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Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 11: General design, SIP/IP

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**Terrestrial Trunked Radio (TETRA);
Voice plus Data (V+D);
Part 3: Interworking at the Inter-System Interface (ISI);
Sub-part 11: General design, SIP/IP**

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Foreword

This European Standard (EN) has been produced by ETSI Technical Committee TETRA and Critical Communications Evolution (TCCE).

The present document is part 3, sub-part 11 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.

For all subparts in the TETRA specification ETSI EN 300 392-3 [i.1], "Interworking at the Inter-System Interface (ISI)" the terms ISI and TETRA ISI are equivalent.

National transposition dates

Date of adoption of this EN:	13 November 2019
Date of latest announcement of this EN (doa):	31 July 2020
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 January 2021
Date of withdrawal of any conflicting National Standard (dow):	31 January 2021

Modal verbs terminology

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1 Scope

The present document defines the transport of Inter System Interface (ISI) PDUs using the Session Initiation Protocol (SIP) as transport layer and the Session Description Protocol (SDP) as media control protocol. It specifies:

- SIP methods and header fields used for transport of ISI PDUs; and
- the SDP content; and
- use the ISI Mediation Function which coordinates the communication between TETRA systems.

The ISI Mediation Function specification applies to an IP based TETRA Switching and Management Infrastructure (SwMI) which supports the ISI.

2 References

2.1 Normative 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.

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The following referenced documents are necessary for the application of the present document.

- [1] Void.
- [2] ETSI EN 300 392-3-8: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 8: Generic Speech Format Implementation".
- [3] ETSI EN 300 392-3-9: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 9: Transport layer independent, General design".
- [4] ETSI EN 300 392-3-12: "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)".
- [5] ETSI EN 300 392-3-13: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 13: Transport layer independent Additional Network Feature Group Call (ANF-ISIGC)".
- [6] ETSI EN 300 392-3-14: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 14: Transport layer independent Additional Network Feature Short Data Service (ANF-ISISDS)".
- [7] ETSI EN 300 392-3-15: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI); Sub-part 15: Transport layer independent Additional Network Feature, Mobility Management (ANF-ISIMM)".
- [8] IETF RFC 3261: "SIP: Session Initiation Protocol".

- [9] IETF RFC 3264: "An Offer/Answer Model with Session Description Protocol (SDP)".
- [10] IETF RFC 3428: "Session Initiation Protocol (SIP) Extension for Instant Messaging".
- [11] IETF RFC 4028: "Session Timers in the Session Initiation Protocol (SIP)".
- [12] IETF RFC 4566: "SDP: Session Description Protocol".
- [13] IETF RFC 5621: "Message Body Handling in the Session Initiation Protocol (SIP)".
- [14] IETF RFC 6026: "Correct Transaction Handling for 2xx Responses to Session Initiation Protocol (SIP) INVITE Requests".
- [15] IETF RFC 6086: "Session Initiation Protocol (SIP) INFO Method and Package Framework".
- [16] IETF RFC 6141: "Re-INVITE and Target-Refresh Request Handling in the Session Initiation Protocol (SIP)".
- [17] IETF RFC 2045: "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies".

2.2 Informative references

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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 EN 300 392-3: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 3: Interworking at the Inter-System Interface (ISI)".

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