

Executive Summary

The Public Service Commission (Commission or PSC) has prepared this publication that includes two reports:

The eighth biennial infrastructure report to the Legislature is required under Wis. Stat. § 196.196(5)(f). The report contains updated information and reviews new services and technologies related to the deployment of and investment in telecommunications infrastructure throughout the state. This infrastructure report generally looks at deployment as of the end of 2008 although some more current information on broadband is provided in the text.

The PSC obtained a federal grant for broadband mapping in the fall of 2009 and has a contract in place with LinkAmerica to undertake broadband data collection, mapping and planning.

The Universal Service Fund (USF) report (Part 3 herein) is being filed in compliance with Wis. Stat. § 196.218(5r) and contains information on programs funded by the state USF. A brief description of the federal USF is also included.

The appendix of the report provides maps, information on the infrastructure report preparation, details on USF grants and alternative regulation plans and a page of telecommunications quick facts for Wisconsin.

Use of Advanced Infrastructure for Designated Purposes and Infrastructure Deployment

The first section of Part 2 of the report provides information on the use of infrastructure for distance learning, interconnection to libraries, access to health care, and assistance to persons with disabilities. The Commission notes that progress has taken place in these areas since 1993 Wisconsin Act 496 (Act 496) was passed.

Resources made available through the Technology for Educational Achievement (TEACH)¹ program and Universal Service Fund (USF) grants have made it possible to provide video distance learning to nearly all K-12 school districts and technical colleges. All public libraries are connected through wide area networks of the 17 regional library systems and are used for Internet access and shared integrated library systems. Public access to the Internet provided by libraries is one method of providing the benefits of advanced telecommunication networks to individuals that cannot afford Internet access or do not own computers. The broadband portion of this section documents a recent

¹ Now called the Educational Telecommunications Access Program

grant received by the Department of Administration under federal stimulus funding; this grant will increase broadband capabilities for schools and libraries.

In health care, there has been increased use of existing high-capacity networks between hospitals and clinics, although the number of networks is limited.

For individuals with disabilities, the focus remains on the development of assistive technologies that enable the use of the telecommunications infrastructure such as access to computers and related Internet access items.

Infrastructure Deployment

This portion of Part 2 documents the status of infrastructure in the state, mainly that of Incumbent Local Exchange Carriers (ILECs) and Competitive Local Exchange Carriers (CLECs).

Tables, figures, and maps throughout the report reflect data reported by providers on technology changes and additions. These tables and figures show changes in switching and advanced services including Voice over Internet Protocol (VoIP) and fiber-related deployments.

There has been significant activity in broadband through 2008 and 2009 and continuing to the present. Information is presented on broadband activities in the state including mapping, federal stimulus funding and a federal broadband plan. Broadband deployment projects are ongoing throughout the state. This deployment includes a number of independent companies who deployed Fiber to the Premises (FTTP) systems to the majority of their service areas.

The PSC conducted an informal consumer survey of broadband availability in the state in 2009, and the results helped identify where the need for broadband exists. The PSC also has a formal mapping effort underway at this time with LinkAmerica and will have preliminary data available in the first half of 2010, with a first interactive national map available in February of 2011. Information on maps and strategy documents will be offered to the public and other interested parties via a broadband information website. This work ties in with the federal plan for broadband mapping and deployment.

In addition to this state initiative, recent activities in broadband expansion and deployments are continuing under the American Recovery and Reinvestment Act (ARRA). The ARRA appropriated \$7.2 billion to expand broadband access throughout the United States. Stimulus funding for broadband deployment and grants for broadband mapping have been awarded in a number of states.

In the first round of federal grant applications, the following grants were awarded in Wisconsin in early 2010:

- The Wisconsin State Department of Administration was awarded a \$28.7 million grant for its BadgerNet project to provide fiber-optic facilities to schools and libraries across the state.
- The UW System received \$5.1 million for providing 100 miles of fiber optic facilities to anchor institutions in Dane County.

- One Economy was awarded a \$28.5 million multi-state grant for a sustainable broadband adoption program, with an additional \$23 million applicant-provided match.

