

What Should be the Public Role in the Development of Advanced Network Infrastructure? An Analysis of Commonwealth of Virginia Restrictions on Municipal Telecommunications¹

Introduction

Access to emerging high bandwidth advanced network and communications is critical to community and regional competitiveness and economic sustainability in today's economy. Without such access, communities are unable to attract new technology companies, or to develop a technology-literate workforce and thereby retain their young college graduates, and are unable to transition existing businesses to the new global economy. Longstanding deregulatory policy towards advanced communications services has contributed to the phenomenal growth of the Internet in consumer and business use. This phenomenal growth, however, has been uneven--mostly concentrated in the urban and high tech centers. The vast majority of rural communities do not have economically viable access to high bandwidth services². Given current realities, the disparity in diffusion is likely to continue in the foreseeable future.

Despite Virginia's success in attracting and cultivating some of the world's most technology-intensive companies and industry, most of its rural communities continue to be either not served or are underserved by high bandwidth communications services. These communities are clustered in regions sharing similar challenges with regard to their ability to remain competitive in spite of declining manufacturing industries and tobacco-related agriculture revenues, coupled with the lack of a technology-literate workforce. Such challenges are rendered nearly insurmountable by the lack of modern telecommunications services. Traditional economic development initiatives are not enough to bridge the gap that exists when regions do not have affordable access to high bandwidth communications services in today's network economy.

This paper starts with the assumption that high bandwidth telecommunications network services are essential to the economic, social, and cultural health of communities. As such, *every means* of facilitating early deployment, coupled with educational initiatives aimed at streamlining early adoption, must be employed on the part of local stakeholders if they are to ensure that their communities can compete on a statewide and national scale. A mechanism currently being proposed for doing so is the development and deployment of "e-corridors" - time and geography-bounded testbeds in which selected public policies, regulations, and incentives are employed to enable very rapid progress toward the goal of access to ubiquitous high bandwidth services at affordable prices for rural communities. Leaders of disadvantaged communities have stated repeatedly that they need an advantage, something that high technology players and innovators want. In addition to an array of economic and social benefits for citizens and businesses, the e-corridor environment would result in unprecedented opportunities for technology companies to do 'expeditionary marketing'³ with significantly reduced barriers to entry, and attenuated risk to their

¹ Much of the research for this working paper is the work of Abdullah Masud, Graduate Research Assistant working under the direction of Brenda Neidigh on policy issues concerning the development of next generation network infrastructure in Virginia. The overall research project, its conclusions, and observations were reviewed and endorsed by Erv Blythe, Vice President for Information Systems, Virginia Tech.

² "Bandwidth" is the rate at which information can be transported over a communications system. High bandwidth, in the context of this paper, is intended to mean that the communications medium can support information transfer to, and from, the connected computer in the multi megabit per second range. This is the minimal rate required for good quality visual communications, or to be a content provider on the Internet.

³ An 'expeditionary marketing approach' (Hamel and Prahalad, 1991) is predicated on innovation, calculated risk-taking, and proactive leadership in the marketplace. It is characterized by a technique of selecting a location where the competition seems weak or where the marketplace needs unique advantages.

established business models and markets. However, legislative support will be required if Virginia's rural communities are to be allowed to participate in rapid e-corridor development.

The purpose of this paper is to provide an analysis of Virginia legislation that prohibits communities and municipalities from developing telecommunications infrastructure which they can then use for economic development purposes. Arguments from both perspectives of the issue are presented, and an overall conclusion and next steps are proposed that suggest a role for the Commonwealth in facilitating the development of local telecommunications infrastructure for rural communities.

Community Networks Initiatives in Virginia

As in many other states⁴, several Virginia municipalities have initiated the development of fiber-optic based *information networks* when high bandwidth access has been largely unavailable from the local telecom provider **at rational prices**.⁵ For example, in the early 1990s, the internationally recognized Blacksburg Electronic Village (BEV) was established at the initiative of Virginia Tech, in partnership with the Town of Blacksburg and Bell Atlantic. It provided Internet access to university faculty members, students, town employees and residents. After several years of operation, BEV divested the Internet access portion of its services to new, local, commercial Internet Service Providers. As the first of its kind in the world, BEV achieved international recognition as a success story of private-public partnership in providing high tech communications in a rural location. Similarly, a small city of southside Virginia, Bedford, developed a fiber-optic cable network in partnership with its cable provider, Rifkin Cable. The town's partnership with the Denver-based company provided high bandwidth data transmission and Internet access services to its citizens. Bedford's service provided data access at a rate of 4 megabits per second, almost 30 times faster than the available ISDN lines provided by the local telecom provider, at one third of ISDN prices.⁶

One initiative that caught the attention of many in Virginia was that of the City of Lynchburg, which developed an entirely city-owned fiber-optic and coaxial hybrid network for high-speed data access. The network was initially created to connect public offices with broadband data services. Lynchburg developed a massive Geographic Information System (GIS) database to renovate its old Combined Sewerage and Overflow System. In order to be able to transmit the GIS database between city office buildings, the city decided to connect two of the city buildings with a half-mile fiber-optic network. Concurrently, the local school board was looking for ways to connect public schools with high speed Internet access. The City proposed a partnership with the school board to develop a coordinated plan for constructing a fiber-optic network that would connect government buildings and public schools to a high bandwidth information network and the Internet, and to provide excess capacity for lease to commercial entities. The City solicited construction proposals from Bell Atlantic, but to their disappointment, Bell Atlantic did not respond to the request in a timely manner.⁷ Lynchburg explored a partnership with GTE to develop the fiber network. According to a Lynchburg city official, GTE eventually backed away from pursuing a partnership, perhaps due to strong opposition from Bell Atlantic.

Frustrated and unsuccessful at partnering with local telecom providers, the City of Lynchburg moved ahead with its own plan for an advanced communications network. The city requested bids to build the switching network. Bell Atlantic participated and won the bid, and Bell Atlantic officials stated that it

⁴ See this listing of community networks, a project of the University of Michigan School of Information Community Networking Initiative, <http://databases.si.umich.edu/cfdocs/community/geodirectory.cfm>

⁵ 'Rational prices' refers to cost-based pricing rather than market-based pricing in a non-competitive market.

⁶ ISDN lines, which were introduced almost a decade ago, provide data transmission at 128 kilobits per second.

⁷ Interview with Lynchburg city official in June, 1999.

was a profitable arrangement. In 1997, the city began its fiber-optic network project by constructing 10 miles of fiber to be used primarily to convey GIS data. The project quickly expanded, and with the support of the school system, the City's network currently encompasses a 40-mile ring, connecting about 50 sites of schools, government buildings, traffic signals, and libraries of local colleges. All the elementary and secondary schools in the Lynchburg system are connected. City officials confirm that the project has been highly successful and is self-financed through savings on the purchase of networking services. The City now has a state-of-the-art broadband network that offers higher quality of service and more bandwidth than Bell Atlantic offers with T1 lines.⁸ It was built at a sunk cost of nearly \$3.5 million, which the City financed through its operating budget. The yearly operating cost is estimated to be about \$100,000-120,000. According to a City official, to have the same number of connections served in the City, available high bandwidth access lines from a commercial provider would cost about \$350,000 annually at the going market rate. If one considers the higher bandwidth of the system, then the imputed cost based on current market values of the Lynchburg's bandwidth services may go as high as \$200,000 - \$300,000 per month. Notably, the estimates suggest a recovery period of less than five years for the project cost.

