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Reply Comments of UTStarcom, Inc in the matter of Facilitation of the Provision of Spectrum-Based Services to Rural Areas, WT Docket 02-381

To: The Commission

UTStarcom, Inc. is a US Corporation based in Alameda, California that is in the business of providing very low cost communications infrastructure to service providers around the world. One of our most popular products is our wireless local loop/limited mobility system marketed as our Personal Access System. Most of our systems are deployed in developing countries and in Mainland China, starting in smaller communities. As a result, UTStarcom has considerable experience with the provision of limited mobility (Mobile Local Loop) and fixed (Wireless Local Loop) systems to support voice and data service. UTStarcom has introduced our limited mobility solution in the United States in primarily fixed wireless PCS applications and, as a result has learned a great deal about US Spectrum Policy, how it differs from policies in other countries, and how that policy leads to highly inefficient use of spectrum resources in rural areas and to a restriction of choices for US consumers and for small operators.

In reviewing comments in this proceeding, it seems clear that current spectrum policy is stacked in favor of large national operators and against small operators as well as local operators. In particular, looking at the comments with respect to partitioning, larger operators, who have access to spectrum, do not seem to see any problems with current policy. On the other hand, potential small operators without spectrum uniformly indicate that partitioning does not work for them and they cannot gain access to spectrum. While NTCH was the only commenter to openly suggest it, it seems clear that larger license holders already operate in a mode of "hibernating", otherwise known in these proceedings as "warehousing", unused spectrum in rural areas to limit competition. UTStarcom agrees with the small operator commenters that a better approach to partitioning is required but that allowing operators to deploy systems on an "unlicensed basis" in licensed spectrum is not a good solution. An operator of such a system would have no protection at all from the actual license holder installing an interfering system and therefore could not make a prudent investment in a wireless system. On the other hand, a requirement for partitioning at some mandated price such as a population based percentage of the price paid at auction for the license in question, would clearly facilitate more efficient use of spectrum. Such a mandate, incorporated into the spectrum rules, would also limit transaction costs as much of the negotiation and documentation would quickly

become standard and would allow small operators to access otherwise unused spectrum.

Several of the commenters had views on ETC status and on the application of USF funds for support of wireless carriers. One operating system in Northeast Arizona was prominently mentioned in several sets of comments, though it seems that this may be the only example that is currently in service. It also seems clear that Western Wireless is one of the major beneficiaries of USF support. If Western Wireless is actually building infrastructure in remote areas based on USF support, then it would seem to meet the intent of the rules. If instead, Western Wireless is simply obtaining USF support for signing up subscribers who live along transportation routes that are already covered for roaming subscribers, then the intent of the Universal Service Fund is not being met, even if the letter of the law is being met. Of particular concern is the SDTA comment that Western Wireless has applied for USF support for 30,108 loops in an area with a population of 14,068 living in a total of 3922 housing units. While UTStarcom cannot confirm these figures, we do believe that this warrants additional investigation as suggested by SDTA as it is highly likely that the USF rules, originally written to support basic local telephone service, could be manipulated to the benefit of a large carrier much as the Designated Entity bidding credit rules were manipulated in Auction 35. In any case, the Commission has a responsibility to ensure that USF funds, collected from much of the population of the United States, are allocated to further their stated goal of providing the very worthwhile Universal Service that the US has come to expect.

With respect to license areas, UTStarcom agrees with commenters who believe that, for rural populations to be effectively served, license areas need to be much smaller. Our view is that a single County is the best choice, though the RSA/MSA approach recommended by many commenters may work as well. The current license areas, particularly BTAs, which the national operators consider to be small for deployment of a Nation Wide, Fully Mobile, go anywhere service are far too large for deployment of anything else. Fortunately, US consumers can already choose from at least five look alike nation wide plans, considering that Nextel, the sixth carrier, does not seem to offer significant service in rural areas. Allowing local operators to gain access to spectrum that can be used on a very local basis, to provide new and different services including services that the major carriers are using to define 3G in urban areas, would seem to serve the public interest to a larger degree than creating one more national carrier that will likely serve only urban areas and transportation routes.

