

# Worst Practices In Community Broadband

Mistakes community broadband networks make – and how to avoid them.

By Andrew Michael Cohill, Ph.D. ■ *Design Nine Inc.*

**B**urlington Telecom, the community-owned network in Burlington, Vt., has been in the news recently because of its financial problems. As more information emerges about the causes of Burlington Telecom's problems, other community broadband networks should seize the opportunity to learn from those mistakes.

Although some critics argue that high-profile problem projects "prove" community broadband is a failure, in reality the private-sector telecom industry has been littered with failures, collapses and mergers – does Adelphia ring a bell? Still, despite decades of private-sector problems, no one argues that those problems "prove" the incumbents should be shut down.

The good news is that community broadband projects starting up now should have a much higher probability of success than the pioneer efforts of the last 20 years. In this article, I identify some of the "worst practices" that have emerged from a wide variety of community broadband efforts. These problems fall into three major categories:

- **Management deficiencies** show up frequently in both large and small projects.
- **Poor financial decisions** can be linked to inexperience with manag-

ing complex business enterprises.

- If there is a weak point of the open-access business model, it is **inadequate marketing** based on the assumption that service providers will handle that function.

## MANAGEMENT PROBLEMS

### *Letting the network run itself*

Some project organizers do initial planning and fundraising very well but fail to follow through with strategic and tactical planning. This problem is most common when boards of directors have limited experience managing large enterprises. It also occurs in projects that were started primarily with grant funds. One benefit of the ARRA broadband stimulus effort was an emphasis on developing an eight-year financial pro forma.

Setting financial targets and then measuring progress against those targets is critically important, as is adjusting the pro forma at least once a year to match actual revenue, expenses and income.

### *Overstaffing*

Community broadband start-ups have to control costs carefully until enough subscribers are buying services to get the effort into the black operationally. Overstaffing is often a byproduct of putting former telco managers in charge. Their experience in big companies with large middle-management staffing plans does

not translate well to community broadband networks.

Another reason community networks need fewer staff than equivalent incumbent operations is that their brand-new networks do not have the overhead or complexity of legacy copper-based coaxial and twisted-pair systems.

### *Staffing too soon*

Staffing is a difficult challenge for startup networks. Even a small network needs a certain base level of skills and expertise, and identifying one or even two people who can wear all the necessary hats – management, marketing, network operations, outside-plant maintenance, financial oversight and customer support – can be difficult. As a result, some projects hire too many people before the revenue can justify the associated salaries, benefits and overhead.

Boards of directors of community broadband projects have to be prepared to lend some hands-on assistance in the first year or two to help ameliorate having too many or too few staff members. Board members should be selected carefully based on specific expertise they can bring the enterprise, such as marketing experience, financial management or construction expertise. A well-crafted board of directors can help fill the gaps until revenue justifies hiring more workers with specialized skills.

Another approach is to outsource some activities temporarily instead of hiring full-time staff. For example, outsourcing network operations for a year or two until the subscriber base grows may be less expensive than hiring a network operations specialist.

## About the Author

*Andrew Michael Cohill, Ph.D., is the president of Design Nine (www.designnine.com), which provides broadband network design and network buildout services. Specializing in open-access network design, Design Nine has been involved in such "best practice" projects as nDanville, The Wired Road and Palm Coast FiberNET.*

A private-sector firm that manages business, institutional or other private networks can allocate a portion of one person's time to the community network so the network does not have to pay a full-time staffer.

Maintenance of outside plant (fiber cable, wireless equipment, splicing) can also be outsourced to a qualified firm with equipment, trucks and trained staff. When a network grows to several thousand customers, bringing operations and maintenance in-house becomes less expensive.

### *Hiring the wrong manager*

One of the "worst practices" I see is filling senior management positions without making sure candidates have a solid understanding of the fundamentals of community broadband networks. The business model and the approach to designing network infrastructure in community-owned networks differ from those in telcos. The open-access approach, coupled with a need to run a very lean operation for two or three years, requires an entrepreneurial, hands-on management approach.

A common hiring error is to look for managers with telco or cable company experience on the theory that "they know telecom." However, experience with a large incumbent telco or cable company does not always translate into the right work skills for a start-up.

Telephone and cable companies tend to be big, high-dollar operations with high staff counts, high overhead and big expense budgets. Too often, the high-budget mindset may linger, and taking someone with a big company background and putting him or her in charge of an essentially entrepreneurial start-up is a recipe for – well, cost overruns.

The first hire for a community network should be selected with great care. Getting help writing the job description and developing the list of roles and responsibilities may be useful.

Getting assistance with interviewing candidates may also be wise, as their technical and business abilities may vary widely. Interviewers who can ask the right questions can help boards select the best-qualified candidates.

