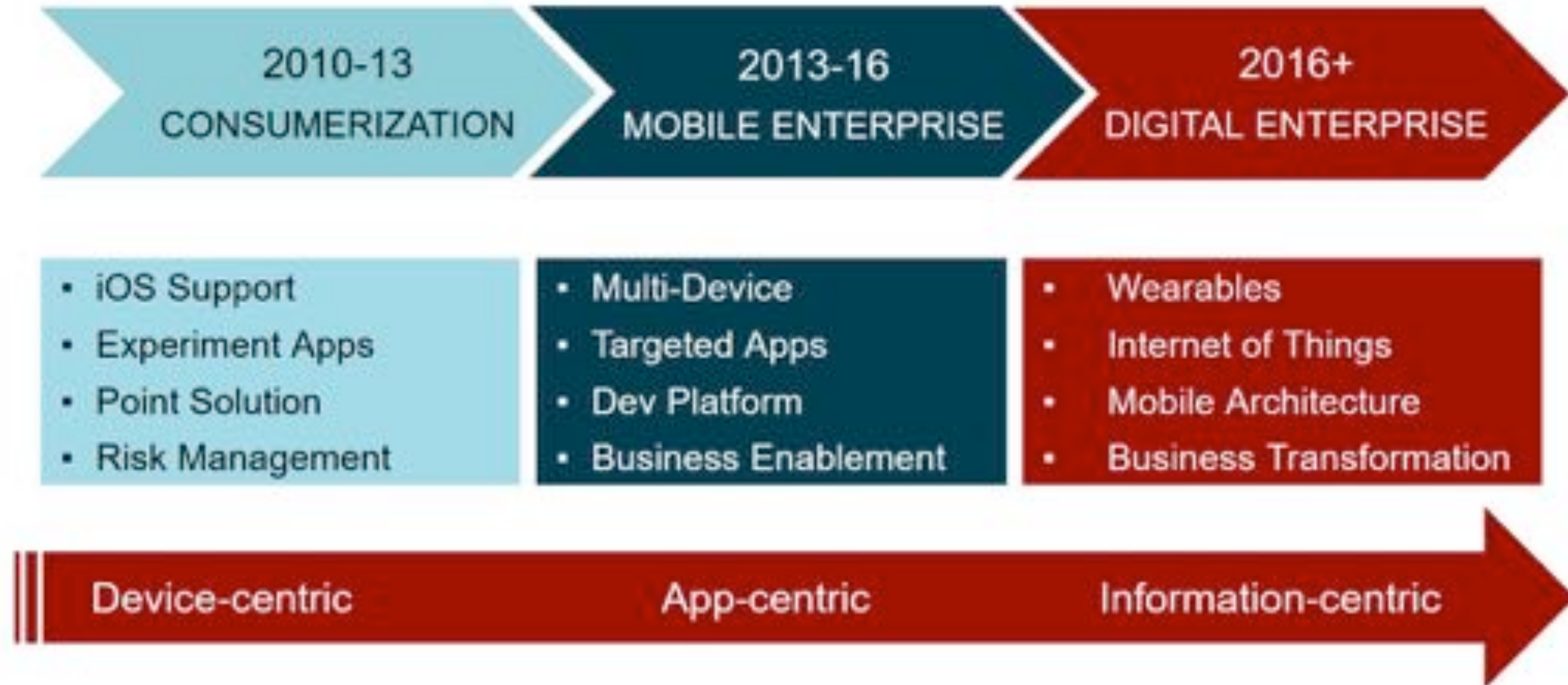


# RainCatcher, Field Workforce Management

Conor O'Neill  
Product Manager, Red Hat Mobile

# Mobile is Driving Digital Transformation

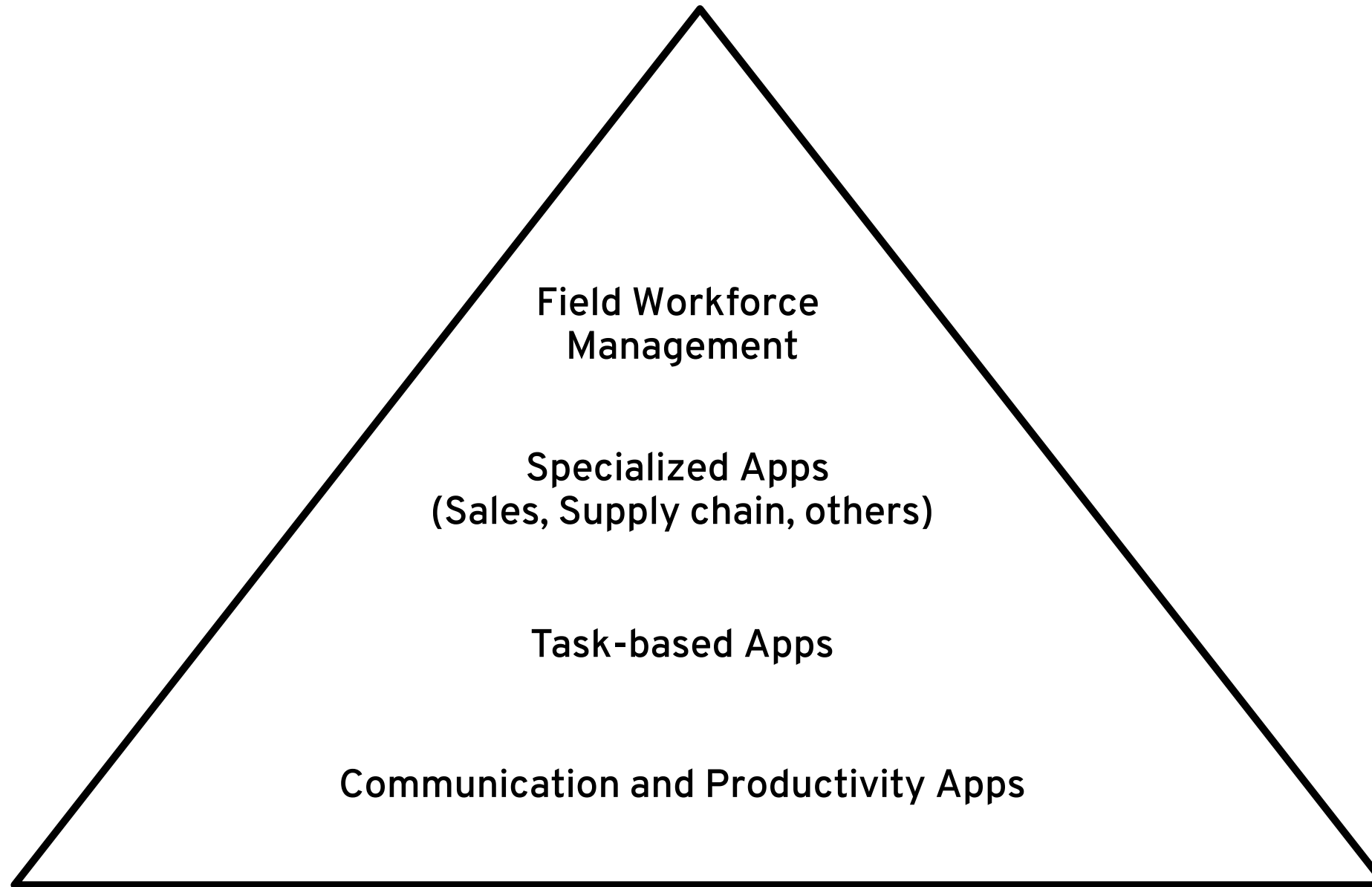


# BUSINESS DRIVERS TO START A MOBILE STRATEGY

## B2E, INTERNAL APPS

- Improve workforce productivity
- Streamline operations and reduce cost
- Quicker response with real-time information
- Replace paper-based processes
- Reduce travel time
- Add location and context to all processes
- Increase sales and services revenue
- Improve customer satisfaction

# TYPES OF ENTERPRISE MOBILE APPS



# TASK-BASED ENTERPRISE MOBILE APPS

- Operations status for Management, dashboards
- Time entry
- Contact information and escalations path
- Mobile brochure or catalogue
- Sales quotes
- Alerting
- Data entry, forms and submissions
- Way finder

