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iProvo Revisited: Another Year and Still Struggling

by Steve Titch

The latest news from Provo, Utah only reinforces earlier observations and predictions about iProvo's poor performance in particular and of municipal-owned fiber optic networks in general. iProvo looks every bit to be another demonstration that locally owned and operated government networks are neither cost-efficient nor effective in expanding the availability and quality of broadband services in second- and third-tier cities.

iProvo, the $39.5 million wholesale fiber-to-the-premises network built and operated by the city of Provo, is now in its fourth year of operation. It is still behind on its business plan in terms of revenues and customers. Its yearly expenses continue to outpace its yearly revenues. In June 2007, the city had to budget $1.2 million to cover expected losses in fiscal year 2008, which runs from July 1, 2007 to June 30, 2008. In December 2007, iProvo reported that losses for the first four months of fiscal 2008 were already $214,000—with the $1.2 million funding already accounted for. Utah's *Deseret Morning News* explained that:

> *The iProvo shortfall for those four months is actually $614,000—the $214,000 plus $100,000 per month the City Council is providing from the general fund to cover the losses that were anticipated by this year's budget even if the network had been able to generate those [forecast] 260 projected new subscribers per month.*[1]

Provo's ongoing troubles are in line with my conclusions in a policy study on iProvo published in late 2006 by Reason Foundation (reason.org/ps353.pdf).[2] My basic findings were:

- iProvo was behind on its business plan and would continue to be forced to borrow more money.
- iProvo's wholesale plan depended heavily on the performance of its retail partners.
- Retail pricing for services using iProvo was not substantially different enough to prompt consumers to migrate away from incumbent service providers.
- iProvo was not contributing significantly to the growth of broadband in Provo.

iProvo issued a rebuttal disputing these conclusions,[3] but one year later, the financial, operational, and market situation outlined in the Reason study remains largely unchanged.

FINANCIAL SITUATION

iProvo continues to face mounting losses. As I observed in the 2006 report:

[C]urrent trends are not favorable. iProvo is facing a cash-flow crisis and requires strong and immediate revenue growth to keep up with debt. It faces strong competition from commercial service providers Qwest and Comcast, while struggling with its own retail partners. Yet so far it has had trouble in building the necessary revenues from consumer broadband services it needs to be successful. In 2005, just 35 percent of revenues came from consumer services. It is relying too much on revenues from government sources.

As a result, iProvo will continue to lose money in 2006, and more critically, its net assets will continue to decline as its debt and interest load grow. Currently, liabilities outstrip assets by $2 million. This gap will widen and it will become increasingly difficult for iProvo to ever pay off the debt on its system or realize full value of its investment.[4]

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I supported this conclusion with data on Provo's budget, income, and expenses from fiscal 2002 to 2005. In its response, iProvo spent four pages claiming I had misunderstood complex accounting intricacies and, as a result, misinterpreted iProvo's financial situation:

The project is on track, is growing, and is now fully covering all of its operating costs and contributing significantly to its capital costs. As telecommunications technologies continue to evolve to broadband applications, as the need for more bandwidth capacity and services continues to grow, and as more and more of our residents and businesses subscribe to services offered over the iProvo network, the financial gap will close.[5]

iProvo may have had some cause for optimism: I wrote the report before the city's fiscal 2006 data was available, and that year, as the chart below shows, iProvo revenues increased by more than 150 percent while expenses grew only 60 percent. Still, net losses increased from $1.7 million to $1.9 million. That trend continued in fiscal 2007, when expense growth kept pace with revenues, resulting in a net loss of $2 million. Aggregate losses for iProvo since 2003 total $8.4 million.

Table 1: iProvo Revenues and Expenses, FY 2003-2007

	2003	2004	2005	2006	2007
Operating Revenues	235,143	903,556	853,204	2,094,061	3,721,144
Net operating and non-operating expenses	1,595,881	2,323,439	2,521,916	4,033,188	5,725,202
Net loss before contributions and transfers	-1,360,738	-1,419,883	-1,668,712	-1,939,127	-2,004,058

Sources: City of Provo, *Comprehensive Annual Financial Reports,* 2003, 2004, 2005, 2006 and 2007

If iProvo's shortfall continues at its current rate for the current fiscal year, the agency will once again go above $2 million in net losses—the $1.2 million budgeted originally plus an expected $850,000 in additional costs.[6]

CUSTOMER AND REVENUE SHORTFALL

iProvo has been straightforward about the reasons for its losses. The company is still failing to win customers at the level it had hoped. As of December 2007, iProvo reported 10,265 customers, the target it had set for December 2005. Furthermore, the iProvo plan had projected that 10,000 customers would be the break-even point. That turned out not to be the case. As the city now admits, it grossly underestimated the average revenue per user.

