



SLOVENSKI STANDARD
SIST EN 300 392-11-21 V1.1.1:2003
01-december-2003

Prizemni snopovni radio (TETRA) - Govor in podatki (V+D) - 11. del: Dopolnilne storitve stopnje 2 - 10.-21. del: Poslušanje okolice (AL)

Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 11: Supplementary services stage 2; Sub-part 21: Ambience Listening (AL)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: **EN 300 392-11-21 Version 1.1.1**

SIST EN 300 392-11-21 V1.1.1:2003
<https://standards.iteh.ai/catalog/standards/sist/c7cc067f-512f-4ecc-9db8-ef99f623a318/sist-en-300-392-11-21-v1-1-1-2003>

ICS:

33.070.10	Prizemni snopovni radio (TETRA)	Terrestrial Trunked Radio (TETRA)
-----------	---------------------------------	-----------------------------------

SIST EN 300 392-11-21 V1.1.1:2003 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 300 392-11-21 V1.1.1:2003](https://standards.iteh.ai/catalog/standards/sist/c7cc067f-512f-4ec8-9db8-ef99f623a318/sist-en-300-392-11-21-v1-1-1-2003)

<https://standards.iteh.ai/catalog/standards/sist/c7cc067f-512f-4ec8-9db8-ef99f623a318/sist-en-300-392-11-21-v1-1-1-2003>

ETSI EN 300 392-11-21 V1.1.1 (2003-04)

European Standard (Telecommunications series)

**Terrestrial Trunked Radio (TETRA);
Voice plus Data (V+D);
Part 11: Supplementary services stage 2;
Sub-part 21: Ambience Listening (AL)**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 300 392-11-21 V1.1.1:2003](https://standards.iteh.ai/catalog/standards/sist/c7cc067f-512f-4ec8-9db8-ef99f623a318/sist-en-300-392-11-21-v1-1-1-2003)

<https://standards.iteh.ai/catalog/standards/sist/c7cc067f-512f-4ec8-9db8-ef99f623a318/sist-en-300-392-11-21-v1-1-1-2003>



Reference

DEN/TETRA-03001-11-21

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 300 392-11-21 V1.1.1:2003<https://standards.iteh.ai/catalog/standards/sist/c7cc067f-512f-4ec8-9db8-ef99f623a318/etsi-en-300-392-11-21-v1-1-1-2003>
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, send your comment to:

editor@etsi.org

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 2003.
All rights reserved.

DECT™, **PLUGTESTS™** and **UMTS™** are Trade Marks of ETSI registered for the benefit of its Members.
TIPHON™ and the **TIPHON logo** are Trade Marks currently being registered by ETSI for the benefit of its Members.
3GPP™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Contents

Intellectual Property Rights	5
Foreword.....	5
1 Scope	7
2 References	7
3 Definitions and abbreviations.....	7
3.1 Definitions	7
3.2 Abbreviations	8
4 Functional model.....	8
4.1 Functional model description	8
4.2 Description of FEs.....	9
4.2.1 Served user's agent functional entity, FE1	9
4.2.2 AL control functional entity in home SwMI, FE2	9
4.2.3 Affected user's agent functional entity, FE5	10
4.2.4 AL functional control entity in visited SwMI, FE2	10
4.2.5 Second listening party's agent functional entity, FE6	10
5 Information flows	10
5.1 Definition of information flows.....	10
5.1.1 AL-TX DEMAND.....	10
5.1.2 AL-TX GRANTED.....	11
5.1.3 AL-TX INFORM.....	11
5.1.4 AL-TX INTERRUPT	11
5.1.5 AL-TX REJECT	12
5.1.6 INFORMATION	12
5.1.7 INTERROGATE	12
5.1.8 INTERROGATE ACK.....	13
5.1.9 INVOKE1	13
5.1.10 INVOKE2.....	13
5.1.11 INVOKE.....	13
5.1.12 INVOKE ACK.....	14
5.1.13 INVOKE1 ACK.....	14
5.1.14 INVOKE2 ACK.....	14
5.2 Relationship of information flows to basic call information flows	15
5.3 Service primitives.....	15
5.4 Information flow sequences	15
5.4.1 General.....	15
5.4.2 Interrogation	16
5.4.3 Interrogation of AL when FE1 in visited system	16
5.4.4 Invocation with served user and affected user in home system	16
5.4.5 Invocation with served user, affected user and second listening party in home system	17
5.4.6 Invocation with second Listening Party, served user in visited system	18
5.4.7 Invocation with served user in visited system, without second listening party.....	18
5.4.8 Invocation with affected user in visited system, without second listening party	19
5.4.9 Invocation with affected user in visited system, with second listening party	19
5.4.10 AL call clear-down, with affected user in home system, due to the affected user invoking a new call	20
5.4.11 AL call clear-down, with affected user in visited system, due to a new outgoing call.....	20
5.4.12 AL call clear-down, with affected user in visited system, due to a new incoming call.....	21
5.4.13 Affected user engaged in a call.....	21
5.4.14 Rejection of an ambience listening transmission demand	22
5.5 FE Actions	22
5.5.1 Functional entity actions of FE1	22
5.5.2 Functional entity actions of FE2	23
5.5.3 Functional entity actions of visited SwMI FE2.....	23
5.5.4 Functional entity actions of FE5	24

