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Core Network and Interoperability Testing (INT);
IMS NNI Interoperability Test Specifications
(3GPP Release 10);
Part 2: Test descriptions for IMS NNI Interoperability

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Contents

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee IMS Network Testing (INT).

The present document is part 2 of a multi-part deliverable covering the IMS NNI Interoperability Test Specifications, as identified below:

Part 1: "Test purposes for IMS NNI Interoperability";

Part 2: "Test descriptions for IMS NNI Interoperability";

Part 3: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT)".

Introduction

The IP Multimedia core network Subsystem (IMS) is a key component in the ETSI NGN architecture. Each IMS consists of multiple functional entities and interfaces. The goal of this work is to provide the interoperability tests for standardized network to network interfaces (NNI) of the IMS core network that are based on SIP messages.

Test purposes defined in the present document have been developed based on the requirements stated in the 3GPP IMS Release 10 specification.

1 Scope

The present document specifies interoperability Test Descriptions (TDs) for Inter-IMS Network to Network Interface (II-NNI) interoperability testing for the IP Multimedia Call Control Protocol based on Stage 3 Session Initiation Protocol (SIP) and Session Description Protocol (SDP) standard, TS 124 229 [1]. Interconnection aspects between two different IM CN subsystems for end to end service interoperability are based on standard TS 129 165 [15]. *TDs have been specified on the basis of the Test Purposes (TPs) and Test Suite Structure (TSS) presented in* TS 186 011-1 [2]. TP fragments presented in the present document as part of TDs are defined using the TPLan notation of ES 202 553 [5]. TDs have been written based on the test specification framework described in TS 102 351 [3] and the interoperability testing methodology defined in TS 102 237-1 [4], i.e. interoperability testing with a conformance relation.

For the assessment of IMS core network requirements related to the ISC interface parts of the supplementary services HOLD (see TS 124 410 [9]), CDIV (see TS 124 404 [10]), ACR-CB (see TS 124 411 [11]), and OIP/OIR (see TS 124 407 [12]) have been used.

The scope of these test descriptions is not to cover all requirements specified in TS 124 229 [1]. TDs have been only specified for requirements that are observable at the interface between two IMS core network implementations, i.e. IMS NNI.

NOTE: Requirements pertaining to a UE or an AS implementation or IMS core network requirements that can only be observed at the interface between UE and IMS CN are explicitly not within the scope of the present document.

2 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.

2.1 Normative references

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

[1] ETSI TS 124 229 (V10.10.0): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3 (3GPP TS 24.229 version 10.10.0 Release 10)".

[2] ETSI TS 186 011-1 (V5.1.1): "Core Network and Interoperability Testing (INT); IMS NNI Interoperability Test Specifications (3GPP Release 10); Part 1: Test purposes for IMS NNI Interoperability".

[3] ETSI TS 102 351: "Methods for Testing and Specification (MTS); Internet Protocol Testing (IPT); IPv6 Testing: Methodology and Framework".

[4] ETSI TS 102 237-1: "Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON) Release 4; Interoperability test methods and approaches; Part 1: Generic approach to interoperability testing".

[5] ETSI ES 202 553: "Methods for Testing and Specification (MTS); TPLan: A notation for expressing Test Purposes".