# Requirements Document

## 1.0 Project Vision

This project consists of two mobile applications, built on both Android and iOS systems, and the needed support systems. The first application will allow users to access eBill services via the mobile application. The second application will be an interface to a trouble ticket tracking system

## 2.0 Testing Management Process

## 3.0 User Stories

Following are user stories generated by the team that describe the needed functionality of the application.

### 3.1 User Story

As a customer with a telecom that uses Innovative Systems products, I want to change information on my account <change email, change password> from my <iOS device, Android device>.

### 3.2 User Story

As a customer with a telecom that uses Innovative Systems products, I want to see my <latest, past> invoice for my account from my <iOS device, Android device>.

### 3.3 User Story

As a customer with a telecom that uses Innovative Systems products, I want to see a summary of his service for his account from his <iOS device, Android device>.

### 3.4 User Story

As a customer with a telecom that uses Innovative Systems products, I want to see the current balance for my account from my <iOS device, Android device>.

### 3.5 User Story

As a customer with a telecom that uses Innovative Systems products, I want to make a payment on my balance for my account from my <iOS device, Android device>.

### 3.6 User Story

As a customer with a telecom that uses Innovative Systems products, I want to set up recurring payments for my account from my <iOS device, Android device>.

### 3.7 User Story

As a customer with a telecom that uses Innovative Systems products, I want to see a history of my payments for my account from my <iOS device, Android device>.

### 3.8 User Story

As a customer with a telecom that uses Innovative Systems products, I want to see a summary of my usage for this month on for my plan from my <iOS device, Android device>. I want to see the data, minutes, and text messages that I have used up from my monthly quota in an easy to understand format.

### 3.9 User Story

As a customer with a telecom that uses Innovative Systems products, I want to submit a trouble ticket because <Innovative Systems product> of mine is broken, and I want to do it from my <iOS device, Android device>.

### 3.10 User Story

As a customer with a telecom that uses Innovative Systems products, I want to get contact information for the support for my company from my <iOS device, Android device>.

### 3.11 User Story

As a customer with a telecom that uses Innovative Systems products, I have multiple accounts for both my business and my home with the same telecom. I want to be able to easily access the mobile application for both accounts from my <iOS device, Android device>.

### 3.12 User Story

As a telecom that uses Innovative Systems products, I want my customers to see a banner that displays my telecom’s name on the mobile apps that my customers use to check their account information.

## 4.0 Tests of User Stories

## 5.0 Analysis

### 5.1 Methods

### 5.2 Algorithms

### 5.3 Decisions

#### 5.3.1 Native Applications

We have chosen to go with developing native applications on both platforms instead of attempting to build a web based application and smaller wrapper applications on both platforms.

## 6.0 Change Log

Created 9/27/2012 by Jeremy Warner

Concept of Operations

1. Scope

This document will describe and specify the operating parameters of the eLation mobile eBill applications. Currently this document is only focused on the Android and iOS eBill services. It will be expanded to include the mobile ticket tracking system when the team receives the requirements for that system.

1. Referenced Documents
2. Current System
   1. eBill Web Site

Currently there is a web site that can be used to perform all of the desired features. This product will expand the capabilities of that website into the mobile sphere by using native Android and iOS applications.

* + 1. eBill Home Page

The eBill home page allows a user to see their current total due. It gives them the option to Pay, View, or Print the bill from the website. It displays a user’s current usage statistics, and allows for access to a usage overview. The home page also allows the user to see their current plan’s services and the price for those services. Individual services can be accessed from this page for more detail. The current account can be changed from this page as well.

* + 1. eBill Directory Page

The eBill Directory Search page allows a user to search through an online directory for people, businesses, or government bodies. This feature is not currently scheduled for inclusion in the mobile application.

* + 1. eBill Downloads Page

The eBill download page allows a user to download several items for a selected month of service, including the current charges on their account in CSV format, the account usage in CSV format, and a PDF copy of the invoice for a particular month. It also allows a user to download a CSV of the unbilled usage for a particular month.

* + 1. eBill Pay Bill Page

The eBill Pay Bill page allows a user to make a one-time payment using a bank account or credit card. It also allows them to set up recurring payments using a bank account or credit card.

