Social Networking Products (Ushahidi)

Naval Postgraduate School (NPS) Earthquake Response Project

Playbook #: RSC-05A
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# Playbook Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>iii</td>
</tr>
<tr>
<td>Overview</td>
<td>1</td>
</tr>
<tr>
<td>Purpose/Objectives</td>
<td>3</td>
</tr>
<tr>
<td>Hardware Required</td>
<td>3</td>
</tr>
<tr>
<td>Software Required</td>
<td>3</td>
</tr>
<tr>
<td>Instructions</td>
<td>4</td>
</tr>
<tr>
<td>Playbook Directory</td>
<td>30</td>
</tr>
<tr>
<td>Scientific Background and Additional Notes</td>
<td>31</td>
</tr>
<tr>
<td>References</td>
<td>58</td>
</tr>
</tbody>
</table>
Executive Summary

This playbook is one of a series of “Playbooks” designed to assist first responders and emergency managers with the use of remote sensing data for improved earthquake response. This Playbook is the product of a pilot project funded by the Department of Homeland Security and conducted by the Naval Postgraduate School (NPS) Remote Sensing Center (RSC) to explore remote sensing imagery and other geographic information in support of earthquake response.

Social media can be an important source of information during disaster situations and many government organizations are leveraging this tool to improve their responses to these situations. Ushahidi is an open-source, customizable news and social-media messaging aggregation tool that can collect crowd-sourced geospatial and social-media information and map that information in real time. This Playbook describes an instance of the Ushahidi platform that has been customized for use by the Monterey County Office of Emergency Services (OES).

The backend Administration of Ushahidi provides a set of tools that can help sort, filter, and data mine both the real-time and the archived geospatial and social-media messaging data that has been collected by the platform. This playbook is an instruction manual for those users who have been made Administrators. With this playbook in hand, Administrators will be able to navigate through the various webpages and layers of the Ushahidi platform, as well perform basic temporal and spatial analyses on user-submitted reports and social-media messages being aggregated by the platform.

The Playbook Directory near the end of this document shows the NPS Earthquake Response Playbook sequence to help put this Playbook into perspective and give an overview of products resulting from this research and some aspects of practical implementation. The content of each Playbook is briefly described; however, users are referred to the specific named and numbered Playbooks for full product descriptions. These provide additional detailed product information, instructions on how to separately utilize the individual products, and how to combine them into an integrated system for improved earthquake response.
Overview

Sponsored by the Department of Homeland Security (DHS) Science & Technology Directorate, the Remote Sensing Center (RSC) at the Naval Postgraduate School (NPS) has developed a series of instructional playbooks designed to assist first responders and emergency managers with the use of remote sensing technology for improving earthquake response.

This playbook (Playbook #: RSC-05) is one of a series of instructional guides emerging from the research completed for the Earthquake Response Project at NPS conducted during 2011 - 2012. The objective of the NPS Earthquake Response Project was to improve post-disaster response and recovery through the delivery and integration of remotely-sensed data and social media into existing Emergency Management Concept of Operations (CONOPS).

Social media can be an incredibly powerful tool during disaster situations. Many emergency management agencies and government organizations are leveraging the use of social media to improve their response to disasters by: enhancing situational awareness, strengthening operational aspects of response, supporting recovery efforts, and building community resilience, in addition to becoming an essential source of data during disasters.

With modern social-media technology, it is now possible to communicate directly with the public and monitor public messages for direct or indirect requests for assistance. With the public often being the first to arrive in a disaster situation, their emailing, tweeting and texting of information makes them an essential part of the new 21st century response and reporting of disasters/incidents. Agencies can take advantage of having this team of social-media first responders by monitoring information shared on social-media sites to:

1. identify pleas for help from isolated citizenry or citizens in austere communications environments
2. utilize crisis mapping by identifying and monitoring hazards, dangers, and incidents reported by citizen observers.

An Ushahidi deployment functions as a crowd-sourced, crisis mapping service by aggregating geospatial and social-media information. Ushahidi, which translates as “witness” in Swahili, was first deployed during the violence that resulted from the disputed 2007 presidential election in Kenya. The first Ushahidi deployment in Kenya was developed to collect eyewitness reports of violence sent in by email and SMS text message, and display them on a Google-based map. Ushahidi has been described as a combination of social activism, citizen journalism, and geospatial information.

As an open-source platform, Ushahidi offers the flexibility and customizability that allows individuals and groups to collaborate in creating live multi-media maps for all kinds of projects, i.e., environmental monitoring, public health mapping, human rights monitoring, citizen-based election observation, and nonviolent protests, in addition to, of course, disaster response and crisis mapping.
The secured backend Administration to the Ushahidi platform provides a powerful set of tools that can be used to analyze social-media data during disaster situations. These tools include the ability to aggregate and archive geospatial and social-media data from a large variety of media, the ability to filter and sort that data for real-time and future analysis, and the ability to export that data for use with third-party software or applications.

The social-media data is aggregated from incident reports generated by users of the Ushahidi platform, Ushahidi mobile applications (Android & iOS), Really Simple Syndication (RSS) news feeds, Geocoded-RSS (GeoRSS) feeds, Twitter, and direct deliverables such as Short Messaging Service (SMS) text messaging and emails. Additional messaging sources can be added to Ushahidi using third-party services and platform add-on applications. This information can be filtered by location, custom categories, trusted vs. untrusted sources, verified vs. unverified, and approved vs. unapproved. Once aggregated, this data can be exported en mass to another Ushahidi platform or to a third-party software package or application for analysis. This is done using a comma separated value (CSV) file that is an industry standard in data management file types. The Ushahidi platforms can also read in report files as long as they are in the same CSV file type. Please see the instruction section of this playbook for further details in how these functions work.

The Ushahidi platform described in this playbook is tailored for use by the Monterey County Office of Emergency Services (OES). It is unique in that the platform is provided on the Emergency Operations Center in a Box (EOCIB). The EOCIB, designed and created by Albert Barreto at the NPS Cloud Computing and Virtualization Center (see description of EOCIB in Playbook#:RSC10 provided separately), is a sturdy, turnkey portable server system constructed to offer both integrated wireless data communications and high capacity data storage for the Monterey County OES in the event that the capabilities of the actual OES have been degraded in some way (i.e., power outage, internet outage, building collapse, etc.).

Because the Ushahidi platform described in this playbook operates on a portable server (the EOCIB), it can be implemented at any location during a disaster response scenario. As the EOCIB will be stored in the Monterey County OES and accessible at any time, if a crisis scenario presents itself where the OES retains full internet and power capabilities, Ushahidi can supplement disaster response while remaining on the OES network infrastructure. If the EOCIB was activated and transported out of the OES due to a debilitating disaster event, it would run just as easily in the field, since the platform is a self-contained virtual machine on the EOCIB itself. Ushahidi could also similarly be configured and installed on any EOC computer server.
Purpose/Objectives

The purpose of this playbook is to be an easy-to-navigate instruction manual for the Ushahidi crowd-sourcing social-media platform. The Ushahidi platform described in this playbook has been specifically tailored for use by the Monterey County OES. This playbook is designed to help guide first responders and OES officials, those who have been designated as Ushahidi Administrators, on the efficient and proper use of the Ushahidi platform during a disaster response scenario. The goal of this playbook is also to clarify and make simple the backend-Administration of the Ushahidi platform where real-time data analysis and interpretation is performed. By using this manual, Administrators should be able to maintain the smooth operation of the Ushahidi platform, be able to customize the platform when necessary, and to be comfortable with modifying the platform settings to keep up with any future changes that may be required.

Hardware Required

Aside from the EOCIB that the Ushahidi platform comes installed upon, no additional hardware is required for its operation. To access the Ushahidi platform as an Administrator, standard web-browser capable personal computers or mobile devices along with network access to the same domain that the Ushahidi instance is operating on, would be needed. Description of other instances of Ushahidi on other hardware systems is beyond the scope of this Playbook. Users are referred to the Ushahidi website http://www.ushahidi.com/ for additional information.

Software Required

- A standard web browser.
- The Ushahidi Platform (version 2.6), MySQL Server, and Apache Tomcat are all self-contained and provided on the Emergency Operations Center in a Box (EOCIB).
- The Ushahidi platform works best with a greater number of information sources. This instance of Ushahidi has been preset to communicate with the following social-media sources:
  - Twitter account (NPSQuake)
  - Email address (montereycert@gmail.com)
  - SMS (text) messaging (###-###-####)
  - Facebook account (Monterey County Office of Emergency Services)
Instructions

Administration Login

Accessing the Ushahidi platform Administration (Admin) Section

1. Click on ‘Login’ in the upper-right portion of the webpage (highlighted in red; Figure 1).

2. Enter a valid username and password into the login window that appears. See Ushahidi settings section for details on account types and permissions.