The system was overbuilt, as most fiber-optics network generally are, due to the fact that the incremental cost of building additional capacity is insignificant.⁹ Following its wider economic development needs, the City wanted to offer advanced network services at attractive prices to other public and commercial entities using the excess bandwidth. The network passes most major businesses, hospitals, and colleges in the city. It has the engineering potential to offer a broad range of network services such as *dark fiber*, and *high bandwidth communications services*; and to lower barriers-to-entry for *new competitive communications service providers* offering advanced Internet, video, and other communication services to the public.¹⁰

Upon learning of the success of the Lynchburg network build-out, the local telecom provider lobbied the state legislature to prevent local governments from operating telecommunications services and leasing of network capacities to any commercial organization or the public. As a result of these lobbying activities, several bills were considered in the 1998 legislative sessions in the Virginia legislature.¹¹ Lynchburg, in coalition with other smaller cities, led an aggressively fought, but eventually lost, battle in the legislature against the large telcos and the cable industry that aimed to secure municipalities' right to offer telecommunications services. The battle eventually produced one act in the 1998 session and two "conciliatory" acts in the 1999 session. These acts of legislation are explored in great detail in the following sections.

Legislative History

At the beginning of the 1998 legislative session in the Virginia General Assembly, HB 335 entitled *The Organization of Local Governments* was introduced. HB 335 eventually passed as an act in May 1998, and effectively banned any locality within Virginia from establishing a governmental entity having the authority to offer telecommunications equipment, infrastructure, or services to the public and commercial entities. The town of Abingdon, which operates a fiber-optic network in partnership with Sprint, was

⁸ T1 lines allow 1.5 megabits per second two-way data transmission; see Table 1 in appendix. Lynchburg's system allows 10 to 100 megabits per second data transmission.

⁹ In a fiber based network project, the major part of the cost is for labor in installation, rights-of-way and electrical-optical interfaces to the end user. Fibers themselves are inexpensive, and thus it is very common to see networks have excess capacities.

¹⁰ *Dark fiber* is fiber optic cable for high-speed data communication without the electronics necessary to light the cable and transmit data. City of Lynchburg Telecommunications Study- Report on the Strategic Partner Development Process, The Baller Law Group, Washington DC.

¹¹ It is noteworthy that similar legislative pressures were strongly lobbied by local telecom companies in other states.

exempted and permitted to continue its existing offering of telecommunications services to the community.¹² Localities were encouraged to sell their existing telecommunications infrastructure and equipment to a private provider. This created agitation among some community leaders due to the fact that they would have to sell this infrastructure in what is widely recognized in rural areas as a non-competitive market.

HB 335 had a sunset clause that terminated its jurisdiction effective July 1, 2000; but the damage was already done to the entrepreneurial spirit of some of the state's communities with the greatest interest in access to broadband services. To these communities, this legislation effectively signaled that the interests of non-competitive, incumbent telecommunications carriers' were more important than the long-term interest of underserved communities of Virginia trying to compete in the 21st century network economy.

Another piece of legislation, SB 663, *Communications Services by Localities*, was also introduced at the beginning of 1998 session. It contained language to permit a political subdivision in Virginia to own, operate, or authorize other entities to operate on its behalf, a communications systems network within the boundaries of such political subdivision. The legislation, based on an imputed cost theory, stated that a political subdivision would be subject to all federal, state, and local statutory and regulatory requirements applicable to a private provider in the area. Further, it required that the amount of all federal, state and local taxes, fees, and the capital costs for the private provider would be imputed into the cost of services charged by the political subdivision. SB 663 was referred to the Senate Local Government Committee. However, this bill was stricken from the docket by the Committee, which means that it was never seriously considered. Simultaneously, at the alleged urging of telecommunications providers, HB 1005, *The Public Utilities*, was introduced. This measure aimed to amend and reenact Section 15.2-2109 of the Code of Virginia, relating to public utilities, and define the domain of services that localities in Virginia may establish, maintain and operate as public utilities. Under the proposal, the utilities that were permissible included water works, sewerage, gas works, electric plants, public mass transportation systems, storm-water management systems, and other public utilities. However, the provision "other public utilities" expressly excluded telecommunications services.

HB1005 was referred to the House Committee on Counties, Cities and Towns. The Committee found that the telecommunications issues in the legislation required detailed study. Thus, instead of voting on the measure, it decided to form a working group consisting of legislators, representatives from municipalities, and the incumbent telecom providers. The bill was carried over to the 1999 session, and in the end the Committee took no action on HB 1005.

HB 335 has a somewhat unusual history. It was introduced in January of 1998 through the House in an original form that had no telecommunications provisions. As the title of the legislation, *The Organization of Local Government*, might suggest, its original language attempted to define the organization of local governments in Virginia. The original bill was non-controversial with no reference to telecommunications. It passed the House easily. In the debate on HB 1005, legislators agreed that a committee would carefully study the issues concerning local provision of telecom infrastructure. The group, then, would search for a compromise proposal in consultation with the cities, contending parties, and through public hearings. However, the process was overtaken by the course of HB 335, summarized below.

¹² The language of the legislation did not explicitly mention Abingdon, but described the geographic location of the town. "However, any town which is located adjacent to Exit 17 on Interstate 81 and which offered telecommunications services to the public on January 1, 1998, is hereby authorized to continue to offer such telecommunications services, but shall not acquire by eminent domain the facilities or other property of any telephone company or cable operator."

Brief History of House Bills 1005 and 335¹³

HB 1005 defines “*other public utilities*” in Section 15.2-2019 of the Code of Virginia that localities can operate. It expressly excludes telecommunications services.

- Assigned to Counties, Cities and Towns Subcommittee
- Subcommittee recommended carrying the bill over to 1999 session in order to study the complex issue
- Full Committee unanimously agreed with Subcommittee recommendation
- No action taken on the bill due to adoption of HB 335

HB335 originally introduced as local government legislation, later turned into a major telecommunications legislation that prohibits local governments from establishing entities to provide telecommunications services.

- Passed the House (non-controversial, 89Y-8N)
 - Referred to the Senate Committee on Local Government
 - Reported by the Full Committee, but then re-referred to the Committee by the full Senate
 - Committee substitute with telecommunications provisions adopted (8Y-6N-1 Abstention)
 - On floor, Reynold's amendment¹⁴ passed, then reconsidered and rejected
 - Various floor amendments modifying telecom provisions failed (closest vote: 16-23-1)
 - Passed the Senate (28-11-1)
 - House rejects Senate substitute
 - Conference Committee adopts similar substitute
 - Senate accepts Conference Committee report (27-12)
 - House accepts Conference Committee report (54-39)

Aggressive lobbying on the part of large telco's and the process that was adopted in steering HB 335 may have created a sense of distrust among the opposing parties in the debate and negotiation. Hasty introduction of amendments containing telecom provisions at a late stage through a bill which was to define the “*organization of local government*”, despite prior agreement to study the issue, was highly unusual. Despite its content on telecommunication services, the bill was not referred to a committee whose purpose is to examine telecom issues. The telcos' legislative push was triggered as Lynchburg, a potentially attractive but underserved market, planned to offer city-owned network services to commercial entities.

HB 335 ultimately passed the Senate with 27 to 12 votes, and the House of Delegates with 54 to 39 votes. As a last resort, Governor Gilmore was urged by MCI and several legislators to introduce an amendment supporting the cities' position, after the bill passed the legislature and was sent to the Governor for signing. The so-called “MCI amendment” (Governor's amendment) proposed provisions to allow cities and counties to continue building systems, which they could lease to one or more telecommunications companies for up to five years. In 1997, MCI through its subsidiary, Pioneer Holdings, initiated a program of partnership with local governmental bodies to provide advanced communications services. According to MCI, it has more than 130 such projects underway in 31 states. The amendment was aimed

¹³ Further detail can be found at <http://leg1.state.va.us/cgi-bin/legp504.exe?981+sum+HB335>

¹⁴ Contained the text, “... and except in any locality where school-aged children do not have adequate, affordable access to high speed internet services available in their homes ...” initially passed, 17-16-1; then was reconsidered after heavy lobbying and was rejected 15-24.

to permit such partnerships. The House of Delegates rejected the Governor's amendment on a 29-66 vote. The Governor subsequently signed HB 335 into law, though he was heavily urged by the cities and MCI to veto the legislation.

