

Municipal Wireless

The Challenge

In the early 2000's, many high-profile municipal wireless initiatives and deployments ended in failure. This was mostly due to vendors over-promising the market potential and municipalities focusing mainly on what turned out to be unrealistic revenue models. This caused several industry analysts to declare that "municipal wireless is dead".

2010: New Factors to Consider

Fast forward to 2010; there have been several exciting technical developments which make the proposition of a municipal wireless network more feasible:

- Equipment prices have gone down significantly as technologies such as WiMAX and Wi-Fi have matured.
- There are currently several options for unlicensed WiMAX access and for public safety applications. These have significantly reduced cost of ownership.
- Smart antenna and beamforming technologies used by new players in the Wi-Fi equipment market promising 300 % increase in coverage, 300% reduction in deployment costs, and efficient multi-hop routing.
- The proliferation of novel mobile network access devices such as smartphones and netbooks.

All of these developments suggest that selecting the correct technology has now become even more critical, but significantly more challenging given the number of options available. The main challenge is that the most innovative products are being offered by newcomers into the Wi-Fi arena; hence established equipment suppliers may not have the most suitable solutions on the market. Therefore vendor selection cannot be achieved without significant market research and technical expertise as opposed to a simple RFP approach.

New Expectations

2010 is witnessing tremendous growth and support for open government and connected government which has led to the coining of the catchphrase "Gov 2.0". Progressive municipalities worldwide are keen on providing

What is the best way for a municipality to provide wireless access to different stakeholders? Is it through city-wide Wi-Fi, WiMAX, cellular, or a combination of these technologies? What are the technical limitations of each approach?

AT&T reports that its mobile data traffic is up 5,000% over the past three years. A typical smartphone generates 30 times the traffic of a traditional data-enabled phone-and a netbook generates 450 *times more traffic*. *How do you design your wireless network to keep up?*

Vancouver's Open Data Portal represents an opportunity for citizens, especially citizen coders, to help create a City that "Thinks Like the Web" [Eaves.ca]. Has your municipality considered developing an information portal?

citizens with tools to simplify interaction with government services; in addition they are opening up their datasets for third party application developers to provide innovative value added services. The increase in citizen demand is setting the scene for the deployment of municipal networks that support access to these services, thus increasing the number of sustainable ownership and partnership models.

Ownership Options

On the business side, the ownership model needs to be considered carefully. There is a significant learning curve associated with the management of municipal networks. In addition, availability of municipal assets also affects the overall outcome of the deployment model. There are several options available such as non-profit, co-operative, 3rd party contracting, public private partnership, municipal, and government loan-grant. Selecting the best model requires judicious selection of the ownership model.

Lessons Learned: The Need for Expert Guidance

In order to leverage the introduction of disruptive technologies, and evolutions in network requirements and access technologies and spectrum licensing options, municipalities need to stay abreast of the latest developments on the technical side in order to be able to engage vendors and to be able to ask the right questions. This requires significant resources and expertise in order to perform due diligence and market research.

The business and technical visions have to be properly formulated in advance. Once this is done, they can then be used to drive the development of a realistic and prudent business model which in turn can drive the development of technical requirements while clearly indentifying the constraints and risks. This leads to a successful and cost-effective product and services portfolio optimization.

With a proven track record and methodology, Red Mobile can assist you with the development of best practices that suit your unique situation based on our methodologies and analysis techniques.

Complimentary
Consultation

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Every municipality has a unique “demand thermometer”, so no two municipalities should have the same priorities.

In 2007, Chicago, San Francisco and Houston’s wireless Initiatives failed because they employed the wrong ownership model [S. Meinrath-Govtech.com]. What is the best model for your municipality?

With Red Mobile’s assistance, our client was the first to receive a 4.9 GHz license for public safety in Canada.

Red Mobile customers have reported 6-8 times ROI made in retaining our services within the first year of implementation of our suggested solutions.

Red Mobile can assist you with:

- Feasibility Study
- Strategy
- Master Plan
- RFP Development
- Vendor Selection
- Project Management
- Services Portfolio Selection