

Municipal Wireless Business Models



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Municipal Wireless Network



- Market Size
- Municipal Motivation
- Business Case
- Network Ownership
- Free or Paid Service
- Single Application or Mixed Use

Municipal Broadband Market



■ Municipal Broadband Market

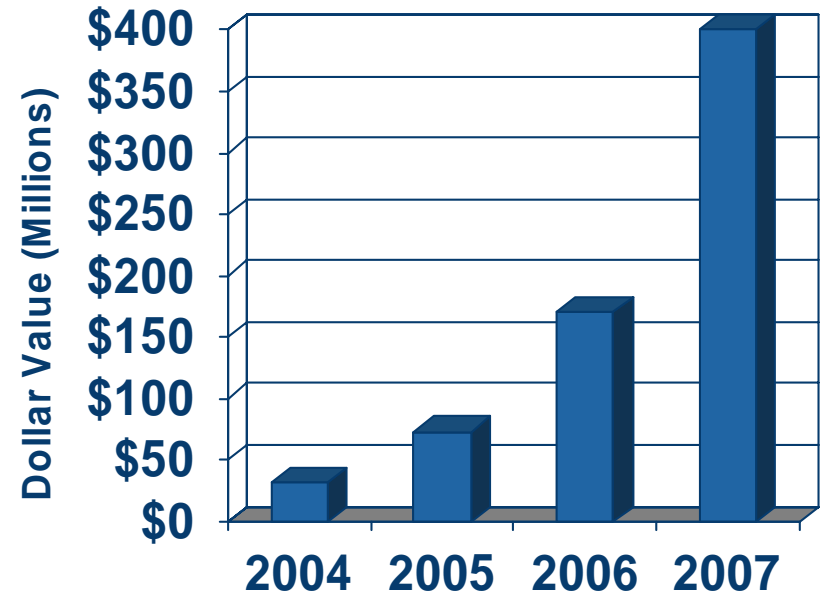
- Roughly 370 Fiber & Wireless projects deployed or in consideration
- Shift from Municipal Ownership to Public-Private Partnership Model

■ Wireless Broadband

- Roughly 300 functioning or planned municipal networks
- 80% of Muni networks are Wi-Fi



Municipal Wireless Broadband Market



Capital Investment in Municipal Wireless Broadband Networks

Municipal Broadband Network Objectives



Bandwidth

Broadband Competition <ul style="list-style-type: none">• Triple Play Bundling• Broadband Access, VoIP and IPTV• Business Broadband Competition• High Bandwidth Fiber Network• High Speed Broadband Connectivity	Economic Development <ul style="list-style-type: none">• Community services• Healthcare• Education• Local business support• Tourism
Digital Divide <ul style="list-style-type: none">• Affordable/Free broadband• DSL/Cable Alternative• Hot spots in Public Locations• Ubiquitous Broadband Coverage	Municipal Applications <ul style="list-style-type: none">• Govt. Agency Connectivity• Remote/Mobile Employee Access• Public safety• Intelligent Traffic Management• Asset monitoring• Meter Reading

Mobility

Business Case for Municipal Broadband Networks



	<i>Municipal Ownership</i>	<i>Public-Private Partnership</i>
Contract Awarded to	System/Network Integrator	Municipal Broadband Service Provider
Network Owned by	Municipality	Service Provider
Primary Benefits	<ul style="list-style-type: none"> • Mobile Workforce Productivity • Municipal Applications • Enhanced Public Safety 	<ul style="list-style-type: none"> • Minimal Risk • Increase Broadband • Competition • Open Access for Multiple ISPs • Low Cost Public Access & Ads • Free Service for Digital Divide • Municipality “contributes” Access Rights and is Anchor Tenant for Municipal Applications, Mobile Workforce Productivity, and Enhanced Public Safety
Secondary Benefits	<ul style="list-style-type: none"> • Increased Competition • Free/Low Cost Public Access • Reduce Digital Divide • Business Services • Enhance Tourism • Economic Development 	<ul style="list-style-type: none"> • Business Services • Enhance Tourism • Economic Development

Municipal Business Models – Currently Deployed



Service Provider	Technology	Municipality	Business Model
MobilePro	Strix	Tempe, AZ	2/06 - Fee based, tiered pricing
MetroFi	SkyPilot	Sunnyvale, Santa Clara, and Cupertino, CA	9/05 - Initially fee based, tiered pricing 12/05 - Free with advertising; option to elect for fee based without advertising
Skytel	?	Lexington, KY Colorado Springs, CO Hillsboro, OR	5/05 - 9/05 - Plan is for fee based, tiered pricing

Municipal Business Models – RFP / Deploying



Service Provider	Technology	Municipality	Business Model
EarthLink	Tropos / Motorola	Anaheim, CA Philadelphia, PA Milpitas, CA	Fee based, tiered pricing
Google	Tropos / Alvarion	Mountain View, CA	Free with advertising
Google / EarthLink	Tropos / Motorola	San Francisco, CA	Free with advertising; option to elect for fee based without advertising
MetroFi	SkyPilot	Aurora, IL Portland, OR	Free with advertising; option to elect for fee based without advertising <i>AND</i> Public safety, public works, and field-based communications for city employees
Galaxy / MobilePro	SkyPilot	Brookline, MA	Fee based, tiered pricing; 4.9 GHz public safety

Hard Savings, Soft Dollars, and ...



Justification may be through a single or multiple applications

- **City can justify by spending less...or getting more for the same amount**
 - Reduced telecom expenditures
 - Increased productivity for in-field workers and public safety can gain up to 2 hours/day
 - Guaranteed energy performance savings contract – AMR
- **Bringing in more revenue...sooner**
 - In-field building permits, inspection and approval
 - Fastest way to realize property tax revenue
 - Upgrade infrastructure for revenue-loss avoidance
 - “Pays” for Wi-Fi Parking Meter - Houston, TX
 - Cost Savings - \$224.5K
 - Credit Card Fraud - 40% of transactions have 10% fraud - \$112.5K/year
 - Reduced Downtime 99% vs. 95% uptime due - \$112K/year
 - Network Cost - \$295K
 - Payback - < 16 months

▪ Keep city revenue within the city

- Grassroots effort to keep dollars, jobs, and citizens *within* the community
 - Ford dealership required broadband access to maintain active status

▪ Never underestimate the political agenda

- Creative financing
 - Money made available through state redevelopment funds and federal Homeland Security dollars
 - Service provisioning, reselling services to schools and other local customers, may be used to "self-fund"
- The power good local PR...especially when next year is re-election
- FUD...fear, uncertainty, and doubt
 - We may not need it but we need to keep up with neighboring communities
 - Our city/kids/local economy can't be left behind
 - Disaster recovery and 9/11 forced mission-critical communication into the mainstream

- **No single formula works for all Municipalities**
 - Free is not always the best answer
 - Best solution is driven by local needs (current and future), constituents, vision, and leadership
 - Applications vary dramatically based upon community shortcomings, age/lack of infrastructure, and demographic profile
- **Service Providers must understand the local requirements in order to best serve the community**
 - Work closely with the Municipalities to deliver the right solution and adapt to ongoing needs
- **Best business model is one where both the Municipality and the Service Provider have successfully meet their goals**