Executive Summary

Alaskans are geographically isolated from the rest of the world. Alaska covers over 660,000 square miles, nearly 2.5 times the size of Texas, but has only 686,000 residents. 60% of the population lives in the three major population centers of Anchorage, Fairbanks, and Juneau. The remaining population (278,000) lives in approximately 300 small communities spread across the state from the Aleutians to villages on the North Slope to the towns of the SE panhandle. The distribution of the Alaskan population presents unique infrastructure challenges of which the primary challenge is geographic isolation. 70% of Alaskan communities are not on the road system and are reachable only via air or water. These communities lack the local resources and basic services that most Americans are accustomed to since they must rely on expensive and infrequent air and barge services to receive simple consumer goods and services. In addition to geographic isolation, rural Alaskans are also isolated from the rest of the world in terms of communication and broadband service. Alaska has some of the worst broadband speeds and penetrations in the country. Furthermore, broadband penetration among rural Alaskans is almost non-existent. Few people own computers or have access to the Internet at home due to the extremely high cost of satellite service. A majority of Alaskan communities can only be served by satellite Internet services, which can cost up to 50 times more than terrestrial services elsewhere. The price of a dedicated satellite T1 is up to $15,000/month in Alaska compared to $300/month in the Lower 48. The lowest-priced satellite bandwidth services are highly oversubscribed, which significantly affects throughput speeds and makes services almost unusable during normal daytime hours. Due to high service costs, public libraries have become the only place for adults to access the Internet. The librarian from Lake Minchumina highlighted the community's reliance on the library for Internet, 'Our community as a whole really depends on the Library for internet; it is our ONLY public internet provider.' Unfortunately, in most cases Internet access in public libraries is inadequate for even basic services. A recent survey of our libraries has shown that 84% have connection speeds of less than 1.5 Mbps to the entire library, the minimum recommended by the American Library Association. Most connections are highly contended with actual throughput speeds.