



AID Firebase Web Portal and Text Service User's Guide

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Table of Contents

1	Introduction.....	3
1.1	AID Firebase and Text Service Overview	3
2	Firestore Web Portal.....	4
2.1	Firestore Set-up.....	4
2.2	Twilio SMS Message Service	6
3	Using the AID App with Firestore	7
3.1	iPhone Users.....	7

1 Introduction

1.1 AID Firebase and Text Service Overview

The Automatic Injury Detection (AID) system can send an emergency alert through an Android smartphone or Apple iPhone using the AID smartphone Apps.

The AID app can be used stand-alone but instead of having each user enter a list of SMS recipients into the app, a department (agency/company/etc) administrator(s) can manage the recipient list and users through the Firebase web portal.

Firebase is accessed through a web page and offers several benefits for the department:

- Easily manage the list of SMS recipients for users
- Minimizes the amount of set-up for each user
- Manage and view the list of users with AID
- View the battery level, status and connectivity update for every AID sensor
- Use an SMS message service (e.g. Twilio) for sending emergency alerts

For departments with multiple iPhone users, the Firebase web portal *and* a text message service is required. This is because the iPhone does not allow automated text messages. That limitation is overcome by an SMS message service – the AID app sends the emergency data to a message service so that text messages can be sent to the recipients. The SMS message service is not necessary but optional for Android smartphone users.