Many observers expressed opinions afterward that the legislation passed in a hectic manner, without the careful examination that it merited. With pending consideration by the House Committee on Counties, Cities, and Towns on HB 1005, the group considered the Governor's amendment as the basis of searching for a middle ground. By the end of 1998, the special subcommittee produced compromise proposals leading to two acts in the 1999 session.¹⁵ The proposals allow for communities to develop communications infrastructure, and lease it to private telecom providers, if the State Corporation Commission determines unavailability or lack of competition in advanced communications services in a community market. However, to date no significant projects have been initiated under these provisions.

Arguments by the Advocates of HB 335

Why would a regulated monopoly actively oppose city involvement in telecommunications? The arguments by incumbent telecom providers in support of the legislation centered on the concept of fair competition. Proponents of the legislation argued that local governments' provision of telecom services would prevent competition in the industry and distort the "level playing field". They argued that local governments do not pay taxes; do not face Federal and state regulation, and universal service requirements; and have regulatory authority over private enterprises (e.g. taxes, licenses, right-of-way, eminent domain). Therefore, from their perspective, local governments have advantages that private providers do not.

The primary argument was that local governments do not pay taxes and follow the regulations that are imposed upon a commercial telecom provider. This creates an uneven playing field. Furthermore, as the local telecom provider, it is required to provide universal service. If localities are permitted to provide advanced communications, it would marginalize the telecom provider to the unprofitable markets only, as the localities would provide services only in the profitable areas (*the cream skimming argument*).

In addition, the proponents advanced the argument that government should not compete with private industry for revenue ("Government does not belong in the marketplace"). A telco lobbyist was quoted, "if the City (Lynchburg) had gotten everything it wanted, there would be only two choices for consumers, the City and Bell Atlantic". Supporters of the bill promoted the view that the city's presence in the marketplace would keep out other competitors, and effectively reduce competition in the marketplace. However, the non-competitive response Lynchburg experienced in its initial solicitation was the impetus for their seeking to develop this infrastructure.

These arguments are understandable from the perspective of a dominant private sector for-profit enterprise. However, they do not inform the development of appropriate public policy for the promotion of market efficiency. The arguments view the communities as a competing entity, like any other private provider. As will be described later in this paper, the involvement of communities should not be seen as competing entities in the private marketplace, but rather as *public agents* intervening to facilitate the goals of market competition and consumer benefits in the presence of market imperfections and failure of market mechanisms in rural regions.

¹⁵ HB 2277 Local Telecommunications Services, and HB 2436 Advanced Communications Assistance Fund.

If an incumbent provider's concern is the cost of providing the service, then operationally it is difficult to frame a compensatory public policy.¹⁶ This is, in part, because a telecom provider will most likely be unwilling to reveal its real costs.¹⁷ Further, an efficient policy regime requires supporting an open and competitive marketplace, not supporting forces that contribute to maintaining or securing monopoly. Local phone companies have advantages arising out of economies of density and connectivity, in addition to their managerial, financial, and technological competitive advantages. These advantages coupled with existing rights-of-way may provide a local telecom provider substantial competitive advantage over any other potential entrant in the market. Due to its incumbency advantages, it has the ability to act on its incentive to discourage entry and robust competition.¹⁸ Should equalization be the guiding principle of legislative process, the first objective to be accomplished is the removal of incumbency advantages in local telecommunications. The "level playing field" argument as articulated by the telco's in this instance is, in effect, an anti-competitive argument disguised as pro-competitive.

