121. We seek comment on what role the Commission might play in trying to alleviate this problem. We seek comment on whether we might provide additional support through the LinkUp America program -- which provides federal support to reduce the price of initial connection charges -- at least for locations with significantly lower than average telecommunications penetration rates, *e.g.*, below 75 percent.[217] Commenters supporting such an approach should also explain whether support would be provided as a one-time payment or over a number of years. We also seek comment on what we might do to encourage carriers to offer installment loans for such extensions over a practical time frame. We seek comment on these and any other alternatives that might be more effective ways of addressing this problem. For example, we seek comment on whether the provision of telecommunication service to remote areas using terrestrial wireless or satellite technologies might allow service at lower cost compared to the cost of line extension or construction of wireline facilities. Commenters offering proposals should also explain how their proposals would avoid encouraging uneconomic investments in relatively high-cost technologies.

C. Support for Intrastate Toll Calling

122. In paragraph 30 above, we seek comment on the extent to which limited local calling areas impose a barrier to increased penetration in certain underserved areas. For example, the local calling area for the Jemez Pueblo in New Mexico includes only about half a dozen other towns. It does not include any other Pueblos or hospitals nor the cities of Albuquerque or Santa Fe, where most residents work.[218] Similarly, the calling area for the Picuris Pueblo does not even include 911 calls.[219] To the extent that limited local calling areas impose a barrier to increased penetration, we seek comment on how to remove this barrier. For example, expanding the local calling area to include the unserved or underserved area and the nearest metropolitan area or community of interest may entice more consumers to request service. Expanding local calling areas, however, would likely cause upward pressure on local rates. We seek comment on how expanded local calling areas would impact local rates, including rates for consumers living in communities outside of tribal lands. We seek comment on what role, if any, the Commission is authorized to and should play in seeking to address impediments caused by limited local calling areas.

123. We seek comment on whether federal universal service support mechanisms should provide additional support for low-income consumers living in remote areas or low-income consumers living on tribal lands. For example, the Commission could provide support for calls outside of the local calling area that fall within specified federally-designated support

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record in CC Docket No. 96-45 and is available through the Commission's Electronic Comment Filing System: https://gullfoss.fcc.gov/cgi-bin/ws.exe/prod/ecfs/comsrch.hts.

[217] LinkUp support is currently limited to a 50-percent discount on initial connection charges, up to a maximum of a $30 discount. *See* 47 C.F.R. § 54.411.

[218] *See Overcoming Obstacles Proceeding: Arizona Hearing,* Testimony of Gov. Raymond Gachupin, Jemez Pueblo, p. 34; Testimony of Gov. Eagle Rael, Picuris Pueblo, p. 60; and Testimony of Anthony Lucio, Zuni Pueblo, at p. 63. *See also Overcoming Obstacles Proceeding: Albuquerque Hearing*, Testimony of Nora Helton, Fort Mojave Tribe, p. 43.

[219] *See Overcoming Obstacles Proceeding: Albuquerque Hearing*, Testimony of Gov. Eagle Rael, Picuris Pueblo, at p. 60.

areas. Similarly, federal universal service support could be provided to pay for a foreign exchange (FX) line service from the remote or tribal area to the nearest metropolitan area or community of interest. We seek comment on whether such proposals would eliminate incentives for states to ensure affordable local rates. We also seek comment on whether the provision of service by terrestrial wireless or satellite providers would alleviate any problems associated with limited local calling areas.

D. Expanded Availability of Toll Limitation Devices

124. Many households may forgo telecommunications service because of past or anticipated future problems with high telephone bills.[220] The general prevalence of this bill management problem was documented in a GTE-Pacific Bell commissioned survey done in 1993 by the Field Research Corp. for the California PUC.[221] The Commission sought to address the problem, however, by requiring carriers offering low-income subscribers "Lifeline" service, to permit those subscribers to secure a "toll limitation" service -- either toll blocking or toll control.[222] We believe that our actions in this regard should alleviate this bill management problem.[223] We seek comment on whether expanded options for toll-control or toll-blocking would make telecommunications service more desirable in unserved and underserved areas, including tribal lands. We ask that commenters identify any specific toll-control or toll-blocking features that would be useful, including, for example, the ability to require the use of a Personal Identification Number (PIN) in order to restrict access to toll calls.[224] We also recognize that the benefits of these options are minimal if consumers are not aware of them. We seek comment on what additional measures, if any, the Commission should undertake to ensure consumers are educated about the availability of toll-limitation devices.

E. Publicizing Availability of Low-Income Support

125. We observe that customers may fail to subscribe to telecommunications service because they are unaware of the Commission's Lifeline and LinkUp programs, which are intended to make service more affordable, and the availability of toll-control and toll-blocking, which are intended to help low-income consumers control the amount of their monthly bills. Although the Commission's Lifeline and LinkUp programs have been providing universal service support to eligible customers for more than a decade, we are concerned that carriers may have failed to publicize the programs in some areas, particularly on Indian reservations. Unfortunately, it appears that in markets where carriers find it unprofitable to provide service,

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[220] Prof. Arturo Gandara, UC Davis Law School, July 7, 1998 Meeting on Indian Telecommunications Issues.

[221] Field Research Corp., *Affordability of Telephone Service: A Survey of Customers and Non-Customers* (funded jointly by GTE and Pacific Bell for the California Public Utilities Commission). This document was placed on the record of CC Docket No. 96-45 on July 28, 1999 and is available through the Commission's Electronic Comment Filing System: https://gullfoss.fcc.gov/cgi-bin/ws.exe/prod/ecfs/comsrch.hts.

[222] *See* 47 C.F.R. §§ 54.401(a)(3), 54.400.

[223] We are aware that at least three carriers serving Indian reservations in Arizona were able to offer toll blocking, but not toll control, and a fourth did not expect to offer either until the summer of 1998, but believe that that difficulty was only temporary. *See Fort Mojave Order, supra.*

[224] *See, e.g, Overcoming Obstacles Proceeding,* Testimony of Karen Buller, National Indian Telecommunications Institute at p. 2.

they have no particular incentive to publicize the availability of Lifeline and LinkUp. Thus, the Commission found that none of the representatives of the pueblos testifying in the January, 1999 Albuquerque field hearings were aware of the Lifeline and LinkUp programs.[225] Furthermore, despite the 60-percent unemployment rate in the Cheyenne River Sioux Telephone Authority area, only about 10-percent of the subscribers there receive Lifeline service.[226]

126. We seek comment on whether the Commission should play a role in ensuring the spread of information on tribal lands, or in other low-income, underserved areas, about the availability of low-income support that may make telecommunications service affordable. We recognize that carriers already have an incentive to convince potential customers of the value of their service -- assuming the customers will be profitable to serve. We are concerned about those consumers whom carriers may consider unprofitable to serve. We tentatively conclude that a lack of information may contribute to the significantly low penetration rates on tribal lands.

127. We seek comment on what options the Commission may have to promote awareness of low-income support mechanisms on tribal lands. Section 214(e)(1)(B) of the Act requires an eligible telecommunications carrier to "advertise the availability of" the services supported by federal universal service support mechanisms "and the charges therefor using media of general distribution."[227] We seek comment on the possibility of amending our current universal service rules to require carriers to publicize the availability of Lifeline and LinkUp and toll-limitation options. For example, we could revise section 54.405 of our rules[228] by adding the following italicized language:

> All telecommunications carriers shall *(a)* make available Lifeline service, as defined in § 54.401, to qualifying low-income consumers, *and (b) publicize the availability of Lifeline service in a manner reasonably designed to reach those likely to qualify for the services.*

128. We seek comment on the costs and benefits of requiring carriers to publicize the availability of Lifeline, LinkUp and toll-control devices. Alternatively, the Commission could encourage and participate in other marketing and information dissemination efforts, such as preparing consumer information fact-sheets that would be distributed in local communities. We seek comment on whether there is, or should be, some entity that would collect and verify the accuracy of data on Lifeline rates for each reservation, the eligibility standards for Lifeline in the relevant state, and how individuals who desired Lifeline service could confirm their eligibility and how they could sign up for service. We also seek comment on the best ways to disseminate this information to the relevant audience of potential Lifeline subscribers. We seek comment on any research or other data that indicates the most effective way of marketing to this population, whether via broadcast, print, wireline, or other media; whether separately or in combination with the marketing efforts of other social programs seeking to reach this audience; and whether on a

[225] *See, e.g., Overcoming Obstacles Proceeding: Albuquerque Hearing,* Testimony of Anthony Lucio, Zuni Pueblo, pp. 63. *See also id.* at pp. 72-75, 106-08.

