**3GPP TSG-CT WG1 Meeting #141eC1-232214**

**Online 17– 21 April 2023**

**Source: Qualcomm Incorporated**

**Title: Scope, references, and General section for A2X services in 5GS**

**Spec: 3GPP TS 24.577**

**Agenda item: 18.2.21**

**Document for: Agreement**

**1. Introduction**

TS 24.577 specifies protocol aspects for A2X communication, BRID, DAA, and Direct C2 communication according to the stage-2 requirements specified in TS 23.256.

**2. Reason for Change**

It is proposed to introduce scope, references, and general section for TS 24.577.

**3. Proposal**

It is proposed to agree the following changes to 3GPP TS 24.77

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\* \* \* First Change \* \* \* \*

# 1 Scope

Editor’s Note: This clause will provide the scope of the specification.

The present document specifies the protocols for aircraft-to-everything (A2X) communication as specified in 3GPP TS 23.256 [2] for A2X services among the UEs over the PC5 interface.

Editor’s Note: A description for direct C2 communication will be added once stage-2 requirement is clarified, i.e., whether it is a kind of A2X services or a dedicated service using A2X communication over PC5

\* \* \* Second Change \* \* \* \*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.256: "Support of Uncrewed Aerial Systems (UAS) connectivity, identification and tracking; Stage 2"

[3] 3GPP TS 24.501: " Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3"

\* \* \* Third Change \* \* \* \*

3.1 Terms

For the purposes of the present document, the terms given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**E-UTRA-PC5**: PC5 reference point over E-UTRA. The term E-UTRA-PC5 used in the present document corresponds to the term LTE PC5 defined in 3GPP TS 23.256 [x].

**NR-PC5**: PC5 reference point over NR. The term NR-PC5 used in the present document corresponds to the term NR PC5 defined in 3GPP TS 23.256 [x].

For the purposes of the present document, the following terms and definitions given in 3GPP TS 23.256 [x] apply:

**A2X communication**

**A2X message**

**A2X service**

\* \* \* Third Change \* \* \* \*

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

A2X Aircraft-to-everything

\* \* \* Third Change \* \* \* \*

# 4 General description

Editor’s Note: This clause will provide description of A2X services from stage 3 perspective.

The present specification defines means for transport of A2X messages.

The A2X messages are generated and consumed by upper layers of the UE e.g., A2X application. A2X message can contain IP data or non-IP data. For IP data, only IPv6 is used. IPv4 is not supported in this release of specification.

The A2X message can be transported using A2X communication over PC5. A2X communication over PC5 supports both broadcast mode and unicast mode. Groupcast mode over PC5 and relay communication over PC5 is not supported in this release of specification.

Editor’s Note: A description for direct C2 communication will be added once stage-2 requirement is clarified, i.e., whether it is a kind of A2X services or a dedicated service using A2X communication over PC5.

\* \* \* End of Changes \* \* \* \*