As of October 2007, only 17 percent of iProvo's subscribers had purchased the "triple play" package of phone, cable TV, and Internet service. The city's business plan, on the other hand, based revenues on a prediction that 75 percent of subscribers would sign up for triple play.[7]

In addition, while iProvo is adding an average of 260 customers a month, that gain is offset by an aver-

age of 140 customers who drop off each month. At a cost of $800 to acquire and connect one new customer,[8] the iProvo churn rate is a principal reason the agency is failing to gain any financial traction.

INTERDEPARTMENTAL TRANSFERS

Money transfers to iProvo from other government funds are also a concern. iProvo had disputed my characterization of these transfers as "cross-subsidies," invoking a narrow definition of the term.[9] Semantics aside, Provo's telecommunications operation relies heavily on loans from other public funds, especially from the city's Energy Fund. While these may be market-rate loans, no indication is given of the terms of these loans or when they will be repaid.

Here's a rundown of 2006 transfers to iProvo:[10]

- $812,853 and $980,000 from the city's Enterprise Fund. These transfers were matched dollar for dollar by a corresponding transfer to the Enterprise Fund from the Energy Fund. For all practical purposes, the total of nearly $1.8 million transferred to iProvo came from Provo's Energy Fund.
- $616,429 from the Capital Resource Fund.
- iProvo did transfer $135,929 back to the Enterprise Fund, $13,470 to the Internal Service Fund, and $28,000 to the Governmental Fund.

Interfund borrowing continued in fiscal 2007:[11]

- iProvo raided the Provo Employee Benefits Fund for a transfer of $19,842.
- In terms of general liabilities for the current fiscal year, iProvo listed $3.17 million as payable to the Energy Fund and $931,737 payable to the Capital Resource Fund.

iProvo has had no choice but to respond to this financial reality far more seriously than it did to criticisms previously, which, in Reason's case, amounted to a dismissal of the study's conclusions as "fatally flawed…and not supported by facts."[12] The new revelations of December 2007 instead paint a picture of an agency scrambling to right a listing ship. Most proposed efforts attempt to address problems identified in the Reason report.

NEEDS MORE RETAILERS

iProvo says it intends to add two more retailers to its current line-up of MStar Metro, Veracity Communications, and Nuvont Communications. As a wholesale provider of bandwidth, iProvo's revenues depend on the competitiveness of it retail partners. iProvo's first year of operation was badly hurt by the failure of HomeNet, the only retailer it was able to attract that year, the Reason report detailed and iProvo confirmed. Nonetheless, even with its current group of retailers, iProvo is experiencing slow growth and a high churn rate. Adding new retailers would indeed boost iProvo's customer numbers, as the customers of the new companies would automatically migrate to the iProvo backbone. But, as I pointed out in the 2006 study, these higher numbers would not represent any increase of broadband use among Provo residents (a purported mission of iProvo), since they are already captive customers of their respective retailers.

Secondly, it is debatable how much new retailers would boost iProvo in the long term. Even if iProvo succeeds in attracting the two more retailers it seeks, the fact that they, as with MStar, Veracity and Nuvont, are competing with Qwest and Comcast poses a substantial hurdle. Customers won and lost between the five iProvo retailers are not net gains for iProvo. Another potential problem could be outright price competition among the five retailers. While good for local consumers, a price war would push iProvo's share of per-customer revenues down further. Unlike its private-industry competitors, however, iProvo can offset price cuts through the city government's power of the purse.

RAISING CITY RATES

Moreover, such increases can be passed on indirectly. As one solution to iProvo's mounting debt, the city is considering a hike in the rates that the city departments—captive customers of iProvo—pay for services. The *Deseret Morning News* reported that iProvo will get $400,000 in revenues from the city this year as it is. My 2006 report warned about iProvo's dependence on government revenues. There now seems movement to institutionalize that dependence.

At a certain point, taxpayer funding becomes fungible. Politically, a tax increase for public safety, fire, or other basic government services tends to be more palatable to taxpayers. But when it is iProvo's operating costs that are behind those higher bills, Provo's voters won't fall for disguised funding for a failing broadband operation.

