

A large, faint watermark of the Red Hat logo, featuring a stylized red hat, is positioned in the lower-left quadrant of the slide.

# **RED HAT**<sup>®</sup> MOBILE APPLICATION PLATFORM

**Minnesota RHUG**

**August 2015**

**Greg Hoelzer**

**JBoss Middleware Solutions Architect**

# From Systems of Record

RESERVATIONS

ERP

CRM

HCM

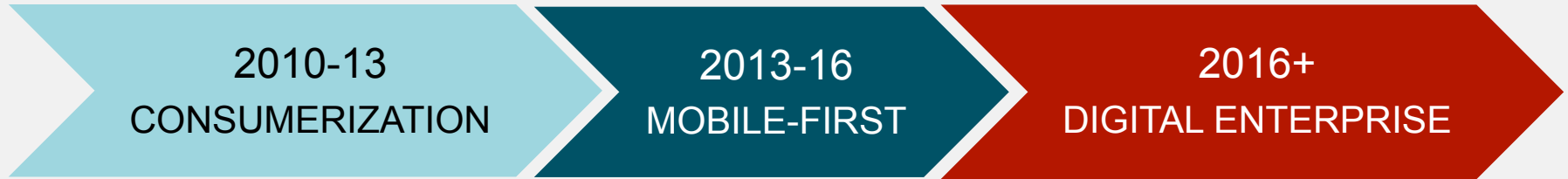
Etc.



To Systems of Engagement



# Driving Digital Transformation



- iOS Support
- Experiment Apps
- Point Solution
- Risk Management

- Multi-Device
- Targeted Apps
- Dev Platform
- Business Enablement

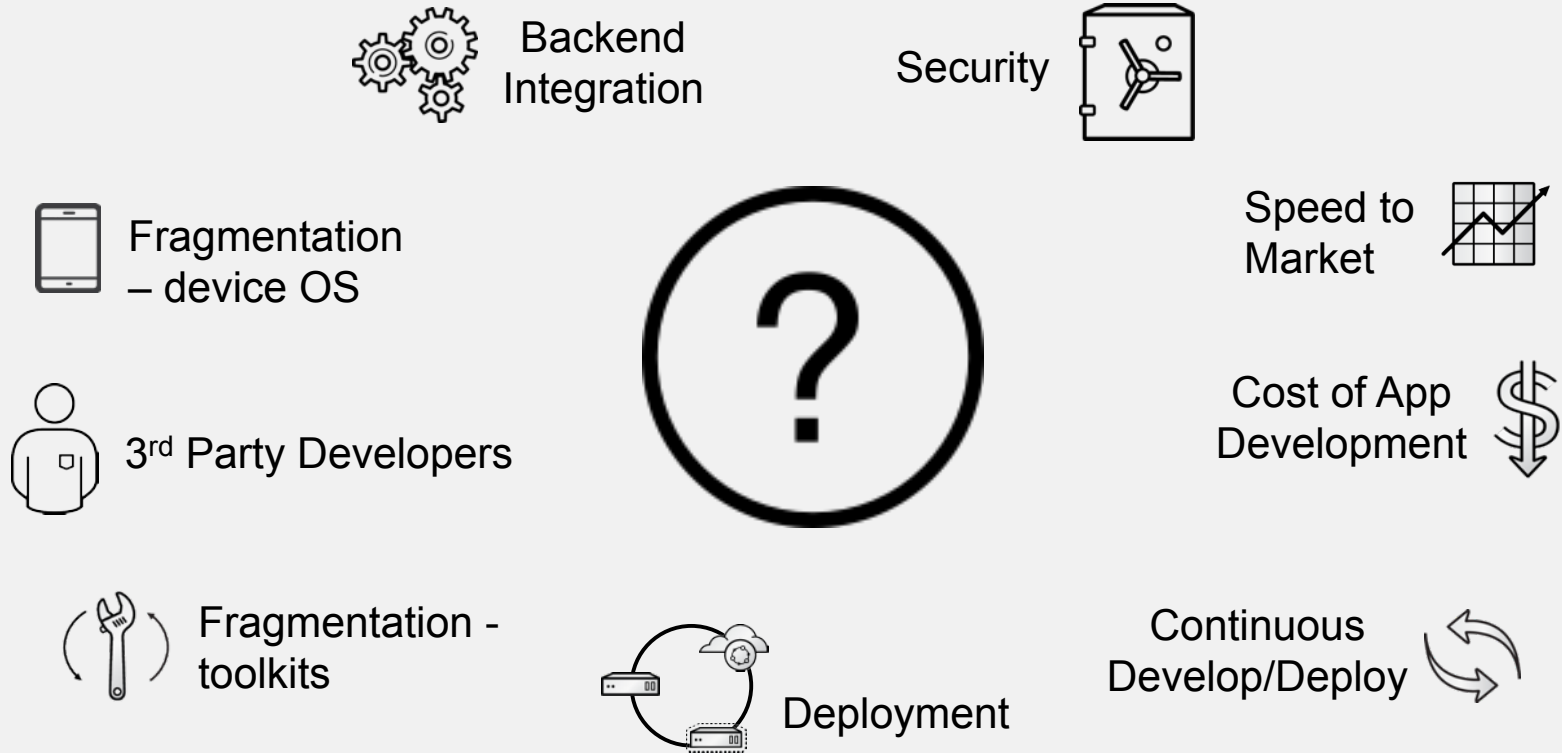
- Wearables
- Internet of Things
- Mobile Architecture
- Business Transformation

Device-centric

App-centric

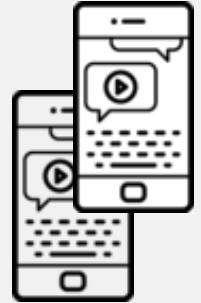
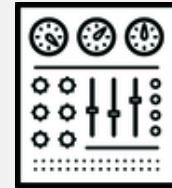
Information-centric

# The Mobile Development Dilemma



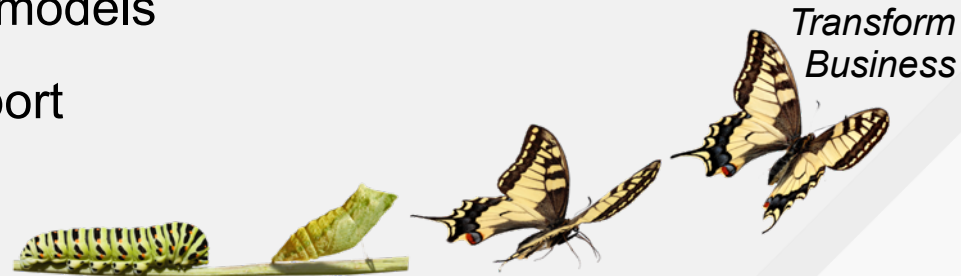
# Why & When you need a Mobile Application Platform

