

SwiftAid.org
Analysis and Specification Document

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Analysis and Specification Goals

- Gather general requirements – 4 Days
 - Identify general content requirements
 - Identify general functional requirements
 - Define user interaction scenarios

Team members will define the basic Web application requirements and user categories. Information from the requirements analysis will be shared with stakeholders and modified accordingly. Team members will develop use-cases for donor and applicant users.

- Perform risk analysis – 3 Days
 - Assess engineering team skill sets
 - Choose technologies
 - Identify milestones and constraints
 - Itemize deliverable schedule

During this phase the team leader will conduct a formal risk analysis adapted to Web application development. The deliverable schedule will be based on factors involving team member skills, chosen technologies, and project constraints.

- Perform requirements analysis – 1 Week
 - Formulate motivation and objectives
 - Gather detailed requirements
 - Perform analysis modeling
 - Content analysis
 - Interaction analysis
 - Functional analysis
 - Configuration analysis

Team members will identify the basic motivations for the Web application and defines its objectives. They will render detailed user classifications; for example, donors (e.g., new and return), grant applicants (e.g., authenticated and non-authenticated), volunteers, and grant processors. From these formulations, team members will develop detailed use-cases, from which, in turn, they will parse detailed descriptions of site content, user interaction, processing functionality, and infrastructure environment for the Web application.

Site Content

Information content will be structured around six site sections: About Us, Request Aid, Provide Aid, Donate, Emergency News, and Administration.

□ About Us

This section will consist of the main About Us page, a page on Beliefs and Values, and FAQ, Contact, and Links pages. The About Us page will describe SwiftAid.org in terms of the five basic questions, Who, What, Why, Where, and How.

▪ The Beliefs/Values

This Page will delineate SwiftAid.org's core beliefs of providing ready, wide-spread access to disaster aid, sufficient authentication of the need of aid applicants, and speed and efficiency in the distribution of relief to victims of disaster.

▪ FAQ

This page will provide information about SwiftAid.org in a question-and-answer format. The questions will be structured to feature our mission and operations and to answer questions about both seeking and providing aid.

▪ Contact

This page will provide basic contact information for SwiftAid.org and direct site visitors to the Emergency News section for local contact information and to the Donate section for donation site contact information.

▪ Links

This page will provide links to important public and private organizations that partner with SwiftAid.org in disaster relief activities. It will also host a link to the SwiftAid.org team's project documentation.

□ Request Aid

This section will provide the gateway for registering disaster victims and applying for assistance. It will host the following pages:

- The Request Aid main page, which will introduce the registration and application processes
- A Victim Registration page, through which applicants will register their personal and disaster information
- Victim Phone and Victim Address pages, through which victims will be able to edit their contact information via a SSN lookup.

- A Request Aid page, through which victims can apply for specific types of aid.
- Provide Aid

Through this section business, organizations and individuals will be able to register to provide material assistance through SwiftAid.org. It will consist of the following pages:

 - The Provide Aid page will describe the aid-provisioning mission, including its water and food, shelter, and transportation assistance programs.
 - The Provider Registration pages will direct a registrant through a sequence of pages through which information will be input about the registering organization or individual and a contact person.
 - After the basic information is entered, the registrant will select to register to provide specific types of food, shelter and transportation donations on separate pages. Finally, an itemized registration confirmation page and a Thank You page will complete the registration process.
 - A Donation Site Search Page will allow a provider to search for current disasters by state to find contact and location information.
- Donate

This section will provide options for making donations, including PayPal, Credit Card, Phone, and Mail options.

 - The PayPal option will present a button that will direct the donor to a PayPal payment page that has a SwiftAid.org banner. After payment completion, the donor will be automatically redirected to SwiftAid.org
 - The Credit Card page will present a standard form for making a credit card payment.
 - The By Phone and By Mail pages will present the appropriate contact and address information for making a donation by these means.
- Emergency News

This section will feature information about particular emergencies. Basic information will be presented, along with how SwiftAid.org is or was involved.

 - The main Emergency News page will feature a current emergency.
 - From there a site visitor will be able to select links to separate lists of Current Emergencies, Emergencies This Year, and Archives, from which particular emergencies may be selected.
 - A search function will allow for searches by state, year, or disaster type.

- Administration

This section will fulfill various administrative functions, including approving victims for aid, updating personal victim information, and tracking disaster and victim information.

Structure and Interpretation

The following interpretation is based on the database structure diagram in Appendix A. The information architecture will be developed against this structure.

- Victim:

Anyone that registers with SwiftAid.org is a potential victim. To try to curb relief abuse, no one will be sent or assisted with relief of any kind until SwiftAid.org can determine the validity of a person to be considered a victim.

- Victim Tracking:

Once a person has been approved as a legitimate victim, SwiftAid.org will start tracking that individual. In case the victim needs to be relocated, all victims will have start and end dates for all of the shelters that have been their temporary homes.

