IEEE P802.11
Wireless LANs

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| Status Update of the Report of Full Duplex for 802.11  |
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Abstract

This document provides a status update of the Report on Full Duplex for IEEE 802.11 with additional information after the latest FD TIG teleconference call. The latest updates are highlighted in red.

# ****Introduction****

**Since the first 802.11 FD TIG meeting in March 2018, there are in total seven TIG technical contributions [1]-[7] submitted to the 802.11 document server. A document which outlines the framework of FD TIG Report [8] was presented and discussed during the 802.11 FD TIG March session. A contribution [9] which provides text to the FD TIG report was presented at the FD TIG call on July 3, 2018.**

**This document updates the status of the FD TIG Report with evidence showing that some of the content considered for the FD TIG Report may be potentially covered by the submitted FD TIG technical contributions and highlighting the portions in the FD TIG Report, which should be addressed further.**

# ****Status of the FD TIG Report****

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| Sections in [8] | FD TIG technical contributions |
| 2. FD use cases | [2] use cases: multi-channel AP, FD mesh, multi-RAT[3] use cases: dense NW/VR/AR/Telemedicine, Wi-Fi relay, security system  |
| 3. FD functional requirements | [9] support of legacy 802.11 devices; operational channels and bandwidths; Receiver requirements;  |
| 4. FD technical feasibility |  |
|  4.1 Technical survey | [2] industrial/academic progress; [9]  |
|  4.2 FD operations within a BSS | [2], [5] self-interference cancellation; [4], [7] scheduling in FD; [2], [5], [6] potential techniques for self-interference cancellation  |
|  4.3 FD operations over overlapping BSS (OBSS) | Further contributions required |
|  4.4 Impacts on the 802.11 standard | Further contributions required |
| Real world implementation of full duplex operations | [9] wired protocol using FD; extension of wired protocol using FD to wireless FD |
| 5. Architecture of FD for 802.11 | Further contributions required |
| 6. Key FD metrics | Further contributions required |
| 7. FD Benefit | [1], [2]  |
| Economy feasibility | [9] |

# Suggestion received offline to revise the framework of the FD TIG report [8]

* Remove Section 6 Key Metrics: since the content in Section 6 can be covered by Section 3 Functional Requirements
* Change the scope of work of Section 7 from “FD Benefits” to “FD Benefits and challenges”

Note: the framework of FD TIG report has been revised accordingly to 11-18-0498-01-00fd-framework-fd-tig-report.

# Summary

The status of the FD TIG Report is overviewed. The submitted FD TIG technical contributions have been related to the FD TIG Report. Some portions of the FD TIG Report require further contributions to cover.

# References

[1] 11-18-0448-01-00fd-full-duplex-benefits-and-challenges.

[2] 11-18-0549-00-00fd-full-duplex-for-802-11.

[3] 11-18-0758-00-00fd-full-duplex-usage-model.

[4] 11-18-0864-00-00fd-full-duplex-based-mac-enhancements.

[5] 11-18-0880-00-00fd-self-interference-cancellation-in-full-duplex-for-802-11.

[6] 11-18-0938-00-00fd-psss-cdd-full-duplex-phy.

[7] 11-18-1019-01-00fd-improving-system-efficiency-using-full-duplex-based-collision-detection.

[8] 11-18-0498-00-00fd-framework-fd-tig-report.

[9] 11-18-1127-00-00fd-new-text-for-fd-tig-report.