- Multiple Apps
- Multiple Mobile Development Approaches
- Multiple Mobile Platforms
- Multiple Mobile Form Factors
- Multiple Back-End Systems
- Multiple In-House Integrations
- Multiple Third-Party Integrations
- Multiple Developers
- Multiple Versions

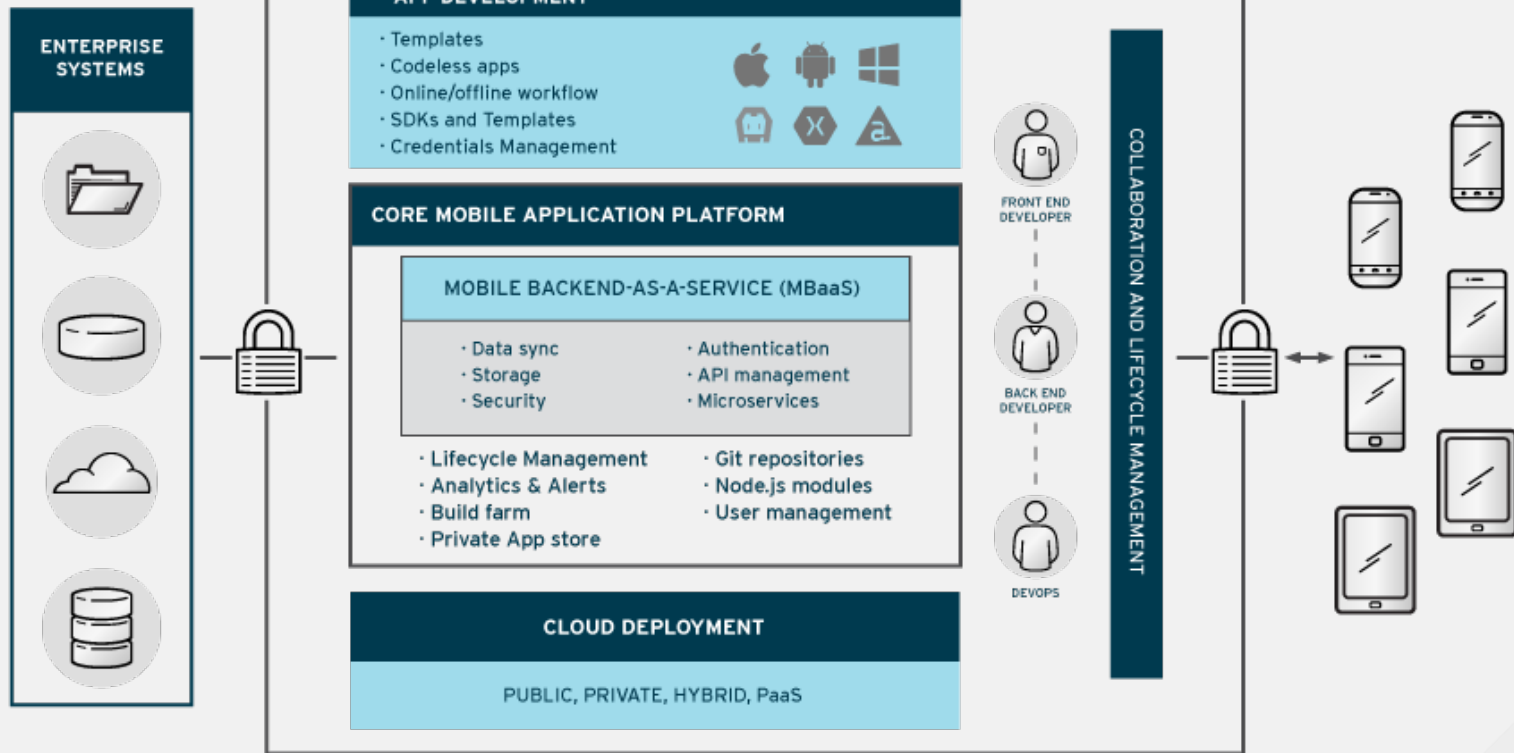


# Introducing RED HAT MOBILE APPLICATION PLATFORM

- Develop, deploy, integrate and manage multiple mobile projects
- Get mobile apps to market faster to improve business efficiency and employee productivity
- Centralize security and policy management across all mobile projects
- Improve IT team collaboration across developers and ops teams
- Choose from flexible deployment models
- Access world wide customer support

