

# Open HMIS Project

## Goals

### Short-Term Goals/Tasks

Research and define project purpose, scope and high level requirements.

Functional requirements and use cases

3. Choose and evaluate software, hardware and technical architecture designs.

4. Research and evaluate the benefits and limitations of Google App Engine and Cloud SQL, is there any show stopper because of any limitation.

5. Research and decide if Google App Engine is acceptable from Business stand point, especially from cost standpoint.

6. Based on results from 3 to 5, we can decide if we need research and identify additional technical design or solutions.

7. Research and decide which components/tools are needed for this project, which components we need build from scratch.

8. End user survey, collect information about what HMIS providers need for the open HMIS project.

### Mid-Term Goals/Tasks

1. Database Design

Security Login and authentication module/Session

Define and build API calls/HMIS/Administrative/OpenCISS

Create a turn-key solution to support minimal HMIS functionalities for the providers doesn't want to add additional development work. This solution should include

JDBC, and ODBC connection examples to support different application connections.

Tutorial, instructions and sample codes about how to use Open HMIS system APIs, DBs, may need have samples/tutorials about how to use Open HMIS

Basic set of reports against Open HMIS DB. APR/AHAR

Research and define how to import or Export from/to the Open HMIS system

Identify additional works for next phase.

## Open HMIS Subprojects

OpenHMIS API for Developers based on Existing API

# Open HMIS Project

[Setup For Developer](#)

[HMIS Login / Security through API \(see proposal\)](#)

[ODBC Bridge to JDBC for Google Cloud SQL](#)

[Homeless Helper Connect](#)

[Data Warehouse Enabled](#)

[Use similar design that Eric and Joel set up in Orlando to share data with prisons so that Google Cloud SQL \(OpenHMIS\) could be advertised as Data Warehouse ready.](#)

[XML Import Export Viewer](#)

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## Goals

### Short-Term Goals/Tasks

#### 1. Research and define project purpose, scope and high level requirements.

- Deliverable: online documents
- Dave has started on this document. [link?](#) We can review and approve this document.

Tasks: 1. Define Project Purpose, Scope.

2. Define Project high level requirement

Suggest Dave to take lead on these two tasks, since Dave already has a good document related to task one.

Estimate:

Update:

# Open HMIS Project

## 2. Functional requirements and use cases

- Deliverable: online document which shows what work flow diagram and scenarios, screen mock up
- Core HMIS functionalities, general case manage information, information sharing with other systems.

Task: 1. Functional requirements

2. Use cases and work flow diagram

Suggest Dave and Bill to take lead on task 1, and Rodger to take task 2. Task 2 will have dependence on task 1.

Estimate:

Update:

## 3. Choose and evaluate software, hardware and technical architecture designs.

- Deliverable: online document, prototype or demo-able code samples.
- Eric has created search demo related to Google App and Cloud SQL, use Google App as our server architecture backbone and Cloud SQL as our database. We may continue to build our architecture based on these technologies.

Task: 1. Choose and evaluate software and hardware

2. Technical architecture designs.

3. Open HMIS database design, leverage what Dave/Bob/Tony has done so far.

Suggest Eric/Rodger to work on task 1, and Rodger to work on task 2.

Estimate:

Update:

## 4. Research and evaluate the benefits and limitations of Google App Engine and Cloud SQL, is there any show stopper because of any limitation.

- What is the workaround if there is any limitation?
- Deliverable: online document.
- Link to evaluation document for the various cloud systems

Task: 1. Evaluate Google App Engine

2. Evaluate Cloud SQL

Suggest Eric/Rodger to work on task 1 and task 2.

Estimate:

Update:

# Open HMIS Project

## **5. Research and decide if Google App Engine is acceptable from Business stand point, especially from cost standpoint.**

- <https://developers.google.com/appengine/docs/billing>
  - Deliverable: online document
- Task: 1. Cost/Benefit and limitation evaluation

Suggest Bill/Dave to take lead on this task.

Estimate:

Update:

## **6. Based on results from 3 to 5, we can decide if we need research and identify additional technical design or solutions.**

- Deliverable: online document and additional technical architectural design.
- Estimate:

Update:

## **7. Research and decide which components/tools are needed for this project, which components we need build from scratch.**

- Deliverable: online document
- Task: Research and documentation.

Suggest Rodger to work on this task.

Estimate:

Update:

## **8. End user survey, collect information about what HMIS providers need for the open HMIS project.**

- Deliverable: online document
- Suggest Bill to take lead on this task.

Estimate:

Update:

# Open HMIS Project

## ***Mid-Term Goals/Tasks***

### **1. Database Design**

- Map HUD HMIS Data Standards to OpenHMIS Tables
- Design and define any other necessary tables, db objects.
- Define and research how to share or not share information across different “agency” or “provider”, how to protect data integrity of each provider.
- JDBC, and ODBC connection examples.

