Lessons Learned: Experiences of a Fiber to the Home Project

Our Story
116 year old company (NASDAQ: SHEN) focused on delivering broadband, CATV, phone, and wireless service (Sprint branded) to rural markets in Virginia, West Virginia, Maryland, and Pennsylvania.
- Advanced Networks
- Excellent Customer Support
- Local Community Investment & Partnership
nTelos Wireless acquisition in 2016
- 1 million wireless sub
- 9th largest wireless provider in the US
1,050 employees
630 million in annual revenues and profitable

6,000+ Fiber Route Miles
Fiber to over 325 cell sites
**Project Plan**

- Municipal Engagement
- Utility Engagement
- Engineering and Construction
- Local Hiring
- Sales & Marketing
- Community Engagement

**Current Status**

- Approved markets
  - Harrisonburg, Staunton, Lynchburg, Winchester, Front Royal, and Salem
- Ongoing construction, permitting, and engineering
  - Aerial, buried, and microtrenching
- Additional markets planned
  - Continuing market development

**Keys to Success**

- Partnership
  - Value alignment
  - Continuous communication
- Creativity
  - Developing new processes
  - Collaborative problem solving
- Dynamic Learning
  - “Fail fast”
  - Short feedback loops

**Lynchburg Needs Fiber**

- Lynchburg is a growing and diverse community
- Ultra high speed and bandwidth is needed for
  - Residents
  - Anchor Institutions
  - Key Businesses
- We know that if Lynchburg is to continue to thrive, expanding fiber opportunities is vital
- The City realized that it needed a private partner to make this happen.
- Unfortunately, no local government is set up to handle this scale of project
Leadership

- Success in this project requires City Leadership to show that:
  - We have a belief in the project and the vision
  - Expansion of fiber in the City must be a high priority
  - We are willing to create processes that are outside our normal business to get this work done
    - Streamline review and permitting
    - Specifically engage with the public on what they can expect from construction occurring all over the City.
  - Everyone in our organization related to this project must be committed to making it work

Current Review and Permitting Process

Technical Review Committee (TRC)
- Reviews all development projects within the City
- Committee meets twice per month
- Verbal and written comments provided
- Minimum one month approval process
- Separate process to issue MOT, excavation and other permits

Alternative Review and Permitting Process

- Shentel submits full package including plans & all required permits for each job
- Review occurs outside of the TRC process- plans still meet all requirements
- City contracted with engineering consultant dedicated to fast track Shentel Fiber to the Home projects
- Shentel fully reimburses City for consultant services

Alternative Review and Permitting Process continued

- Consultant reviews plans, permits, historic reviews & provides construction inspection
- Less than two week turnaround if package is complete
- Issue conditional approval of entire project
- Once construction dates are established final permits are issued
- Issue press release with construction details
Staunton Construction

- Private neighborhoods
  - HOAs
  - Private roads
- Right of way construction
  - Citizen education
  - Back lot easements
  - Yard repair

Harrisonburg Buildout

- Barriers to entry erode competition
- Unintended consequences
- Status quo entropy
- Overcoming the barriers
  - FCC & DOJ guidance
    - Incumbent protection
    - Municipal protection
    - Competitor protection
  - Collaborative creativity

Harrisonburg Franchising

The Franchisee initially shall build out its Cable System to make Cable Service generally available to those business and residential units located within the red ovals shown on the map attached to this Franchise Agreement as Exhibit A.

The Franchisee shall use commercially reasonable efforts (considering build out costs, geographical and geological conditions, and business conditions) to complete such initial build out by __________.

Franchisee shall complete its Cable System within the remainder of the Franchise area within a commercially reasonable time (considering build out costs, geographical and geological conditions, and business conditions). In addition to the obligations and considerations set forth above, Franchisee shall offer Cable Service to all new or previously unserved business and residential units within 150 feet of the Franchisee’s distribution cable.

Harrisonburg Microtrenching

- Microtrenching standard development
SHENTEL

Conclusion

• Develop partnerships
• Take ownership/designate leaders
• Think differently
• Align municipal and corporate values and pace
• Continuous communication