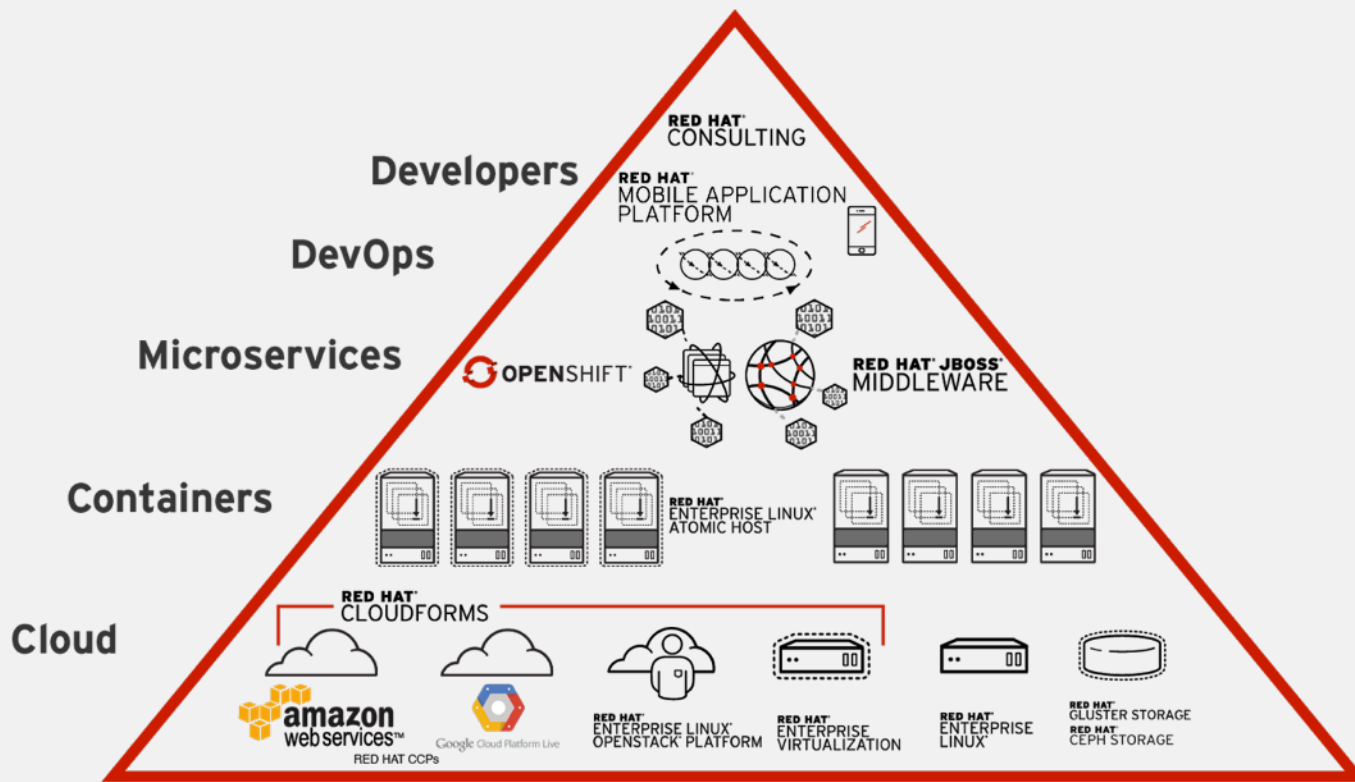


# RED HAT® MOBILE APPLICATION PLATFORM



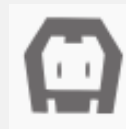


# Transforming Business with Red Hat



# The new world of Enterprise Mobility

- Open technologies, cloud or hybrid-cloud solutions
- Flexible development using any client toolkit
- REST APIs for apps to consume
- JavaScript and Node.js as integration logic
- MBaaS to simplify & speed app development
- Continuous development & deployment
- Collaboration between front-end developers (new IT) with backend developers and ops (traditional IT)





# Red Hat Mobile Application Platform


RED HAT MOBILE APPLICATION PLATFORM


Projects Analytics Resources Drag & Drop Apps Services & APIs Admin Docs


[Old Studio](#) ?


 **Getting Started**  
Resources and documentation for getting started


 **Projects**  
All of your Projects


 **Reporting & Analytics**  
Analytics across all your Projects and their App Clients


 **Cloud Resources**  
Manage your Cloud Deployment Resources

 **MBaaS Services & APIs**  
Manage your MBaaS Services

 **MBaaS APIs**  
API reference documentation for the MBaaS APIs

 **Drag & Drop Apps**  
Manage Form based Drag & Drop Apps and Projects

 **Administration**  
View your administration/settings area

 **Latest News**  
[An Easier Way to Demo the Mobile Application Platform](#)

# Enhanced Team and Collaboration

Teams & collaboration features to define teams and provide access to all components

Domain	Edit
Admin	View
Authorization Policy	None
Deploy Target	View
App Store	Edit
App Store Audit Log	Edit
Store Item	Edit
Store Item Binary	Edit
Store Item Binary Version	Edit

Lifecycle Management	View
Client App	View
Documentation	Edit
Cloud Deployment	Edit
Source Code	None
Analytics	View
Push Notifications	View
Credentials	None
Binaries	View
Configuration	View
Endpoints	View
Environment Variables	View

# Client, Cloud & MBaaS Services

RED HAT MOBILE APPLICATION PLATFORM

Projects Analytics Resources Drag & Drop Apps Services & APIs Admin Docs

Old Studio

Sales App De... <> Apps, Cloud Apps & Services Connections Git Quickstart Resources Lifecycle Management Forms Reporting Settings

## <> Apps, Cloud Apps & Services

Below are all Apps, Cloud Code Apps and associated Services in this Project

### Apps

- Sales Demo App**  
Cordova Light  
Updated 2 hours ago  
git@ngui-demo.sandbox.feedhenry.com:ngui-demo/Sa... [Copy](#)
- Sales App - Android Native**  
Native Android  
Updated 10 days ago  
git@ngui-demo.sandbox.feedhenry.com:ngui-demo/Sa... [Copy](#)
- Sales app - iPhone Native**  
Native iOS  
Updated 10 days ago  
git@ngui-demo.sandbox.feedhenry.com:ngui-demo/Sa... [Copy](#)

### Cloud Code Apps

- Cloud Instance**  
Node.js Cloud App  
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- Cloud Instance V2**  
Node.js Cloud App  
Updated 3 hours ago  
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### MBaaS Services

- AeroGear Push Service - Connector Service**  
Updated 3 months ago  
[Discover](#)
- Oracle Fusion CRM - Connector Service**  
Updated 3 months ago  
[Discover](#)
- Salesforce - Connector Service**  
Updated a month ago  
[Discover](#)

# Core Platform, Node.js

Navigation bar with the following items: **fj** Projects, Analytics, Resources, Drag & Drop Apps, Services & APIs, Admin, Docs, Old Studio, ? (Help), and User Profile.

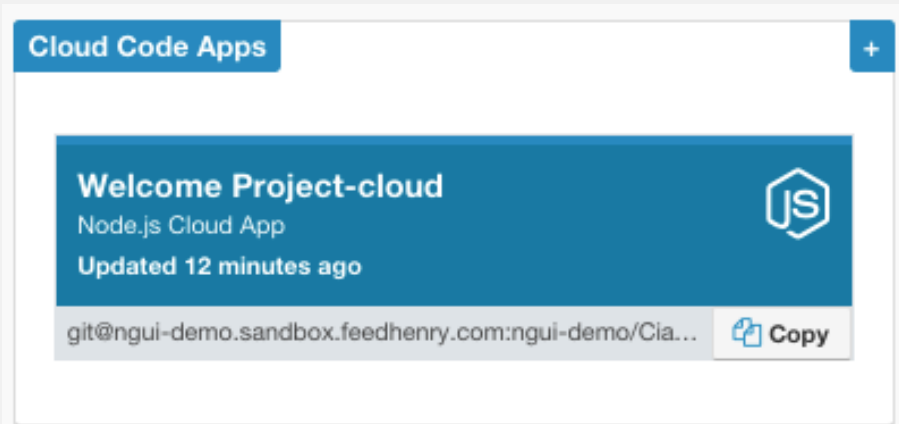
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Apps	Cloud Code Apps	mBaaS Services
<p><b>Sales Demo App</b> Cordova Light Updated 6 days ago git@ngui-demo.sandbox.feedhenry.com:ngui-d... <a href="#">Copy</a></p>	<p><b>Cloud Instance</b> Node.js Cloud App Updated 6 days ago git@ngui-demo.sandbox.feedhenry.com:ngui-d... <a href="#">Copy</a></p>	<p><b>AeroGear Push Service - Connector</b> Service Updated 2 months ago <a href="#">Discover</a></p>
<p><b>Sales App - Android Native</b> Native Android Updated 6 days ago git@ngui-demo.sandbox.feedhenry.com:ngui-d... <a href="#">Copy</a></p>		<p><b>iBeaconService - Connector Service</b> Updated 9 months ago <a href="#">Discover</a></p>
<p><b>Sales app - iPhone Native</b> Native iOS Updated 6 days ago git@ngui-demo.sandbox.feedhenry.com:ngui-d... <a href="#">Copy</a></p>		<p><b>Oracle Fusion CRM - Connector</b> Service Updated 2 months ago</p>