# SPECIALIZED ENTERPRISE MOBILE APPS

- Inventory and procurement
- Claim submission
- Supply chain management
- Geo-fencing solutions
- Inspections, risk assessments
- Document approvals
- Sales process management
- Business intelligence and analytics

# FIELD WORKFORCE MANAGEMENT APPS

*Job scheduling and dispatching of orders*

Integration with third party systems

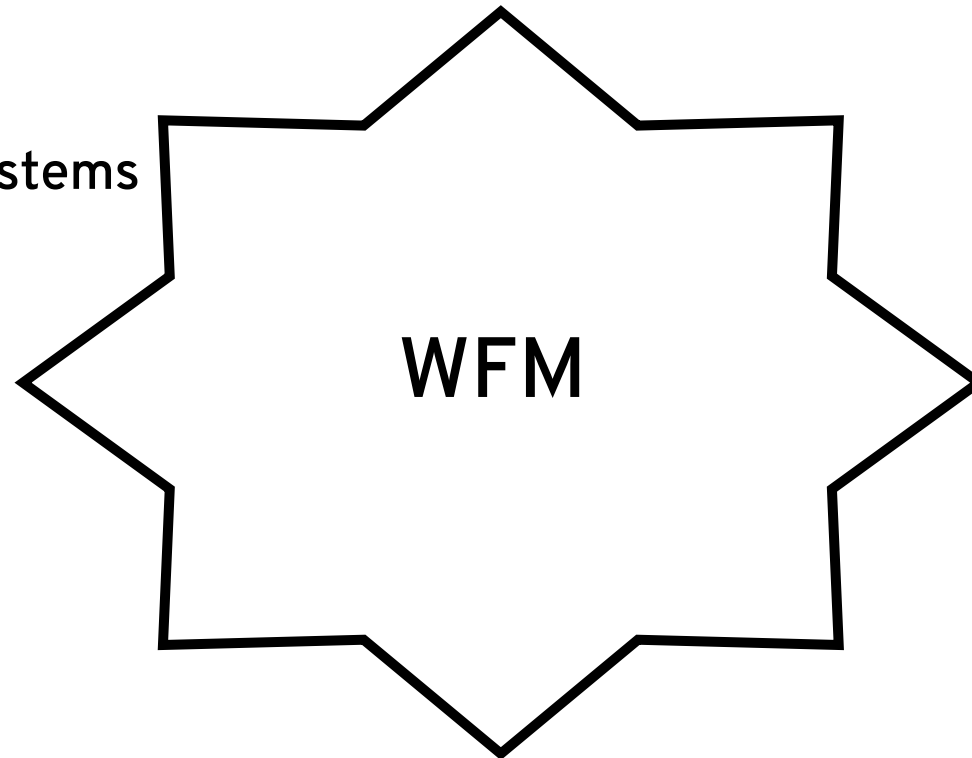
*GPS location, directions & maps*

Dashboard and Analytics

Modern mobile app interface

Messaging with workforce

*Flexible configuration to define your workflow*



# DECIDE ON MOBILE TECHNOLOGY

Native Apps	Hybrid Apps	Web Apps
<ul style="list-style-type: none"><li>• Different programming languages, platform specific</li><li>• Higher cost and time for development</li><li>• Usability with latest device features</li></ul>	<ul style="list-style-type: none"><li>• Build with HTML5 (CSS, HTML &amp; Javascript)</li><li>• Multiple open source frameworks</li><li>• Cross-platform</li><li>• Plugins for extensibility</li></ul>	<ul style="list-style-type: none"><li>• Mobile browser based</li><li>• Fewer mobile device features</li><li>• Often not an optimal mobile experience</li><li>• Progressive Web Apps a leap forward</li></ul>



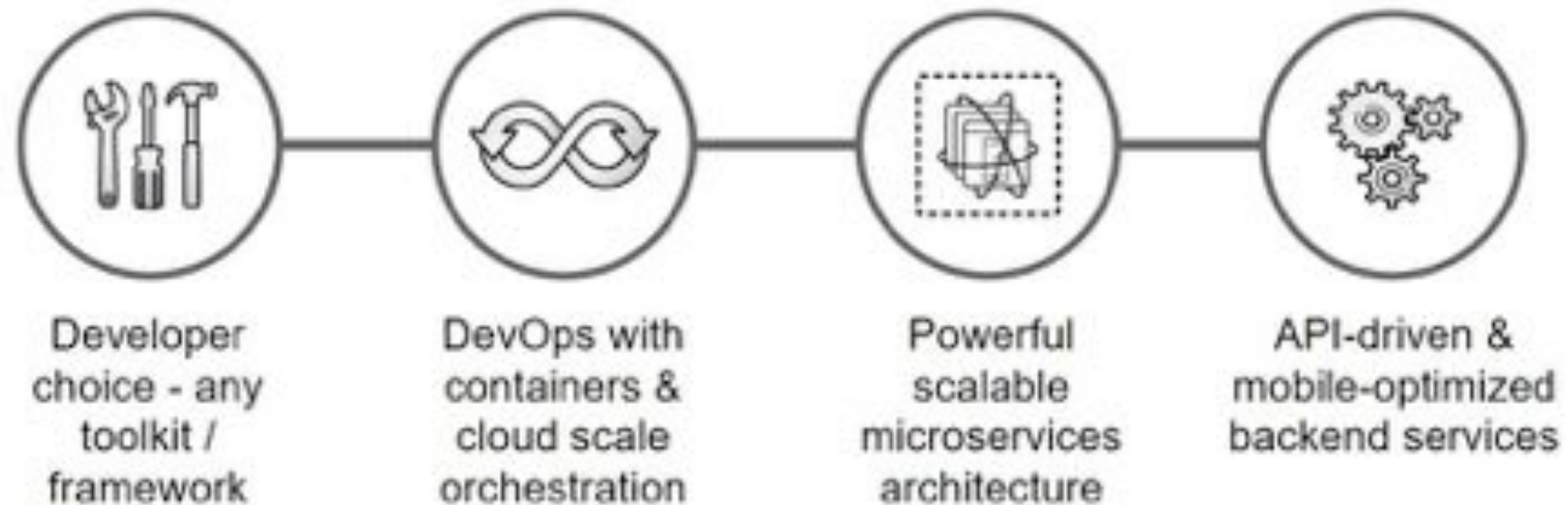
# DECIDE ON MOBILE TECHNOLOGY

## OTHER CONSIDERATIONS

- Backend integrations (Web Services, RESTful APIs, legacy)
- Use of third party services (cloud services for storage, analytics, etc.)
- BYOD or device specific (iOS, Android, Windows Universal)
- Form factors for phones and tablets
- App distribution (MDM, MAM, other )
- Security policies

