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| **Envision Healthcare Paramedic Certification Mobile Application Solution** |
| Concept Demo Definition |

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# Overview

Envision Healthcare is a parent company comprised of many entities including: AMR, Emcare, and Evolution Health. Envision’s core business is medical transportation in most states across the US.

The Paramedics and EMTs that drive and operate the ambulances for patient medical transportation need to have current certifications in order for Envision to be reimbursed for the insurance claims for their work. It is estimated that Envision loses from $1 - $2M each year in denied claims due to out-of-date certifications.

The current certification process is very long and is something that the Paramedics and EMTs can’t do using their mobile devices – it requires a scanner and phone calls. Eventually, the certification needs to be updated in Envision’s EBS HR system.

This custom demo will show how Oracle’s SOA Suite can be used as the platform to deliver a Mobile Paramedic Certification system which is tightly integrated with EBS and has an automated workflow for certification approval.

Using Oracle ADF Mobile, Envision can use the WebLogic environment on top of which SOA Suite is running and won’t have stand up a separate environment just to support mobile. This results in better long-term TCO and easier maintenance.

ADF Mobile is used by Oracle for the current and future Fusion Applications.

# Goals

The goal of a custom demo for Envision is to create a real-world example of how SOA Suite can be used as a platform to enable Envision to expose EBS services to their enterprise and deliver relevant mobile applications.

This demo will show that SOA Suite can help achieve the following goals:

* Deliver a mobile application platform which utilizes a phone-base camera to take pictures of certification documents and submit them to kickoff the approval process.
  + This eliminates the need for Paramedics and EMTs to use a scanner.
  + This also enable the users to kickoff the process anywhere (in their ambulances or at a hospital) making it light-weight and more likely that they will keep their certifications up to date.
* Show a dashboard which indicates how many Paramedics and EMTs have certifications which are: (Oracle Business Activity Monitoring (BAM) will be used to build the dashboard)
  + Current
  + 1 month from expiring
  + Out of Date
* Have automatic alerts (email, SMS) generated when certifications are submitted to be reviewed
  + This ensures that the approval process isn’t slowed down by the approver simply not knowing they have actionable work waiting for them.
* Deliver a workflow process which integrates with the mobile application and tracks certification documents through the approval process, has worklists for people to see and approve certification approvals, and finally updates EBS with the certification approvals.

# Custom Demo Environment:

* The demo environment will be comprised of a single Virtual Machine running Windows OS along with both WebLogic and the Oracle SOA Suite platform
* Initially, this demo will run standalone with a mocked-up EBS system.
* Eventually, this VM can be modified to run on Envision Healthcare’s system and be integrated with their QA EBS system to show the full end-to-end integration with EBS.
* The code/configuration of the custom demo environment will be made available to Envision in the event they want to use it as a working example to learn from.

# Demo Architecture

The following architecture diagram gives a high-level view of the solution components:

It is possible that OAM for Mobile and Social would be part of a later phase of this demonstration depending on the time available to build this.

# Demo Scenario

1. User opens Envision Paramedic Certification mobile application on iPhone or Android device.
2. User authenticates into the application with username/password
3. If the user is authenticated and in a “Manager” role, then they are presented with the list of pending certification approvals to review.
4. If the user is a “Paramedic” role, they are presented with existing certification status (certification title, certification grant date, certification expiration date, link to actual certificate image). Any expired certificates are highlighted to draw attention to them.
5. Paramedic selects “+” button (or equivalent) to add a new Envision certification approval request.
6. Application prompts Paramedic to take a picture of the paper certificate using their phone or tablet’s built-in camera.
7. If Paramedic is satisfied with the picture, they select the “Use” button to associate the picture with the certification approval request.
8. Paramedic fills out associated information for certification approval request:
   1. Certification Title
   2. Certification Type (from select box)
   3. Certification Grant Date (from date selector)
   4. Certification Expiration Date (from date selector)
9. Paramedic selects “Submit” button to create approval request.
10. Email confirmation is sent to the paramedic.
11. ADF Mobile application uses a SOAP Web Service to give mobile application data to the back-end and kick off a SOA Composite workflow which has a human worklist into which the approval request is sent.
12. Email is sent to the Paramedic’s manager for approval along with a link to the worklist.
13. Paramedic’s manager logs into the worklist application or (alternatively) logs into the mobile application, reviews request and select either “Approve”, “Clarification Requested”, or “Denied”.
14. After the “Approve” action, the certification image and data is sent to the mocked EBS system and persisted to disk and an email is sent to the Paramedic requestor indicating that their certification submittal was approved

# Future Enhancement Possibilities

1. Encorporate the use of Oracle Access Manager (OAM) for Mobile and Social for SSO and the use of OAuth (Facebook, Google, credential authentication). OAM extends the use of the Envision LDAP for mobile authentication and authorization.
2. Extend the application to be integrated with the Envision EBS system using the EBS Adapter rather than a mock interface.
3. Extend the application to use REST-based services.

# Envision Responsibilities

1. Provide example certification documents that are typical in their paramedic certification process.
2. Be available for clarification questions concerning the demo requirements.
3. Collaborate with Oracle in the definition of the custom demo scenario to ensure that what is created will demonstrate the stated goals.

# Oracle Responsibilities

1. Provide the expertise and project management necessary to develop the custom demonstration
2. Provide the systems on which the custom demo will be developed and shown to Envision
3. Walk interested Envision engineers through the end-to-end demo code so that they understand what is going on and how it was created.
4. Provide the demo code/configuration to Envision as a leave-behind so that they can use the example to learn from.
5. Be available for questions concerning the demo code/configuration after the demo is shown to the team.

# Team Members

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# Revision History

This section records the change history of this document.

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| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| John VanSant | 10/16/2013 | Initial version | 0.1 |
| John VanSant | 10/25/13 | Incorporated feedback from Wes Hewatt | 0.2 |
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