

Strategy for Municipal Connectivity

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January 2006

How we can ensure that citizens and businesses have access to affordable connectivity (voice, video, and data) service? At times a municipal retail offering may be the best solution while other times public/private partnership or a private approach is the most appropriate.

As a starting point, let's look at what the state of the connectivity industry is, and more importantly, the service providers in the industry. Table 1 provides an overview of residential service providers, services and recent trends.

Table 1: Residential Service: Industry Status

	Telephone	Cable Television (CATV)	High-Speed ¹ Internet/Data
Traditional Provider(s)	Single telephone provider in community	Single wired CATV provider to community	Telephone and/or CATV provider
Infrastructure	Twisted Pair (copper)	Hybrid-Fiber Coax (HFC)	Infrastructure not originally designed for data (cable modems and DSL are add-ons).
Alternatives	<ul style="list-style-type: none"> • Cell phone • VoIP (Vonage, other) via high-speed Internet connection 	<ul style="list-style-type: none"> • Video over IP • Satellite • Off-air • No TV 	<ul style="list-style-type: none"> • Wireless High-Speed (WiFi, WiMax, other) • Dial-up (not a high speed option) • Fiber to the Premises (FTTP) deployments
Trends	<ul style="list-style-type: none"> • Declining number of lines and users • Long-distance now a commodity • Declining margins • Flat or declining subscriber fees 	<ul style="list-style-type: none"> • Increasing programming costs (content controlled by a few organizations) • Declining margins • Increasing subscriber fees • Flat or declining growth 	<ul style="list-style-type: none"> • Supports VoIP • Limited support of Video over IP • Moderate growth • Solid margins for the mid-term • DSL and cable modems meet short term needs • Broadband² needed for video applications

¹ Internet access greater than 384 Kbps.

² Internet service that does not limit applications – often referred to as 10 Mbps or above.

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Business services are faced with similar issues. In Table 2, we present the status of business service.

Table 2: Business Service: Industry Status

	Telephone	Cable Television (CATV)	High-Speed Internet/Data
Traditional Provider(s)	Incumbent provider (ILEC) plus CLEC which leases the local loop from the ILEC	Single wired CATV provider in community	Incumbent telephone, CLEC, CATV, and wireless providers
Infrastructure	Twisted Pair (copper) with limited Fiber to the Business	Hybrid-Fiber Coax (HFC)	Telephone network based on T1 hierarchy (1.5 Mbps), rather than LAN technology (100 Mbps)
Alternatives	Aggregation via private or public fiber CLEC overbuilds (focus on large users)	Video over IP Satellite Off-air No TV	Aggregation via private or public fiber CLECs (focus on large users)
Trends	Long distance is a commodity VoIP is indirect threat short term Recent FCC actions may limit CLEC ability to offer competitive service	Not a key concern for businesses	T1 and T3 hierarchy limit application potential DSL and cable modems meet needs for some businesses Solid margins for the mid-term Broadband needed to support growing data transfers

The conditions shown in the tables demonstrate an industry (business model) nearing the end of its life-cycle. No longer can a single service support a specialized communication infrastructure.

- Traditional voice revenues will continue to decline in the telephone network.
- Traditional cable television revenues will not continue to support the CATV infrastructure.

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In the short term, telephone and cable television providers are filling revenue gaps with data service. However, without network upgrades such as to Fiber-To-The-Premises (FTTP) or other, gaps in demand for affordable bandwidth will grow. The incumbent's claim that needs are being met, and competition is strong. Spend a few minutes with a consumer, and we quickly see this is often not the perception. In other words – the existing business models and structures will have difficulty meeting the needs of residents and businesses across the country. In order to keep our communities and country competitive, we must seek new business models—models that encourage development of new applications, keep access affordable, and provide ubiquitous access. The starting point is a public debate and then development of a new connectivity policy that encourages private and public alliance.

Does this mean a municipal or private service provider sits back and does nothing? No, it does not. Action steps to consider include:

- Discourage state legislative efforts to introduce legislation to prohibit municipal involvement in providing connectivity service.
- Support state legislative efforts that address new business models and ensure level playing fields.
- Question the validity of “silver bullet” no risk propositions promised by some consultants.
- Identify existing service and demand gaps in your community.
- Seek solutions, such as wireless, fiber-to-the-business, and fiber-to-institutions, to fill identified gaps.
- Leverage and improve existing infrastructure prior to overbuilding.
- Seek solutions that encourage private business innovation.

Selection of a business model or technology is not a goal, it is a strategy. The starting point in developing your business and technology strategies is identification of your goals, objectives, and measurements of success.

For more information on municipal connectivity and the potential strategies for your community, contact Tom Asp at 410.964.5700 or at tasp@internetCTC.com.

About the author: Thomas Asp has been serving public power systems for over 20 years. Tom is recognized as an expert in evaluating and offering recommendations regarding municipal broadband communications systems. He has been actively involved with telecommunication market research and feasibility analysis for over a decade.

About CTC: CTC is a public interest communications consulting firm. We provide engineering and financial analysis for public sector and non-profit clients throughout the United States.

