



Municipal Broadband Project

Financial Analysis and Funding
Mechanism

January 5, 2016 Public Facilities
Authority Meeting

Technical Situation

- Technical
 - City does not own *any* of its own fiber – complete dependency upon private carriers
 - Some city facilities still not connected to fiber
 - Speed/Capacity of current network insufficient (100Mbps)
 - Sharply increasing needs for more data capacity/speed
- **What is Technical Solution?**

Financial Situation

- Financial
 - Sharply rising cost of meeting current and immediate future data needs
 - Currently paying \$44K per year for 100 Mbps service
 - Diminishing Cable Franchise Fee revenues
 - Currently receive ~\$500K per year
 - Expected to decline as services move to fiber
- **What is Financial Solution?**

Broadband Timeline

- February-March 2015 – Feasibility Study
- April-May 2015 – Business Plan Development
- June-August 2015 – Renegotiation of Cell Tower
- **September 8, 2015- Broadband Workshop(Public)**
- September 17, 2015 – Business Plan presented and accepted by Council resolution
- October 2015 – RFPs sent out for design, construction, materials & equipment
- November 2015 – Financing RFP sent out
- Dec. 2015 – Jan. 2016 – **Further due diligence**

Post 9/8/15 Workshop

- 9/9/15 AT&T Requests Meeting
- 9/14/15 Comcast Requests Meeting
- 9/17/15 Multiple Emails (Same Wording)
- September 17, 2015 – Business Plan presented and accepted by Council resolution

POST 9/17/15 Resolution

- Question the Business Model/Boondoggle/Failures/Personal Attacks- **Why?**
 - Watchdog.org (Private carriers can provide)
 - Georgia Public Policy Foundation(Private carriers can provide)
- Nu Link begins to install fiber on South Side (Testing Market)
- Conference Call with ISP Providers (Do Not Poison your Well)
- October 2015 – RFPs sent out for design, construction, materials & equipment
- Request for Information to Private Carriers- Apples to Apples (Due 11-27-15)
- November 2015 – Financing RFP sent out
- Meetings with Local IT Providers (They Contacted US)
- **December 1, 2015, Workshop**

One Liners

- Visionary Decision
- Not in the business of being in business
 - Private Goal – No Margin, No Mission
 - Public Goals – Service level demands, cost containment, economic development, etc.
- Demand vs. Market
 - Supply/Demand Equilibrium (Competition)

Phase I Basic Assumptions



Community Broadband, LLC
Peachtree City Fiber Financial Projections - 2015

System Assumptions

Total Plant Miles:	22.54
Percentage Underground Plant:	100.0%

Potential Government/Education Sites Served:		Monthly Rates
Government/Education	17	\$300

Potential Commercial Sites Served:		
100 Mbps - Commercial	3	\$380
500 Mbps - Commercial	3	\$1,820
1 Gbps - Commercial	3	\$3,390
5 Gbps - Commercial	2	\$14,370
Total Commercial Sites Served	11	

Potential Sites Passed:	
Potential Government/Education	17
Potential Commercial	76
Total Serviceable Sites Passed	93

Business Model

Service Penetration Assumptions

Government/Education	100.0%
Commercial	14.5%

Project Capitalization

Municipal Bonds:	\$3,230,000
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City Council Workshop 12/1/15

Employees:	3
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Risk vs. Reward

- Simplified Break Even Point
 - \$1,000,000 Annual Revenue
 - \$365K Debt Service (\$3.2 Million)
 - \$700K Operation and Maintenance
 - 256 Potential Customer Base (Target @ 1Gbps)
 - 24 Customers @ 1 Gbps (Market 9%)
 - Or
 - 45 Customers @ 500 Mbps (Market 17+%)
 - **Survey leads to “gut instinct”**

