Building Impact

SRS
Website
Enhancement

May 7, 2012

George Mason University
OR 680 / SYST 798
Capstone Project

Fiona Ariaratnam
Michael Hockstein
Michael Lovejoy

Table of Contents

1 Introduction

This is a System Requirements Specification (SRS) document that will discuss the Building Impact (BI) organization, the needs behind the requirements, and the layout of the requirements in a consolidated and organized manner. This document is specific to updates needed for BI website enhancement.

1.1 About Building Impact

Building Impact was founded in Boston, MA in 2003 to serve as an intermediary between building management and non-profit charities. Building Impact connects buildings' resources (donations and volunteers) to the needs of non-profits in the community. BI serves 53 buildings with 575 companies and over 20,000 employees, along with over 40 members in the Non-Profit Partner (NPP) network.

Building Impact currently has seven full-time staff members, including a Chief Executive Officer, Program Director, Communications & Operations Director, Marketing Director, Program Coordinator, and two Community Connectors (CCs). Their CEO began in September 2011, and is eager to bring new ideas to the organization. BI currently utilizes a website with limited capability to allow volunteers to find and sign up for certain events. This website also provides information on how non-profits, buildings, companies, and volunteers can communicate with BI, via e-mail or phone.

BI provides the following services:

1.1.1 Donation Drives in Buildings

Every other month, BI hosts Donation Drives to benefit a Non-Profit Partner. These usually take place in lobbies and require flyers to be posted throughout the building and boxes to be put out for collection. These drives collect items that usually relate to the season and have included canned food, winter coats, books, and school supplies. BI staff members retrieve, count, and deliver the donations to the Non-Profit Partners personally.

1.1.2 Blood Drives

BI helps support local hospital Blood Drives by using their network of buildings to provide space for these events. They also help promote and advertise for the event, coordinate donor appointments, and provide at least one staff member to support Blood Drive event needs. Larger hospitals have bloodmobiles and do not require the service of providing space that BI makes available. However, these hospitals do get BI support through event promotion and assistance from a staff member. Drives without bloodmobiles require coordinating the use of office space.

1.1.3 Community Events

BI organizes about three to four one-time Community Events per month in the Boston area during evenings and weekends. BI recruits volunteers by advertising the events through signs in buildings, newsletter e-mails to individuals on the mailing list, and postings on the BI website. These events can include river and park cleanups, helping to feed the homeless, sorting donations for needy families, and assisting with charity fundraising events.

1.1.4 In-Office Volunteer Events

BI offers volunteer activities that companies host in their own space during working hours. Companies want their staff to participate in a volunteer event during their working hours to help contribute to the community, and request that BI help to organize the event. Companies often have specific numbers of employees available, restricted hours to perform the work, and a desired issue area they would like their work to contribute towards. BI will also try to match non-profit requests for this type of assistance with companies that are available for such events. BI staff plans, coordinates, and leads these events on a case-by-case basis in conjunction with representatives, called *Ambassadors*, from the companies. BI then delivers the outputs of the event to the benefiting NPP.

1.1.5 Corporate Volunteer Days

BI organizes volunteer activities for companies based on their interests to support a local Non-Profit Partner. Companies will inform BI of their weekday volunteer availability, and BI will match that to a non-profit need. Often, companies have restrictions relating to season, time of day, day of the week, location, issue area, transportation, and other factors that limit the possible types of events that NPPs can accommodate. Companies' restrictions on event type necessitate BI's role in matching their desire to volunteer and donate with the realistic requirements of NPPs. BI staff members then lead the event with corporate groups.

1.1.6 One-Off Donations

Building management and companies donate supplies and money, with BI facilitating a match for the supplies, often on short notice. BI will contact its NPP network, or reach out to other organizations to match the donations. These donations can typically arise when a company moves or goes out of business, leaving the building management to empty the offices quickly for cleanup. In many cases, BI has a very small timeframe to find an organization to accept, and often pick up, the donations.

1.2 Purpose

The additional features specified within this SRS for the website will enable BI resources to spend less time communicating with stakeholders and a greater amount of time growing the business to other regions.