[226] *See, Overcoming Obstacles Proceeding: Arizona Hearing,* Testimony of J.D. Williams, Cheyenne River Sioux Telephone Authority, Transcript at 71-72 (draft).

[227] 47 U.S.C. §214(e)(1)(B).

[228] 47 C.F.R. §54.405.

federal, state or tribal level. Commenters aware of a particularly effective program are requested to provide us with sufficient information to enable us to contact that program administrator.

F. Support for Rural Health Care Infrastructure

129. In the 1996 Act, Congress ordered the Commission to provide universal service support for "any public or nonprofit healthcare provider that serves persons who reside in rural areas."[229] It also directed the agency "to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit . . . health care providers."[230] In the *First Report and Order*, the Commission implemented these instructions by adopting rules to provide public or nonprofit Rural Health Care Providers (RHCPs) with discounts on one 1.544 bandwidth link or the equivalent over the distance generally necessary to reach the nearest urban hospital.[231] That discount generally enables an RHCP to pay no more than it would pay if it were located in the nearest urban area.[232] In addition eligible public and non-profit health care providers without local access to Internet service providers may also receive support for toll-free access to an Internet service provider.[233]

130. Both the Joint Board and the Commission considered whether improvements to the public switched telephone network should be supported if such improvements are necessary to provide telemedicine and telehealth services in rural areas.[234] In the *First Report and Order*, the Commission discussed the need to improve telecommunications infrastructure in Alaska, particularly so that rural health care providers can use telemedicine and telehealth services.[235] The State of Alaska asserted that "the major obstacle to providing telemedicine services in Alaska is that the public switched network is not currently capable of providing services in rural locations where there is significant need."[236] The Alaska Public Utilities Commission (PUC) asserted that Alaska is "heavily dependent on satellite communications to provide links between the majority of remote, rural health care providers and the few regional hospitals" and that affordable satellite connectivity is often limited to bandwidth of 9.6 kbps.[237] Because satellite signals must be "hopped" through multiple earth stations, including antiquated analog earth stations, residents of Alaska are often prevented from using fax machines or computer modems.[238]

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[229] 47 U.S.C. § 254(h)(1)(A).

[230] 47 C.F.R. § 254(h)(2)(A).

[231] 47 C.F.R. § 54.613.

[232] 47 C.F.R. § 54.613.

[233] 47 C.F.R. § 54.621 grants health care providers support of up to $180 per month for up to 30 hours per month for toll charges for links to Internet service providers if the health care provider cannot obtain toll-free Internet access.

[234] *First Report and Order*, 12 FCC Rcd at 9108-10; *First Recommended Decision*, 12 FCC Rcd at 432; *see also First Report and Order*, 12 FCC Rcd at 9098-9107.

[235] *See First Report and Order,* 12 FCC Rcd at 9138-39.

[236] *Id.* (quoting Alaska Mar. 7 *ex parte,* attachment at 2-3).

[237] Alaska PUC universal service comments at 5. Under 1999 state law, the Alaska PUC ceased to exist as of June 30, 1999. Its responsibilities, including all open cases, were transferred to the new Alaska Regulatory Commission.

[238] *First Report and Order*, 12 FCC Rcd at 9138-39 (citing Alaska Mar. 7 *ex parte,* attachment at 3).

131. Although the Commission's Advisory Committee on Telecommunications and Health Care[239] recommended that universal service support be available to build, improve, or extend telecommunications infrastructure in such areas,[240] the Commission concluded that "the existing record contains insufficient information to determine the level of need for such infrastructure development or to estimate reliably the costs to support such development."[241] In addition, the Commission concluded that it had insufficient information about existing federal and state programs already supporting infrastructure development and their success in meeting existing needs.[242] The Commission found that it has authority, under section 254(h)(2)(A), to implement a program of universal service support for infrastructure development as a method of enhancing access to advanced telecommunications and information services as long as such a program is competitively neutral, technically feasible, and economically reasonable.[243]

132. We seek comment on the technical limitations of the telecommunications services available to rural health care providers throughout the United States, including Alaska and insular areas. We ask commenters to provide as much detail as possible regarding the extensions or improvements needed in areas lacking adequate infrastructure. We ask that commenters identify the most urgent needs, such as those that would address threats to the health and safety of residents. We particularly encourage providers of fixed satellite services, geo-stationary satellites, and emerging technologies, to describe the capability of these technologies to serve Alaska and insular areas,[244] and ask these providers to estimate the costs, provide a timetable for deploying particular technologies, and provide information regarding the capability of different technologies to support telehealth and telemedicine applications. We ask providers of other technologies, such as fixed wireless technology, to describe whether these technologies could effectively supplement the apparently inadequate infrastructure in the rural areas of Alaska, insular areas, and the mainland United States.

133. We seek comment on whether and to what extent improvements to the telecommunications network required to meet the telecommunications needs of rural health care providers should be supported by federal universal service mechanisms and whether other mechanisms exist that would provide support for improving infrastructure. We ask parties to submit detailed descriptions of any programs supporting infrastructure development that would assist rural health care providers. We specifically ask the sponsors of programs cited in the State

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[239] The Advisory Committee was established on June 12, 1996 to advise the Commission and the Joint Board on telemedicine, and particularly the provisions of the Telecommunications Act of 1996 relating to rural health care providers. The Advisory Committee, composed of 38 individuals with expertise and experience in the fields of health care, telecommunications, and telemedicine, issued its report on October 15, 1996.

[240] FCC ADVISORY COMMITTEE ON TELECOMMUNICATIONS AND HEALTH CARE, FINDINGS AND RECOMMENDATIONS (October 15, 1996) at 8 (Advisory Committee Report).

[241] *First Report and Order*, 12 FCC Rcd at 9109-10.

[242] *Id.*

[243] *Id.* at 9109 *citing* 47 U.S.C. § 254(h)(2)(A).

[244] In the *First Report and Order*, the Commission recognized that non-wireline technologies may provide the most cost-effective manner of providing services to areas currently underserved or receiving unsatisfactory service from the use of wireline technologies. *First Report and Order*, 12 FCC Rcd at 9108.

Health Care Report[245] and other commenters familiar with these programs to detail their scope, identify any needs that are unmet by existing programs, and explain why.

134. We invite commenters to submit specific proposals that they have already prepared for expanding the federal universal service support for rural health care providers to include infrastructure improvement costs of telecommunications carriers. Any commenter submitting a proposal should analyze the extent to which the proposal is competitively neutral, technically feasible, and economically reasonable, as required pursuant to section 254(h)(2).[246] Commenters should also file detailed cost information for any proposal submitted. We recognize that some improvements to the telecommunications network made to provide service to rural health care providers may also be used to provide commercial services. We seek comment on whether and to what extent we should take account of such additional revenue sources in the event that support is provided to extend or improve telecommunications networks.[247]

VII. INSULAR AREAS

135. In the *First Report and Order*, the Commission stated it would seek further comment in a subsequent proceeding on universal service issues affecting insular areas.[248] The Commission recognized that, while insular areas will benefit from the federal universal service support mechanisms, insular areas may face unique problems that could limit their ability to participate in and benefit from all of the universal service programs.[249] In particular, the Commission expressed concern about the low subscribership levels in insular areas, including Puerto Rico, and the potential need to tailor universal service support for both rural health care providers and telecommunications carriers in insular areas.[250] The Commission also concluded that it would consider in a later proceeding whether and how to support infrastructure development needed to enhance public and not-for-profit health care providers' access to advanced telecommunications and information services, for both insular and non-insular rural areas.[251] We initiate that discussion in this section of the Further Notice.