# Red Hat Mobile Application Platform

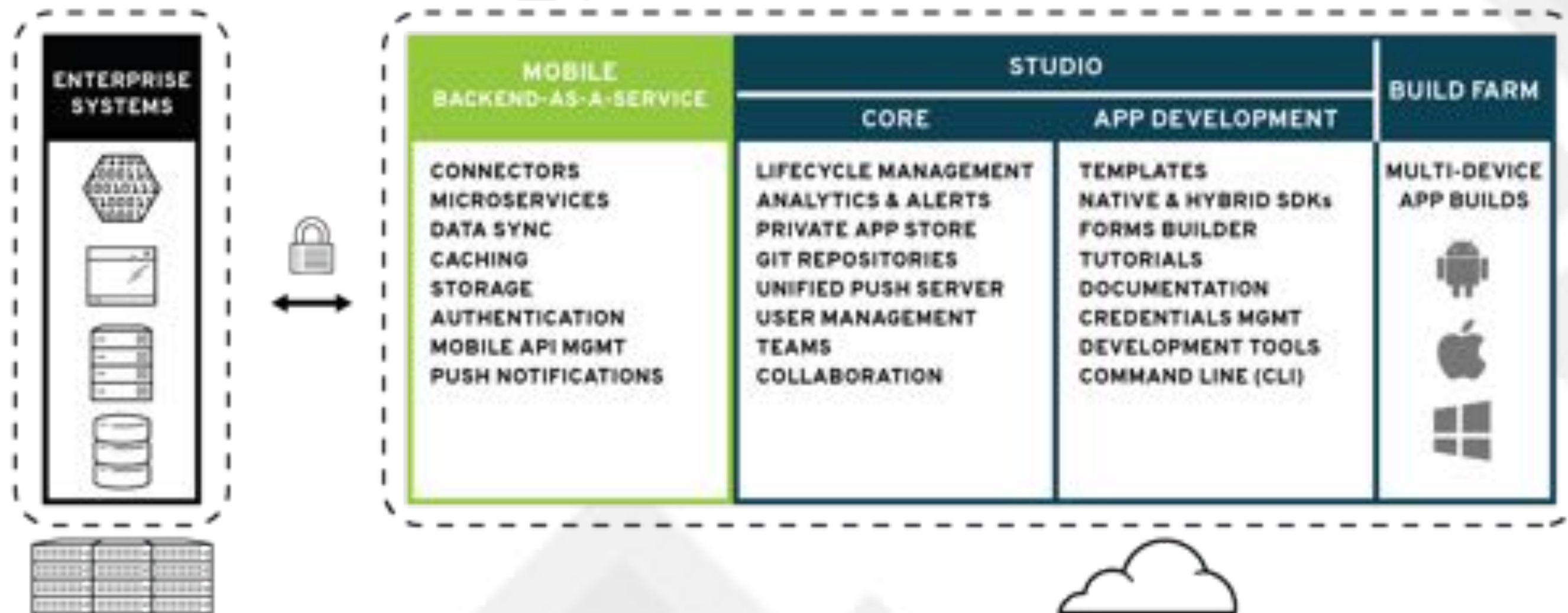
Accelerates the development of mobile projects by providing a full stack, collaborative development & runtime environment with secure integration and ready-to-use backend services



