



**User Requirements Specification;
Mission Critical Broadband Communications;
Part 2: Critical Communications Application**

Reference

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650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee TETRA and Critical Communications Evolution (TCCE).

The present document is part 2 of a multi-part deliverable covering the User Requirement Specification (URs) Mission Critical Broadband Communications, as identified below:

Part 1: "Mission Critical Broadband Communication Requirements";

Part 2: "Critical Communications Application".

Modal verbs terminology

In the present document "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Introduction

The Terms of Reference for TC TCCE approved at ETSI Board meeting #42, 2013 is to produce ETSI deliverables (and maintenance thereafter) in accordance with the following requirements:

- a) To identify requirements for mission and business critical broadband services that will enable an evolution of digital narrowband PMR services to mobile broadband.
- b) To identify and fill standardization gaps such as:
 - 1) Architectural design of critical communications services to be delivered over mobile broadband systems.
 - 2) The development of standards for secure services and interfaces into private and commercial broadband systems.
 - 3) Interconnection of external PMR interfaces to critical communications systems.

- c) The provision and development of proportionate security measures for TETRA and mission critical communications services.
- d) The selection and development of suitable CODECs for audio and video services.
- e) The evolution and enhancement of TETRA and critical communications services as required by the market with the provision of new services, facilities and functionality made possible by new technology innovations and standards.
- f) To identify requirements for the further development of the TETRA standard.
- g) The maintenance of the TETRA standard.

Technical Objective:

- The present document provides the User Requirement Specifications for the Critical Communications Application that facilitates digital PMR services over LTE™.
- The URS is required by TC TCCE to guide the design of the critical communications application to facilitate broadband voice and data communications for critical communications users.

1 Scope

The present document provides the User Requirement Specifications for the Critical Communications Application needed to support Broadband Mission Critical Communications over IP communications networks such as LTE.

The present document describes the functionalities which are most needed by users and the requirements they make on the technology. The present document is applicable to the specification of broadband mission critical communications equipment.

The user requirements contained in the present document are described in non-technical terms and are based on discussions in TC TCCE WG1, TC TCCE WG4, LEWP RCEG and TCCA's CCBG SA and UR Groups.

2 References

2.1 Normative references

Normative references are not applicable in the present document.

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] ETSI TS 122 468 (V12.1.0): "LTE; Group Communication System Enablers for LTE (GCSE-LTE) (3GPP TS 22.468 version 12.1.0 Release 12)".
- [i.2] ETSI TS 122 278 (V12.5.0): "Universal Mobile Telecommunications System (UMTS); LTE; Service requirements for the Evolved Packet System (EPS) (3GPP TS 22.278 version 12.5.0 Release 12)".
- [i.3] ETSI TR 102 022-1: "User Requirement Specification; Mission Critical Broadband Communication Requirements".
- [i.4] NPSTC Recommendations for Push To Talk over Long Term Evolution Requirements, Public Safety Broadband. A NPSTC Public Safety Communications Report.
- [i.5] ETSI EN 300 392-9: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 9: General requirements for supplementary services".
- [i.6] ETSI EN 300 392-12 (sub-parts 1, 3, 7, 8, 10, 16 and 22) : "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3".
- [i.7] 3GPP TS 22.278 (V12.4.0): "Service requirements for the Evolved Packet System (EPS)".
- [i.8] Proximity-based Off Network Public Safety Use Case S1-113165 to 3GPP TSG-SA WG1 from NIST et al.
- [i.9] Requirements associated with Public Safety Off Network Use Case S1-113165 to 3GPP TSG-SA WG1 from NIST.
- [i.10] Tetrapol Specifications PAS 0001-1-2 (V3.0.1): "Part 1: "General Network Design: Part 2: Voice and Data Services in Network and Direct Mode".