

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

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|--|---|---------------------|
| Mobility Fund Phase I Auction |) | AU Docket No. 12-25 |
| |) | |
| Public Notice, DA 12-121, Comment Sought On Competitive Bidding Procedures for Auction 901 and Certain Program Requirements |) | |
| |) | |
| |) | |
| Public Notice, DA 12-187, Updated List of Potentially Eligible Census Blocks |) | |

To: Chief Wireless Telecommunications Bureau
Chief, Wireline Competition Bureau

**WRITTEN *EX PARTE* PRESENTATION BY
COMMNET WIRELESS, LLC, NTUA
WIRELESS, LLC and SAL SPECTRUM, LLC**

Commnet Wireless, LLC, on behalf of itself and its subsidiaries (collectively, “Commnet”), NTUA Wireless, LLC (“NTUAW”) and SAL Spectrum, LLC (“SAL”) (Commnet, NTUAW and SAL collectively, “Joint Commenters”)¹ hereby submit this written *ex parte* presentation in response to the March 26, 2012 “Reply Comments of Smith Bagley, Inc. to Joint Comments” (“SBI Reply”), filed by Smith Bagley, Inc. (“SBI”). The SBI Reply challenged Joint Commenters’ March 16 Joint Comments (“Joint Comments”) filed in response to Public Notice, DA 12-121, “Mobility Fund Phase I Auction, Comment Sought on Competitive Bidding Procedures for Auction 901 and Certain Program Requirements” (“Auction 901 Comments PN”) and the Public Notice, DA 12-187, “Mobility Fund Phase I Auction, Updated List of Potentially

¹ All of the Joint Commenters have substantial overlap of ownership and management. Commnet and SAL are each owned 100% by Atlantic Tele-Network, Inc. (“ATN”). NTUAW is owned 51% by the Navajo Tribal Utility Authority (“NTUA”) and 49% by a subsidiary of Commnet. NTUA is an enterprise of the Navajo Nation government (*i.e.*, a tribal entity).

Eligible Census Blocks” (“Census Blocks PN”), issued jointly by the Wireless Telecommunications Bureau and the Wireline Competition Bureau (collectively, the “Bureaus”). As discussed herein, the SBI criticisms of the Joint Comments are entirely without merit.

I. The Census Blocks within the BTOP Project Area

The Commission has before it three recent submissions pertaining to the geographic area covered by the NTUAW BTOP Project: the Joint Comments, the SBI Reply, and the submission from the National Telecommunications and Information Administration (“NTIA”), received in the public docket on March 21, 2012 (“NTIA Ex Parte”). Of the three submissions, the one filed by NTIA constitutes the official statement of the geographic area within the BTOP Project, which SBI has put at issue, and therefore identifies the areas ineligible for inclusion in the Mobility Fund reverse auction. Indeed, the NTIA submission validates that contained in the Joint Comments because the areas identified by Joint Commenters are virtually a subset of the areas identified by NTIA.² As a result, Joint Commenters are indifferent whether the Commission chooses to use the geographic area set forth by NTIA or that set forth in the Joint Comments to identify areas ineligible for Auction 901.

² The official NTIA BTOP Project Area is defined by census tracts, which are in essence federal political boundaries, as opposed to propagation contours of the Project’s LTE base station locations. As such, there will necessarily be little “corners” of rectangular census tracts which fall outside the composite contours of the base stations, as well as a few areas which lie beyond the NTIA-identified census tracts but inside one of the base station contours.

In this case, because of the conservative contour calculation approach taken by Joint Commenters, net-net, the official NTIA BTOP Project area covers more census blocks than do the composite contours. As discussed in the attached Declaration of Julie Hall, the engineer for the Joint Commenters (“Hall Declaration”), out of an abundance of caution the Joint Commenters used a stronger minimum field strength, corresponding to a *smaller* reliable service area contour, than actual 700 MHz LTE testing had shown to be required to deliver quality service. Had the Joint Commenters used a weaker minimum field strength, as actual testing indicated is legitimate, their composite contours would have more precisely matched the official NTIA BTOP Project area.

Exhibit 1 to the Hall Declaration is a map in which the BTOP Project reliable service area contours as set forth in the Joint Comments, Appendix A, is overlaid on top of a map of the official NTIA BTOP Project area as set forth in the NTIA Ex Parte. As that overlay illustrates, virtually all of the BTOP Project reliable service area set forth in the Joint Comments is within the official BTOP Project geographic area as set forth in the NTIA Ex Parte.

