



RED

TECHNOLOGIES

- *Goal(s) of Experiment (about 50 words, but definitely not more than 400 characters including spaces)*

The main objective of this experiment is to test a functional implementation of the LSA framework enhanced with spectrum sensing of military radars operating in the 3.5 GHz band.

- *Main challenge(s) of Experiment (about 50 words, but definitely not more than 400 characters including spaces)*

- Validation of a practical implementation of the LSA protocol between the LSA Repository and the LSA Controller proposed by ETSI RRS (Reconfigurable Radio Systems).

Note: for the purpose of this experiment RED Technologies' platform has integrated the LSA Repository and the LSA Controller into one as describe in section "Interface between the LSA Repository and the LSA Controller". Because this interface is internal there has been no performance evaluation beyond its functional evaluation

- Validation of a practical implementation of an interface between the sensing device and the LSA Repository based on the Wireless Innovation Forum recommendations, Spectrum Sharing Committee, Working Group 1, ESC Technical Group⁷.
- Measure the end-to-end evacuation time that starts when the RADAR transmitter is activated and the LSA Repository delivers an evacuation request to the LSA Controller and ends when the Licensee Base Station operating in the LSA carrier is offline or reconfigured to operate on another Non-LSA carrier;

Note : for this the experiment we had one IRIS AP, evacuation time (as shown by the companion video of the experiment) is a matter of few seconds and quasi instantaneous within the RED Technologies' platform. The number of IRIS nodes matters in the overall evacuation time and therefore the measured evacuation time may not be representing a typical scenario.

- Showcase an end-to-end and fully automated LSA system operating in a dynamic radio environment and compliant with ETSI standards and the Wireless Innovation Forum recommendations.

- *Description of setup of Experiment, including 1 or maximum 2 figures*

- *Main results, illustrated by 1 or maximum 2 figures with clear, but concise figure captions.*

- *Conclusions (about 50 words, but definitely not more than 400 characters including spaces)*

⁷ Requirements for Commercial Operation in the U.S. 3550-3700 MHz Citizens Broadband Radio Service Band; WINNF-15-S-0112-V0.5.0