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[245] *See id.* at 9109-10 n.1668 (noting Office of Rural Health Policy's Rural Telemedicine Network Grant Program and Rural Health Outreach Grant Program; the Telecommunications and Information Infrastructure Program administered by NTIA; and the Internet Connections Grant Program and the High Performance Computing and Communications Program administered by the National Institutes of Health, Department of Health and Human Services and recent federal legislation that requires the Rural Utility Service to increase the capabilities of the telecommunications infrastructure installed pursuant to its program, which provides long-term loans to improve rural telecommunications infrastructure.) *See* 7 U.S.C. § 935(d)(3)(B)(iv); 7 C.F.R. § 1751.106 *et seq.*

[246] 47 U.S.C. § 254(h)(2).

[247] *See* Advisory Committee Report at 6 (recommending adoption of a mechanism to allow an eligible telecommunications carrier to repay, from its profits, universal service support for using infrastructure financed by universal service support).

[248] *First Report and Order*, 12 FCC Rcd at 8997, 9109-10, 9137. *See* Letter from David L. Sieradski, Counsel for the American Samoa Telecommunications Authority, to Valerie Yates, FCC (dated July 9, 1999) (encouraging the Commission to seek comment on providing support for telemedicine in insular areas, such as American Samoa) (ASTCA Letter).

[249] *Id.* at 8995-9001.

[250] *Id.* at 8843-44, 9136-38.

[251] *Id.* at 9109.

A. Defining "Insular Area"

136. In articulating the principle that consumers in all regions of the nation should have access to telecommunications services, Congress explicitly included insular areas within this mandate.[252] As the Joint Board noted in the *Recommended Decision*, however, the Act does not define the phrase insular areas.[253] We tentatively conclude that we should adopt a definition of insular areas to provide clarity regarding the availability of universal service support in those areas.

137. We observe that, in other statutes, the term insular area generally refers to the island portions of the United States that are not states or portions of states.[254] In addition, we observe that in common usage, the term insular area means "of, or having the form of an island."[255] Accordingly, we propose the following definition of insular areas: "islands that are territories or commonwealths of the United States." By including the phrase "territories or commonwealths," we intend to restrict the definition to areas that are populated islands that have a local government.[256] We also observe that the proposed definition comports with publications of the Department of Interior's Office of Insular Affairs (OIA)[257] and various provisions of the United States Code.[258] We seek comment on this proposal.

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[252] 47 U.S.C. § 254(b)(3).

[253] *First Recommended Decision*, 12 FCC Rcd 87 at 93 n.8.

[254] *See, e.g.*, 16 U.S.C. § 1802(30) (providing for conservation and management of the United States' fishery resources and defining "Pacific Insular Area" as American Samoa, Guam, the Northern Mariana Islands, Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Island, Wake Island, or Palmyra Atoll, and including all islands and reefs appurtenant to such islands, reefs, or atolls); 16 U.S.C. § 2503(k) (defining, for the purposes of the urban park and recreation recovery program, "insular areas" as Guam, the Virgin Islands, American Samoa, and the Northern Mariana Islands); 42 U.S.C. § 5204 (providing for disaster relief for insular areas and defining them as American Samoa, the Federated States of Micronesia, Guam, the Marshall Islands, the Northern Mariana Islands, the Trust Territory of the Pacific Islands, and the Virgin Islands as insular areas); 48 U.S.C. § 1469a (congressional declaration of policy regarding insular areas for certain grant-in-aid programs and defining them as the U.S. Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, and the Government of the Northern Mariana Islands); 48 U.S.C. § 1492 (congressional declaration of energy policy with respect to insular areas and defining them as Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, the Federated States of Micronesia, the Marshall Islands, and Palau). *See also* 47 C.F.R. § 2.105 (stating that the Caribbean insular areas comprise the Commonwealth of Puerto Rico, the unincorporated territory of the United States Virgin Islands; and Navassa Island, Quita Sueno Bank, Roncador Bank, Serrana Bank and Serranilla Bank; listing the Pacific insular areas in International Telecommunication Union Regions 2 and 3 as Johnston Island, Midway Island, the Commonwealth of the Northern Mariana Islands; the unincorporated territory of American Samoa; the unincorporated territory of Guam; and Baker Island, Howland Island, Jarvis Island, Kingman Reef, Palmyra Island, and Wake Island).

[255] *Id.* at 2 (citing Webster's New World Dictionary 731 (2d. College ed. 1982)).

[256] *Id.*

[257] *Id.* at 2, 3 (citing OIA's home page on the world wide web at http://www.doi.gov/territor.htmland U.S. DEPARTMENT OF INTERIOR, OFFICE OF INSULAR AFFAIRS, A REPORT ON THE STATE OF THE ISLANDS (1996) (REPORT ON THE STATE OF THE ISLANDS)).

[258] *Id.* at 3 (citing 48 U.S.C. §§ 1469a, 1492(a)(1), (3)).

138. We seek comment on whether the definition of insular areas should include only those areas that are subject to the laws of the United States, and for which carriers serving those areas would be required to contribute to our universal service support mechanisms,[259] and, if so, we seek comment on whether the proposed definition satisfies this goal. We seek comment on whether the definition of insular areas should exclude sovereign states that are not subject to the laws of the United States[260] nor eligible to receive universal service support under the Act,[261] unpopulated islands,[262] and insular areas subject to the jurisdiction of, and receiving telecommunications service from, the United States military.[263] We tentatively conclude that Puerto Rico, American Samoa, CNMI, Guam, and the U.S. Virgin Islands are properly included in the definition of insular areas and seek comment on this tentative conclusion.

139. We seek comment on whether the Freely Associated States (FAS), including the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau, should be included in the definition of insular areas.[264] These islands are associated with the United States through the terms of a Compact of Free Association, which gives the Commission authority and jurisdiction over various telecommunications services in the FAS, but carriers are not subject to universal service contribution requirements for the services they provide on these islands. We also observe that Midway Atoll is being transferred from the jurisdiction of the United States Navy to the U.S. Fish & Wildlife Service of the Department of Interior and has a population of 450 persons. We seek comment on whether Midway Atoll should be included in the definition of insular areas.[265] We invite commenters to provide alternative definitions of "insular areas" and to describe which areas would and would not be included with any alternative definition.

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[259] The Universal Service Worksheet states at page 3: "[a]ll telecommunications carriers providing interstate telecommunications within the United States, with very limited exceptions, must file an FCC Form 457 Universal Service Worksheet. For this purpose, the United States is defined as the contiguous United States, Alaska, Hawaii, American Samoa, Baker Island, Guam, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Island, Navassa Island, the Northern Mariana Islands, Palmyra, Puerto Rico, the U.S. Virgin Islands, and Wake Island."

[260] We note that some sovereign states, such as the Marshall Islands, have signed Compacts of Free Association with the United States. *See* REPORT ON THE STATE OF THE ISLANDS at 110.

[261] Section 254(b)(3) states the goal of providing access to those in insular areas, but it qualifies its coverage to "[c]onsumers in all regions of the Nation," thereby excluding consumers in other nations.

[262] The following islands are possessions or territories of the United States without population: Baker Island, Howland Island, Jarvis Island, Kingman Reef, and Navassa Island. *See* http://www.doi.gov/oia/oiafacts.html; *see also* Policy and Rules Concerning the Interstate, Interexchange Marketplace, Implementation of Section 254(g) of the Communications Act of 1934, as amended, CC Docket No. 96-61, *Memorandum Opinion and Order*, 12 FCC Rcd 11548, 11559 (Com. Car. Bur. 1997) (*1997 Bureau Rate Integration and Averaging Order*) (presenting results of Common Carrier Bureau's informal investigation of insular areas). Palmyra Island has a permanent population of fewer than four persons and is privately owned. *See* http://www.doi.gov/oia/oiafacts.html; *1997 Bureau Rate Integration and Averaging Order*.

[263] For example, Wake Island and Johnston Atoll are military installations to which physical access is strictly regulated.

[264] *See* Letter from Robert A. Underwood, *et al*, United States Congress, to William E. Kennard, Federal Communications Commission (dated May 8, 1998.)

