Disclaimer
Novacoast™, Inc. makes no representations or warranties with respect to the contents or use of this document, and specifically disclaims any expressed or implied warranties of merchantability or fitness for any particular purpose.

Trademarks
The Novacoast name and logo are registered trademarks of Novacoast, Inc. in the United States and other countries. The Novacoast Symbol is a trademark of Novacoast, Inc. All third-party trademarks are property of their respective owner.

Copyright
Copyright © 2010 Novacoast, Inc. All rights reserved.

Change Control Process
The Change Control Process governs changes to the scope of this project throughout the project's duration. It applies to new components and to enhancements of existing components. A written Change Request communicates any desired changes to this project. It describes the proposed change, the reason for the change, and the effect the change might have on the project. The Novacoast project manager supplies the appropriate Change Management documents.

Both Novacoast and the customer review the Change Request and approve or reject it. Both parties must sign the approval portion of the Change Request to authorize the implementation of any change that affects the project’s scope, schedule, or fee.

Document Change Tracking
Contributors: Andrew Lee, Tim Chanpuelksa, Ernesto Cojulun, Justin Phang, Brandon Newman, Renato Untalan, Eron Howard
Table of Contents

1. Novacoast Contact Information
2. Project Overview
3. Product Requirements
4. Assumptions and Risks
5. Support, Platforms, and Localization
6. Technology Stack
7. Planning
8. GUI Mock-ups
I. Change Log
1. Novacoast Contact Information

Novacoast Corporate Office
1505 Chapala Street
Santa Barbara, CA 93101
Voice: 805.949.9933
Fac: 805.564.1809

Project Lead
Eron Howard
Phone: 805-453-2885
E-mail: ehoward@novacost.com

Project Mentor
Renato Untalan
Phone: 805-870-5095
E-mail: runtalan@novacoast.com

Developer
Andrew Lee
Phone: 949-735-6388
Email: andrewlee5889@yahoo.com or andrewlee.adl@gmail.com

Developer
Tim Chanpuelksa
Phone: 818-644-0160
Email: tchanpuelksa@gmail.com

Developer
Ernesto Cojulun
Phone: 818-854-1438
Email: erniecojulun@gmail.com

Developer
Justin Phang
Phone: 209-356-5594
Email: justinjphang@gmail.com

Developer
Brandon Newman
Phone: 559-589-3927
Email: brandonkylenewman@gmail.com
2. Project Overview:

2.1 Executive Summary

2.1.1 Main Idea: One of the most important functions of a business/technology conference is networking and the ability to generate and keep track of “leads”. Leads are contact information that may result in a business deal or other future opportunities. Currently, there exists no easy, efficient, or cost-effective way for conference attendees to keep track of conference leads. NovaConnect from Novacoast and Garbage Collectors is a mobile web app aiming to improve the current state of lead-tracking. With an easy to use interface, users will be able to track conference generated lead in an organized manner without much effort. With this new ability from NovaConnect, many attendees to these conferences will find that conference attendance will not only be much easier, but also a lot more productive.

2.1.2 Main Goals:
Create the mobile web app that interacts with CRM functions. Database interaction between front end UI and back end functions.

2.1.3: Future Goals
Implement efficient input methods (manual input, CV recognition of business cards, QR code scanner). Implement ability to view list of leads, and conference. Implement ability to change own user settings. Implement lottery functionality. Updated SRS to mention Lottery functionality.
3. Product Requirements

3.1 Major Components

The following components are fundamental pieces of the application.

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.1. Web Interface</td>
<td>The front end of the application that lets people set up conferences and admins and users</td>
</tr>
<tr>
<td>3.2.2. Mobile Interface</td>
<td>The mobile version of the front end of the application. Also has the options for a QR code scanner, manual entry, or via a picture of their business card to retrieve leads</td>
</tr>
<tr>
<td>3.2.3. Backend Web Services Database</td>
<td>The backend exposes an API to handle HTTP requests from both the frontend web application, and mobile application. It is RESTful and is connected to a MySQL database.</td>
</tr>
</tbody>
</table>