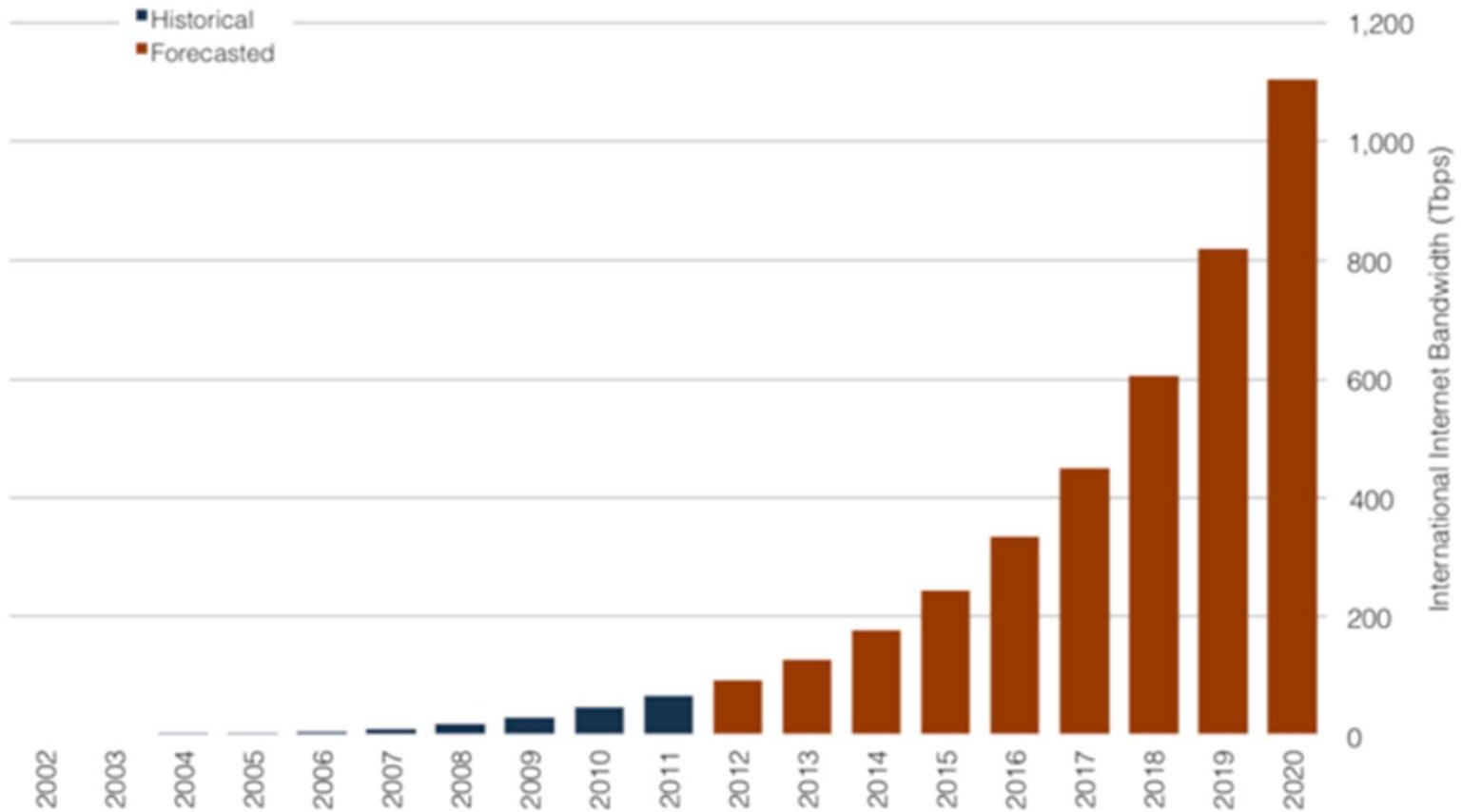
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Current Situation - Problems

- Technical
 - City does not own *any* of its own fiber – complete dependency upon private carriers
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 - Sharply increasing needs for more data capacity/speed

Growing Data Demands

Used International Bandwidth, 2002-2020



City's Particular Data Needs

- GIS/Mapping performance for Public Safety and Public Works Sites
- PD Offsite Video Backups – currently not done
- Camera Security Systems for facility security can be located at central-site
- Increased Wireless Bandwidth for facilities
- Being able to utilize higher bandwidth internet connections through City Hall Internet (not have bottlenecks for internet access)
- Provide reliable access (Fire Stations and Maintenance facilities)
- Electronic Plans submissions for Building Department

Current Situation - Problems

- Financial
 - Sharply rising cost of meeting current and immediate future data needs
 - Currently paying \$44K per year for 100 Mbps service
 - Received quote for \$87K per year for 250 Mbps (103%)
 - Need 1.5 Gbps – estimate = ~\$500K per year
 - Diminishing Cable Franchise Fee revenues
 - Currently receive ~\$500K per year
 - Expected to decline as services move to fiber

Current vs. Proposed

	Internet	Bandwidth
	<u>Speed</u>	<u>(Inter-building)</u>
Current Speed/Bandwidth	100 mbps	100 Mb
FY 2016 Budget Plan	250 mbps	1 G
Broadband Proposal	1.5 Gbps	10 G

What are the Options

- Pay higher costs for more capacity from fiber service providers?

OR

- Lease from a dark fiber system provider

OR

- Install and operate our own municipal fiber optic network?