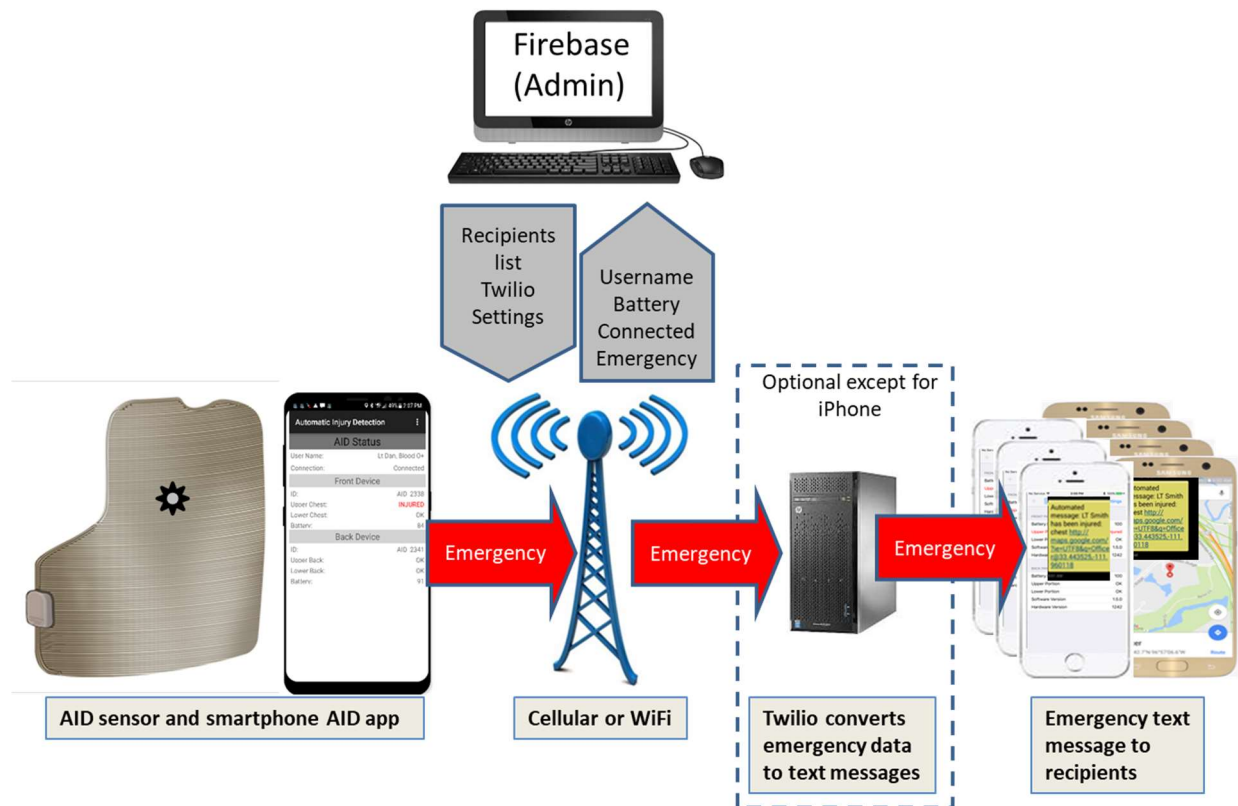


Figure 1 AID Firebase and Text Service System Diagram

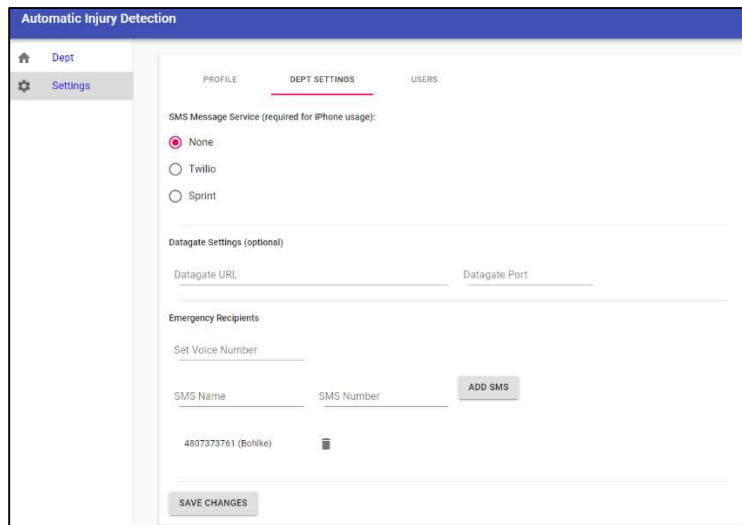
2 Firebase Web Portal

This no cost web-based application allows the administrator to create and manage their department AID users. For iPhone users, Firebase helps ensure that the AID app continues to be active as the iPhone does not automatically restart the app when it has been closed or the phone reboots. For that reason the Firebase account will check each phone every 15 minutes to make sure the AID app is active and notify the user if it has been deactivated. That function isn't necessary for the Android app as it is a service on the phone that automatically restarts if the app is closed.

2.1 Firebase Set-up

An administrator for the department must first request Select Engineering Service (selectengineering.net) to establish a Firebase account with the desired department name and administrator email address. Then, they can follow these steps to complete the set-up:

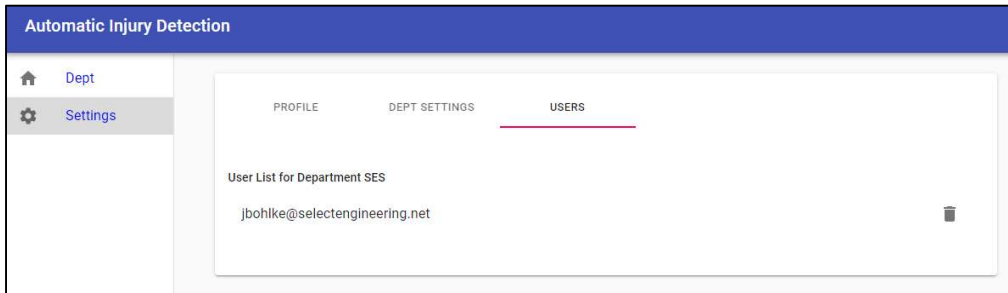
1. From a web browser, go to <https://automatic-injury-detection.firebaseio.com/> and select sign in. Enter email, user name, and a password.
2. From the Dept side menu, choose the department name.
3. Once the account has been created, a confirmation email will be sent automatically to the administrator. From that email, select the 'confirm' URL to verify the account.
4. Return to <https://automatic-injury-detection.firebaseio.com/> and refresh the webpage.
5. Select 'Settings' from the side menu bar then...
 - a. Select 'DEPT SETTINGS' at the top to add a voice number (for Android users only) and SMS recipient phone numbers and names. The list of SMS recipients is pushed to each users' AID app. The user will not be able to add to or modify the list through the app.



