# INTERNATIONAL MUNICIPAL LAWYERS ASSOCIATION




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**Title:** An Update on Local Government Provisioning of Telecommunications

*by*

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# An Update on Local Government Provisioning of Telecommunications

## International Municipal Lawyers Association
## October 29, 2007

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I. Overview

- Needs of Local Communities
- Industry Attitudes
- Why Now?
- Is Public Ownership for You?
- Feasibility and Execution
- ITS—a Parable.

II. Needs of Local Communities -- Communities are desperate for "Big Broadband" deployment.

A. Constrained, asymmetric data communications distorts uses of the networks.

B. Getting to 30—100megabites both ways will stimulate economic development.

C. Even today's relatively slow (3 megabites down stream) is not universally available.

1. Unserved areas
2. Inadequate service in "cash cow" areas
3. No competitive alternatives to essential infrastructure in urban areas

D. Productivity Gains for internal governmental uses.

1. Expand quality of services to citizens
2. Public safety
3. E-Government
4. Budget savings

III. Points of Conflict with Industry Providers:

A. Industry wants slow deployment—

1. Expensive to build
2. Need enhanced cash flow to justify projects

3. Burdened with legacy networks that are profitable "as is"
4. 80% of potential revenues are available to legacy networks with zero additional capital expenditures.

B. Don't expect deployment in the next 5-10 years in:
- rural areas
- Blue-collar neighborhoods
- Small business and at-home work locations

C. At&t has opted for low capacity infrastructure

D. Verizon has opted for constrained speeds over fiberk

E. Time Warner/Comcast are not planning Fiber to the Home deployments.

IV. Providers will Resist Competitive Infrastructure Deployment

A. Publicly owned fiber changes the game—
- Turns fiber into a commodity
- Eliminates the gatekeeper control of incumbent.

B. Incumbents will fight any new publicly owned deployment
- To preserve local government as "anchor tenant"
- Fear inherent advantages of public infrastructure
- Industry will argue lack of "fair competition/non-discriminatory treatment"

V. Why is Public Provisioning of Telecommunications Infrastructure Occurring Now?

A. Technology Changes Have Changed the Telecommunications Game

1. Digital v Analog—Digital wins
- Transparent to information content
- Compression allows better quality than comparable analog bandwidth
- Near Zero storage costs

2. Wireless v Wired—Wireless wins mobile; wired wins fixed.
-Mobility adds great utility
-Wireless spectrum allocations limit bandwidth; e.g. 700MHz argument over 25 contiguous MHz
-Smart radios/dynamic frequency allocation could change economics.
- Potential, but not reality, for wide band wireless service

3. Fiber Beats Copper but in current service areas, “upgrades” beat fiber.
    a. In “Greenfields” fiber is
        – Cheaper to build
        – Cheaper to operate
        – Increased capacity
        – Increased reliability
    b. In “upgrades” enhanced copper beats fiber
        – Upgrades are 30% of the cost of fiber newbuilds
        – Upgrades can provide most of the current services
            • Voice—any technology
            • Low speed digital—any technology (dial up modem/cell internet)
            • Hi speed internet (1-3Mbs)— 2-way DSL copper; wi-fi; advanced cellular; copper coax; fiber
            • Video—6 mbs/analog ch/ 1.5mbs/digital ch/ 5mbs HD ch

B. Federal policy is driving alternatives to traditional providers.

1. FCC is preempting local and state protections for consumers
    • Access charges
    • Information services
    • Universal service funds
    • Cable franchising
2. FCC has refused to guarantee network neutrality
    a. No blocking, but preferred treatment OK
    b. No competitive access to fiber to home
3. FCC and Congress are, to date, neutral on public ownership

C. Major third party stakeholders are seeking alternatives to the incumbents.

1. EarthLink’s interest in municipal wi-fi was to create an alternative path to ISP subscribers.
2. IT Companies see market power shifting to network owners if bandwidth is constrained.
3. Silicon Valley Coalition: Computer and Chip Manufacturers pushing Lautenberg/Boucher bills.

VI. Which Communities Fit the Profile for a Likely Public Owner? One Size Does Not Fit All

A. Wireless public/private Services
    – Long Beach CA hotspots
    – Philadelphia PA low income access
    – Houston TX Public Services and low income access

B. Fiber/Wireless WANs
- Montgomery County MD Fibernet
- Portland OR ERNE network
- New 700mhz national local government public safety system?

C. Wholesale "Backbone" Network
- UTOPIA UT –open network architecture
- Ashland OR –open network and some retail servicess

D. Enhanced Services to Business and Residents
- Cedar Falls IA –dominant video and voice provider
- Mecklenburg/Iredell Consortium NC- dominant video and data provider

E. Head to Head Overbuild Competition
- Burlington, VT – open network plus end-user services

VII. Take a holistic approach to addressing City's needs.

- Service needs
- Technology alternatives
- Revenue Potential
- Costs and Cost Sharing strategies
- Legal Authority
- Financing

VII. The Planning Process: Alternatives and Feasibility

A. Feasibility study
- Needs Assessment
- Least Cost Design to Address Needs

B. Develop the Business Case
- Revenue Potential v. Competitive Threat
- Legal Constraints

C. Structure for Venture
- Government users as "anchor tenant"?
- Existing department or an entirely new entity?
- Look for possible economies of scale--Interlocal agreement with other entities
- Private Participation?
  - Turn key construction
  - Enterprise management
  - Financing participation

D. The Political Process
- Community support
- State approvals
- Election Cycle

E. Financing Issues

1. Traditional methods of financing municipal broadband projects
   - Revenue bonds
   - General Obligation bonds
   - Certificates of Participation
2. Non-traditional methods of financing
   - Public-private partnership
   - Rural Utility Service (USDA) loans and grants
3. Tax Considerations and Private Equity