

MLA/ITEM

BROADBAND TELECOMMUNICATIONS ACCESS FOR SCHOOLS AND PUBLIC LIBRARIES

Minnesota schools and public libraries receive state support to help pay for the cost of high speed Internet access that remains after federal E-rate discounts have been applied. The annual appropriation for public schools is \$3.75 million. For public libraries, it is \$2.3 million.

Internet access is mission critical for schools and public libraries. Digital content, increasingly accessed over mobile devices, requires higher levels of bandwidth. Schools use the Internet in their daily operations including student instruction, food service, communications, transportation, accounting, and procurement. Public libraries need Internet access to manage collections, provide access to digital materials and research capabilities, and serve as public Internet access centers.

Use of mobile devices has exploded over the past 2 years. This dramatic increase has severely taxed the capacities of both wireless servers and bandwidth in general. Minnesota schools and public libraries need to greatly expand the broadband networks serving their institutions in order to keep up with the demands of their users.

Examples of how broadband access is used by schools and public libraries include:

1. Citizens without broadband access at home or who lack proficient computer skills visit their public library and use the computers to communicate, file for government services, search for employment, research special topics, and conduct personal business. Families with dial-up or low-bandwidth connections use public library Internet access for projects and software that require higher bandwidth. Citizens with wireless devices sync up with the public library wireless whenever they are in the building to place and respond to ongoing calls and messages.
2. Schools are increasingly creating and using digital learning resources instead of purchasing traditional textbooks. Schools are also expanding networks to allow for students to bring their own Internet enabled devices for educational purposes and are using more school-owned tablet devices in classrooms. These conditions are causing a steady increase in the amount of bandwidth needed by schools. Students continue to use school-owned tablets at the public library to complete homework after school, in the evenings and on the weekends.
3. Students access distance-learning opportunities from post-secondary education institutions, other Minnesota K-12 schools, and online learning programs. Examples include the Online College in High School program, various interactive video courses, and the Online Chinese Project that provides instruction in Mandarin Chinese that is not available in their home districts to students throughout Minnesota.

4. Internet-based audio and videoconferencing technology is used to connect educators and librarians and peers across the globe. Students, teachers, librarians and administrators use broadband access to collaborate on curriculum development and library applications, conduct meetings, participate in professional development, and access information beyond the geographic and resource limitations of their communities.
5. Public library customers use online systems (MNLINK) to access books and materials through interlibrary loan, effectively making all the resources of all Minnesota libraries available to customers statewide.
6. Institutions such as museums, historical societies, zoos, and other centers of culture provide interactive learning opportunities to students through “field trips” using broadband connections and videoconferencing. These experiences provide 21st century learning opportunities to students in rural areas who might otherwise miss out because of the high costs of long-distance visits.
7. Citizens interested in computer-related technologies depend on public libraries to provide education and training on a variety of tools and applications such as Skype, web cams, GPS systems, digital cameras, slide-show production and electronic reading devices, smartphones and tablets.
8. Parents use districts’ broadband connections to access information from district databases on their child’s educational progress and achievement, manage lunch accounts, and participate in the school community.
9. Schools use broadband and cloud services to conduct their daily business using cloud-based classroom documents and email, managing finances and tracking student achievement on outsourced cloud-based databases, reporting required data to the state and federal government, and connecting with the local community.
10. Students in school library media centers and citizens in public libraries use resources found in the Electronic Library for Minnesota (ELM), and the thousands of e-books, including electronic textbooks, available to all citizens through NetLibrary, eBooks MN and other sources. Public libraries provide access to downloadable audiobooks and ebooks, as well as electronic magazines, from remote locations to the users’ devices.