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Terrestrial Trunked Radio (TETRA);
Voice plus Data (V+D) and Direct Mode Operation (DMO);
Part 18: Air interface optimized applications;
Sub-part 4: Net Assist Protocol 2 (NAP2)

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Contents

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee TETRA and Critical Communications Evolution (TCCE).

The present document is part 18, sub-part 4 of a multi-part deliverable covering the Voice plus Data (V+D), as identified below:

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

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

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

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

ETSI TS 100 392-5: "Peripheral Equipment Interface (PEI)";

ETSI TS 100 392-7: "Security";

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

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

ETSI TS 100 392-11: "Supplementary services stage 2";

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

ETSI ETS 300 392-13: "SDL model of the Air Interface (AI)";

ETSI ETS 300 392-14: "Protocol Implementation Conformance Statement (PICS) proforma specification";

ETSI TS 100 392-15: "TETRA frequency bands, duplex spacings and channel numbering";

ETSI TS 100 392-16: "Network Performance Metrics";

ETSI TR 100 392-17: "TETRA V+D and DMO specifications";

ETSI TS 100 392-18: "Air interface optimized applications":

Sub-part 1: "Location Information Protocol (LIP)";

Sub-part 2: "Net Assist Protocol (NAP)";

Sub-part 3: "Direct mode Over The Air Management protocol (DOTAM)";

Sub-part 4: "Net Assist Protocol 2 (NAP2)";

Sub-part 5: "SDS Based Supplementary Service Management (SBSSM)".

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.

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).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

1 Scope

The present document defines Net Assist Protocol 2 that is optimized for TETRA air interface. It defines services:

- allowing information to be passed to a location determining entity also called MS (Mobile Station);
- allowing a location determining entity to request assistance information to an assistance server.

The information passed to the location determining entity by the assistance server, when relevant, reflects the content and format of the equivalent information (navigation data) which passes from satellites to the location determining entity.

The protocol is capable of supporting more than one position determining technology. Presently it covers multiple GNSS, and is extensible to all network positioning methods.

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 reference document (including any amendments) applies.

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

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

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

[1] IS-GPS-200H (September 2013): "Navstar GPS Space Segment/Navigation User Interfaces".

NOTE: Available at: http://www.gps.gov/technical/icwg/#is-gps-200.

[2] ETSI EN 300 392-1: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 1: General network design".

[3] ETSI EN 300 392-2: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 2: Air Interface (AI)".

[4] ETSI TS 100 392-18-1: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D) and Direct Mode Operation (DMO); Part 18: Air interface optimized applications; Sub-part 1: Location Information Protocol (LIP)".

[5] IS-GPS-705B (September 21, 2011): "Navstar GPS Space Segment/User Segment L5 Interfaces".

[6] IS-GPS-800 (September 4, 2008): "Navstar GPS Space Segment/User Segment L1C Interfaces".

[7] IS-QZSS (Ver.1.1, July 31, 2009): "Quasi Zenith Satellite System Navigation Service, Interface Specifications for QZSS".

[8] European GNSS: "Galileo OS SIS ICD (Open Service Signal-in-Space Interface Control Document)", Issue 1.1 September 2010, Galileo Joint Undertaking.

NOTE Available at: http://ec.europa.eu/enterprise/policies/satnav/galileo/open-service/index_en.htm.

[9] Russian Institute of Space Device Engineering: "Global Navigation Satellite System GLONASS, Interface Control Document", Version 5.1, 2008.