[265] None of these 450 residents are indigenous persons. In addition, Midway Atoll does not have a local government. *Id.*

140. We seek comment on whether similarities between the historical experience of Indians and persons living in insular areas warrant the extension of federal trust-type principles, including supplemental measures to promote the availability of universal service, to insular areas.[266]

B. Rural Health Care Support

141. Parties have already submitted information to us demonstrating that insular areas may have few hospitals and substantial undeveloped terrain and that travel between insular areas and more developed states or countries nearest to them may be very expensive. For these reasons, we anticipate that telehealth and telemedicine initiatives may be particularly important in insular areas.[267] We encourage interested parties to highlight previous comments they have made on this issue or present any relevant new information to us. We are particularly interested in the differences between the needs and opportunities of rural health care providers in insular areas and those located in the remainder of the United States.

142. *Urban Rates.* In the *First Report and Order,* the Commission adopted rules requiring carriers to provide rural health care providers with access to telecommunications services permitting speeds up to 1 Mbps at rates comparable to those offered in urban areas.[268] Consistent with the statute, the Commission's rules for rural health care providers calculate support amounts on the basis of the difference between the "urban rate" and the "rural rate" for the supported service.[269] The urban rate is determined with reference to the rates charged other commercial customers of a similar service in the nearest large city in the state.[270] The nearest large city is defined as having a population of at least 50,000 people.[271]

143. In the *First Report and Order,* the Commission found that the mechanism of using urban rates as a benchmark for reasonable rates may be ill-suited to certain insular areas that are relatively rural all over.[272] The Commission concluded that it required additional

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[266] *See* Letter from David Sieradski, on behalf of the American Samoa Telecommunications Authority, to Valerie Yates, FCC (dated July 9, 1999) and discussion of tribal lands, at section III.A, above.

[267] The Joint Working Group on Telemedicine defines "telemedicine" as "the use of telecommunications and information [service] technologies for the provision and support of clinical care to individuals at a distance and the transmission of information needed to provide that care." It defines "telehealth" as including clinical care, but additionally encompassing the related areas of "health professionals' education, consumer health education, public health, research and administration of health services." *First Report and Order*, 12 FCC Rcd at 9094, n.1557 *citing* JOINT WORKING GROUP ON TELEMEDICINE, TELEMEDICINE REPORT TO THE CONGRESS at 90, U.S. Department of Commerce (1997).

[268] *See* 47 C.F.R. 54.601 et seq (subpart G).

[269] 47 U.S.C. § 254(h)(1)(A); 47 C.F.R. §§ 54.605-609.

[270] 47 U.S.C. § 254(h)(1)(A); 47 C.F.R. § 54.605.

[271] 47 C.F.R. § 54.607.

[272] *First Report and Order*, 12 FCC Rcd at 9136 (discussing this issue and then designating as "urban areas" for the purposes of the universal service support for rural health care providers: the island of Tutuila for American Samoa, the island of Saipan for CNMI, the town of Agana for Guam, and the town of Charlotte Amalie for the U.S. Virgin Islands). Based on the record, we concluded that Puerto Rico, like the remainder of the United States, did not require these additional measures. *Id.* at 9138, para. 699 (finding that Puerto Rico has well-defined metropolitan and non-metropolitan areas and that the San Juan Regional Hospital and Main Medical Center is an advanced health care center offering sophisticated and advanced health care technology and services).

information about whether telecommunications rates differ in urban and non-urban areas or insular areas, including areas of the Pacific Islands [273] and the U.S. Virgin Islands.[274] Accordingly, we seek comment on whether the rules concerning calculation of rural health care support need modifications to address the geographic or demographic situation in insular areas.[275] We invite commenters to propose specific revisions in this regard.

144. *Nearest Large City.* Consistent with the statute, the Commission's rules for providing universal service support to rural health care providers limit the length of the supported service to the distance between the health care provider and the point farthest from that provider on the jurisdictional boundary of the nearest large city in the state.[276] The Governor of Guam proposed that we modify this rule to provide support for telecommunications services between an insular area's medical facilities and a supporting medical center in an urban area outside the insular area, such as in Hawaii or on the west coast of the continental United States.[277] We seek comment on this proposal. We encourage commenters supporting this proposal to present detailed estimates of the cost of such a proposal and steps that must be taken to implement it. Commenters favoring this proposal should also provide legal analysis explaining whether it would be consistent with section 254 to treat insular areas differently from the remainder of the United States, where support is only provided based on intrastate distances, as section 254(h)(1)(A) appears to require.[278]

145. Finally, we seek comment on whether health care providers and telecommunications carriers that serve insular areas face unique challenges that have not been documented previously in the record of this proceeding, and, if so, how we should tailor additional support mechanisms to address those problems, consistent with the statute.[279] We encourage commenters to present proposals for additional support mechanisms through which rural health care providers located in insular areas could have access to the telecommunications services available in urban areas of the nation at affordable rates.

C. Access to Toll-Free Services in Insular Areas

146. Because of their traditional treatment as international destinations, the Pacific Island areas have faced high rates for interexchange service and have had limited ability to

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[273] We note that American Samoa did not participate in the universal service proceeding. *But see,* American Samoa Government and American Samoa Telecommunications Authority Petition for Waivers and Declaratory Rulings to Enable American Samoa to Participate in the Universal Service High Cost Support Program and the National Exchange Carriers Association Pools and Tariffs, CC Docket No. 96-45, AAD/USB File No. 98-41 (filed Feb. 1998).

[274] *First Report and Order*, 12 FCC Rcd at 9136, 9137.

[275] *See, e.g.,* ASTCA Letter ("because ASTCA maintains a single set of rates that apply throughout the territory, there is no difference in between the rates in "urban" and "rural" [areas] within the Territory.")

[276] 47 U.S.C. § 254(h)(1)(A); 47 C.F.R. § 54.601(c)(1).

[277] *See* Governor of Guam universal service comments at 2, 13. *See also* ASTCA Letter ("the rural telemedicine that American Samoa needs support for is access to the nearest U.S. *urban* area with advanced health care facilities – Honolulu.") (emphasis in original).

[278] 47 U.S.C. §254(h)(1)(A).

[279] *See First Report and Order*, 12 FCC Rcd at 9136-37.

obtain access to toll-free and advanced services.[280] Calls between these insular areas and the remainder of the United States also required callers to use the "011" international access code.[281] Recent changes have begun to address these problems. Specifically, the 1996 Act requires that insular areas become subject to rate integration and averaging, which means that interexchange carriers are required to offer domestic interstate service using a uniform rate structure throughout the United States. [282] In addition, many insular areas have been integrated into the North American Numbering Plan (NANP). [283] In the *First Report and Order*, the Commission permitted residents of CNMI and Guam to access toll-free (*e.g.*, 800) services by using 880 and 881 codes and paying the cost of reaching Hawaii where the calls could be connected thereafter toll-free to the called party until July 1, 1998,[284] and that date was subsequently extended indefinitely.[285]

147. In the *First Report and Order*, the Commission determined that "these changes will have a significant impact on how residents of the[se] islands place interexchange calls and the rates that they, and toll-free access customers, will pay for the calls they place."[286] Based

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[280] *See id.* at 8995-900. Hawaii, Puerto Rico, and the U.S. Virgin Islands became rate integrated in 1976. *See* Policy and Rules Concerning the Interstate, Interexchange Marketplace, Implementation of Section 254(g) of the Communications Act of 1934, as amended, CC Docket No. 96-61, *Report and Order*, 11 FCC Rcd 9564, 9586 (*1996 Rate Integration and Averaging Order*) *citing* Integration of Rates and Services for the Provision of Communications by Authorized Common Carriers between the United States Mainland and the Offshore Points of Hawaii, Alaska, and Puerto Rico/Virgin Islands, *Memorandum Opinion, Order, and Authorization*, 61 FCC 2d 380 (Com. Car. Bur. 1976).

[281] *See First Report and Order*, 12 FCC Rcd at 8995-96.

