



ARKnet Deployment Project Data Sheet; May 2015

Goal Description

Cupertino has 7 ARKs located throughout the city where, in the event of an emergency, Cupertino Citizen Corps members will converge, self-organize, and deploy into the surrounding neighborhoods to assist the community with stabilizing the situation and assisting with the recovery. Information about the response is critical to the field and EOC to ensure the success of the response.

The current communications bandwidth between the EOC and the ARKs limits the volume and richness of information to only the critical elements about the response.

ARKnet is the first step toward building a *Wireless Emergency Intranet* for Cupertino that will support our emergency responders with a backup high speed data network.

Triggering Opportunities

- There are new cost-effective commercial technologies that can be leveraged to support a City-wide Emergency Intranet.
- There are Citizen Corps members with the knowledge and skills to create a wireless environment.
- ARKnet will support the activities planned for the ARK Data Management project thereby improving the information sharing throughout the City.
- There are other commercially available applications that will dramatically improve information sharing once a high-speed network is in place.

Supporting Objectives

With a successful Pilot behind us, the full deployment will support the City's need for an accurate and timely assessment of the situation in the field as an emergency evolves.

The project's objectives are:

- Develop the network topography and access point plan
Measure: City-wide coverage
- Identify the list of applications and services.
Measure: services mapped into CCC processes.
- Deploy a robust, resilient network that withstands an infrastructure-damaging event.
Measure: 24x7 network operation and access.

Deliverables

The following deliverables are planned:

- Wireless infrastructure equipment to named City sites.
- Network applications (VoIP, WebCams, File Sharing, Instant Messaging, Web page serving).
- ARKnet access to the commercial Internet.
- Site access agreements with high level sites.

Scope – Included

- All ARK sites; two are fully off-grid
- City sites as requested
- Hardened Sector Sites

Scope – Excluded

- Integration with the ARK Data Automation Project.
- Integration with WebEOC.

Project Organization:

Project Manager:	Jim Oberhofer
Technical Lead:	Kenneth Finnegan
Member, Technical Staff:	Allan Gontang Skip Stevens Ian Sidle Marcel Stieber Judy Halchin

Project Budget

Budget figures are estimates; actual costs will be provided on completion of the Design Phase.

Phase 1 (FY'16 funding): \$12,000

Project Timeline: Major Milestones

Requirements Complete	31 May 2015
Design Complete	30 June 2015
Sector Site Build complete	15 September 2015
Start ARK site roll-out	30 September 2015
Field Test	7 November 2015

Assumptions

- The extent of the deployment will be gated by the FY'16 funding that has been approved.
- Site agreements with one ore move locations that have city-wide clear coverage can be established.
- The Emergency Network would always be on and operational once fully deployed.
- The Network operates under FCC Type 15 rules (no radio or operator license required).
- All equipment is Commercial off the Shelf. Other than configuration, no custom solution is planned.
- Cupertino Citizens Corps will provide the resources to support and maintain the network environment once deployed.