Telecommunications: Maine's Best Kept Secret

Richard Silkman
At the Pure '93 Conference last January, Charles Colgan and Richard Silkman discussed Maine's recent policies on telecommunication. Charles Colgan, former state economist, provided the staff support for Governor Brennan's report "New Directions in Telecommunications Policy." Richard Silkman, as Governor McKernan's Director of the State Planning Office, was often the lead spokesman on telecommunications policy for the current governor. Their analysis of the telecommunications policies of these two administrations reveals a surprisingly common core over the entire period since the AT&T divestiture.

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by Richard Silkman

In the transition between the Brennan and McKernan administrations, there were many changes. There was, however, no change in the emphasis on telecommunications and its importance to the State of Maine.

The McKernan Administration very early had what might be called a rude awakening of that importance. The issue that we confronted was taxation. One of Governor Brennan's last acts was to initiate a "down payment" to the University System, part of which was funded through an increase in the tax on the access charge that the Federal Communication Commission (FCC) had authorized. AT&T saw a trend developing nationally and to stem this tide petitioned the FCC to flow the cost of such taxes back to the state levying the tax, rather than fold the cost into its national rate base. As a result, some of our largest and fastest growing companies, the ones that Maine wanted to expand, were hit with significant tax bills. In many instances, these companies could easily avoid those tax bills by establishing their own microwave systems, actions which would result ultimately in the deterioration of the public switched network.

To address this tax problem, the McKernan Administration sought to eliminate taxes that were designed specifically for telecommunications companies, and instead, tax these companies as any other business in Maine is taxed. Telecommunications companies are companies that face competition; they cannot be taxed as if they were still natural monopolies.

The enabling legislation gained Maine the national spotlight in telecommunications. Consequently, Governor McKernan was asked to chair a special committee of the National Governors’ Association to develop that association's new telecommunications policy. In 1988, a telecommunications policy was adopted unanimously by the National Governors' Association. The first paragraph of the preface of that policy, which speaks directly to the present question, stated:
The ability to transmit and process information is essential to improving economic productivity and growth and is playing an increasing role in the delivery of education, health care, and other essential social services. This ability, in turn, depends on the capabilities, the quality, and the cost of our national telecommunications infrastructure. Just as highways have been essential to the economic performance of our manufacturing economy over the past three decades, so now is the telecommunications system essential to the economic performance of our information economy. Indeed, our future social and economic health will depend substantially upon our nation's success in building a telecommunications system the equal of any in the world. (Policy F-10, Telecommunications, 1988)

The governors recognized in 1988 that telecommunications was an essential component of the physical infrastructure of their states, one which is necessary for economic development. In addition, and equally important, the governors recognized that government services were increasingly going to be provided using telecommunications. A ubiquitous network, the lines, the switches, and the connections that cover an entire state is essential for two reasons, both of which are fundamental to government. The first is job creation and economic development; the second is the delivery of social services. In adopting its policy statement in 1988, the nation's governors determined that more attention to telecommunications would be required. Whereas in the 1950s and 1960s governors and legislators focused on what was happening in transportation systems, in the 1990s, states would pay greater attention to telecommunications.

The relationship between telecommunications and economic development should be quite obvious. L.L. Bean, for example, has provided Maine with first-hand evidence of what access to customers through telecommunications can do for a small retail company over a fifteen-year period. Today, in almost any business, more and more of the access to customers is through telecommunications systems.

Of increasing importance and often overlooked, however, are backward linkages to suppliers. Any business, whether manufacturing, wholesaling or retailing, must receive inputs in order to produce the products that are ultimately sold, making inventory control essential to the bottom line of any company. If inventory is not managed efficiently, a company's competitive position will erode. Companies now routinely rely upon telecommunications to access their suppliers.

The integration of this supply system is reflected in the UPC code identifiers seen at supermarkets and many department stores. When products go through the check-out line, an electronic filing is taking place. The company's computer system identifies the product being purchased, adjusts instantaneously the status of that product on its shelves, both locally and in the central warehouse, and without anybody ever getting on the telephone, processes orders to restock items that customers are purchasing. (One of the most sophisticated automated inventory systems is in place in the Defense Department. All orders are processed through computers on an interactive, on-line, real-time basis. It's all done electronically.)

