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November 20, 2015

**VIA ECFS**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, NW  
Washington, DC 20554

Re: 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; NOTICE OF *EX PARTE* PRESENTATION

Dear Ms. Dortch:

On November 18, 2015, Kevin Robinson, Vice President of Marketing of Wi-Fi Alliance and I met with the following Commission staff in separate meetings:

- Edward Smith, Legal Advisor to Chairman Wheeler
- Louis Peraertz, Senior Legal Advisor to Commissioner Clyburn
- Jennifer Thompson, Special Advisor to Commissioner Rosenworcel
- Brendan Carr, Legal Advisor to Commissioner Pai
- Julius Knapp, Chief, Office of Engineering & Technology (“OET”). Also attending this meeting were the following OET staff – Ira Keltz, Mark Settle, Rashmi Doshi (by phone) and Walter Johnston.

During each meeting, we discussed Wi-Fi Alliance’s involvement in the above referenced matter and distributed the attached, which summarizes the Wi-Fi Alliance position on coexistence between Wi-Fi and LTE-U technologies and the work in which Wi-Fi Alliance has engaged to promote fair coexistence between Wi-Fi and LTE-U. We reiterated that while an industry-led solution to Wi-Fi/LTE-U coexistence best serves the public interest, the Commission should continue to monitor industry progress and encourage industry-led activities. We summarized (as noted in the attached) the consensus on key points reached at the Coexistence Test Workshop that Wi-Fi Alliance facilitated earlier this month and stated that a follow-up workshop is scheduled for the week of February 8, 2016.

Pursuant to Section 1.1206(b)(2) of the Commission's rules, an electronic copy of this letter is being filed for inclusion in the above-referenced docket and sent to each member of the Commission's staff with whom we met. Please direct any questions regarding this filing to the undersigned.

Respectfully submitted,



**WI-FI ALLIANCE**

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President and CEO

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Attachment

cc: (each electronically, with attachment)  
Edward Smith  
Louis Peraertz  
Jennifer Thompson  
Brendan Carr  
Julius Knapp  
Ira Keltz  
Mark Settle  
Rashmi Doshi  
Walter Johnston

# Wi-Fi Alliance<sup>®</sup> facilitates Wi-Fi<sup>®</sup> and LTE Unlicensed coexistence



## Wi-Fi Alliance brings progress to Wi-Fi and LTE-U coexistence

Wi-Fi Alliance is facilitating a series of industry activities to promote and enable fair coexistence between Wi-Fi and LTE-U in unlicensed spectrum, and to assist industry in resolving concerns without regulatory intervention.

Wi-Fi Alliance is encouraged by the broad participation at its Coexistence Test Workshop, held in November 2015, which brought together more than 100 attendees from 54 companies including AT&T, Dell, Google, LG, Microsoft, Qualcomm, Sony, Toyota, Verizon, and ZTE to engage in dialogue around concerns related to fair LTE-U and Wi-Fi coexistence.

There is still significant work to be done, but the industry has come to recognize Wi-Fi Alliance as an excellent forum for making progress in addressing concerns related to LTE-U coexistence with Wi-Fi, and the Wi-Fi Alliance's Coexistence Test Workshop delivered consensus on key points:

- The LTE-U specification can be further refined to provide greater clarity, and recent updates to the specification are a good step forward
- A broader set of test scenarios than currently exists is likely necessary to test LTE-U's fairness to Wi-Fi
- Stakeholders are committed to collaborating within Wi-Fi Alliance to develop an industry agreed test regimen for LTE-U devices

## Collaboration facilitated by Wi-Fi Alliance provides a path forward

With much work still to be done, Wi-Fi Alliance will be instrumental in guiding industry to collaborate and reach consensus on a solution. Companies that engage with Wi-Fi Alliance will have an opportunity to steer and contribute to activities, which include:

- **Test Plan Development:** Wi-Fi Alliance is providing the forum for development of an industry agreed test regimen to promote fair sharing, and LTE-U Forum companies have committed to supporting that work in Wi-Fi Alliance
- **Coexistence Test Workshops:** Wi-Fi Alliance will host follow-up workshops to continue to advance dialogue around LTE-U coexistence, with the next workshop scheduled for the week of February 8<sup>th</sup>, 2016
- **Coexistence Guidelines:** Wi-Fi Alliance is building on its initial set of Coexistence Guidelines for LTE in Unlicensed Spectrum Studies, which will inform the testing of actual devices and provide a consistent method for measuring fairness to Wi-Fi.

## Industry and regulators both have a role in protecting the future of unlicensed spectrum

An industry-led solution serves the public's best interest by avoiding unnecessary regulatory intervention that could have unintended consequences. Wi-Fi Alliance asks that regulators continue to monitor industry progress and encourage the industry to come to a solution on its own.

Wi-Fi Alliance is committed to providing the forum for all industry stakeholders to make meaningful progress on LTE-U and Wi-Fi coexistence.

## Fairness is critical to the future of unlicensed spectrum

Wi-Fi Alliance is concerned about the variances allowed by the LTE-U specification in defining how LTE-U devices will operate, and more specifically, how this could impact fair unlicensed spectrum sharing with Wi-Fi. Without an industry-agreed upon test methodology for each LTE-U device that operates in unlicensed spectrum, LTE-U devices may not share the spectrum fairly with Wi-Fi, and billions of Wi-Fi users will be affected. Recent research demonstrates Wi-Fi's integral role in users' lives:

68%  
would be annoyed if  
they did not have  
access to Wi-Fi in their  
daily lives

72%  
say work productivity  
would be significantly  
impacted if Wi-Fi were  
impacted

75%  
are concerned about  
another technology  
impacting their Wi-Fi

## Wi-Fi is too important today to put at risk

DEVICES IN USE:

6.8 BILLION

U.S. WI-FI HOUSEHOLDS:

72 MILLION

U.S. ECONOMIC VALUE

\$222 BILLION

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Wi-Fi uses less spectrum than what is available to cellular, yet Wi-Fi delivers

**11x** more traffic than cellular

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Innovation over the last 16 years has advanced Wi-Fi data rates from **11 Mbps** to more than **1,100 Mbps** – and continued innovation in unlicensed spectrum will deliver data rates exceeding **5,000 Mbps** within a few years

**Learn more:** [www.wi-fi.org/unlicensed](http://www.wi-fi.org/unlicensed)