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# Contents

# Foreword

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# 1 Scope

The present document specifies the media plane control protocols and interactions with the media needed to support Mission Critical Push To Talk (MCPTT).

The present document specifies protocol for using pre-established session to setup calls, floor control and managing MBMS subchannels over MBMS bearers on-network and off-network protocols for floor control.

Mission critical communication services are services that require preferential handling compared to normal telecommunication services, e.g. in support of police or fire brigade. Floor control provides a mechanism for managing the right to transmit at a point in time during an MCPTT call.

The MCPTT service and its associated media plane control protocols can be used for public safety applications and also for general commercial applications (e.g., utility companies and railways).

The present document is applicable to User Equipment (UE) supporting the floor participant functionality, setting up calls using pre-established SIP sessions and using MBMS bearers for group communication and to floor control servers supporting these functions in the MCPTT system.

# 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.
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- 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 24.379: "Mission Critical Push To Talk (MCPTT) call control Protocol specification".

[3] IETF RFC 3550: "RTP: A Transport Protocol for Real-Time Applications".

[4] 3GPP TS 24.383: "Mission Critical Push To Talk (MCPTT) Management Object (MO)".

[5] 3GPP TS 23.179: "Functional architecture and information flows to support mission critical communication services; Stage 2".

[6] 3GPP TS 29.468: "Group Communication System Enablers for LTE (GCSE_LTE); MB2 Reference Point; Stage 3".

[7] IETF RFC 5761: "Multiplexing RTP Data and Control Packets on a Single Port".

[8] IETF RFC 3711: "The Secure Real-time Protocol (SRTP)".

[9] 3GPP TS 25.446: "MBMS synchronization protocol (SYNC)".

[10] 3GPP TS 29.281: "General Packet Radio System (GPRS) Tunnelling Protocol User Plane (GTPv1-U)".

[11] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network protocols; Stage 3".

[12] 3GPP TS 24.381: "Mission Critical Push To Talk (MCPTT) group management Protocol specification".