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and Session Description Protocol (SDP);
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Contents

Foreword

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Introduction

The present document is 3rd part of a multi-part conformance test specification for UE and is *valid for 3GPP Release 5 and above*. The specification contains a TTCN design frame work and the detailed test specifications in TTCN for the UE conformance at the Gm reference point.

3GPP TS 34.229-1 [5] contains a conformance test description in prose.

3GPP TS 34.229-2 [6] contains a pro-forma for the UE Implementation Conformance Statement (ICS).

3GPP TS 34.229-3 the present document.

1 Scope

The present document specifies the protocol conformance testing in TTCN for the 3GPP User Equipment (UE) at the Gm interface.

The present document is the 3rd part of a multi-part test specification, 3GPP TS 34.229. The following TTCN test specification and design considerations can be found in the present document:

- the overall test suite structure;
- the testing architecture;
- the test methods and PCO definitions;
- the test configurations;
- the design principles, assumptions, and used interfaces to the TTCN tester (System Simulator);
- TTCN styles and conventions;
- the partial PIXIT proforma;
- the TTCN files for the mentioned protocols tests.

The Abstract Test Suites designed in the document are based on the test cases specified in prose (3GPP TS 34.229-1 [5]).

The present document is valid for UE implemented according 3GPP Releases starting from Release 5 up to the Release indicated on the cover page of the present document.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document unless the context in which the reference is made suggests a different Release is relevant (information on the applicable release in a particular context can be found in e.g. test case title, description or applicability, message description or content).

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 34.123-1: "User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".

[3] 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".

[4] 3GPP TS 34.123-3: "User Equipment (UE) conformance specification; Part 3: Abstract Test Suites (ATS)".

[5] 3GPP TS 34.229-1: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification ".

[6] 3GPP TS 34.229-2: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) specification".

[7] 3GPP TS 34.108: "Common test environments for User Equipment (UE) conformance testing".

[8] ISO/IEC 9646-1: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[9] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[10] ETSI ETS 300 406 (1995): "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[11] 3GPP TS 24.229: "IP Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

[12] ETSI ES 201 873: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3".

[13] IETF RFC 3320: "Signalling Compression (SigComp)".

[14] IETF RFC 3485: "The Session Initiation Protocol (SIP) and Session Description Protocol (SDP) Static Dictionary for Signalling Compression (SigComp)".

[15] IETF RFC 3486: "Compressing the Session Initiation Protocol (SIP)".

[16] IETF RFC 3261: "SIP: Session Initiation Protocol".

[17] IETF RFC 4566: "SDP: Session Description Protocol".

[18] IETF RFC 1035: "Domain names - implementation and specification".

[19] IETF RFC 1533: "DHCP Options and BOOTP Vendor Extensions".

[20] IETF RFC 2131: "Dynamic Host Configuration Protocol".

[21] IETF RFC 3315: "Dynamic Host Configuration Protocol for Ipv6 (DHCPv6)".

[22] IETF RFC 3319: "Dynamic Host Configuration Protocol (DHCPv6) Options for Session Initiation Protocol (SIP) Servers".

[23] IETF RFC 3361: "Dynamic Host Configuration Protocol (DHCP-for-Ipv4) Option for Session Initiation Protocol (SIP) Servers".

[24] IETF RFC 3680: "A Session Initiation Protocol (SIP) Event Package for Registrations".

[25] 3GPP TS 24.173: "IMS multimedia telephony communication service and supplementary services; Stage 3".

[26] IETF RFC 4825: "The Extensible Markup Language (XML) Configuration Access Protocol (XCAP)".

[27] IETF RFC 2616: "Hypertext Transfer Protocol – HTTP/1.1".

[28] 3GPP TS 36.523-1: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".

[29] 3GPP TS 36.523-2: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".

[30] 3GPP TS 36.523-3: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites".

[31] 3GPP TS 36.508: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing".

[32] 3GPP TS 24.173: "IMS Multimedia telephony communication service and supplementary services; Stage 3".

[33] 3GPP TS 24.109: "Bootstrapping interface (Ub) and network application function interface (Ua); Protocol details".

[34] 3GPP TS 33.220: "Generic Authentication Architecture (GAA); Generic Bootstrapping Architecture".

[35] 3GPP TS 33.222: "Generic Authentication Architecture (GAA); Access to network application functions using Hypertext Transfer Protocol over Transport Layer Security (HTTPS)".

[36] 3GPP TS 24.623: "Extensible Markup Language (XML) Configuration Access Protocol (XCAP) over the Ut interface for Manipulating Supplementary Services ".

[37] RFC 2617: "HTTP Authentication: Basic and Digest Access Authentication".

[38] RFC 3966: "The tel URI for Telephone Numbers".

[39] RFC 2141: “URN Syntax”.

[40] 3GPP TS 24.604: "Communication Diversion (CDIV) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification".

[41] 3GPP TS 24.607: "Originating Identification Presentation (OIP) and Originating Identification Restriction (OIR) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification".

[42] 3GPP TS 24.608: "Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification".

[43] 3GPP TS 24.611: “Anonymous Communication Rejection (ACR) and Communication Barring (CB) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification".

[44] IETF RFC 4119 "A Presence-based GEOPRIV Location Object Format".

[45] IETF RFC 4575: "A Session Initiation Protocol (SIP) Event Package for Conference State".

[46] IETF RFC 5628: "Registration Event Package Extension for Session Initiation Protocol (SIP) Globally Routable User Agent URIs (GRUUs)".

[47] IETF RFC 3863 "Presence Information Data Format (PIDF)".

[48] IETF RFC 4745: "Common Policy: A Document Format for Expressing Privacy Preferences".

[49] 3GPP TS 27.007: "AT command set for 3G User Equipment (UE)".