Both Federal and state governments contribute to the subsidies that the local phone companies receive as a compensation for universal service. Before the advent of high bandwidth communications services, local phone companies had profited as a consequence of the universal service provision. They continue to receive universal service subsidies from the governments today, even though they have long ago recouped their capital investments. Thus, the universal service argument seems unrelated to the current advanced communications network market. Furthermore, local governments operate under a rigid set of regulations and *sunshine* clauses that do not apply to the telecom providers (HB 335 itself is an evident example).¹⁹ To argue that local communities have competitive advantage as government entities in competition with a multi-billion dollar Goliath in the global telecommunications industry seems far-fetched.

The argument that government should not compete with the private entities in the "market" is contextually flawed. In local telecommunications and the advanced communications market, there is currently a virtual monopoly, especially in rural localities in Virginia. Monopoly is a symptom of market imperfection or lack of competitive forces, and not synonymous with a competitive market. Therefore, the definition of market should be carefully analyzed in this argument. Without any competitive force, localities are stranded in a *thin market* atmosphere with a socially inefficient outcome. If the public policy goal is to foster a "competitive market", it must be recognized that a monopoly is the absence of sufficient competitive forces, and detrimental to the goal of consumer benefits. *This gives a theoretical rationale for government intervention with the goal of removing barriers to entry in the market.*

It has been shown that by leveraging the political process, a regulated monopoly can attempt to protect its advantage in the new markets of high bandwidth data networks and network-based applications. Advanced communications are a new product market and are characterized by technologies to which traditional arguments for a natural monopoly do not apply.²⁰ It is generally predicted that the demand for

¹⁶LECs (Local Exchange Carriers) are powerful enough that senior FCC and White House officials have rejected internal FCC requests to subpoena LEC cost and profit information, on the grounds that such subpoenas would be politically unacceptable.

¹⁷ It has been demonstrated in numerous campus and municipal advanced network projects that the cost of this infrastructure is substantially below how non-competitive, incumbent providers price such services.

¹⁸ FCC's Interconnection Order recognized the incumbency advantages, and noted they are the significant obstacles to entry in the local telecommunications market.

¹⁹ Virginia is one of the so-called Dillon's rule states (named after the Iowa Judge John Dillon, who ruled that the authority of a municipality is strictly construed to include only those powers that the state's constitution or legislature has expressly granted to it or that that are necessarily implied or incidental to powers granted). James Baller and Sean Stokes, The Public Sector's Authority to Engage in Telecommunications Activities, *Journal of Municipal Telecommunications*, Volume 1, Issue 1, April 1999.

²⁰ For an excellent discussion on natural monopoly issues in telecommunications, see David Evans edited *Breaking up Bell: Essays on Industrial organization and Regulation*, Elsevier Science Publishing Co., 1983.

high bandwidth data services will rise substantially in the future, creating a massive avenue for profit generation.²¹ By now, the advantages of high bandwidth data access, and its essentiality for the creation of new digital services, are well known. It is likely that the aggressive opposition by companies such as Bell Atlantic may have been more motivated by the precedent of municipal involvement in telecommunications than by immediate impact on the incumbent provider's profit level in Lynchburg. There is a growing interest among localities across the United States to deploy advanced network infrastructure. Alternative network development is a tangible threat to the incumbent telecom provider's market power and profit opportunities. A preemptory legislative move by a regulated monopoly is strategic; once significant municipal involvement in telecommunications becomes widespread, it may become more difficult for the political process to disengage municipalities from telecommunications activities.²²