3.2 Product Requirements & Design (PRD) Tables

The following table explains the priority column in the PRD tables outlined within each component.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Rejected Requirement</td>
</tr>
<tr>
<td>1</td>
<td>Mandatory for release, required for the initial functionality of the first major release.</td>
</tr>
<tr>
<td>2</td>
<td>Increases application functionality and robustness. Most likely will be included in the initial release but not absolutely necessary for it.</td>
</tr>
<tr>
<td>3</td>
<td>Gives lots of customer value, stretch targets for initial release.</td>
</tr>
<tr>
<td>4</td>
<td>Improves functionality of the release, but not vital for it.</td>
</tr>
</tbody>
</table>
## 3.2.1. Web Interface

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
<th>Hours</th>
<th>Priority</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional for conference users and administrators</td>
<td>Administrators are capable of creating and maintaining event information, users are able to access limited portions of the service</td>
<td>8</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Connect to backend</td>
<td>This requires to be able to connect to the database in order to handle information and retrieve stored data</td>
<td>10</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Connect to mobile interface</td>
<td>This allows necessary information to be exchanged and displayed to the user regardless of whether they’re using a browser or an iOS device</td>
<td>8</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Interactive UI</td>
<td>Smooth, intuitive, and easy to use for the target audience</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

## 3.2.2. Mobile Interface

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
<th>Hours</th>
<th>Priority</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration with phone hardware</td>
<td>This allows us to take advantage of the hardware for exclusive features such as the camera for taking pictures</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connect to web interface</td>
<td>This allows necessary information to be exchanged and displayed to the user regardless of whether they’re using a browser or an iOS device</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive UI</td>
<td>Smooth, intuitive, and easy to use for the target audience</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.2.2. Database

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
<th>Hours</th>
<th>Priority</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Backup</td>
<td>The database will periodically backup its contents to another backup partition</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Initialize Database</td>
<td>Create efficient database schema</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Scalability</td>
<td>Ability to scale as well as store huge amounts of data</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Host on cloud</td>
<td>Make AWS instance</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

4. Assumptions and Risks
4.1 Assumptions

4.1.1 Server for subversion
Novacoast will provide a server for us to use for version control (Git), and document protection.

4.1.2 Training
Novacoast will provide guidance for learning all necessary software and technology for us to complete the project to their specifications (i.e. Ruby on Rails, javascript/JQuery, CSS, HTML5, VMWares, Phonegap, MySQL).

4.1.3 Hardware for testing
Novacoast will provide mobile hardware (iOS) for the purpose of development and testing the mobile front end.

4.1.4 Apple Developer license
Novacoast will provide Apple developer program membership to the team for the purpose of developing and distributing the mobile app.

4.1.5 Access to Novacoast R&D
Novacoast will provide access to staff for help with any technical issues that may arise during the process of development.

4.1.6 Access to Office and Staff
Novacoast will allow the team to contact their mentors electronically with questions concerning the project and at least weekly access to conference room and staff to assist with questions about direction and implementation of project.

4.2 Risks

4.2.1 Lack of Internet access for authentication/database
A lack of Internet connection may cause the mobile app to be able to authenticate log in, or retrieve data from the database.

4.2.2 Compatibility
Some mobile device may not be compatible with certain features of the mobile app, causing the user to be unable to use said features.

4.2.3 Insufficient Skill Set Among Team Members
Team members do not have, or too slowly learn, the necessary skills needed.
4.2.4 Scheduling Conflict
A team member(s) does not have the time to complete an assigned task due to either more pressing school/work/family engagements.

4.2.5 Complexity Underestimated
The complexity is above what we are capable of doing in the allotted amount of time.

5. Support, Platforms, and Localization

5.1 Supported Platforms
5.1.1 Supported browsers
We plan to support Chrome, Firefox and Safari

5.1.2 Supported Mobile Platforms
   Apple iPhone

5.2 Localization
   Localization is the modification of software, web content and documentation to meet the
   language and cultural differences among the targeted market. This app will be localized to
   major languages determined by the stakeholders. The client’s default language will be
   automatically determined by the users’ browser. Users will have the ability to freely change
   between versions within the interface.