[50] 3GPP TS 34.229-4: “User Equipment (UE) conformance specification; Part 4: Enabler for IP multimedia applications testing”.

[51] 3GPP TS 24.237: "IP Multimedia (IM) Core Network (CN) subsystem IP Multimedia Subsystem (IMS) Service Continuity".

[52] 3GPP TS 31.121: “UICC-terminal interface; Universal Subscriber Identity Module (USIM) application test specification”.

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and 3GPP TS 34.229-1 [5] apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and 3GPP TS 34.229-1 [5] apply.

4 Requirements on the TTCN development

A number of requirements are identified for the development and production of TTCN specification for 3GPP UE at the Gm reference point.

1. Top-down design, following 3GPP 34.229-1 [5], 3GPP TS 34.123-1 [2], 3GPP TS 34.108 [7].
2. A unique testing architecture and test method for testing all protocol layers of UE.
3. Uniform TTCN style and naming conventions.
4. Improve TTCN readability.
5. Using TTCN-3 (ES 201 873-1 [12]).
6. TTCN specification feasible, implementable and compilable.
7. Test cases shall be designed in a way for easily adaptable, upwards compatible with the evolution of the 3GPP core specifications and the future Releases.
8. The test declarations, data structures and data values shall be largely reusable.
9. Modularity and modular working method.
10. Minimizing the requirements of intelligence on the emulators of the lower testers.
11. Giving enough design freedom to the test equipment manufacturers.
12. Maximizing reuse of RFC BNF definitions from the relevant IETF core specifications.

In order to fulfil these requirements and to ensure the investment of the test equipment manufacturers having a stable testing architecture for a relatively long period, a unique testing architecture and test method are applied to the 3GPP UE protocol tests.

5 Test method and test model

5.1 Test method

5.2 IMS CC test model

The test model over E - UTRA is shown in Figure 5.2-1a, the test model over UTRAN is shown in figure 5.2-1b, the test model over WLAN is shown in figure 5.2-1c, and the test model over fixed access is shown in figure 5.2-1d (NOTE: the IPsec is not used by this model).

The IMS CC test cases are executed on top of the multi-testers test model according to TS 36.523-3[30] for E- UTRA and TS 34.123-3[4] clause 6A for UTRAN.

