

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)
Petition for Waiver for the Utilization of)
Schools and Libraries Internet Point-of Presence) Docket No, 96-45
in Rural Remote Alaskan Villages)

April 18th, 2001

Sirs:

I am replying to the Comments filed by the Alaskan Telephone Association on 4/5/01 for Docket 96-45 in opposition to the Petition for Waiver for the Utilization of Schools and Libraries Internet Point of Presence in Rural Remote Alaska Villages Where No Local or Toll-Free Access Exists.

I will skip the legalistic gobblydegook and go to the substantive heart of the matter. As a globally recognized expert - for the past 20 years in rural areas educational, community, and wireless connectivity to the Internet and its predecessors (the Source, Compuserve, AOL) - and currently the Principal Investigator for a \$1 million National Science Foundation grant to pioneer the uses of wireless for scientific research in remote areas, including for the University of Alaska, I am keenly aware of both the unique problems of Internet connectivity for Alaskans, and the shortcomings of the original Report and Order creating the E-Rate program.

While considering this Request for Wavier do not lose sight of the fundamental original purpose of the E-Rate program. It was to bring the benefits of the Internet to all 52 million American school children, and all patrons of all 15,000 Public Libraries in the United States. It was to do that by the mechanism of subsidizing schools and libraries everywhere in the United States, out of rate-payer's pockets (the Universal Service Fund) so that Internet connectivity could be affordably delivered. It was NOT primarily designed to be an anti-competitive cash windfall for Telephone Companies - Common Carriers, which however it has turned out to be. And frankly, the Alaskan Telephone Association is determined as evidenced by the text of its Opposition to this Request for Wavier, to retain its grip on the delivery of the Internet using E-Rate funds. In blunt terms, it cares less that deprived Alaskan children are connected up even in the most remote of areas and under the harshest weather conditions than it does retaining its monopoly position that was never granted by the 1996 Telecommunications Act, or the derivative E-Rate rules.

I can find no language in the 1996 Telecommunications Act which created the E-Rate program which said that the benefits of the E-Rate should be delivered only to those Americans who happen to be served by Telephone Companies, when and where they chose to operate. In fact the Act pronounced that the principles of 'universal, technology neutral, and competitive' should govern.

Unfortunately the FCC assumed that K-12 education ONLY takes place on

the premises of 'schools' or 'libraries,' which is simply not the case. And becoming less so. The very value of the Internet in permitting students to do 'research' (called in the old days 'homework') calls for connectivity at times other than when all are in a classroom with limited number of computers, much less connections. And because the E-rate was so structured to favor the telephone companies as the recurring rate deliverer of the Internet only into the interior of school buildings, the FCC further, in its making the specific rules, denied schools and libraries the right to use E-Rate funds to purchase on a one time basis data radios, and extend the Internet wirelessly between the several buildings of school districts, or between local libraries and schools, or, at the option of the Schools to the homes of students where much 'education' can and should take place.

In particular Alaskans who have to contend with the severe weather conditions in addition to the other barriers to access, should be supported by the FCC by this Wavier, and not be brushed off as the Alaskan Telephone Association is prepared to do with vague projections that 'some day' everyone will have telephone access to the Internet, including those who have none in their towns and villages. I will go so far as to say that this Wavier can serve as a model for a MUCH more enlightened future E-rate administration for all Americans and not just those in Alaska, as the 5 year review of the program is undertaken.

Thus the basic idea of the State of Alaska's Request for Wavier is that students, as well as adults, from their homes, can access the Internet when the schools or libraries are otherwise closed, and there is not even alternative local (thus affordable) dial-up access to the Internet - is absolutely defensible in terms of the original purposes of the E-rate and why it brings the Internet to the schools and libraries in the first place.

There is another major point. The Alaskan Telephone Association falsely assumes that there is only ONE way for students at home or in other places (village community houses) to access a School's Internet service - by dial-up modem telephone connections. In fact there are already communities in Alaska which BYPASS the local telephone company and connect up directly to the hubs and servers and satellite Internet ground stations by means of high speed, secure, reliable and free FCC Part 15 data radios!

Even before the E-rate got started, the former Lt. Gov. of Alaska, Red Boucher privately assisted the remote village of Tooksook Bay, Alaska to connect up the school buildings, teachers and administrator's homes, the community center, and individual homes WIRELESSLY. You are invited to access <http://members.aol.com/klincoln45/TooksookBay1.htm> and see for yourself how one very small, remote, native village has been able to be connected to the world and its young people, through its school, even communicating with young people in Spain over the net, to learn Spanish! THAT is the future of connected Education in remote Alaska. Yet this is a village where Alaskan telephone companies refused to install local dial-up network service and fought bitterly against the installation by the village of this Wireless Internet! So much for 'competition' in Alaska.

The ONLY competitor in the E-rate is BETWEEN telephone companies - where and when they 'choose' to offer services, and not, as the 1996 Telecommunications Act assumed that competition would come to exist with OTHER forms of telecommunications, including wireless.

There are already other communities, such as White Mountain, Alaska, which are already served by, Telephone Company bypass wireless technologies - out of Nome. www.nook.net

With over 80 companies - Compaq, Cisco/Aironet, Lucent, Nokia, Samsung among them - now selling low power (but plenty for across village distances) FCC Part 15 no-licence digital radios at low cost (\$100 or less for end-users and only \$300-500 for Access Points which can talk to many end user radios at rates up to 11Mbps and be connected DIRECTLY into the servers and satellite Internet ground stations ANY VILLAGE in Alaska can be connected to the Internet as long as they have an E-rate, on-school-premises Satellite or fiber feed. And they do NOT need a local ISP, dial-up or not.

I invite the Staff and Commissioners of the FCC to access both the 1995-1999 NSF Wireless Field Tests For Education official report web site <http://wireless.oldcolo.com/course/reports.htm> which details the value of wireless for education especially in rural, remote areas, but also <http://wireless.oldcolo.com/biology/progressreports.htm> where the latest radios in use, including remote Alaska, are reported on and pictured. In 1995, at the invitation of the Mongolian Government and the National Science Foundation, I installed wireless devices in Ulaanbataar so that their students and institutions could be connected locally to the ground station of PamAmSat and Sprintlink Internet satellite services. That act has transformed access to the Internet all over Asia.

I have asserted to the highest Alaskan State officials from the position of expert opinion on not only technical wireless, but its associated economics, that they using a combination of the latest forms of low cost wireless, every individual in the State of Alaska could be connected affordably to the Internet. And that they should already be examining the proposition that the schools themselves should be permitted by E-Rate rules to purchase, on a one time basis, the digital radios (just as the E-rate pays for hubs and routers and wired ethernet) that would make it possible for all Alaskan students to be connected to their local school, library, and the outside Internet from their homes, regardless of location or weather.

For now, I strongly advise the FCC to approve the requested Waiver, whether the people of a village not served by a dial-up ISP use plain telephone connections to the school server, or wireless, or lay their own wires to connect up to the E-rate paid for Internet service. You should reject both the specious, inaccurate, and self-serving comments by the Alaskan Telephone Association who offers no immediate future solution to the problem of connectivity for thousands of Alaskans.

David R Hughes
Principal Investigator
NSF Wireless Field Tests

<http://wireless.oldcolo.com>
dave@oldcolo.com
719-636-2040
6 N 24th Street
Colorado Springs, CO
80904