There is currently a bottleneck in BI processes during the planning phases of the events. An excess amount of time is spent communicating between the Program and Non-Profit Partners in order to ensure that all parties have agreed upon the goals, tasks, locations, and other event details. Many events require participant sign-ups. This is not always done through the Building Impact website and is not always easy for all parties (BI staff, volunteers, or Non-Profit Partners).

1.3 Intended Audience and Reading Suggestions

The primary readers of this document are the web designers and developers contributing to and performing the testing of the enhanced Building Impact website. It is important to read the introduction section before continuing to the functional requirements listed within this document because it enables the reader to develop an understanding of the Building Impact organization and its values that should be considered during the development process.

Secondary readers include BI staff. There are many additional features that are mentioned below that will change the dynamics of BI's current business processes. The BI staff must be aware of these improvements and be prepared for process changes that will occur upon project completion.

1.4 Project Scope

The scope of this project is solely the additional feature-set required for BI's website and business tools (Salesforce and VerticalResponse). Whether this includes starting from scratch or making updates to the current website, the functionalities, features, and actions for the website being described in this document must be implemented.

Any comments, concerns, suggestions, or additional input is welcomed. The requirements mentioned within this document are meant to improve the functionality of our website for our stakeholders and to allow BI to grow; any input that can further enable BI goals will be considered for addition to this SRS.

Design is not discussed within this document in terms of website colors, panel placement, button locations, and other web design details. There are several mentions as to the placement of certain objects in the requirements section (Section 3: Requirements), but general design details are not within the scope of this project.

1.5 Key Website Features

The requirements described in this SRS have the end goal of enabling a great set of features. The following is a list of the website features that will have the greatest impact on BI once the project is complete:

- Automated e-mails based on user activity and actions
- Web Portals
    - Logins that distinguish between Non-Profit Partners and Program Partners
    - Unique webpages based on login type (Non-Profit Partner or Program Partner)
- Matching algorithm to identify the most suitable Non-Profit Partner(s) for a Corporate Event
- Volunteer counts for each event
- Blood Drive appointment time online sign-ups
- Calendar display changes

1.6 Building Impact Stakeholders

Throughout the execution of an event many different organizations, companies, causes, and lives are impacted. BI staff themselves plan, organize, communicate, run, and improve all of the six event types they offer. Communication between BI with the Program Partner and Non-Profit Partner requires the most amount of time and effort when planning and organizing events. The diagram below is a *use case model* that displays how communication will work once the website requirements are met for all BI stakeholders.