[282] Section 254(g) requires the Commission to "adopt rules to require that the rates charged by providers of interexchange telecommunications services to subscribers in rural and high cost areas shall be no higher than the rates charged by each such provider to its subscribers in urban areas . . . [and] require that a provider of interstate interexchange telecommunications services shall provide such services to its subscribers in each State at rates no higher than the rates charged to its subscribers in any other State." 47 U.S.C. § 254(g). *See 1996 Rate Integration and Averaging Order*, 11 FCC Rcd at 9596-99 (Common Carrier Bureau approved, subject to certain amendments, rate integration plans for CNMI and Guam). American Samoa did not file its plan to comply with section 254(g) of the Act until October 1, 1997. *See* American Samoa Government's Proposed Rate Integration Plan for American Samoa, CC Docket 96-61, filed Oct. 1, 1997. *See also 1997 Bureau Rate Integration and Averaging Order*, 12 FCC Rcd at 11557-59; Policy and Rules Concerning the Interstate, Interexchange Marketplace, Implementation of Section 254(g) of the Communications Act of 1934, as amended, *Order*, CC Docket No. 96-61, 13 FCC Rcd 1953 (Com. Car. Bur., Comp. Pric. Div. 1997) (granting American Samoa until Oct. 1, 1997 to file its plan and granting parties until Oct. 16, 1997 to submit comments on the plan); 47 U.S.C. § 254(g).

[283] *First Report and Order*, 12 FCC Rcd at 8995-96 (CNMI and Guam were integrated into the NANP on July 1, 1997). American Samoa, unlike CNMI and Guam, is not yet part of the NANP. *See 1997 Bureau Rate Integration and Averaging Order*, 12 FCC Rcd at 11557-59.

[284] *First Report and Order*, 12 FCC Rcd at 8999-9001. This period was established to allow time for telecommunications users to adjust to inclusion in the NANP. *See id.* at 8999-9000. Because many toll-free access customers in the United States do not purchase toll-free access service that includes insular areas, some incumbent LECs in insular areas offer "paid access" to many toll free numbers using an 880 or 881 number. Under this arrangement, the calling party pays a charge that covers the cost of the portion of the call from the insular area to Hawaii, where the call is linked to the domestic toll-free access service. *See id.* at 8996-97.

[285] Federal-State Joint Board on Universal Service, Requests for Extension of 880/881 Transitional Dialing Plan by the Commonwealth of the Northern Mariana Islands and the Territory of Guam, *Order*, CC Docket No. 96-45, APD No. 98-2, DA 98-1299 (released June 30, 1998).

[286] *First Report and Order*, 12 FCC Rcd at 8998.

upon the recommendation of the Joint Board, the Commission concluded that it should delay, until after July 1, 1998, consideration of whether the Commission should provide additional support for toll-free access and access to advanced and information services for insular areas so that the impact of rate integration and averaging and incorporation into the NANP could be evaluated.[287] We seek comment on whether rate integration, rate-averaging, and incorporating insular areas into the NANP are leading toll-free customers to include insular areas in their toll-free calling areas. We seek comment on whether additional universal service support is needed to support toll-free calling from insular areas. We ask commenters to present any evidence that the marketplace will not fully solve this problem.

VIII. PROCEDURAL MATTERS

A. Ex Parte Procedures

148. The Further Notice is a non-restricted notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission's rules.[288]

B. Comment Filing Procedures

149. Pursuant to sections 1.415 and 1.419 of the Commission's rules,[289] interested parties may file comments as follows: comments are due 60 days after publication of the Further Notice in the Federal Register and reply comments are due 90 days after publication of the Further Notice in the Federal Register. Comments may filed using the Commission's Electronic Comment Filing System (ECFS)[290] or by filing paper copies.

150. Comments filed through the ECFS can be sent as an electronic file via the Internet to http://www.fcc.gov/e-file/ecfs.html. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic copy by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message: "get form <your email address>." A sample form and directions will be sent in reply.

151. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All paper filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of

[287] *First Report and Order,* 12 FCC Rcd at 8998-99, 9001 (stating that this additional time will allow the Commission to evaluate business decisions regarding the geographic scope of the toll-free services that they purchase).

[288] *See generally* 47 C.F.R. §§ 1.1202, 1.1203, and 1.1206(a).

[289] 47 C.F.R. §§ 1.415 and 1.419.

[290] *See Electronic Filing of Documents in Rulemaking Proceedings,* 63 Fed. Reg. 24,121 (1998).

the Secretary, Federal Communications Commission, 445 Twelfth Street S.W., Room TW-A325, Washington, DC 20554.

152. Parties who choose to file by paper should also submit their comments on diskette to Sheryl Todd, Accounting Policy Division, Common Carrier Bureau, Federal Communications Commission, 445 Twelfth Street SW, Room 5-A523, Washington, DC 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM-compatible format using WordPerfect 5.1 for Windows or a compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read-only" mode. The diskette should be clearly labeled with the commenter's name, proceeding, including the lead docket number in the proceeding (CC Docket No. 96-45), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase (Disk Copy – Not an Original.") Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters should sent diskette copies to the Commission's copy contractor, International Transcription Service, Inc., 1231 20th St. NW, Washington DC 20037.

C. Initial Regulatory Flexibility Act Analysis

153. The Regulatory Flexibility Act (RFA) requires a Regulatory Flexibility Act analysis whenever an agency publishes a notice of proposed rulemaking or promulgates a final rule, unless the agency certifies that the proposed or final rule will not have "a significant economic impact on a substantial number of small entities," and includes the factual basis for such certification.[291] Pursuant to section 603 of the RFA, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and actions considered in this Further Notice. The text of the IRFA is set forth in Appendix F. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Further Notice provided above in paragraph 149. The Commission will send a copy of the Further Notice, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.[292] In addition, summaries of the Further Notice and IRFA will be published in the Federal Register.[293]

IX. ORDERING CLAUSES

154. Accordingly, IT IS ORDERED that, pursuant to the authority contained in sections 1-4, 201-205, 214(e), and 254 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201-205, 214(e), and 254, this FURTHER NOTICE OF PROPOSED RULEMAKING IS HEREBY ADOPTED and COMMENTS ARE REQUESTED as described above.

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[291] 5 U.S.C. § 601 *et. seq.*, amended by the Contract with America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

[292] *See* 5 U.S.C. § 603(a).

[293] *See id.*

155. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this FURTHER NOTICE OF PROPOSED RULEMAKING, including the Initial Regulatory Flexibility Act Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas

Magalie Roman Salas

Secretary

APPENDIX A: COMMISSION MEETINGS ON INDIAN TELECOMMUNICATIONS ISSUES – LIST OF ATTENDEES

April 30, 1998

Outside Parties:
Charles Blackwell, Ambassador from the Chickasaw Nation
Jack Brown, Golden West, SD
James Casey, Morrison & Forester
Audrey Choi, Office of Vice President Gore
Darrell Gerlaugh, Gila River Telephone Inc., AZ
Steve Gigamough, Salt River Pima, AZ
Robert Gough, Intertribal Council on Utility Policy, Rosebud SD
L. Marie Guillory, NTCA
Larry Irving, NTIA
Alex Lookingelk, Standing Rock Sioux Tribe, ND
Chris McLean, Rural Utilities Service
Bill Quinn, Salt River Pima-Maricopa Indian Community
Pat Spears, Intertribal Council on Utility Policy, SD
Tony Thompson, Oneida Nation
Alice Walker, Cheyenne River Sioux Tribal Telephone Authority, CO
JD Williams, Cheyenne River Sioux, SD

Commission Participants:
Chairman William E. Kennard
Commissioner Susan Ness
Commissioner Gloria Tristani
John Nakahata, Chief of Staff
Ruth Milkman, Deputy Chief, Common Carrier Bureau
Catherine Sandoval, Director, Office of Communications Business Opportunities
Staff from the Common Carrier Bureau, Wireless Telecommunications Bureau, International Bureau, Office of Legislative and Intergovermental Affairs, Office of Communications Business Opportunities and the Office of General Counsel

July 7, 1998

Outside Parties:
Charles Blackwell, Ambassador from the Chickasaw Nation
James Casey, Morrison and Forester
Prof. Arturo Gandara, University of California Davis Law School
Robert Gough, Intertribal Council on Utility Policy, Rosebud SD
Dr. James May, Cal. St. Univ. at Monterey Bay, CA
Roanne Robinson, NTIA
Randy Ross, SD
Pat Spears, Intertribal Council on Utility Policy, SD

