

**DEPARTMENT OF VETERANS AFFAIRS**

**Grassroots Innovation**

**VHA Innovation Program (10P7I)**

**VA118-12-C-0067**

# Remote Veterans Apnea Management Portal (REVAMP)

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## Monthly Progress Report

February 5, 2013

## Project Management

### Meetings/Deliverables:

- 01/08/13 Training Session I
- 01/10/13 REVAMP Technical Interchange Meeting / Interface Demo
- 01/10/13 Delivery of Second REVAMP Prototype
- 01/15/13 Training Session II
- 01/17/13 REVAMP Technical Interchange Meeting
- 01/24/13 REVAMP Technical Interchange Meeting
- 01/24/13 Delivery of Third Prototype
- 01/31/13 REVAMP Technical Interchange Meeting

## ReVamp Software Status

- 99% Demographics Page
- 99% Treatment Tree
- 99% Encounter / Progress notes
- 99% Graphic HUB completed showing
- 99% Machine data import process
- 99% Diagnosis List
- 99% Content Management
- 99% Secure messaging
- 99% Patient questionnaires
- 99% Administration Screen
- 99% Patient Portal
- 99% Patient Notifications
- 99% System Development

## User Experience

Training Sessions 01/08/13 and 01/15/13

Demonstration during 01/10/13 meeting (CPAP Interface)

Demonstration during 01/24/13 meeting (Prototype 3 Release Notes)

Demonstration during 01/31/13 meeting (General Overview Analytic Tool)

### Gantt

Task Name	Duration change	Finish Date
Video Tutorial	150 to 180 days	Tue 3/12/13
Maintenance Plan	150 to 190 days	Fri 3/22/13
Training Materials	150 to 190 days	Fri 3/22/13
Readiness Report	150 to 190 days	Fri 3/22/13

## Planned Accomplishments

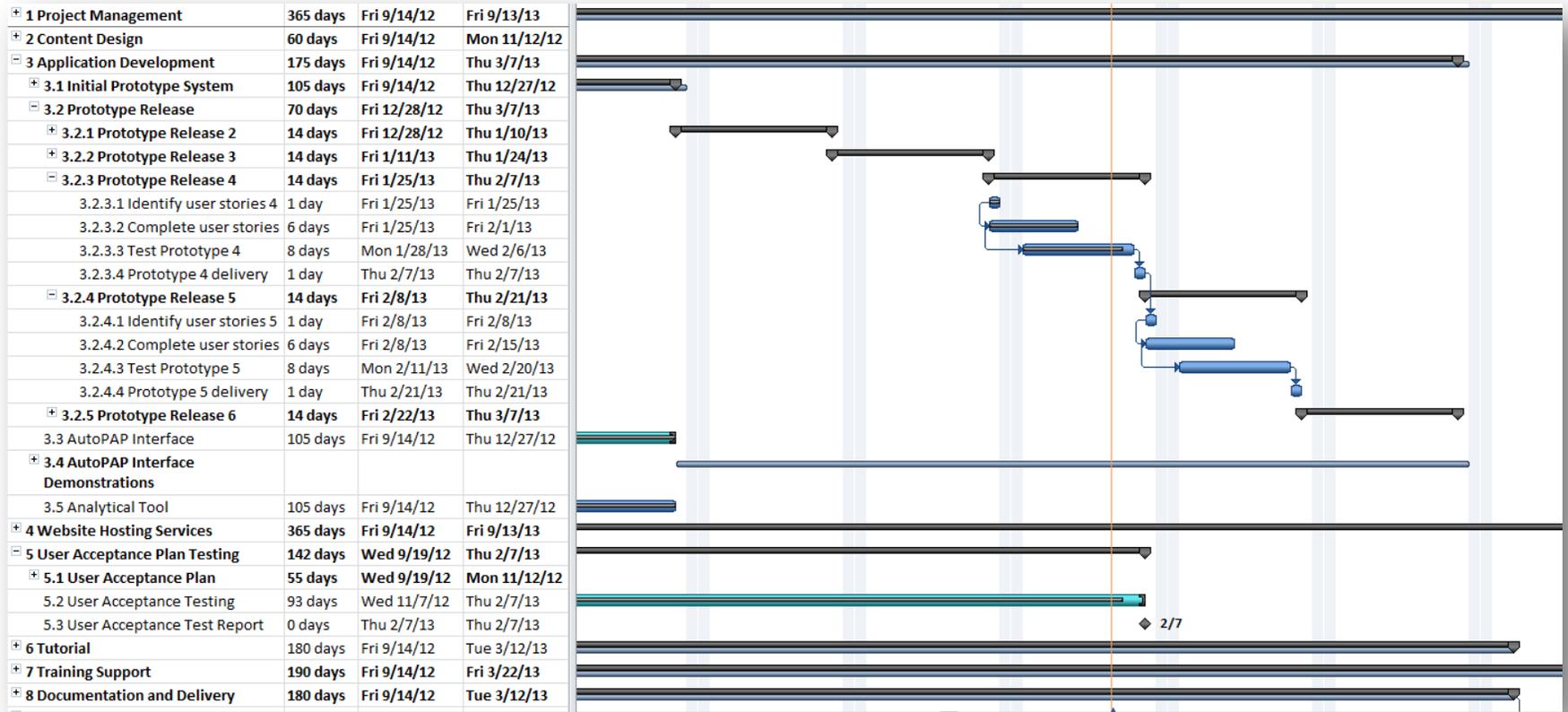
- 02/05/13 Monthly Report
- 02/07/13 User Acceptance Testing Report
- 02/07/13 Delivery of Fourth REVAMP Prototype
- 02/21/13 Delivery of Fifth REVAMP Prototype