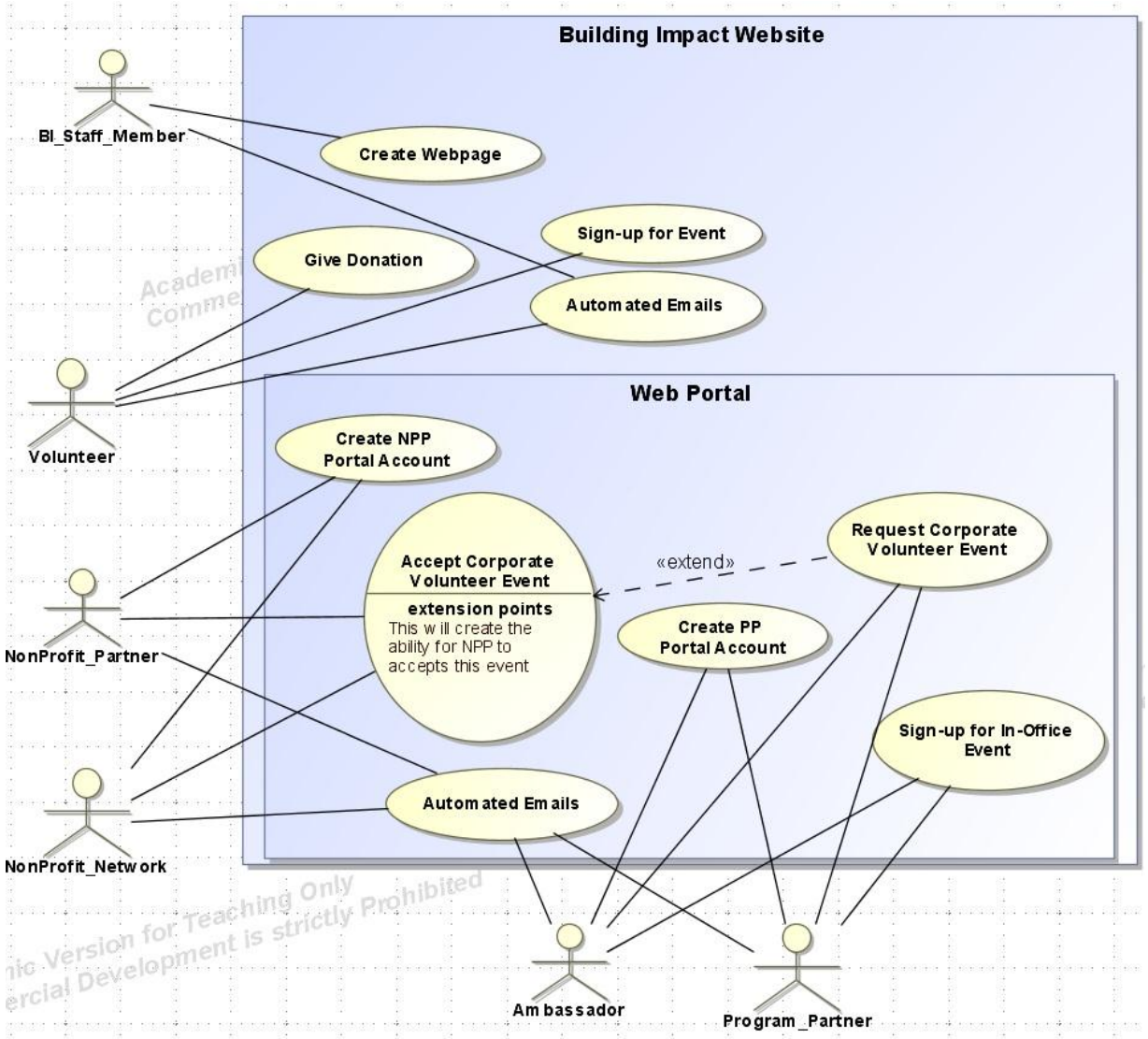

Figure 1: Updated Building Impact Website Use Case

1.6.1 Non-Profit Network

BI's Non-Profit Network (NPN) receives notifications of potential events that BI's Program Partners (PPs) indicate interest in. There is also a great amount of communication between BI and its NPN when setting up community events. Mass e-mails are sent to all Non-Profit Partners via monthly awareness e-mails and when new Corporate Volunteer Events become available.

1.6.2 Non-Profit Partner

The Non-Profit Partner (NPP) works closely with BI staff members to set dates for volunteer activities far in advance. When the activity is approaching, BI and the NPP work together to discuss how and where the event will be run, the goal of the event, how many participants are needed, et cetera.

1.6.3 Program Partner

The Program Partners (PPs) are the companies and organizations providing office space and volunteers to make the events possible. There is also a great amount of back-and-forth between BI and a Program Partner to make sure events run smoothly. This is frequently problematic during Donation Drives because PPs can forget to put out donation boxes, ask for a new donation box, or put out the box entirely.

1.6.4 Volunteers

The volunteers are generally the workers in the offices of the PPs, but they are encouraged to invite friends, family, and acquaintances. For some events the public is welcome (e.g., Blood Drives and Community Event). They are thanked for their help and time and then they are asked to fill out a feedback questionnaire to help find improvements.

1.6.5 Ambassadors

There is an Ambassador at each PP office that acts as the point-of-contact with BI for that office. All information about BI volunteer initiatives are disseminated from the Ambassador to his/her office. A heavy amount of interfacing via phone and e-mail takes place between BI and the Ambassador. A lot of time is spent gathering all of the necessary information from the Ambassador about the number of volunteers, volunteer names, and additional details specific to each event.

1.7 Operating Environment

BI executed 350 events in 2011. The time spent getting time slots for Blood Drives, sign-ups for volunteer events, NPPs interested in Corporate Volunteer Events, and the many other communication actions required to organize, plan, and execute an event adds risk to the overall positive experience that each event can bring to the community and volunteers. Many of the functional requirements are written with the previous statement in mind. With more tasks automated via additional website functionality, more events can be created and each event can produce a bigger impact.

