**CS 360**

**Associated Churches Food Network Management System**

**Software Requirements Specification**

**Document**

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# 1. Introduction

This document defines the software requirements for a web application to support the supplying and monitoring of the Associated Churches (AC) Neighborhood Food Network. AC supplies 28 food pantries in Allen County. These pantries are located in churches and other community service buildings. AC provides food to the pantries. In some cases they provide all of the food and in others they provide as little as 10%. The pantries are able to order food on a periodic basis. They are asked to provide demographic information on the people they serve. Very little technology is currently in use in this operation.

## 1.1 Purpose

The purpose of the program is to develop a web application that enables the AC food network pantries to improve their understanding of the population being served and to partially automate some of the current process for supplying these food pantries.

## 1.2 Scope

This food network program will be named as Associated Churches Food Network Management System. The program will provides basic features with special attention to usability and requires little or no additional investment in hardware or software. Our goal is to provide:

* more accurate accounting of the families and individuals served by the Neighborhood Food Network ministry
* easier detection and reporting of violations of eligibility guidelines
* easier preparation of monthly and annual reports
* greater accessibility to individual and aggregate food pantry data
* increased confidence that Associated Churches is a good steward of monetary and food donations received to support this ministry
* better awareness of the degree to which the Neighborhood Food Network is fulfilling its mission

## 1.3 Definitions, Acronyms, and Abbreviations

Food Pantry Client

 A person who requests food from a food pantry supplied by Associated Churches.

Donor

 A person or organization that provides funds or food to the Associated Churches Food Ministry.

Executive Pastor

 The person who oversees the Neighborhood Food Network ministry.

Food Pantry Director

 A person who oversees the operation of a food pantry.

Food Pantry Volunteer

 A person who assists clients in obtaining food from a food pantry.

Warehouse Manager

 The person who manages the Associated Churches warehouse.

Operations Manager

 The person who works closely with the Executive Pastor to ensure smooth operation of the Neighborhood Food Network.

## 1.4 References

* Associated Churches Food Pantry Intake Form
* Associated Churches Food Pantry Request Form
* Associated Churches Emergency Food Bank System Monthly Report Form
* Associated Churches Emergency Food Bank System Monthly Report for \_\_\_\_\_\_\_
* 2010 Totals by Food Banks and Feeding Sites

## 1.5 Overview

The following information will provide the specific software requirements, problem statements, and problem solutions. The summary of key stakeholder or user needs will also be addressed.

# 2. The Overall Description

The Current AC Food Network processes are paper-based, manual processes for supplying and monitoring food pantries, which are part of the Associated Churches Neighborhood Food Network ministry, to ensure equitable distribution of limited food resources. These processes are inefficient use of volunteer hours, redundant recording of data, difficulty in assessing ministry operations, and inability to detect violations of food pantry guidelines. Therefore, this new AC Food Network management system will automate a subset of these process to collect and organize relevant data from all food pantries into a central repository resulting.

## 2.1 Product Perspective

This AC Food management system is an independent program. It's different from comprehensive food pantry management software products.

## 2.1.1 System Interfaces

The AC Food management system is a web-based system to monitor operations of their Neighborhood Food Network. It will record and report the essential food pantry client and organizational data.

## 2.1.2 Interfaces

Executive Pastor:

* Prepares budget
* Prepares annual report to donors
* Coordinates work of Warehouse Manager and Operations Manager
* Communicates with Food Pantry Directors

Food Pantry Director:

* Records details of food donations
* Records details of dollars spent
* Tracks volunteer hours
* Prepares "Food Pantry Request Form"
* Prepares "Food Bank System Monthly Report Form"

Food Pantry Volunteer:

* Fills-in "Food Pantry Intake Form" for new client
* Checks for existing intake form for repeat client
* Determines eligibility of client

Warehouse Manager:

* Reviews "Food Pantry Request Form"
* Records details of order-fulfillment on "Food Pantry Request Form"
* Transfers data from "Food Pantry Request Form" to existing database application
* Occasionally prepares "Food Pantry Request Form" for food pantries with well-known needs

Operations Manager:

* Aggregates monthly reports submitted by each food pantry

## 2.1.3 Hardware Interfaces

The Associated Churches office will have internet-enable computers for all personnel who have responsibility for Food Network management and operators.

## 2.1.4 Software Interfaces

The Server will host the web application and associated data repository. The data repository will store client and organization information for all local food pantries and the warehouse. This system must use SQL Server as its database component. Communication with the DB is through ODBC connections. The system must provide SQL data table definitions to be company DBA for setup.

## 2.1.5 Communications Interfaces

The AC Food network management system will communicate within each department through the internet and local network protocols.

## 2.1.6 Memory Constraints

All customer's machines will have at least 1 GB RAM, therefore, the design footprint should not exceed 1 GB.

## 2.1.7 Operations

* Each food pantry will have at least one computer system with and Internet connection.
* The Associated Churches office will have a computer server connected to the Internet.
* Food pantry volunteers must have rudimentary computer skills and be willing to modify their processes to maximize the benefits of the proposed systems.