Appendix A of the Joint Comments represents the conservatively-calculated composite contours of the BTOP base station locations. However, as the NTIA submission indicates, the goal is to serve the entire area within the NTIA-denoted coverage area.³ Therefore, exclusion of *all* census blocks which NTIA seeks to have excluded from the reverse auction is the most appropriate course for the Commission to follow.⁴

³ As part of the BTOP Project, NTUAW intends to serve all of the area's inhabitants, using such techniques as cell extenders, raised subscriber antenna locations (*e.g.*, on a rooftop) or similar means. It was out of an abundance of caution concerning the Commission's definitions for the Auction No. 901 proceeding that NTUAW declined to claim as ineligible those portions of the BTOP Area that would be served by such other means. However, NTUAW wants to fulfill the BTOP vision for the entire area.

⁴ Where, as here, an entity which is majority-owned by the local tribal entity, NTUAW, is receiving BTOP funding to extend service to an NTIA-defined area, this Commission should not be subsidizing a private, non-Indian for profit entity, *i.e.*, SBI, to compete for the same limited pool of customers, notwithstanding SBI's contrary contention. The SBI Reply, p.4. The Commission already stated unambiguously that it will not use this fund to extend "competition" to sparsely-populated areas resulting in multiple, subsidized competitors targeting the same pool of potential customers. *See Connect America Fund, Report and Order and Further Notice of Proposed Rulemaking*, FCC 11-161 (released November 18, 2011) ("*Mobility Fund Order*"), at ¶¶ 316-319, 26 FCC Rcd 17663, 17779-80 (2011). *See also id.*, at 17786:

Mobility Fund Phase I . . . support will not be offered in areas where, notwithstanding the current absence of 3G wireless service, any provider has made a regulatory commitment to provide 3G or better wireless service, or has received a funding commitment from a federal executive department or agency [including BTOP] in response to the carrier's commitment to provide 3G or better wireless service.

There have already been too many other government investments in tribal areas gone sour; the goal here is properly to ensure that whatever is built with government assistance *is viable*. As a practical matter, NTUA and NTUAW, as tribally-affiliated entities, are not about to leave their own people off the network if there is any feasible way to extend service.

The SBI Reply, at n.17, asserts that the number of BTOP-covered census blocks in the Joint Comments is greater than the number of census blocks that NTUAW proposed to cover in the Executive Summary of its original 2009 BTOP Application. Aside from the fact that we now have the benefit of real-world 700 MHz propagation tests (*see* Hall Declaration, ¶4), the 2009 Executive Summary necessarily used the 2000 census, not the 2010 census. This is significant, because the Census Bureau completely recast the boundaries of the nation's census blocks for the 2010 census, and, in particular, the Southwestern part of the United States has now been divided into many more census blocks than was the case in prior censuses.

As set forth in the Hall Declaration, the NTUAW BTOP geographic area as defined in the NTIA Ex Parte contains 45,982 census blocks in the 2000 census, but 64,066 census blocks in the year 2010 census, an increase of 39% in the number of census blocks for the same geographic area. Therefore, the fact that a given geographic area, such as the area of a particular BTOP project, has a larger number of 2010 census blocks within it than 2000 census blocks is totally irrelevant.⁵ SBI errs by comparing apples to oranges.

Accordingly, the Bureau should disregard SBI's objection to Joint Commenters' request that BTOP coverage census blocks be ineligible for Auction 901.

II. EVDO 3G Mobile Coverage

SBI also criticizes the Joint Commenters' EVDO 3G coverage area, claiming that SBI has been unable to validate or confirm the existence of this 3G coverage. As set forth in the attached Declaration of Mark Hansen, SBI's inability to "validate" this coverage is not probative.

⁵ The change in the numbers and boundaries of individual census blocks between the two censuses is a matter subject to official notice; Ms. Hall summarizes this material solely for the Commission's convenience. It is peculiar that SBI did not know of, or account for, this publicly available information when it filed the SBI Reply.

As Mr. Hansen states in his Declaration, the Joint Commenters' network was only recently built out. It is difficult to respond precisely to SBI's allegations because SBI fails to identify what sites it is referencing, when its personnel visited those sites, or how they gained access to Joint Commenters cell site equipment. Thus, 3G equipment may not yet have been installed at the unknown times or dates when SBI personnel visited unnamed collocated cell sites. Moreover, at some locations this upgrade was only recently completed and there may not yet be a roaming agreement in place. As a result, for the time being, the 3G network is currently only available to Joint Commenters' own subscribers roaming in from places such as north central New Mexico or Nevada.⁶

However, as with any newly-constructed network, Joint Commenters are working diligently on negotiating amendments to various roaming agreements, and negotiating new agreements, which would enable incoming CDMA users to obtain the benefits of 3G service in this area. Also, NTUAW is working diligently to prepare retail outlets on the Reservation for a launch of local retail for both CDMA 3G service and LTE.

