

A Record of Success

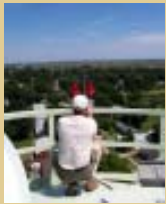
CUWiN's community networking solutions have been implemented to meet highly diverse technological and social challenges around the globe. Here are some of their stories.

Mesa Grande Reservation

At the bottom of the Black Canyon, the Mesa Grande Band of Mission Indians is a community of 22 households. Residents in this community are to get cable television service and cellular phone service. Even the post office won't deliver there. With our help, Tribal Digital Village deployed a wireless network that connects all the homes in the village with the tribal hall, providing residents broadband Internet access to their homes for the first time.



Homer, Illinois



Homer is a farming community in east central Illinois. Many residents commute an hour every day to the nearby university town. Homer's community leaders installed a wireless network that connects the town hall, the library, and the schools. In the near future, residents

will be able to connect to the network to gain Internet access as well as intranet services.

Apirede, Ghana

CUWiN has been working with Wireless Ghana to connect public institutions and provide Internet access at community centers where people can learn Information Technology and other skills that would otherwise be unavailable to them. Wireless Ghana is the first CUWiN network to implement Voice over Internet Protocol (VoIP) services, which connect two towns that are six kilometers apart.



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CU WiN
COMMUNITY WIRELESS



Who We Are

CUWiN is a coalition of citizen activists, technology professionals, and researchers who are dedicated to ubiquitous, low-cost, community-oriented networking technology.

Our mission is to develop decentralized, community-owned networks that foster democratic cultures and local content. Through advocacy and through our commitment to open source technology, we support organic networks that meet the needs of the community.

The Potential

Municipal networking projects have the potential to stimulate economic development, improve education, and strengthen communities.

- Municipalities that invest in broadband demonstrate economic growth rates that are as much as double communities that do not make that investment.
- Electronic resources that are physically limited to schools at the moment greatly improve traditional and adult education opportunities.
- Municipal networks provide the opportunity for citizens and neighbors to collaborate on locally-focused projects, like community renewal, and improve existing projects, like Neighborhood Watch.

The Challenge

Realizing a municipal network is tricky. Everyone has a stake in the project, and many people have conflicting stakes. Not-for-profit organizations, civic entities, educational institutions, and small and medium-size businesses will likely be in favor of the project. On the other hand, Internet Service Providers (ISPs) might initially feel threat-



Communities get the service they need at a price they can afford. That is what we call success!

ened. Cable providers will feel that they are treated unfairly by the franchising license.

To complicate matters, not all voices are equally able to get their message across because large national and multinational companies are able to leverage advertising departments and massive budgets against local interests. In Geneva, Illinois, one telecommunications company spent at least \$3 million to defeat a municipal broadband initiative. Their advertising campaign included push polling, where they pitted funding for schools against the broadband initiative and equated municipal broadband service with pornography.

In this kind of environment, it is easy to feel like the city officials will be forced to decide between the winners and losers.

Getting to Win-Win

Municipal broadband services can be “win-win” within the local community. Municipalities can get the service they want and cost recovery mechanisms. Local ISPs can be more profitable and provide high-grade professional services. Residents can get reliable, affordable broadband service in their homes, their businesses, and their schools. All of this for considerably less than current market prices suggest.

How do we do that?

- **Open Source:** Open source technologies allow the user to know how the system operates. This means that one is free to tweak the software to meet their needs. It also means avoiding the substantial licensing fees and upgrading costs of proprietary systems. CUWiN’s commitment to open source is demonstrated by our own software, which is free for everyone to use.
- **Off the Shelf Technology:** Off the shelf devices are cheaper and easier to upgrade than their custom-built counterparts. For example, given two equally priced and equally powerful nodes, it makes sense to choose the device that has a radio you can swap out for something faster and better. Proprietary technology doesn’t allow you to do that without substantial further investment.
- **Transparency:** Many consultants only know a few technologies, and they are often vendors for those technologies. You might not be sure whether their profit motive is coloring their judgement. CUWiN is a not-for-profit organization. What motivates us is well-designed communication infrastructures that meet your needs. We aren’t going to try to sell you something you don’t want or don’t need.