With respect to bidding credits, UTStarcom has already commented that, based on the definitions used for the existing bidding credits, the system clearly did not meet its objectives in Auction 35. It seems highly counter intuitive that Rural Telephone Cooperatives did not qualify as small or very small businesses, due to their ownership structure, while Alaska Native and Salmon PCS qualified. In looking at the relationship between bidding credits and actual small businesses, it is not at all clear how a true small business could afford to purchase large geographic licenses in major urban areas. Looking at the New York BTA as an example, a 25% bidding

credit would reduce a \$4 Billion price to \$3B. It seems highly unlikely that an actual small business would be able to afford either of these prices. As an example, an operator interested in serving the fairly rural Orange County, NY or Sussex County, NJ would need to bid for the entire New York BTA. Clearly that would be impractical for an entity that did not intend to serve the major urban center itself. On the other hand, if it were possible to obtain a license for only Orange or Sussex counties, bidding credits would likely be unnecessary, or at least much less necessary than under current licensing arrangements. In looking at Auction 35, UTStarcom does support the NTCH view that operators who paid exceedingly high prices at auction for rural BTA licenses should be given the option of returning those licenses for refund. We agree with NTCH that the high prices were likely a result of the irrational exuberance generated by the inclusion of surrogate small businesses in the auction that were able to bid multiple billions of dollars for other licenses. If these licenses were returned and reaucted in a more rational environment, it seems likely that local operators, such as Alaska Power & Telephone, would be able to obtain a license and could then operate, even under the current license geography.

With respect to Unlicensed Spectrum, UTStarcom agrees with many commenters that this resource is probably one of the best options for actual rural service. Unlicensed spectrum works in rural areas because there is little contention for the frequencies. Even licensed PCS and Cellular frequencies, which are highly congested in urban areas, are quiet in rural environments. Many of the commenters advocate higher power levels in the current ISM bands. While UTStarcom does not currently offer an 802.11 product in the United States, we believe that increasing power levels in that band are likely to increase the overall noise in the band and, as a result, will reduce their effectiveness for rural public systems.

Dobson's comments with respect to Unlicensed Spectrum were particularly interesting. Their comments focused primarily on the interference potential of unlicensed operation in "quiet" geographic areas of the licensed bands. In the Alaska Power & Telephone Waiver proceeding of August 2001, Dobson was the only commenter opposing the grant of the AP&T Waiver to operate a community wireless network in the Unlicensed PCS Band between 1910MHz and 1920MHz. In that case, there was no argument of potential RF interference, as there would be no such interference with any PCS license. Instead, Dobson was concerned that AP&T, as an operator in an unlicensed band, would be operating a service for which Dobson purchased a license at auction, even though Dobson was not operating in the communities requested by AP&T. While UTStarcom agrees with Dobson with respect to unlicensed operations in licensed bands, UTStarcom believes that there is considerable opportunity for use of the existing Unlicensed PCS Band to offer local service on a coordinated basis using coordination mechanisms that are already in place. As noted earlier, UTStarcom also supports some type of mandated and efficient partitioning to allow operators to serve customers while protecting the original license holders in the bands from harmful technical interference.

UTStarcom reiterates our position that one excellent solution to the challenge of providing service to rural communities is to simply change the Unlicensed PCS rules, as recommended by UTStarcom, UTAM, and NEC to allow the operation of existing, standard community wireless systems that provide highly valued local services in other countries. This rule change will immediately make available systems that offer location identification, number portability, CALEA support, Wireless TTY support, and wire line system feature integration at no incremental cost to a small operator, beyond the modest cost for the wireless equipment itself. Since the US Unlicensed PCS band already overlaps the band used for these services elsewhere, rural operators would have the very substantial benefit of being able to obtain low cost equipment based on high volumes in smaller cities and towns around the world. This would be a substantial improvement over their current options of obtaining high cost equipment designed to operate in high density urban environments for licensed PCS providers or high cost equipment designed for the rural US market but produced in only small volumes.

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