



**Terrestrial Trunked Radio (TETRA);
Voice plus Data (V+D);
Part 12: Supplementary services stage 3;
Sub-part 21: Ambience Listening (AL)**

[ETSI EN 300 392-12-21 V1.5.1 \(2012-04\)](https://standards.iteh.ai/catalog/standards/etsi/1ae4b553-7dba-4d0a-b1b2-4a68b62e6d71/etsi-en-300-392-12-21-v1-5-1-2012-04)

<https://standards.iteh.ai/catalog/standards/etsi/1ae4b553-7dba-4d0a-b1b2-4a68b62e6d71/etsi-en-300-392-12-21-v1-5-1-2012-04>

Reference

REN/TETRA-03216

Keywords

supplementary service, TETRA

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/chaicor/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 2012.
All rights reserved.

DECTTM, PLUGTESTSTM, UMTSTM and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.
3GPPTM and LTETM 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
1 Scope	7
2 References	7
2.1 Normative references	7
2.2 Informative references	7
3 Definitions and abbreviations	8
3.1 Definitions	8
3.2 Abbreviations	8
4 SS-AL service description	9
4.1 General	9
4.2 SS-AL services offered over the TNSS-SAP	10
4.2.1 SS-AL service primitives to served user	10
4.2.2 SS-AL service primitives to affected user	10
4.2.3 SS-AL service primitive to second listening party	10
4.3 Service primitive descriptions	11
4.3.1 INFORMATION indication	11
4.3.2 INTERROGATE request	11
4.3.3 INTERROGATE indication	11
4.3.4 INVOKE1 request	11
4.3.5 INVOKE2 request	12
4.3.6 INVOKE indication	12
4.3.7 INVOKE ACK request	12
4.3.8 INVOKE1 indication	12
4.3.9 INVOKE2 indication	13
4.3.10 INVOKE3 request	13
4.3.11 INVOKE3 indication	13
4.3.12 STOP LISTENING request	14
4.4 Parameter description	14
5 Signalling protocol to support SS-AL	15
5.1 General	15
5.2 SS-AL general operational requirements	16
5.2.1 Requirements on the affected user MS	16
5.2.2 Requirements on the affected user current SwMI	16
5.2.3 Requirements on the SS-AL affected user home SwMI	16
5.2.4 Requirements on the served user MS	16
5.2.5 Requirements on the served user SwMI	16
5.2.6 Requirements on the second listening party MS	16
5.2.7 Requirements on the SS-AL second listening party SwMI	16
5.3 SS-AL coding requirements	17
5.3.1 General on SS-AL PDUs	17
5.3.2 AL-TX DEMAND PDU	17
5.3.3 AL-TX GRANTED PDU	18
5.3.4 AL-TX INFORM PDU	18
5.3.5 AL-TX INTERRUPT PDU	18
5.3.6 AL-TX REJECT PDU	19
5.3.7 INFORMATION PDU	19
5.3.8 INTERROGATE PDU	20
5.3.9 INTERROGATE ACK PDU	21
5.3.10 INVOKE1 PDU	21
5.3.11 INVOKE2 PDU	22
5.3.12 INVOKE PDU	22
5.3.13 INVOKE ACK PDU	22
5.3.14 INVOKE1 ACK PDU	23
5.3.15 INVOKE2 ACK PDU	23
5.4 Information element coding	24

5.4.1	AL PDU type	24
5.4.2	Affected party extension	24
5.4.3	Affected party short number	24
5.4.4	Affected party SSI	25
5.4.5	Affected party type identifier	25
5.4.6	Encryption control	25
5.4.7	Interrogated party extension	25
5.4.8	Interrogated party short number	25
5.4.9	Interrogated party SSI	25
5.4.10	Interrogated party type identifier	25
5.4.11	Listening party extension	25
5.4.12	Listening party SSI	25
5.4.13	Listening party type identifier	26
5.4.14	Range type of interrogated users	26
5.4.15	Result of interrogation	26
5.4.16	Result of invocation	27
5.4.17	Result of invocation by user	27
5.4.18	Second listening party extension	27
5.4.19	Second listening party short number	28
5.4.20	Second listening party SSI	28
5.4.21	Second listening party type identifier	28
5.4.22	Transmission grant	28
5.4.23	TX demand priority	28
5.5	SS-AL state definitions	28
5.5.1	Protocol states of served user FE1	28
5.5.2	Protocol states of SwMI FE2	28
5.5.3	Protocol states of affected user FE5	28
5.5.4	Protocol states of FE2 in visited SwMI	28
5.5.5	Protocol states of second listening party FE6	28
5.6	SS-AL Procedures	28
5.6.1	Procedures for served user FE1	28
5.6.1.1	Interrogation	28
5.6.1.2	Invocation	29
5.6.1.3	Addition of second listening party	29
5.6.1.4	Invocation during on-going call	29
5.6.2	Procedures for SwMI FE2	29
5.6.2.1	Interrogation	29
5.6.2.2	Invocation	29
5.6.2.3	Addition of second listening party	30
5.6.2.4	Invocation during on-going call	30
5.6.3	Procedures for FE2 in visited SwMI	30
5.6.4	Procedures for affected user FE5	31
5.6.4.1	Invocation	31
5.6.4.2	Invocation during on-going call	31
5.6.4.3	Affected user request for invocation	31
5.6.5	Procedures for second listening party FE6	31
5.6.5.1	Invocation	31
5.6.5.2	Invocation during on-going call	32
5.7	Interactions with other supplementary services	32
5.7.1	General	32
5.7.2	Call Forwarding	32
5.7.3	Ambience Listening	32
Annex A (informative):	SS-AL Call request	33
Annex B (informative):	INTERROGATE ACK PDU encoding	34
Annex C (informative):	INVOKE1 and INVOKE1 ACK PDUs encoding	35
Annex D (informative):	Change requests	36
History		37

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 European Standard (EN) has been produced by ETSI Technical Committee Terrestrial Trunked Radio (TETRA).

The present document is part 12, sub-part 21 of a multi-part deliverable covering Voice plus Data (V+D), as identified below:

EN 300 392-1: "General network design";

EN 300 392-2: "Air Interface (AI)";

EN 300 392-3: "Interworking at the Inter-System Interface (ISI)";

ETS 300 392-4: "Gateways basic operation";

EN 300 392-5: "Peripheral Equipment Interface (PEI)";

EN 300 392-7: "Security";

EN 300 392-9: "General requirements for supplementary services";

EN 300 392-10: "Supplementary services stage 1";

EN 300 392-11: "Supplementary services stage 2";

EN 300 392-12: "Supplementary services stage 3":

EN 300 392-12-1: "Call Identification (CI)";

ETS 300 392-12-2: "Call Report (CR)";

EN 300 392-12-3: "Talking Party Identification (TPI)";

EN 300 392-12-4: "Call Forwarding (CF)";

ETS 300 392-12-5: "List Search Call (LSC)";

EN 300 392-12-6: "Call Authorized by Dispatcher (CAD)";

ETS 300 392-12-7: "Short Number Addressing (SNA)";

EN 300 392-12-8: "Area Selection (AS)";

ETS 300 392-12-9: "Access Priority (AP)";

EN 300 392-12-10: "Priority Call (PC)";

ETS 300 392-12-11: "Call Waiting (CW)";

EN 300 392-12-12: "Call Hold (HOLD)";