



SLOVENSKI STANDARD

oSIST prEN 300 392-3-12 V1.2.0:2019

Prizemni snopovni radio (TETRA) - Govor in podatki (V+D) - 3. del: Medsebojno delovanje na medsystemskega vmesniku (ISI) - 12. poddel: Neodvisnost transportnih plasti dodatne omrežne funkcije: posamezni klic (ANF-ISIIC)

Terrestrial Trunked Radio (TETRA) - Voice plus Data (V+D) - Part 3: Interworking at the Inter-System Interface (ISI) - Sub-part 12: Transport layer independent Additional Network Feature Individual Call (ANF-ISIIC)

Ta slovenski standard je istoveten z: ETSI EN 300 392-3-12 V1.2.0 (2019-08)

ICS:

33.070.10	Prizemní snopovní radio (TETRA)	Terrestrial Trunked Radio (TETRA)
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oSIST prEN 300 392-3-12 V1.2.0:2019 en

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<https://standards.iteh.ai/catalog/standards/sist/cf7a2ef1-aba2-484a-84de-cb1fb9fc5446/osist-pren-300-392-3-12-v1.2.0-2019>

Draft ETSI EN 300 392-3-12 V1.2.0 (2019-08)



**Terrestrial Trunked Radio (TETRA);
Voice plus Data (V+D);
Part 3: Interworking at the Inter-System Interface (ISI);
Sub-part 12: Transport layer independent
Additional Network Feature Individual Call (ANF-ISIIC)**

IPhS Standard Review
<https://standards.iteh.aalto.fi/standards/prEN300392-3-12-1-aba2-484a-84de-cb1fb9fc5446/osi-pr>

Reference

REN/TCCE-03260

Keywords

ANF, interworking, TETRA, V+D

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
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Foreword

This draft European Standard (EN) has been produced by ETSI Technical Committee TETRA and Critical Communications Evolution (TCCE), and is now submitted for the combined Public Enquiry and Vote phase of the ETSI standards EN Approval Procedure.

The present document is part 3, sub-part 12 of a multi-part deliverable covering the Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D), as identified below:

Part 1: "General network design";

Part 2: "Air Interface (AI)";

Part 3: "Interworking at the Inter-System Interface (ISI)":

Sub-part 1: "General design";

Sub-part 2: "Additional Network Feature Individual Call (ANF-ISIIC)";

Sub-part 3: "Additional Network Feature Group Call (ANF-ISIGC)";

Sub-part 4: "Additional Network Feature Short Data Service (ANF-ISISDS)";

Sub-part 5: "Additional Network Feature for Mobility Management (ANF-ISIMM)";

Sub-part 6: "Speech format implementation for circuit mode transmission";

Sub-part 7: "Speech Format Implementation for Packet Mode Transmission";

Sub-part 8: "Generic Speech Format Implementation";

Sub-part 9: "Transport layer independent, General design";

Sub-part 10: "General design, PSS1 over E.1";

Sub-part 11: "General design, SIP/IP";

Sub-part 12: "Transport layer independent Additional Network Feature Individual Call (ANF-ISIIC)";

Sub-part 13: "Transport layer independent Additional Network Feature Group Call (ANF-ISIGC)";

Sub-part 14: "Transport layer independent Additional Network Feature Short Data Service (ANF-ISISDS)";

Sub-part 15: Transport layer independent Additional Network Feature, Mobility Management (ANF-ISIMM)";

Part 4: "Gateways basic operation";

Part 5: "Peripheral Equipment Interface (PEI)";

Part 7: "Security";

Part 9: "General requirements for supplementary services";

Part 10: "Supplementary services stage 1";

Part 11: "Supplementary services stage 2";

Part 12: "Supplementary services stage 3";

Part 13: "SDL model of the Air Interface (AI)";

Part 14: "Protocol Implementation Conformance Statement (PICS) proforma specification";

Part 15: "TETRA frequency bands, duplex spacings and channel numbering";

Part 16: "Network Performance Metrics";

Part 17: "TETRA V+D and DMO specifications";

Part 18: "Air interface optimized applications";

Part 19: "Interworking between TETRA and Broadband systems"

NOTE 1: Part 3, sub-parts 6 and 7 (Speech format implementation), part 4, sub-part 3 (Data networks gateway), part 10, sub-part 15 (Transfer of control), part 13 (SDL) and part 14 (PICS) of this multi-part deliverable are in status "historical" and are not maintained.

NOTE 2: Some parts are also published as Technical Specifications such as ETSI TS 100 392-2 and those may be the latest version of the document.

The present document is based on ETSI EN 300 392-3-2 [i.9] "Interworking at the Inter-System Interface, Sub-part 2 Additional Network Feature for Individual Call (ANF-ISIIC)". The main changes are:

- Removal of any reference to the bearer protocol
- Clean up of stage 2 descriptions

For all sub-parts in the TETRA specification ETSI EN 300 392-3, "Interworking at the Inter-System Interface (ISI)" the terms ISI and TETRA ISI are equivalent.

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Modal verbs terminology

In the present document "**shall**", "**shall not**", "**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).

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1 Scope

The present document defines the Terrestrial Trunked Radio (TETRA) system supporting Voice plus Data (V+D). It specifies:

- the interworking of individual calls between TETRA networks;
- the supplementary services interaction with individual calls between TETRA networks.

The TETRA V+D interworking - basic operation part defines the interworking between TETRA networks over the corresponding interface: the Inter-System Interface (ISI). It comprises the following sub-parts:

- Transport layer independent General design [2];
- General Design, PSS1 over E.1 [3];
- General Design, SIP/IP [4];
- Transport layer independent Additional Network Feature - ISI Individual Call (ANF-ISIIC) (the present document);
- Transport layer independent Additional Network Feature - ISI Group Call (ANF-ISIGC) [5];
- Transport layer independent Additional Network Feature - ISI Short Data service (ANF-ISISDS) [i.8];
- Transport layer independent Additional Network Feature - ISI Mobility Management (ANF-ISIMM) [6];
- Generic Speech Format Implementation [i.7].

The present document is the ANF-ISIIC sub-part.

Like all other Additional Network Feature (ANF) specifications, those of ANF-ISIIC are produced in three stages, according to the method described in Recommendation ITU-T I.130 [i.4]. The present document contains the stage 1 and 2 descriptions of ANF-ISIIC, and stage 3 description. The stage 1 description specifies the ANF as seen by its users, which are essentially the individual call control entities in both TETRA networks. The stage 2 description identifies the functional entities involved in the ANF and the information flows between them. And the stage 3 description of ANF-ISIIC specifies its protocol.

NOTE 1: According to Recommendation ITU-T I.130 [i.4], the stage 3 description of a bearer or tele-service addresses the network implementation aspects. Consequently, it comprises two steps: the specifications of all protocols at the various reference points involved in any of the service procedures (notably the service operation) are the first step of the stage 3 description, and the specifications of the functions of the corresponding network entities are its second step.

NOTE 2: The SDL diagrams have not been provided since they can be derived from the specification of the functional entity actions in the stage 2 description.

The present document applies to TETRA networks which support inter-TETRA individual calls. More specifically, it applies to their Circuit Mode Control Entities (CMCE), as defined in clause 14.2 of ETSI EN 300 392-2 [1], and to their ANF-ISIIC entities defined in the stage 2 description.

The relation between the ANF-ISIIC and the transport layer protocol is described in the General Design documents [2], [3] and [4].