5.5.5	Functional entity actions of FE6	24
6	Allocation of FEs to physical equipment	24
7	Interworking considerations	25
	History	26

iTeh STANDARD PREVIEW **(standards.iteh.ai)**

[SIST EN 300 392-11-21 V1.1.1:2003](https://standards.iteh.ai/catalog/standards/sist/c7cc067f-512f-4ec8-9db8-ef99f623a318/sist-en-300-392-11-21-v1-1-1-2003)

<https://standards.iteh.ai/catalog/standards/sist/c7cc067f-512f-4ec8-9db8-ef99f623a318/sist-en-300-392-11-21-v1-1-1-2003>

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://webapp.etsi.org/IPR/home.asp>).

All published ETSI deliverables shall include information which directs the reader to the above source of information.

Foreword

This European Standard (Telecommunications series) has been produced by ETSI Project Terrestrial Trunked Radio (TETRA).

The present document had been submitted to Public Enquiry as ETS 300 392-11-21. During the processing for Vote it was converted into an EN.

The present document is part 11, 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";**
 - ETS 300 392-11-1: "Call Identification (CI)";
 - ETS 300 392-11-2: "Call Report (CR)";
 - ETS 300 392-11-3: "Talking Party Identification (TPI)";
 - EN 300 392-11-4: "Call Forwarding (CF)";
 - ETS 300 392-11-5: "List Search Call (LSC)";
 - ETS 300 392-11-6: "Call Authorized by Dispatcher (CAD)";
 - ETS 300 392-11-7: "Short Number Addressing (SNA)";
 - EN 300 392-11-8: "Area Selection (AS)";
 - ETS 300 392-11-9: "Access Priority (AP)";
 - EN 300 392-11-10: "Priority Call (PC)";
 - ETS 300 392-11-11: "Call Waiting (CW)";
 - EN 300 392-11-12: "Call Hold (CH)";

- ETS 300 392-11-13: "Call Completion to Busy Subscriber (CCBS)";
- EN 300 392-11-14: "Late Entry (LE)";
- ETS 300 392-11-16: "Pre-emptive Priority Call (PPC)";
- EN 300 392-11-17: "Include Call (IC)";
- EN 300 392-11-18: "Barring of Outgoing Calls (BOC)";
- EN 300 392-11-19: "Barring of Incoming Calls (BIC)";
- ETS 300 392-11-20: "Discreet Listening (DL)";
- EN 300 392-11-21: "Ambience Listening (AL)";**
- ETS 300 392-11-22: "Dynamic Group Number Assignment (DGNA)";
- ETS 300 392-11-23: "Call Completion on No Reply (CCNR)";
- ETS 300 392-11-24: "Call Retention (CRT)";
- EN 300 392-12: "Supplementary services stage 3";
- ETS 300 392-13: "SDL model of the Air Interface (AI)";
- ETS 300 392-14: "Protocol Implementation Conformance Statement (PICS) proforma specification";
- TS 100 392-15: "TETRA frequency bands, duplex spacing and channel numbering";
- TS 100 392-16: "Network Performance Metrics";
- TS 100 392-17: "TETRA V+D and DMO Release 1.1 specifications";

SIST EN 300 392-11-21 V1.1.1:2003
<https://standards.iteh.ai/catalog/standards/sist/en-300-392-11-21-v1-1-1-2003>
National transposition dates

Date of adoption of this EN:	4 April 2003
Date of latest announcement of this EN (doa):	31 July 2003
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 January 2004
Date of withdrawal of any conflicting National Standard (dow):	31 January 2004

1 Scope

The present document defines the stage 2 specification of the Supplementary Service Ambience Listening (SS-AL) for the Terrestrial Trunked Radio (TETRA). Stage 2 identifies the functional entities involved in the supplementary service and the information flows between them. Aspects relating to all supplementary services are detailed in EN 300 392-9 [2].

NOTE: The stage 2 description is followed by the stage 3 description, which specifies the encoding rules for the information flows and process behaviour for the different entities in the SwMI and in the MS.

Charging principles and Man-Machine Interface (MMI) are outside the scope of the present document.

The SS-AL enables a served user to place a TETRA Mobile Station (MS) into a special type of voice call whereby the called MS transmits without any action from, or indication to, the affected user. The ambience listening call may include a second listening party.

