



**Emergency Communications (EMTEL);
Basis of requirements for communication of individuals with
authorities/organizations in case of distress (Emergency call
handling)**

[ETSI TR 102 180 V1.3.1 \(2011-09\)](https://standards.iteh.ai/catalog/standards/etsi/bbe63654-ed8d-480f-a1da-dafd3c99647e/etsi-tr-102-180-v1-3-1-2011-09)

<https://standards.iteh.ai/catalog/standards/etsi/bbe63654-ed8d-480f-a1da-dafd3c99647e/etsi-tr-102-180-v1-3-1-2011-09>

Reference

RTR/EMTEL-00019

Keywords

access, administration, disability, emergency,
priority call, regulation

ETSI

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
Sous-Préfecture de Grasse (06) N° 7803/88

(<https://standards.iteh.ai>)
Document Preview

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chairecor/ETSI_support.asp

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2011.
All rights reserved.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.
3GPP™ and **LTE™** are Trade Marks of ETSI registered for the benefit of its Members and
of the 3GPP Organizational Partners.
GSM® and the GSM logo are Trade Marks registered and owned by the GSM Association.

Contents

Intellectual Property Rights	5
Foreword.....	5
Introduction	5
1 Scope	7
2 References	7
2.1 Normative references	7
2.2 Informative references	8
3 Definitions and abbreviations.....	9
3.1 Definitions	9
3.2 Abbreviations	10
4 Description of the emergency call service.....	11
4.1 General description/provisions.....	11
4.1.1 User related requirements	12
4.1.1.1 Public Network Access Points	12
4.1.1.2 Public pay telephones.....	12
4.1.1.3 Other types of telephones.....	12
4.1.1.3a VoIP terminals	13
4.1.1.4 Private Networks	13
4.1.1.5 Multipurpose facilities	13
4.1.2 Requirements applicable to the emergency call functionality of terminal equipment	13
4.1.3 Speech quality of emergency calls.....	13
4.1.4 Charge exemption for emergency calls.....	14
4.1.5 Ensuring emergency call conveyance	14
4.1.6 Assignment of emergency calls to the appropriate PSAP	14
4.1.7 Preventing effects of discrepancies in coverage	14
4.1.7.1 Radio Coverage Limit cases between mobile networks.....	14
4.1.7.2 International cooperation	14
4.1.7.3 Cordless technologies.....	14
4.1.8 Preventing network integrity or capacity failure.....	14
4.2 Recognition and treatment of emergency calls by the originating network	15
4.2.1 Emergency call-related information	15
4.2.1.1 Calling line number from which the emergency call is made	15
4.2.1.2 Location information related to the origin of the emergency call	15
4.2.1.2.1 Use of a fixed line access for an emergency call	16
4.2.1.2.2 Use of a mobile phone for an emergency call	16
4.2.1.3 Identification of the mobile terminal equipment.....	16
4.2.2 Network identification	16
4.2.3 Minimum power supply for user accesses	16
4.2.4 Overdialling	17
4.2.5 Suppression of carrier selection/carrier preselection codes	17
4.2.6 Emergency calls from other countries	17
4.2.7 Routing of SMS complementing emergency calls while roaming.....	17
4.2.7.1 General consideration.....	17
4.2.7.2 Consequence in the case of international roaming	18
4.3 Handling of emergency calls between networks	18
4.4 Providing termination of emergency calls to the PSAP	18
4.4.1 Features of the emergency control centres.....	18
4.4.2 Release of emergency calls/Call back of emergency calls.....	18
4.4.3 Temporary blocking of Emergency Calls from a particular source	19
4.5 Emergency call-specific functions for all involved networks	19
4.5.1 Priority and protection of emergency calls	19
4.5.2 Network transit time	19
4.6 Network management support functions for delivery of Emergency calls to PSAPs.....	19

4.6.1	Monitoring of the lines and availability of the PSAPs.....	19
4.6.2	Diversion of emergency calls.....	19
4.6.3	Permanent availability	20
4.6.4	Security provisions at access to PSAPs	20
4.6.5	Release of resources to the PSAP when a call is transferred	20
5	Evolutions of emergency services	20
5.1	Multi-media calls.....	20
5.2	E-mail	20
5.3	Messaging (SMS; MMS) and instant messaging.....	20
6	European-wide interface between operators and public safety answering points	21
7	Special requirements when making emergency calls by disabled, elderly and young (illiterate) users.....	21
7.1	General	21
7.2	PSAPs Emergency control centres	22
7.3	Public telephones.....	22
7.4	Additional Information.....	22
8	Special requirements for emergency calls in a foreign language	22
9	Data protection	22
10	Future and other networks.....	23
Annex A: Basic Architecture		24
Annex B: Disabled, elderly and young users.....		27
B.1	General	27
B.2	People with disabilities.....	27
B.3	Senior Citizens	27
B.4	Young People	28
B.5	Terminal Issues	28
B.6	Network Issues	28
Annex C: Bibliography		29
History		30

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://ipr.etsi.org>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This Technical Report (TR) has been produced by ETSI Special Committee Emergency Communications (EMTEL).

The present document is the first of a set of deliverables covering the communication needs of individuals and authorities in emergency situations, as identified below:

- **TR 102 180: "Emergency Communications (EMTEL); Basis of requirements for communication of individuals with authorities/organizations in case of distress (Emergency call handling)";**
- TS 102 181 [i.20]: "Emergency Communications (EMTEL); Requirements for communication between authorities/organizations during emergencies";
- TS 102 182 [i.21]: "Emergency Communications (EMTEL); Requirements for communications from authorities/organizations to individuals, groups or the general public during emergencies";
- TR 102 410 [i.22]: "Emergency Communications (EMTEL); Basis of requirements for communications between individuals and to authorities whilst emergencies are in progress".

Introduction

The provision of Emergency Telecommunications is one of the most important duties of a public authority towards individuals present on its territory. Individuals, Authorities and Emergency response teams therefore have a need for dedicated, high quality communication systems operating at all times.

In the past this area of communications has been developed, provided and organized by the national telecommunications operators and the national safety and security agencies/organizations. In today's deregulated and liberalized telecommunications market, operators of public telephone networks have the obligation to provide this type of communication under their regulation on a European and national basis.

At European Union level, a common emergency call number (112) is applied. In certain countries it may co-exist with former numbering codes maintained by the national authorities and dedicated to more specific usages or needs. The proposals of the present document are primarily focussed towards the deployment of a consistent service based on the 112 number; it is a matter of national decision and initiative to apply them for the other numbers in use for emergency calling.

The present document should be read as a contribution to the harmonization of the use of E112 by the emergency and disaster response agencies. Based on inputs from all parties in the Emergency Service User Community involved in providing such services, and after due adoption, the requirements expressed should be distributed to the relevant ETSI Technical Bodies, who are requested to take this material into account when amending existing, or drafting new, deliverables for services and systems to support Emergency Communications. But the present document can also be made available to other organizations and mainly at European Commission level as a contribution to their work, as the case may apply.