Applicant Name: MATANUSKA TELEPHONE ASSOCIATION, INCORPORATED

Project Title: Middle Mile service to distant communities in the Matanuska Telephone Association service area.

Project Type: Comprehensive Community Infrastructure

_______________________Executive Summary_______________________

This project increases capacity to distant communities in the MTA service area by increasing middle mile broadband capacity and adds last mile ADSL2+ broadband service to the Tyonek, Beluga, Knik River, Glacier View and Chickaloon. MTA provides phone and up to 768kbps Internet service to these communities. Middle mile capacity limits MTA's ability to increase Internet speeds. The existing copper twisted pair last mile cable and equipment buildings deployed in the areas are in good condition and will be re-used. Expanding broadband capability is critical for development and well being of the local community, especially communities like these which are distant from population areas. High quality communications system allows the local community to grow through access to information, jobs and connectivity to the world via the Internet. The project areas are in varied geographic environments ranging from very mountainous to coastal plains. The inhabitants include Alaskan natives plus 'outsiders', but most are significantly removed from the communities with the critical infrastructure we've come to rely on - hospitals, universities and government agencies. Tyonek has a medical clinic with limited capability, and when the weather is inclement and air transport is not an option, it is critical for the medical center to have access to the advanced technology services at hospitals in Anchorage. Expanding broadband capability will provide distance learning capabilities like the University of Alaska's online course work offered by the University at UAnline.alaska.edu with professors based in Anchorage, Fairbanks, and the Juneau. Tyonek is a native village inhabited mostly by Alaskan natives. Beluga is an adjacent community eight miles northeast from Tyonek. These communities are accessible only by air or boat. MTA leases T1 capacity on AT&T Alascom and Chugach Electric's microwave radio systems. The cost of these T1s is very high making provisioning broadband service cost prohibitive and the capacity of these radios are insufficient to meet future expectation of broadband services. Chickaloon, also an Alaskan native village and Glacier View are provided service through 12 existing equipment sites. Middle mile is through MTA's DS3 microwave system and T1s over copper pairs. These communities are in mountainous terrain with the Talkeetna Mountains to the north, the Chugach Mountains to the south and Matanuska River in the valley below. The Knik River community is in mountainous terrain on the north side of the Chugach Mountains. Existing equipment sites are served via T1's over the copper pair from the last point of the fiber network to the sites. The accompanying network design and area maps show the region and specific construction areas. According to the 2000 Census Tyonek and Beluga have a population of 225 in 79 households, Chickaloon 213 people, 87 households, Glacier View a population of 249; 104 households. Knik River 582 people and 216 households. Tyonek and Beluga has 17 businesses, 4 community anchors, Chickaloon 27 businesses,
Glacier View 36 businesses, 2 community anchors and Knik River has 23 businesses. Tyonek is a village federally-recognized tribe, the Native Village of Tyonek. The population is 95.3% Alaska Native or part Native. During the 2000 U.S. Census, total housing units numbered 134. Vacant housing units used only seasonally numbered 56. U.S. 64 residents were employed. The unemployment rate was 27.27 percent, although 55.56 percent of all adults were not in the work force. The median household income was $26,667, per capita income was $11,261, and 13.94 percent of residents were living below the poverty level. Beluga’s population consists of 25% Alaska Native or part Native, total housing units numbered 54, vacant housing units used only seasonally numbered 36. The Dena'ina Athabascans were the earliest inhabitants of the Knik River region. The population of the community consists of 11.5% Alaska Native or part Native, total housing units numbered 263, vacant housing units used only seasonally numbered 18. 297 residents were employed, unemployment rate was 21.14 percent, 40.05 percent of all adults were not in the work force. The median household income was $55,000, per capita income was $19,104, and 15.3 percent of residents were living below the poverty level. Glacier View on the western edge of the Copper River Ahtna Athabascan territory. The population consists of 10.4% Alaska Native or part Native, total housing units numbered 260, vacant housing units used only seasonally numbered 150, 84 residents were employed, unemployment rate was 0 percent although 52.81 percent of all adults were not in the work force. Median household income was $36,429, per capita income was $14,855, and 4.05 percent of residents were living below the poverty level. The Chickaloon territory was a center of trade for copper, sheep, goats salmon, beluga, and fur seals. The Chickaloon Native Village, a federally-recognized tribe is located in the community. The population of the community consists of 16.9% Alaska Native or part Native. The Tribally-owned and operated Ya Ne Dah Ah School located in Moose Creek serves tribal members living in Chickaloon and surrounding communities. Total housing units numbered 208, vacant housing units used only seasonally numbered 113, 116 residents employed, the unemployment rate was 24.18 percent, although 48.67 percent of all adults were not in the work force. The median household income was $49,792, per capita income was $14,755, and 2.81 percent of residents were living below the poverty level. This project will extend MTA’s fiber network, allowing MTA to provide the same services provided in the core network to these outlying, remote areas. Today, MTA provides Internet speeds up to 10Mbps, but capable of 30Mbps using bonded ADSL2+. MTA adheres to the principles contained in the FCC’s Internet Policy Statement. MTA consumers are entitled to access lawful Internet content of their choice and run applications and use the service of their choice. MTA does not use network management systems that would limit the usage of content or application on the Internet. MTA complies with law enforcement requirements. MTA does not restrict the devices connected to the network. The only exception to this is if a device causes network disturbance. MTA does not employ management system that would restrict one application, service or content provider over another. MTA does not restrict competition. MTA has agreements with two Internet Service Providers for network interconnection and resale of DSL services for the purpose of providing Internet services. MTA Online Services Terms and Conditions are on its website under ‘Internet Service Details’. Due to the high cost of transport between Alaska and the first Internet point of presence MTA restricts the amount of usage per month. Customers who exceed their package usage limit are able to buy additional gigabyte usage for the month or increase their monthly service package limit. MTA may have to consider limits due to the high cost of connection between Alaska and Seattle and the extreme spike in usage during the busy hour. Once a customer’s username and password is authenticated, the
customer is connected directly to the Internet. Tyonek and Beluga, this project proposes a 49.6 miles of undersea fiber from MTA's Port McKenzie building out to existing equipment buildings in Beluga and Tyonek. Last mile digital subscriber loop access multiplexers (DSLAM) will be replaced with ADSL2+ capable DSLAMs. Chickaloon and Glacier View area, MTA will place approximately 56 miles of aerial fiber on an existing pole line from MTA's Sutton CO to it furthest equipment site at Sheep Mountain. MTA will connect 12 equipment locations to the fiber, three existing buildings and nine cabinets. Knik River will require 7.5 miles of aerial fiber along an existing pole line and 6,600 feet of buried fiber to connect two equipment facilities in existing buildings and two cabinets. In all locations ADSL2+ DSLAMs will be installed in the buildings but the cabinets will be replaced with larger equipment cabinets to house the new ADSL2+ DSLAMs. MTA is an independent local exchange carrier that provides communication services, including local phone, broadband and IP television. MTA invests in quality, advanced products, including extensive fiber optic cabling and electronic platforms to support broadband such as digital subscriber loop (DSL). The proposed infrastructure cost for this project is estimated as $12.62 million. MTA does not expect significant growth in customers the customer base will grow from 468 to 482 but the purchased Internet speeds will increase from 128kbps-768kbps to 10Mbps-50Mbps.