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# Overall Project Plan



Currently Here

## Critical Path Activities – Status as of 31 January 2013

- Kickoff - Complete
- User Stories/Requirements – Complete
- Set up AutoPAP Data Exchange - In Progress
- Veteran-facing Portal development - In Progress
- VA-facing Portal development - In Progress
- AutoPAP Interface development - In Progress
- Analytical Tool development - In Progress (reports being selected)
- User Acceptance Testing - In Progress
- Final Prototype - TBD
- Data Collection - TBD
- Data Analysis, Evaluation, Reporting - TBD
- Final Delivery – TBD

## Project Plan Current Prototype Development



## Open Action Item Summary

Action Item	Owner	Due Date	Status
<b>Provide Intellica with IP Addresses for VA-Facing Users</b>	VA- Mr. Blake Henderson Intellica- Mr. Jeff Fisher	2/15/2013	<b>Pending</b> – VA will verify if all IP addresses have been sent.
<b>Coordinate Training Session</b>	VA- Dr. Kuna Intellica - Ms. Marisol Smith	1/31/2013	<b>Complete</b> – Training sessions took place 01/08/13 and 01/15/13
<b>Follow up on contract modification.</b>	VA- Mr. Blake Henderson	ASAP	<b>Not Complete</b> - Mr. Henderson will let Intellica know if the VA makes any decision.
<b>Coordinate to get de-identified real data from Philips for testing.</b>	Intellica- Ms. Marisol Smith	1/27/2013	<b>Not Complete</b> – Intellica will contact Philips to verify what needs to be done. During January Intellica and Philips communicated back and forth setting up system. 02/01/13 – IP address needs to be updated, Philips will let Intellica know when this is done

## Risk/Issue Tracker

### Severity:

Low:  Moderate:  Significant:  Severe: 

### Trend:

Steady:  Improving:  Deteriorating: 

Severity	Focus Area	Risk/Issue Description	Last Update	Mitigation Path	Trend	Owner
	AutoPAP interface	ResMed and Philips receive the CPAP data from the patient. Intellica needs access to this data.	01/31/13 Probability: <b>L</b> Impact: <b>H</b>	Communicating with ResMed and Philips regarding method of accessing data. Communicating with VA regarding agreements between the companies and VA.		Mr. Craig Rebo
	AutoPAP interface	Patient data will be received and needs to be matched to patient records. At times a patient may change machines.	01/31/13 Probability: <b>L</b> Impact: <b>H</b>	Communicating with ResMed and Philips to know how data can be identified. Incorporating fields in patients' records to ensure data is linked correctly.		Mr. Craig Rebo