# Core Functionality, API-based, Node.js

- Data Sync
- API Keys
- Cloud Alerts
- Deploy Targets
- Env Variables
- User Admin
- App Management
- Cloud Env
- Caching
- Storage
- Notifications
- User Roles
- Auth
- Stats



# Data Sync Framework

- Provides a mechanism to manage bi-directional data synch from multiple app to cloud and backend systems
- Allows delta updates to be distributed from Cloud to connected clients
- Provides facilities for managing data collisions





# MBaaS Services- Microservices

## </> Apps, Cloud Apps & Services

Below are all Apps, Cloud Code Apps and associated Services in this Project

### Apps

#### Sales Demo App

Cordova Light

Updated 2 hours ago

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#### Sales App - Android Native

Native Android

Updated 10 days ago

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#### Sales app - iPhone Native

Native iOS

Updated 10 days ago

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### Cloud Code Apps

#### Cloud Instance

Node.js Cloud App

Updated 10 days ago

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#### Cloud Instance V2

Node.js Cloud App

Updated 3 hours ago

git@ngui-demo.sandbox.feedhenry.com:ngui-demo/Sal... [Copy](#)

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Updated 3 months ago

[Discover](#)

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Updated 3 months ago

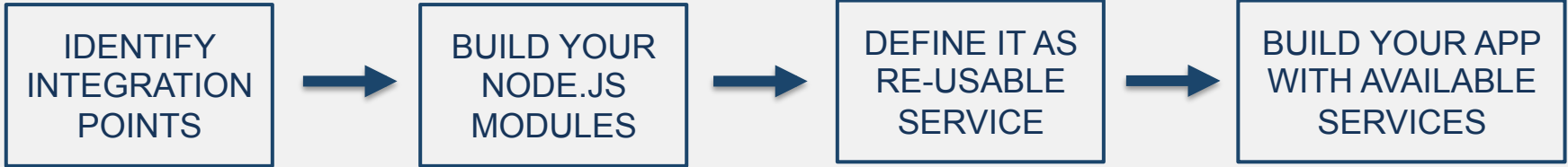
[Discover](#)

#### Salesforce - Connector Service

Updated a month ago

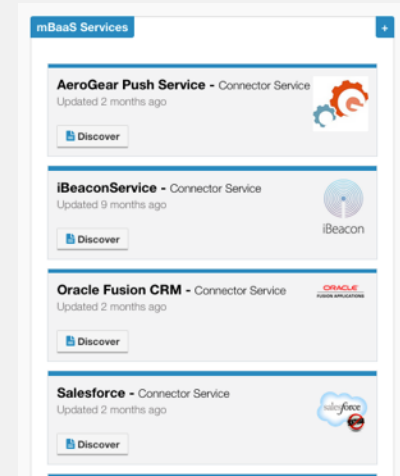
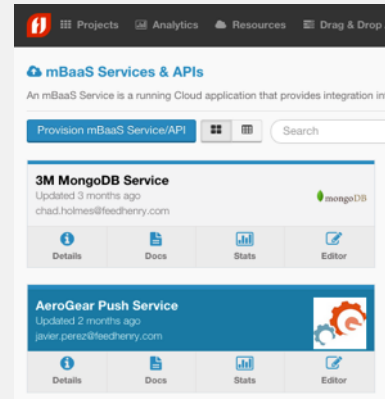
[Discover](#)

# MBaaS Services - Microservices



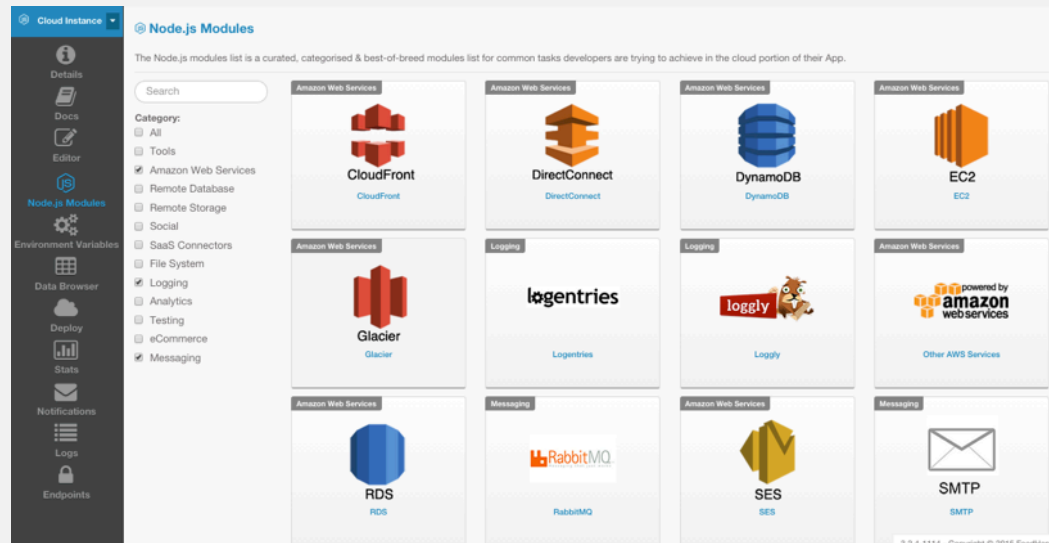
JSON/REST  
XML/SOAP  
OData

```
1 var sender = require('unifiedpush-node-sender');
2 var express = require('express');
3 var bodyParser = require('body-parser');
4 var cors = require('cors');
5 var optval = require('optval');
6 var util = require('util');
7 var winston = require('winston');
8 var requestId = require('connect-requestid');
9
10
11 validateEnvVar('AEROGEAR_SERVER_URL');
12 validateEnvVar('AEROGEAR_APPLICATION_ID');
13 validateEnvVar('AEROGEAR_MASTER_SECRET');
14
15 var settings = {
16   serverUrl: process.env.AEROGEAR_SERVER_URL,
17   applicationID: process.env.AEROGEAR_APPLICATION_ID,
18   masterSecret: process.env.AEROGEAR_MASTER_SECRET,
19   ttl: parseInt(optval(process.env.AEROGEAR_TTL, 3600), 10)
20 };
```



# MBaaS Services

- Cloud APIs
  - Public APIs
  - Local & Third party storage
- Node.js Server-side
- Large ecosystem of node.js modules
- Discoverable, testable, documented APIs
- Re-usability of MBaaS services
- Secure Network/VPN config