Figure 1: Main page of the Ushahidi platform (left) and the platform login pop-up window (right), illustrating the process of accessing the Administration Section.
The Dashboard page appears immediately after Admin login. The Dashboard page provides a summary of all the information coming into the platform and displays a snapshot of the amount of reports over time.

Figure 2: Sample Dashboard page for the Ushahidi platform featuring the Reports Timeline (top left, red), Quick Stats Box (top right, green), Recent Reports Box (bottom left, blue), and News Feeds Box (bottom right, purple).
The Dashboard is composed of four sections:

- **Reports Timeline Box** (highlighted in red; Figure 2):
  - Time series view of report frequency.
  - Click on the hyperlinks to view trends over the past day, month, year, or lifetime of the platform.

- **Quick Stats Box** (highlighted in green; Figure 2):
  - Quantitative overview of reports in the system.
  - It includes the sum total of reports filed and breaks down the number of reports submitted vs. reports approved, the number of categories set up in the platform, the number of locations inserted, the messages coming from media sources as RSS Feeds, and the incoming messages divided by typology: SMS, Email, and Twitter.
  - Click on any of the hyperlinks to access information on these categories.

- **Recent Reports Box** (highlighted in blue; Figure 2):
  - List of the most recent reports with title, time of the incident, source, and approval status.
  - To access the report itself, click on the report title.
  - Click on 📋 to open a complete list of reports currently in the Ushahidi platform.

- **News Feeds Box** (highlighted in purple; Figure 2):
  - Overview of the RSS news feeds coming into the platform.
  - Click on 📌 to open a complete list of RSS items that have been read into the platform.
Viewing Reports

To view reports, click on ‘Reports’ (highlighted in red; Figure 3) then ‘View Reports’ (highlighted in green; Figure 3).

Reports in Ushahidi include verified reports, approved reports, reports submitted but yet not approved or verified, and uncategorized reports. It is important to note here that reports submitted on the Ushahidi platform will not appear automatically on the public list of reports or the map; they must first be approved by an Administrator with the proper permissions.

![Ushahidi Dashboard](image)

Figure 3: Sample ‘View Reports’ page from the Ushahidi platform.

Report details can be viewed at any time by clicking on the report title. Reports can be sorted by report type:

- **Show all** – Section where you can see all reports inside the Ushahidi platform. Verifying the report is not a requirement to appear on the map, but it does let the public know that the information in the report itself has been verified by the Admin of the platform.

- **Awaiting Approval** – A list of those reports that have not yet been approved by an Admin, which means that those reports have been submitted but do not yet appear on the map. Once approved, the reports will immediately appear on the public map.

- **Awaiting Verification** – A list of all reports that have not been verified by an Admin; these reports are already on the map but are flagged as not verified in terms of content. In the list of reports, an Admin can see the report title, the first sentence of the description field, the date, the location, the associated categories and the source.

- **Uncategorized Reports** – This is used to hold those reports left that have not assigned a category; usually a result of category deletion.
Report Actions:

- **To approve/unapprove a report:** On the right side of a report entry, click on ‘Approve’ (highlighted in red; Figure 4). To reverse this and/or remove approval, click on approve again.

- **To verify/unverify a report:** On the right side of a report entry, click on ‘Verify’ (highlighted in green; Figure 4). To reverse this and/or remove verification, click on verify again.

- **To delete a report:** On the right side of a report entry, click on ‘Delete’ (highlighted in blue; Figure 4).

- **To verify, approve, or delete multiple reports:**
  1. Check the box associated with each report you wish to perform the action on (highlighted in purple; Figure 4), or check the box in the banner to highlight all reports (highlighted in black; Figure 4).
  2. Once the correct reports have been checked, choose the desired command from ‘Approve’, ‘Unapprove’, ‘Verify/Unverify’, or ‘Delete’ (highlighted in yellow; Figure 4).

- **To sort reports:**
  1. Click on the ‘Sort By’ pull-down menu (highlighted in orange, Figure 4).
  2. Choose from Report Date, ID, Date Modified, Date Added, or Report Title.
Creating Reports

1. To create a report, click on 'Reports' (highlighted in red; Figure 5) and then click on 'Create Report' (highlighted in green; Figure 5).

2. Once the fields have been filled (see details below), click on either ‘Save Report’, ‘Save & Close’, or ‘Save & Add New’ (highlighted in blue; Figure 5) to save the report. To cancel the report entry process, click on ‘Cancel’ (highlighted in purple; Figure 5).

Figure 5: Sample ‘Create Report’ page from the Ushahidi platform.
The following fields can be found on the report page:

- **Form type**: Pull-down entry that allows the person reporting an event (the reporter) to select from a set list of report types.

- **Report Title**: Brief description of the event.

- **Description**: Description of an event in a few sentences. Ideally the description should include the following pieces of information: ‘who’, ‘what’, ‘where’, ‘when’, ‘how’ and any additional contextual information that you feel is important.

- **Date & Time**: This refers to the date and time of the event, NOT when the report is submitted. Note that the system automatically inserts the current date and time, so the reporter will need to change this entry if the event happened at a different date or time from the submittal (using the ‘Modify Date’ hyperlink).

- **Category**: This section is designed to help Admins later sort reports by type. The reporter must select at least one category type, but can select multiple categories as needed. If sub-categories are available, they can be accessed via the plus sign (“+”) located before the category names.

- **Reporter Contact Information (Optional)**: Although reporters can remain anonymous while submitting a report, three blanks are provided so a reporter can volunteer their First Name, Last Name, and Email address if they wish to do so.

- **Map**: The map allows reporters to visually provide the location of the incident. If the street, address, or GPS coordinates are not known, reporters can use this map to help find positions. Event locations (including multiple locations) can be recorded using 
  to pin a marker. This action also autocompletes the latitude and longitude fields. Shaded and non-shaded polygons can be drawn to include larger areas using 
  and 
, respectively. The map’s region of interest can be changed by using 
. Additionally, reporters are required to provide information in the “Location Name” box under the map.

- **News Source Link**: This section should be used only if the report being submitted is from an online source. This box only allows text input formatted as a URL (website address). It is possible to insert multiple URLs by clicking on the plus (“+”) symbol on the side of the box.

- **External Video Link**: In this section the reporter can add a link to a video related to the event reported. The Ushahidi platform doesn’t allow videos to be uploaded to the platform directly. The form only allows reporters to provide a URL to a video hosted elsewhere (e.g., YouTube).
• **Upload Photo**: A reporter can also upload photos related to the reported event. It is recommended that the uploaded photo be in JPEG format (or of a similar format). Multiple photos can be uploaded by clicking on the plus ("+") symbol on the side of the box.

**Comments**

To access the ‘Comments’ page, click on ‘Reports’ (highlighted in red; Figure 6) and click on ‘Comments’ (highlighted in green; Figure 6).

This page allows the viewing and management of comments that have been submitted on reports (Figure 6). Comments can be grouped into those that are Awaiting Approval, have already been Approved, or have been identified as spam.

For each comment it is possible to see who submitted the comment, the report that the comment was made about, the text of the comment, the date of the comment, and the IP address (highlighted in blue; Figure 6).

**Figure 6**: Sample ‘Comments Page’ from the Ushahidi platform.

**Comment Actions:**

• **To approve/unapprove a comment**: On the right side of a comment entry, click on ‘Approve’ (highlighted in red; Figure 7). To reverse this and/or remove approval, click on approve again.

• **To declare a comment as spam**: On the right side of a comment entry, click on ‘Spam’ (highlighted in green; Figure 7). To reverse this and/or remove verification, click on verify again.
To delete a comment: On the right side of a comment entry, click on ‘Delete’ (highlighted in blue; Figure 7).

![Figure 7: Sample ‘Comments Page’ from the Ushahidi platform.]

