

# System and Software Support Plan (SSSP)

## Farm Workers Web Application

### Team 09

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# Version History

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<b>Date</b>	<b>Author</b>	<b>Version</b>	<b>Changes made</b>	<b>Rationale</b>
04/27/15	Juan Andrade	1.0	<ul style="list-style-type: none"><li>• Created every section of the document from scratch.</li></ul>	<ul style="list-style-type: none"><li>• Final details of the documents for the As Built package.</li></ul>

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# 1. Support Objectives and Assumptions

## 1.1 Support Objectives

The purpose of this document is to aid developers and maintainers to better know the system tools, requirements and resources that are necessary for development and maintenance of the system after the system is hand over to the client.

## 1.2 Support

Only 3 members of the team now taking 577b course will continue during the summer to develop what is left of the application and test it in a real-time scenario.

As of now there is no plan for team to provide support after the summer 2017 ends. The client may need to hire new maintainers and/or developers to enhancing the system. The personnel hired to continue with the project must have experience in the following:

- C#
- Asp.NET
- MS SQL Server
- Node.JS / Angular JS
- Web Development.
- JavaScript / JQuery
- HTML, CSS
- Bootstrap libraries

## 2. Support Strategy

### 2.1 Support Lifetime

As of now the team of 577B will not be supporting the system after Summer 2017 finishes.

The following information regarding the system development environment would be necessary:

- ASP.NET Framework: <https://www.asp.net/>
- Entity Framework: [https://msdn.microsoft.com/en-us/library/aa937723\(v=vs.113\).aspx](https://msdn.microsoft.com/en-us/library/aa937723(v=vs.113).aspx)
- Fluent Validation Library: <https://github.com/JeremySkinner/FluentValidation>
- MS SQL Server: [https://msdn.microsoft.com/en-us/library/dd206988\(v=sql.120\).aspx](https://msdn.microsoft.com/en-us/library/dd206988(v=sql.120).aspx)
- Microsoft Azure: <https://azure.microsoft.com/en-us/>
- Node.js: <https://nodejs.org/>
- Bitly: <https://support.bitly.com/hc/en-us>
- Nexmo: <https://www.nexmo.com/>
- Open Weather Map: <https://openweathermap.org/>

### 2.2 Release Strategy

The system is already deployed on azure server, once it is finished during the summer all the necessary credentials for the API's portals and servers will be handed to the client. Also, a link to access the web application will be provided, along with source code and appropriate documentation for further support and development.

### 2.3 Release Requirement Determination

The team proceed followed the ICSM principles for the development of the system, also the priorities to develop each of the system's features were taken from the previously defined win-win conditions negotiation. The team followed ICSM principle based on client feedback, the win-win conditions were incorporated or taken out throughout the development period depending on the result of the negotiations with the client.

### 2.4 Release Process

Each of the releases during the development phase has its fundament on the win-win conditions negotiations. During that process feedback was received from the client to enhance and/or change the system accordingly. On every iteration, we fixed any defects that were identified from previous releases and made the requested changes that both the development team and client agreed upon.

For the final release after the summer ends, the client accepted version of the system will be deployed to the production server (Azure) also a technical manual will be handed over to the clients for it be used by the maintainers/developers later hired.

## 3. Support Environment

The system will always require a web hosting service to host the application provided by a third party (like Azure) or privately provided by the client. The system relies in a great measure on open source libraries, web services and third party API's, therefore, any changes/upgrades on this API's or services may affect the functionality or performance on the system.

### 3.1 Hardware

No specific hardware components are needed for maintaining the system except a computer or server with a recent Operating System supporting ASP.NET and Node.JS development requirements (which is virtually any personal computer on the market, although Windows or Linux are recommended). In regards of hosting the application Microsoft Azure Services are being used.

### 3.2 Software

**Table 1: ASP.NET Framework**

Software Requirement:	ASP.NET Framework
Rationale:	Web development framework
User/Operator Manual:	<a href="https://www.asp.net/">https://www.asp.net/</a>
Availability Information:	Very complete support and fulfilled the application requirements.

**Table 2: Entity Framework**

Software Requirement:	Entity Framework
Rationale:	Data Access Framework for ASP.NET
User/Operator Manual:	<a href="https://msdn.microsoft.com/en-us/library/aa937723(v=vs.113).aspx">https://msdn.microsoft.com/en-us/library/aa937723(v=vs.113).aspx</a>
Availability Information:	Facilitates database access operations development.

**Table 3: Fluent Validation Library**

Software Requirement:	Fluent Validation Library
Rationale:	Library used to perform input validations using regular expressions.
User/Operator Manual:	<a href="https://github.com/JeremySkinner/FluentValidation">https://github.com/JeremySkinner/FluentValidation</a>
Availability Information:	Very well documented, open source and eases input validations operations.

**Table 4: MS SQL Server**

Software Requirement:	MS SQL Server 2014
Rationale:	Database Management System
User/Operator Manual:	<a href="https://msdn.microsoft.com/en-us/library/dd206988(v=sql.120).aspx">https://msdn.microsoft.com/en-us/library/dd206988(v=sql.120).aspx</a>
Availability Information	Compatibility with the web development framework of choice, large support community.

**Table 5: Node JS**

Software Requirement:	Node.js latest version.
Rationale:	Node.js® is a platform built on Chrome's JavaScript runtime. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient.
User/Operator Manual:	<a href="https://nodejs.org">https://nodejs.org</a>
Availability Information:	Open source, very modern, well supported web development framework.

**Table 6: Bitly**

Software Requirement:	Bitly API latest version
Rationale:	Bitly is an API used to shorten links on demand.
User/Operator Manual:	<a href="https://support.bitly.com/hc/en-us">https://support.bitly.com/hc/en-us</a>
Availability Information:	Easy to used and very rich support online.

**Table 7: Nexmo**

Software Requirement:	Nexmo API latest version
Rationale:	Nexmo is an API used to send/receive SMS messages throughout the system.
User/Operator Manual:	<a href="https://www.nexmo.com/">https://www.nexmo.com/</a>
Availability Information:	Good value, well supported easy to use API for sending SMS messages.

**Table 8: Open Weather Map**

Software Requirement:	OpenWeatherMap API latest version
Rationale:	OpenWeatherMap is an API retrieve weather information on demand.
User/Operator Manual:	<a href="https://openweathermap.org/">https://openweathermap.org/</a>
Availability Information:	Good value, well supported easy to use API to request weather information.

### 3.3 Facilities

No Special Facilities are needed.



# 4. Support Responsibilities

**Table 8: Supporting Responsibilities of Stakeholders**

Stakeholder	Supporting roles	#	Supporting Skills
Faith Florez Dean Florez	Business Support	1	Basic knowledge on the system's requirements, support manuals location and access to the system's web domain.
Not yet determined	Development, Support, Maintenance of the System's Software Components and Database.	1-3	See Section 1.2