The website must be able to be available 24/7. Volunteers will be able to sign up for an activity or a PP can submit a request to volunteer at any time from 00:00 to 23:59:59.

1.8 User Documentation

After the completion of all requirements specified within this document, training documentation will be created to help train BI staff members on how to make necessary updates. There shall also be hands-on training at the BI office. The purpose of this training is to ensure that there is a clear understanding of how to make use of the new website feature set. These trainings can occur as features become available throughout the project lifecycle and need not wait until all requirements are completed. For

each hands-on training session there will be supplemental training documentation (as part of the overall training documentation mentioned previously).

The skills expected to be taught during the training and within the training documents include, but are not limited to, the following:

- How to update the website quickly for event additions, cancelations, changes, completion, etc.
- How to set up automated e-mails to be sent
- How to create new webpages (e.g., for a specific event) and update existing ones (e.g., the Event Status page) with the added features as seen in Section 3.1: Website Requirements
- How to manage Program and Non-Profit Partner logins
- How to manage VerticalResponse surveys and integration with Salesforce

Record-keeping documentation needs to be kept by the web developers. Information on the work that has been done, the programming languages that have been used, and a description of how the requirements will be met should be included in the document. This provides a history to BI on all updates and changes made to the BI website. It will also be used when future website development is necessary due to additional functionality needs. The previous web developer for BI left the website in a state that was difficult to change; therefore work records will be helpful going forward.

2 Applicable Documents

2.1 Website Standards

There is no master document of standards for websites. However, there are a few good resources to pull from. Follow the suggestions from the four websites included here; if contradictions occur, use the suggestions from higher ranked resource.

1. http://www.usability.gov/guidelines/
2. http://www.w3schools.com/web/web_standards.asp
3. http://www.w3.org/standards/webdesign/
4. http://websitestandards.org/

2.2 Non-Profit Website Examples

The follow tips and suggestions from the following website should be used to aid in the design and functionality of the website: http://www.smashingmagazine.com/2009/05/14/non-profit-website-design-examples-and-best-practices/. The following example websites that should be used for guidance are from this article:

- http://www.one.org/us/
- http://ww5.komen.org
- http://www.greenpeace.org/usa/en/
- http://rootcause.org/
- http://www.jbjsoulkitchen.org/

3 Requirements

3.1 Website Requirements

3.1.1 General Requirements

1. The website shall be written in a manner that makes it easily updated by web programmers and allows for development flexibility.
    a. The website shall not be written in such a way that forces new development to re-create the website (effectively starting from scratch).
2. There shall be a display page that shows BI's current annual calendar that shows details in a monthly view.
    a. There shall be a drop-down menu to select a month as well as left and right arrow buttons to move to the previous and next month respectively.
    b. BI staff shall be able to update the online calendar.
3. There shall be automatic e-mails that are sent for each event.
    a. BI shall be able to edit the automated e-mail that will be sent within 20 minutes.
    b. Automated reminder e-mails will be sent 48 hours prior to the event date to all participants that signed up via online sign-up forms.
    c. Thank You and Feedback e-mails will automatically be sent one day after the event's completion.
        i. A link to the survey pertaining to the event the volunteer participated in shall be in the Thank You and Feedback e-mail.
4. A webpage will be created to show to potential volunteers "How to Participate" with general instructions and suggestions, and links to specific events.
5. The following updates will be applied to the Upcoming Events page:
    a. A section will be made for Contact Information.
    b. Time, date, location, and event description shall be clearly identifiable and separated for visual ease to viewer.
    c. There shall be the ability to select events by geographic region.
    d. There will be a month-by-month calendar displayed at the top of the page, showing by default the events for the current month.
        i. There shall be a drop down to select months as well as left and right arrow buttons to move to the previous and next month respectively.
        ii. BI staff shall be able to update the online calendar.
6. The following updates will be applied to each Event Details page:
    a. There shall be a section to describe event attire.
    b. There shall be an online sign-up form that is expanded by default, on the Event Details page for Donation Drives and Community Events, below the basic event information
        i. An automated e-mail shall be sent to the volunteer after the online registration form is submitted.

