

Ericsson Inc

Experimental License File Number: 0634-EX-PL-2012

Confirmation Number: EL321970

Date of Submission: December 10, 2012

Ericsson submits this application for an experimental license to finish conducting an experiment for which the Commission has previously granted Special Temporary Authority, to facilitate the exponential growth in data demand for mobile broadband. (See File Number 0549-EX-ST-2012). The STA was granted until January 1, 2013, however, it has become clear that the experiment will take until the end of February 2013 to conclude. Out of an abundance of caution, to avoid asking for further extensions, we have asked for a total of 10 months for the experiment to run (from the initial STA grant until May 15, 2013).

The experiment has taken longer than anticipated because the ecosystem needs to develop and it is taking time from the handset side to develop the necessary smartphone prototypes that can operate with the dual LTE carriers. The only prototype so far is a USB dongle, and tests with this device have been taking longer than expected.

Description of the Experiment and Objectives to be Accomplished

In order to continue to deliver the same level of performance to their LTE customers, Verizon Wireless would like to deploy a second carrier for its LTE network. Ericsson, as Verizon's LTE supplier, needs to test new optimization techniques related to having a dual-carrier LTE network. Specifically, this experiment will test how to properly load balance the network, will test interactions between different bands of LTE (700 MHz and 2.1 GHz), and will test handovers between LTE and eHRPD systems. The

best practices that are developed in this experiment will be applied in a nationwide second-carrier deployment.

The experiment will rely on 18 antennas that are mounted on 6 existing towers¹ (3 antennas per tower) in the Seattle, Washington area. The antennas will transmit at standard base station power (2 x 40 W), and including all antenna gain, will transmit at 2 x 62.5 dBm (3556 W). The antennas are highly directional and Ericsson will not interfere with existing users. The experiment is made most effective by approximating operational power levels.

Verizon Wireless has previously determined which of the towers require filing FAA Form 7460-1. These forms, or the determination that FAA filing was unnecessary, are attached for each tower. (Please note that the answers on the experimental license application for “distance to nearest airport” are approximated; the FAA determinations are based on the actual distances and corresponding calculations.)

The experiment will contribute to the expansion and utilization of the radio art by enabling the nationwide deployment of a second LTE carrier, which will enable the Verizon network to handle more data traffic, as consumers are demanding, and will provide the consumer with a faster and better experience.

Because of the immediate importance to the consumer market of facilitating the increased demand for data while maintaining the user experience, Ericsson requests that the FCC grant this request for an experimental license.

¹ The names of the tower sites are Mill Creek, Silver Lake, Thrasher’s Corner, Keeler’s Corner, Swamp Creek, and Filbert. The STA application specifies which tower and which antenna (1, 2, or 3) each entry reflects.

For technical questions about the experiment, please contact Can Hatipoglu at can.hatipoglu@ericsson.com or 972-583-2630. For any questions about the application, please contact Kelley Shields at kelly.shields@ericsson.com or 202-824-0103.

(Note: It appears that all attachments also carried over onto this application, but if there are any problems, please note they are available under File Number 0463-EX-ST-2012, the initial STA application, or please notify Kelley Shields and she will re-upload all of the attachments.)