Commission Participants
Chairman William E. Kennard
Commissioner Gloria Tristani
Rick Chessen, Senior Legal Advisor, Office of Commissioner Tristani
Paul Gallant, Legal Advisor, Office of Commissioner Tristani
Michele Ellison, Deputy General Counsel, Office of General Counsel
Catherine Sandoval, Director, Office of Communications Business Opportunities
Staff from the Common Carrier Bureau, Wireless Telecommunications Bureau, Mass Media Bureau, Cable Services Bureau, Office of Communications Business Opportunities, the Office of Workplace Diversity, and the Office of General Counsel

APPENDIX B: OVERCOMING OBSTACLES TO TELEPHONE SERVICE TO INDIANS ON RESERVATIONS –COMMISSION HEARINGS

Albuquerque Hearing

Chairman William E. Kennard, Federal Communications Commission
Commissioner Gloria Tristani, Federal Communications Commission
The Honorable Tom Udall, United States House of Representatives
The Honorable Heather Wilson, United States House of Representatives
The Honorable Leonard Tsosie, State of New Mexico House of Representatives
The Honorable Lynda Lovejoy, Chairwoman, State of New Mexico Public Regulation Commission
The Honorable Eagle Rael, Governor, Picuris Pueblo
The Honorable Steve Beffort, Secretary, New Mexico General Services Department
The Honorable Anthony O. Lucio, Councilman, Zuni Pueblo
The Honorable Raymond Gachupin, Governor, Jemez Pueblo
The Honorable Jerome Block, State of New Mexico Public Regulation Commission
The Honorable Herb Hughes, State of New Mexico Public Regulation Commission
The Honorable Bill Pope, State of New Mexico Public Regulation Commission
The Honorable Arnold Cassador, President, Jicarilla Apache Tribe
Jean Whitehorse, Native American Library Project, Crownpoint, NM
The Honorable Tony Anaya, former Governor of New Mexico
Arthur Martinez, Western New Mexico Telephone Company, Inc.
Edward Lopez, New Mexico Vice President, U S West
Francis Mike, Navajo Communications Company, Inc.
Gene DeJordy, Esq., Executive Director – Regulatory Affairs, Western Wireless Corporation
George Arthur, Council Delegate, Navajo Nation
Godfrey Enjady, General Manager, Mescalero Apache Telephone and Utilities Company
Karen Buller, President, National Indian Telecommunications Institute
Peter Carson, Vice-President, Business Development, ArrayComm, Inc.
Richard Weiner, Esq., State of New Mexico Office of the Attorney General
Stanley Pino, Chairman, All Indian Pueblo Council
Mr. Scholten
Henry Dodge, Ramah Navajo Chapter, NM
Mary Alice Tsosie, Native American Librarian and Special Interest Group, NM

Arizona Hearing

Chairman William E. Kennard, Federal Communications Commission
Commissioner Susan Ness, Federal Communications Commission
Commissioner Harold Furchtgott-Roth, Federal Communications Commission
Jim Irvin, Commissioner Chairman, Arizona Corporation Commission
The Honorable Charles Blackwell, Ambassador for the Chickasaw Nation
James Casey, Morrison and Forester
David Motycka, Utilities Division, Arizona Corporation Commission

Mark DiNunzia, Utilities Division, Arizona Corporation Commission
Maureen Scott, Arizona Corporation Commission
Patrick Black, Chief of Staff, Arizona Corporation Commission
David Redick, CA
Ed Groenhout, Northern Arizona University, AZ
Laura Lo Bianco, Iridium North America
Herman Laffoon, Jr., Colorado Indian Tribes, Parker, AZ
Alison Hughes, Associate Director, Arizona Telemedicine Program, Rural Health Office, University of Arizona, College of Medicine
Aloa Stevens, Director, External Affairs – West, Citizens Communications
Carl Artman, Oneida Nation, Airadigm Communications, Inc.
Charles W. Wiese, General Manager, Tohono O'odham Utility Authority
Christopher McLean, Deputy Administrator, Rural Utility Service, U. S. Department of Agriculture
David Siddall, Esq., Verner, Liipfert, Bernhard, McPherson and Hand, Chartered
Ivan Makil, President, Salt River Pima-Maricopa Indian Community
J. D. Williams, General Manager, Cheyenne River Telephone Authority
Jeff Olson, Director, Regulatory Planning and Policy for Issues Integration/Planning and Strategy, GTE Service Corporation
Madonna Peltier Yawakie, President, NATec, Inc.
Nora Helton, Chairperson, Fort Mojave Indian Tribe
Rhonda McKenzie, President and Chief Executive Officer, Aircom Consultants, LLC d/b/a InAirNet
Richard Watkins, General Manager, Smith Bagley, Inc. operating as Cellular One of Northeast Arizona
The Honorable Mary Thomas, Governor, Gila River Indian Community
Vernon James, President, San Carlos Apache Telecommunications Utility, Inc.
Walter Purnell, President and Chief Executive Officer, American Mobile Satellite Corporation

APPENDIX C: OVERCOMING OBSTACLES TO TELEPHONE SERVICE TO INDIANS ON RESERVATIONS – PARTIES FILING COMMENTS

COMMENTS

AMSC Subsidiary Corporation
Bell Atlantic Mobile
Cellular Telecommunications Industry Association
Gila River Telecommunications, Inc.
ICO Global Communications (Holding) Limited
Motorola, Inc.
National Telephone Cooperative Association
National Tribal Telecommunications Alliance
Nemont Telephone Cooperative, Inc.
North Dakota Public Service Commission
Salt River Pima-Maricopa Indian Community
SkyBridge, LLC
Southwestco Wireless, L.P.
TCA, Inc. - Telcom Consulting Associates
The Hopi Tribe
US West Communications, Inc.
Western Wireless Corporation

LETTERS

Colorado River Indian Tribes
Daryl Towenk, Concerned People, Lewiston, NY
Eastern Nebraska Telephone Company
Ernest and Carol E. Patterson, Concerned People, Lewiston, NY
Frank L. Williams, Tuscarora Indian Reservation, NY
Mark F. Williams, Sr., Tuscarora Indian Reservation, NY
Stefan J. Levine, Red Bank, NJ
United Native American Telecommunications, Inc.
William Martin, Tuscarora Indian Reservation, NY

TESTIMONY

Alison Hughes, Arizona Telemedicine Program
Aloa J. Stevens, Citizens Communications and Navajo Communications Company
Arthur Martinez, Western New Mexico Telephone Company, Inc.
Carl Artman, Airadigm Communications, Inc.
Charles W. Wiese, Tohono O'odham Utility Authority
Christopher A. McLean, Deputy Administrator, Rural Utilities Service, United States Department of Agriculture
Commissioner Chairman James Irvin, Arizona Corporation Commission
Councilman Anthony Lucio, Zuni Pueblo
David R. Siddall, Esq.
Edward J. Lopez, Jr., US West
Francis Mike, New Mexico Telephone Association and Navajo Communications Company, Inc.

George Arthur, Navajo Nation
Godfrey Enjady, Mescalero Apache Telephone and Utilities Company
Governor Eagle Rael, Picuris Pueblo
Governor Mary Thomas, Gila River Indian Community
Governor Raymond Gachupin, Pueblo of Jemez
Ivan Makil, Salt River Pima-Maricopa Indian Community
J.D. Williams, Cheyenne River Sioux Telephone Authority
Jeff Olson, GTE Service Corporation
Karen Buller, National Indian Telecommunications Institute
Madonna Peltier Yawakie, NAtec, Inc.
Nora Helton, Fort Mojave Telecommunications, Inc.
Peter Carson, ArrayComm, Inc.
President Arnold Cassador, Jicarilla Apache Tribe
Rhonda G. McKenzie, MTG, Inc. and Aircom Consultants, LLC
Richard Watkins, Smith Bagley, Inc. (operating as Cellular One)
Stanley Pino, All Indian Pueblo Council
Steven R. Beffort, State of New Mexico, General Services Department
Walter Purnell, American Mobile Satellite Company