WHY DOES MUNICIPAL BROADBAND FAIL?

It looks like Provo's experience is going to end up as another example of a city that attempted to finance, build, and operate a broadband telecommunications network and ended up drowning in red ink. iProvo's problems also coincide with a massive retreat by cities of all sizes from municipal telecommunications networks. This past year Los Angeles, Houston, Chicago, Portland, Oregon and other cities backed away from plans for competitive municipal wireless networks.

What happened?

Aside from a new appreciation of the financial risks, policymakers are beginning to grasp that in Provo, as in Ashland, Oregon, Marietta, Georgia, and Lebanon, Ohio, the goals of municipal broadband were muddled from the start. Municipal broadband, at heart, is directed toward construction of basic infrastructure. Yet it is presented to local taxpayers as a means of increasing the local use of broadband services, or, as it is often termed, "closing the digital

divide." Thus as policy, municipal broadband confuses the expansion of infrastructure, a purely physical issue, with more widespread adoption of broadband services, a social issue.

This policy muddle is apparent in iProvo's response to the Reason study: "A fundamental mission of the city is to build infrastructure that is for the long term and is available to all residents of the community."[13]

Elsewhere, however, iProvo provides a list of services-related goals it sees as the city's responsibility to promote, including "continued economic expansion in the high-tech sector that requires broadband services, and to ensure that existing businesses have services that will allow them to be competitive" and "neighborhood intranets that include schools and a wide variety of next-generation neighborhood services, including high-quality video services and home security."[14]

One could argue that neither funding the expansion of broadband infrastructure nor promoting broadband services is the job of government or the best use of its limited resources. Government's primary role is to protect citizens from aggression or fraud. Everything else, including broadband, can be delivered much more effectively through a series of agreements between consenting individuals.

But taken from a more practical policy perspective, iProvo's experience, which tracks with most other cities that have gone this route, shows that municipal broadband is the wrong solution for fostering the wider dissemination of broadband services.

Expansion of a broadband network is purely a

matter of physical and capital resources, all of which can be obtained through a variety of means. In a proactive policy decision, the city of Provo chose to build this infrastructure itself and borrowed $39.5 million to finance it. It did this in competition with commercial providers—just as the private equity market was beginning to show willingness to fund commercial projects. This was the city's first major mistake: It called on its own citizens to shoulder the cost of building and financing a network for which private shareowner capital was available. It bought into the "market failure" myth–that the commercial sector would not be interested in a market the size of Provo, even though its population of 110,000 in one of the fastest-growing regions of the country—northeastern Utah—made Provo a desirable mid-sized market.

Like other municipalities, Provo mistook slow service-provider construction for no service-provider construction. Provo even discounted Comcast executives when they told city officials in 2003 that by 2007 their broadband service would be available not only in Provo, but in the entire Wasatch Valley. Provo proved to be wrong.[15]

Qwest, dragged down by financial scandals dating back to 2000, has had to move more slowly, but it has begun to expand broadband networks in its major markets. If it was a broadband network that Provo wanted, all the city needed to do was wait another year or two and the industry would have provided it—just as it has to the surrounding communities. And the people of Provo would not be looking at amortizing a $39.5 million debt for years to come.

Although Provo and muni broadband proponents elsewhere have disparaged the commercial service providers because they operate for profit, the profit motive encourages efficient acquisition and allocation of capital. A municipal system that lacks shareholder pressure for profits isn't necessarily in a better position to provide service. iProvo's track record bears this out. From the start, it has been battling a headwind of private capital investment and aggressive market competition. It's been at a disadvantage since day one.

A BETTER WAY

The best infrastructure in the world isn't going to guarantee customers. iProvo's real goal, digital inclusion, could have been accomplished in a much more efficient and taxpayer-friendly way. Some cities, like the ones mentioned above, are realizing this. Many areas are achieving digital inclusion by relying on commercial companies working in association with local nonprofits.

Just about every municipal broadband proponent points to Corpus Christi, Texas as the best example of a muni broadband project. But admiration did not extend to imitation. In its approach to its municipal wireless infrastructure, Corpus Christi turned the whole process on its head. True, it financed and built the citywide WiFi system, but then essentially privatized it by selling it to EarthLink in a deal in which it recouped its entire investment. Corpus Christi then turned its effort to programs that would encourage city departments at first, then average consumers, to use the municipal network.