V3.x



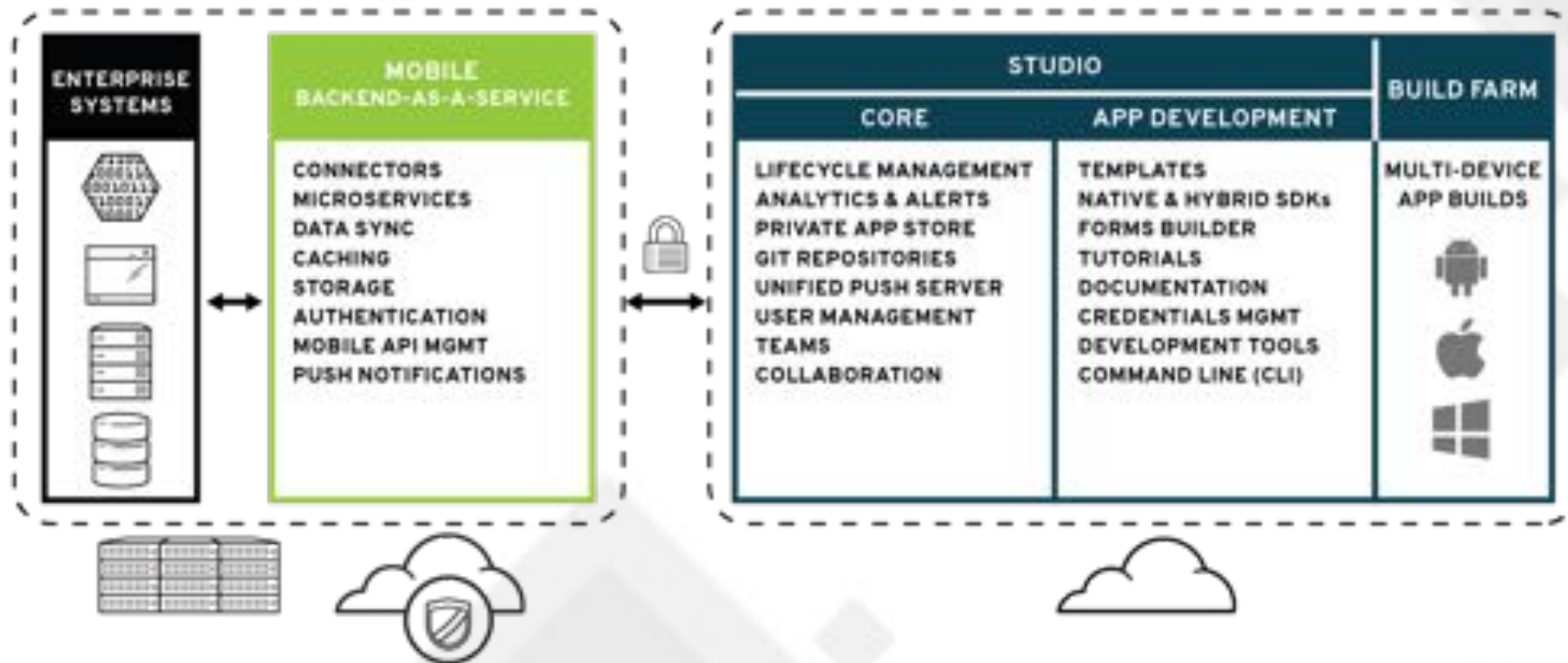
# RED HAT® MOBILE APPLICATION PLATFORM



V4.1



# RED HAT® MOBILE APPLICATION PLATFORM

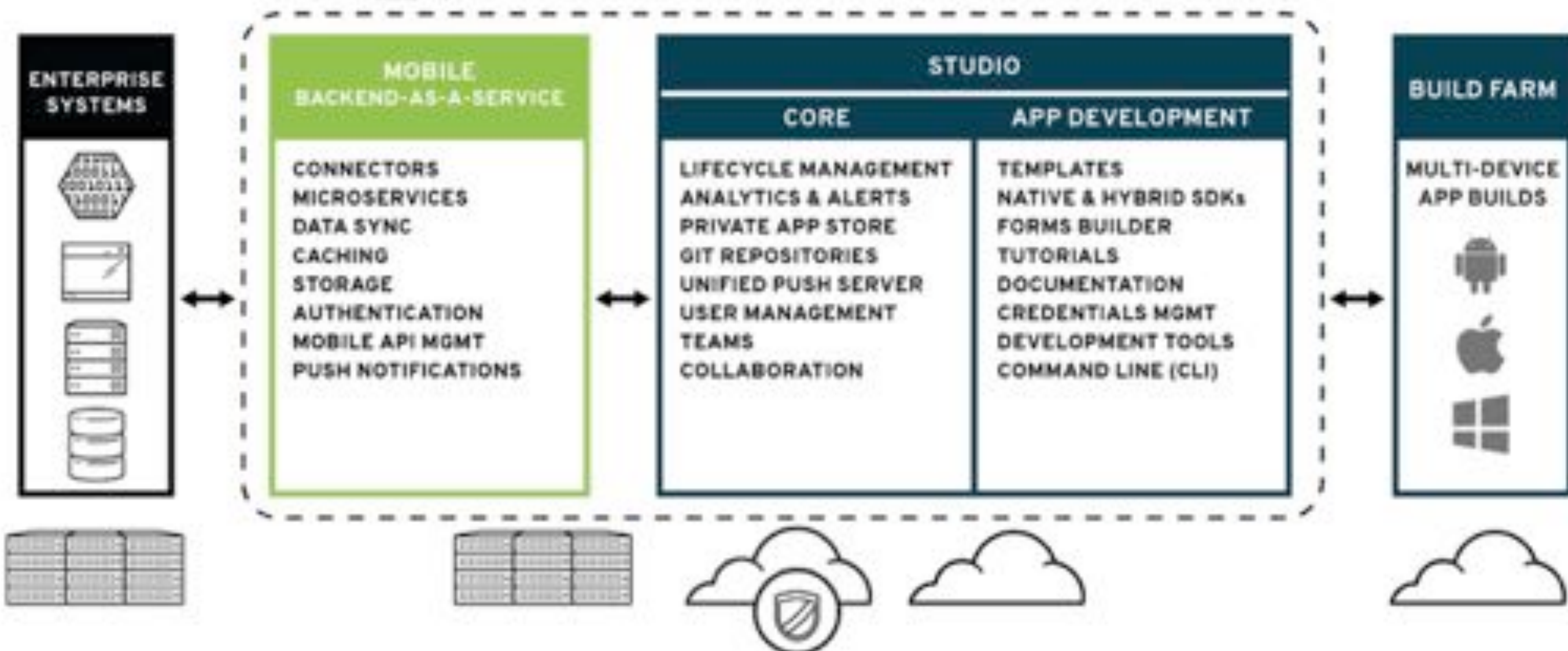






# RED HAT<sup>®</sup> MOBILE APPLICATION PLATFORM

4.2

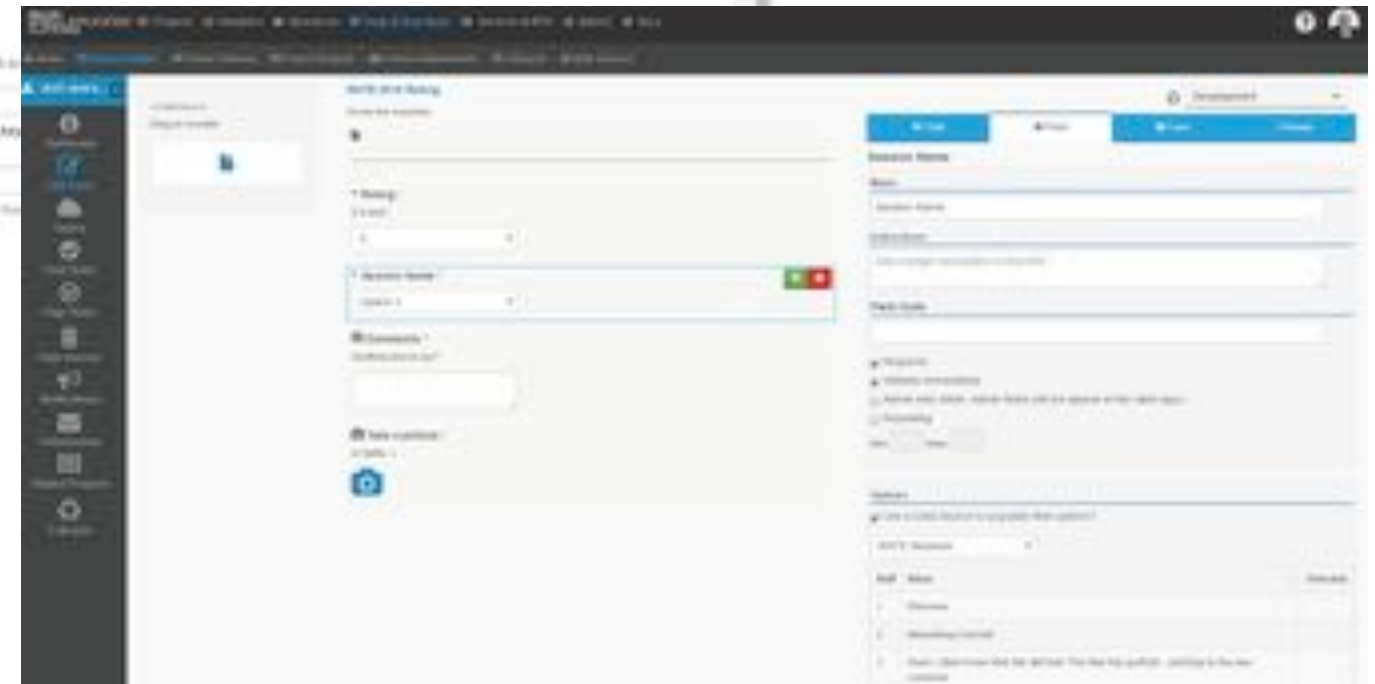
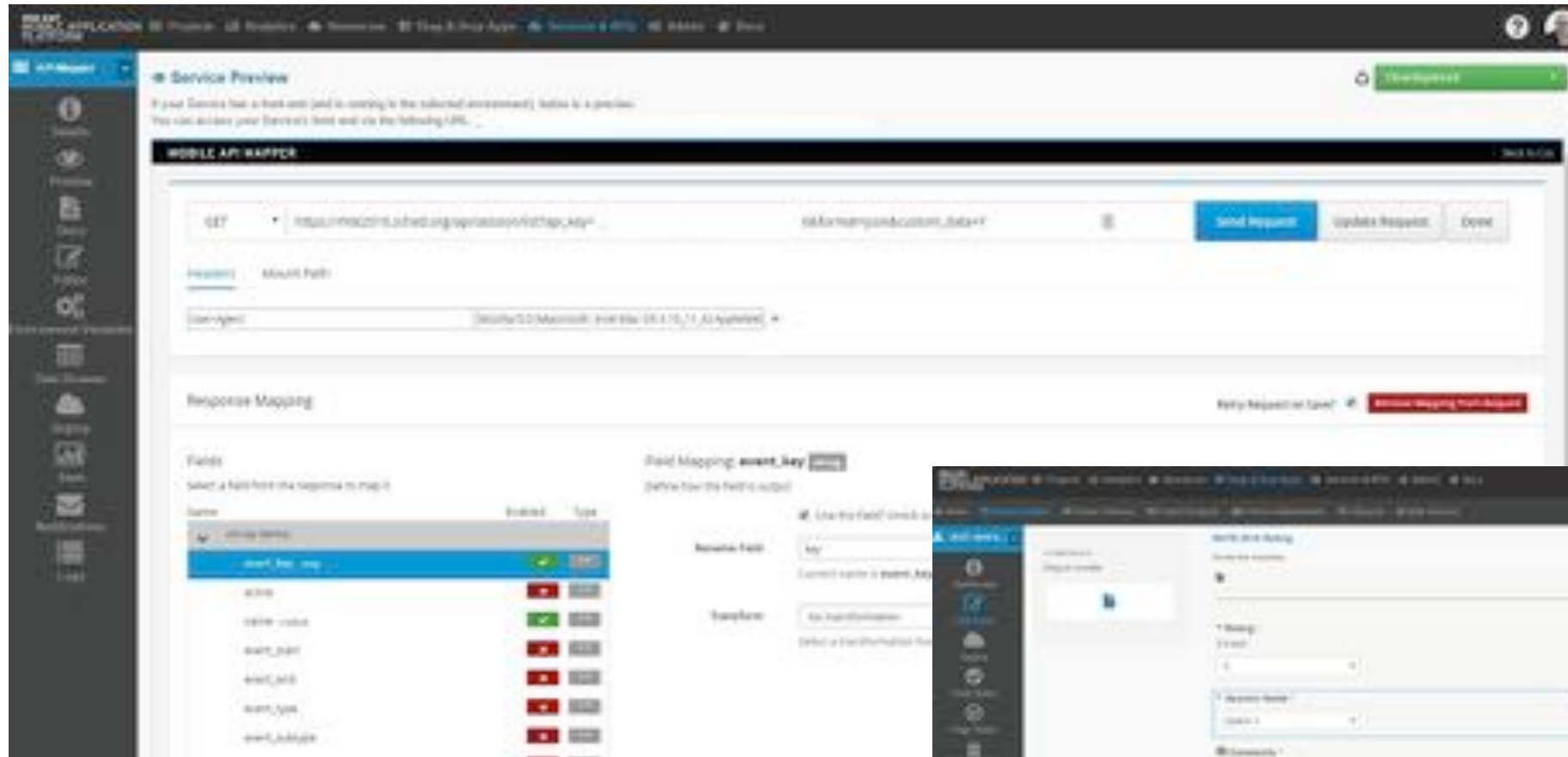


# ENTERPRISE MOBILE PROJECTS

The screenshot displays the Red Hat OpenShift Mobile Application Platform (MAP) console. The top navigation bar includes links for Home, Apps, Cloud Apps & Services, and various tooling options. The main content area is titled "Apps, Cloud Apps & Services" and lists several items:

- Apps:**
  - Farms App:** Cordova Light, Updated a month ago. Includes a "Copy" button.
  - Sample Hello World Client:** Cordova Light, Updated 2 hours ago. Includes a "Copy" button.
  - Native Android:** Native Android, Updated a month ago. Includes a "Copy" button.
  - Web Portal:** Advanced Front-End, Updated in a few seconds. Includes a "Copy" button.
- Cloud Code Apps:**
  - Sample Cloud App:** Native JS Cloud App, Updated a month ago. Includes a "Copy" button.
- Other Services:**
  - API Mapper - Connector Service:** Updated 10 days ago. Includes a "Discover" button.
  - ERP Data Source - Connector Service:** Updated a month ago. Includes a "Discover" button.
  - Health - Connector Service:** Updated 3 months ago. Includes a "Discover" button.
  - MySQL, ERP Worker Tools - Connector Service:** Updated a month ago. Includes a "Discover" button.

