

**Reprint from Broadband Wireless Business, March 17, 2003**

***The Municipal Broadband Wireless Opportunity***

*Broadband Wireless Can Find Fertile Ground in Municipal Networks, Where a Strong Demand for Service is Often Unmatched by Telecom Infrastructure*

By David Shpigler

Toward the end of the 1990s, the growth of the Internet created and encouraged opportunities for broadband service providers to emerge and pursue opportunities to develop infrastructure in search of customers. However, the ensuing meltdown of the telecom and technology sector resulted in underutilized infrastructure in some market sectors and a woeful lack of needed network presence in others.

Currently, many market sectors have retrenched. There are two key market dynamics in place that offer promise in the near term. First, the need to bridge the elusive “last mile” economically has opened the doors to a variety of alternative access technologies. In this respect, wireless platforms have been of principal interest. Second, with capital so scarce, service providers have refocused their energies and resources on the largest markets. Many of the smaller municipalities have had to fend for themselves, and, as a result, they feature some of the most aggressive network buildouts seen today.

Naturally, it makes sense to investigate the confluence of these two growing dynamics, which has generated the municipal wireless broadband opportunity.

**Broadband as Economic Stimulus**

On an ongoing basis, municipalities have the responsibility to provide a number of services for their residents and the businesses. In addition to basic civic services, the ability to recruit businesses and jobs to the area has become critical in assuring the vitality of the community.

When deciding where to locate and which cities hold the right infrastructure for their needs, businesses today can choose between the technology “haves” and “have-nots”. The technology separation that ensues from such choices is sometimes referred to as the “digital divide”.

Left behind in the scuffle are small towns that have been ignored by telecom service providers in the past. Such towns may have scarce capital resources, and are often left behind to face a future without real growth opportunities.

According to a research report by The Shpigler Group (“Municipal Telecommunications and the Digital Divide”), for every 10 percent increase in the population that has Internet

access, the average household income rose by an astounding \$1,754 for *all* of the households in the community.

In response to such dynamics, small towns and cities across the United States are showcasing some of the most interesting – and aggressive – Internet and broadband buildouts seen today. These communities are taking charge of telecom infrastructure development in the absence of the large service providers.

The same study by The Shpigler Group profiled an example of how a small town of 3,500 households and 300 businesses could potentially reap the rewards of economic stimulus of through telecom infrastructure development. In the case of this small town, there was a benefit estimated at over \$30 million derived from job creation, competitive choice, and increased output.

### **Municipalities Consider Broadband Wireless**

Broadband wireless technology offers an alternative to traditional wireline methods. It promises lower costs, new applications, and scalable services. As a result, operators are looking at a myriad of broadband wireless choices – MMDS, 802.11a, 802.11b, free-space optics, and mesh networks topologies, to name a few. Among such operators considering broadband wireless technologies is a new breed of service provider – the municipality.

### **Key Issues in the Municipal Market**

Broadband wireless vendors trying to market to municipalities need to be aware of the differences that exist within this market relative to the private sector. Below are some of the key issues we have observed in our practice.

*Retail/Wholesale Mix.* While much of the activity within the private sector of late has been focused on the wholesale, or “carrier’s carrier” market, public entities have been much more willing to tackle retail applications. Much of this retail activity has been focused on the enterprise sector, with end user applications to area businesses offering high-speed delivery being a preferred choice. Increasingly, municipalities are also looking at MMDS and wireless local area network options to serve the residential market as well.

*Private Enterprise Ownership.* Historically, only private operators invested in or acquired other going concerns. This is no longer the case. Today, municipal entities that have superior access to capital are increasingly willing to become equity participants within the telecommunications sector. It is becoming more commonplace to see municipal investments in wireless ISPs, tower infrastructure and service providers – or the acquisition thereof. In addition, a great deal of increased attention is being focused on the establishment of new ventures involving public-private partnerships.

*Technology Platform Use.* Private enterprises have typically chosen either a single technology platform or various technologies to separately serve different portions of the market. For example, a private, investor-owned utility may run a wholesale fiber-based

business and a wireless infrastructure access business without exploiting the two technologies' synergies. Municipalities tend to take a much more holistic view of their telecom businesses. Serving the customer may involve a combination of approaches. For wireless equipment vendors, this presents opportunities and challenges at the same time.

*Availability of Financing.* Much of the slowdown of the telecom sector has little to do with demand-side factors. It's more likely due to the lack of available funds from venture sources that have been burned in the bursting of the telecom and Internet bubbles. Municipalities are somewhat immune from this issue and have the ability to pursue network buildouts based on their own ability to draw funding, either through internal operations or through the issuance of general obligation bonds. However, the consequence of this financing is a slower sale and delivery process and the need for equipment manufacturers to work closely with the customer to close the sale.

*Focus on Profitability.* As the economy grows more uncertain, the need to prove profitability over shorter time periods is a must. Municipalities are not totally immune from this effect, but they do tend to test the viability of a business case differently, particularly on three key dimensions. First, public entities tend to be more driven by revenues than by profits. Second, the long term focus of the viability of the business case tends to focus less on profits and more on cost recovery and the ability to service debt. Finally, time horizons are typically pushed out, with repayment over longer periods of time seen as acceptable.

## **Key Questions for Vendors**

In order to succeed with municipalities, technology developers and vendors will need to answer two key questions involving broadband wireless: "Why now?" and "Why us?"

For many municipalities, the "why now" question has already been answered. They recognize the value in creating municipal broadband networks. However, the value determination question has not yet been fully answered for many. In these situations, technology vendors must offer a value proposition argument they can support and be prepared to communicate it.

The "why us" question frames the key issue at the next level – namely, why should a particular municipality utilize a particular technology platform. In today's challenged economic state, each broadband wireless vendor must be prepared to showcase not only the features and functionality of the wireless equipment, but also the economic argument. Any vendor that can effectively address these two critical issues can expect to succeed in this rapidly growing municipal market.

## **About the Author**

David Shpigler is president of The Shpigler Group, a strategy management consulting firm. He can be reached at [shpigler@shpigler.com](mailto:shpigler@shpigler.com).