Corpus Christi's citywide WiFi network was initially conceived as a way for the city electric and gas utility to automate meter reading. Unlike most other cities that simply threw money into broadband networks, assuming the entire population would rush to sign up, Corpus Christi made a concerted effort to identify viable applications in advance of the the decision to build the network. Provo did the process backwards. So now, four years after construction started, the city is getting around to suggesting meter reading as a way to monetize the investment. Unfortunately, a fiber-to-the-home network is overkill for this lowbandwidth application.

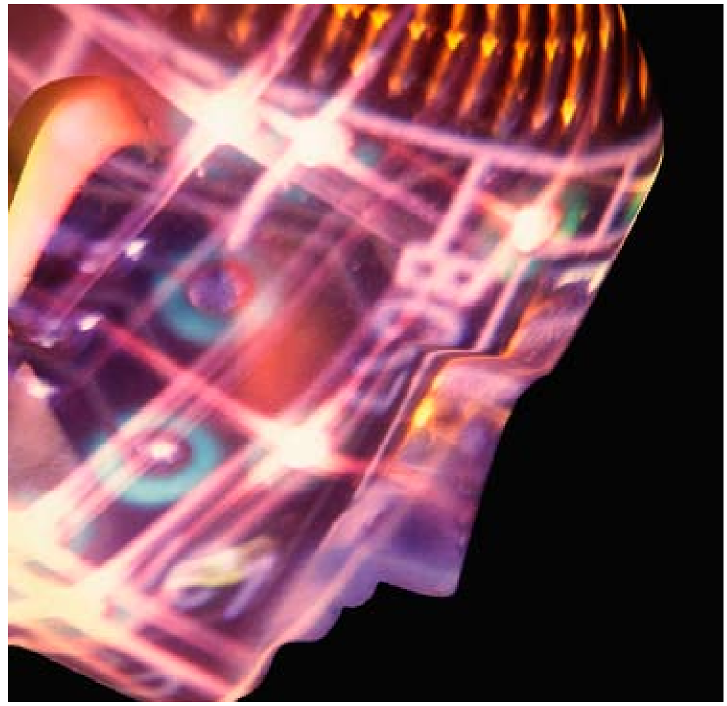
More to the point, Corpus Christi, along with Philadelphia and Boston, is showing that the key to digital inclusion doesn't mean draining the local treasury to build a multimillion dollar network. It's creating and promoting valuable applications that will urge citizens who feel left out of the "Internet revolution" to embrace broadband services. This, of course, is a tougher task because it involves deliberating, consensus-making, and partnering, all of which take patience and commitment without the promise of a political legacy that a large-scale infrastructure project can offer.

In line with this, the city has established the Corpus Christi Digital Community Development Corporation, a nonprofit group that primarily seeks to develop e-government applications that give the WiFi network and Internet connectivity broader appeal across larger portions of the population. While this may include free connectivity and training, it also addresses how city government agencies can use the Internet to make it easier for single-parent households, infirm, or disabled persons to do business with the city, from filling out forms that would require a trip downtown, to filing theft reports, to paying taxes and fees.

Philadelphia chose not to finance and build the network itself, but to collaborate with EarthLink. Although it is questionable as to whether EarthLink will retain ownership of the system, the city's Wireless Philadelphia agency, working at the neighborhood level, helps bring low-income users online through the distribution of inexpensive PCs, while offering training and developing applications that are more relevant to its inner-city constituency.

In New York City, nonprofit organizations such as NYCwireless promote the "Community Wireless Network" concept, which works with commercial service providers and equipment vendors to spread free, public wireless broadband:

Over the past several years, NYCwireless has built free, public wireless networks in over ten New York City parks and open spaces through partnerships with local parks organizations such as the Bryant Park Restoration Corporation and business improvement districts such as the Alliance for Downtown New York. These include networks in Bryant Park,



Union Square Park (in partnership with commercial wireless Internet provider TowerStream), Tompkins Square Park, Bowling Green Park, City Hall Park, and the South Street Seaport among others…

Following the success of free, public wireless Internet access in New York City parks, NYCwireless has expanded its mission to including [sic] assisting underserved communities in getting affordable Internet access. For example, NYCwireless worked with Community Access, a nonprofit housing organization, to train volunteers and building residents to build and maintain wireless networks in Manhattan, Brooklyn, and the Bronx. The networks will provide more than 50 residents per building with private, high-speed connections.[16]