## Compilation of TIM Minutes for January

### Technical Interchange Meeting Minutes

From

Thursday, 3 January 2013

#### *Topics Covered:*

#### **REVAMP Application items accomplished to date**

- 99% Demographics Page
- 99% Treatment Tree
- 99% Encounter / Progress notes
- 99% Graphic HUB completed showing
- 99% Machine data import process
- 99% Diagnosis List
- 99% Content Management
- 99% Secure messaging
- 99% Patient questionnaires
- 99% Administration Screen
- 99% Patient Portal (new questionnaires)
- 99% Patient Notifications
- 99% Questionnaire welcome text banner for each follow-up type
- 99% CSV of questionnaire data
- 99% System Development

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**REVAMP**

## **Agenda Items / The Project's Progress**

1. Ms. Marisol Smith has set up user accounts within REVAMP for Dr. Kuna, Dr. Stepnowsky and Mr. Henderson and will e-mail each of them their user name and temporary password. They will have administrator rights along with provider rights within REVAMP application.
2. Dr. Kuna, Dr. Stepnowsky and Mr. Henderson will go through the application on Monday, 7 January and will make a list of questions and any issues/bugs that present themselves.
3. Two fake patients are now in the REVAMP application. Ms. Smith will create additional ones and will provide Dr. Kuna, Dr. Stepnowsky and Mr. Henderson the user names and passwords that were assigned to the fake patients after she creates them.
4. Dr. Kuna will coordinate the training dates and times and then arrange the conference calls for the training.
5. The REVAMP User Manual needs the Case Management section to be completed.
6. Dr. Kuna suggested that they have access to the User Manual in its current form and as it is further completed and updated, each revision simply be named version 2, 3, 4, etc.
7. Ms. Smith will provide screen shots of the currently available questionnaires to Dr. Kuna. He will then provide feedback and Intellica will edit the questions and/or responses.
8. Mr. David Santana discussed creating a device (C-PAP) management page that will allow clinicians to assign and unassign machines, using the machine's serial number, to individual patients as well as provide other updates such as mask type.

## **Other**

1. The contract modification request is still pending but is scheduled to be further reviewed on Monday, 7 January after Mr. Lago returns to the office.
2. The next meeting will be on 10 January.
  - a. The prototype deployment and training will be discussed as well as any issues that have risen once the VA users have been further exposed to the application.

# Technical Interchange Meeting Minutes

From

Thursday, 10 January 2013

## *Topics Covered:*

### **REVAMP Application items accomplished to date**

- 99% Demographics Page
- 99% Treatment Tree
- 99% Encounter / Progress notes
- 99% Graphic HUB completed showing
- 99% Machine data import process
- 99% Diagnosis List
- 99% Content Management
- 99% Secure messaging
- 99% Patient questionnaires
- 99% Administration Screen
- 99% Patient Portal (new questionnaires)
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- 99% CSV of questionnaire data
- 99% System Development

## Agenda Items –

### Demonstration

1. Prior to the demonstration, Mr. Craig Rebo showed a data flow diagram and discussed the flow of data (CSV files) between Philips and ResMed to Intellica Corporation.
2. Mr. Rebo showed that the Oracle database did not contain the patient's CPAP data.
3. For each scenario, Mr. Rebo demonstrated data imported for a patient without a machine assigned to them and subsequently assigned, as well as a patient with a machine already assigned.
4. Mr. Rebo showed the newly added files in the Oracle database, as well as the CPAP machine serial numbers that were not previously listed.
5. CPAP machine data graphs were shown. Dr. Kuna asked if the graphs would condense as days/data is added allowing all to be seen in one view. Mr. Santana said that it will work in that manner.
6. Dr. Stepnowsky brought up the fact that the y-axis labels are not represented / labeled accurately. This is now an action item for Dr. Kuna and Mr. Santana.
7. Mr. Rebo demonstrated that errors are handled and that they are placed in an error file for analysis.
  - b. Dr. Stepnowsky asked what type of errors could be expected and Mr. Rebo stated that they would most likely be errors with moving the data into the Oracle database or just bad data.
  - c. Dr. Stepnowsky asked if there is a way to troubleshoot wireless transmission issues and he was told that it was not possible.
  - d. Mr. Rebo stated that it would be possible to run a manual query against a device that is assigned to a patient to see if their data is available.
8. Dr. Stepnowsky asked about the intervals or timing the application will use to query Philips and ResMed data. Mr. Rebo stated that it can be set to the value that the VA determines. However, it was suggested that once or twice a day would suffice.
9. Dr. Kuna would like to conduct Alpha Testing with real, de-identified patients.

