



University of Alaska Broadband Challenges and Opportunities

Senate Community & Regional Affairs Committee
April 15, 2021

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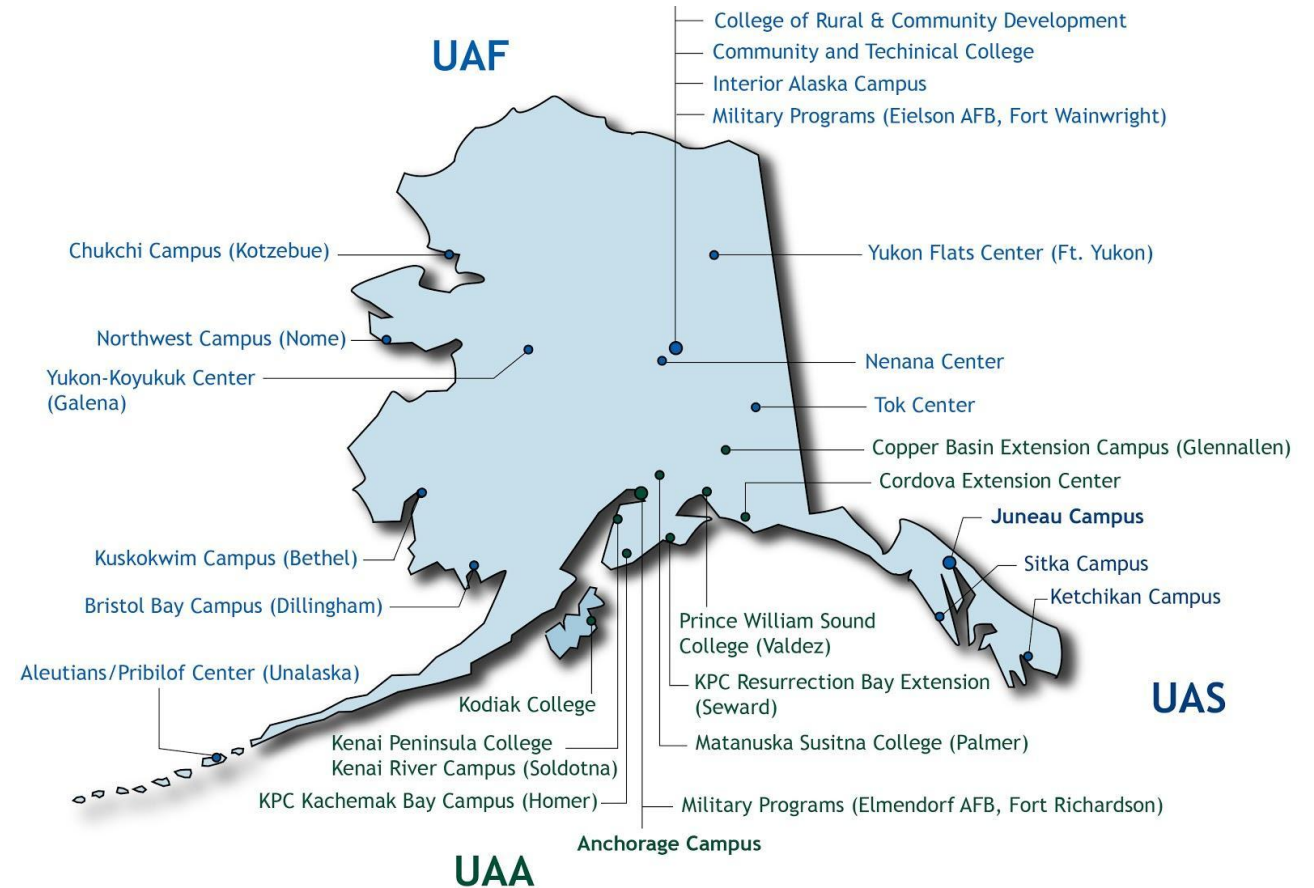
Agenda

- Overview of the Office of Information Technology (OIT) role at the University of Alaska in regards to broadband
- UA's service footprint, how it can differ by location, and how that may influence the student experience
- Opportunities for the improvement of UA's current delivery of bandwidth



Where OIT currently provides bandwidth for UA

- University Campuses
 - UAA, UAF, UAS
- Community Campuses
 - Regional “hub” campuses directly on UA Wide Area Network (WAN), affiliated with a specific University



How does UA measure up?

FCC defined “broadband” in 2015 to be on a per household basis

- Minimum of 25 megabits per second download
- Minimum of 3 megabits per second upload
- “25/3” nomenclature

University of Alaska capacity today ranges dramatically by location

- 1000/1000 at main University campuses
- 50/50 to 100/100 at urban community campuses
- 5/5 to 15/15 at rural community campuses



Limitations

- Current bandwidth provisioning at low bandwidth locations can translate into limitations for the delivery of digital content
- For example, it's challenging to deliver rich learning content that relies upon a substantial Internet connection
- Some services are difficult to deliver due to limited bandwidth (live streaming, interactive content)
- Limits UA ability to fully leverage a recent federal grant (~\$750K) to its fullest extent



Challenges and Costs

- Due to cost structures in rural areas, meaningful capacity is cost prohibitive
- High cost creates capacity imbalance between rural and urban campuses
- Unlike K-12, institutions of higher education are not eligible for federal E-rate funding at a subsidized rate of 50 - 90%
- UA would like to explore the possibility of a 25 megabits per second minimum - similar to what K-12 has standardized on but resources are a challenge



Possible opportunities

- Possible federal funding
 - Connecting Minority Communities Pilot Program
- New satellite services expected to be available soon - Low Earth Orbit (LEO) and Geosynchronous Earth Orbit (GEO) solutions
 - Starlink (SpaceX)
 - Project Kuiper (Amazon)
 - OneWeb
 - Aurora IV
 - New providers may introduce competition and rate adjustments



Questions?

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