Arguments by the Opponents of HB 335

A number of communities desire to preserve the right to construct and offer telecommunications services commercially. The Code of Virginia allows for municipalities to establish entities, including public utilities, to the extent the Home Rule Charter permits.²³ Some municipalities (16 in Virginia) have existing electric utilities that provide services to the public, in addition to very common water and sewerage services. Since municipal electric utilities are part of local government entities, they were also affected by HB 335. Cities such as Bedford, Harrisonburg, and Lynchburg, which already invested significantly or partnered with private providers to develop state of the art broadband communications systems, considered HB 335 a devastating blow to their efforts and a threat to the financial viability of their existing investment in community economic development projects. The measure allowed them to continue their services to government institutions, but excepting that, the only financial recourse that was allowed in the measure was to be able to sell the systems to a private provider. Once it was apparent that the communities were losing the legislative battle, they urged to be allowed at least to lease constructed infrastructure to commercial entities in order to be able to begin recouping their investment in communications infrastructure.

Community leaders argued that having the ability to build fiber-optic lines and offer high-speed Internet services is about creating competition and promoting economic development. The arguments by the localities were,

- advanced communications services are essential to the continued vitality and growth of communities in central and southwestern Virginia, especially for attracting and retaining businesses in the locality;
- advanced communications services are not currently available at affordable prices anywhere outside Virginia's "golden crescent", and would not be provided by the local telecom providers in a timeframe that would provide a much-needed competitive advantage and boost to the local economy;

²¹ See for example, FCC's Report on the Deployment of Advanced Telecommunications Capability to All Americans, CC Docket No. 98-146, February 1999; also The Emerging Digital Economy II, US Department of Commerce, June 1999.

²² The present \$32 billion municipal electric utility industry is perhaps illustrative. More than 2000 community owned electric utilities serve almost 14% of the US population, American Public Power Association data.

²³ In 1995, the Attorney General of Virginia upon request from the legislature examined the interpretation of "other public utilities," as written in the Section 15.1-292(A) of the Code of Virginia decades ago. He found that "other public utilities" need not necessarily be read to include telecommunications services; he further noted that the General Assembly may, of course, determine that some or all of the services, including telecommunications services, are appropriately provided through local government initiatives.

- the legislation potentially prevents the localities and municipal electric utilities from promoting competition in telecommunications services in the communities;
- local governments do not have unfair tax or regulatory advantages over the regulated monopoly, or whatever advantages do exist are offset by equivalent disadvantages;
- the legislation would prohibit public-private partnerships from building advanced telecommunications systems.

The above arguments express some realistic concerns of localities; in many of the rural and smaller cities of southside and southwestern Virginia, advanced communications are unavailable at affordable prices. In fact, some of the small rural towns do not even have conventional value-added telecommunications facilities such as caller identification or messaging services. As the electric utility industry is restructured and deregulated, power utilities would be allowed to enter the telecommunications market with converging energy and telecommunications services. This policy has been promoted with the aim of inducing potential new entrants and competition in the telecommunications market. As a result of the legislation, municipal electric utilities would also be excluded from this process.

Localities argued that they could level the playing field by leasing their basic network to one or more certified telecommunications providers to bring advanced telecommunications to their local citizens and businesses. This argument, in essence, considers localities' role as the facilitator of otherwise absent competitive forces in the advanced telecommunications services market.

The real issue at stake is not public sector vs. private sector, but the economic development implications of local telecom infrastructure that is crucial for growth and quality of life in the hundreds of Virginia communities not in the "golden crescent". Viewed in this light, there is an appropriate role for public entities when market mechanism fails to provide an efficient level of infrastructure. If the economic development aspect of the issue were given adequate attention, the outcome might have gone so far as to favor or even to enable the development of local telecommunications infrastructure by communities and/or their partners.

Epilogue

A compelling perspective on Virginia's HB 335 has recently been voiced by a number of communities, led by the City of Bristol, that have struggled with the challenges of gaining access to competitive, affordable high bandwidth services. This perspective is based on the Federal Supremacy doctrine of law and the conflict between a Federal enabling statute and Virginia's statute. In an effort to develop competitive markets for telecommunications, Congress enacted into law a statute to remove barriers to entry, containing the following language:

47 USC §253: "No state or local statute or regulation, or other state or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."
(Emphasis added.)