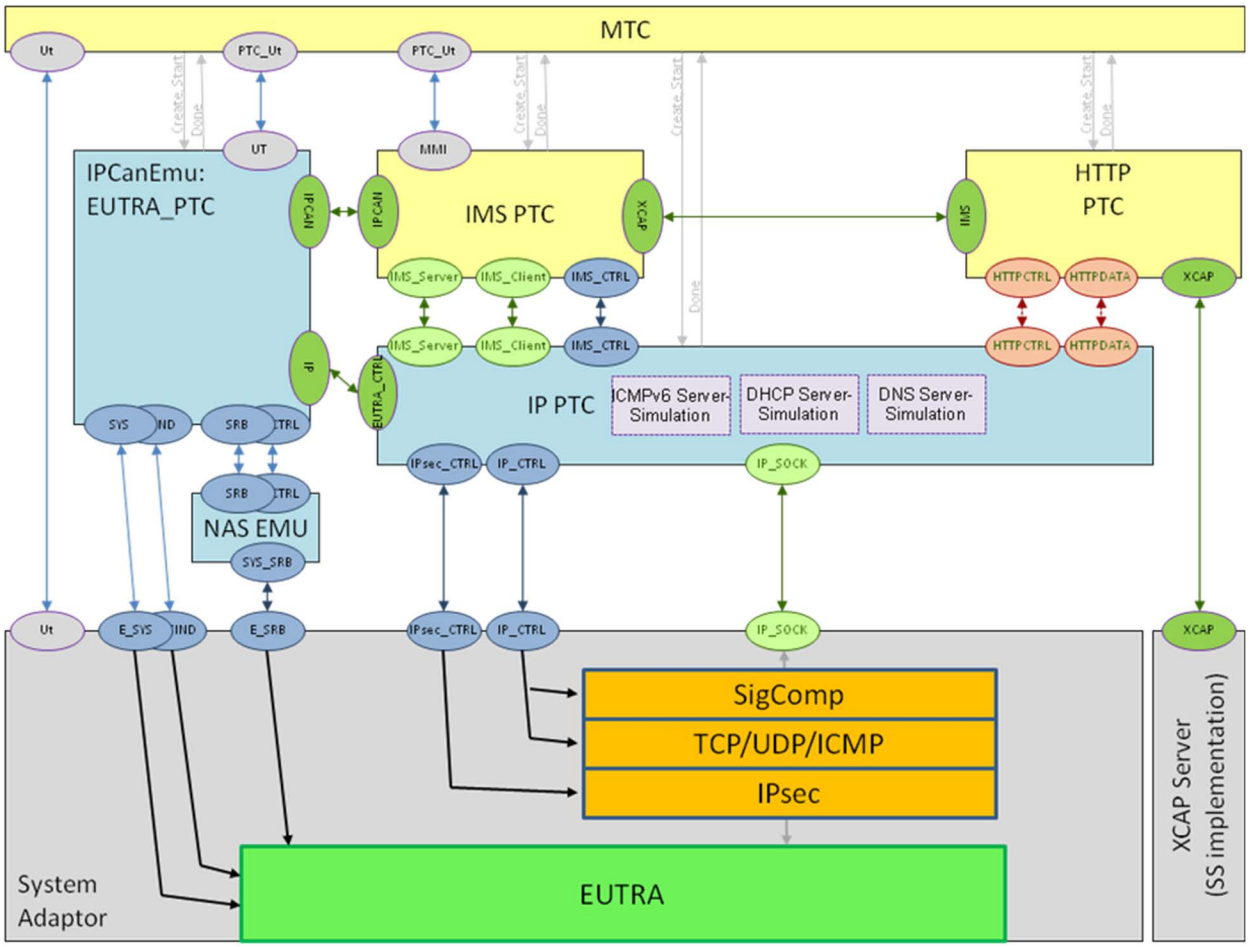

Figure 5.2-1a: Multi-TestersTest Model to support E-UTRA SS interface

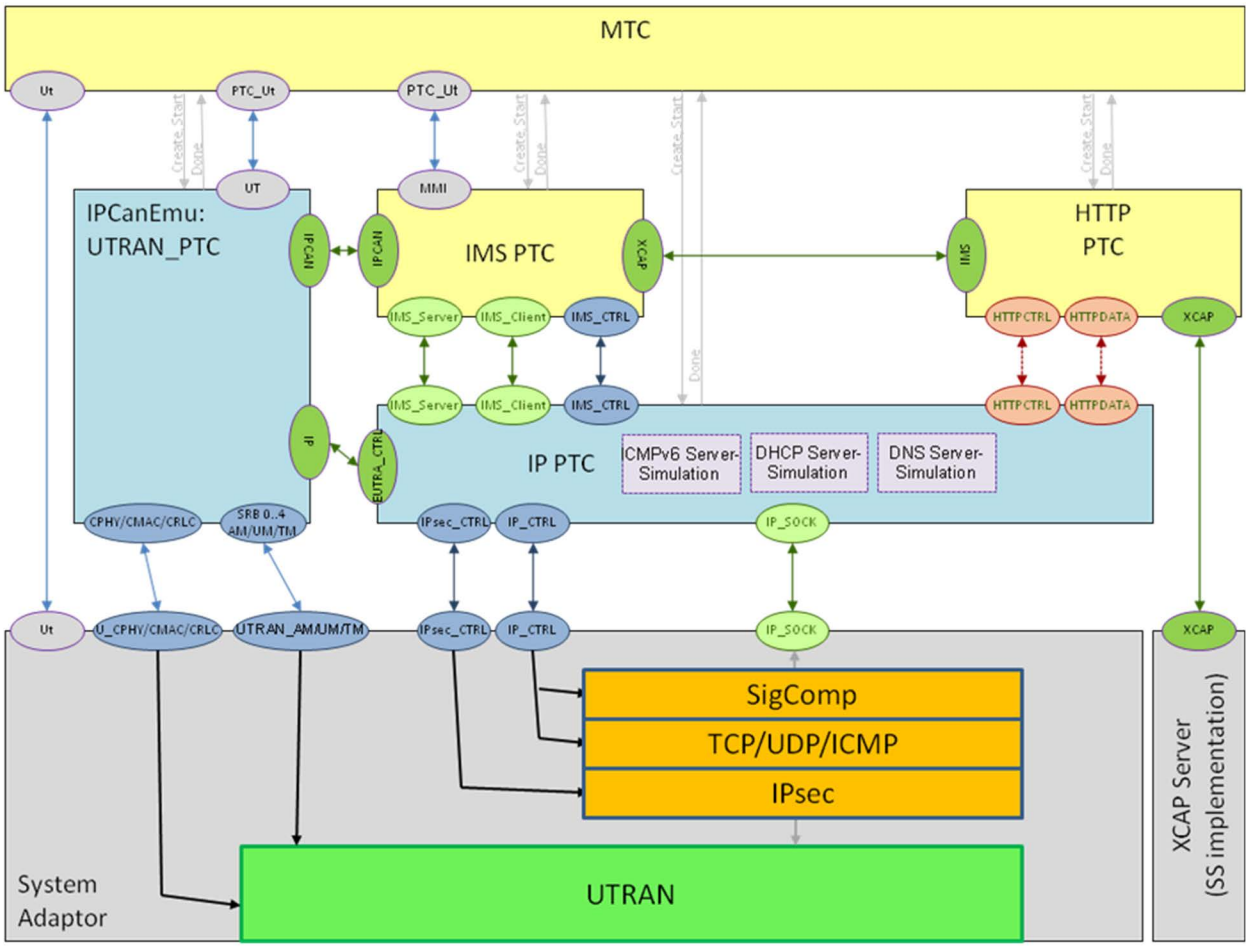

Figure 5.2-1b: Multi-Testers Test Model to support UTRAN SS interface

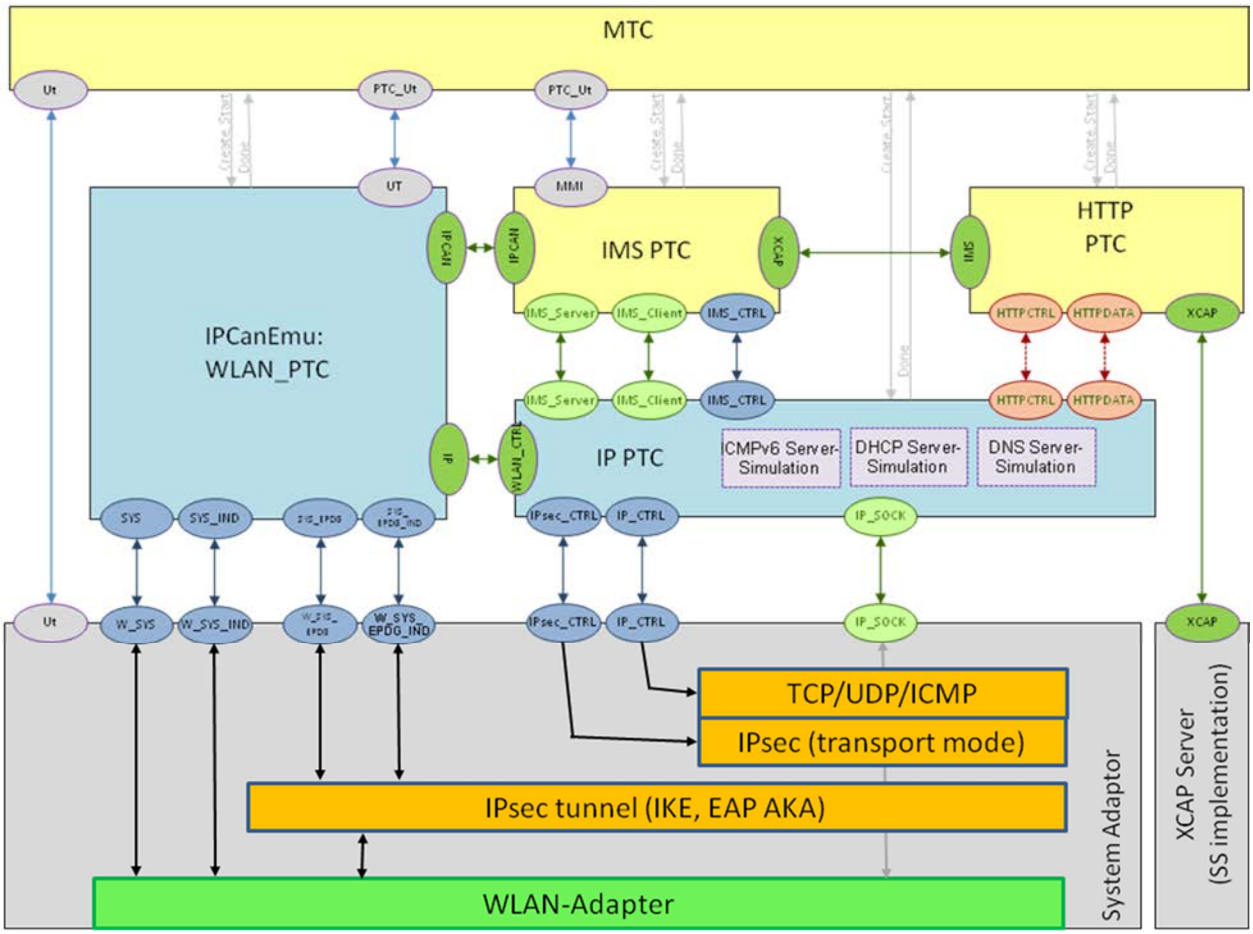

Figure 5.2-1c: Multi-Testers Test Model to support WLAN SS interface

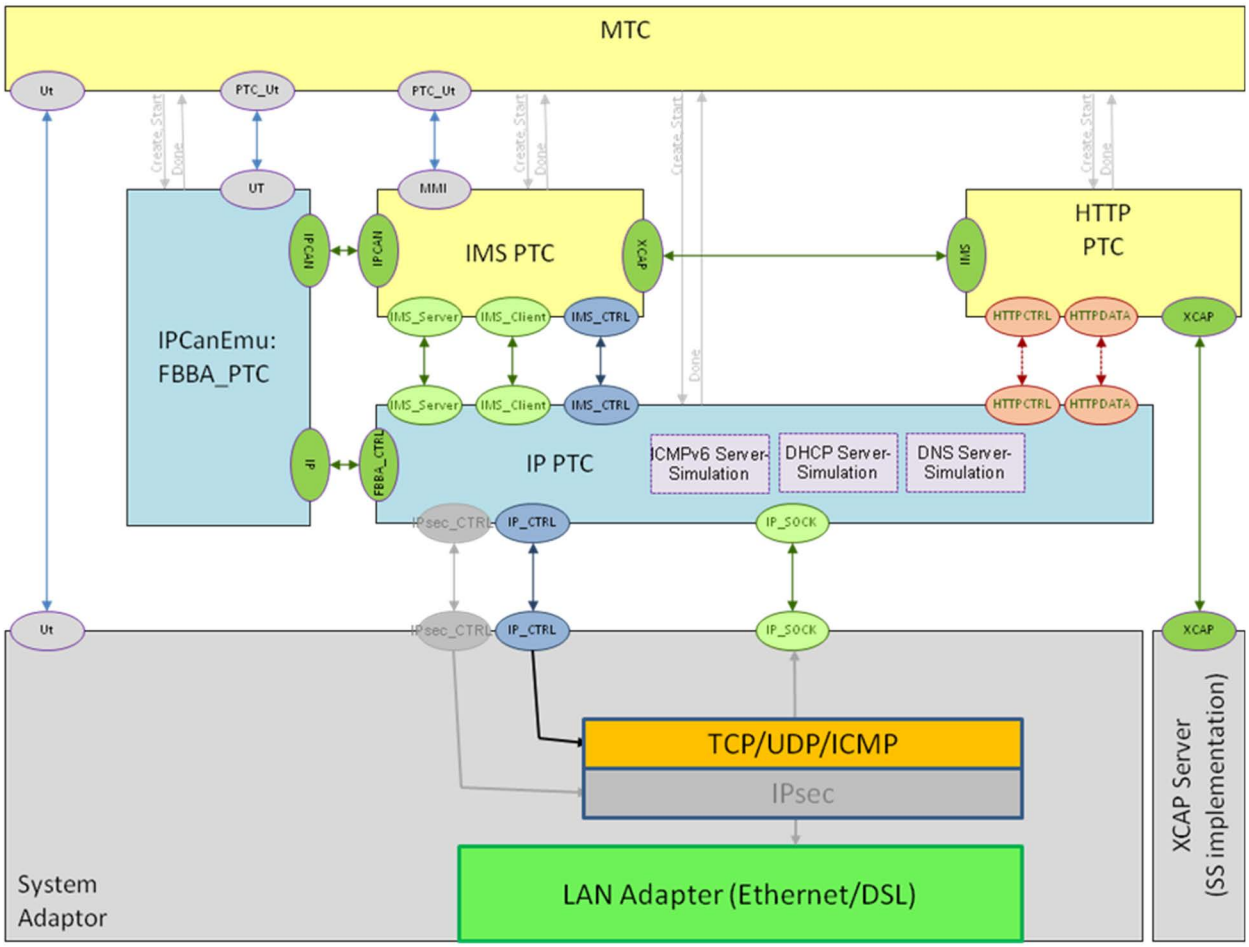

Figure 5.2-1d: Multi-Testers Test Model to support fixed access SS interface

The IMS CC test cases run on the IMS-PTC which controls the IPCanEmu and the IP-PTC. IPCanEmu is responsible for cell setup and DRB/RAB establishment and the IP-PTC controls the IP related configurations. IPCanEmu and IP-PTC interface to the SS according to TS 36.523-3[30] or TS 34.123-3 [4].