            1. Event title, date, address, description, appropriate attire, and a brief "how to cancel" description will be included in this e-mail.
    c. The minimum number of necessary volunteers to have the event not be canceled shall be displayed on the Event Details page.
    d. There shall be a counter on the Event Details page that counts down to zero, displaying the available number of volunteers that can still register.
    e. When an event has reached capacity, the sign-up form shall fade to gray and be unusable unless capacity is increased or registered volunteers cancel.
7. A new Event Status page will be created that will display upcoming events' statuses:
    a. This page will display all events taking place within the next 30 days.
    b. This page will display the following information for each event listed:
        i. Current number of volunteers registered for event
        ii. Minimum need
        iii. Counter that counts down to zero, displaying the available number of volunteers that can still register
        iv. Capacity
        v. Date
        vi. Event status (i.e., no change, postponed, or canceled)
    c. An automatic e-mail shall be generated for all registered volunteers when there is a change in the event status.
8. The total number of registered volunteers for an event shall be stored and accessible for display on multiple pages of the BI website.
    a. The number of registered volunteers will increase for each online registration form submitted.
9. There shall be a way for BI staff members to cancel a volunteer's registration when one calls BI to cancel (only BI staff members can cancel a registration for an event).
    a. The number of registered volunteers will decrease for each registered volunteer that cancels.

3.1.2 Web Portal Requirements

1. Web portals shall be created for both the Non-Profit Network and Program Partner stakeholders.
2. The NPN and PP web portals will contain different features and functionality.
3. A login will be required for both NPN and PP stakeholders.
    a. BI will be able to invite stakeholders to the appropriate web portal.
4. The functionality to have the website remember the user's logon will be available to the user.
    a. If the user selects to have the website remember their login, the user will not be required to log in again until 2 weeks have past.
5. These web portal accounts shall contain the user's email address.
6. The ability to use a user's web portal account to automatically send them e-mails shall be available.

3.1.2.1 NPN Portal

1. All details of the Non-Profit Partner in the NPN portal will only be available to the user that is currently logged in as a non-profit.

3.1.2.2 Program Partner Portal

1. All details of the Program Partner portal will only be available to the user that is currently logged in as a Program Partner.
2. A new webpage will be created, called My Events, that is specific to the user currently logged in to the website.
    a. The My Events page will list all events, past and future, that the user has signed up for.
    b. When a user selects an event from the My Events page it shall open a new page with links to communication BI has sent to the Program Partner, including flyers, event updates, and post-event feedback requests.
3. A feature unique to a user logged in as a Program Partner shall be the ability to submit a request to host a Corporate Event.

3.1.2.3 Corporate Event

1. A matching algorithm shall be created that matches the interests of the Program Partner with the best results from BI's NPN.
    a. An online questionnaire shall be created for Program Partners to take when requesting a Corporate Event, which will allow for NPN matching.
        i. Each question on the Program Partner online questionnaire will be able to be ranked for importance between 1 and 5 (least to most).
    b. An online questionnaire shall be created for NPPs to take that will identify what features they have available.
    c. The web developer will work with BI to create the appropriate online questionnaires.
    d. The questionnaire filled out by a Program Partner will then be compared to each NPP in BI's NPN to determine which NPPs are a good fit for the event requested.
    e. The results of the matching algorithm will display results matching the questionnaire.
    f. Because the importance value will contain a value of 1 to 5, NPPs will always be matched to the PP request; these NPPs will be presented in descending order from most-matched to least-matched.
2. When a Program Partner submits a questionnaire, automatic e-mails shall be sent to the NPPs that match the request.

3. When a Program Partner submits a questionnaire, an automatic e-mail shall be sent to BI containing information about which Program Partner sent the request, the matches that the algorithm determined, and the completed questionnaire.
4. NPPs that match a Program Partner's Corporate Event questionnaire shall receive a notice that informs them of the request.
5. NPPs that match a Program Partner's Corporate Event questionnaire shall be able to submit interest or decline interest by clicking a button on their web portal.
6. When an NPP indicates interest via their web portal, e-mails shall be sent to the Program Partner making the request.
7. When an NPP states interest via their web portal, an e-mail shall be sent to BI with information about what NPP has expressed interest and for what Corporate Event request.
8. The Program Partner shall be able to select a NPP to support via their web portal, from a list of all NPPs that confirmed interest.

