

# SVWUX Wireless Network Project

## Statement of Work

### Purpose

SVWUX has proposed to build a wireless communications network in Silicon Valley designed around the Internet Protocol (IP) and industry-standard wireless technology. The primary purpose of this network is to provide reliable, high-speed communications during an emergency situation, ideally with access to the Internet through redundant gateways. The secondary purpose is to provide free Internet access to the public.

### Scope

Specifically, this project will:

1. design an IP-based network that uses industry-standard wireless technology to interconnect nodes while providing Internet access through a series of redundant gateways;
2. implement that network such that
  - a. local emergency response organizations have connectivity to each other and to the Internet (as a best effort) during an emergency situation;
  - b. long-term relief and recovery operations have connectivity to the agencies necessary to support those operations; and
  - c. public entities have connectivity to the Internet during non-emergency situations and low-priority connectivity during emergency situations;
3. provide documentation necessary to implement and support the network for long-term operations;
4. provide documentation necessary to train the target customers and end users of the network; and
5. provide the tools necessary to implement and support the network for long-term operations.

The following activities are critical to the success of the project, but are not within its scope:

1. successful connection by the target customers and end users to the network;
2. Internet access for all end users through the network; and
3. successful “survivable” operation of the network during an emergency situation.

### Deliverables

Deliverables of this project include:

1. the design plans of all network components, including logical and physical configuration;
2. the implementation of the network, including at least one core node and at least one edge node;
3. the documentation necessary to implement and support the network for long-term operations;
4. the documentation necessary to train the target customers and end users of the network;
5. a list of recommended equipment, including sample configurations, that can be used by target customers and end users to connect to the network;
6. a methodology and/or program to assist in tracking resources (logical and physical) used in conjunction with the network;
7. a methodology and/or program to assist in tracking user data including, but not limited to, access credentials, priority level(s), and purpose;
8. a methodology and/or program to assist in tracking donations (monetary and equipment) used in conjunction with the network;
9. a methodology and/or program to assist in tracking support problems related to the network;
10. a methodology and/or program to assist in network monitoring and fault notification; and
11. minutes from any meeting related to this network that show a progression of discussion during the meeting and specifically highlights any key decisions made during the meeting.

## Cost Estimates

This project has no budget allocated to it at its inception. As SVWUX is a special interest group of SBAY, a non-profit organization, all work done for this project is by volunteers. If donations are made to SVWUX and allocated towards this project, budget restrictions can be refactored.

## Schedule Estimates

The project is scheduled to start on or before September 1, 2006. All design phases are expected to be completed before August 1, 2007. The implementation and marketing phase(s) cannot be scheduled at this time, as their scope and details will be developed during the design phases.

The schedules of the high-level phases are:

<u>Phase</u>	<u>Start Date</u>	<u>End Date</u>
Resource Acquisition	01 Sep 2006	01 Mar 2007
Network Policies	01 Sep 2006	31 Oct 2006

Design Core Nodes	01 Nov 2006	01 Apr 2007
Design Edge Nodes	01 Jan 2007	01 Jun 2007
Tooling	01 Jun 2007	01 Aug 2007
Implementation	01 Aug 2007	-

## Objectives

The objectives of this project are:

1. to design an IP-based network that uses industry-standard wireless technology to interconnect nodes while providing Internet access through a series of redundant gateways;
2. to implement that network such that
  - a. local emergency response organizations have connectivity to each other and to the Internet (as a best effort) during an emergency situation;
  - b. long-term relief and recovery operations have connectivity to the agencies necessary to support those operations; and
  - c. public entities have connectivity to the Internet during non-emergency situations and low-priority connectivity during emergency situations;
3. to provide documentation necessary to implement and support the network for long-term operations;
4. to provide documentation necessary to train the target customers and end users of the network; and
5. to provide the tools necessary to implement and support the network for long-term operations.

## Stakeholder Analysis

The following table lists the project's major stakeholders and their responsibilities and/or contributions:

<u>Stakeholder</u>	<u>Responsibility and/or Contribution</u>
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<u>Stakeholder</u>	<u>Responsibility and/or Contribution</u>
SIG Coordinator (Project Manager)	<ol style="list-style-type: none"> <li>1. Responsible for the project being on schedule, within budget and with the expected technical functions</li> <li>2. Defines the requirements of the project</li> <li>3. Allocates SVWUX resources and personnel to the project</li> <li>4. Approves all deliverables and key decisions related to the project</li> <li>5. Coordinates efforts with project partners, sponsors and donors</li> <li>6. Coordinates between SVWUX and external parties (can be delegated to another party with explicit instruction)</li> </ol>
Resource Acquisition Coordinator	<ol style="list-style-type: none"> <li>1. Acquires common resources needed for the project (as directed by the SIG Coordinator)</li> <li>2. Tracks resources acquired throughout the project</li> </ol>
Policy Coordinator	<ol style="list-style-type: none"> <li>1. Establishes and documents all policies and end-user agreements related to the project</li> <li>2. Ensures that all policies and end-user agreements are upheld throughout the project</li> </ol>
Design Coordinator	<ol style="list-style-type: none"> <li>1. Designs the components of the project</li> <li>2. Documents the overall design plan as well as the individual component designs</li> </ol>
Tools Coordinator	<ol style="list-style-type: none"> <li>1. Creates the tools necessary to maintain the network for long-term operation</li> <li>2. Documents the design and use of the tools</li> <li>3. Trains SVWUX officers, members and volunteers on the use of the tools</li> </ol>
Customer Coordinator	<ol style="list-style-type: none"> <li>1. Acts as the intermediary between the end user of the network and the rest of SVWUX</li> <li>2. Documents and tracks user-related issues, problems and enhancement requests</li> </ol>
Operations Coordinator	<ol style="list-style-type: none"> <li>1. Manages the network's long-term operations on a day-to-day basis</li> <li>2. Corrects any issues or problems found</li> <li>3. Schedules downtime on the network when necessary</li> </ol>

<u>Stakeholder</u>	<u>Responsibility and/or Contribution</u>
SVWUX members and volunteers	<ol style="list-style-type: none"> <li>1. Technical implementation of the project</li> <li>2. Works with the different project coordinators to handle the assigned tasks</li> </ol>
SBAY officers	<ol style="list-style-type: none"> <li>1. Financial support to the project</li> <li>2. Final ownership of equipment and donations required</li> </ol>
Emergency response organizations	<ol style="list-style-type: none"> <li>1. Defines the requirements of the project</li> </ol>
Partners	<ol style="list-style-type: none"> <li>1. Assists SVWUX in implementing the network by providing essential resources (i.e. dedicated Internet connections, radio towers, core network equipment, etc.)</li> </ol>
Sponsors	<ol style="list-style-type: none"> <li>1. Assists SVWUX in implementing the network by providing monetary or equipment donations</li> </ol>

## **Chain of Command**

The following chain of command will be used during this project:

