

Lessons From Community Broadband Successes

Three municipal fiber success stories – Bristol, Va.; Chattanooga, Tenn.; and Lafayette, La. – offer important lessons for communities that hope to follow in their footsteps.

By Christopher Mitchell ■ *Institute for Local Self-Reliance*

Editor's Note: This article is adapted from a new report that contains detailed case studies of municipal fiber deployments in Bristol, Va. (BVU Authority); Chattanooga, Tenn. (EPB Fiber Optics); and Lafayette, La. (LUS Fiber). You can read the full report, which was published by the Institute for Local Self-Reliance and the Benton Foundation, at www.ilsr.org/broadband-speed-light/

When a community undertakes a challenging investment such as a fiber broadband network, mistakes are unavoidable. Some will be painful. The most successful communities take time for planning and picking their partners to ensure that they will be able to overcome challenging obstacles.

PREPARE

Examine whether your community can be motivated to take on a substantial amount of work and a huge expense. Find out who has been successful, who has failed and what lessons were learned. Because this early preparation is often confusing and hard, successful community networks often start with a tireless champion who takes responsibility for moving the process along.

Develop a vision of what is necessary for businesses to flourish, educational opportunities to abound and quality of life to improve. Look three to five years down the road – getting to the point of offering services will take that long. Good network architects try to get a feel for trends 10 years out. Building a sustainable network requires this longer view.

Developing a vision requires more than asking people and businesses what they want. Often, it entails extrapolating from what people say they need now and speaking with people in technology businesses who are not vested in maintaining the status quo. As Steve Jobs said, “A lot of times, people don’t know what they want until you show it to them.”

of dollars to learn that 80 percent of residents would like to pay less for triple-play services from a local, publicly owned network at some indeterminate future point.

Feasibility studies can be useful, but they can distract from the necessary work of understanding the full community need, building partnerships and considering broader solutions. Much

Building a sustainable network requires taking a longer view than most users have. As Steve Jobs said, “A lot of times, people don’t know what they want until you show it to them.”

Reach out to, meet with and, if possible, visit other networks. Assistance from existing networks is available. BVU Authority operates a division focused on helping other communities, and the Chattanooga EPB Fiber Optics staff has met with many communities that went on to build their own networks.

DEVELOP A PLAN

Avoid the trap of study after study. You may not need to pay tens of thousands

of this work should be done *before* any feasibility study, particularly for communities without municipal power authorities that have already established relationships with potential subscribers.

BVU developed independent business plans and commissioned market surveys to verify assumptions and projections. It wanted to ensure it had a realistic plan that gave it the best chance for success. Chattanooga devoted resources to its planning efforts for many

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years before it finalized its project plan. Lafayette waited for several years after developing its fiber ring for a favorable alignment between local politics and affordable FTTH electronics.

FIND THE RIGHT MOMENT

Timing can be crucial when evaluating whether a community network is a good fit. Lafayette City-Parish President Joey Durel is not sure Lafayette could mount a successful campaign for its network today based on the makeup of the present city-parish council. To support a project such as this, a council must have a long-term vision and confidence in its capacity for making smart investments.

Longmont, Colo., saw opinion shift in the opposite direction. The city's 2009 referendum to gain authority for a community network failed after a massive "vote no" campaign bankrolled by the state cable association. After the referendum, more citizens learned about the project and organized a grassroots campaign to educate others. In 2011, Longmont tried again and, despite an even more expensive campaign by the pro-cable group, the city overwhelmingly approved the second referendum.

EPB had a "no surprises" policy while it was developing and defending its fiber plan. It wanted to keep its board, elected officials and local leaders in the loop regarding the project and challenges. "No surprises" doesn't imply avoiding fights. Communities should embrace controversy and public meetings. Opposition from incumbents or anti-government groups provides opportunities to educate the public and keep the project in the limelight. Any community caught in a nasty fight should examine how Lafayette dealt with this issue and ask John St. Julien for advice. Seriously, ask him for advice.

UNDERSTAND THE BUSINESS CASE

Mark Lane, chief technology officer of BVU Authority, encourages communities to develop reasonable business cases that don't require taking half the market immediately but that allow for organic growth. Lane advises communities not to be afraid to compete against a big organization but to understand that a com-

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munity network will have to spend more per subscriber.

Higher marketing costs can actually be an advantage because they allow a community network to put a friendlier, human face on its services. However, don't beat the bushes for subscribers until the initial rush dies down. Why waste marketing dollars just to put people on a long waiting list?

Harold DePriest, the CEO of EPB, believes the most difficult challenge is "developing the business systems and processes needed to sell, hook up, and bill thousands of new customers." His advice: Don't skimp on programming, middleware or customer service; sell on value rather than price.

