SAL Spectrum, LLC
c/o COMMNET WIRELESS, LLC
1562 E. PARK STREET
CASTLE ROCK, CO 80104

JUNE 16, 2011

Julius Knapp, Chief
Office of Engineering and Technology
Federal Communications Commission
445 12th Street SW
Washington, DC 20554
https://apps.fcc.gov/els

EXPEDITIOUS HANDLING REQUESTED

Re: Request for Special Temporary Authority in the Experimental Licensing Service, to Operate in Band 17, Lower 700 MHz, for a Period Not to Exceed Six Months

Dear Mr. Knapp:

Pursuant to Section 5.61 of the Commission's Rules, SAL Spectrum, LLC ("Applicant") hereby requests special temporary authority ("STA") to operate an experimental lower 700 MHz system in Castle Rock, Colorado, using frequencies from Band 17 which are licensed to a wholly-owned subsidiary of AT&T Mobility LLC ("AT&T"). Applicant has consent from AT&T to the filing and grant of this STA request and to operation of the proposed experimental system.

Pursuant to Section 5.61(c) of the Rules, Applicant states as follows:

(1) SAL Spectrum, LLC, Attn. Daniel Mieszala, 1562 E. Park Street, Castle Rock, CO 80104; e-mail = danmieszala@awcc.com; fax no. = 720-733-7683.

(2) This STA is needed because Applicant is licensed for several authorizations in the lower 700 MHz band around the southwestern United States, including three where a tribal bidding credit was issued to Applicant so that Applicant could expeditiously deploy service to the Navajo Indian Reservation, so as to bring the benefits of high-speed broadband to the residents of this Reservation, which is currently one of the most underserved areas in the entire United States with respect to broadband services. The Navajo Reservation covers portions of the states of New Mexico, Arizona and Utah, and is slightly larger in area than the state of West Virginia, although containing a population of only about 180,000. The very light population density renders wireless the only potentially viable broadband solution.

Applicant's 100%-commonly-owned affiliate, Commnet Wireless, LLC ("CWL"), maintains substantial network operations and other technical facilities at its major campus in Castle Rock, which is the best location for Applicant to conduct experiments needed in order to

optimize the design and implementation of Applicant's intended lower 700 MHz broadband network to serve the Navajo people.[1]

Section 5.55(d) of the Rules provides that where, as here, the proposed experimental operation is to last for six months or less, it must be filed as an STA request rather than as a request for an experimental license. Since Applicant does not propose to operate for more than six months, this STA request is the appropriate vehicle.

NTUAW and Applicant have committed to initiate commercial broadband operations on the Reservation by March, 2012, and it is critical that Applicant be able to conduct these experiments as soon as possible, in order to meet that commitment. Thus, this STA is necessary.

(3) Response to this item is contained in the attached Narrative Statement, included pursuant to Section 5.63(a) of the Rules, which Narrative Statement is incorporated herein by reference.

(4) Applicant intends to initiate the experimental operations immediately upon receipt of the STA, and continue those operations for three to six months, as needed to gather the necessary data to facilitate the optimum system design for the commercial system to serve the Reservation. Applicant requests that this STA therefore be granted as soon as feasible.

(5) Applicant proposes to operate two base stations, each to be located in Castle Rock, Colorado, and various mobile and fixed end user stations operating within a radius of the two base stations. There will be no revenue operations; all end user units will be those of Applicant's employees and consultants, used for testing various system designs. See also the Narrative Statement.

(6)-(11) Responses to these items are contained in the Narrative Statement.

Thank you in advance for your assistance in this matter.

Respectfully submitted,

Mark Hansen, Vice President

Enclosure (Narrative Statement)

cc (via e-mail w/ encl.):
Nancy Hey, FCC/OET

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[1] Specific implementation is to be accomplished by Applicant leasing its commercial 700 MHz spectrum to a limited liability company ("NTUAW") co-owned by an affiliate of Applicant and Navajo Tribal Utility Authority, an instrumentality of the Navajo Nation. However, under the terms of that project, primary responsibility for network design and implementation rests with Applicant's affiliate.