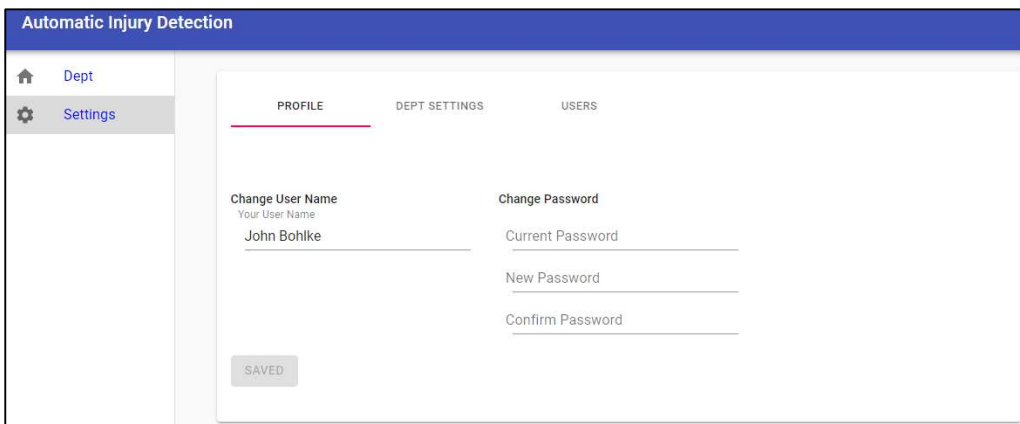
The screenshot shows the 'Automatic Injury Detection' web portal. The left sidebar has a 'Dept' menu and a 'Settings' menu. The main content area is titled 'DEPT SETTINGS' and has three tabs: 'PROFILE', 'DEPT SETTINGS', and 'USERS'. Under 'DEPT SETTINGS', there are three radio button options for 'SMS Message Service (required for iPhone usage)': 'None' (selected), 'Twilio', and 'Sprint'. Below this is a section for 'Datagate Settings (optional)' with fields for 'Datagate URL' and 'Datagate Port'. There is also a section for 'Emergency Recipients' with a 'Set Voice Number' field. At the bottom, there is a table for 'SMS Recipients' with columns for 'SMS Name' and 'SMS Number'. One entry is visible: '4807373761 (Bolke)' with a trash icon. An 'ADD SMS' button is to the right of the table. A 'SAVE CHANGES' button is at the bottom of the form.

- b. If using an SMS Message Service (required for iPhone users), select the Twilio option and enter the Twilio credentials (see section 2.2 for Twilio account set-up). The message service information is pushed to each users' AID app.
- c. Select 'SAVE CHANGES' when finished.

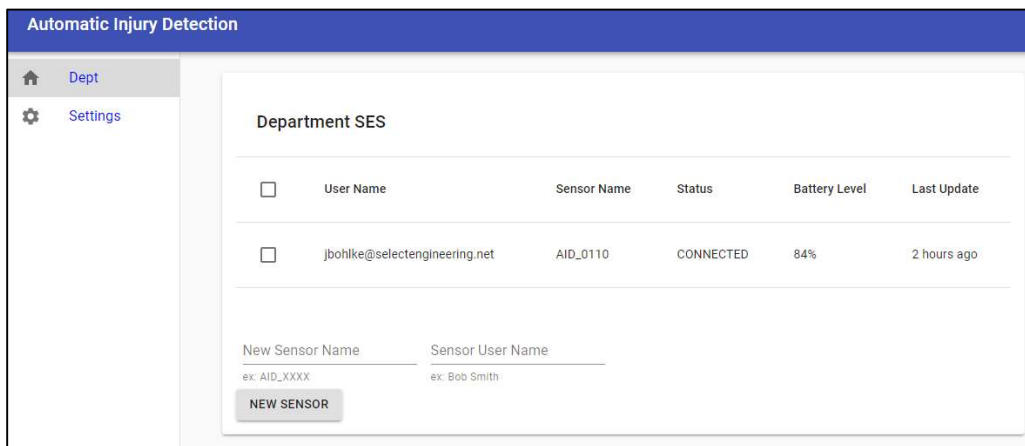
- d. To review the list of authorized AID users within the department, select 'USERS' at the top. To remove a user, select the trash can icon next to the corresponding email address of the user.



- e. Select 'PROFILE' at the top if you want to change your user name and/or password (then 'SAVE CHANGES').



6. Select 'Dept' from the side menu bar to view the users, sensor ID, connected status, battery level of their AID sensor and the last time the information was updated.
 - a. To eliminate a device from the list, select the check box next to the corresponding user and then select the trash can icon in the upper right.