The advantages of telecommunications are two-fold. First, and most obviously, businesses are able to become more efficient, and thus they can capture a larger share of the market, creating more jobs. If that is happening in Maine, Maine's economy will grow. If it is not happening in Maine, Maine's economy will shrink.
But there is also an important perspective for suppliers. If a supplier is unable to interconnect with an advanced telecommunications network, if a supplier cannot provide on-line delivery to a major industrial processor or to a major retailer, then that supplier is out of the market. A small company that cannot connect to Walmart, or to L.L. Bean, or to the Defense Department, because the local telecommunications infrastructure is inadequate, is out of that market. It is as if the supplier were speaking a foreign language and can not communicate with its customers.

In Maine, where distance to markets is very important and small suppliers are common, we must worry about our telecommunications network. Large companies like Toyota or J.C. Penney do not operate headquarters or major production facilities in Maine. Instead, many small companies try to sell into those national networks. If small suppliers cannot access the distribution networks that those larger companies are utilizing, then they are out of those markets. Their ability to market their products to national, and ultimately even international consumers, is severely limited.

In contrast to the relationship between telecommunications and economic development, the importance of telecommunications to the delivery of government services, and especially social services, is just beginning to be appreciated. Maine was one of the first states to develop an interactive television network for its university system. Obviously, this system provides additional opportunities for students outside of the immediate campuses to take courses. But the system also helped put fiber into parts of the state that fiber might not have reached as quickly. By developing the ITV initiative, Maine was able to deploy a fiber backbone in the network faster. As a leading consumer of telecommunications services, government can and should underwrite some of the initial investment.

There are many more ways in which government can utilize telecommunications. For example, court arraignments are a major financial concern for rural areas. Reno, Nevada has established remote arraignments via two-way interactive video. The judge, at his desk has a series of county jails that are connected by ITV over which he or she can conduct court arraignments. Because the prisoners do not move, law enforcement has been able to eliminate the positions of six sheriff deputies, to sell three vans, and to save a considerable amount of money. In this and in countless other ways, telecommunications can provide important benefits to budget-conscious governments.¹

Health care, which is largely funded by government and delivered by non-profit hospitals, is likely to be a major consumer of telecommunications services. Remote imaging, for example, can address both cost and access concerns associated with rural health care. Two-way interactive high definition television can eliminate the need to transport patients and can avoid delays inherent with mail delivery of x-rays. One secondary benefit of this technology which I find fascinating, is storage. Massachusetts, for example, has a law that requires any X-ray of a child to be kept until the child is 21 years old, and any mammogram must be kept as long as the woman is alive. To file its X-rays, Massachusetts General Hospital now relies upon a huge off-premises storage facility, making access a very difficult problem. If a Massachusetts General patient has an automobile accident in Texas and needs an old X-ray, the file clerks will probably find it, but the patient may not live that long. With electronic storage, two clerks on terminals could routinely and instantaneously exchange such data.
Government will increasingly become involved in such innovations, finding new and different ways to utilize the network. As government becomes more sophisticated and more cost conscious in the '90s, it will become an important factor in new uses of the network.

Fortunately, in the mid-1980s we recognized this in Maine. As a result, the telecommunications network in Maine is among the best in the country, if not the best. Indeed, this is probably the best-kept secret about the State of Maine. We must preserve that advantage. As technology changes, as new innovations develop, and as the demands of large and small users on the telecommunications network change, we must have policies in Maine that allow our networks to evolve to meet those demands.

Large companies, like L.L. Bean and General Motors, are fundamentally dependent on the telephone network, but they will always find a way to communicate with one another. They can construct cost-effective, private networks if necessary. The companies that will not survive are those that can not make the investment themselves. Companies that cannot develop their own microwave networks, switching systems, and parallel telecommunications networks will suffer badly if the public switched network is deficient. Maine, with the exception of a UNUM or an L.L. Bean, is a state of small businesses. If Maine does not invest in its public switched network, if state policies lead to a deterioration of that network, then those small businesses will be shut out of effective communications.

Maintaining Maine's public switched network requires a number of steps. Regulatory systems and regulatory structures must encourage investment and the development of new services that people can access. Regulatory policy must ensure that prices are correct, and reflect the costs of providing telecommunications services. Maine's tax structure must impose reasonable tax burdens, so that companies doing business in the state, and especially telephone companies and others providing telecommunications services, are not saddled with burdensome additional costs.

The policies that Governor Brennan identified in 1985 were on target. The "New Directions" report anticipated in many regards to the world of the late 1980s. Maine must continue to focus on network modernization, on rate structures, and on regulatory reform. The telecommunications network must serve Maine as well in the next decade as it serves us today. Maine telecommunications policy is not a partisan issue. Maine must continue the policies that were enunciated in the "New Directions" report, as we have tried to do through the first six years of the McKernan Administration, to insure that our telecommunication system continues to remain the best in the country.

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References:


Endnotes:
