



Community Broadband Planning Services



The future of our communities is determined increasingly on their “connectedness” to the digital world. Broadband superhighways have become a critical factor in measuring a community’s capability to succeed in the new world economy. Infrastructure that enables these superhighways is essential, enabling businesses, residents and communities to connect to one another and to the rest of the world. Unfortunately, America still lags behind many other advanced countries in broadband deployment and adoption and many smaller communities lack sufficient access to advanced, affordable broadband services. As a result, local communities have taken it upon themselves to develop advanced broadband networks to secure their futures in the connected world. Not only do these networks provide significant benefits to local communities, but also a new source of revenue to local governments that stays local in the community.

Through community broadband, local governments have a tool to provide greater impact in their local economies while enabling critical services for education, healthcare, public safety, businesses and residents. Investment in community broadband has significant impact on how local economies are developed and sustained. Businesses have become increasingly reliant on high-speed broadband services as a basic utility and, as a result, local broadband availability has become a key aspect of site selection and relocation in the business community. The growth in teleworkers and home-based businesses also necessitates the need for high-speed local broadband services. Additionally, community anchors, such as schools, libraries and hospitals continue to need additional broadband services, as their operations become more online. The importance of this resource cannot be underscored and local governments now have the opportunity to become the driving force to secure broadband in their communities.

Local governments are charged with making wise investments in infrastructure that will benefit their communities. Where local roadways provide transit systems that allow local users to connect with one another, local broadband provides the communications systems that allow local users to connect with the rest of the world. In areas where broadband has been slow to develop, local governments have taken it upon themselves to strengthen their communities by investing in community broadband. In doing so, they have leveled the playing field for their residents and businesses, allowing their communities to compete in the connected world.

Investment in community broadband provides long-term benefit to local governments and their communities. It supports economic and community development, enabling local job growth, supporting development of high-tech and high-wage industries and attracting new businesses to the local area. Broadband enables Internet and other services in public facilities, parks, and community centers. It enables new public services, such as local online advertising for business, digital bulletin boards and online community alert systems. Wireless services complement wired broadband services, providing a host of applications for the community, public safety, education, healthcare other community anchors and businesses. The flexibility of community broadband networks allows local governments to realize a multiplicity of benefits from a single investment.



Community Broadband Benefits

Economic Development

- Attract, retain and grow businesses in the local economy
- Promote and develop high-tech, high-wage industries
- Develop e-business parks focused on high-tech industries
- Support teleworker and work-from-home population
- Promotion through local online advertising
- Reduce telecom costs for local businesses

Community Development

- Broadband and wireless access in public facilities, parks, libraries and other locations
- Free or low-cost services for disadvantaged populations
- Digital distribution of community information

Revenue Generation

- Owner/Operator, lease and revenue share models
- Dark and lit fiber services
- Cell tower leasing
- Cell tower backhaul services
- Co-location services
- Internet, voice and video services

Education

- Advanced, affordable broadband services for school districts and higher education
- Interconnection with other school systems
- Distance learning and remote classrooms

Healthcare

- Advanced, affordable broadband for hospitals, clinics, med centers and doctors offices
- Coordinated wireless communications to emergency vehicles
- Interconnection with other health systems
- Sharing with research and education facilities worldwide

Public Safety

- Provide new applications that enhance public safety and reduce cost
- Equip first responders with the right information in real time
- Provide multiple levels of redundancy for critical public safety communications and e911
- Heightened security for sensitive communications



Community-Based Broadband Planning

Magellan Advisors provides consulting services to local governments who wish to develop advanced broadband in their communities. We use a comprehensive approach to understand, document, develop and implement our clients' most challenging broadband projects. Our consultants understand the goals of local governments, stakeholders and community organizations and have extensive experience creating effective solutions, organizationally, operationally and technically.

We are a full-cycle consulting firm, partnering with our clients from project inception through implementation. We are a "hands-on" firm with strong project management abilities and implementation skills to see our client's projects through from concept to completion. Our wide spectrum of services provides unmatched value to our client's projects, resulting in achievement of business and community goals. As community broadband projects have significant, long-term impact to the local area, we assist our clients in defining the role broadband will play in the community and help them integrate broadband into their master planning activities. Through this process, the many local stakeholders are involved in the broadband planning process, which results in more thorough planning for community needs.

We assist our clients through the business planning process to help them understand the opportunities and risks around community broadband, including business model development, financial planning, funding acquisition, organizational structure, legal/regulatory analysis and operations planning. The outcome of this process produces a customized business model, tailored to the specific requirements of the clients' needs. This business model provides the guiding principles behind the project, addressing major business, financial, organizational and operational factors.

We provide broad needs assessments, market assessments, independent surveys and focus groups that identify local market conditions for community broadband. This information helps determine the local need for broadband as well as the right size, type and geography of potential broadband services for our clients' respective markets. From this, we determine the market demand for broadband and propensity for customers to use a community broadband provider.

Our deep experience in systems and infrastructure allows us design and engineer the right network solution for a client project, meeting the technical, operational and budgetary requirements. Our technical services include all areas of engineering, design and implementation, including outside plant, central office, data center, core, distribution and access network components. We assist our clients in finding the right type of platforms for their broadband networks, including traditional TDM and NextGen IP/MPLS-based systems. We have far-reaching experience in operations planning and management as well, focused on developing the right BSS/OSS systems for our clients' projects.



Comprehensive Planning & Implementation Services

Economic & Community Development Planning

- Impact of technology and telecommunications projects on the greater community
- Job creation studies through technology and telecommunications projects
- High-Tech business park development/Technology incubator development
- Technology and telecommunications programs for low income and disadvantaged groups
- Marketing municipal telecommunications to high-tech and adjacent industries

Market Planning and Research

- Demographics of existing, adjacent and overlapping markets
- Market sizing, take-rates and demand aggregation
- Competitive analysis of existing service providers in the market
- Regional/national trends and emerging technologies
- Bandwidth growth/usage and the applications that are driving this growth
- Product mix, complements and substitutes in the market

Organizational Structuring

- Analysis of structuring options and business models
- Regulatory requirements of various business models
- Operational planning and management for the organization
- Financial modeling and analysis of various business models

Marketing and Communications Planning

- Development of educational materials for community stakeholders
- Development of direct marketing for local businesses and residents
- Press release management
- Service provider marketing and communications

Operations Planning

- Operational support requirements and staffing needs
- OSS/BSS and systems implementation
- Business process engineering
- Ongoing operations

Design and Engineering

- Outside/Inside plant design and engineering
- TDM/DWDM/SONET/Ethernet/MPLS/IP infrastructure design and engineering
- Core, distribution and access network design and engineering
- Convergence planning and integration on multi-service IP networks
- Capacity planning and network expansion

Funding, Grants and Loans

- Federal, State and local grant development
- Grant writing and management
- Compliance management

Financial Planning

- Financial planning tailored to specific business models and organizational requirements
- TCO, ROI and Cost of Capital analysis
- Capital budgeting process including initial builds, expansions and other capital outlays
- Operational budgeting process including staff, O&M and other operational outlays
- Financing and leasing options and their impact on the project

Vendor Evaluation

- Systematic evaluation of competing vendors
- Cost/benefit analysis of disparate vendor solutions
- Integration testing and pilot projects
- Vendor negotiations and performance management

RFI/RFQ/RFP Development and Evaluation

- Requirements planning for RFX releases
- Evaluation of qualified bids for compliance
- Pre-bid meeting presentations

Project Management

- Management of multi-phase projects from concept to completion
- Management of cross-functional teams and departments
- Vendor management during design, evaluation and commissioning phases

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