APPENDIX D: COMPETITIVE BIDDING PROPOSALS AND EXAMPLES

1. GTE Proposal

156. GTE proposes that there be bidding for support in geographic areas called Census Block Groups (CBGs).[294] Every six months, carriers desiring to serve a CBG could notify the state commission with jurisdiction over that CBG, that they wanted to initiate an auction for the rights and duties of carrier of last resort (COLR)[295] in that CBG.[296] Assuming there were enough qualified bidders, the state would employ a single round, sealed-bid auction to set the per-customer support in that CBG.[297] Bids could be no higher than the "reservation" price for each CBG. That reservation price would be based on the current level of support an incumbent LEC was receiving for that CBG, although each incumbent LEC would be permitted to make a one-time set of adjustments to the support levels for the CBGs they served as long as the total support received by the incumbent LEC from all the CBGs it served remained the same.[298] The adjusted support levels, increased by a prescribed percentage, would then become the reservation prices for each CBG.[299]

157. Under the GTE proposal, after submitting bids, every bidder that was within 15% of the low bid would be a successful bidder in the auction. If there were no other bidders within 15% of the low bid, the low bidder and next lowest bidder within 25% of the low bid would be a successful bidder. If no other bid was within 25% of the low bid, only the low bidder would be a successful bidder. Each successful bidder would then assume COLR obligations and receive per-customer support equal to the highest level of support sought by a carrier with a successful bid. If there were only one winner, the new support would be set at the reservation price, *i.e.*, the current support increased by the prescribed percentage.[300] Starting with the lowest bidder, GTE would also allow bidders to withdraw from the auction after an initial set of the successful bidders was determined. If a bidder withdrew, there would be a new selection of successful bidders, treating the withdrawn bid as if it had never been made.[301] If the auction resulted in a new COLR for the area, either in addition to the incumbent or in place of the incumbent, the support levels and obligations for that area would be frozen for three years. No new entrants

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[294] Letter from W. Scott Randolph, GTE, to Mark Nadel, FCC, CC Docket 96-45, dated June 20, 1997 (GTE June 20 *ex parte*) at 14. A census block group is a geographic area defined by the Bureau of the Census, which contains approximately 400 households.

[295] GTE defines a COLR as a carrier eligible for universal service support that undertakes the obligations established by a state agency, within federal guidelines, as a condition of receipt of federal universal service support.

[296] GTE June 20 *ex parte* at 19-20.

[297] *Id.* at 18, 20.

[298] Thus a LEC could increase the level of support it received for serving some CBGs and decrease it for others as long as the net effect on support was zero. *Id.* at 16-17.

[299] *Id.* at 21.

[300] *Id.* at 21-22, 25.

[301] *Id.* at 26.

could receive universal service support during this time, although they could enter and provide service without such support. After the three-year period, carriers could bid on the area again.[302]

158. GTE's proposal would allow a COLR to transfer or sell its rights and obligations to any qualified carrier, as long as the number of COLRs in the CBG would not decrease.[303] The GTE proposal also requires penalties for any carrier that defaults on its COLR obligations. GTE also proposes that, when the incumbent LEC desires to exit the market at the current level of support and no other carrier volunteers to serve the market with a bid at or below the reservation price for the service area, the level of support would be raised by some designated percentage. GTE also recognizes that contingent bids may be appropriate if there are substantial economies of density and proposes that this could be addressed by requiring each bidder to submit a two-part bid. The first element would reveal the amount of support it would require if it were the only bidder to receive support for serving the market. The second element would reveal what the bidder would require if it were one of multiple carriers receiving support for serving the market.[304]

2. *Proposal of Ameritech Consultants*

159. Jeremy Bulow and Barry Nalebuff, consultants for Ameritech, propose that carriers be asked to compete for a portion of a lump-sum of support[305] in return for assuming COLR obligations over a subset of customers in a particular area. Under their proposal, all carriers, both COLR and non-COLR, in a particular area would assign customers that they did not find profitable to serve to a COLR pool. After the bidding (for support and associated COLR obligation), the "unprofitable" customers (those no carrier found it profitable to serve) would be randomly assigned to the successful bidders. Bulow and Nalebuff advocate a sealed-bid auction, in which a carrier's bid is the amount it would require to take 100 percent of the COLR pool in a particular area. The lowest bid wins and the carrier making that bid is awarded a pre-designated substantial fraction of the COLR pool, *e.g.*, 70%, along with an equal fraction of the total support. The second lowest bidder may choose to accept the remaining, smaller fraction of the COLR pool, along with a share of the total support equal to that smaller fraction.[306] If the second lowest bidder declines, the third lowest bidder would be offered the same choice. If all other bidders decline the opportunity, the lowest bidder would be assigned 100 percent of the COLR pool and 100 percent of the successful bid (*i.e.*, support). Under this proposal, the total support amount would equal the amount of the lowest bid. Bulow and Nalebuff would allow a COLR to trade its COLR-pool customers to other carriers for cash or other service obligations.

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[302] *Id.* at 28.

[303] *Id.* at 28-29.

[304] *Id.* at 29-30.

[305] These lump-sum payments to carriers are very different from the block grants that Congress rejected in this area. As the Joint Board observed, in quoting the Senate Working Group "[s]uch grants would be incompatible with the statute's architecture of discounts. . .[a]ffordability cannot be determined under a block grant approach." *First Recommended Decision* 12 FCC Rcd at 366-367 (*citing* Senate Working Group further comments at 2). Thus, both we and the Joint Board have rejected them as contrary to Congressional intent. Lump sum payments here would merely serve to pay carriers a fixed amount for providing the universal service specified by the Commission.

[306] Workshop on Competitve Bidding for Universal Service Support, March 13, 1997, FCC, Washington, DC.

160. Bulow and Nalebuff contend that if there is only one LEC in a region, then support should be set on a per-subscriber basis to provide an incentive for that carrier to serve the entire market.[307] If, however, non-COLRs without subsidies compete for individual customers against a COLR with a per-subscriber subsidy, the COLR will have an unfair advantage. Because of the per-subscriber subsidy the COLR will be able to win certain customers that an unsubsidized firm could serve at lower cost. Bulow and Nalebuff contend that fixed-fee support avoids this distortion. As discussed above, a fixed-fee subsidy could be applied to multiple COLRs by splitting the total award among the winning bidders in proportion to their COLR obligations. They also argue that, in the presence of economies of density, competitive bidding could lead to unnecessarily high support, because the most efficient bidder would tend to bid higher than necessary to protect against the possibility that it would be forced to share the COLR customers rather than bidding lower based on the assumption that it would serve 100 percent of the COLR pool. Bulow and Nalebuff thus suggest that the lowest bidder should be awarded a large fraction -- perhaps 70-75 percent -- of the COLR pool.

161. Bulow and Nalebuff argue, as well, that their suggested approach removes the problem that a competitor to the incumbent LEC will try to "cherry pick" the most profitable customers, which could occur under the GTE competitive bidding proposal. For the GTE proposal, the "cherry picking" problem prompts the suggestion that competitive bidding be conducted for areas that are small enough to have homogeneous costs of service (*e.g.*, Census Block Groups). Bulow and Nalebuff argue that their approach would allow competitive bidding over larger and more diverse areas than the GTE proposal would allow, which may be administratively simpler or less costly. They also argue that competitive bidding over larger areas would be preferable if there are cost synergies among small markets.

3. The Kelly & Steinberg Auction Proposal

162. Frank Kelly and Richard Steinberg propose that per-subscriber support be given to carriers serving "blocks" of customers. Under their proposal, a two-stage auction would set the amount of support over all blocks at the same time. They would base the initial support level for each block on either the historical cost of serving residential customers in the block or on a forward-looking economic cost mechanism's prediction of such service costs, whichever is lower.