Option 1 – Buy More Capacity

- Quotes received from private providers
- All vendors given same exact specifications

Service Provider	Monthly Cost	Annual Cost
AT&T	\$134,034	\$1,702,012
Comcast	\$37,737	\$452,844
NuLink	\$8,714	\$104,568
PTC Government Network	\$37,350	\$448,198

Pros & Cons of 'Buy More' Option

- Pros
 - Eliminates all requirements for revenue generation
 - Eliminates all operational and administrative tasks
- Cons
 - Automatically result in higher annual costs for service
 - Risk of significant cost increase in 5 years
 - Not solve the problem of annual Cable Franchise Fee revenue loss (~ \$500K) – No revenue generated
 - Lack of control over infrastructure; no tool for economic development; no ownership

Option 2 – Lease Dark Fiber

- Recent development – unique opportunity
- Company in process of building 9,000 mile fiber network – coming through PTC
- Willing to construct city's 24-mile fiber network while mobilized in area (2016)
- Will lease dark fiber to city
- Company would remain responsible for all 'physical plant' out in the field

What is 'Dark Fiber'?

- Dark fiber is fiber optic cable that is not connected to any equipment – no service
- We could 'light it up' with our own equipment at any speeds/ bandwidth we need or want
- We might also have the ability to offer service outside city facilities similar to 'build' option

Pros & Cons of Leasing

- Pros
 - Smaller initial capital outlay/debt service (internal equipment purchases only)
 - No responsibility for maintaining physical plant
 - Ability to control speeds/capacity of system
- Cons
 - High annual lease cost (\$368K per yr. – 10 years)
 - Lack of control over infrastructure; no tool for economic development; no ownership **(Ever)**
 - Would need lease amendments for any customers

Option 3-Build Municipal Fiber System

- Proposal was made to construct a 24-mile municipal fiber optic infrastructure system
- Would connect all 12 city facilities with needed speeds and bandwidth
- Route to connect buildings would pass through central business/industrial district, schools, and conference facilities
- Would provide an economic development tool and opportunity to control infrastructure
- Would be operated through public-private partnerships with experienced firms

Cost of Ownership

- Average annual cost = \$448,198 (10-years)
 - Includes ~\$365K per year debt service
- ~24 customers would defray G/F costs (\$70K/year)
- Marketing surveys indicated that city could achieve this level of subscriptions

Pros & Cons of 'Build' Option

- Pros:
 - City would be able to use the utility as an economic development tool and control destiny of this particular infrastructure (protect tax base)
 - Strong ability to connect to outside networks
 - System would provide an opportunity to replace lost franchise fee revenue and reduce city's cost
- Cons:
 - Operational and administrative responsibilities

Other Questions/Concerns

- System Maintenance – how will we handle?
 - Problems out in field (fiber cut)
 - Problems with internal equipment (switches)
 - System upgrades – technology advancement
 - Qualifications of network management firm
- Connection to outside networks?
 - Multiple competitive quotes from providers with redundancy

Revisit NuLink Quotes

Recap of NuLink Pricing	Internet Speed	Bandwidth (Inter-building)	Cost	Percent Increase
Current Contract Pricing	100 mbps	100 mb	\$43,200	
Proposal 1 - FY 2016 Request	250 mbps	1 G	\$87,588	103%
Proposal 2 - Broadband Request *	1.5 Gbps	10 G	\$104,568	19%

* Note: This proposal also includes 2 additional city facilities not included in other two proposals.

What are the Options

- BUY: Pay higher costs for more capacity from fiber service providers?

OR

- BUILD: Install and operate our own municipal fiber optic network?

Tradeoffs

Buy Benefits

- Eliminates all requirements for revenue generation
- Eliminates all operational and administrative tasks
- Supports Private Sector investment in community
- Lower Cost?

Build Benefits

- Economic development: Business Recruitment/Retention
- School System: More secure network/better service/better bandwidth
- Cell Tower (data back-haul): Better bandwidth for all mobile users
- County/Cities: “Private”, Secure Communication between governments (not over public network)
- PTC IT Contractors (2): Support over 100 local business customers. Could provide better service/pricing
- City Budget: Involuntary taxes could be supplanted by voluntary broadband subscriptions (residents also benefit)

Moving Forward

- Now – Negotiate with NuLink
 - Five-Year (5) agreement with performance indicators
 - Fixes annual cost for five-year term
 - Limits cost increases from year 6 through year 10 and beyond
- January 21 Agenda – Build/Operate Option Components
 - PFA Bond for Financing
 - Construction Agreements
 - OR
 - Request Build Option Components tabled to February 4 to allow for negotiations with NuLink to conclude
- February 4 Agenda –
 - NuLink Agreement**
 - or
 - Build/Operate Option**

Questions?

Existing Debts Due to Retire Soon

- 2001 Bricks & Mortar \$417K Dec. 2016
- 2002 Hwy. 54 Land \$ 87K June 2017