Finally, the SBI Reply claims, SBI Reply at n. 21, that "there is no backhaul available in the area that will support true 3G or 4G services." First, as the statement implicitly concedes, Joint Commenters do indeed have backhaul capability in the area, which has always been needed just to provide voice and 2G services. As the Hansen Declaration states, Joint Commenters have sufficient capacity to provide 3G service at the current volume. Moreover, Joint Commenters will have a large increase in backhaul capacity as the NTUA middle-mile backbone project,

⁶ The SBI network is primarily a GSM network. SBI is studiously silent on this point, but Joint Commenters presume from this silence that SBI personnel have subscribed to some third-party CDMA carrier in order to have CDMA handsets with which to test the capabilities of Joint Commenters' networks. That SBI personnel would only "see" the voice services and not the 3G data services is therefore logical, but not at all indicative of what Joint Commenters have constructed.

which is supported by a BTOP grant and similarly ineligible for auction, is launched on a time-frame set to dovetail with Joint Commenters own retail marketing plans.

In summary, the EVDO 3G coverage area claimed by Joint Commenters in their Joint Comments is accurate and should be credited in full by the Commission; SBI's critique is without merit.

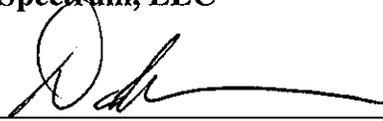
CONCLUSION

For the reasons set forth herein and in the attached declarations, the Commission should give no weight to the criticisms contained in the SBI Reply, and should remove the ineligible census blocks from the reverse auction, as requested in the Joint Comments.

Respectfully submitted,
Commnet Wireless, LLC
NTUA Wireless, LLC
SAL Spectrum, LLC

April 20, 2012

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By: 
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DECLARATION OF JULIE HALL

I, Julie Hall, declare under penalty of perjury:

1. My name is Julie Hall. I am a radio frequency engineer employed by ATECS, LLC, an engineering company providing engineering design and ancillary services to the wireless telecommunications industry. I hold a BSEE from the University of Colorado, and have twenty years of experience in this field. I have prepared the engineering portion of many wireless telecommunications FCC applications, designed many rural wireless networks, and conducted drive tests to make field strength measurements for clients. I have also previously provided written expert opinion regarding wireless propagation issues before the FCC. This declaration is being provided on behalf of Commnet Wireless, LLC, NTUA Wireless, LLC and SAL Spectrum, LLC (collectively, "Joint Commenters") for submission to the FCC in connection with AU Docket No. 12-25 ("Mobility Fund Proceeding").

2. In my experience, when one is estimating the reliable coverage of an unbuilt future wireless telecommunications network, calculation using a contour methodology is a rational and reasonable approach. Moreover, in the case of such unbuilt future systems, it may well be the most rational and reasonable approach, because unlike the case with a constructed system, one cannot, by definition, conduct "drive tests" of a future system. The FCC itself generally uses the contour approach when estimating the service area of an as-yet-unbuilt facility. Thus, for example, cellular license areas for a generation have been calculated using that methodology, as have broadcast radio and television. In most cases where contour calculations have not been used, such as may Part 90 Public Safety and Private Land Mobile services, the FCC has opted for straight mileage calculations, measured as a radius around the base transmitter; *i.e.*, a very similar albeit less complicated approach to the use of contours.

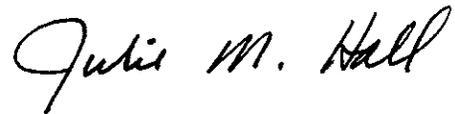
3. In this case, the Joint Commenters decided to utilize a contour calculation approach to determine the reliable service area of the as-yet-unbuilt NTUAW BTOP 700 MHz system, and I fully concur that this is the most rational and reasonable approach to use in this situation. It was I who calculated the BTOP contours, created the illustrative map of those contours, and determined which census block centroids were contained therein, as set forth in Appendices A & B to the Joint Commenters' March 16, 2012 Comments in the Mobility Fund Proceeding ("Joint Comments").