Clauses 4.2.4, 4.2.5 and 4.4.1.1 of TS 36.523-3 [30] describe the common handling of IP data in the multi-testers model regarding IMS signalling. In addition to support HTTP over TLS a TCP server may be established with additional parameters for TLS which may be required for XCAP (depending on the authentication mechanism to be applied for XCAP test case).

The test model extensions for support of XCAP are shown in Figure 5.2-2. Clause 5.5 provides further information regarding support of XCAP.

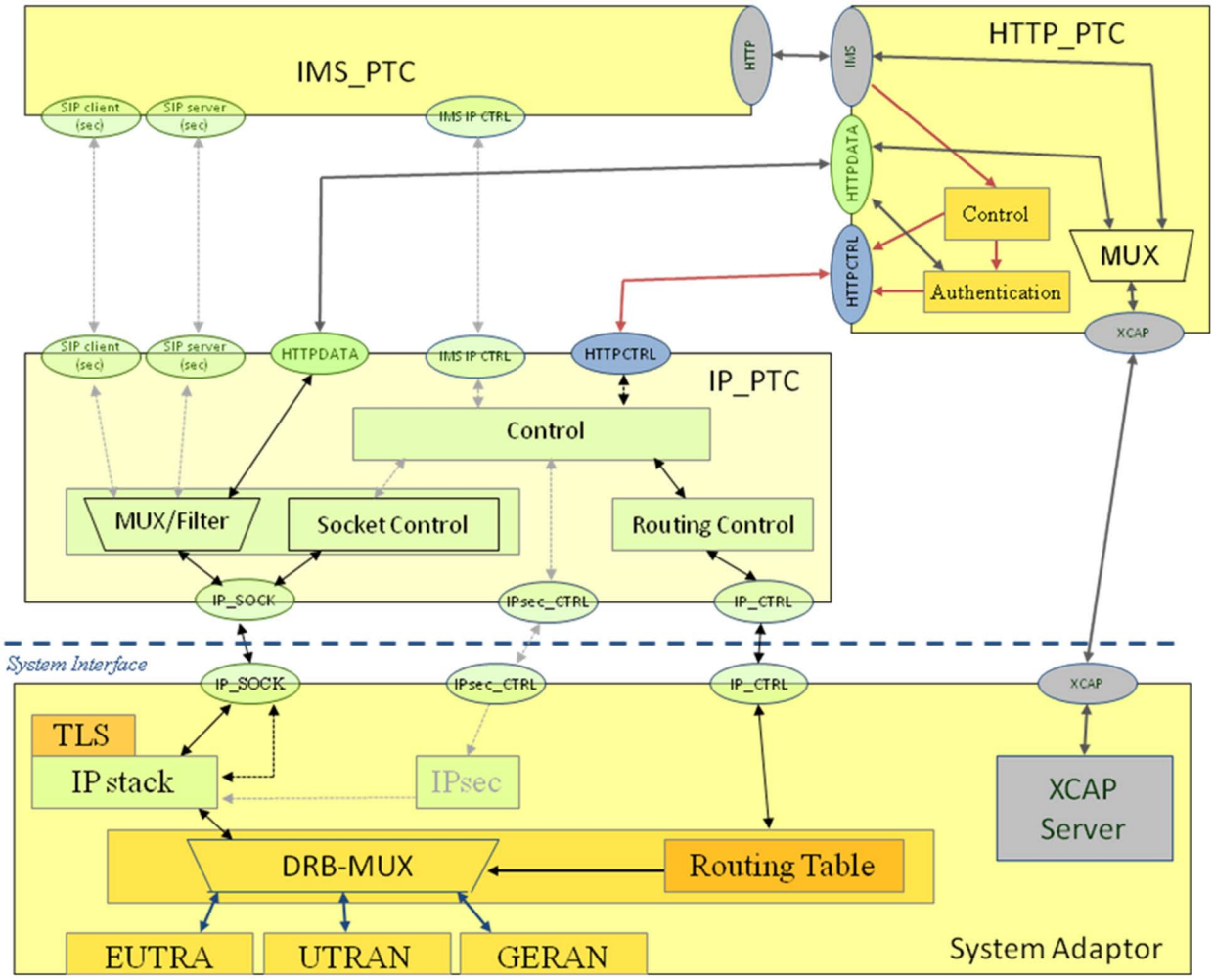

Figure 5.2-2: Extended IP model to handle HTTP/XCAP data

NOTE: Figure 5.2-2 is just an example; further details are SS implementation dependent.

5.2.1 Transport protocol

For SIP requests originated by the UE, the transport protocol in UL is selected by the UE. This information is extracted in the TTCN-3 and used in subsequent responses sent by the SS.

For SIP requests originated by the SS in DL UDP is used as transport protocol at the test. For the purpose of test coverage, TCP is used in the specific test cases as specified.

NOTE: According to RFC 3261 [16] clause 18.1.1 the server side (UE) has to be able to cope with a maximum datagram size of 65,535 bytes (independent of any guideline to restrict the maximum size of UDP packets at the client side).