5.3 Documentation
   To be determined

6. Technology Stack
6.1 Overview of Technologies Used
The following app will be built on a stack of these technologies, infrastructure, and third party tools.

a. HTML5
b. CSS
c. Javascript
d. jQuery
e. Ruby
f. Ruby on Rails
g. MySQL
h. VMWare
i. Twitter Bootstrap
j. PhoneGap
k. XCode
7. Planning

7.1 Client Component - Novacoast

7.1.1 Novacoast Resources

The following Novacoast resources will be needed to complete the project as outlined in the next section:

<table>
<thead>
<tr>
<th>Role</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>Eron Howard</td>
</tr>
<tr>
<td>Project Team Lead</td>
<td>Andrew Lee</td>
</tr>
<tr>
<td>QA Resources</td>
<td>David Parker, Renato Untalan</td>
</tr>
<tr>
<td>Developers</td>
<td>Andrew Lee, Ernesto Cojulun, Brandon Newman, Justin Phang, Tim Chanpuelksa</td>
</tr>
<tr>
<td>Scribe</td>
<td>Tim Chanpuelksa</td>
</tr>
</tbody>
</table>

7.1.1 Novacoast Resources

The following Novacoast resources will be needed to complete the project as outlined in the next section:

<table>
<thead>
<tr>
<th>Component</th>
<th>Start Date</th>
<th>End Date</th>
<th>Risks and Assumptions</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Up Team Environment and Learn the Tools (VMWare Environment)</td>
<td>Feb.11.2014</td>
<td>Feb.15.2014</td>
<td>Risk of incompetent programmers.</td>
<td>All, Ernesto</td>
</tr>
<tr>
<td>Mock-up Planning.</td>
<td>Feb.18.2014</td>
<td>Feb.20.2014</td>
<td>Mockup tools would be defined easily and design would not be agreed upon</td>
<td>Andrew, Brandon</td>
</tr>
<tr>
<td>Code Planning</td>
<td>Feb.21.2014</td>
<td>Feb.22.2014</td>
<td>Assume the tools we are using will be unchanged</td>
<td>All</td>
</tr>
<tr>
<td>Priority 1 Tasks</td>
<td>Feb.25.2014</td>
<td>Mar.22.2014</td>
<td>Risk of P1 tasks not getting completed in time</td>
<td>All</td>
</tr>
<tr>
<td>Task</td>
<td>Start Date</td>
<td>End Date</td>
<td>Description</td>
<td>Assumptions</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------</td>
<td>----------</td>
<td>------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Testing and debug</td>
<td>Mar.25.2014</td>
<td>END</td>
<td>Assume we are completing P1 tasks on time</td>
<td>All</td>
</tr>
<tr>
<td>Complete all Tasks</td>
<td>Apr.29.2014</td>
<td>May.10.2014</td>
<td>Risk of excessive bugs in tasks</td>
<td>All</td>
</tr>
<tr>
<td>Implement Extra Components</td>
<td>May.13.2014</td>
<td>May.31.2014</td>
<td>Assume we will have extra components</td>
<td>All</td>
</tr>
<tr>
<td>Finalize project</td>
<td>Jun.3.2014</td>
<td>END</td>
<td>Risk of not finishing in time</td>
<td>All</td>
</tr>
</tbody>
</table>
8. GUI Mock-ups/UML

8.1 UML

[Diagram of UML class diagram with various classes and relationships labeled with details such as 'Database', 'Log In Screen', 'Navigation', 'Conference', 'Input', 'Settings', and 'Camera'.]
8.2 Class Diagram
8.1 Login and Conference
8.2 Add Conference
8.3 Leads
8.4 Camera and Manual Entry
8.5 Settings
8.6. A User Creates a New NovaConnect Account

figure 4.1.1.  
figure 4.1.2.

8.7. A User Logins Into a NovaConnect Account

figure 4.2.1.  
figure 4.2.2.

8.9. A User Selects the Settings Tab

I. Change Log
2.20.14 - Changed Hours estimation on connecting to backend. Added future goals
2.26.14  - Added PhoneGap and XCode as a technology
2.27.14 - Fixed 5.1.2. to just iPhone support
3.4.14 - Added Class diagram and Mockups 8.6 through 8.9