## Sprints

1. Mr. Henderson asked that all parties develop and agree on a structure for the upcoming Sprints to ensure that what is expected is reasonable, deliverable and within the scope of the contract.
  - a. Mr. Henderson asked Dr. Kuna and Dr. Stepnowsky to take the lead / ownership for items on the upcoming Sprints.
  - b. VA users are to coordinate any application issues with Dr. Kuna and Dr. Stepnowsky
2. Release 2 was done on Tuesday, 8 January. Intellica is now responding to feedback for Release 3 which is due on 24 January.

## Other

1. Training will continue next week.
2. The next meeting will be on 17 January.
  - a. The prototype deployment and training will be discussed as well as any issues that have risen once the VA users have been further exposed to the application.

# Technical Interchange Meeting Minutes

From

Thursday, 17 January 2013

## *Topics Covered:*

### **Status of Application:**

General application feedback currently in sprint log is being worked on and will be included in Prototype 3, to be delivered on January 24.

Questionnaire feedback will be worked on during the next sprint and will be included in Prototype 4, to be delivered on February 7.

### **Alpha Testing Planning:**

1. Intellica is working on setting up the server for live patient data.
2. Intellica has been communicating back and forth with Philips regarding the document they sent for Intellica to fill out.
3. There are two VA Encore Anywhere accounts with Philips:
  - a. One account is being set up for the REVAMP project.
  - b. One account is currently holding patient information from Philadelphia VA Medical Center.
    - i. Philips sent Dr. Kuna a document to be filled out to permit them to send CPAP data from this account to Intellica (to allow for testing with realistic data).
    - ii. There is one portion of the document that needs to be filled out by Intellica.
    - iii. Intellica is waiting to finalize the server details to be able to send the information on the form.
    - iv. Intellica will let Dr. Kuna know when everything is finalized and the paperwork is done.

### **Browser Compatibility:**

1. IE7 is an older browser and will not be compatible with the application if we want to include certain functionalities in the application.
2. During training the application functioned for people without IE7, but there were several issues for people with IE7.
3. It was agreed upon that the next step would be to request for the browsers to be upgraded to newer browsers.
  - a. Dr. Kuna will contact the IT people and request that the Philadelphia Sleep Center browsers be updated to Google Chrome if possible. If not it would be good to upgrade to Internet Explorer 8.
4. Browser compatibility for patients was discussed.
  - a. Would it be possible to check patient's browser automatically and let the patient's know if they would need to update their browser?
  - b. Could a question regarding the browser be added during the eligibility process?
  - c. System requirements should be published on the home page.

### **Questionnaire Feedback**

1. Intellica appreciates the feedback and thinks the feedback is very good and makes sense.
2. The Height and Weight questions are in the Veteran-facing portal 'Questionnaire' page because this information is needed for the MAP questionnaire scoring.
3. When the patient saves the height and weight, the controls will go away and the data will be displayed with an edit button. The user can make changed by clicking the edit button to have the controls reappear.
4. The Provider can currently view the patient's BMI in the progress note section.
  - a. Intellica will add weight and height to the progress note section.
5. When all the questionnaires have been updated, the layout, spacing, font etc. will be updated.
6. Initial Information questionnaire:
  - a. VA requested to change the word unemployed to employed in a question because the term unemployed has a negative connotation.
  - b. Intellica explained the thought process behind the question.