**Download Reports**

To download Ushahidi reports in comma-separated value (CSV) files:

1. Click on 'Reports' (highlighted in red; Figure 8) then click on ‘Download Reports’ (highlighted in green; Figure 8).

2. Select from the following options to choose what type of information should be included in the download (highlighted in blue; Figure 8). Options include:
   - Approved Reports
   - Verified Reports
   - Reports Awaiting Approval
   - Reports Awaiting Verification
   - Latitude
   - Longitude
   - Location Information
   - Description
   - Categories
   - Personal Information

3. (Optional) Reports can be filtered by creation date. Select a time range by choosing From: and To: dates (highlighted in yellow; Figure 8).

4. Click on Download (highlighted in purple; Figure 8).
Upload Reports

Reports can be uploaded into Ushahidi from a comma-separated value (CSV) file. This method is ideal if reporters cannot send reports to you via email or phone but do have a computer to combine them in a CSV file. Another reason to use this function may be if you are transferring reports from one platform to another.

To upload reports from a comma-separated value (CSV) files:

1. Verify that the reports in the CSV file match the formatting found in the “Sample CSV Report” inset below.

Sample CSV Report:

<table>
<thead>
<tr>
<th>Format:</th>
</tr>
</thead>
<tbody>
<tr>
<td>#,INCIDENT TITLE,INCIDENT DATE,LOCATION,DESCRIPTION,CATEGORY,APPROVED,VERIFIED,LATITUDE,LONGITUDE</td>
</tr>
</tbody>
</table>

Examples:

"1","Suspected death in Nairobi","2009-05-15 01:06:00","Nairobi","Three cases have been confirmed in C. del Uruguay","DEATHS, CIVILIANS","YES,YES","-1.287","36.821"

"2","Looting","2009-03-18 10:10:00","Accra","Looting happening everywhere","RIOTS, DEATHS,"
2. Click on ‘Reports’ (highlighted in red; Figure 9) then click on ‘Upload Reports’ (highlighted in green; Figure 9).

3. Click on ‘Choose File’ (highlighted in blue; Figure 9) to open a browser to select the desired file. Select the file and then click open (not shown).

4. Click on 'Upload' (highlighted in yellow; Figure 9) when finished.

![Image](image_url)

Figure 9: Sample ‘Download Reports’ page from the Ushahidi platform.

It is very important to remember that:

- Reports must be uploaded specifically in CSV format.
- When incident ID already exists in the database, the entry in the CSV file will be ignored.
- The incident must contain at least Incident Title and Incident Date.
- If no latitude and longitude columns are supplied, the location will be geocoded using the Google Geocoder.

TIP: To make sure you’re working with the proper format, start by running an export from the system first. Even without any reports in the system, you can still work from the generated blank CSV file.
Checkins

The Ushahidi platform allows users to create and utilize ad-hoc Checkins groups (Figure 10). This functionality allows for the rapid deployment of a ‘checkin’ community (e.g., CERT team) and is an attempt to make the data entry process quicker by allowing users to drop quick notes that represent data points (locations) and then enter the details of an event later.

Checkin Actions:

- To get to the Checkin page: Click on the self-named hyperlink (highlighted in red; Figure 10).
- To delete a Checkin: On the right side of a report entry, click on ‘Delete’ (highlighted in green; Figure 10).
- To delete multiple Checkins:
  1. Check the box associated with each report you wish to delete (highlighted in blue; Figure 10), or check the box in the banner to highlight all reports (highlighted in yellow; Figure 10).
  2. Once all of the reports have been checked, click ‘Delete’ (highlighted in purple; Figure 10).

![Figure 10: Sample ‘Checkins Page’ from the Ushahidi platform.]

**Short Message Service (SMS)/Text Messages**

The preset phone number for this Ushahidi platform is ____________ and uses the FrontlineSMS application (see Settings section). NOTE: Messages will not be displayed publicly until they have been processed into reports and approved.

To access the SMS messages page:
1. Click on ‘Messages’ (highlighted in red; Figure 11)

2. Click on ‘SMS’ (highlighted in green; Figure 11)

SMS messages in the inbox are sortable by clicking on the following categories:

- **All** - Every incoming (Inbox) and outgoing (Outbox) SMS message (highlighted in blue; Figure 11), including:
  - Messages that have been transformed into reports but not approved
  - Messages that yet have to be processed and transformed into reports
  - Messages that have been already processed as reports and approved and displayed on the map

- **Trusted** - SMS messages that have been sent from trusted reporters (highlighted in purple; Figure 11) [see Reporters section below for details].

- **Spam** - All SMS messages in the Inbox or Outbox that have been identified as spam (highlighted in yellow; Figure 11).

![Figure 11: Sample ‘SMS Reports’ page from the Ushahidi platform.](image)

SMS Message Inbox/Outbox Actions:

- **To delete an SMS Message**: On the right side of a message entry, click on ‘Delete’ (highlighted in red; Figure 12).

- **To delete multiple SMS messages**:
  1. Check the box associated with each message you wish to delete (highlighted in blue; Figure 12), or check the box in the banner to highlight all messages (highlighted in green; Figure 12).
  2. Once all of the messages have been checked, click ‘Delete’ (highlighted in yellow; Figure 12).
To categorize SMS Messages as Spam:
1. Check the box associated with each message you wish to change (highlighted in blue; Figure 12), or check the box in the banner to highlight all messages (highlighted in green; Figure 12).

2. Once all of the messages have been checked, click ‘Spam’ (highlighted in purple; Figure 12).

To categorize SMS Messages as Not Spam:
1. Check the box associated with each message you wish to change (highlighted in blue; Figure 12), or check the box in the banner to highlight all messages (highlighted in green; Figure 12).

2. Once all of the reports have been checked, click ‘Not Spam’ (highlighted in black; Figure 12).

To create a report from an SMS Message:
1. Click on ‘Create a Report?’ in the message you wish to generate a report about (highlighted in orange; Figure 12). If instead of ‘Create a Report’ there is ‘View Report’ it means that a report has already been generated.

2. The ‘New Report’ page will have opened and information from the SMS will already have been imported into the body of the report. For instructions on how to complete the rest of the form, see the previous section on Creating Reports.

To reply to an SMS Reporter:
1. Click on the ‘+Reply’ hyperlink at the bottom of each message (red arrows; Figure 12) to open a drop-down menu (Figure 13).
2. Use the message field (highlighted in red; Figure 13) to compose a reply message (must be 160 characters or less). Pre-set messages asking for the Reporter’s location or for more information are found just above the message field (highlighted in green; Figure 13).

3. When the message is complete, click on ‘Send’ (highlighted in blue; Figure 13) to transmit the message to the Reporter.

Figure 13: Sample ‘SMS Message Reply’ window from the Ushahidi platform.

SMS Reporter Actions:

Anyone who has ever sent an SMS message to the platform is known as a Reporter.

- **To access and edit an SMS Reporter’s information:** From the main SMS Messages page, click on the SMS source number (highlighted in magenta; Figure 12) to access information on a specific Reporter. To view a list of all Reporters click on the ‘Reporters’ hyperlink (highlighted in teal; Figure 12).

- **To delete an SMS Reporter:** Click on ‘Delete’ on the right side of the Reporter entry (highlighted in green; Figure 14)

Figure 14: Sample ‘SMS Reporter’ page from the Ushahidi platform.
To delete multiple SMS Reporters:
1. Check the box associated with each Reporter you wish to delete (highlighted in yellow; Figure 14), or check the box in the banner to highlight all reports (highlighted in purple; Figure 14).
2. Once all of the Reporters have been checked, click ‘Delete’ in the task bar above (highlighted in black; Figure 14).

To change the status (level) of an SMS Reporter:
1. Click on ‘Edit’ on the right side of the Reporter entry (highlighted in red; Figure 14) you wish to change.

2. In the Edit window that opens (Figure 15), click on the pull-down menu (highlighted in red; Figure 15) and choose which level to set the Reporter to. Choices include:
   - ‘Trusted & Verify’
   - ‘Trusted’
   - ‘Untrusted’
   - ‘Spam’
   - ‘Spam & Delete’

3. Click on ‘Save’ (highlighted in blue; Figure 15).

Figure 15: Sample ‘SMS Reporter Edit’ page from the Ushahidi platform.
To change the status (level) of multiple SMS Reporters:
1. Check the box associated with each Reporter you wish to change (highlighted in yellow; Figure 14), or check the box in the banner to highlight all Reporters (highlighted in purple; Figure 14).
2. Once all of the Reporters have been checked, choose one of the statuses (‘Spam+Delete’, ‘Spam’, ‘Untrusted’, ‘Trusted’, or ‘Trusted + Verify’) from the banner (highlighted in black; Figure 14) to change all of the selected Reporters to that new status.
3. At the confirmation pop-up window, click OK to proceed (not shown).