### **Security Login and authentication module/Session**

1. **Define and build API calls/HMIS/Administrative/OpenCISS**
2. **Create a turn-key solution to support minimal HMIS functionalities for the providers does't want to add additional development work. This solution should include**
  - GUI interface to add/update/delete client
  - Security module to login to application
  - Necessary database schema and seed data
  - Basic Client and user management for HMIS
3. **JDBC, and ODBC connection examples to support different application connections.**
  - JDBC connection to support provider connect their application directly to Open HMIS DB
  - ODBC connection to support provider connect their tools, reports via ODBC.
4. **Tutorial, instructions and sample codes about how to use Open HMIS system APIs, DBs, may need have samples/tutorials about how to use Open HMIS**
5. **Basic set of reports against Open HMIS DB. APR/AHAR**
6. **Research and define how to import or Export from/to the Open HMIS system**
  - Create import or export utilities if necessary, identify data format compatible with Open HMIS database or import/export tools. HMIS XML/HMIS CSV/AHAR XML
7. **Identify additional works for next phase.**

I have written up some brief application / prototype descriptions that would use your API and/or ODBC

## **Open HMIS Subprojects**

### ***OpenHMIS API for Developers based on Existing API***

This is work for Eric to productize the API that he has already written, so that other developers can easily use it to develop prototypes using API. Deliverable (User Guide and Tutorial using the Search Client Prototype.

### ***Setup For Developer***

Each first time OpenHMIS would get a one on one session with Eric to discuss the OpenHMIS API and requirements using the OpenHMIS database sample data.

# Open HMIS Project

## ***HMIS Login / Security through API (see proposal)***

This would be a simple Login / Security component that members of the OpenHMIS could use to access the search mechanism or other prototype samples. It might also include the Google Cloud SQL front end to query database. This component might be developed using Eric's original proposal or might be an opportunity for Rodger to build a login using the OpenHMIS API and Eric's Search component.

## ***ODBC Bridge to JDBC for Google Cloud SQL***

Google Cloud SQL is not exactly the same as MySQL so there is not an ODBC connection like there is with MySQL on the desktop. There are alternative ways to connect ODBC using an ODBC to JDBC Bridge that would provide free software that would allow an ODBC connection. Eric or Rodger could set this up and Dave could test using FileMaker, Excel, Access and OpenOffice.

## ***Homeless Helper Connect***

This might be the killer App that puts OpenHMIS over the top. Eric's friend Joe has developed an Iphone app for the Jon Bon Jovi Contest (VA REACH) that locates vacancies at Homeless Shelters. This is the kind of solution that I believe OpenHMIS was meant to serve. Sharing HMIS data to help provide services to homeless using software and data beyond the HUD Required HMIS. Since the app has already been submitted to the VA, this is almost ready to be demonstrated except for the Connection to OpenHMIS using the DCA Shelter data (addresses and bed utilization). Eric could work with Joe to make the connection and Dave could move the shelter data to the cloud and our first "killer app" would be ready to go. I believe this would also be something that Joe might want to do for free in order to sell/market his Homeless Helper.

An alternative solution would be to create a similar Shelter search in Filemaker and connect with JDBC. The FileMaker Solution would be available on Iphone and IPad as well as the Web.

## ***Data Warehouse Enabled***

Use similar design that Eric and Joel set up in Orlando to share data with prisons so that Google Cloud SQL (OpenHMIS) could be advertised as Data Warehouse ready.

## ***XML Import Export Viewer***

COMPASS has an XML Import/Export function in place that should be adaptable to OpenHMIS. Rodger might move this to the Google Cloud SQL consulting with Eric to make sure it is HUD Compliant and works well with the Data Warehouse Design (above). The Viewer would be use an attractive design to show various views of the Client and Program Data.

## ***CSV Import (HUD APR Test Kit)***

# Open HMIS Project

This is a continuation of the HUDAPR Test Kit that Eric and Beini worked on using ODBC. The Import could use existing CSV test data and be uploaded/imported using a Web interface. Or CSV data could be created using FileMaker Front End Intake Layout (Web, iphone or ipad) for a simple Intake process on a mobile device. An APR could be executed and displayed in FileMaker or Excel.

## ***HMIS Lite based on COMPASS Basic***

Compass Basic could be converted using OpenHMIS API. Rodger would probably want to take the best parts of Compass Basic and create a simple HMIS Intake that allows OpenHMIS users to customize the interface by hiding components (Income, Special Needs, etc) that might not be needed by Outreach or non-HUD funded providers.

## ***Performance Measures***

This might be a Hackathon with the FileMaker Developer Group that builds on top of the Homeless Helper. The design criteria would follow the Jon Bon Jovi Contest and add functionality to Chart Provider Demographics and Performance using OpenHMIS Client, Income, Destination data.

## ***Report Writer via JDBC***

This app would take all the reports that are currently being used by DCA and Tri-J and convert them to the OpenHMIS using ODBC and JDBC. These reports would be available using Excel, FileMaker, Access, OpenOffice and other data analysis tools.

## ***Monitor Project***

All of the Report Writing Tools, Automated Emails, Web Self Monitoring, Care Package Support, and Video Demonstrations would be adapted to OpenHMIS using ODBC, JDBC, WEB API and Web Services.