Recently, the Federal Communications Commission (FCC), as directed by Congress, announced a national broadband plan. This plan is directed at overhauling the nation's Internet infrastructure. Under the plan, a number of goals were set by the FCC including the establishment of a Connect America Fund (CAF) to drive broadband adoption using federal funds from the Universal Service Fund. This government attention to broadband stresses the importance of having a universal broadband infrastructure in place to serve the economic, educational, and social need of communities across the nation. In Wisconsin, the Commission will continue with its broadband mapping efforts and establish a plan to meet federal requirements and also the needs of the state and its residents.

Universal Service Fund

1993 Wisconsin Act 496 established the USF to ensure all state residents have access to essential and advanced telecommunications services (Wis. Stat. § 196.218). The USF not only assists customers in areas of the state that have relatively high costs for telecommunications services, low-income customers, and customers with certain disabilities, it also assists in the deployment of the advanced service capabilities of a modern telecommunications infrastructure throughout the state. Programs under the broad umbrella of the USF consist of technology and consumer-oriented programs managed by the Commission, and some technology and education-oriented programs that direct funding to other state government entities. This report focuses on the Commission portion of the USF.

Although the Commission develops the overall policy and procedures for the telecommunications-related portions of the USF, and manages and operates several of the programs, it is required under state statute to contract with a private firm to administer the fund. The USF Council, also established by statute, advises the Commission on the administration of the USF and on proposed rule changes. The appropriation for FY 08 and FY 09 was \$6.0 million each year.

Eight Commission programs (see Wis. Admin. Code ch. PSC 160) are currently funded by the USF. These are:

- Telecommunications Equipment Purchase Program (TEPP)
- Two-line Voice or Speech Carryover
- High Rate Ceiling Credits
- Lifeline Program
- Link-Up Program
- Nonprofit Groups – Access Programs or Projects
- Medical Telecommunications Equipment Program
- Public Interest Payphones

Tables and figures included in Part 3, and maps and tables in Appendices A and C, summarize the expenditures and grant details for the fund.

Beyond the Commission-administered USF, there are some federal USF programs that also serve to support universal service for customers in Wisconsin. The FCC is in the process of reviewing the rules for the USF. The Commission will monitor these changes and provide comments when appropriate.

In spring 2010, the Legislature passed 2009 Wisconsin Act 238 which included changes to the reporting requirements for the state USF. The bill changed the existing requirement for an annual USF report to a biennial report. Future USF reports will be combined (as was this one) with the biennial Infrastructure Report.

Summary and Recommendation

These reports will continue to document the status of existing infrastructure, trends and advances in technologies and USF program statistics. The Commission considers this reporting an important part of its role to assure that infrastructure and programs are in place so that customers have access to reasonably priced and quality communication service and that legislative reporting requirements are met.

The Commission will continue to work with providers and LinkAmerica to assist in the collection and publishing of relevant data on deployment of infrastructure and new services offered in the state.

PSC annual reports and data requests continue to be a reliable and consistent source for infrastructure and related telecommunications reporting for the Commission. This information, along with LinkAmerica broadband data, will add to the existing baseline for infrastructure and service availability across the state and provide a complete picture of the status of investments and infrastructure in the communications landscape. As noted in previous reports, the PSC does not have authority over all entities that have infrastructure in the state. Providing such authority could give the PSC the ability to provide a more complete picture of the status of infrastructure in Wisconsin.

Recommendation

In the Commission's 2008 report four recommendations were noted. The legislature addressed two of these recommendations with passage of 2009 WI Act 238 and a third is being pursued under the NTIA grant for broadband mapping and planning. With regard to the remaining recommendation, the Commission reiterates the request for statutory authority to give the Commission oversight of infrastructure and universal service issues in the state:

Establish statutory authority under Wis. Stat. § 196.25 to allow the Commission to collect data from CATV, wireless and VOIP providers so that the Legislature and the public have complete and relevant information covering all areas of the communication industry. In addition, a provision should be added to assess a penalty or other form of redress where providers do not respond to data requests as required under Wis. Stat. § 196.25(3).