To set the location of an SMS Reporter:
1. Click on ‘Edit’ on the right side of the Reporter entry (highlighted in red; Figure 14).
2. In the Edit window that opens (Figure 15), enter the Reporter location information into the ‘Location’, ‘Latitude’, and ‘Longitude’ fields (highlighted in green; Figure 15) –OR– left-click on the map to auto-fill these fields.
3. Click on ‘Save’ (highlighted in blue; Figure 15).

To view all messages sent from a single Reporter: Click on the ‘View Messages’ hyperlink (highlighted in blue; Figure 14).

To search for a Reporter:
1. In the text field (highlighted in orange; Figure 14), enter text that would be associated with the reporter you’re trying to identify (e.g., name, phone number, etc.).
2. Use the pull-down menu to the right (highlighted in magenta; Figure 14) to narrow down the search between ‘SMS’, ‘Twitter’, or ‘Email’. Choose ‘All’ to search across all message types.
3. Click on ‘Search’ (highlighted in teal; Figure 14) to begin the search. The result will then appear as a list of Reporters beneath the search bar.

Email Messages

The preset email address number for this Ushahidi platform is ______________ (see Settings section to change). NOTE: Messages will not be displayed publicly until they have been processed into reports and approved.

To access the Email messages page:
1. Click on ‘Messages’ (highlighted in red; Figure 16)

2. Click on ‘Email’ (highlighted in green; Figure 16)

Email messages in the inbox are sortable by clicking on the following categories:

- **All**: Every incoming Email message (highlighted in blue; Figure 16), including:
  - Messages that have been transformed into reports but not approved
  - Messages that yet have to be processed and transformed into reports
  - Messages that have been already processed as reports and approved and displayed on the map

- **Trusted**: Email messages that have been sent from trusted reporters (highlighted in purple; Figure 16) [see Reporters section below for details].

- **Spam**: All Email messages in the *Inbox* or *Outbox* that have been identified as spam (highlighted in yellow; Figure 16).

![Image of Ushahidi platform]

Figure 16: Sample ‘Email Reports’ page from the Ushahidi platform.

Email Message Actions:

- **To delete an Email Message**: On the right side of a message entry, click on ‘Delete’ (highlighted in red; Figure 17).

- **To delete multiple Email messages**:
  1. Check the box associated with each message you wish to delete (highlighted in blue; Figure 17), or check the box in the banner to highlight all message (highlighted in green; Figure 17).
2. Once all of the reports have been checked, click ‘Delete’ (highlighted in yellow; Figure 17).

- **To categorize Email Messages as Spam:**
  1. Check the box associated with each message you wish to change (highlighted in blue; Figure 16), or check the box in the banner to highlight all messages (highlighted in green; Figure 17).

- To categorize Email Messages as Not Spam:
  1. Check the box associated with each message you wish to change (highlighted in blue; Figure 16), or check the box in the banner to highlight all messages (highlighted in green; Figure 17).
  2. Once all of the messages have been checked, click ‘Not Spam’ (highlighted in black; Figure 17).

- **To create a report from an Email Message:**
  1. Click on ‘Create a Report?’ in the message you wish to generate a report about (highlighted in orange; Figure 17). If instead of ‘Create a Report’ there is ‘View Report’ it means that a report has already been generated.

  2. The ‘New Report’ page will have opened and information from the Email will already have been imported into the body of the report. For instructions on how to complete the rest of the form, see previous instructions on Creating Reports.

![Email Reports page from the Ushahidi platform](image)

*Figure 17: Sample ‘Email Reports’ page from the Ushahidi platform.*
Email Reporter Actions:

Anyone who has ever sent an Email message to the platform is known as a Reporter.

- **To access and edit an Email Reporter's information:** From the main Email Messages page, click on the Email address (highlighted in magenta; Figure 16) to access information on a specific Reporter. To view a list of all Reporters click on the ‘Reporters’ hyperlink (highlighted in teal; Figure 17).

- **To delete an Email Reporter:** Click on ‘Delete’ on the right side of the Reporter entry (highlighted in green; Figure 18)

- **To delete multiple Email Reporters:**
  1. Check the box associated with each Reporter you wish to delete (highlighted in yellow; Figure 18), or check the box in the banner to highlight all reports (highlighted in purple; Figure 18).

  2. Once all of the Reporters have been checked, click ‘Delete’ in the task bar above (highlighted in black; Figure 18).

- **To change the status (level) of an Email Reporter:**
  1. Click on ‘Edit’ on the right side of the Reporter entry (highlighted in red; Figure 18) you wish to change.

  2. In the Edit window that opens (Figure 19), click on the pull-down menu (highlighted in red; Figure 19) and choose which level to set the Reporter to. Choices include:
     - ‘Trusted & Verify’
     - ‘Trusted’
     - ‘Untrusted’
     - ‘Spam’
     - ‘Spam & Delete’

  3. Click on ‘Save’ (highlighted in blue; Figure 19).

- **To change the status (level) of multiple Email Reporters:**
  1. Check the box associated with each Reporter you wish to change (highlighted in yellow; Figure 18), or check the box in the banner to highlight all Reporters (highlighted in purple; Figure 18).

  2. Once all of the Reporters have been checked, choose one of the statuses (‘Spam+Delete’, ‘Spam’, ‘Untrusted’, ‘Trusted’, or ‘Trusted + Verify’) from the banner (highlighted in black; Figure 18) to change all of the selected Reporters to that new status.

  3. At the confirmation pop-up window, click OK to proceed (not shown).
To set the location of an Email Reporter:
1. Click on ‘Edit’ on the right side of the Reporter entry (highlighted in red; Figure 18).

2. In the Edit window that opens (Figure 19), enter the Reporter location information into the ‘Location’, ‘Latitude’, and ‘Longitude’ fields (highlighted in green; Figure 19) –OR– left-click on the map to auto-fill these fields.

3. Click on ‘Save’ (highlighted in blue; Figure 19).

To view all messages sent from a single Reporter: Click on the ‘View Messages’ hyperlink (highlighted in blue; Figure 18).

To search for a Reporter:
1. In the text field (highlighted in orange; Figure 18), enter text that would be associated with the reporter you’re trying to identify (e.g., name, phone number, etc.).

2. Use the pull-down menu to the right (highlighted in magenta; Figure 18) to narrow down the search between ‘Email’, ‘Twitter’, or ‘Email’. Choose ‘All’ to search across all message types.

3. Click on ‘Search’ (highlighted in teal; Figure 18) to begin the search. The result will then appear as a list of Reporters beneath the search bar.

Figure 18: Sample ‘Email Reporter’ page from the Ushahidi platform.
Twitter Messages (Tweets)

The preset Twitter handle (name) this Ushahidi platform is ______________ (see Settings section to change). NOTE: Messages will not be displayed publicly until they have been processed into reports and approved.

To access the Twitter messages page:

1. Click on ‘Messages' (highlighted in red; Figure 20)
2. Click on ‘Twitter' (highlighted in green; Figure 20)

Tweets in the inbox are sortable by clicking on the following categories:

- **All** - Every incoming Twitter message (highlighted in blue; Figure 20), including:
  - Messages that have been transformed into reports but not approved
  - Messages that yet have to be processed and transformed into reports
  - Messages that have been already processed as reports and approved and displayed on the map

- **Trusted** - Tweets that have been sent from trusted reporters (highlighted in purple; Figure 20) [see Reporters section below for details].
- **Spam** – All Tweets in the *Inbox* or *Outbox* that have been identified as spam (highlighted in yellow; Figure 20).

![Sample ‘Twitter Reports’ page from the Ushahidi platform.](image)

**Figure 20:** Sample ‘Twitter Reports’ page from the Ushahidi platform.

Twitter Message (Tweet) Actions:

- **To delete a Tweet:** On the right side of a message entry, click on ‘Delete’ (highlighted in red; Figure 21).

- **To delete multiple Tweets:**
  1. Check the box associated with each message you wish to delete (highlighted in blue; Figure 21), or check the box in the banner to highlight all messages (highlighted in green; Figure 21).

  2. Once all of the reports have been checked, click ‘Delete’ (highlighted in yellow; Figure 21).

- **To categorize Tweets as Spam:**
  1. Check the box associated with each message you wish to change (highlighted in blue; Figure 21), or check the box in the banner to highlight all messages (highlighted in green; Figure 21).

  2. Once all of the reports have been checked, click ‘Spam’ (highlighted in purple; Figure 21).

- **To categorize Tweets as Not Spam:**
  1. Check the box associated with each message you wish to change (highlighted in blue; Figure 21), or check the box in the banner to highlight all messages (highlighted in green; Figure 21).
2. Once all of the messages have been checked, click ‘Not Spam’ (highlighted in black; Figure 21).

![Figure 21: Sample ‘Twitter Reports’ page from the Ushahidi platform.]

- **To create a report from an Tweets:**
  1. Click on ‘Create a Report?’ in the message you wish to generate a report about (highlighted in orange; Figure 22). If instead of ‘Create a Report’ there is ‘View Report’ it means that a report has already been generated.

  2. The ‘New Report’ page will have opened and information from the Twitter will already have been imported into the body of the report. For instructions on how to complete the rest of the form, see previous section on Creating Reports.

**Twitter Reporter Actions:**

Anyone who has ever sent Tweets to the platform is known as a Reporter.

- **To access and edit a Twitter Reporter’s information:** From the main Tweets page, click on the Twitter address (highlighted in magenta; Figure 20) to access information on a specific Reporter. To view a list of all Reporters click on the ‘Reporters’ hyperlink (highlighted in teal; Figure 20).

- **To delete an Twitter Reporter:** Click on ‘Delete’ on the right side of the Reporter entry (highlighted in green; Figure 21)

- **To delete multiple Twitter Reporters:**
  1. Check the box associated with each Reporter you wish to delete (highlighted in yellow; Figure 21), or check the box in the banner to highlight all reports (highlighted in purple; Figure 21).
2. Once all of the Reporters have been checked, click ‘Delete’ in the task bar above (highlighted in black; Figure 21).

- **To change the status (level) of an Twitter Reporter:**
  1. Click on ‘Edit’ on the right side of the Reporter entry (highlighted in red; Figure 21) you wish to change.
  2. In the Edit window that opens (Figure 22), click on the pull-down menu (highlighted in red; Figure 22) and choose which level to set the Reporter to. Choices include:
     - ‘Trusted & Verify’
     - ‘Trusted’
     - ‘Untrusted’
     - ‘Spam’
     - ‘Spam & Delete’
  3. Click on ‘Save’ (highlighted in blue; Figure 22).

- **To change the status (level) of multiple Twitter Reporters:**
  4. Check the box associated with each Reporter you wish to change (highlighted in yellow; Figure 21), or check the box in the banner to highlight all Reporters (highlighted in purple; Figure 21).
  5. Once all of the Reporters have been checked, choose one of the statuses (‘Spam+Delete’, ‘Spam’, ‘Untrusted’, ‘Trusted’, or ‘Trusted + Verify’) from the banner (highlighted in black; Figure 21) to change all of the selected Reporters to that new status.
  6. At the confirmation pop-up window, click OK to proceed (not shown).

- **To set the location of an Twitter Reporter:**
  1. Click on ‘Edit’ on the right side of the Reporter entry (highlighted in red; Figure 22).
  2. In the Edit window that opens (Figure 23), enter the Reporter location information into the ‘Location’, ‘Latitude’, and ‘Longitude’ fields (highlighted in green; Figure 23) —OR— left-click on the map to auto-fill these fields.
  3. Click on ‘Save’ (highlighted in blue; Figure 23).

- **To view all messages sent from a single Reporter:** Click on the ‘View Messages’ hyperlink (highlighted in blue; Figure 22).

- **To search for a Reporter:**
1. In the text field (highlighted in orange; Figure 22), enter text that would be associated with the reporter you’re trying to identify (e.g., name, phone number, etc.).

2. Use the pull-down menu to the right (highlighted in magenta; Figure 22) to narrow down the search between ‘Twitter’, ‘Twitter’, or ‘Twitter’. Choose ‘All’ to search across all message types.

3. Click on ‘Search’ (highlighted in teal; Figure 22) to begin the search. The result will then appear as a list of Reporters beneath the search bar.

Figure 22: Sample ‘Twitter Reporter’ page from the Ushahidi platform.

Figure 23: Sample ‘Twitter Reporter Edit’ page from the Ushahidi platform.
Playbook Directory

This Playbook is one of a series of Playbooks designed to cover the technical breadth of the NPS-DHS Earthquake Response Project. Each Playbook describes one series of products and its use. These Playbooks can be printed, transmitted electronically as Portable Document Format (PDF) documents, or stored locally on existing emergency management networks, workstations, or mobile devices. The following summarizes the individual Playbooks developed as part of this project and available to emergency responders. See the listed Playbook for specifics and details.

Playbook#RSC-01: NPS-DHS Remote Sensing Project/Products Overview
  Playbook documenting project and scope and big picture for other Playbooks

Playbook#RSC-02: Monterey County Baseline Products and Pre-Event Data Processing
  Playbook documenting baseline data, preprocessing, use/analysis of basic products

Playbook#RSC-03: Monterey (City) Infrastructure Products
  Critical Infrastructure data (location, description, pre-event photos, geolocated imagery frames and metadata)

Playbook#RSC-04A: Airborne Imagery Change Detection Products (SDSU)
  Monterey baseline imagery of critical infrastructure, Camp Roberts imagery, and selected change detection example products. Full-Resolution NEOS imagery

Playbook#RSC-04B: NOAA Night Lights/Power Change Detection and Fire Detection Products
  Night lights/power and fire detections (NOAA)

Playbook#RSC-05A: Social Networking Products (Ushahidi)
  Ushahidi implementation and instructions for Monterey City/County

Playbook#RSC-05B: Social Networking Products (Twitter)
  Twitter implementation and instructions for Monterey City/County

Playbook#RSC-06: Mobile Application Damage Assessment Product
  Lighthouse damage assessment application download, install, configure, execute

Playbook#RSC-07: Post Event Processing Scenarios Products
  LiDAR DEM, DSM, derived products, NAIP/WV-2 Change Detection Examples

Playbook#RSC-08: Soft and Hardcopy Output Products and Distribution
  GeoPDF Products, Monterey Map Books, w/National Grid Index, PDF and Printed

Playbook#RSC-09: Common Operating Picture (COP) Products
  Sensor Island Common Operating Picture, UICDS to WebEOC Link

Playbook#RSC-10: Systems Integration, Transition, and Training
  Hardware/Software Installation Details, Coordination, and Integration
Additional Tools and Non-Operational Instructions

Stats

The statistics section allows you to see detailed information about the reports that have been submitted and the users of the Ushahidi platform. The statistics page has a toolbar which allows Admins to access the following pages:

- Visitor Summary
- Country Breakdown
- Report Stats
- Category Impact
- Report Punchcard

Visitor Summary

The Visitor Summary shows information about the users of the Ushahidi page (Figure 1). Visitor information tracks:

- **Unique visitors** - number of individuals coming to your instance; Unique Visitors are determined using cookies. In the case that a visitor does not have cookies enabled they will be identified using a simple heuristic taking into account IP address, resolution, browser, plugins, OS, etc.
- **Visits** - record of a unique visitor coming to the site more than 30 minutes past his/her last page view.
- **Page Views** - the total number of pages that visitors have viewed on your site.

Visitor information is available over time as well and allows the Administrator to see only the statistic for a predefined interval of time by inserting the dates in the appropriate fields, or by clicking on the date range buttons, which allows you to choose an interval of 1 month, three months or six months. Under the main graph it is possible to see the list of days with the indication of how many unique visitors, visits or page views per day and the percentage.
Country Breakdown

This section shows the countries where the IP addresses of those suing this Ushahidi platform are located (Figure. 2). Country information is available over time and allows the Admin to see only the statistic referred to a predefined interval of time by inserting the dates in the opposite fields, or by clicking on the date range buttons, which allows you to choose an interval of one, three, or six months.

The countries that have the higher number of visitors are highlighted in red on the map, while under the map there is the list if the countries with the numbers of unique visitors, visits or page views per day per country and the percentage over the total views.
1.5.3 Report Stats

The Report Stats page shows the breakdown of reports on a pie chart, according to three criteria (Figure 3):

- Category
- Verified / Not verified
- Approved / Not approved

Statistical information on reports submitted is also available over time and allows the Admin to see only the statistic referred to a predefined interval of time by inserting the dates in the opposite fields, or by clicking on the date range buttons, which allows you to choose an interval of one, three, or six months. A table on the right of the chart indicated the number of reports visualized in the chart and the categories or the verified reports, or the approved reports visualized in the chart.
The Category Impact page allows an Administrator to view a time series of reports by category (Figure 4). By moving from the left to the right it is possible to see a comparative view of the different categories, while passing the mouse over the category itself, the name of the category and the number of the report submitted in that period of time will appear on the top of the graph.