- c. In the tobacco section of the questionnaire Intellica will add questions about smokeless tobacco.
- 7. MAP questionnaire:
  - a. On the MAP there are currently more questions than necessary for scoring.
  - b. Dr. Kuna will email Mr. Lago and let him know which questions to include and which ones to remove from the questionnaire.
- 8. Insomnia Severity Index questionnaire:
  - a. Intellica will add spaces next to the numbers without text so the patient can click on the space to make a selection.
- 9. PSQI questionnaire:
  - a. Leaving the time field open could allow for potential errors.
  - b. Intellica can change the field to include one 2 character hour field and one 2 character minute field that only allow numbers.
- 10. Sleep Apnea Index questionnaire:
  - a. Currently patients can select more than 5 items from the list.
  - b. Mr. Lago and Dr. Stepnowsky will talk about how this questionnaire can be designed.
- 11. Mrs. Smith will email Dr. Kuna the Questionnaire feedback document with the responses that have been discussed.
- 12. The questionnaires will be updated and included in the Feb. 7 prototype.

### **Populating SOAP note with patient**

- 1. Intellica would need the timeline extended in order to add the extra functionality of having the SOAP note populate with data from the questionnaires.
- 2. VA believes it would be very advantageous to include this feature.
  - a. It would save time for providers.
  - b. It would improve accuracy.
- 3. Intellica can add this feature but would need VA to agree to extra time.
  - a. The study can be started as scheduled without the note auto-populating feature and then the feature can be added 1 month into the study.

- b. VA agreed that this could be done, if it was no cost.
- 4. VA requested that Mr. Lago or Mr. Fisher send Mr. Henderson a quick write up of what they would need.

# Technical Interchange Meeting Minutes

From

Thursday, 24 January 2013

## *Topics Covered:*

### **Status of Application:**

The Release Notes associated with Prototype 3, delivered on 24 January were reviewed during the meeting.

General application feedback is currently in the Sprint Log. Some of these items will be included in Prototype 4, to be delivered on 7 February. However, the focus for Prototype 4 will be on the Questionnaire feedback.

### **Sprint Log:**

1. Some items were pre-selected by Intellica to go into Prototype 4. Intellica welcomes VA input as to what will be incorporated into Prototypes 4, 5 and 6.
2. While reviewing the Release Notes and the Sprint Log, it was brought up that many of the items seemed to be repeated. In these cases, the entries are identical; however, one will be for the VA-facing portal and the will be for the Veteran-facing portal.
3. Two items of feedback from the VA during the meeting:
  - a. Change “Provider” to “Sleep Specialist”
  - b. Make separate blocks/input fields for the cell phone number and the home number. It needs to be distinguished because of the text message capability for cell phones numbers versus home phone numbers.

### **Final Report Meeting**

3. Intellica would like to set up meeting to discuss the contents of the Final Report. Dr. Kuna replied that it is a good idea so expectations and requirements are met.

# Technical Interchange Meeting Minutes

From

Thursday, 31 January 2013

## *Topics Covered:*

### **Status of Application:**

Intellica is working on the items in the Sprint Log that are scheduled for Prototype 4, which will be delivered on 7 February.

### **Prototype readiness for patients:**

1. VA asked about a timeframe for having live patients on the application.
2. Intellica explained that as specified within the contract, the date for including live patients is around 12 or 13 March; in conjunction with the application.
3. There are three more prototypes left including the current one being worked on. After these prototypes are completed, there is the contractual date to deliver the application (12 March 2013).
4. There is a contract modification being worked on that includes moving the final delivery to one month later to allow for the development of a Provider Note that auto-populates. However, the application will still be able to accept live patients in March.
5. Once the application goes live, only the IP addresses within the firewall will be able to access the VA-facing portal. Intellica requested that the VA makes sure they provide them with all desired IP addresses from Philadelphia and San Diego.

### **Application Development Timing:**

1. The application is being developed in an agile process with a very limited timeframe.



2. Intellica requested that any feedback be sent as soon as possible.
3. Any issues that are found can be sent individually.
  - a. Dr. Kuna requested that any feedback from the VA side be sent to Dr. Stepnowsky and himself. They will forward it to Intellica.

**Analytic Tool:**

1. Intellica did a general demonstration of the Analytic Tool being used (Open Source: Piwik).
2. Intellica created a variable that can link the patient to the individual statistics on the Analytic tool in case the providers would like to see this type of information.
3. Intellica will do more in-depth training later on.

**Other:**

1. Mr. Henderson arranged for Dr. Kuna to give a short presentation on this project for Innovations and it went very well.
2. The next REVAMP meeting will be Thursday 7 February and will include a presentation of the updates included in Sprint 4.