# RAPID MOBILE APPLICATION DEVELOPMENT





# WFM / RainCatcher





# WORKFORCE MANAGEMENT APPS WITH RHMAP

- Make it easier for developers to build Workforce Management apps
- Take advantage of key features of the Red Hat Mobile Application *Platform*:
  - Multi-platform support
  - Mobile and Cloud SDKs
  - Reusable Services
  - Forms Builder
  - Offline Data sync
  - Cloud storage
  - Caching
  - Web portal
  - Messaging
- Pre-built Node.js and JavaScript modules for developers to use

# NPM



## What is npm?

The npm lets you install, share, and distribute code; manage dependencies in your projects; and share & receive feedback with others.

## What can you make with 300,000 building blocks?

The npm registry hosts over a quarter million packages of reusable code — the largest code registry in the world.



### Find

Popular libraries like jQuery, Bootstrap, React, and Angular, and components from frameworks including Polymer.



### Discover

Packages for mobile, IoT, front-end, back-end, robotics... everything you need to start building amazing things.



### Build

Assemble packages like building blocks to quickly develop awesome new projects.

# WORKFORCE MANAGEMENT MODULES

- Set of re-usable NPM modules (Node.js and JavaScript)
- Open Source
- Available in Red Hat Mobile Application Platform
- Template Mobile App and Web Portal
- AngularJS
- Material Design
- Mediator Pattern

## Visual modules

- fh-wfm-workflow
- fh-wfm-workorder
- fh-wfm-user
- fh-wfm-component-signature
- fh-wfm-results
- fh-wfm-message
- fh-wfm-schedule
- fh-wfm-file
- fh-wfm-camera
- fh-wfm-analytics
- fh-wfm-risk-assessment
- fh-wfm-vehicle-inspection

## Low-level modules

- fh-wfm-sync
- fh-wfm-appform
- fh-wfm-mediator
- fh-wfm-template-build



# SAMPLE WEB PORTAL FEATURES

- Dispatch work orders to workers in the field
- Define workflows for different jobs
- Manage, organize and create work orders, workflows and information
- Real-time reporting
- Live messaging
- Geo-location, maps of jobs and workers on the field
- User creation and authorization
- Visibility of all jobs content from photos to scanned barcodes and signatures

# WEB PORTAL WORKORDERS

The screenshot displays the 'FeedHenry Work Force Management' web portal. On the left is a navigation sidebar with icons and labels for: Scheduler, Workorders (highlighted), Workers, Groups, Map, Messages, Files, Workflows, Rpting, Analytics, and Logout. The main content area is titled 'Workorders' and features a search bar. Below the search bar is a list of workorders, each with a radio button for selection. The workorders are as follows:

Workorder ID	Description	Location
107-10	Driveway in driveway	107-10, 107-10, 107-10, Vancouver, BC V6A 1A6
108-10	Roof in driveway	108-10, 108-10, 108-10, Vancouver, BC V6A 1A6
109-10	Sink in driveway	109-10, 109-10, 109-10, Vancouver, BC V6A 1A6
110-10	House in driveway	110-10, 110-10, 110-10, Vancouver, BC V6A 1A6
111-10	Carpet in driveway	111-10, 111-10, 111-10, Vancouver, BC V6A 1A6
112-10	Door in driveway	112-10, 112-10, 112-10, Vancouver, BC V6A 1A6
113-10	Floor in driveway	113-10, 113-10, 113-10, Vancouver, BC V6A 1A6
114-10	House in driveway	114-10, 114-10, 114-10, Vancouver, BC V6A 1A6
115-10	Window in driveway	115-10, 115-10, 115-10, Vancouver, BC V6A 1A6
116-10	Road in driveway	116-10, 116-10, 116-10, Vancouver, BC V6A 1A6
117-10	Spunker in driveway	117-10, 117-10, 117-10, Vancouver, BC V6A 1A6

On the right side of the main content area, there is a message: 'No workorder selected.' Below this message is a pink button labeled 'NEW WORKORDER'.

# WEB PORTAL NEW WORKORDER

FeedHenry Work Force Management

Schedule

Workorders

Workers

Groups

Map

Messages

Files

Workflow

Forms

Analytics

Logout

Workorders

Create workorder

Search

Driveway in Langport  
127 St, 143 Kestler St, Vancouver, BC V6A 1M4

Road in Langport  
2550 Venard Way, Vancouver, BC V6N 6A2

Side in Langport  
3820 Oak St, Vancouver, BC V6N 2M5

House in Langport  
1888 Burnard St, Vancouver, BC V6J 2P9

Carpet in Langport  
850 Duke St, Vancouver, BC V6Z 3P3

Door in Langport  
2115 East Hastings St, Vancouver, BC V6K 1Z8

Yard in Langport  
1780 E Broadway, Vancouver, BC V6N 1B2

House in Langport  
3045 Yukon St, Vancouver, BC V6H 3A2

Window in Langport  
1542 E Hastings St, Vancouver, BC V6A 1H4

Road in Langport  
477 Maxwell St, Vancouver, BC V6B 1T2

Type

Job Order

Subgroup

Title

Address

Latitude

Longitude


Event Date


Event Time

Summary

0/100

CREATE WORKORDER

 RED HAT  
FORUM  
COMMUNITY PARTNERSHIP

 redhat



# WEB PORTAL SCHEDULER

FeedHenry Work Force Management

Scheduler

183,000

Workers

Workers	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Trevor Smith			Job Order - Flood in dumpster					Job Order - Footpath in dumpster						
Daisy Carter														
Max A. Miller														
Phyllis Leary														
Johnny Ford			Job Order - Sprinkler in dumpster					Job Order - Yard in dumpster						
Billy Baker														
Sally Shovel														
Danny Oxenham														

Workorders

Job Order - Flood in dumpster

Job Order - Footpath in dumpster

Job Order - Sink in dumpster

Job Order - Sprinkler in dumpster

Job Order - Yard in dumpster

Scheduler

Workers

Trevor Smith

Daisy Carter

Max A. Miller

Phyllis Leary

Johnny Ford

Billy Baker

Sally Shovel

Danny Oxenham



# WEB PORTAL WORKFLOWS

FeedHenry Work Force Management

- Schedule
- Workorders
- Workers
- Groups
- Map
- Messages
- Files
- Workflows**
- Forms
- Analytics
- Logout

