIC CLOUD SERVICES**

**RED HAT MOBILE APPLICATION PLATFORM**

- Consume APIs
- Enhanced your cloud app
- Build microservices (MBaaS Services)
- All in a container in the MBaaS
- Add more node.js business logic

**SSL Encryption AES-256**
Full Process Flow to Build a Mobile App

1. **Create a Project in the Platform**
   - Frontend developer

2. **Platform Creates Client & Cloud Apps**
   - Backend developer

3. **Code Your Client App**

4. **Add Functionality to Your Cloud Code**

5. **Build Your App on the Build Farm**

6. **Add Services to Your App**

7. **Deploy Your Cloud Code**
   - Download and install on device
Red Hat Mobile Components

Summit 2016-2017 Customize & Secure Your Enterprise Mobile Salesforce.com Integrations

- **Apps**
  - List Update SFDC Oppty Cordova App
    - Cordova
    - Updated 5 minutes ago
    - [Copy](gh@git.tom.redhatmobile.com:mhu/Summit-2016---Cust...)

- **Cloud Code Apps**
  - MAP-Fuse Cloud App
    - Node.js Cloud App
    - Updated 10 days ago
    - [Copy](gh@git.tom.redhatmobile.com:mhu/Summit-2016---Cust...)

- **MBaaS Services**
  - Salesforce Connector - Connector Service
    - Updated 10 months ago
    - [Discover](sforce)
AeroGear Unified Push Server

1. Developer
   - Registers a Push Application
   - Adds iOS, Android and/or (Hybrid) Web variants for the Push Application

2. Installations
   - Installations on devices register themselves using a token

3. Push Networks
   - SimplePush
   - Google Cloud Messaging
   - Apple Push Notification Service

4. Message is delivered via push networks

5. JBoss AS backend server
Red Hat Mobile Unified Push Notifications
3Scale by Red Hat
Enabling Your API Strategy

API Strategy

API Management
- Gateway
- Developer Enablement
- Monetization

API Development
- Existing APIs
- Existing Business Value
- New Development
  - JBoss Fuse
  - Mobile Apps
  - Red Hat Mobile
  - Business Decisions
  - JBoss BPM
  - Enterprise Messaging
  - JBoss A-MQ
  - Enterprise Java
  - JBoss EAP
  - Business Process
  - JBoss BPM
  - Enterprise Data
  - JBoss Data Virtualization

3scale by Red Hat

Openshift

Red Hat Summit
3scale Architecture

API Consumer

APIcast
API Gateway

API Manager
- Access Control
- Usage Policies
- Traffic Analytics
- API Monetization

API Provider

Developer Portal
- Interactive API Docs
OpenShift, Fuse & 3scale

Benefits:
- Security
- Scalability
- Very low latency
- Privacy
- Control
- Flexibility
Integrating with Salesforce
Fuse and Salesforce

- Code generation
  - Configuration
  - Built-in Tooling
  - Drag and drop route
  - Configure application

- Integrate
  - Summarize
  - HR, ERP
  - Salesforce to Salesforce
  - System migration

- Enrich
  - Type Transform
  - Aggregators
  - Splits
  - XML, JSON
  - Customize data

- Proxy
  - APIs
  - Monetizing services
  - Information customization
  - Version control

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Applying Agile Integration

**Distributed Integration**
- Lightweight
- Pattern Based
- Reusable Connectors
- Community Sourced

**Container**
- Cloud native solutions
- Lean artifacts, individually deployable
- Container based scaling and high availability

**API**
- Well defined, re-usable, and well managed end-points
- Ecosystem leverage

**Flexibility**

**Scalability**

**Re-Usability**
Fuse Integration Architecture

- microservices
- OpenShift
- Build application image
- Image Repository
- Build
- Deploy
- Notification Pods
- Opportunities Pods
- 3scale
- Push Notification Server RHMAP
- salesforce
- RHMAP
Salesforce Integration - microservice way