# Client side

RED HAT MOBILE APPLICATION PLATFORM

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Updated 3 months ago  
[Discover](#)
- Oracle Fusion CRM - Connector Service**  
Updated 3 months ago  
[Discover](#)
- Salesforce - Connector Service**  
Updated a month ago  
[Discover](#)

# Mobile App Development

- Online Editor
- Offline Editor
- Command Line Interface
- HTML5, Hybrid & Native Apps
- Cloud Build Farm
- Git Integration
- HTML5 Form App Wizard
- Credential Management

The screenshot displays a mobile app development IDE interface. On the left, a code editor shows JavaScript code for defining Backbone.js models. The code includes a main page model and two sub-page models: 'cloudcallPage' and 'statsPage'. The main page model has a title 'Welcome', a header 'Welcome To FeedHenry', and a list of menu items with class names and image paths. The 'cloudcallPage' model has a title 'Cloud Action' and a button 'Call Cloud'. The 'statsPage' model has a title 'Stats' and a header 'Stats'.

```
1 /* global App, Backbone */
2 /* Define Backbone Models */
3 App.Model.PageModel = Backbone.Model.extend({
4
5 });
6
7 App.models.introPage = new App.Model.PageModel({
8   title: 'Welcome',
9   header: 'Welcome To FeedHenry',
10  text: 'Learn about and interact with our platform',
11  nextButtonText: 'Let\'s Start',
12  menuItems: [{className: 'cloud-action', imgPath: '/img/touch/cloud-action.png'},
13               {className: 'data-browser', imgPath: '/img/touch/data-browser.png'},
14               {className: 'nodejs-page', imgPath: '/img/touch/nodejs-page.png'},
15               {className: 'cloud-integration', imgPath: '/img/touch/cloud-integration.png'},
16               {className: 'weather-sample', imgPath: '/img/touch/weather-sample.png'},
17               {className: 'stats-analytics', imgPath: '/img/touch/stats-analytics.png'}
18            ];
19 });
20
21 App.models.cloudcallPage = new App.Model.PageModel({
22   title: 'Cloud Action',
23   header: 'Cloud Action',
24   text: 'This client App is now connected to its matching Node.js server',
25   buttonText: 'Call Cloud',
26   extraRes: 'Now check your stats page in the studio to see that it works'
27 });
28
29 App.models.statsPage = new App.Model.PageModel({
30   title: 'Stats',
31   header: 'Stats',
32   titleWidth: '50%',
33   text: 'In addition to all of our App install/usage Analytics, we also have some other interesting data for you to see'
34 });
```

On the right, the 'App Preview' section shows a mobile device (Nexus 5) displaying the app's interface. The app has a title 'Welcome To FeedHenry' and a header 'Learn about and interact with our platform'. The main content area features a grid of six icons: 'CLOUD ACTION Try it now', 'DATA BROWSER Use MongoDB', 'POWERED BY NODEJS Cloud code', 'CLOUD INTEGRATION Use APIs', 'EXAMPLE Use Location', and 'STATS See the data'. The preview is set to 'Portrait' orientation and '16% Fit'.

# Sample apps & Templates

- Easily extend examples to build your own Apps
- Best practice for interacting with the Platform APIs
- Best of breed modern frameworks
  - angular.js, backbone.js, ember.js, ionic, xamarin, appcelerator
- Optimized for team-based development with multiple Git repos
- Variety of available sample forms-based apps



## Cordova Hello World Project

A FeedHenry primer project with one Cordova Client App and a cloud instance with a single endpoint



## Native Android Hello World Project

A FeedHenry primer project with one Android Client App and a cloud instance with a single endpoint



## Native iOS Hello World Project

A FeedHenry primer project with one iOS Client App and a cloud instance with a single endpoint



## Native Windows Phone 8 Hello World Project

A FeedHenry primer project with one Windows Phone 8 Client App and a cloud instance with a single endpoint



## Appcelerator Hello World Project

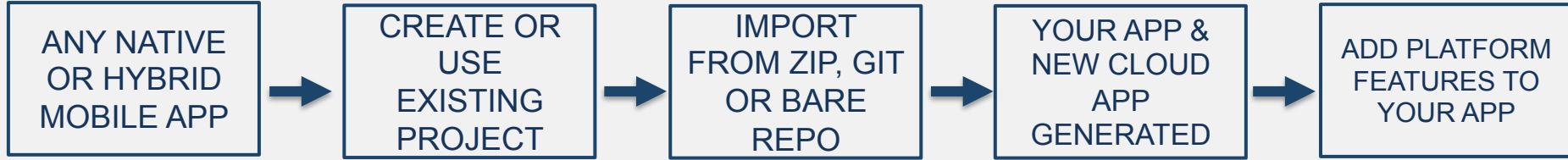
A FeedHenry primer project with one Appcelerator Client App and a cloud instance with a single endpoint



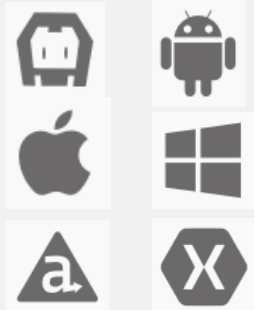
## Xamarin Hello World Project

A FeedHenry primer project with one Xamarin Client App and a cloud instance with a single endpoint

# Migrating existing Mobile apps



Existing apps:

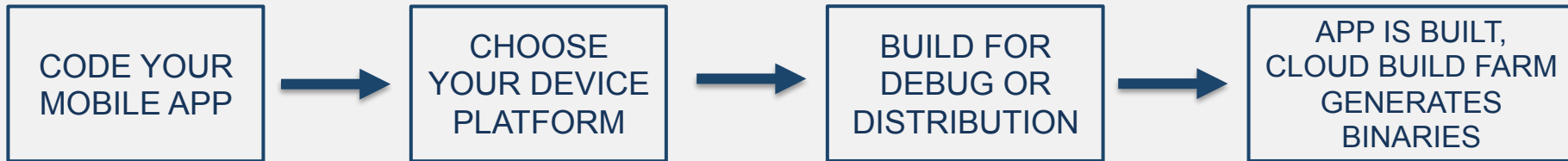


</> Apps, Cloud Apps & Services

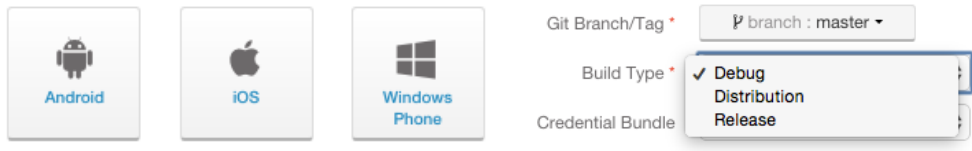
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<b>Sales App - Android Native</b> Native Android Updated 5 hours ago git@ngui-demo.sandbox.feedhenry.com:ngui-demo/Sa... <a href="#">Copy</a>	

