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August 14, 2015

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: **Written Ex Parte Communication**

*Office of Engineering and Technology and Wireless Telecommunications
Bureau Seek Information on Current Trends in LTE-U and LAA Technology,
ET Docket No. 15-105*

Dear Ms. Dortch:

Wi-Fi Alliance values the efforts that the Commission has undertaken, through its Office of Engineering and Technology (“OET”) and Wireless Telecommunications Bureau (“WTB”), to learn more about technologies that use unlicensed spectrum which are based on Long Term Evolution (“LTE”) protocols. We particularly appreciate OET’s recent letter to the LTE-U Forum requesting additional information about how LTE-U operates and shares spectrum with other devices.¹ We agree with OET’s concerns and therefore look forward to the LTE-U Forum’s response. In addition, and as outlined below, Wi-Fi Alliance has initiated what we anticipate will be a collaborative process involving the other stakeholders to determine and test how fair spectrum sharing can occur between LTE-U and Wi-Fi devices.

The Commission’s continued involvement in assessing how unlicensed LTE will coexist with other unlicensed technologies – particularly Wi-Fi – is critical. OET’s recent letter to the LTE-U Forum suggests that it is examining carefully all applications for approval of equipment that use the LTE protocol in unlicensed spectrum. Wi-Fi Alliance commends that action and asks the Commission to withhold certification of any LTE-U equipment until such time as it is fully satisfied that fair sharing of unlicensed spectrum will be achieved. In order for the tremendous success that has characterized Wi-Fi to continue, co-existence concerns must be completely addressed. As described below, Wi-Fi Alliance’s Co-Existence Evaluation Program allows participants to collaborate towards an agreed solution.

¹ See Letter from Julius Knapp, Chief, Office of Engineering and Technology, to the LTE-U Forum, ET Docket No. 15-105 (filed Aug. 5, 2015).

Wi-Fi Alliance Co-Existence Evaluation Program

To advance the constructive collaboration that is required in order to potentially permit use of LTE-U technologies in unlicensed spectrum, and particularly in the 5 GHz band, Wi-Fi Alliance is taking several significant actions in which it hopes the LTE-U Forum and equipment manufacturers will readily join. First, we are developing a comprehensive coexistence test plan aimed at assessing the level of fair sharing between LTE-U and Wi-Fi for equipment supporting a range of applications. Second, we will work with LTE-U vendors as soon as possible to test their products to determine if they pass the Wi-Fi Alliance co-existence tests across all allowable configurations. Of course, the success of these two steps will be dependent on collaboration with LTE-U product vendors, and so we are hopeful that they will fully participate in these testing efforts. Third, Wi-Fi Alliance can provide the aggregate results of its coexistence testing to the Commission so it can better understand LTE-U characteristics. Finally, we plan to host workshops to advance dialogue and understanding about fair spectrum sharing, the potential effects of LTE-U, and the type of activities in which Wi-Fi Alliance can engage to promote fair sharing between LTE-U, Wi-Fi, and other unlicensed technologies. We expect to initiate these efforts by conducting an initial workshop for all interested parties in Northern California in early November 2015.

The Commission Should Wait Until This Coexistence Evaluation Collaboration Is Completed Before It Issues Equipment Authorizations for LTE-U Products

Because of the demonstrated concerns – by industry stakeholders, members of Congress and the FCC itself – about whether LTE-U can share fairly with unlicensed technologies, it is critical that more study occurs. The efforts that Wi-Fi Alliance plans to undertake will take time and cooperation from the LTE-U proponents. In order to further its own understanding of the issues, the Commission should encourage LTE-U proponents to participate with Wi-Fi Alliance in these collaborative efforts. More importantly, the FCC should decline to certify LTE-U equipment until its understanding of the technology and how fair sharing will occur is complete, informed by, among other inputs, the testing that Wi-Fi Alliance intends to conduct.

The Commission should announce its intentions and requirements quickly. LTE-U Forum members have stated that they expect to introduce the technology soon.² The premature certification of LTE-U equipment before concerns about fair coexistence between LTE-U and other technologies are addressed may gravely put at risk the over one billion Wi-Fi devices, as well as other devices using unlicensed spectrum, that are in use in the United States today. Wi-Fi Alliance does not seek to unnecessarily delay the introduction of LTE-U or any other technology. However, the continued success of Wi-Fi and the enormous economic engine it drives should not be compromised until there is a thorough assessment – through true collaborative efforts – of how LTE-U devices will affect the current wireless ecosystem.

² See, e.g., Verizon Comments, ET Docket No. 15-105, at 7 (filed June 11, 2015) (“Verizon intends to deploy LTE-U in the 5 GHz band, specifically in its UNII-1 and UNII-3 portions, in 2016.”).

We look forward to continuing to cooperate with the Commission in this important matter. Pursuant to Section 1.1206 of the Commission's rules, an electronic copy of this letter is being filed for inclusion in the above-referenced docket. Please direct any questions regarding this filing to the undersigned.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Edgar Figueroa", written in a cursive style.

WI-FI ALLIANCE

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President and CEO

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