Generate Salesforce Objects
Maven Salesforce plugin

```
mvn camel-salesforce:generate -DclientId=id -DclientSecret=secret -DuserName=username -Dpassword=password
```

Configure Salesforce Connectors
CRUD Salesforce Objects, Bulk, Stream(Consumer) Rest API support

```
salesforce:upsertSObject?sObjectName=Account
salesforce:CamelTestTopic&sObjectName=Account
```

Applying Enterprise Integration Pattern

```
<split id="_split1">
    <xpath>recentItems</xpath>
    <log id="_log3" message="${body}"/>
    <to id="_to3" uri="direct:getOppDetail"/>
</split>
```
Mobile/3scale API Integration - Proxying

Restful API Endpoint
Rest DSL

```
<rest path="/opportunity" produces="application/json">
  <get uri="/getList">
    <description>retrieve lists of opportunities</description>
    <to uri="direct:getOppoRecentList"/>
  </get>
</rest>
```

Calling push notification server
HTTP4 component, CXF-RS, CXF

```
<to id="_to3" uri="http4://push.34.210.10.237.xip.io/api/v2/ag-push/rest/sender"/>
```

Generate OpenAPI documentation

```
<restConfiguration apiContextPath="api-docs" bindingMode="json" component="servlet"/>
```
Containerized Application

**Local debug**
Maven Spring boot plugin

```mvn spring-boot:run```

**Containerized Integration Solution and Cloud Deployment**
Maven fabric8 plugin

```mvn clean fabric8:deploy```

**Manage and scale integration layer**

[https://ocpmaster.ocp.hucmaggie.com:8443/console/](https://ocpmaster.ocp.hucmaggie.com:8443/console/)
Enterprise Mobile Integration with Salesforce

1. Integrate With Salesforce

2. Configure API Management Policies

3. RESTful APIs of Integrated data from RedHat Fuse

4. 3scale manages APIs monitors and secure

5. Microservices are created consuming APIs to feed mobile app

6. RHMAP features add functionality to the app and build app for multiple mobile platforms
Reference

A recap of Red Hat Summit sessions:

QUESTIONS?

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<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Title</th>
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<tbody>
<tr>
<td>Tuesday, 2nd May</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:15</td>
<td>101</td>
<td>Technological pivot points lightning talks</td>
</tr>
<tr>
<td>15.30</td>
<td>151A</td>
<td>The Three Pillars that Apply Agile to Integration</td>
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<tr>
<td>16:30</td>
<td>153C</td>
<td>Mobile API Management and Integration - A Reference Architecture and Demo</td>
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<tr>
<td>16:30</td>
<td>153B</td>
<td>Customize and secure your enterprise mobile Salesforce integrations like Red Hat</td>
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<tr>
<td>18:00</td>
<td>210A</td>
<td>API Escape Room</td>
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<td>Wednesday, 3rd May</td>
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<tr>
<td>10:15</td>
<td>104C</td>
<td>Blueprint for modern application architecture with APIs, OpenID, and microservices</td>
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<tr>
<td>10:15</td>
<td>102B</td>
<td>Building secure IoT solutions with Red Hat</td>
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<td>Thursday, 4th May</td>
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<tr>
<td>10:15</td>
<td>152</td>
<td>Managing across the API life cycle</td>
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<tr>
<td>15.30</td>
<td>157B</td>
<td>Schiphol Airport: Sharing the experience of running a multicloud OpenShift integration CPaaS with API management in production</td>
</tr>
<tr>
<td>16.30</td>
<td>152</td>
<td>How to craft a successful API strategy</td>
</tr>
<tr>
<td>16.30</td>
<td>153C</td>
<td>Mobilizing and securing Red Hat JBoss BPM Suite and BRMS</td>
</tr>
<tr>
<td>16:40</td>
<td>156C</td>
<td>Agile Integrations in Action</td>
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THANK YOU

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