



**Spectrum**  
ENGINEERING CORPORATION

# ENGINEERING PARTNERSHIPS IN INFORMATION TECHNOLOGY

## “Enhancing economic development through infrastructure”

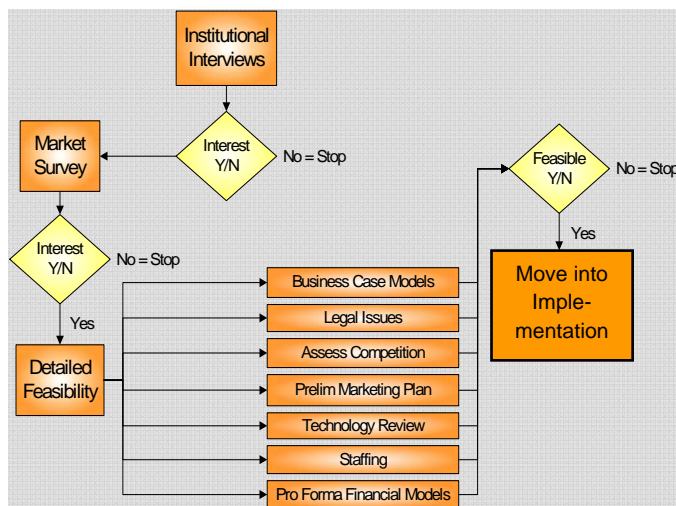
Why you should choose

**SPECTRUM for FTTX**

### • Strategic Planning

economic development and quality of life. The following tasks may be addressed:

- Perform a detailed Cost-to-Serve breakdown, by market sector, using our recent detailed cost data and experience. Our model is efficient and timely.
- Perform a current technological review and assess/recommend the hard/software requirements necessary to support expanded offerings.
- Provide layman's interpretation as to current legal and regulatory requirements.
- Complete a market strategy targeted towards offering broadband access services to the community. Included would be items such as product placement, pricing and promotion means and methods. Product limitations may also be explored.
- Develop product offerings, packaging, pricing and promotion strategies to serve all customer classes including: enterprise business, commercial business, residential, MDU's, institutional, and government.
- Recommend draft language for service level agreements.
- Assess the ability to service new customers with the existing technical and operational staff and/or what augmentation would be likely and necessary.
- Perform a competitive analysis, incorporating all the potential current and predictable future players in these service markets.
- Complete a pro forma business case(s), comprised of using the existing market research as a basis for take rates and service offerings.
- Perform a sensitivity analysis to determine the minimum, expected and maximum take rates that the strategic business plan will support.




**The decision-tree used to move through the strategic planning process.**

Leading investment research institutions evaluating the telecommunication industry state that any technology investment that is not optical fiber based is insufficient in meeting the projected demands of today and tomorrow. A build-out of fiber to the premises (FTTP) holds the promise that, even with technology changes, the infrastructure will provide long term, cost effective service. We specialize in evaluating, designing and supporting efficient fiber-based broadband deployments — leveraging broadband to improve economic development.

We offer the preparation of a nationally recognized FTTP Strategic Business Plan, developing specific methods for differentiating the business venture through broadband in an effort to improve

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*Strategic Planning Experience*

<b>Customer Name</b>	<b>PELICAN BAY FOUNDATION NAPLES, FLORIDA</b>	
	PROJECT MANAGEMENT David Cook, Project Manager (412) 445-9468	
<b>Customer Type</b>	Planned Community	
<b>Contract Start/Finish</b>	Several stages - 7/2012 - Present	
<b>Project Size</b>	Infrastructure—\$7.2M; Bulk Service Agreement—\$20M	
<b>Scope</b>	<ul style="list-style-type: none"> <li>• FTTH Strategic Business Plan</li> <li>• Site Survey</li> <li>• RFP Management</li> <li>• Business Planning and Negotiations</li> </ul>	
<b>Role</b>	Strategic Planning, Project Management, Mapping & Design	
<b>Project Stage</b>	Ongoing	

Pelican Bay is a master-planned community of 6500 properties near Naples, Florida that desires to provide world-class services to its members. A fiber-optic network would support the growing communications needs of members both through a high quality signal as well as increased bandwidth. A network capable of providing high-quality, high-speed Internet to every Pelican Bay client would provide the community with an updated image and should lead to increased resale values. A network that could support Internet, voice and video services would also be able to handle services such as home security, water leak detection, telemedicine, etc.

Potential providers were contacted; however, the nationally positioned incumbents would not update their networks to meet Pelican Bay's needs, and local providers demanded a 10-year exclusive contract to commit capital. Therefore, Pelican Bay investigated the build-out of an FTTH fiber optic network with Internet services provided as a bulk service to all owners through the Pelican Bay Foundation. An outside company would be evaluated and selected to provide video and telephone choices for their members. This company would deliver a full complement of services including billing and system maintenance.

#### **FTTH Strategic Business Plan**

Spectrum prepared an FTTH Strategic Business Plan, developing specific methods for differentiating the business venture through broadband in an effort to improve

economic development and quality of life. The following tasks were addressed:

- A detailed Cost-to-Serve breakdown
- A current technological review and recommended hardware and software requirements.
- Layman's interpretation as to current legal and regulatory requirements.
- Market strategy, including product placement, pricing and promotion means and methods.
- Developed product offerings, packaging, pricing and promotion strategies
- Recommended service level agreements
- Assessed ability to service new customers with the existing staff.
- Performed a competitive analysis.
- Completed pro forma business case.

#### **Site Survey**

Spectrum performed a walkout to identify the most effective design for the network to clearly understand all costs associated with updating the residential coaxial wiring. The intra-building wiring for 50% of the residential living units was also tested in the forward direction through to each residential unit using a JDSU DSAM unit or equivalent indicating the suitability of video and downstream data delivery.

This dual approach allowed Spectrum to freshen the business case and affirm that cost forecast.