5.2.2 IMS CC test cases over IP-CAN test model

The "Enabler for IP multimedia applications testing" is described in TS 34.229-4 [50]. In general IMS CC test cases can be run on this test model too as test case implementation - in general - is independent of the test model. The TTCN code for IMS and HTTP PTC is the same for TS 34.229-3 and TS 34.229-4 implementations whereas the MTC implementation is model specific. The implementation of the MTC, the IP-CAN/IP adaptor and the MMI system interface is part of TS 34.229-4 and out of scope for this document. Common interfaces are documented in annex H of this document.

5.3 Upper Tester (UT)

The upper tester interface is the same as defined in TS 36.523-3 [30] clause 5 for E - UTRA or TS 34.123-3[4] clause 6A.4 for UTRAN, with additional, IMS-specific AT commands as specified in clause 8.4 and IMS-specific MMI commands as specified in annex B.2.

5.4 TTCN-3

TTCN is used as specification language. ES 201 873 [12] (TTCN-3) is applied to the notation.

5.5 Support of XCAP

MTSI supplementary services (TS 24.173[25]) like communication barring (CB) and communication diversion (CDIV) require the XCAP protocol (RFC 4825[26]) for transporting and manipulating XML documents in the network describing these services. Test cases for these services are specified in TS 34.229-1 [5] clause 15. As shown in figure 5.2-2 the SS shall provide an XCAP server to support XCAP test cases; the TTCN interface to this server is specified in clause 6.5.

5.5.1 XCAP Server

Supplementary services are managed by the XCAP server in the simservs documents according to TS 24.623 [36]. Test cases manipulating data related to supplementary services are specified in TS 34.229-1 [5] clause 15. For simplification of the TTCN implementation, the XCAP server functionality shall be provided by the SS i.e. it is not implemented in the TTCN. Access to the XCAP server can be distinguished into:

- HTTP based transaction between the UE and the XCAP server
- Initialisation and validation of the simservs document according to the test cases

In addition the UE may exchange HTTP messages for authentication (depending on the UE's security capabilities); see figure 5.5.1-1.

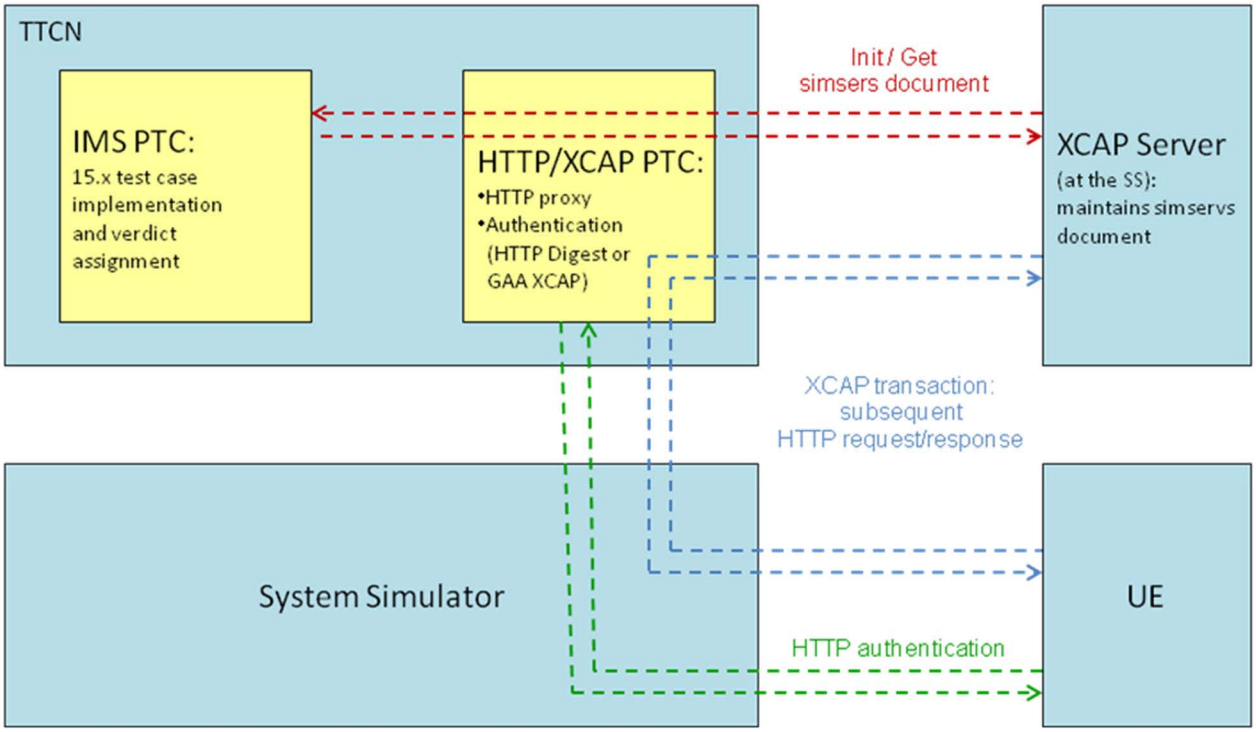

Figure 5.5.1-1: IMS CC test model

NOTE: In accordance to RFC 4825 clause 6.3 [26], the UE may use complex XPATH expressions to modify the simservs document but this shall be handled by the XCAP server; in the TTCN these expressions are not explicitly checked. Furthermore test case implementation itself does not use complex XPATH expressions to access the simservs document, but always considers the whole document.

