Cloud Solutions for Enterprise Mobility

Powered by the Red Hat Mobile Application Platform on OpenShift

James Mernin
Chief Technology Officer, Red Hat Mobile
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Mobile Context

Cloud Solutions

Enterprise Features

OpenShift

Enterprise Case Study
A Catalyst for Digital Transformation

ACCELERATE APPLICATION DELIVERY

MODERN (CLOUD NATIVE) APPLICATIONS

NEW APPS, SERVICES, BUSINESS MODELS

DELIVER MOBILE APPS FASTER

MOBILIZE EXISTING APPS OR BUILD NEXT GEN APPS

MOBILE COMPONENT FOR EVERY NEW APP
But unsure about the cloud?

- Networking & Security
- Business Continuity & Disaster Recovery
- Support & Maintenance
- Speed of Deployment
- Flexible, Open, Modular
- Enterprise Features
• FeedHenry (2011-2014)
  • FH 1: Server-side JS (Rhino), Solaris Zones
  • FH 2: Node.js, Containers/LXC, Cloud Foundry
  • FH 3: Teams, Lifecycle Mgt, MBaaS Services
  • Acquired by Red Hat (October 2014)

• Red Hat Mobile (2015-2016)
  • Red Hat Mobile Application Platform (RHMAP)
  • RHMAP 3: SaaS, targeting OpenShift 2 & 3
  • RHMAP 4: OpenShift 3, On-Premise, SaaS
  • Community Brand: FeedHenry
Mobilizing the Enterprise

Developer, User

Enterprise Systems

App Store

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Mobile Context

Cloud Solutions

Enterprise Features

OpenShift

Enterprise Case Study
Cloud Solutions (Platform)

- Architecture
  - Modular, Resilient, Scalable, Disaster Recovery (Multi-AZ)

- Deployment Models
  - SaaS (Shared, Private, Dedicated Hosted), Hybrid, On-Premise

- Security
  - Enterprise Connectivity, VPC, Multi-MBaaS

- Hosted
  - No Installation, Optimized Configuration, Rapid Deployment
Core MAP

Develop, Deploy, Manage
Core MAP  

MBaaS

App Execution, Caching, Persistence, Services, Integration
Build Farm

Core MAP

MBaaS

Build Farm

Build Native & Hybrid, Cross-Platform Apps
Network Operations Centre

Manage, Monitor, Access Control, Backups
Grid: Unique Geographic Region + Hosting Account
Topology Considerations
Lifecycle Management

Core MAP

MBaaS

Build Farm
Multi-MBaaS (Multi-tenant)

- Core MAP
- MBaaS 1 (Non-Prod)
- MBaaS 2 (prod)
- Build Farm
Multi-MBaaS (Lifecycle Management)

Core MAP

Build Farm

MBaaS 1
- dev
- test
- uat

MBaaS 2
- prod
Sites (VPC)

Site: Customer A (VPC)

- Core MAP
- Build Farm
- MBaaS 1
  - dev
  - test
  - uat
- MBaaS 2
  - prod
Sites per Organization

Site: Red Hat Mobile (VPC)

Core MAP

Build Farm

Site: Customer A (VPC)

MBaaS 1

dev
test
uat

MBaaS 2

prod

Site: Customer B (VPC)

MBaaS 1

dev
stg
qa

MBaaS 2

live
Deployment Models
and
Enterprise Connectivity
Shared Enterprise (Multi-tenant)

Red Hat Mobile

Core MAP

MBaaS 1 (dev)

MBaaS 2 (live)

Client A

Client B

Client C
Private Enterprise (Single Tenant)

Red Hat Mobile

Core MAP

MBaaS 1 (dev)  MBaaS 2 (live)

Client B

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On-Premise MBaaS (Hybrid)

Red Hat Mobile

Core MAP

Client A: MBaaS x 2 (dev, test & prod)

Client B: MBaaS x 2 (dev & prod)

Client C: MBaaS x 2 (dev, uat & live)
Dedicated MBaaS (Hosted)

Red Hat Mobile

Core MAP

MBaaS x 2 (dev, test & prod)
MBaaS x 2 (dev & prod)
MBaaS x 2 (dev, uat & live)

Client A
Client B
Client C
On-Premise (Self Managed)

Client

Core MAP

MBaaS 1
(dev, test)

MBaaS 2
(prod)
Enterprise Connectivity

- **Public (Open)**
  - Publicly Addressable, Publicly Accessible

- **Restricted (IP White-list, ACL)**
  - Publicly Addressable, Privately Accessible

- **Private (Site-to-Site VPN, VPC Peer)**
  - Private Network, DMZ
  - VPC Peering (AWS)
Platform Context
Cloud Solutions
Enterprise Features
OpenShift
Enterprise Case Study
Enterprise Features (Product)