## *The financial records of a community network should be maintained completely separate from the rest of the parent organization.*

### **POOR FINANCIAL DECISIONS**

#### *Spending in advance of revenue*

Although overstaffing is the easiest way to spend too much, start-up projects can easily bust their budgets with unnecessary operational expenses. Start-ups should look for donated or low-cost office space, borrowed or budget office furnishings and even borrowed phone and Internet services.

I suspect that some ARRA-funded stimulus projects will make this mistake. The broadband stimulus grants can be used only for capital expenditures, so the first year of operations must be planned carefully to ensure that overall operational expenses don't outrun projected (and actual) revenue.

#### *Spending capex funds on opex*

Managers of some bond-funded projects have learned, painfully, that spending money budgeted for capital expenditures on operational expenses is not a good idea. Do so long enough, and a death spiral occurs in which the network no longer has enough funds to construct connections to new customers. Without enough customers, there is no way to generate enough revenue to cover operational costs and the interest and principal payments on debt.

#### *Overreliance on grants*

This lesson was one of the first to emerge from the early round of community networking efforts in the 1990s. Many good projects eventually failed because project leaders incorrectly assumed that grants could be used to fund their efforts indefinitely. In project after project, grant funds eventually became scarce, and the lack of long-term, sustainable financial strategies led to the demise of many efforts.

Grant funds play important roles in helping get projects off the ground and helping existing networks expand, but a solid business plan based on realistic assumptions about revenue, operational

costs, the cost of debt and the cost of expansion is critical.

#### *Financial transparency and poor accounting*

Some community projects have run into difficulty because of poor accounting practices. Community networks are not like most other community-focused non-profits. A community-owned broadband network is a business first, and a tight focus on financial management is essential.

Even if the aim is not to make a profit, a wide-area network is a complex undertaking that requires all the typical bookkeeping activities of any private-sector business, including accounts payable, accounts receivable, cash management and budgeting. Some municipal broadband project funds have been commingled with local government general funds – which can make determining the financial state of a network difficult.

The financial records of a community network should be maintained completely separate from the rest of the parent organization. For a municipally owned project, this means using a mechanism such as an enterprise fund. For a regional project, it may mean creating a regional authority, a co-op or some other independent entity.

Any broadband project established to serve a region's broader community and economic development goals must be completely transparent about its financial records. The public should be provided with regular financial reports that show the sources of all funds and how those funds are being spent.

### **POOR MARKETING DECISIONS**

#### *Failing to use take-rate commitments to guide construction and buildout*

I can say with some certainty that the "if we build it, they will come" business model does not work. Several projects have gotten into difficult financial straits by starting at one end of the service territory and building fiber to the

other end without doing the market research to determine whether they can meet their take-rate targets. They usually don't, and if a project gets only a 10 percent or 15 percent take rate, it is almost certainly because it did not match demand with its buildout plans.

An essential step is to organize the proposed service area into buildout footprints and assign a take-rate target for each footprint. Once this is done, a marketing effort is needed to obtain purchase commitments of some kind, such as take or pay, local tax bond guarantees, binding preservice purchase commitments or connection-fee commitments.

No construction should be started in a footprint until the take-rate target commitments are reached. This approach ensures that, on day one of network operations, enough customers will buy services to cover capital costs and operational costs.

### *Not enough marketing*

Overreliance on service providers to handle marketing is one of the most

common mistakes in open-access networks. Community broadband efforts need well-run, ongoing marketing and public awareness campaigns. Projects that have trouble meeting financial targets almost all lack good marketing.

The great advantage of open-access networks for service providers is that they need to make only small capital investments to offer services to customers on the network. However, this advantage can become a weakness; some providers, because they have invested little, spend little to attract customers. Instead, they are happy to pick up a few easy sales and then sit back and do little or nothing in the way of marketing.

The network operator must ensure that residents and businesses are aware that the network exists, that they know what providers and services are available and that they know how to contact providers and order services. It may sound like Marketing 101, but some open-access networks are failing that class.

### **SUMMARY**

Community-owned broadband is not going to replace large telcos and cable companies; on the contrary, most open-access networks want their local incumbent providers to use community infrastructure to market and deliver services such as telephone, TV and Internet.

Arguing that communities should stay out of telecom amounts to saying, "Stick with 20th-century business models that have not always met broadband needs of communities in the United States."

True, some pioneer community broadband projects have had problems. However, the opponents of community broadband have nothing to offer except, "Stick with what we know has failed." A better approach is "Let's try some new models and learn what works."

Projects such as Burlington Telecom, even if they disappoint their own communities, are useful in the long run. They provide valuable best-practice information for all the community projects that come after them. **BBP**