5.5.2 HTTP Signalling

RFC 4825 [26] specifies the protocol for accessing user data in the XCAP server via HTTP requests. An HTTP request for an XCAP operation contains basically three components:

- Request line method, i.e. PUT, GET or DELETE
- Request line uri - The XCAP expression to be evaluated to access the XCAP document. The XCAP expression consists of the document selector followed by the separator "~~" followed by the node selector pointing to the user data to accessed or evaluated
- body - Describing the value (an xml fragment) referenced by the XCAP expression

Example 1

In order to set terminating-identity-presentation for user sip:ob.stf160@etsi.org, the UE sends following HTTP request:

```
PUT http://XCAP- Server/simservs.ngn.etsi.org/users/sip%3Aob.stf160%40etsi.org/simservs.xml/~~
/simservs/terminating-identity-presentation/%40active
Body: true

If successful, the XCAP server responds with

HTTP/1.1 200 OK
```

Example 2

To get the value of terminating-identity-presentation for user sip:ob.stf160@etsi.org, the UE sends following HTTP request:

```
GET
/simservs/terminating-identity-presentation/%40active

If successful, the XCAP server responds with

HTTP/1.1 200 OK
Body: true
```

In this example

```
//XCAP-server/simservs.ngn.etsi.org/users/ sip%3Aob.stf160%40etsi.org/simservs.xml/–
Document selector for user .
~~ – Document selector separator, see RFC 4825
/simservs/terminating-identity-presentation/%40active – Node selector pointing to the information in
the XCAP server to be accessed. This is an XPATH expression, see RFC 4825 section 6.3.
true – Is the xml fragment (in this case very simple) to be set as value of the XPATH expression

Following operations shall be implemented in the XCAP server, see RFC 4825.
GET – Returns the requested data as an XML fragment to be send to the UE
input parameters: charstring documentSelector, charstring xpathExpr
returns: XML fragment or XML document

PUT – Builds an XML subtree or sets an attribute given by the xmlFragment at the position pointed by
the xpath expression
input parameters: charstring documentSelector, charstring xpathExpr, charstring xmlFragment or
xmlDocument

DELETE – Deletes  an XML subtree or sets an attribute given by the xmlFragment at the position
pointed by the xpath expression
input parameters: charstring documentSelector, charstring xpathExpr
```

5.6 Void

6 ASP definitions

This clause defines abstract system primitives (ASPs) for system interfaces which are used additionally to the system interfaces defined in TS 36.523-3[30] and TS 34.123-3[4]. Further interfaces are documented in annex H to support the IP-CAN test model according to TS 34.229-4 [50] but these interfaces are not system interfaces in the scope of this document.

6.1 Void

6.2 Void

6.3 Void

6.4 Void

6.5 XCAP server ASP definitions

XCAP Layer ASPs are applicable to clause 5.2. and 5.6.

Name	XCAP_REQ	
Port	XCAP_PORT	
Comment	ASP type for sending a request to the external XCAP server according to RFC 4825 [26]	
Parameter Name	**Parameter Type**	**Comment**
method	charstring	GET, PUT, DELETE or RESET
xcapExpression	charstring	XCAP expression sent by the UE in its http request line
contentType	charstring	media type as contained in the HTTP content type header (optional)
xmlBody	charstring	XML fragment sent by the UE in its http body or simservs document initialised by the test cases (optional)

Name	XCAP_RSP	
Port	XCAP_PORT	
Comment	ASP type for sending the response to the XCAP_REQ from the XCAP server to TTCN	
Parameter Name	**Parameter Type**	**Comment**
errorInfo	charstring	string indicating a system error (optional)
contentType	charstring	media type as contained in the HTTP content type header (optional)
xmlBody	charstring	Result returned by the XCAP server (optional)

7 Codec definitions for IP User Data

7.1 Introduction

SIP is a text-based protocol, thus the message exchange between the UE and the SS are pure character strings. In the TTCN-3 ATS the messages are structured and optimized to take the advantage of TTCN-3 functionality, and to make the debugging and maintenance of the ATS easier.

7.2 General Aspects

IP user data for IMS conformance testing can be distinguished into:

1. text based: SIP (including SDP and XML messages), HTTP (see clause 7.4)
2. octetstring based: DHCP, DHCPv6, DNS (see clause 7.4)

In TTCN the following encoding information is used for user data:

Table 7.2-1

Type definitions	Encoding
SMS Types	Tabular notated (see note 1)
DHCPv4-Codec	Tabular notated (see note 1)
DHCPv6-Codec	Tabular notated (see note 1)
DNS-Codec	Tabular notated (see note 1)
SIPCodec	(see clause 7.3)
SDPCodec	(see clause 7.3)
HttpCodec	(see clause 7.3)

NOTE 1: Tabular notated is performed by concatenation of all the present fields in the TTCN-3 template.

NOTE 2: Encoding information is only needed for type definitions of peer-to-peer signalling; encoding of ASPs used for system configuration or as co-ordination messages between PTCs is out of scope for this document.

7.3 Requirements on abstract message syntax for IMS (SIP, SDP)

7.3.1 Type definition - Syntax / Semantic aspects

All given defined BNF grammars (e.g. the ABNF of RFC 3261) are unique. Thus the syntax tree for each syntactically correct message derived with these grammars are unique too and the parts of a message can be uniquely identified (represented) by the terminal phrase belonging to a non terminal symbol and its derivation path in the syntax tree.

The syntax tree of all given messages can be used to uniquely identify and describe the parts of the messages. The leaves are the part of every message and the nodes from the root to the leaves represent the sequence of rules to be applied to derive that part

The IMS/SIP root message type is an ordered structured type, which is represented as a record type in TTCN-3. For each grammar rule of the ABNF a TTCN-3 record type is declared with the specific name of the rule. The following rules are applied to the fields within a record:

- A non-terminal symbol is declared as a record type for this symbol.
- The order of the symbols in the rule are represented by an equal order of the fields.
- Repetitions are declared as 'set of' or 'record of' types.
- Options are represented as optional record/set fields.
- Alternatives are declared as union types.

7.3.2 Deviations of the type definition semantic

- Most of the 'literals' of a message (for example: the string `"Via"` or `"v"` in the message header fields) are not represented.
- The TTCN-3 charstring type is used where we stop structuring even if the ABNF uses structured types. More details found in clause 8.3.3.

