

ENGINEERING ANALYSIS MISSION FOCUSED

TO: FCC ELS

FROM: Joseph Feldmeth, Principle Engineer

**DATE: 07AUG2019** 

**MEMORANDOM FOR RECORD:** Frequency Utilization

REFERENCES: File Number: 0549-EX-CN-2019

**PURPOSE:** The purpose of this MFR is to detail why utilization of the requested frequencies in file number 0549-EX-CN-2019 are necessary, and how and where experimental equipment will be utilized. In accordance with requirements of Net Vision Consultants (NVC) contract with the US Government, NVC is required when necessary to provide realistic training, training that mirrors real world cellular networks and infrastructure. To do this NVC utilizes a variety of products and applications that replicate cellular networks. Similar to OpenBTS systems utilizing software defined radios or PICO Cells distributed throughout the US by service providers the networks established by NVC will have a very small radius <1000ft., be closed off to the outside world, and generate no revenue. The network technology will vary by location and training objectives, transmit at 1W or less for very short periods of time. Exercises typically last less than ten days, with actual transmission time being less than the overall period of instruction (POI).

Nationwide coverage is being requested because training locations are defined per exercise and spread out across the United States thereby preventing NVC from being able to specify fixed or mobile locations.

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