Statistical information on the reports submitted is available over time as well and allows the Administrator to see only the statistic referred to over a predefined interval of time by inserting the dates in the opposite fields, or by clicking on the date range buttons and choosing an interval of one, three, or six months.
Report Punchcard

The Report Punchcard is a visual representation of the daily frequency of events (Figure 5). The x-axis represents time of day while the y-axis represents day of the week. The size of the dot corresponds to the number of reports submitted.
**Administration/Settings**

**Website**

1. **Site Name**: This is the name of the site that appears at the top of the main site.
2. **Site Tagline**: Brief description of what the platform represents or what it intends to monitor or show.
3. **Site Banner**: Uploaded image that acts as the site banner and which shows up at the top of the front end of the site (if the theme supports it). Use the ‘Choose File’ button to select a file to upload.
4. **Site Email Address**: This is the email address that will be shown in the Information Box on the home page, which is the one that users will use to email you information or reports. This email address will be publicly displayed on the website, so it is recommended that you create an email address specifically for this, and not to use a personal one.
5. **Site Message**: The Site Message is an optional message that you can add on the top of your user page and that can be used for different purposes: you can use it to advertise your short code, if you have one; to put a disclaimer of responsibility, or anything else you want to let people know straightforward. Leaving the box blank will remove the text box from the website.
6. **Site Copyright Statement**: The Copyright message is where you let your users know what kind of copyright license your platform submitted is under. The message will appear on the bottom of the homepage.
7. **Submit Report Message**: This is a message that will show up on the submit report page. This is good for disclaimers of further instructions for your visitors who are reporting.
8. **Site Language**: Here is where you decided the language (locale) for your Ushahidi platform.
9. **Time Zone**: This is the Time Zone that your site will operate on. This has an impact on any actions you have set up that utilize time and date, as well as the default current time for reports on the front and back end of the site.
10. **Display Contact Page**: Here is where you can decide to have the Contact page in the main Toolbar in the homepage. If “No” is selected, the page will not be available for users to contact the Administrators of the Platform, but they will still be able to send emails to the address showed on the homepage if configured.
11. **Items per Page – Front End**: This is where you can choose how many items will be displayed in the pages opened by the user, such as the Reports page or the News Feeds page.
12. **Items per Page – Admin**: This is where you can choose how many items will be displayed in the Admin page, like the Reports page or the Message page.

13. **Block per Row**: You can decide to have the Submit Reports in the main toolbar on the homepage to allow users to submit report using the online form. If the NO is selected, the page will not be available for users to submit reports directly online, but they will still be able to send emails to the address showed on the homepage or to send SMS if configured.

14. **Allow Users to Submit Reports**: You can decide to have the Submit Reports in the main toolbar on the homepage to allow users to submit report using the online form. If the NO is selected, the page will not be available for users to submit reports directly online, but they will still be able to send emails to the address showed on the homepage or to send SMS if configured.

15. **Allow Users to Subscribe for Alerts**: Allow users to subscribe to alerts via the web.

16. **Alert Email Address**: Email address that will be used to send email alerts.

17. **Allow Users to Submit Comments to Reports**: Here is where you can decide to have the Comments function in the Report page. If “no” is selected, the users will not be able to submit comments on reports uploaded in the Ushahidi platform.

18. **Include RSS News Feed on Website**: This is where you can decide if you want to have the RSS Feeds Box displayed on the homepage.

19. **Enable Statistics (Stored on Ushahidi's Server)**: Hit statistics are stored on a server controlled by Ushahidi. By enabling this option, you gain access to hit statistics directly in your Admin panel. By disabling it, you will stop collecting statistics and will be unable to recover traffic stats collected while this is turned off.

20. **Cache Pages**: The Administrator may decide whether to cache pages and reports on the website, speeding up loading time. This is particularly helpful when working with low-bandwidth audiences.

21. **Cache Page Lifetime**: If caching is enabled, here the Administrator may set how long the pages are cached before users visiting pages on the website should be served a new version of the page rather than the cached version saved on their personal computer.

22. **Private Deployment**: Setting this value to "yes” will make your deployment private so only users with accounts that you specify will be able to access the deployment.

23. **Manually Approve Users**: If set to “yes”, individual users who create an account on the site must be approved and assigned a role (i.e., Member, Admin, SuperAdmin).

24. **Require User Email Confirmation**: Users will be emailed with a confirmation link to click before they are allowed to log into the deployment if this is set to “yes”.

25. **Enable Checkins**: This setting enables checkins on your deployment. This is a simplified report type that is not moderated before it goes on the homepage and requires your site to be configured a certain way.

26. **Google Analytics**: This function allows the Administrator to sync the platform with Google Analytics by inserting the proper ID.

27. **Twitter Search Terms**: This tab allows you to enter the Twitter hashtags connected with the platform. It is possible to choose more than one hashtag, separated by a comma. It is recommended that a short and clear hashtag be chosen. This hashtag will also appear on the Information Box on the homepage so that people can use it to post on Twitter messages related to your platform. All the twitter messages that will be posted on line with the hashtag(s) inserted here will also appear in the Admin
page on the Messages section/Twitter so that they can be transformed into reports directly by the Admin.

28. **Akismet Key:** The Akismet Key allows the Administrator to have Akismet pre-screening the messages coming in to look for spam. To be able to use this function the Administrator needs to be registered for a WordPress account and get a free API key.

**Map**

The default base map for the Ushahidi platform is a Google Map of Kenya. To change the map and have it set on another country, and to set up which base map to be displayed and how, you can click on the Map tab on the Settings page (Figure 7).

The Map Setting page has three main components:

- **Default Location** – Here is where you can set up the country that you want your map to display in the homepage. The scroll down menu allows you to select a country. Below the scroll down menu you can set up your Ushahidi platform to include different countries and you can also retrieve cities from geo-names to have them displayed in the scroll down menu in your report form.
- **Map Timeline** – This shows the timeline based on the date and time reports were submitted.
- **Map provider** – This pull-down menu allows you to select which type of base map you want for your project.
- **Cluster Report on Map** – This allows bundling of similar reports into as single dot on the map.
- **Default color for all categories** – Set one color code for all the categories on the site.
- **Default Icon for all Categories** – Set one icon for all categories on the site.
- **Configure Map** – This section of the Map page allows you to choose the default zoom of the map appearing in the main homepage. To choose the default zoom level, move the indicator on the bar and wait for image below to show the map relative to that zoom level. Once the zoom level has been chosen no other action is required other than to leave the marker on the right position in the bar. On the right side of the zoom level bar there are two boxes indicating the GPS coordinates of the red marker in the map. This is where the red marker will appear to the user who is submitting a report from the web form, and can be set to the main city of the country for example, or left as default in the center of the country. Note that a user who subsequently submits a report will not be constrained to the exact location of the default marker. To change the default location of the marker, insert the GPS coordinates in the two boxes in decimal format. Those two actions, setting the zoom level and the position of the red marker, can be done also just by using the mouse and clicking on the map. It is possible to position the red marker by double clicking on the right location. By grabbing the map and moving it, you can decide which section of the map will be
visible to the user on the homepage. Changes to the map page can be saved by clicking on “Save Settings” tab on the bottom of the page.

Figure 7: Sample ‘Map’ page from the Ushahidi platform

**SMS**

This page of the Settings allows you to write the phone numbers that you have set up for your platform to receive SMS messages from users (Figure 8). We will explain here how to set up your phone numbers providers.

There are three possible ways to set up the Ushahidi platform to receive SMS directly into the platform:

1. Using FrontlineSMS
2. Using an SMS Gateway like Clickatel
3. Using a Short Code

Those three methods have significant differences and require additional investment in terms of PHP skills, economical resources and time.
Using FrontlineSMS is easy and fast. FrontlineSMS is free and open source and it is possible to download it from their website. The software allows for sending and receiving SMS by just having a computer and a laptop, or a computer and a GSM modem connected to it. You do not need to have Internet connection to use FrontlineSMS. The Ushahidi platform already has step-by-step instruction on how to sync it with the Ushahidi platform. The SMS Gateway is also easy to set up. This does require a bit of money because it is necessary to buy a local, 12-digit number within the country you’re focusing on, or a short code (normally 4 digits). The advantage of using an SMS gateway is that you don’t need to have a phone connected to the computer but you normally pay a monthly charge for the number and an activation fee. The Ushahidi platform already has step-by-step instructions on how to sync it – see below.