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 and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

- <https://standards.iteh.ai/catalog/standards/sist/c7cc067f-512f-4ec8-9db8-09627e318/sist-en-300-392-11-21-v1.1.1-2003>
- [1] ETSI EN 300 392-2: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 2: Air Interface (AI)".
- [2] ETSI EN 300 392-9: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 9: General requirements for supplementary services".
- [3] ETSI EN 300 392-12-21: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 12: Supplementary services stage 3; Sub-part 21: Ambience Listening (AL)".
- [4] ETSI EN 300 392-10-21: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 21: Ambience Listening (AL)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Ambience Listening (AL) call: call in which ambience listening functionality is requested

NOTE: During the AL call, the affected user's MS transmits without any action from, or indication to, the affected user.

affected user: user whom the served user is listening to

served user: user who invokes this supplementary service and listens to the affected user

second listening party: TETRA individual or group which additionally listens the AL call

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

AL	Ambience Listening
FE	Functional Entity
ISI	InterSystem Interface
ITSI	Individual TETRA Subscriber Identity
MS	Mobile Station
SS	Supplementary Service

NOTE: The abbreviation SS is only used when referring to a specific supplementary service.

SwMI Switching and Management Infrastructure

4 Functional model

4.1 Functional model description

The functional model shall comprise the following Functional Entities (FEs):

- FE1 served user's service agent;
- FE2 ambience listening control entity;
- FE5 affected user's service agent;
- FE6 second listening party's service agent.

The following relationships shall exist between these FEs:

- ra between FE1 and FE2;
- rb between FE2 and FE5;
- rc between FE2s in different SwMIs;
- rd between FE2 and FE1 in a visited SwMI;
- re between FE2 in visited SwMI and FE5 in visited SwMI;
- rf between FE6 and FE2;
- rg between FE6 in visited SwMI and FE2 in a visited SwMI.

Figure 1 shows these FEs and their relationships.

NOTE: Served user FE1 and affected user FE5 can be present only once in each instance and figure 1 gives only a general view.

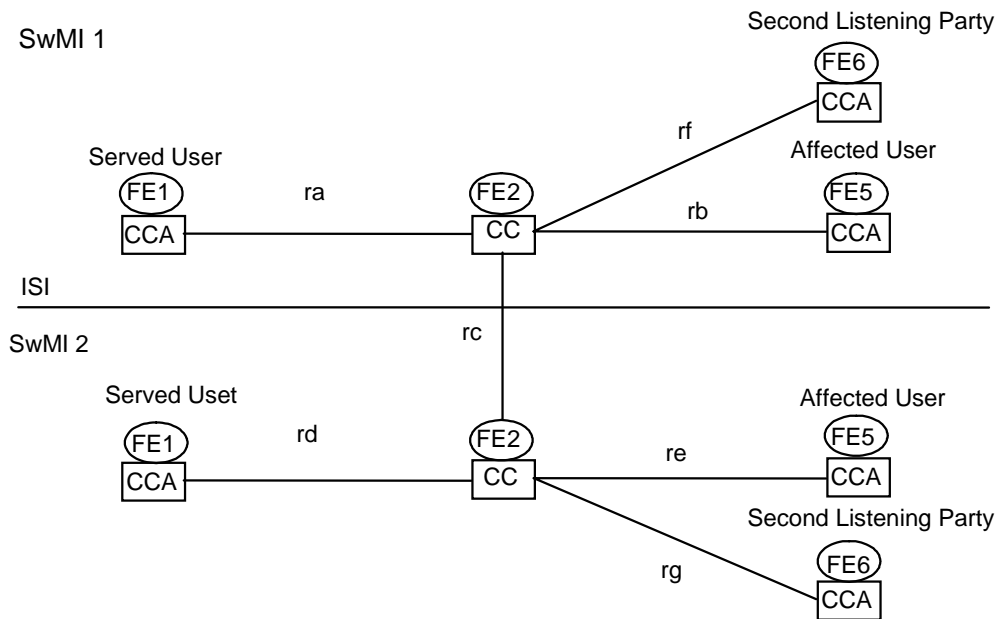


Figure 1: Operational and management functional model for SS-AL

4.2 Description of FEs

4.2.1 Served user's agent functional entity, FE1

The function entity FE1 shall:

- receive interrogation and invocation information from the served user and information about the executed service request from FE2 in order to deliver it to the served user.

4.2.2 AL control functional entity in home SwMI, FE2

The functional entity FE2 shall:

- perform checks and actions for the data received for interrogation and invocation;
- provide the affected user's application with applicable SS-AL data by sending it to the affected user's service agent FE5 via visited system FE2 if the affected user is located in a different system;
- provide the served user's agent functional entity with the acknowledgement or rejection of the requested service. This is sent via visited system SwMI FE2 if the served user is in visited system;
- given that a second listening party is involved in the AL call, provide the second listening party's application with applicable SS-AL data by sending it to the second listening party's service agent FE6 via visited system SwMI FE2 if the second listening party is located in a different system;
- if any exception conditions are noticed by SwMI, FE2 shall take appropriate action;
- optionally clear down the AL call if a new incoming call is received for the affected user.