2.2 Twilio SMS Message Service

A Twilio account is required for iPhone users and optional for Android users. Twilio will enable the department to automatically send AID app emergency text messages to desired recipients. Follow these steps to set up the account:

1. From a web browser, go to www.twilio.com
2. Select the 'Sign up' option and enter the administrator name, department name, email, and password.
3. After verifying your (trial) account set-up via email and mobile text from Twilio, choose to 'Get a Number'. Twilio will assign a unique phone number for your department.
4. Verify the account set-up by entering your mobile number. Twilio will send a verification code for completing the account set-up. You can now test the service through Twilio or through the AID app but the message will only be sent to the administrator's mobile phone.
5. You need to upgrade the account in order to send text messages to multiple mobile numbers. From the Twilio 'Dashboard', select the 'Upgrade' option and enter funds into the account to support the full functionality. The service is approximately \$1 per month and each text message will cost a fraction of a penny. So, you can fund the account with \$20 and Twilio will notify you when the balance gets low.
6. Make note of your Twilio account credentials as they will have to be entered into the Firebase account:
 - a. Twilio Account ID (found at www.twilio.com/console as the 'account SID')
 - b. Twilio Phone Number (found at www.twilio.com/console/phone-numbers/incoming)
 - c. Twilio Token (found at www.twilio.com/console as the 'auth token')

All messages sent using Twilio will come from your unique Twilio phone number. Each AID recipient should enter that number as a contact on their phone with the title of 'AID Emergency Alert' or something similar. They will see that contact name appear when they receive an emergency text alert via AID. The content of the text message will show the actual name/personal information that triggered the AID emergency.

3 Using the AID App with Firebase

Each user will have to create a user account and login within the AID app in order to connect to the Firebase web portal account and the text service (see the AID Android or iOS App User Guide for details). The users must enter the ‘Department Name’ in their app exactly as it was entered when creating the Firebase account.

When each user creates their account within the app, the Firebase administrator(s) will receive an email asking to confirm the user. The administrator must approve the user before the AID app will properly send the emergency alerts although the other functions within the AID app can be used in the meantime.

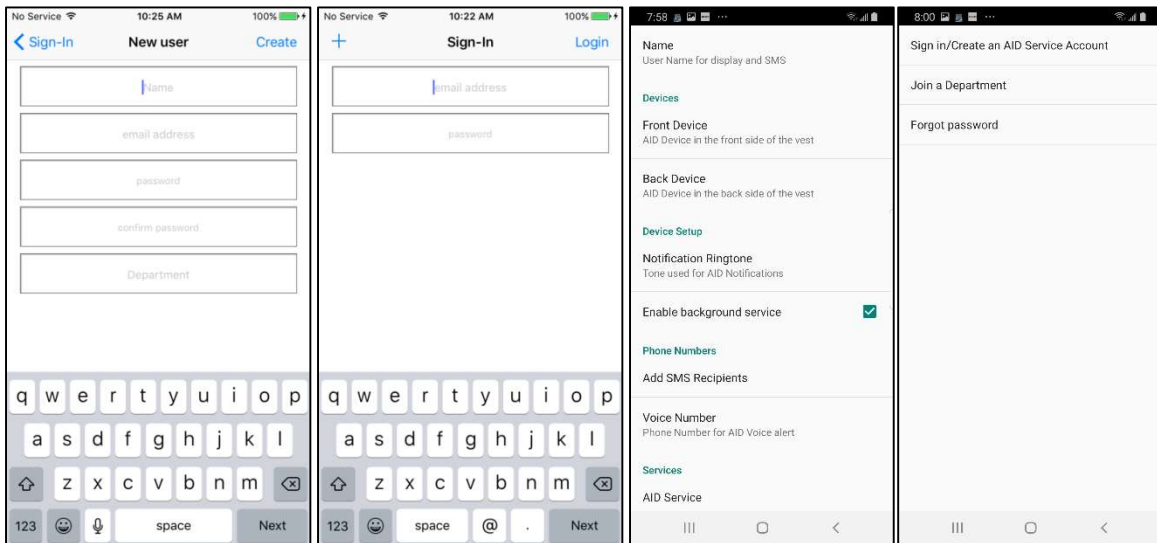


Figure 2 iOS and Android Login Screens

For the user, their option to enter the SMS Recipients within the app will be disabled and greyed out. The recipient list set up by the administrator (and text service details) within Firebase will be pushed to each users app.

3.1 iPhone Users

Within the AID app Settings, select the field labeled ‘Disabled’ under SMS Setting to change it to ‘Enabled’. This allows the app to send the PET emergency alert to SMS message recipients through Twilio. Once enabled, the user can enter the:

- User name that will be sent with the emergency alert. The ‘Username’ field may contain any useful information about the user including their name, badge number, allergies, blood type, etc. This field is limited so that the emergency alert does not exceed the 160 character SMS text message limit.