4. Joint Commenter personnel advised that based upon the results of the testing they had performed of 700 MHz propagation in this type of mountainous terrain, pursuant to Experimental License WE9XZH, that we should design a real-world 700 MHz LTE system for NTUAW's BTOP project assuming reliable two-way broadband service anywhere with a received signal strength of at least -105 dbm. Notwithstanding, in creating the BTOP contours for the Joint Comments, I used a received signal strength of -102 dbm, *i.e.*, I used a more conservative assumption resulting in smaller contours covering a smaller geographic area than would have been the case had I relied solely upon the real-world experimental 700 MHz propagation results. I continue to believe that the BTOP contours I created and which are depicted in Appendix A to the Joint Comments represent a conservative yet accurate estimate of the reliable service area of the 700 MHz LTE system when it is built.

5. Exhibit 1 to this Declaration is a map, overlaying the NTUAW BTOP reliable service areas contours as calculated by me, over the BTOP coverage area of NTUAW as set forth in the March 21, 2012 material provided to the FCC by the National Telecommunications and Information Administration (“NTIA Ex Parte”). As depicted on the overlay map, virtually all of the BTOP contours are contained within the geographic area which NTIA says is included within this BTOP award.

6. The NTIA Ex Parte sets forth the census tracts, from the year 2000 census, which are covered by the NTUAW BTOP project. Those specific census tracts contained 45,982 census blocks in the 2000 census. However, the Census Bureau became much more granular in the intervening ten years. Thus, for the year 2010 census, those exact same census tracts, covering the exact same geographic area as before, now contain 64,066 census blocks. Thus, if, hypothetically, a particular project was to cover the NTIA BTOP award geographic area, that project would cover 45,982 census blocks if the year 2000 census was used, but 64,066 blocks if the year 2010 census was used. It would represent an increase of 39% in the number of census blocks, but a zero percent increase in square miles covered. As this illustrates, if the number of 2010 census blocks “covered” were greater than the number of 2000 census blocks “covered”, it would not be relevant to the question of whether one coverage area was bigger than the other.

Executed as of April 18, 2012



Julie Hall

EXHIBIT 1 TO DECLARATION
OF JULIE HALL
MAP COMPARING BTOP PROJECT AREA
AS DEFINED IN NTIA'S *EX PARTE*
WITH NTUAW COMPOSITE
RELIABLE SERVICE AREA CONTOURS
(UPLOADED INTO ECFS AS A SEPARATE
DOCUMENT)

DECLARATION OF MARK HANSEN

I, Mark Hansen, hereby declare under penalty of perjury as follows:

1. I am the Vice President, Network Operations, for Commnet Wireless, LLC and its subsidiaries, as well as for its commonly-owned affiliate SAL Spectrum, LLC (collectively, "Commnet"). I also perform the same functions for NTUA Wireless, LLC ("NTUAW") in my capacity as holder of that office for Commnet Newco, which manages network operations for NTUAW. I have been involved in the network operations of wireless networks for over twenty years, and been involved in the design, construction and operation of wireless networks throughout the western and southwestern United States during that time. It was I who supervised the design, construction and operation of the CDMA wireless network originally constructed by Commnet in the Four Corners area, including those facilities that were later conveyed to NTUAW and are now operated by NTUAW in and around the Navajo Reservation.

2. I have reviewed the Joint Comments filed by Commnet and NTUAW (collectively, "Joint Commenters") in AU Docket No. 12-25 on March 16, 2012, and I re-affirm that the areas which the Joint Commenters claim therein to be providing 3G EVDO service are indeed receiving such service. I have reviewed the March 26, 2012 Reply Comments filed by Smith Bagley, Inc. ("SBI Reply"), which critique the Joint Comments.

3. Much of the Joint Commenters' upgrade to 3G capability in this area was installed in February and March, 2012. Roaming agreements do not normally provide for automatic extension into new services/new areas; generally, the other carrier has to agree to reimburse for its incoming roamers as to each such new area and/or service, via amendment to the roaming agreement. Joint Commenters have approached their various CDMA roaming partners and are currently attempting to get those other carriers to agree to amendment of current roaming agreements to include 3G roaming in this area. At this time, virtually the only users of the 3G services are Joint Commenters' own subscribers coming over from north central New Mexico or Nevada. There is more than enough backhaul capacity at this time to handle the current volume of 3G traffic, notwithstanding the SBI statement to the contrary.

4. NTUAW's majority owner, Navajo Tribal Utility Authority ("NTUA"), is in the final stages of constructing a fiber/microwave middle-mile backbone in this area, which facilities will be available to Joint Commenters and which will greatly increase the overall backhaul capacity in the near future, in time for Joint Commenters' expected volume increase in 3G EVDO traffic later this year.

Executed as of April 18, 2012


Mark Hansen