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Functional architecture and information flows to support
mission critical communication services;
(3GPP TS 23.179 version 13.0.0 Release 13)**

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Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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1 Scope

This document specifies the functional architecture, procedures and information flows needed to support the mission critical push to talk (MCPTT) service including the common services core architecture for identity management, group management, and configuration management required to support the MCPTT voice service. Support for both MCPTT group calls and MCPTT private calls operating in on-network and off-network modes of operation is specified.

The corresponding service requirements are defined in 3GPP TS 22.179 [2].

The present document is applicable primarily to MCPTT voice service using E-UTRAN access based on the EPC architecture defined in 3GPP TS 23.401 [9]. Certain MCPTT functions such as dispatch and administrative functions could also be supported via non-3GPP access networks but no additional functionality is specified to support non-3GPP access.

The MCPTT service requires preferential handling compared to normal telecommunication services e.g. in support of police or fire brigade including the handling of prioritised MCPTT calls for emergency and imminent threats.

The MCPTT service can be used for public safety applications and also for general commercial applications e.g. utility companies and railways.

In the present document, MCPTT calls between MCPTT users on different MCPTT systems are considered, however, for roaming only EPC-level roaming and IMS-level roaming are considered i.e. partner MCPTT system based roaming (also known as "migration") is out of scope.

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 22.179: "Mission Critical Push to Talk (MCPTT) over LTE"; Stage 1.
- [3] 3GPP TS 23.002: "Network Architecture".
- [4] 3GPP TS 23.203: "Policy and charging control architecture".
- [5] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS); Stage 2".
- [6] 3GPP TS 23.237: "IP Multimedia Subsystem (IMS) Service Continuity; Stage 2".
- [7] 3GPP TS 23.246: "Multimedia Broadcast/Multicast Service (MBMS); Architecture and functional description".
- [8] 3GPP TS 23.303: "Proximity-based services (ProSe); Stage 2".
- [9] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".
- [10] 3GPP TS 23.468: "Group Communication System Enablers for LTE (GCSE_LTE); Stage 2".
- [11] 3GPP TS 26.346: "Multimedia Broadcast/Multicast Service (MBMS); Protocols and codecs".