Narrative Statement of Proposed Temporary LTE Operation in the 3GPP Band 17 Pursuant to Section 5.63(a) of the Commission's Rules

The specific objectives of this program of experimentation are as set forth more fully in the main body of the STA request: to assist in the expeditious deployment of service to the Navajo Indian Reservation, so as to bring the benefits of high-speed broadband to the residents of this Reservation, which is currently one of the most underserved areas in the entire United States with respect to broadband services. The Navajo Reservation covers portions of the states of New Mexico, Arizona and Utah, and is slightly larger in area than the state of West Virginia, although containing a population of only about 180,000. The very light population density renders wireless the only potentially viable broadband solution.

Because the propagation characteristics in the portion of Colorado where this experiment will be conducted are similar to those found in the area of the Reservation, Applicant believes these experiments have more than a reasonable promise of making a material contribution to the quality of the commercial broadband service that ultimately will be deployed there. Moreover, because Applicant and the manufacturer, ZTE, already have significant technical facilities in Castle Rock, it is significantly easier and less expensive to conduct the experiments there, meaning that timely results will be available.

Responses to certain specific items in section 5.61(c) of the Rules follow:

5.61(c)(3) Description of Operation

Testing will be conducted on LTE carrier in the 5 MHz and 10 MHz bandwidth on the following:

- Sector throughput 64 QAM multiple users.
- Sector throughput distributed subscriber units.
- Sector throughput with predominant cell edge usage at ½ QPSK.
- Determination of cell edge receiver sensitivity correlated to error correction.
- Impact of adjacent sector users to the previous tests.
- Impact of adjacent cell users to above tests.
- Handoff of data sessions.
- Other tests based on the outcome of above testing.

5.61(c)(6) Base Station Locations

First Base Station location:
SAL/Commnet Office Site (1562 E/ Park Street, Castle Rock, CO)
104°52'0.39"W
39°23'6.22"N
Antenna height above ground: 24 feet on existing structure, antennas below existing appurtenances.

Second Base Station location:
ZTE Corporation Castle Rock Office
104°51'33.27"W
39°22'22.98"N
Antenna height above ground: 32 feet existing structure, antennas below existing appurtenances

5.61(c)(7) Equipment to Be Used

The base station equipment used will be two ZTE base stations:
Model #: ZXSDR BS8800
Part #: 004401782278184
Base stations already have Part 15 certification.

The customer premises equipment ("CPE") that will be used will be:
Model #: AL610
Part #: 004401782278184
CPE already has FCC Part 15 certification

5.61(c)(8) Frequencies Desired

The frequencies Applicant desires to use are designated by the FCC as the 700 MHz lower B and C bands, and by the ITU 3GPP as Band 12. The specific frequencies are:
Lower B Base Station Transmit: 734-739 MHz
Lower B CPE Station Transmit: 704-709 MHz
Lower C CPE Station Transmit: 710-715 MHz
Lower C Base Station Transmit: 740-745 MHz

5.61(c)(9) Power Levels

Power over a 10 MHz carrier from the amplifier will be 20 watts for the base station. With feed line losses and antenna gains effective radiated power ("ERP") will be 590 watts per sector.
ERP for the CPE units will be 23 dBm or 200 mW.

5.61(c)(10) Emission Designator

Emission Designator: 20K0F1D
System shall use 1.4, 3, 5 and 10 MHz Bandwidths with adaptive modulation conforming to the LTE 3GPP standard.

5.61(c)(11) Antenna Structure Height

Height of the antennas above ground are 24 feet at the Applicant's office location and 32 feet above ground at the ZTE office location. Antennas will be located on existing buildings. Neither base station location would require prior FAA approval, even if it were a permanent installation.

CPE units will be located 5 feet above ground level generally.