



TTsuite-IMS_Core

Conformance testing of SIP-based Signaling Components in IMS core networks.

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TTsuite-IMS_Core

- IMS Core

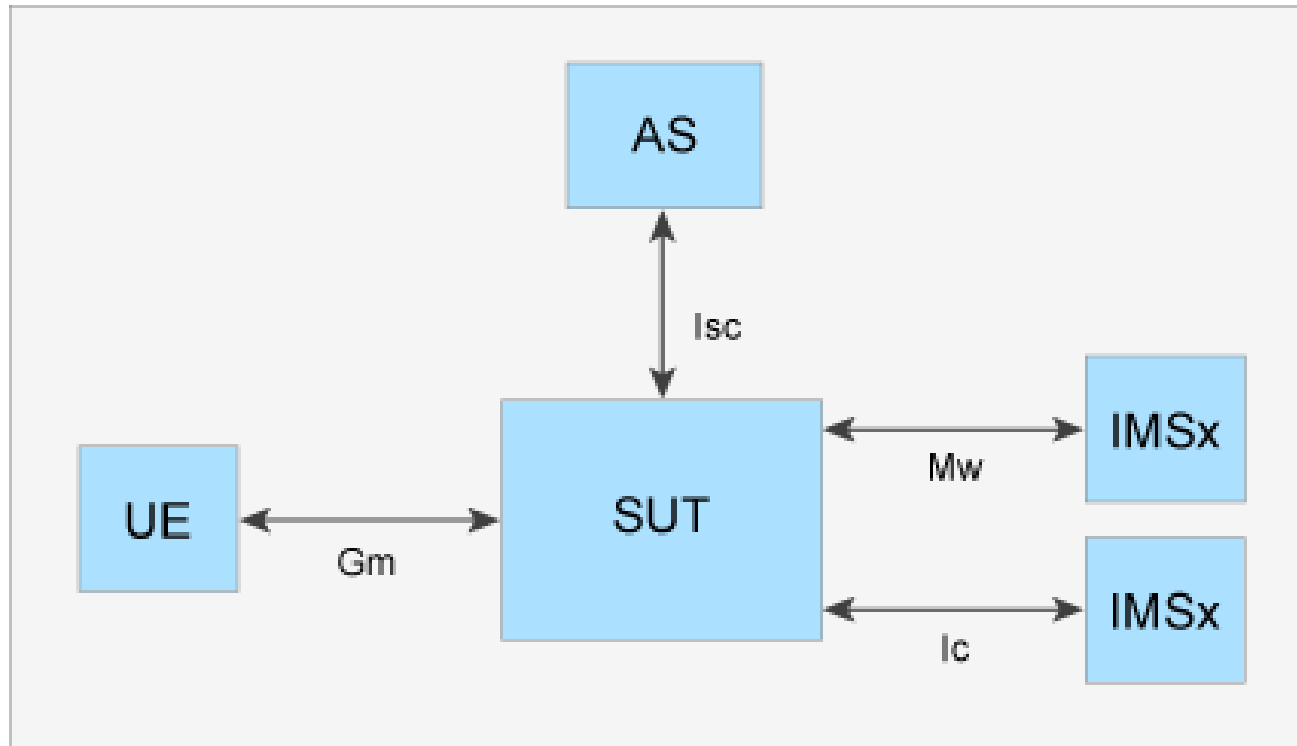
- ▶ ETSI TS 102 790

- Part 1: Protocol Implementation Conformance Statement (PICS)
 - Part 2: Test Suite Structure (TSS) and Test Purposes (TP)
 - Part 3: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification

- ▶ 211 Test Cases for

- Gm interface (47 test cases)
 - Mw interface (109 test cases)
 - ISC interface (27 test cases)
 - Ic interface (28 test cases)

Network Architecture



- Gm interface, located between an UE and the IMS core network
- Mw interface, located between two different IMS core networks
- Ic interface, located between two different IMS core networks (topology hiding)
- ISC interface, located between an Application Server and the IMS core network



Components

- I-CSCF (Interrogating Call Session Control Function)
 - ▶ Queries the HSS to retrieve user location and then routes the SIP request to the assigned S-CSCF
- S-CSCF (Serving Call Session Control Function)
 - ▶ Central node of the signaling plane (handling registration, making routing decisions, etc.)
- P-CSCF (Proxy Call Session Control Function)
 - ▶ First contact point for the UE (SIP signalling)
- AS (SIP Application Server)
 - ▶ Host and execute services e.g.
 - ✦ Presence, Push2Talk, IPTV, Supplementary Services, etc.

Components (cont)

- IBCF (Interconnection Border Control Function)
 - ▶ Gateway to external networks, acts as *Topology Hiding Inter-network Gateway* (THIG) to hide the internal network from the outside world



Testsuite Structure

- Library concept
 - ▶ TLib-Common
 - ▶ TLib-SIP
 - ▶ TLib-IMS
- Test cases are grouped according to the interfaces
 - ▶ sub-grouped: general, registration, ...



Test Configuration

- 4 clf' s, one for each interface
- taconfig.xml
- UDP is preconfigured, TCP optional

Limitations

- ETSI test suite not fully completed:
 - ▶ Removed 11 not implemented test cases
 - ▶ Contains some Todo' s



Customers

- Network suppliers
- Network operators (e.g. telecoms)
- Testing boards (e.g. IMS Forum)