# Cloud Build Farm

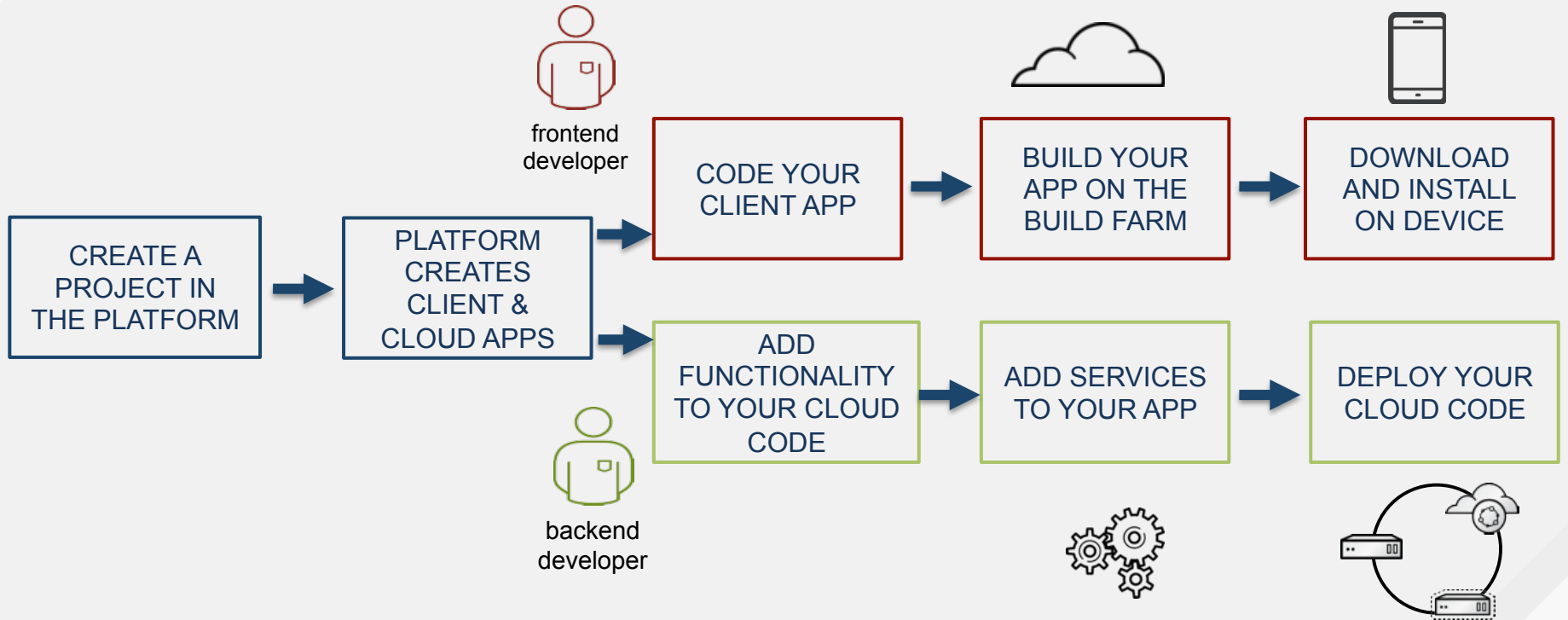


```
1 document.getElementById('say_hello').onclick = function () {
2   document.getElementById('cloudResponse').innerHTML = "<p>Calling
3   $fh.cloud(
4     {
5       path: 'hello',
6       data: {
7         hello: document.getElementById('hello_to').value
8       }
9     },
10    function (res) {
11      document.getElementById('cloudResponse').innerHTML = "<p>
12    },
13    function (code, errorprops, params) {
14      alert('An error occured: ' + code + ': ' + errorprops);
15    }
16  };
17 }
```





# Full process flow to build an app



# Application Lifecycle Management

- Provides the ability to define a set of software environments e.g. Dev, Test, Pre-Production, Production. Enables DevOps processes in a mobile context

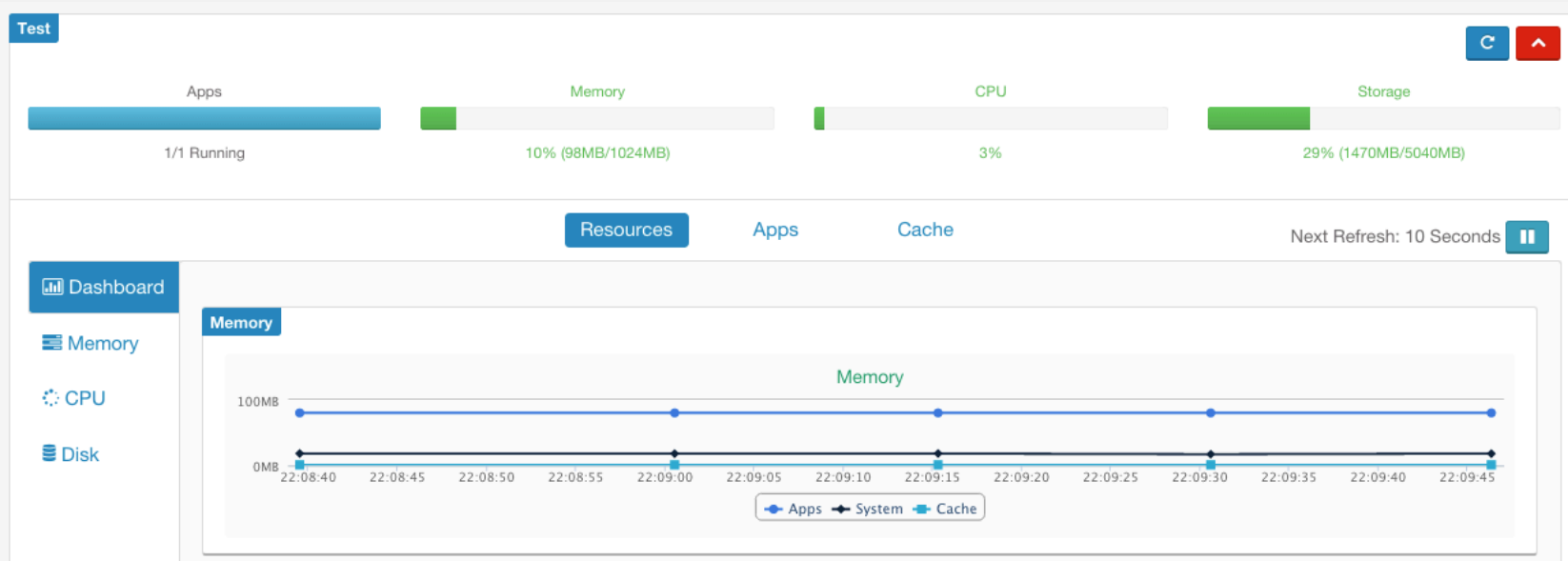
The screenshot displays four environment cards for an Application Lifecycle Management system. Each card represents a different environment: Development, Test, Pre-Production, and Live. Each card shows the following information:

- Development:**
  - Type: Android
  - Git Branch: master
  - Git Hash: 10a93ba
  - Built On: 2015-06-05 13:48:40
  - Connection Tag: 1.2.378
  - Previous Builds: 219
- Test:**
  - Type: Android
  - Git Branch: master
  - Git Hash: 10a93ba
  - Built On: 2015-06-05 13:48:40
  - Connection Tag: 1.2.378
  - Previous Builds: 219
- Pre-Production:**
  - Type: Android
  - Git Branch: master
  - Git Hash: 10a93ba
  - Built On: 2015-06-05 13:48:40
  - Connection Tag: 1.2.378
  - Previous Builds: 219
- Live:**
  - Type: Android
  - Git Hash: (empty)
  - Built On: 2015-06-05 13:48:40
  - Connection Tag: 3.5.6
  - Previous Builds: 5

At the bottom of each card, there are three buttons: Re-Build, Download, and Promote.

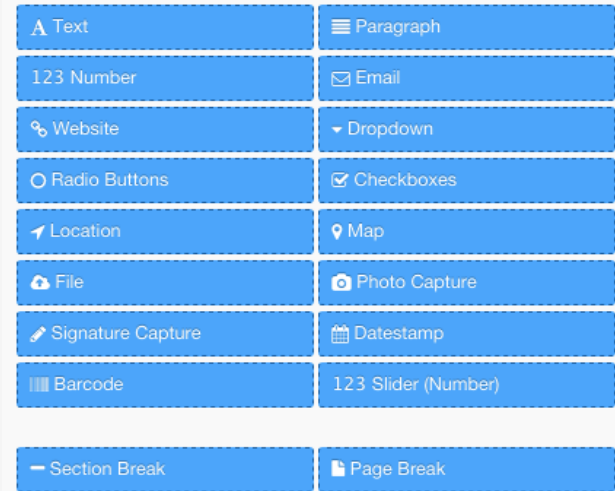
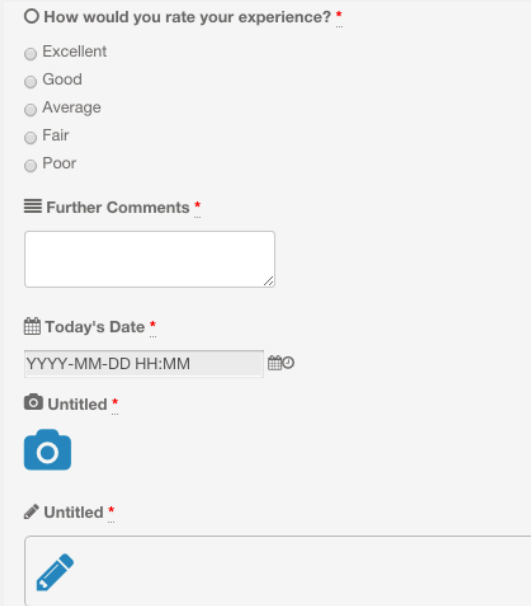
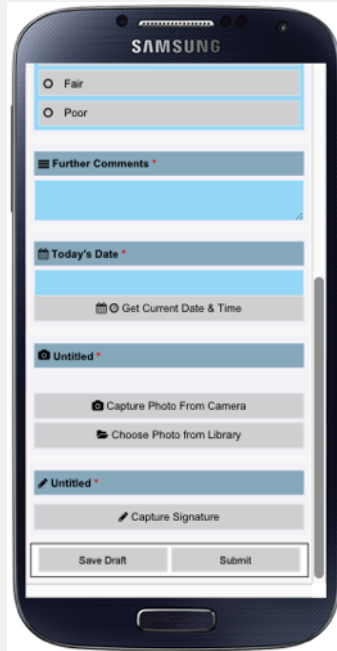
# Resource Management

- App cloud performance and utilization resource monitoring and alerting
- Aggregated and individual app level views of memory, CPU, disk and cache

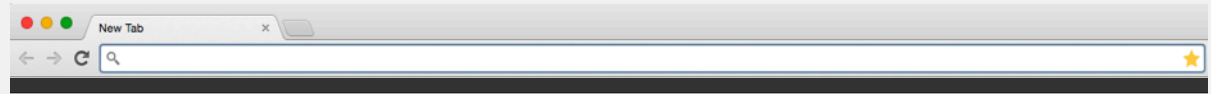
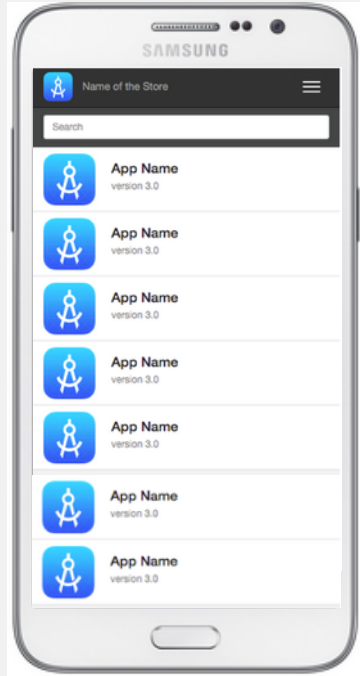


# Drag & Drop Forms Builder

- View Form submissions including images and signatures
- All form fields available including photo, gps, bar code scanner, signature capture, ...



# Private App Store



## App Name

version 3.0, Updated on 2 July 2014

### Support:

✉ [support@company.com](mailto:support@company.com) ☎ (516) 8226 7262 🌐 [Visit Support](#)

Here goes the support text. I suggest limit this text to no more than 3, about 200 chat lines Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore. Ut enim qui officia deserunt mollit anim id est laborum.