This perspective²⁴ argues that (1) Virginia's statutes are in direct violation of 47 U.S. Code §253; (2) under the well-established Federal Supremacy doctrine of law, the Federal Act clearly supercedes the State Act; and (3) the State statutes barring localities from entering into competition in the telecommunications market could and should be declared null and void if a declaratory judgment

²⁴ This viewpoint, held by many, is excerpted from a paper by Jim Bowie entitled, "[Local Government Powers Under Virginia Law.](#)" which was presented at Congressman Boucher's Annual Internet Conference, Sept. 18, 2000.

proceeding were filed in U. S. District Court. A lawsuit on behalf of the Bristol Virginia Utilities Board has since been filed with the U.S. District Court against the state of Virginia, challenging the constitutionality of HB 335. It is expected that other Virginia communities will join with the lawsuit.

Conclusion and Next Steps

In conclusion, the legislation cited in this paper effectively prevents telecommunications initiatives by Virginia localities that would facilitate advanced communications at affordable prices in rural and isolated communities. The 1996 Telecommunications Act sets goals to “promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies”.²⁵ To achieve these objectives, the Act further mandated that the impediments to efficient entry in the monopolized local market *must* be removed. Initiatives by the localities have great potential to create a competitive arena in the local telecommunications market. Instead of pursuing a policy of monitoring and regulatory restraint, the state has effectively imposed regulation on the pro-competitive forces in an otherwise imperfect market.

It is of great interest to all parties involved, legislators and community leaders, to determine the course of natural market forces if such legislation had not been implemented. The e-corridors concept for advanced network infrastructure provides an opportunity to explore, in a very bounded and controlled manner, the role that communities can play in enabling what is now being termed "digital inclusion". It is imperative that legislative support be provided if the e-corridors concept is to succeed in Virginia.

A number of legislative remedies have been suggested and may be worth pursuing as a means of correcting the disparity of access to affordable, competitive high bandwidth services in Virginia's rural communities. A few of these are summarized below:

- Initiate legislation to enable advanced network services and related physical infrastructure to be owned and operated by any community with the following assumptions:
 - municipalities, public-minded non-profit agencies, or other authorities will wish to create a wide area network to serve regional government offices, schools, libraries, and citizens
 - excess capacity would be used to provide dark fiber utility to private sector entities
 - pricing for dark fiber would be at or near cost (not profit-motivated)
 - the purpose is to lower barriers to entry for localities, local citizens, local businesses, and new business players that want to compete in the global network economy
- Initiate legislation described above, but limit it to communities that match a certain set of economic criteria (household per capita income, unemployment, education levels, population decrease) as a means of targeting the most economically disadvantaged communities for early access to high bandwidth services.
- Initiate legislation to create a "Rights-of-Way Authority" to facilitate "zero transaction cost " for rights-of-way access to any telecommunications provider wishing to provide high bandwidth services to communities located within the e-corridor.

²⁵ Preamble of the 1996 Telecommunications Act.

- Consider legislation aimed at lowering, leveling, or eliminating most taxes on high bandwidth-enabling communications services for providers willing to cooperate in the spirit of the development of local and regional e-corridors.

In addition, an appropriately structured entity could pursue authority to do the following:

1. Enable interregional infrastructure with credible private sector partners. This could be in the form of guaranteed loans for laying fiber, etc.
2. Finance low return-on-investment projects, for example by paying interest on loans or subsidizing loans to increase the attractiveness of the project.
3. Provide payment of debt service to jump-start high risk projects.
4. Identify high priority corridors and deal with right of way issues involving both Federal and State governments to lower right of way costs and ensure that once laid, the fiber could be augmented or upgraded easily.
5. Ensure that continuous research and development on advanced technologies takes place and the cutting edge technologies are made available to the underserved areas.