PUT TOGETHER A TEAM

A utility board, city mayor or city council must be prepared to weather a three-year storm after committing to building a network. The situation may look bleak in the second year, and critics will take shots even if the project is destined to succeed. Common sentiments from BVU, EPB, and LUS are "Put your seat belt on" and "If you aren't ready, don't get into it." Be sure to ask yourself

- How can I be customer-centric?
- What will make my customers happier?
- What are customers really looking for?

Henry Ford is said to have remarked, "If I had asked my customers what they wanted, they would have said faster horses."

Those responsible for the network should be intimately knowledgeable about it. Lane could probably sketch BVU's network on a napkin while blindfolded. Before EPB was ready to launch its services, network architect Larry Hinds knew every inch of it, including the areas most likely to cause problems.

A smaller network may have to rely more on outside consultants. However, there is a danger in relying too much on consultants who have different incentives than the network owners have. On the day a network goes live, the utility or city department has to answer for it, not the consultant. When choosing consultants, be sure to talk to their past clients, and do independent research before making any final decision.

BVU Authority, which is considerably smaller than LUS and EPB, has tried to directly employ the brains behind the network while contracting out much of the labor in building it. Nonetheless, the authority has turned to trusted consultants for advice as needed.

EPB's Colman Keane recommends talking to as many systems vendors as possible and following up on references from their other clients. All gear has bugs, and all systems have problems. Find out how well vendors respond to these issues and how easy they are to work with in quickly finding solutions.

Hire people with experience in the relevant fields. Employees of public power utilities and local governments are accustomed to working on important infrastructure projects, but they may not have enough experience in the cutthroat telecom industry. Getting out of the monopoly mentality is essential.

BVU has regular meetings to assess its progress and reevaluate strategies. As EPB was rolling out services, it regularly surveyed new subscribers and quickly tweaked its approach to ensure that well over 90 percent were satisfied.

Some design decisions can result in higher or lower operating costs down the line, often inversely proportional to the up-front costs. Consultants may be predisposed to minimize up-front costs either because they will not be around to deal with the higher operating costs or because they will benefit from those higher costs.

BVU's Kyle Hollifield says, "If you want to see the value of marketing, stop doing it for a year. You could lose five years in the business plan."

For instance, Chattanooga has a lower cost of connecting customers than some other networks because EPB spent more up front in planning for each potential subscriber. Long before EPB began offering services, its personnel walked the planned fiber routes, creating a GIS map and describing the challenges of connecting properties (such as rocky soil or the need to cross a road or driveway). When a Chattanooga resident signs up for services, the back-office system already knows what is needed to connect the property. In other municipal networks, a contractor must conduct a site survey for each customer request – a wasteful duplication of labor.

After getting estimates from vendors, EPB staff went through the proposals line by line to minimize costs. Working with their preferred vendor, they shaved millions off the bid, using tactics such as hiring a local contractor for materials supply and moving expensive routers to the headend to ensure they were used at full capacity.

DePriest advises, "Write out and detail your key assumptions. That is where all the risk is. The rest of the plan is just spreadsheets and math. Those of us in the business can give you good estimates of staffing levels, product and capital costs and margins, as well as advise on vendors and contractors."

MARKET THE BUSINESS

New networks are under tremendous pressure to meet subscriber and revenue targets but may not have enough cash flow to meet the challenges of rapid growth, such as subscribers' needing extra assistance in their first few months. All three utilities said triple-play services generated far more calls than they expected, whether because of outages or because subscribers wanted to change their channel packages often.

During this period, competitors often start offering much better promotional rates (which may not expire) and even investing in better services. Communities need marketing plans that anticipate these challenges.

Kyle Hollifield, BVU Authority's vice president of marketing and business development, warns against trying to keep overhead lower by not marketing. He says, "If you want to see the value of marketing, stop doing it for a year. You could lose five years in the business plan." EPB's 2007 business plan set its advertising budget at 2.25 percent of gross sales – about \$0.75 per location passed. Generally, networks that do not market themselves well do not achieve significant subscriber penetration and fall behind on their business plans.

Customer-centricity can make the difference between financial success and struggles. Because subscribers and ratepayers want simplicity, BVU accommodates them by providing one bill and one point of contact. Chattanooga proactively credits subscribers when the electricity is out or when other technical problems take out its services.

Another customer service challenge involves training technicians on proper etiquette (never, ever use the customer's bathroom) and responding to difficult situations. EPB has a staff of installers but also contracts work out – though only to contractors who have gone through the EPB training program.

SPECIALIZED BUSINESS SERVICES

BVU Authority is focused on providing customized services, particularly phone-related solutions, to businesses. EPB is only starting to address that market in the larger territory (having previously gained experience providing telephone services to some 2,000 businesses).

LUS, however, does not want to provide services beyond the triple play.

It remains skittish about being accused of competing with the private sector. Although few in the community mind that LUS is competing against Cox or AT&T, LUS does not want to step on the toes of competitive local exchange providers that offer specialized services to local businesses. (Historically, many of those companies used LUS's wholesale network to offer their services.) This decision has undoubtedly resulted in LUS's forgoing revenue.