## Description

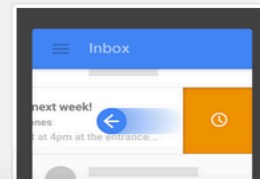
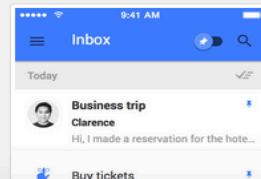
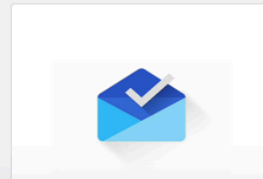
Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Plamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

## Whats new in version 3.0

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

## Phone Screenshot



## Get the app

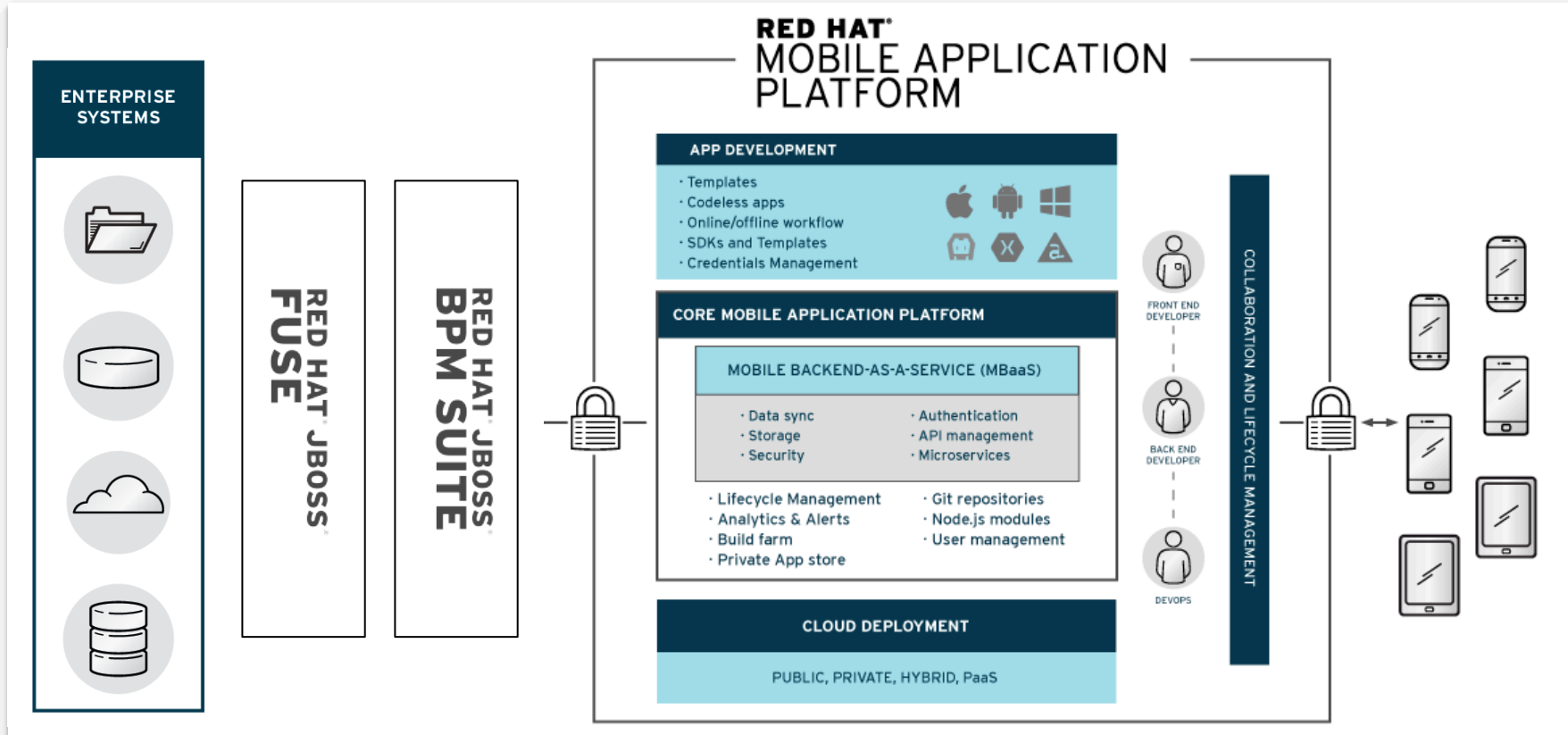


<http://downloadurl.com/9s7s>

### Requierments:

IOS 7.1+, Android 4 or Windows 2.

# Red Hat Mobile Application Platform and JBoss



# Use Case 1: Work Order Management

Complex work order management solutions for field service workers in the UK, rolling out to 10,000+ workers

Use of Video, photo, location & signature capture phone features, continue expanding the number of apps

Complex integration with legacy backend inventory and asset management systems

Ease of integration with backend systems

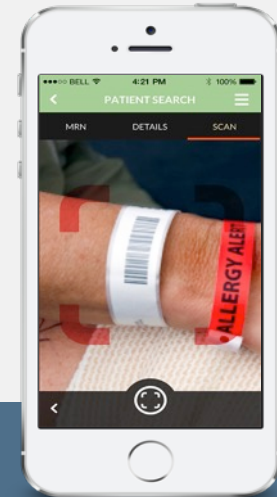
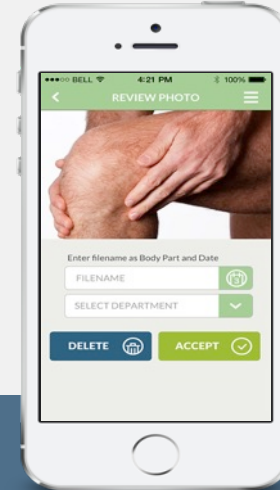
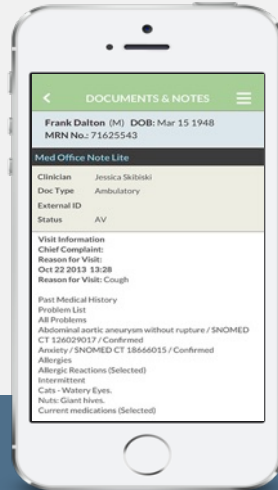
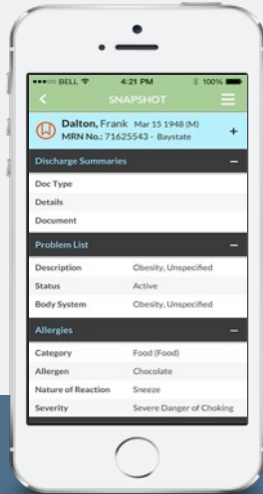


## Patient Data Viewer

- Clinicians can access patient info on-the-go, increasing response times
- Secure integration to Patient Info Exchange via cloud
- Authenticated and Authorized Access
- Available iOS & Android smartphone and tablets

## Injury Photo Capture

- Patient records retrieved and photos captured
- Data Integration with Cerner Information Systems (Medical Records)
- Secure integration to increase security layers and encrypted communication





# The Benefits to our Customers

- **Open, Scalable** Architecture for Company-wide Mobile Projects
- Centralized **Security**, Policy Management and Access Control
- Facilitates **Collaboration** across distributed teams
- Bring your **own tools and frameworks** reduce training costs
- **Fast Prototyping** with templates and Drag & Drop forms to get apps to market quickly
- **Re-use** of micro-services to increase developer productivity
- Supports **Fast IT** - agile app development and deployment

# Thank you!

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