- Architecture
  - Multi-tenancy, Client Apps, Cloud Apps

- Security
  - Teams & Collaboration

- Enterprise
  - Lifecycle Management, MBaaS/Environment Services, Connectors

- RMAD
  - Workforce Management, Sync Framework (Offline First)
Multi-Tenancy

Cluster
- Shared, Dedicated, Hybrid, On-Premise

Reseller
- White Label Solution, Operator, Partner, Department

Customer
- Enterprise Account

Domains
- Lifecycle Mgt
- Resource Mgt

Users & Teams
- Developer
- Administrator
- App End-User

Environments
- Dev
- Test, UAT
- Prod

Projects
- Client Apps
- Cloud Apps
- Services

Feature & Configuration Management (Properties)
### Permissions Tree

<table>
<thead>
<tr>
<th>Business Object</th>
<th>Permission Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ Reseller</td>
<td>None</td>
</tr>
<tr>
<td>🥁 Customer</td>
<td>Edit</td>
</tr>
<tr>
<td>🧿 Domain</td>
<td>Edit</td>
</tr>
<tr>
<td>🧵 Admin</td>
<td>Edit</td>
</tr>
<tr>
<td>🚉 Services</td>
<td>Edit</td>
</tr>
<tr>
<td>🖌 Project</td>
<td>Edit</td>
</tr>
<tr>
<td>🚉 Project Services</td>
<td>Edit</td>
</tr>
<tr>
<td>🚉 Cloud Resources</td>
<td>Edit</td>
</tr>
</tbody>
</table>
Project Anatomy

Project

Client

Cloud
Workforce Management (RainCatcher)

- Resource Planning
- Workorder Scheduling
- Dispatch workflow
- Real-time Updates
- Compliance Rules
- Workorder Completion
- Signature/Image Capture
- Reporting and Audit Trail

http://feedhenry.org
Platform Context
Cloud Solutions
Enterprise Mobility
OpenShift
Enterprise Case Study
• Architecture
  • Resilience & Scalability (Kubernetes), Federation* (DR)

• Security
  • Containerization (Docker), Network Isolation

• DevOps, Support
  • Resource Management, Monitoring, Aggregated Logging (ELK)

• CI/CD
  • Rolling Upgrades, Node Evacuation
Platform Context
Cloud Solutions
Enterprise Mobility
OpenShift
Enterprise Case Study
Cloud Solution: ACME/1

```
site: xxx1

Core MAP

https://acme.us.feedhenry.com
xxx1-core
```
Cloud Solution: ACME/3

Customer Network(s)

Primary Site
x.x.x.x/xx,y.y.y/yy

ACME (dev)  ACME (test)

ACME (uat)  ACME (prod)
Cloud Solution: ACME/4

Customer Network(s)

Primary Site
\[ x.x.x.x/xx,y.y.y/yy \]

- ACME (dev)
- ACME (test)
- ACME (uat)
- ACME (prod)

Secure Link

Secondary Site
\[ x.x.x.x/xx,y.y.y/yy \]
Cloud Solution: ACME/5

Customer Network(s)

Primary Site

Secure Link

Secondary Site

Dedicated MBaaS 1
* .mbaas1.acm.feedhenry.com
acml-mbaas1
10.x.11.0/24

Dedicated MBaaS 2
* .mbaas2.acm.feedhenry.com
acml-mbaas2
10.x.12.0/24

Customer Network(s)

P.P.P.P

S.S.S.S

ACME (dev)  ACME (test)

Primary Site
x.x.x/x, y.y.y/y/yy

ACME (uat)  ACME (prod)

Secure Link

Secondary Site
x.x.x/x, y.y.y/y/yy
Cloud Solution: ACME/8

Dedicated MBaaS 1

*.*.mbaas1.acm.feedhenry.com  
acm1-mbaas1  
10.x.11.0/24

dev  test  uat

acm1-mbaas1-gw1  
.a.a.a.a

Dedicated MBaaS 2

*.*.mbaas2.acm.feedhenry.com  
acm1-mbaas2  
10.x.12.0/24

prod

acm1-mbaas2-gw1  
c.c.c.c

VPN 1 2 3 4 5 6 7 8

Customer Network(s)

Primary Site  
.x.x.x/x,x,y,y/y/yy

ACME (dev)  ACME (test)

Secondary Site  
.x.x.x/x,x,y,y/y/yy

ACME (uat)  ACME (prod)

Secure Link

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Discover the costs and complexity of mobile app development using our MOBILE ASSESSMENT TOOL [http://mobiledevcosts.com].
James Mernin  
CTO, Red Hat Mobile  
jmernin@redhat.com  
+353 51 810120  
@mernin | @redhatmobile  
http://redhat.com/mobile