* + 1. eBill Sales Page

[I don’t know what this does]

* + 1. eBill Manage Account page

The eBill Account Management page allows a user to change their display name, update their email address, change their login password, change their password recovery option, change their invoice preferences, and add an account to their online access.

* + 1. eBill Navigation

The eBill site has a navigational bar at the top allows the user to access the previously mentioned pages. It also allows the user to change their email or password, or log out of the site entirely.

1. Justification for and nature of proposed changes
   1. Move to Mobile

Mobile applications will be developed to allow access to all of the features of the eBill website. The mobile applications will also add some features that the site lacks, such as the ability to log trouble tickets and show some support information. Mobile applications allow greater access to account information in a user-friendly and portable format.

* 1. Redundant Service Capabilities

The use of a mobile application to send in service tickets for non-mobile problems is of great importance, since it allows a user to alert their provider of problems, even if the problems extend to the land lines or internet service. Since a mobile application can pull data over the air, it is not affected by failures of other services.

1. Deliverables
   1. Project Design Document
   2. Project Plan Document
   3. Product Backlog (with User Stories)
   4. Software Test Plan and framework
   5. Release Version of iOS and Android software and any required supporting framework (Source Code and Compiled)
2. Analysis of the Proposed system
   1. Login
      1. Login Credentials

A user must enter both a URL specific to their service provider, a username, and a password to log into an account. Once logged in once, the application will have the optional capability to save the user’s credentials for future sessions.

* + 1. Multiple Accounts

Users will be able to switch between accounts they have logged in with and saved previously, as well as log in with a new account from the login screen.

* 1. User Interface
     1. Main Menu Interface

The primary menu interface will allow a user to access a My Account screen, an Invoice screen, a Payments screen, a Usage Summary screen, and a Support screen.

* + 1. My Account Screen

This screen will allow the user to change their email, invoice delivery settings, payment method, and password. It will also allow the user to sign out of their account.

* + 1. Invoice Screen

The invoice screen will show a user their previous balance, current charges, payments, and current amount due, as well as the date and an invoice number. It will allow them to access past or current invoices, as well as a summary of their services.

* + 1. Payments Screen

The payments screen will allow a user to access a history of their payments, as well as make a single payment or set up recurring payments.

* + 1. Usage Screen

The usage screen will graphically show users their usage statistics for the current billing period. If included on the plan, the page will show data usage, minute usage (talk time), and text message usage, along with the total allowed for that billing period and a graphical representation of how far along their billing period is in comparison to usage data for a particular service.

* + 1. Support Screen

The support screen will show customer support information, as well as allow the user to view the log, send the log to a customer service representative, or clear the current log. It will also allow the user to submit a trouble ticket for their account.

* 1. Data Access to eBill Service
     1. NOT YET DEFINED

1. Summary of Impacts
   1. Impact on Telecom Customer

A customer of a telecom using these mobile applications will have greater access to their account and easier ways to submit service tickets.

* 1. Impact on Telecom

A telecom implementing this software will give their customers the ability to access their account information more conveniently. They will also increase their customer’s ability to communicate problems through the trouble ticket system, leading to better service.

1. Glossary
   1. eLation –
   2. eBill –
   3. CSV – “Comma Separated Values”, a universal text-based file format for displaying data in a grid. Files of this type are commonly opened with Microsoft Excel or similar applications.
   4. PDF – “Portable Document Format”, a file format commonly used to display documents. Files of this type are commonly opened with the free Adobe Acrobat Reader or similar applications.

# 2.0 Sprints

## 2.1 Sprint 1: September 19, 2012 – October 3, 2012

* Environment Setup
  + Set up IDEs on Mac, Windows
  + Set up code repository
* Development
  + Build test SOAP communication to Android and iOS devices
  + Build Android and iOS layout
* Documents
  + Team Name
  + Design Document
  + Software Contract
  + Mission Statement
  + CONOPS
  + User Stories

## 2.2 Sprint 2: October 10, 2012 – October 31, 2012

* Environment
  + Get eBill service installed on local server for testing
* Development
* Documents

## 2.3 Sprint 3: November 7, 2012 – December 5, 2012

* Environment
* Development
* Documents