Workflows

Search

App forms

Static forms

Mixed forms

Step: Identification

identification

Step code

E75e90124bA67250d733f6f7

Formid

Step: Signoff

signoff

Step code

E75e901679c6a39e723de688

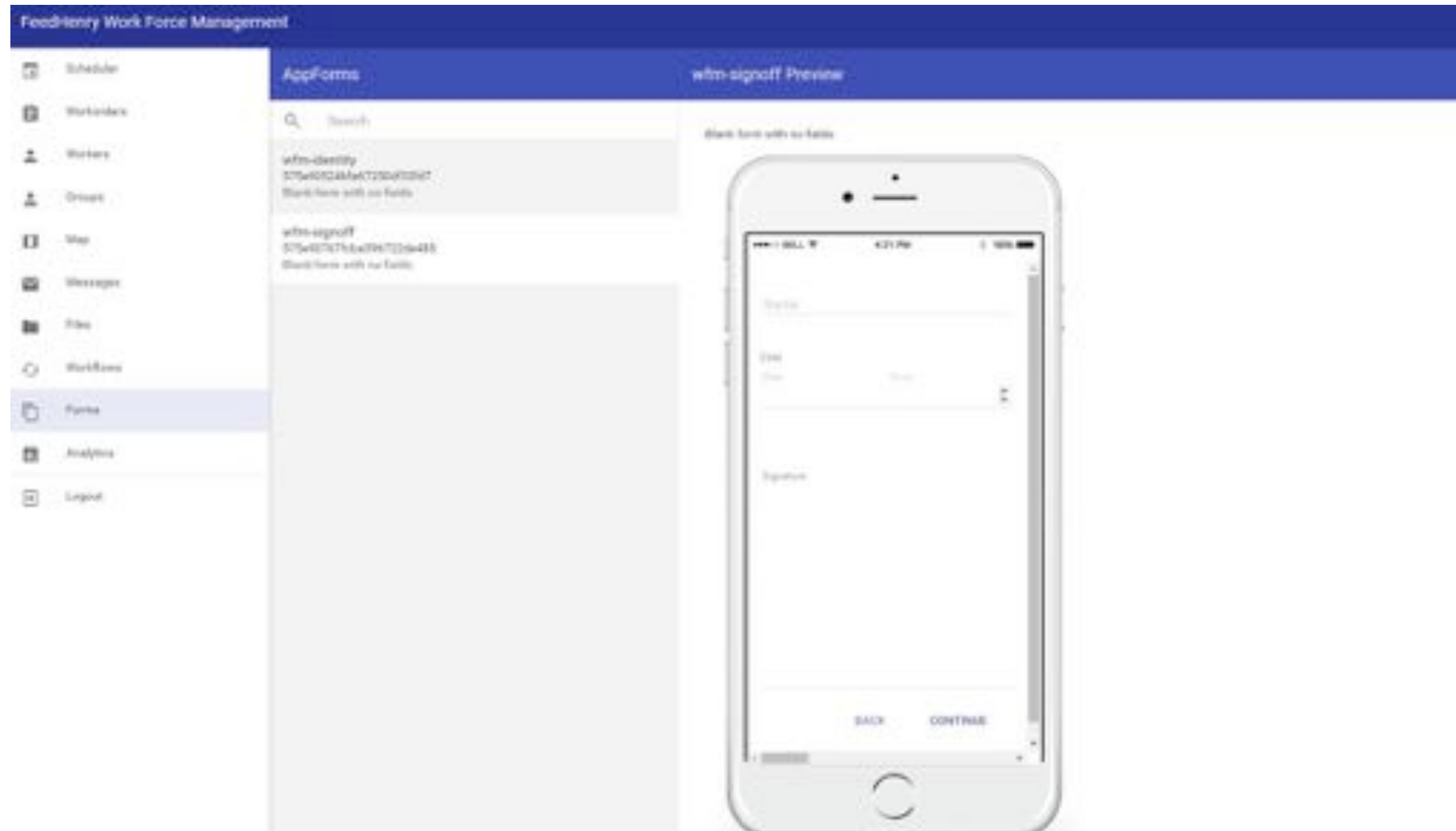
Formid

Add new step

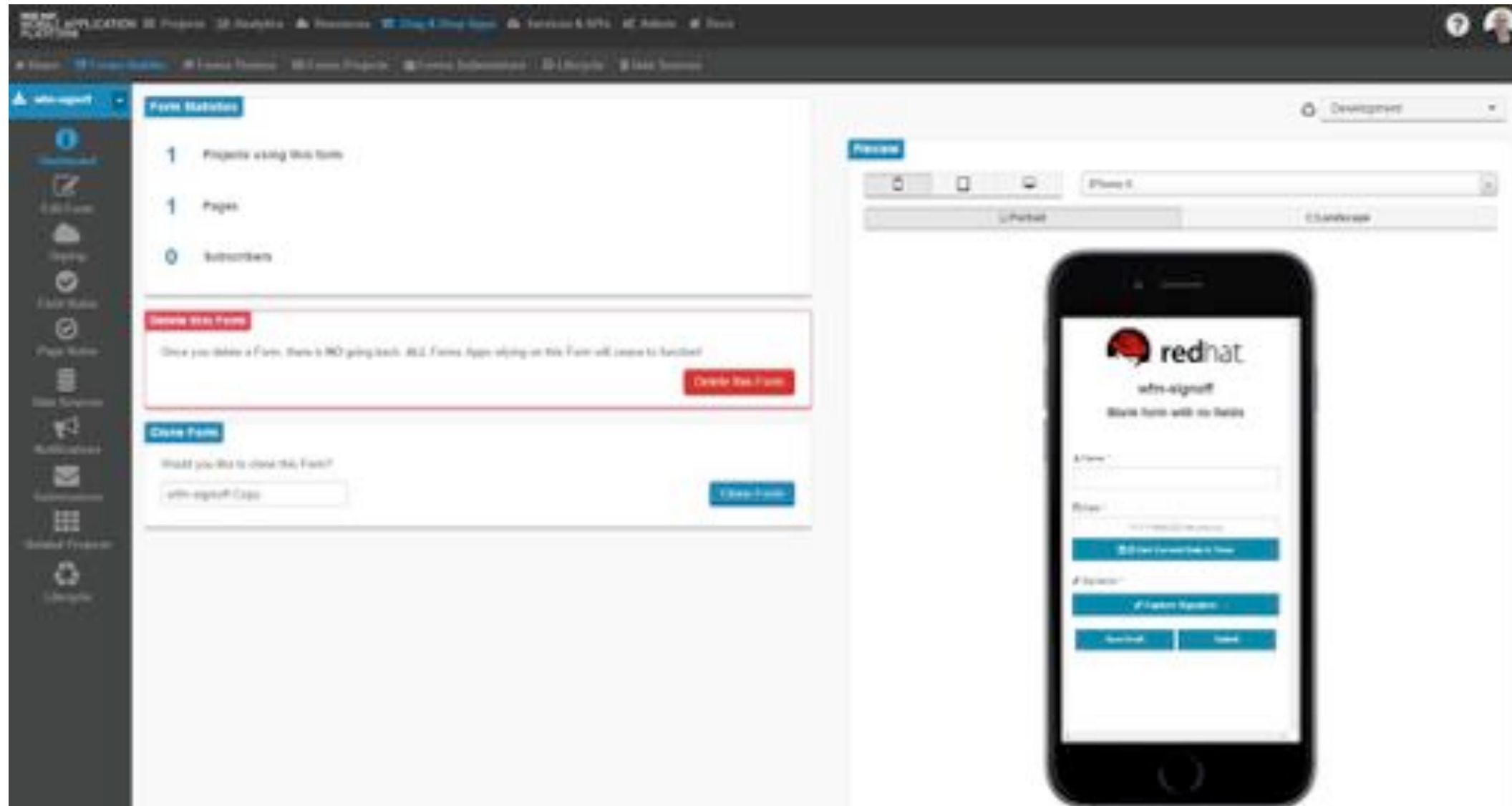
Stepid

Formid

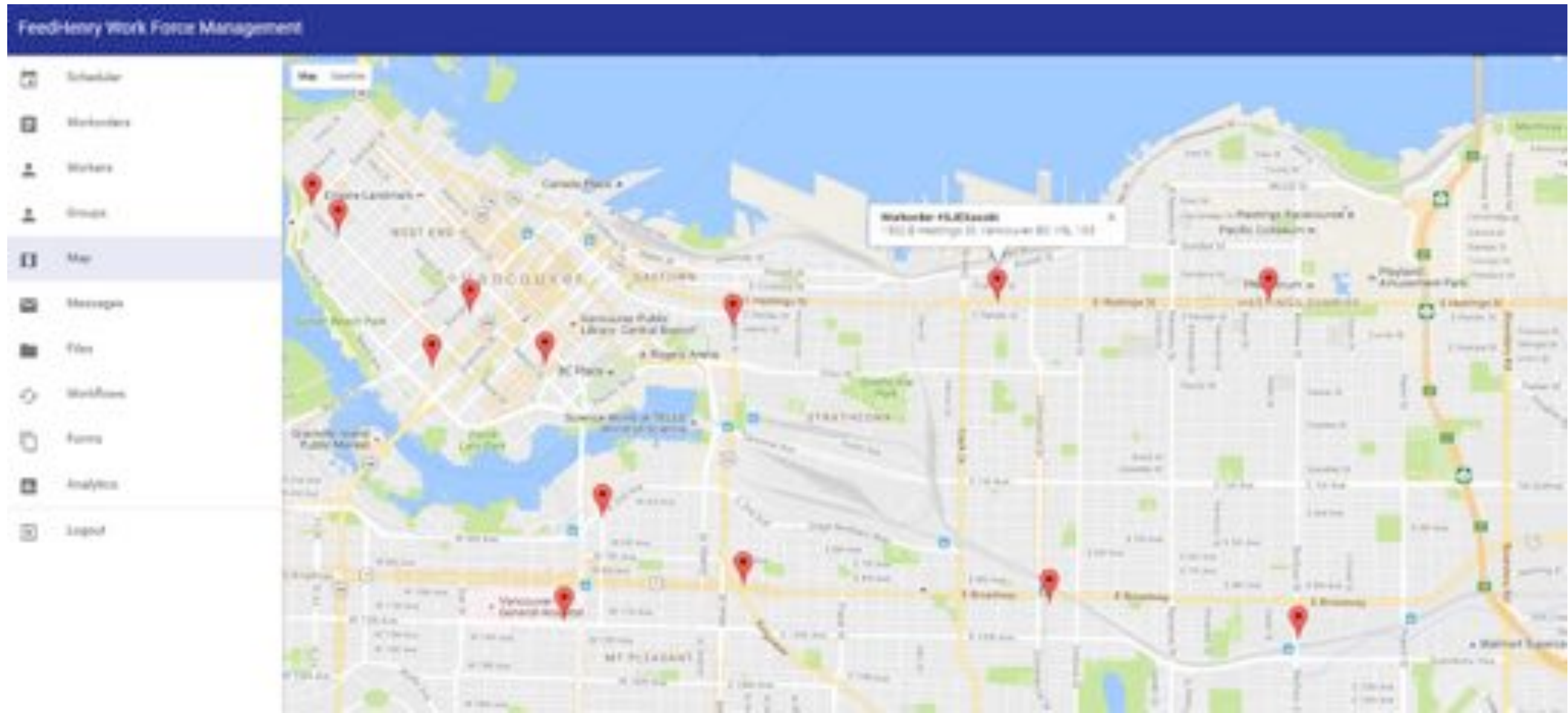
# WEB PORTAL WORKFLOW FORMS



# FORMS INTEGRATION



# WEB PORTAL MAPS



# WEB PORTAL WORKERS

FeedHenry Work Force Management

**Workers** Worker: Daisy Dialer

Search

Travis Smith  
Senior Truck Driver

Daisy Dialer  
Junior Dispatcher

Max A. Millon  
Manager

Phyllis Lerry  
Phone Support

Johnny Pizall  
Junior Truck Driver

Billy Baller  
Junior Truck Driver

Sally Shover  
Junior Truck Driver

Danny Doorman  
Junior Truck Driver

**Daisy Dialer**

1/24/2014  
Worker ID

Daisy  
Username

(360) 754-8176  
Phone Number

daisy@wfm.com  
Email

Junior Dispatcher  
Position

Drivers  
Group

Notes

# WEB PORTAL GROUPS

FeedHenry Work Force Management

Schedule

Workers

Workers

**Groups**

Map

Messages

Tools

Workflows

Forms

Analytics

Logout

Groups

Search

Drivers

Back Office

Management

Back Office Group

21

Sybil Hunt

Group id

21

Back Office


Group name


21

manager

role

Members

 Billy Keller  
Junior Truck Driver

 Sally Shover  
Junior Truck Driver



# WEB PORTAL MESSAGING

The screenshot displays the 'FeedHenry Work Force Management' web portal. On the left is a vertical navigation menu with icons and labels for: Schedule, Performance, Workers, Groups, Map, Messages (highlighted), Files, Workflow, Forms, Analytics, and Logout. The main content area is titled 'Messages' and features a sub-header 'Crash on I90'. Below this is a search bar. A list of messages is shown, with the first two visible: one from 'Trevor Smith' with the subject 'Crash on I90' and status 'Read', and another from 'Trevor Smith' with the subject 'Address change will' and status 'Read'. The right side of the interface shows the details of the selected message, including the sender's name 'Trevor Smith', the subject 'Crash on I90', and the status 'Read'.