- Victim Grants:

All money that is distributed by SwiftAid.org will be tracked. The date the money was distributed, the amount of money that was distributed, and to whom the money was distributed will be maintained within the SwiftAid.org database.

- Relief Organizations:

Relief Organizations are considered to be any company, organization or individual that wants to help in times of a disaster or crisis. Cash donations will be collected and invested by SwiftAid.org. SwiftAid.org will monitor all goods and services except computer aid.

SwiftAid.org will maintain and distribute donated computer equipment. Often during a disaster or crisis, victims cannot get to a computer. Therefore, the people that need goods, services or money cannot sign up for relief. SwiftAid.org will setup a temporary network to sign up victims close to the disaster or crisis.

All Relief Organizations need to be approved by SwiftAid.org. Only approved Relief Organizations will be matched to people in need. For the sake of the database layout, people in need will be referred to as victims.

SwiftAid.org will keep track of each organization's offered services. Shelters are a special type of Relief Organization that can house victims.

□ Relief Services:

SwiftAid.org has categorized Relief Services as any type of help, inspection or repair. Two special types of Relief Services have been identified. They are food and transportation.

SwiftAid.org needs to keep track of food separately because food can be ready to eat or may need to be prepared. A special code for food called Meal Ready to Eat (MRE) will determine if the food can be eaten without preparation of any kind. In areas without electricity, this information is extremely valuable.

SwiftAid.org needs to keep track of transportation separately because there are multiple forms of transportation. Travel by bus, boat or plane are all different and are useful in various situations. The transporting of all people is considered travel. The mode of travel needs to be monitored.

□ Need Request:

All victims will need to fill out a need request to be considered for aid. SwiftAid.org will try to match as many need requests with as many offered services as possible.

□ Disaster:

Each disaster that SwiftAid.org is involved with will have its own disaster code. Each disaster will be tracked separately because each victim could theoretically be involved in more than one disaster.

□ Actual Cash Donations:

Cash that is donated to SwiftAid.org will not be tracked within this system. SwiftAid.org will invest the donations to build up a strong cash reserve. It is SwiftAid.org's full intention to distribute 100% of the cash it collects. It is the interest that is generated from the donated money that will allow SwiftAid.org to run and sustain a successful not for profit organization.

Sensorial Design

SwiftAid.org's intended viewers will be applicants to receive aid for federally declared natural and man-made disasters, donors wishing to donate tax-deductible gifts online, and volunteers seeking volunteer opportunities.

The pages intended for applicants who are seeking to receive aid will be designed with black, white and blue color. Since applications may be sent from temporary disaster-camp facilities, it is important that the pages be highly legible and easily navigated. The use of images will be minimal on these pages and the application forms will be set at a size that will be easily viewed by laptop computers.

Blue is a color strongly associated with tranquility and calmness, so we believe it is a good choice to be prominent on the pages.

Navigation for information about our company, information about the disasters, applications for aid, volunteers, and donations, and links to FEMA, local governments, and non-governmental organizations that we work with, will be placed on a navigation bar on the left (or alternatively towards the top of the page), and also on the bottom of each web page.

A link to "contact us" with telephone numbers will also be visible on each page.

Transaction Flow for Transaction Processing

- ❑ Step 1: Users will fill-up an on-line form including all their information, such as full name, address, email, and other. This information will be stored into a remote database.
- ❑ Step 2: The system will state, "Thanks for submitting your information. An email has been sent to your account including your username and password."
- ❑ Step 3: After users open their email, they will be required to activate their account by clicking on an activation link.
- ❑ Step 4: After users activate their account, they can start donating after they log on to the donation section via their username and password.
- ❑ Step 5: The donation process will start after the user has clicked the "donation link. "The site will open this page in a SSL (session secured

layer). Users will state the amount of money they want to donate, including their bank account information, such as bank name, account number, account expiry date, and address.

- Step 6: By submitting the above information, the payment company will deduct the money from their account and put it into the account of the web site's owners. In addition, users will receive an email thanking them for their donation, indicating the amount of money they have paid.

Note: All the above information will be stored into a remote database including date, time, and IP address.

Market Testing

The Web application will be market tested in both simulated and real emergency environments. This testing will be conducted in three phases:

- Phase 1: A research firm that specializes in human psychology and computer interaction will be solicited to test the application against disaster-psychology and usability metrics in simulated emergency environments.
- Phase 2: A functional prototype of the Web application will be presented for assessment by governmental agencies and NGOs. Go-to-market readiness will be determined in consultation with industry professionals.
- Phase 3: SwiftAid.org will install a local version of the application on an intranet that it sets up within the context of a real, small-scale emergency scenario. This will be a live use of the application, which processes real grant applications and solicits financial support for the local emergency.

SwiftAid.org Site Map