Setting up an SMS short code is often the most effective way to use SMS with the Ushahidi platform. This is because a 3-5 digits number is a lot easier to remember and to advertise. That said, getting a short code could be a challenge because you need to obtain an agreement with the mobile companies. The short code can be synced with the Ushahidi platform but this does require having a PHP developer to set up. One advantage of using short codes is that you don’t need Internet connection, mobile phones, or GSM modem.

Option 1: Use FrontlineSMS

To configure FrontlineSMS as your SMS system in the Ushahidi platform you need to go to Addons section in the main toolbar, activate the FrontlineSMS plugin and click on “Settings” on the site of the Plugin name. This page will give you a step-by-step guide to sync the Ushahidi platform with FrontlineSMS.

Step 1: Download and install FrontlineSMS on your computer. Open the program and check that the software is able to see the phone or modem connected to it. This process may require a couple of minutes. We suggest you test it by sending and receiving a couple of SMS text messages from your FrontlineSMS software.

Step 2: In the Admin section of your Ushahidi installation, click on the settings link on the right hand side, and then select the SMS tab. In this section click on Option 1: Use FrontlineSMS. Remember that this is only for outgoing messages.

Step 3: Enter the phone numbers you have connected to FrontlineSMS then copy the “FrontlineSMS HTTP Post LINK” provided.

Step 4: In FrontlineSMS, open the Keywords tab, select the "<BLANK>" keyword in the list on the left. Please note that with new version of FrontlineSMS "<BLANK>" has been renamed to "<NONE>". Next, click on the “click here to go to advanced view” link on the right below the “Keyword Actions” section. At the bottom of the screen, click on “Auto Reply” and in the menu that pops up select the “External Command” option, then click the edit button to the immediate right.
Step 5: In the window that opens, select “HTTP Request” as the execution type, paste the URL you copied from your Ushahidi deployment above into the command text field that is in the “Execution Details” section and select the “Do Not Wait For Response” button. Leave all the other fields untouched.

Step 6: Click on “Done” and that is it, any SMS messages sent to FrontlineSMS will also be forwarded to the Admin page of your Ushahidi platform. Keep in mind that FrontlineSMS will not retry the HTTP Request if it fails for whatever reason. This means that any SMS messages that come into FrontlineSMS while your Internet connection is down will not be automatically forwarded to your Ushahidi deployment. For a quick fix to this (while the FrontlineSMS programmers are sorting out the issue), have a look at the Ushahidi Wiki. Remember that your phone may freeze occasionally or the connection to the phone may be lost, so you need to keep an eye out for this and restart the phone and/or the computer to fix this.

Option 2: Use a Global SMS Gateway

To configure Clickatell as your SMS system in the Ushahidi platform you need to go to Addons section in the main toolbar, activate the Clickatell plugin and click on “Settings” on the site of the Plugin name.

Step 1: Sign up for Clickatell service by following the link on the page and get an API key.

Step 2: Go back to the Ushahidi SMS page and enter your Clickatell API number that you received after signing up for Clickatell service.

Step 3: Enter your Clickatell Username.

Step 4: Enter your Clickatell Password. You should get it from Clickatell

Step 5: Click on Save Settings button to save the entries.

The Clickatell plugin will allow you to use Clickatell for outgoing messages (like the SMS alerts system). If you want to use Clickatell also to receive SMS messages, you need a 2-way number from Clickatell, but once you have it you need to make some changes in the Ushahidi code to make this work for you. Please see the Ushahidi Wiki for instructions on how to do this.
Email

This page is where you can set up the email settings to be able to receive emails from users (Figure 9). To do so, you must have an email account already set up with Google, Yahoo or another domain.

1. Mail Server Username - This is where you can enter the email address you want to use to receive and send emails. It is recommended to set up a separate email address for this purpose, preferably one that has lots of available space to avoid the account getting full in a short time, especially if the platform will be receiving a lot of submission via email.

2. Mail Server password - In this section you should put the password of the email account inserted above.

3. Mail Server Port - In this box you have to put the port that the email account chosen uses for incoming emails. This port is normally listed in the settings of the email account itself, and under the box there are some suggestions for the most common ports used.

4. Mail Server Host - This is where you need to insert the mail server host. Under the box there are several suggestions on what those hosts can be. To verify which Mail server host you have, please look at the Settings page of your email account.
5. Mail Server Type - Here is where you can insert the server type. The most common used are POP3 and IMAP, but again, the settings page of the email account chosen will list the correct server type.

6. Mail Server SSL Support - In this box you should insert the data related the support of SSL from the server you are using for his email account. This information too is available in the setting page of the email account in use. Now you can just save the settings by clicking on the “Save Settings” tab, and all the data inserted will be saved. Every time something will be changed in those settings you need to click again on the “Save Settings” tab to have those changes saved. It is suggested to test the settings every time something is changed in this page to be sure that the new account is working properly.

![Mail Server Settings](image)

**Figure 9**: Sample ‘Email’ page from the Ushahidi platform.
Applications with an Application Programming Interface (API) are fairly common these days. Ushahidi’s API allows for other online tools to securely access incident reports and application settings such as locations and categories via an API key.

While this is a fairly technical process, the settings here are fairly straightforward: you may limit the amount of calls other tools may make to the system, generally or specifically by using IP address (Figure 10).

Logs showing the IP address of those API’s accessing your Ushahidi platform are available simply by clicking the ‘API Logs’ tab (Figure 11). Specific IP addresses can be banned using the ‘Ban IP’ link on the right side of the log entries.
A list of banned IP addresses can be accessed by clicking the ‘API Banned tab (not shown). Specific IP addresses can be banned using the ‘Ban IP’ link on the right side of the log entries.

**Facebook**

This page allows an Administrator to integrate an existing Facebook application with the Ushahidi platform (Figure 12).

![Figure 12: Sample ‘Facebook Setup Options’ page from the Ushahidi platform.](image)

**External Apps**

This page shows an Administrator which external applications are currently allowed to integrate with the Ushahidi platform (Figure 13). The default supported applications are the Android and iOS platforms, but other apps can be added using the ‘Add’ button above the list.

![Figure 13: Sample ‘External Apps’ page from the Ushahidi platform.](image)
Manage

Categories

The Categories page is where the categories of the reports can be set up (Figure 14). The default Ushahidi page has default categories set up which can be deleted and substituted with the ones chosen by the Administrator of the project. The categories list shows the name of the category, the description below the name, the color of the category on the side or the icon and on the far end of the raw the actions that could be done: Edit, Visible, and Delete. To delete a category just click on the Delete tab and a confirmation message will appear: by confirming the action the category will be permanently deleted.

To edit a category click on the Edit tab, and the characteristic of the selected category will appear on the far end of the page, in the section called Add/Edit. It’s possible to change the name of the category, the description, the color, the parental relationship with other categories and icon. Click on Save to save the new characteristic of the category. To create a new category fill the boxes in the Add/Edit section and then save the settings. It is also possible to do this by clicking on the Add New tab on the side of the Category tab on the Toolbar. All the fields are required except for the Icon one.

