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Citywide Wi-Fi isn't dead yet

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Despite the recent onslaught of bad press, citywide and regional Wi-Fi networks are not dead.

In fact, cities, such as Corpus Christi, Texas; Minneapolis, Minn.; and Philadelphia, are actually seeing early signs of success. And lessons learned from these deployments if applied properly could help save bigger and more, ambitious projects such as Silicon Valley's regional wireless network.

Two of the biggest lessons that other cities can take away from projects currently under way are having a clear mission and use case for building these networks and also defining a business model for building and sustaining the network.

"Cities that have seen early success have been able to articulate very clearly to politicians and citizens how the network will be used and how it will benefit people," said Craig Settles, an independent wireless consultant. "And they've also had clear business plans for paying for the networks."

In the very earliest days of citywide Wi-Fi, this appeared to be the case. Cities, such as Corpus Christi, looked into Wi-Fi to solve a particular problem. The city wanted to allow its utility workers to read water and gas meters remotely. Wi-Fi seemed like a perfect solution.

The city soon expanded the scope of its network to also enable building inspectors, code enforcers, police, firefighters and emergency medical technicians to communicate wirelessly with each other. And now Wi-Fi is also used to keep tabs on city property such as vehicles and provide remote surveillance in certain parts of the city. Earlier this year, Corpus Christi sold its network to EarthLink, which will not only provide the wireless service to several city agencies, but also sell consumer broadband services to residents for $20 a month.

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Minneapolis also built its citywide network with the express intent of

using it for public safety and to connect city agencies together. USI Wireless, which is deploying the Wi-Fi gear and providing the service, had only a small portion of the network built in early August when a major bridge collapse put the emergency Wi-Fi network to the test.

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wireless consultant

Within hours, the network was opened up to all users, allowing people with dual mode Wi-Fi phones to communicate without clogging the cellular network. In the days and weeks that followed, the Wi-Fi network has also been instrumental in rescue and recovery efforts around the disaster site.

Philadelphia, which started building its network more than a year ago, took a different tack. The city saw Wi-Fi as a way to bridge the gap between rich and poor by providing low-cost broadband service to disadvantaged citizens.

EarthLink, which saw citywide Wi-Fi as an opportunity to own its own network infrastructure, won the contract to build and run the network. In addition to paying for the network, EarthLink also committed to providing some funding for the city's nonprofit group Wireless Philadelphia, which subsidizes Internet service for Philadelphia's low-income households and helps provide training and equipment.

Subscriber numbers in Philadelphia have not been released, but Greg Goldman, CEO of the nonprofit group Wireless Philadelphia, said that thousands of retail customers and dozens of nonprofit groups have already begun using the network, which is still not fully deployed. One of the biggest boosts in usage came when Drexel University, which owns and operates one of the largest wireless networks in the country, added the Wireless Philadelphia service to its array of services that it offers to students and faculty.

"There's no question the ground is shifting," Goldman said. "But wireless technology isn't going away. And it provides a much needed service for low-income people. We've been very clear from the beginning of that focus. And we believe it creates an enormous market for broadband."

After Philadelphia came on the scene, expectations of citywide Wi-Fi exploded. Soon cities, such as San Francisco, were promising free wireless broadband access for all citizens funded through advertising.

Other cities quickly jumped on the bandwagon and "free Wi-Fi for all" soon became a rallying cry for many Wi-Fi deployments.

EarthLink's management soon realized that the current business model would not suffice. And earlier this summer the company said it would not bid on any new city contracts. Then last month, EarthLink started pulling out of some contracts in cities where construction had

not yet started, including networks in San Francisco and Houston.

The problem that EarthLink is facing is simple. The company, which has mostly focused on providing an alternative broadband service to consumers, has not found a sustainable business model. And in many of the cities where it had hoped to provide service there was not a clear message of what the technology could bring to the city.

EarthLink's retrenchment has changed the course of the industry, at least for the moment. Cities, such as Chicago, have decided to put their Wi-Fi plans on hold while they re-examine their choices.

But others have decided to press forward. Despite some reports that it is abandoning its plans, organizers of the ambitious regional network for Silicon Valley say they are moving forward with plans to build a wireless network in 40 cities across four counties. The first two test cities are expected to be San Carlos and Palo Alto.

Still, EarthLink's problems and the spate of bad publicity are making it more difficult for the project to move forward. Silicon Valley's network was supposed to begin deployment this summer, but the project stalled as funding became scarce.

"Clearly investors are shaken by what is happening in the industry," said Seth Fearey, vice president and chief operating officer of Wireless Silicon Valley, the group spearheading the project. "And that is affecting us. But we are confident that will be able to convince people that our approach is different."

Fearey said that unlike San Francisco and some of the other projects that have been proposed, the Silicon Valley project has a different business model. The project is not looking to provide an alternative consumer broadband service in communities that are already well served by existing broadband service providers. It's also not necessarily looking to serve the municipal or public safety market by building a wireless network that is only used by the cities themselves.

Instead, Wireless Silicon Valley along with its partners hopes to create a wireless broadband network that can be used as an economic development tool. The idea is that businesses in industries, such as construction or health care, can use the network to allow their remote and mobile workers to communicate using a robust wireless network.

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And unlike other projects that have focused on Wi-Fi, Wireless Silicon Valley hopes to use other licensed and unlicensed wireless technologies, such as WiMax, to offer service

throughout the region.

"A network of this size and magnitude will need more than just city contracts to sustain it," said Fearey. "Cities are a good starting point, but they can't carry the entire load, which is why we are going to industries and businesses within the region to develop applications."

While it appears that Wireless Silicon Valley has embraced a new business model, Settles said that he believes it could still be a tough sell, especially in the current climate.

"At the end of the day, a lot of the success of these projects comes down to marketing," he said. "You really have to go out there with a clear message and articulate how the network will impact people for it to be successful. And then you have to explain how you can pay for it. And that's not easy to do."