A community network that decides to embrace specialized services for businesses, as BVU has, should make sure it has a rock-solid platform – or, at least, it should use very enthusiastic local businesses as guinea pigs. Serving businesses requires a good reputation, and few things are more damaging than complaints of unreliable service.

BUILD IT AND THEY MAY COME

To help users take full advantage of their networks, BVU Authority built a demo room to show off its technology, EPB and the Lyndhurst Foundation promote numerous events and opportunities for entrepreneurs, and LUS sponsors events and conferences. Lafayette also has Fiber Corps, a nonprofit organization supported by the local government, the Economic Development Authority, the Chamber of Commerce, the University of Louisiana at Lafayette, the Community Foundation of Acadiana, and Louisiana Immersive Technologies Enterprise (LITE).

Fiber Corps was created by Geoff Daily, who moved to Lafayette specifically to develop pilot projects for one of the most advanced communications networks in the world. Daily recognizes that social, not technological, barriers limit the community's taking full advantage of the network. Community networks are not merely advanced broadband networks; they represent a larger vision of how this infrastructure interacts with the community.

Fiber Corps' initial project focused on health care: The Louisiana Health Information Exchange selected Lafayette for its pilot project, in large part due to Fiber Corps' coalition building. Fiber Corps is also working with high-school

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students to provide a 3D render farm where they can learn the digital video skills that are increasingly in demand now that such companies as Pixel Magic have located in Lafayette to gain access to ultra-high-capacity networks.

Fiber Corps wants to share its approach widely but recognizes that each community is unique and the work is difficult. Just as there is now better knowledge of how to properly build community fiber networks, soon there will be better tools and established practices for maximizing their benefits.

CONCLUSION

Bristol, Chattanooga and Lafayette built impressive networks that significantly improved prospects for economic development while creating benefits for residents and businesses. Each has overcome significant incumbent opposition.

The past year brought announcements that Verizon would no longer expand FiOS and that AT&T would cease expanding its U-Verse deployment. Other upgrade projects are small and localized. Thus, for the foreseeable future, communities should not expect any private company to solve their broadband problems.

The state and federal governments are more likely to cut budgets than create new programs to expand broadband access. In short, help is not on the way. Communities that want better Internet access should seriously consider how they can invest in themselves.

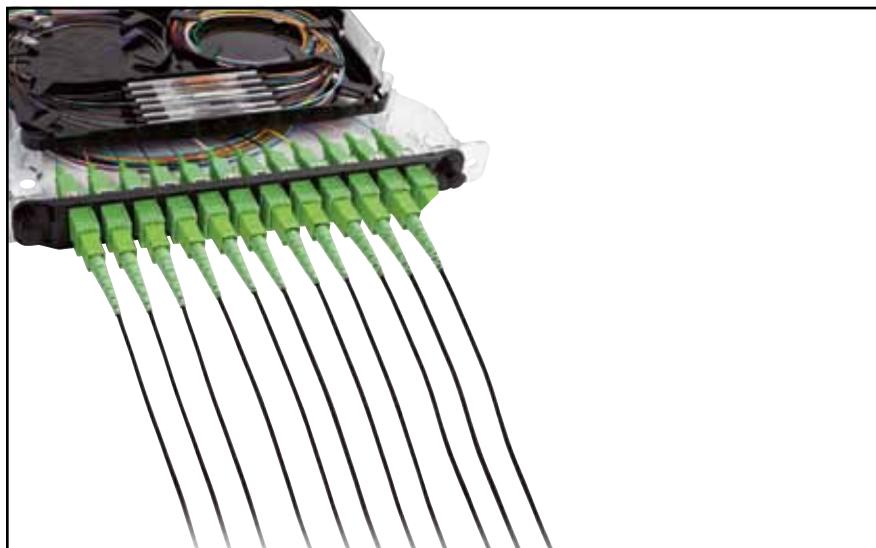
Louisiana, Tennessee and Virginia are among the 19 states that created barriers to discourage publicly owned networks despite the reality that these networks are delivering some of the best connections available in the nation. Though such barriers are inconsistent with the goals of the 1996 Telecommunications Act and the recommendations of the Federal Communications Commission's National Broadband Plan, they are likely to increase in the near future.

Framing decisions about community broadband as public versus private is regrettable. From canals to interstate highways, the public sector has played a key role in building the infrastructure that businesses use. Today, many businesses are less competitive and produc-

tive because they lack access to modern networks at reasonable rates. Limiting the public's ability to invest in essential infrastructure is a serious mistake.

The question is not whether any or every community should build a network, but who should make that decision – local leaders or distant politicians in Washington and state capitals.

The achievements in Bristol, Lafayette and Chattanooga are impressive and should send a message to other communities that the community network approach is worth evaluating. If your community decides to take it to the next step, become as informed as possible and get in contact with those who have already done it. ♦



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