Another key difference is that community-focused nonprofits are far less antagonistic toward the private sector than are municipal broadband operations. From the start, iProvo set out to compete with Qwest and Comcast. Much of the activism surrounding municipal-fiber projects in Lafayette, Louisiana and the Illinois tri-cities Batavia, Geneva, and St. Charles near Chicago devolved into scattergun attacks about incumbents, not just over broadband build-out schedules, but over pricing to customer service to channel selection as well. Likewise, a plan to provide a tier of free wireless service as part of a municipal wireless network in San Francisco collapsed over activ-

How Significant is Fiber-to-the-Home?

iProvo boasts that of all the facilities-based network providers in Provo, it operates the only network that runs a fiber optic line to each home.

That is true. Comcast and Qwest backhaul service over fiber, but they rely, respectively, on coaxial and copper drops to each home.

But does it matter at the moment? Down the road, the 100 megabit-per-second (Mb/s) capacity that fiber offers may indeed be what consumers need for an acceptable Internet connection. Yet commercial providers so far have shown that when demand appears, they are ready to deliver. Top cable modem speeds were 4 Mb/s just two years ago. Along came YouTube and Internet video and the market punched speeds up to current rates of 15 Mb/s.

For all its talk about the superiority of fiber-to-the-home, iProvo has not been able to monetize the 100 Mb/s potential of its household connections. Neither MStar, Veracity, nor Nuvont offers household Internet connections above 15 Mb/s, the same as cable and the digital subscriber line (DSL) capability Qwest is currently adding. To be sure, 100 Mb/s looks great on paper, but there's no market for those speeds yet. iProvo is paying for that capacity while it sits unused, like overstocked inventory in a warehouse.

ist hostility toward the participation of Google and EarthLink, simply because they were private sector companies.

More successful inclusion programs have reached out to the private sector, as donors or operational partners. Wiser, more committed activists also understand that the Internet industry has much more depth than incumbent phone and cable companies. The NYCwireless board includes executives from Cisco Systems and Bway.net, a large established New York ISP.[17] Leigh Wood, chairwoman of Wireless Philadelphia, is the former chief operating officer of RTL Ltd., the largest cable company in the U.K.[18]

Cisco, along with Intel, Motorola, Dell, Microsoft, and IBM are just six companies that have begun funding digital inclusion initiatives at local levels nationwide.

iProvo was born of a myth that some sort of government broadband service was needed to ensure universal access to broadband. That it has taken more than three years to reach 10,000 users while losing $8.4 million—and is on course to lose more than $2 million for the second year in a row—testifies to the ineffectiveness of government-owned systems as a policy for digital inclusion.

Provo stands poised to join Ashland, Oregon, Lebanon, Ohio, Jackson, Tennessee, Marietta, Georgia, Tacoma, Washington, and Trion, Georgia as cities that have thrown away millions of dollars on broadband projects that, in the end, failed to deliver any of the promised benefits.

Fortunately for taxpayers in other cities, local lawmakers have recognized the folly of involving their government in what has become a competitive, disruptive industry. What is surprising is that it took so long.

Provo now faces the dilemma of continuing to fund iProvo with no break-even point in sight, or sell the property and recoup as much of its investment as it can.

The only question is how much local taxpayers will tolerate.

ABOUT THE AUTHOR

Steven Titch is a policy analyst at Reason Foundation, focusing on telecommunications, information technology, and municipal broadband issues. His columns have appeared in *Investor's Business Daily,* *Detroit News, Orange County Register, Total Telecom,* and *America's Network*, among others.

Previously, he was managing editor of *InfoTech & Telecom News* (IT&T News. Before that Mr. Titch was director of editorial projects for Data Communications magazine, where he directed content development for supplemental publications and special projects. He also has held the positions of editorial director of *Telephony,* editor of *Global Telephony* magazine, Midwest bureau chief of *CommunicationsWeek*, associate editor-communications at *Electronic News*, and founding editor of *Cellular Business* (now *Wireless Review*).

Titch graduated cum laude from Syracuse University with a dual degree in journalism and English.

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Mike.Flynn@Reason.org

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Chris Mitchell
Director of Communications
(310) 367-6109
Chris.Mitchell@Reason.org