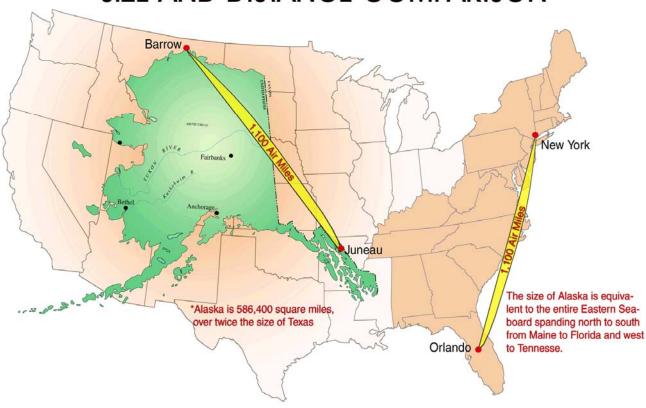
# Attachment M Connectivity

## **M.01 Connectivity Challenges**

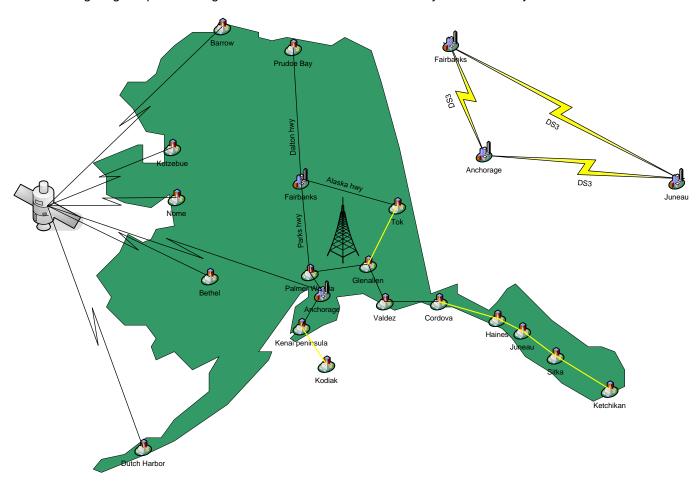
Connectivity within the State of Alaska is a challenge due to distance and remoteness. Offerors should be aware of these factors when preparing a proposal.

The following diagram helps provide perspective on the distances between locations within the state.

# SIZE AND DISTANCE COMPARISON



The following diagram provides high-level information about connectivity constrained by remoteness:



#### M.02 Characterization of State Communications Infrastructure

The following State of Alaska circuit description has been condensed from a State whitepaper dated July 21, 2007. It does not attempt to catalogue all locations, services and costs, but is intended to characterize the demographics of our circuits.

Generally, outside of Anchorage, Juneau and Fairbanks, one or more service(s) in up to 250 locations, the connection speed has been 56k (formerly the least expensive routed connection). Additionally, there are networks or services which are generally outside of these discussions but use the State's resources in some form and are generally located within the same cities, if not the same locations, such as the University of Alaska, the court systems, and Alaska Housing Finance Corporation.

The State uses a variety of network services to provide endpoint services to agencies. Routed connections over State or commercial circuits include broadband (cable modem, DSL, and wireless). WAN services are those which are fully controlled and operated by ETS. VPN or extranet services are those managed by a provider or agency.

In Alaska, 80% of State employees are housed in 183 facilities in three cities. The remaining 20% are found in more than 250 locations outside of these core communities. Four percent of employees are in 31 locations in the fast growing Palmer/Wasilla area and 5% are in 52 locations on the Kenai Peninsula area, including Kodiak. Some seasonal, regional, or management employees roam between cities and across regions.

The network, phone, SATS, and GCI staff have rebuilt half of the State's networks.

### M.03 Connectivity Table

The following table is constructed with data last updated in 2006. It is not exhaustive, few significant upgrades have occurred since then and it provides adequate granularity so potential offerors can understand the connectivity infrastructure that will support the TAS.

Loc's = number of locations within a municipality

56K LEC = number of Local Exchange Carrier connections (i.e. commercial provider)

Region	City Name	Loc's	Speed	56k LEC	Work- stations
Anchorage	Anchorage	90	ds3	31	5800
Anchorage	DMVA: Elmendorf Air Force Base	3		2	2
Anchorage	DMVA: Fort Richardson	2	56	2	318
Anchorage	Eagle River	3	1536	1	58
Anchorage	Girdwood	1		1	
Fairbanks	Fairbanks	44	ds3	10	1500
Fairbanks	DMVA: Fort Wainwright	1		1	
Fairbanks	Nenana	1		1	
Fairbanks	North Pole	3		1	·
Juneau	Juneau	41	ds3	5	4796

Region	City Name	Loc's	Speed	56k LEC	Work- stations
Bristol Bay/ AK Penn/ Aleutians	Dillingham	9	448	9	19
Bristol Bay/ AK Penn/ Aleutians	Iliamna	1		1	
Bristol Bay/ AK Penn/ Aleutians	King Salmon/Naknek	6		3	14
Bristol Bay/ AK Penn/ Aleutians	Unalaska/Dutch Harbor	4	256	4	25
Interior/ Southcentral Non-Road System	Cordova	9	1000	9	27
Interior/ Southcentral Non-Road System	Mcgrath	4			
Interior/ Southcentral Road System	Cantwell-Healy	2	64	2	
Interior/ Southcentral Road System	Delta Junction/Ft. Greely	6	1536	6	4
Interior/ Southcentral Road System	Glennallen / Tazlina	7	1536	7	
Interior/ Southcentral Road System	Tok/Border City	7	1536	7	
Interior/ Southcentral Road System	Valdez	7	1536	4	38
Kenai Penn Road System	Homer	10	1024	10	57
Kenai Penn Road System	Kenai/Soldotna/Ninilchik	18	1536	3	269
Kenai Penn Road System	Seldovia	1		1	
Kenai Penn Road System	Seward	9	768	7	61
Kenai Penn Road System	Whittier	2		2	5
Kodiak	Kodiak	12	896	12	136
Mat-Su	Big Lake	1		1	
Mat-Su	Palmer	22	1536	3	342
Mat-Su	Talkeetna	1		1	
Mat-Su	Wasilla	7	1536	3	133
Northern	Barrow	5	448	2	14
Northern	Deadhorse	1			6
Southeast	Angoon	1	56	1	
Southeast	Bellingham	1	56	1	9
Southeast	Craig/Klawock	6	256	4	7
Southeast	Haines	4	64	4	14
Southeast	Hoonah	2	56		
Southeast	Ketchikan	14	1536	2	187
Southeast	Metlakatla	1	56	1	2
Southeast	Petersburg	8	448	5	35
Southeast	Prince Rupert B.C.	1		1	
Southeast	Sitka	10	896	8	93
Southeast	Skagway	2	56	2	
Southeast	Wrangell	3	64		6
Southeast	Yakutat	2	56	2	5
Western	Aniak	2	56	2	4
Western	Bethel	15	896	10	180
Western	Galena	2		2	3
Western	Kotzebue	8	512	6	12
Western	Nome	11	896	6	137
Western	St. Marys	2		2	

**Grand Total** 435 14318