The Parental Category tab allows you to create sub-categories: if left on “Top Level Category” the category will be a main one, and be shown as such in the homepage under all categories. If you want to create a sub-category, you need to select in the scroll down menu the Top Category under which you want to add as sub-category. The sub-categories will not show up in the category list on the homepage automatically, but only when the user selects the Top Level Category under which the sub-one is listed. You can add as many categories or sub-categories as you wish, but only one level of subcategory is allow. The Ushahidi platform will list the categories in alphabetical order: to choose a different order, add a number in front of the category name, or a letter, and the system will automatically order the numbers/letters in ascendant order. After having inserted, deleted or edited the categories on this page, the changes can be saved clicking on the Save tab at the bottom of the page.
<table>
<thead>
<tr>
<th>Category</th>
<th>Color</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Infrastructure</td>
<td></td>
<td>Edit</td>
</tr>
<tr>
<td>Damaged Critical Infrastructure Reports</td>
<td></td>
<td>Visible</td>
</tr>
<tr>
<td>Citizen Reports</td>
<td></td>
<td>Edit</td>
</tr>
<tr>
<td>Reports from the field details infrastructure damage</td>
<td></td>
<td>Visible</td>
</tr>
<tr>
<td>Trusted Reports</td>
<td></td>
<td>Edit</td>
</tr>
<tr>
<td>Reports from trusted reporters</td>
<td></td>
<td>Visible</td>
</tr>
<tr>
<td>Fire Reported</td>
<td></td>
<td>Edit</td>
</tr>
<tr>
<td>Reports of a fire sighted</td>
<td></td>
<td>Visible</td>
</tr>
<tr>
<td>CERT Report</td>
<td></td>
<td>Edit</td>
</tr>
<tr>
<td>For CERT use only</td>
<td></td>
<td>Visible</td>
</tr>
<tr>
<td>Hazmat Report</td>
<td></td>
<td>Edit</td>
</tr>
<tr>
<td>Hazardous Materials Report</td>
<td></td>
<td>Visible</td>
</tr>
<tr>
<td>Category 1</td>
<td></td>
<td>Edit</td>
</tr>
<tr>
<td>test</td>
<td></td>
<td>Visible</td>
</tr>
</tbody>
</table>

*Figure 14: Sample ‘Categories’ page from the Ushahidi platform.*
Blocks

This page offers two simple options (Figure 15). Recall that on the main Ushahidi webpage there was a Reports List (bottom left) and an Official & Mainstream News box (bottom right). This page provides the option (on the right side) to either make these boxes visible or remove them from the public face of Ushahidi.

![Sample ‘Blocks’ page from the Ushahidi platform.](image)

Forms

The Forms page allows you to change the page where users fill in their reports after clicking on the “Submit a Report” tab (Figure 16). This form is set as default with a predefined number of fields, but it is possible to add other forms (surveys) or to edit the default one. The default form can be Edited, Deleted or made Inactive by clicking on one of the tabs at the end of the row. The fields of the default forms can be edited also by clicking on the Edit Form Fields tab on the side of Default Form.
Editing the existing form:

Click on Edit Form Fields to have a tab appear on the bottom, just above the Create/Edit Field, called Add New Field (Figure 17). Click on this tab and a box will appear, allowing you to create a new field in the default form. To add a new field you first need to decide if the field will be a Text Area Field, which means that the user can insert free text in it, or a preselected Field, which means that specific text has to be inserted – like for example only a number. As a second step you have to insert the Field Name, which indicates what information is required in that specific field, and then the default value required has to be inserted in the second box on the side of the Field Name box – if left blank it will allow everything to be inserted in the new field. In addition to this, you can decide if the new field will be required, meaning that the users inserting the report will not be allowed to send the report until they fill that particular box, and also decide a limit of characters allowed for that specific field and if it is a data field or not. Once done, click on the Save tab to have all the changes saved.

Add a New Form:

To create an entirely new form there is a box at the bottom of the page, Create/Edit Form (Figure 17). After inserting the Name of the new form and the Description, which will not appear in the users interface, and clicking Save, the New Form will appear listed under the default one. This new form will have all the fields existing in the Default Form, because those fields cannot be deleted. To add new fields to this new Form follow the steps explained above, starting from selecting Edit at the end of the row corresponding to the new form created. You can add as many Forms as you’d like. Those Forms will be accessible by the users in a scroll down menu on the top of the Title in the Submit a Report page.
Pages

The Pages section is the page that allows you to add other pages in additions to the ones already existing in the main Toolbar in the homepage (Figure 18). From here it is also possible to edit or delete the About Us page, or make it invisible which is a default page in the main Toolbar. To edit the About Us page, just click on the Edit tab under Actions, and then fill the blank in the page Description Box. After clicking the Save tab, the page will be available to be read by users in the About Us page from the homepage. To add other pages, fill the boxes relative to the Page Title, Page Tab name and Page Description. Once saved, this page becomes listed in the main Toolbar in the public Ushahidi page.

Figure 18: Sample ‘Pages’ page from the Ushahidi platform.
**News Feeds**

From this page you can set up the Feeds that will appear in the ‘Official and Mainstream News’ box in the Homepage (Figure 19). To add a new RSS Feed click on the Add New tab on the side of the New Feeds title on the Toolbar, or just go on the Add/Edit box at the bottom of the page. The save an RSS Feed and have it appearing in the Homepage insert the name of the Feed and the URL. After having saved the new Feed, the number of items coming in will be visible after clicking on the Refresh Feed tab on the top of the page.

The actions tabs on the side of each Feed allow you to delete, edit or made Invisible an RSS Feed. To see the items of each feed you need to click on the name of the View Items of each Feed and you will be directed to a page where all the items from that Feed are listed. For each item coming in you can delete it or create a report out of it. To see all the Feeds coming in there is also the Feed Items tab on the top of the page, where all the items coming from all the Feeds URLs are listed together (Figure 20). For each Feed Item coming in you will see if the geo-location is available, the source and a preview of the item.

![Sample 'News Feeds' page from the Ushahidi platform.](image-url)
Layers

In this section of the Manage section you can insert the static layers that will appear on the users Homepage under the Map (Figure 21). Those static layers are in the format of KMZ or KML Files and can display points or areas. To add a new Static layer, use the Add/Edit box on the bottom of the page. After inserting the layer Name, the Layer URL if existing, and the color, you can upload the file in the Upload KMZ/KML File section and then Save. Once saved, the Layer will appear in the list at the top of the page and from there can be edited, deleted or made invisible. If the layer is visible it will automatically appear in the Homepage, where users will be able to see it by clicking on it.
Scheduler

This function of the Manage section allows you to schedule actions related to Alerts Email, Feeds, Sharing and Twitter (Figure 22). The Alerts section allows Admins to schedule when and how often the Alert system will send out alerts to the users subscribed. For the Email, Feeds, Sharing and Twitter it allows to schedule the automatic refresh of the information coming into the platform. By default, all those Schedules are set on automatic refresh every day, every hour and every minute. To change those settings there is the Edit tab on the side of each item which opens a box at the bottom of the page where it is possible to change those settings according to Day of the Week, Day, Hour and Minute. The scroll down menu allows the Administrator to choose in between All, or a particular day, hour or minute. Once done you need to save the settings. If you have any issue you can also use the ‘Force Run Scheduler’ button above the list to refresh automatically all the incoming information. You can also decide to activate or deactivate a particular schedule for a specific incoming feed.
Figure 22: Sample ‘Scheduler’ page from the Ushahidi platform.

Public Listing

From here you can manage your public listing (Figure 23). If you are listed publicly, your deployment will be easier to find via mobile applications, the community website and elsewhere. This is optional and can be enabled or disabled via this form.

Some of the fields below are automatically collected and you do not need to worry about keeping them up to date. From this form, you have control over your deployment description, deployment category and images.
**Actions**

As this is currently considered an experimental feature in the Ushahidi platform, this feature is not recommended for use by the Monterey County OES at this time.

**Badges**

This page of the Ushahidi platform is not relevant to the needs of the Monterey OES.

**Alerts**

This page of the Ushahidi platform is not relevant to the needs of the Monterey OES.
Addons

Plugins

The Addons link will open a page (Figure 24) where you will find the list of Plugins installed in your platform. The list of plugins will show you the plugins that are activated and the ones that have been installed but not activated.

By clicking on the Activate button you will activate a plugin, while by clicking on the Deactivate button you will deactivate it. Notice that even if you deactivate a plugin it will remain installed in your platform so that you can easily reactivate it at a later time.

You can also view which plugins you have Active or Inactive by clicking on the sub-navigation buttons of the Addons page.

Some plugins have a Settings link (found to the right of the Plugin title) which will open a page where the Plugin can be modified.

To see list of available plugins, go to http://apps.ushahidi.com or follow the “Get more plugins” link at the bottom of the page.

Figure 24: Sample ‘Plugins’ page from the Ushahidi platform.
Themes

The Themes page (Figure 25) will show you the different themes that can be chosen for the Ushahidi platform. If you create or find new themes you can add them here.

As mentioned earlier, never delete the default theme, even if your website is using a different theme. Additional themes are based off the default theme; deleting the default theme in any instance will cause your website to break.

It is also important to note: pay attention to the theme you employ for your website. If you switch from one theme to another one, that theme may not support the display of certain types of data, so best to check the developer’s notes or run some tests before launching on a new theme.

![Figure 25: Sample ‘Themes’ page from the Ushahidi platform.](image-url)
References

- http://forums.ushahidi.com
- http://community.ushahidi.com
- http://www.ushahidi.com/get-involved/resources