## 2.1.8 Site Adaptation Requirements

A touch screen computer system is recommended to be used in each food pantry. A database management system must be installed on this server.

## 2.2 Product Functions

Client Management

 Manages client's information such as address, phone, and income level.

Volunteer Management

 Manages contract information about Volunteers.

Ordering

 Provides familiar form for Volunteer to order food from Warehouse. It also allows Warehouse manager to review and modify order.

Donations

 Tracks source and number of pounds of each food donation.

Reporting

 Automatically generates monthly reports for individual food pantries and overall food network.

## 2.3 User Characteristics

Each user should at least know some basic computer skills such as editing text files, math skills, and knowing how to use internet.

## 2.4 Constraints

Product requirement

 Each computer should have at least 1 GB RAM and a high speed internet connection.

## 2.5 Assumptions and Dependencies

We assume that every computer should have Windows 7 operation system.

## 2.6 Apportioning of Requirements

We may delay the database data imports due to limited data information.

# 3. Specific Requirements

The AC Food Network management system should have log in feature for each Administer users' accounts:

Food Pantry Director:

* Records food donations
* Records dollars spent
* Tracks volunteer hours
* Prepares food request form
* Prepares monthly reports
* Print out reports

Volunteer:

* Add new client
* View client information
* Edit client information
* Checks for existing intake form
* Determines eligibility
* Order food from warehouse
* Sent data to warehouse
* Print out the food request form

Warehouse Manager:

* Review the food request form
* Records order fulfillment
* Transfer data from request to database
* Prepares food request form for food pantries
* Checks inventory
* Print out warehouse data

Operations Manger:

* Aggregates monthly reports
* Print out reports

## 3.1 External Interfaces

Client Management:

* Client name - holds clients' names
* Client address - holds client's address
* Client phone number - holds client's phone number
* Number in household - holds the numbers of household size
* Income level - holds the income level for clients
* Location - holds the locations where the clients have visited
* Date - holds the time when the clients have visited

Volunteer Management:

* Volunteer name - holds volunteer's name
* Numbers - holds volunteer's ID number
* Contact - holds volunteer's contact information
* Work hours - holds volunteer's working hours

Ordering:

* History - allows the warehouse manager to review and modify orders
* Food - holds requested food information

Donations:

* Sources - holds the donation sources

Reporting:

* Monthly reports - automatically generates monthly reports for the system
* Annual reports - generates annual reports for the system

## 3.2 Functions



## 3.3 Performance Requirements

* The number of requests at one time should be supported: 100
* The amount and type of information to be handled: less than 300 MB
* 95% of the data should be processed in less than 5 second (internet connection issues)

## 3.4 Logical Database Requirements

Most of the AC Food Network Management System information will be placed into a database, examples are:

* Client's information (name, address, and phone number)
* Volunteer's information (name and contact info)
* Requested food information
* Donation information

## 3.5 Design Constraints

* Slow internet connection
* Small computer disk space and RAM
* Not stable Server

## 3.5.1 Standards Compliance

* All reports should be formatted to standard format
* All database must be recorded
* All data should have appropriate names

## 3.6 Software System Attributes

## 3.6.1 Reliability

 To have a reliable AC Food Network Management System, a stable Server is needed. Furthermore, fast internet connection is a key for a faster data transferring rate.

## 3.6.2 Availability

AC Food Network Management System is a web application, therefore, it requires a very stable Server. This system has to run 24/7. The system should allow user to restart the application after the failure with data loss.

## 3.6.3 Security

* AC Food Network Management System should keep all the log history data sets
* AC Network system should restrict communications between some areas
* Checks data integrity for critical variables
* Should prevent data loss

## 3.6.4 Maintainability

The AC Food Network Management System requires a stable server, therefore, a regular server checks or maintenance is needed. There will be a server maintenance for every month.

## 3.6.5 Portability

This network management system is a web application; that means most of the computers with LIVE internet connection can be used for data transferring.

## 3.7 Organizing the Specific Requirements

## 3.7.1 System Mode

AC Food Network management system is a web application, that is most of the computer with internet connection will be able to access it. Even though a Windows base operation system is recommended due to its popularity.

## 3.7.2 User Class

This management system will not provide different sets of functions to different classes of users.

## 3.7.3 Objects

A communication between the clients and the server is required in this management system. This includes data transfer and server responses.

## 3.7.4 Feature

AC Food Network Management Systems offers many features such as adding new clients and processing reports. This will take user's inputs, then stores the data in the database system.

## 3.8 Additional Comments

AC system will allow the users to input data through the web application. The data information then will be stored to the database system. Users can also add, view, or edit the data through the web. Each food pantry will communicate with each other within the server. When a report is needed, system will generate the report.

# 4. Change Management Process

This document is the first version of SRS document. There will be many changes in the future. Clients will have chances to review and ask for any changes. AC Food Management System will take any recommendations which provides improvements to the application.

# 5. Document Approvals