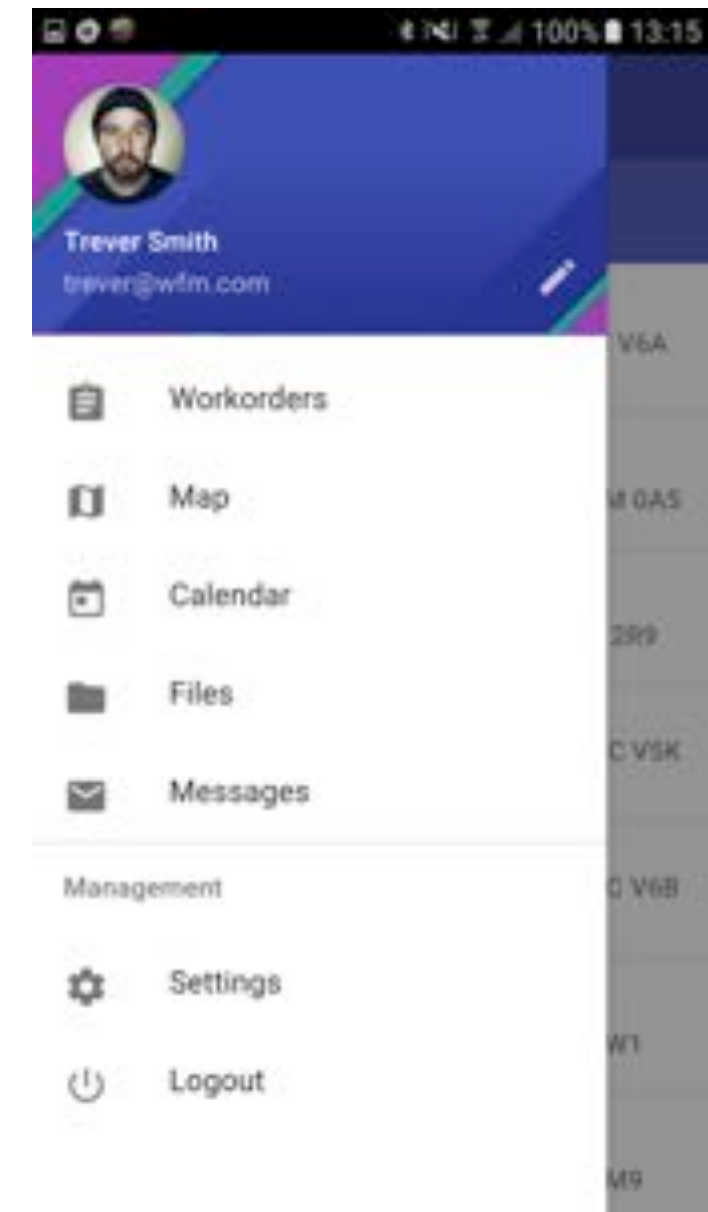
# WEB PORTAL ANALYTICS



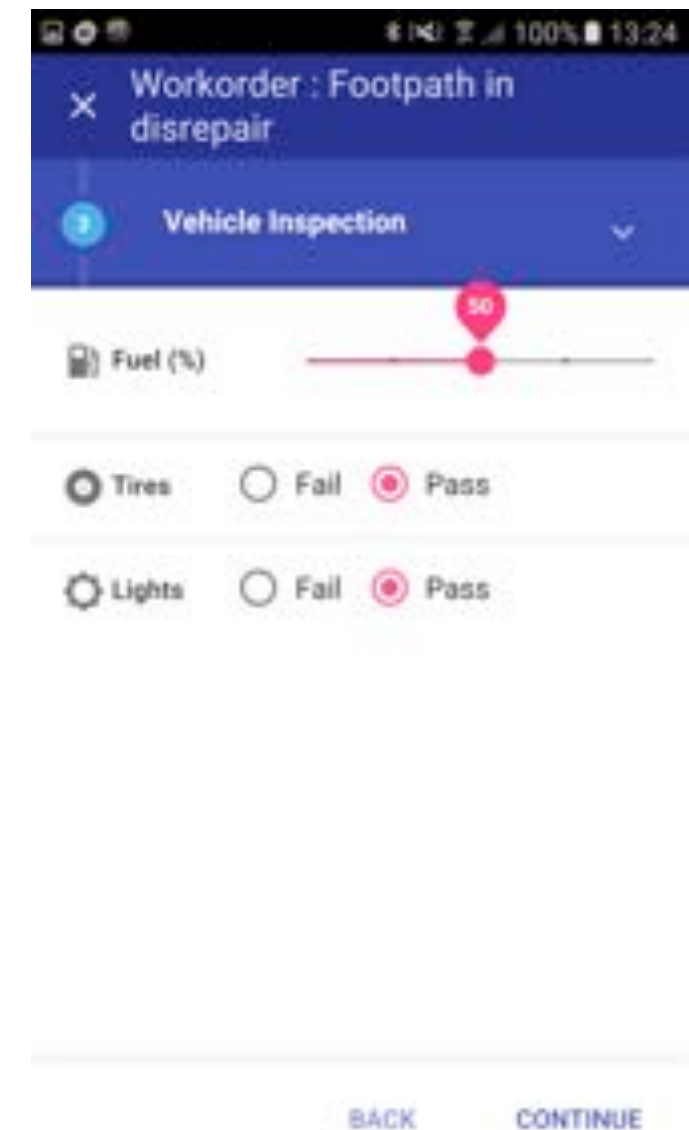
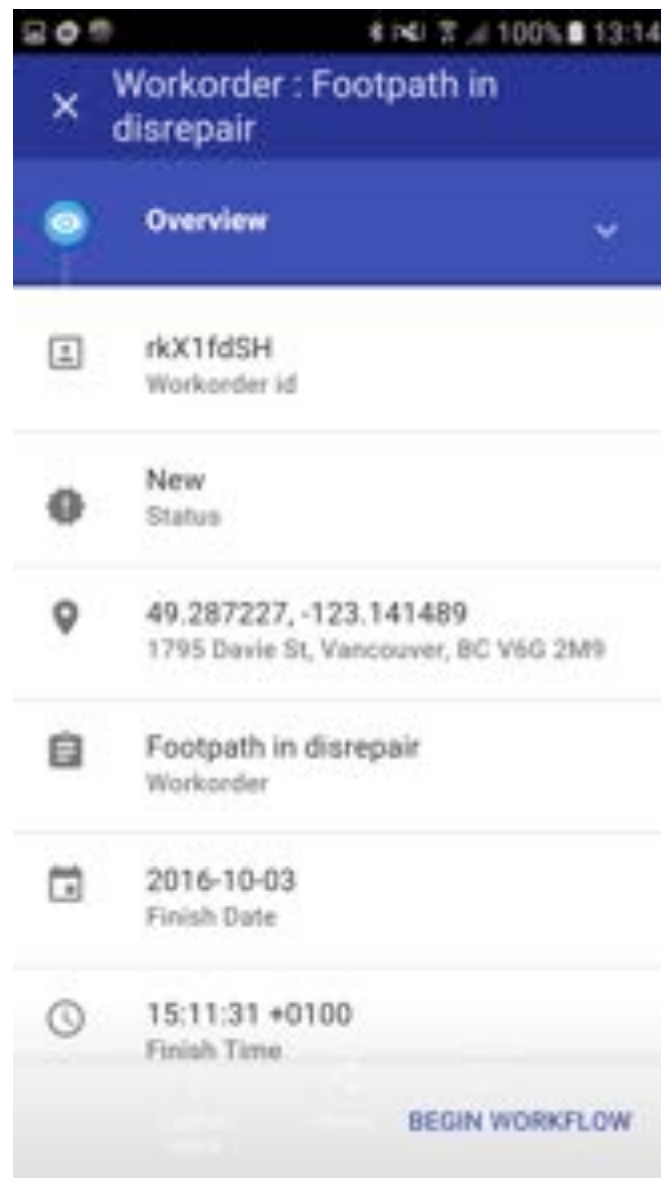
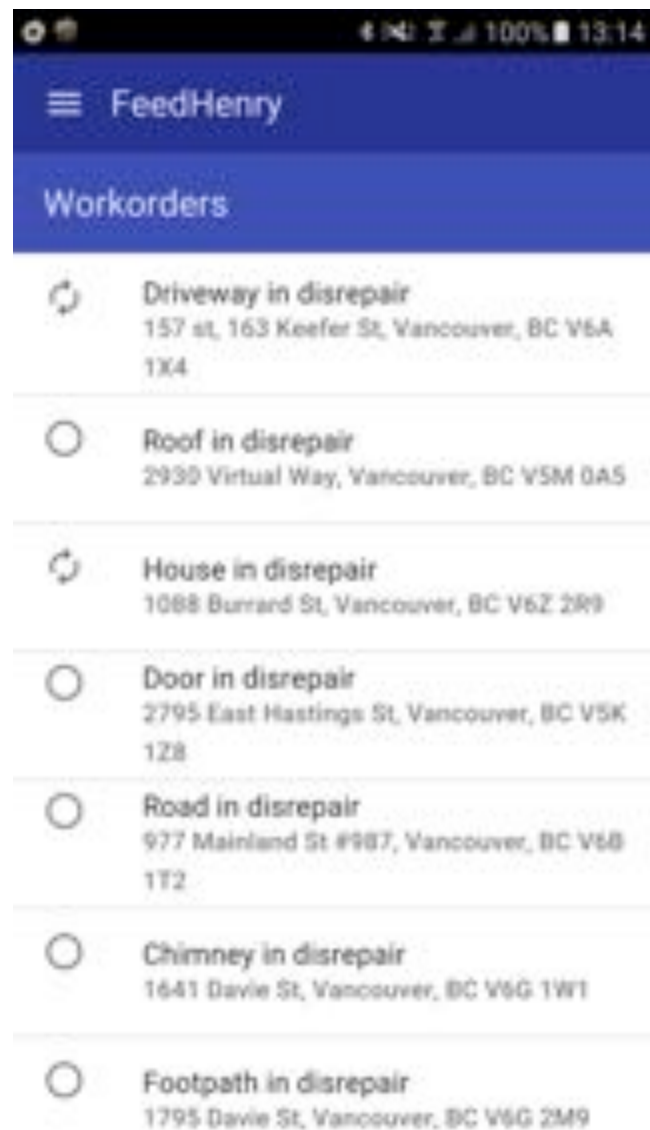


# SAMPLE MOBILE APP FEATURES

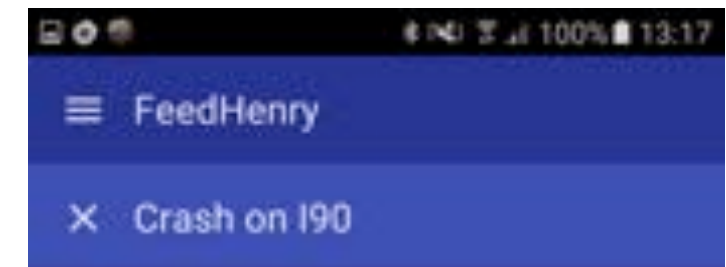
- Capture text, files, photos and signatures
- Add geo location and time stamps
- Retrieve the latest customer and order information
- Complete and assign new job and tasks
- Functions online and offline, real-time sync
- Messaging to communicate with workers



# MOBILE APP WORKORDERS



# MOBILE APP LOCATION & MESSAGING



From: Trevor Smith  
To: Trevor Smith  
Status: read

Re-route via **101**

# OPEN SOURCE RainCatcher MODULES



- Community driven project
- NPM modules
- Build your own modules
- Subset of community becomes part of RHMAP supported modules

[feedhenry.org](https://feedhenry.org)



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