163. In the first stage of the auction, bidders would submit a sealed set of "contingent" bids on any blocks in which they were interested.[308] The contingent bids would ask for different levels of support depending upon the number of carriers that were chosen to serve the block. For example, they might ask for $10 in support if they were the sole provider, $6 if they were to share the block with one other carrier, and $4.50 if they were to share the block with two bidders. Each bid would equal the lump-sum payment that the carrier sought for serving its share of customers in that block. The auctioneer would then determine the lowest total support payout for each possible number of successful bidders, *e.g.*, the lowest bid to be sole provider, the sum of the two lowest of those bids contingent on sharing the block with one other carrier, the sum of

[307] *Id.*

[308] Letter from Richard Steinberg, University of Cambridge, England to Evan Kwerel, FCC, June 23, 1997 (*A Combinatorial Auction with Multiple Winners for COLR* (June 9, 1997)) (hereinafter Kelly-Steinberg) at 4. Note: Kelly-Steinberg are posting the current version of their proposal at www.statslab.cam.ac.uk/~frank/AUCTION

the three lowest of those bids contingent on sharing the block with two other carriers, eligible telecommunications carrier.[309] The auctioneer would then adjust these levels of support by a preferential weighting factor that attempted to quantify the societal benefit of increasing the number of firms competing in a market.[310] The auctioneer would then select the lowest adjusted support level and the associated successful bidder or bidders. The bidders with the lowest bids for the contingency of that number of successful bidders would be the first stage winners. For example, if the lowest payout was for two carriers then support would be available to the carriers with lowest bids for sharing support with one other carrier. If there were multiple winners in a block, each successful bidder would be assigned a proportional share of the block, *i.e.*, a "sub-block."

164. The second stage of the auction would consist of multiple rounds of open combinatorial bidding in which bidders offered to serve some combination of blocks and sub-blocks for less support than the successful bidders from the first or any previous round.[311] A valid combinatorial bid would consist of a list of requested support amounts, one support amount for each sub-block in the combination. The total value of the combinatorial bid would be the sum of these support amounts. A valid combinatorial bid would need to seek less total support (*i.e.*, have a lower total value of the bid) than previous bids by an exact amount, *i.e.*, "bid increment." Initially it would need to improve on the combined bids of the first stage successful bidders. The rounds of the second stage would start by considering combinations across two blocks, and then progressively consider larger combinations. Bidders would not be allowed to make combinatorial bids over sub-blocks within a block.

165. To be eligible to bid, bidders would need to remain "active" in the auction, by either holding the low bid in the previous round or submitting an acceptable bid in the present round.[312] How active a bidder was in the present round would determine how many bids it could place in the next round.[313] The level of activity needed to be allowed to make bids in the next round would also change as the auction continued.[314]

166. When second-stage bidding activity stopped, the auction would end and final successful bidders would be declared.[315] The successful bidders would receive per-customer support base on their bid, for serving customers up to their designated proportion of a block, (*e.g.*, one-third of the customers in a block if there had been three successful bidders of the block at the end of the first stage). Multiple successful bidders within the block would then compete for customers within a block. Unserved customers would be assigned to a successful bidder not serving its full share of customer is the block. A successful bidder would be free to attract the business of all the customer in a block, but would only receive support for its share, *e.g.*, one-

[309] *Id.*

[310] *Id.*

[311] *Id.* at 5.

[312] *Id.*

[313] *Id.* at 5 (suggesting bidders initially should be required to remain active on sub-blocks covering 60 percent of the number of customers for which they wish to remain eligible to bid).

[314] *Id.* at 5-6 (suggesting that the activity requirement increase, as the second stage progresses, to 80 percent of the number of desired customers, and finally to 95 percent of such customers).

[315] *Id.* at 6.

third, of the marked that it was assigned in the auction. Throughout the auction process, no bid waivers or bid withdrawals would be allowed.[316]

4. Other Competitive Bidding Proposals

167. Time Warner notes that the Act appears to preclude the grant to any single carrier of exclusive rights to receive universal service support for serving a high-cost area.[317] Therefore, Time Warner proposes that to encourage low bids, we reward the successful bidder by granting it 100% of the high-cost support that it bids while all other bidders would receive a smaller percentage.[318] Time Warner also asserts that a competitive system cannot work unless all participants have equal access to relevant information about the market including costs and revenues.[319] Time Warner thus proposes to require incumbent LECs to disclose fully information about the market, including cost and revenues. Finally, Time Warner recommends periodic rebidding of areas to ensure that support levels reflect current costs and competitive conditions.[320]

168. MCI proposes a bidding system only for those few areas that are not served or areas where a carrier becomes unwilling to serve at the established universal service support level.[321] MCI suggests that the Commission should join with the state to conduct the auction that will determine the level of support available in the area.[322] The state would certify the carriers eligible to participate in the auction, and the eligible carriers would bid the amount of support they require to serve the area.[323] Any carrier willing to provide service in that area would then be eligible to receive support at the level submitted by the lowest bidder. If the incumbent was not a successful bidder, it would have to make its network available for resale at net book value to the successful bidder.[324]

169. Citizens for a Sound Economy Foundation (CSE Foundation) suggests an open, multiple-round auction that would allow bidders to gain information about the costs of providing service to different areas as they learn what other carriers have bid on those areas.[325] It suggests that higher bidders obtain reduced universal service support.[326] Finally, because the need to finance an investment over many years is particularly important when large-scale, capital-intensive projects are involved, CSE Foundation contends that it is important that the universal

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[316] *Id.* at 7.

[317] Time Warner comments, CC Docket 96-45, Apr. 12, 1996 at 9-11.

[318] *Id.* at 11.

[319] Time Warner comments, Aug. 2, 1996 at 42.

[320] *Id.* at 42-43.

[321] MCI comments, Apr. 12, 1996 at 18-19.

[322] *Id.*

[323] *Id.* at 19.

[324] MCI comments, Aug. 2, 1996 at 21-22.

[325] Citizens for a Sound Economy Foundation comments, May 7, 1996 at 8-9.

[326] *Id.* at 11.

service support be guaranteed over some period of time, perhaps five years. It expresses concern, however, over GTE's proposal to exclude from support any new provider during the period of time the support level is guaranteed. As a solution, CSE Foundation tentatively suggests that the right to receive support for a particular market be made transferable.[327]

5. Hawaii Competitive Bidding Mechanism

170. In 1995, the Hawaii legislature enacted a statute authorizing its PUC to select, via a competitive bidding process, single carriers of last resort to receive universal service funds for serving designated local exchange service areas.[328] Under the statute, once the PUC determines the level of support that is appropriate for each local exchange area, it must invite telecommunications providers to bid on these areas for providing service.[329] The successful bidder becomes the COLR for the local exchange service area for "a period of time and upon conditions set by the commission."[330] In choosing the successful bidder, the PUC is required to take into account "the level of service to be provided, the investment commitment, and the length of the agreement, in addition to the other qualifications of the bidder."[331] The PUC requires that bidders' proposals contain projected rates for the initial ten-year period and expected subsidies and loans that will lower the rates for consumers, but selection of the new provider need not be made entirely on the basis of who submits the lowest bid; rather it may reflect a weighing of multiple factors, *i.e.*, "internal and external strengths."[332]

171. The first rural area in which the PUC authorized carriers to compete with the incumbent LEC, GTE Hawaiian Tel, was the Ka'u area on the island of Hawaii.[333] In April 1996, the PUC issued a Request for Proposal (RFP), specifying the technical, engineering, financial, and other requirements for bidders.[334] The RFP also articulated specific "internal strengths," "external strengths," and "miscellaneous indicia of fitness and ability" on which bidders would be evaluated.[335]

172. The PUC selected TelHawaii, Inc. to be the COLR for the Ka'u area,[336] but TelHawaii and GTE Hawaiian Tel thus far have been unable to conclude an agreement for the

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[327] *Id.* at 13-14.

[328] Haw. Rev. Stat. § 269-43(a) & (b).

[329] Haw. Rev. Stat. § 269-43(b).

[330] *Id.*

[331] *Id.*

[332] Hawaii PUC Decision & Order No. 14415, released December 13, 1995.

[333] *Id.*

[334] Hawaii PUC, Request for a Proposal to Provide Telecommunications Service for Ka'u, Island of Hawaii, April 30, 1996.

[335] *Id.* at 12. Internal strengths include organization, financial backing, technical facilities, operations expertise, and management and administrative experience. External strengths include proposed rates and rate design, track record, alertness to consumer needs and desires, consumer preferences, impact on entities other than competing applicants, and local ownership control. Miscellaneous indicia include first-in-field status, first-in-proposal process, quality of proposal, ongoing regulatory control, and overall general fitness.

[336] Hawaii PUC Decision & Order No. 14789, released July 15, 1996.