3.1.2.4 In-Office Event

1. Online sign-up forms shall be available for Program Partners when logged on.

3.2 Salesforce and VerticalResponse Requirements

1. For each license, Salesforce shall be synced with MS Outlook so that events created on Salesforce and shown in the Salesforce calendar will also appear automatically in the Outlook calendar.
2. Event participant information shall be automatically inputted into Salesforce based on the information supplied by the participant in the online sign-up form.
3. Feedback input from VerticalResponse online surveys shall automatically update data entries in Salesforce.
4. The information participants provide on the online sign-up form shall be used to automatically populate Salesforce fields.

3.3 External Interface Requirements

1. The website shall be accessible on a multitude of platforms, such as a personal computers, Apple computers, cellular devices, and tablets (i.e., the iPad).
2. The website shall be accessible on several browsers: Internet Explorer, Mozilla Firefox, Google Chrome, and Safari.

3.4 Training Requirements

1. Training documentation shall be created that will explain to BI staff how to use the new website features.
    a. Documentation will explain how to create new webpages with the features explained in section 3.1 (e.g. volunteer counters).
    b. Documentation will provide details of how to create automated e-mails because they will be different for each event.
2. In-office training shall be provided to BI staff so that all staff members will be able to update the website as part of BI business processes.

3.5 Quality Requirements

1. The website shall have a consistent appearance.
    a. All pages of website shall maintain a consistent scheme in layout and design.
    b. The colors of all pages shall remain consistent throughout website.
2. Volunteers accessing any BI website webpage for all mentioned browsers will wait no longer than five seconds, provided a minimum of a 5 mbps download speed is used.

3.6 Security Requirements

1. User Passwords are encrypted and secure.
2. Copyrights and other security measures are available on all webpages.
3. Knowledge of hits and time spent on particular webpages; and ability to make changes based on this information.

4 Webpages

It is not certain how many new webpages will need to be created to ensure quality and reliability for the updated website. This task is left to the web developers; however there are a few webpages that BI is certain that must be created. These webpages are listed below.

4.1 Event Status Page

The Event Status page is available for all website visitors whether logged in or not. It will display all current and upcoming events along with status details. It will display information about the current progress, number of open registrations left, number of volunteers needed, et cetera.

4.2 How to Participate

The How to Participate page will describe specifics for what events the general public can volunteer for as well as instructions describing how to sign up. Most prominent will be the need, request, and instructions for donations. Separate sections will also be available that describe the NPP and PP web portals as well as how to become a member for either portal.

4.3 My Events

A page that is available to a user that is currently logged in. It will display all of the events that they are currently signed up for as well as the status for each event as seen on the Event Status page. It will also have all flyer and event description documents available for download as a .pdf file related to each listed event.

4.4 NPP Portal Home Page

A list of events that the NPP is signed up for will be displayed at the top and center of the page. Alerts that bring new Corporate Volunteer opportunities to the NPP's attention will be displayed above the list of events.

4.5 PP Portal Home Page

A list of events that the PP is signed up for will be displayed at the top and center of the page. If there is currently a request for a Corporate Volunteer Event, alerts will be shown above the list of events that display any NPP that has expressed interest via their web portal.

5 Appendix: Glossary

Ambassador	Representative at the Program Partner who acts as the main point of contact for interfacing with Building Impact
BI	Building Impact
CRM	Customer Relationship Management; a model for managing a company's interactions with customers
Customer	Refers to all stakeholders in BI's non-profit network and all Program Partners
Events	Refers to the six different types of events that BI supports (Donation Drives, blood drives, In-Office Events, Corporate Events, Community Events, and One-Off Donations)
NPN	Non-Profit Network that includes all of the Non-Profit Partners that BI communicates with
NPP	Non-Profit Partner that is one of the nonprofits that is in BI's nonprofit network
Program Partner	Partner to BI that are not in the Non-Profit Network or companies and organizations that supply volunteers and building space
Salesforce	Customer Relationship Manager that acts as a database used by BI to record information about all Program Partners and NPPs, create and record feedback for events, send e-mails through Salesforce integration with VerticalResponse, etc.
SRS	System Requirement Specification; a document with a complete description of the behavior of a system to be developed
VerticalResponse	Online tool that can integrate with Salesforce; used by BI to create surveys for event feedback