- Wherever possible parts are mapped to their best type representation, e.g. DIGIT based rules are mapped to integer type not to a charstring type.

- All of the following delimiters (including preceding or following whitespace) defined by the ABNF grammar to separate the parts of a message are not represented (see note).

```
STAR    =  SWS "*" SWS ; asterisk
SLASH   =  SWS "/" SWS ; slash
EQUAL   =  SWS "=" SWS ; equal
LPAREN  =  SWS "(" SWS ; left parenthesis
RPAREN  =  SWS ")" SWS ; right parenthesis
RAQUOT  =  ">" SWS ; right angle quote
LAQUOT  =  SWS "<"; left angle quote
COMMA   =  SWS "," SWS ; comma
SEMI    =  SWS ";" SWS ; semicolon
COLON   =  SWS ":" SWS ; colon
LDQUOT  =  SWS DQUOTE; open double quotation mark
RDQUOT  =  DQUOTE SWS ; close double quotation mark
HCOLON  =  *( SP / HTAB ) ":" SWS
SP      = single space
HTAB    = tab
SWS     = sep whitespace
```

NOTE: If they are present within a pure charstring they will be handled like a normal character and are still included.

- Messages which are not of interest to the test suite are left undecoded as a charstring and will not be further structured.

Further clarifications on the handling of delimiters are provided hereafter:

In many cases the TTCN-3 type definitions are of lower granularity than the BNF and the codec shall consider the TTCN type definitions only. Therefore as stated in the NOTE above the rules for handling of delimiters do not require delimiters to be blindly removed from strings but the codec shall only deal with the delimiters needed to encode/decode the TTCN-3 types; sub-structures of the BNF being mapped to TTCN-3 charstrings need to be handled in TTCN and are out of scope of the codec implementation.

Example 1:

According to the BNF Alert-Info is defined as

```
Alert-Info   =  "Alert-Info" HCOLON alert-param *(COMMA alert-param)
alert-param  =  LAQUOT absoluteURI RAQUOT *( SEMI generic-param )
```

The corresponding TTCN-3 type definition is

```
type record AlertInfo { FieldName fieldName (ALERT_INFO_E),
                        AlertInfoBody_List  alertInfoBody optional }
type set of AlertInfoBody AlertInfoBody_List;
type record AlertInfoBody { charstring url,
                            SemicolonParam_List genericParams optional }
```

⇒ LAQUOT and RAQUOT are delimiters of the URI field which shall be removed by the codec in UL.

Example 2:

Some fields according to the BNF for SIP are defined as "`(token LWS)/ quoted-string`", i.e. the field can be either a (case-insensitive) token or a quoted string. In general in TTCN this can be mapped
a) to a charstring or
b) to a union of two charstring (one for the token, one for the quoted string).
In case of a) the codec shall preserve the double-quotes for the quoted-string as otherwise it cannot be distinguished from a token anymore which is vital when case-sensitivity matters whereas in case of b) the double quotes shall be removed.

7.3.3 Additional requirements for codec implementations (SIP/IMS Message

The SIP/IMS codec is based on a normalized encoding which is always produced by an encoder. Decoder implementations, however, have to handle normalization before, or when constructing the structured message value, e.g. long versus compact form, whitespace compression, delimiter removal, same header grouping, etc. All these aspects will be handled in the next clause.

7.3.3.1 Differences between BNF - TTCN-3 Type Mapping

In normal cases the mapping is straight forward. Below you find the exceptions, including potential examples.

- The root message type is not a SIP-message but directly a Request or Response type which is represented as a TTCN-3 record. All Method - Message names (INVITE, BYE, ACK etc.) and all message header field names (To, From, CallID, Cseq, Via etc.) are mapped to an enumerated type in TTCN-3 to simplify the extension of new headers. During encoding, the long-form of these message header fields is always used. The respective field in the header type is restricted to values which are allowed.

BNF rules of RFC	**TTCN-3 Type Mapping**
SIP-message = Request / Response	type record REGISTER_Request {…}, type record INVITE_Request {…}, type record PRACK_Request {…}, type record NOTIFY_Request {…}, type record UPDATE_Request {…}, … type record Response {…}

Method = INVITEm / ACKm / OPTIONSm / BYEm / CANCELm / REGISTERm / …	type enumerated Method { ACK_E, BYE_E, CANCEL_E, INVITE_E, OPTIONS_E, REGISTER_E, …}

- The structure of the message header fields are mapped to a "set " type in TTCN-3, because the order of these header fields is not mandatory. There is an Unknown Header List given in the type system to decode unknown headers with ID and Value.

Message-header = (
…
/ Contact
/ Content-Disposition
…
/ Via
/ Warning
/ WWW-Authenticate
/ extension-header) CRLF
	type **set** MessageHeader {
	…
	Contact contact optional,
	ContentDisposition contentDisposition optional,
	…
	Via via,
	Warning warning optional,
	WwwAuthenticate wwwAuthenticate optional,
	UndefinedHeader_List undefinedHeader_List optional
	}

- The various parameter lists defined in the BNF are mapped and combined into three different TTCN-3 sets of generic-param types. These types differ only in their name: SemicolonParam_List, AmpersandParam_List, CommaParam_List to distinguish between the relevant separators.

Uri-parameters =	*(";" uri-parameter)	type set of GenericParam **SemicolonParam_List;**

Authentication-Info =	"Authentication-Info" HCOLON ainfo *(COMMA ainfo)	type record AuthenticationInfo {
		FieldName fieldName(AUTHENTICATION_INFO_E),
		CommaParam_List ainfo
		}

ainfo =	nextnonce / message-qop / response-auth / cnonce / nonce-count	type set of GenericParam **CommaParam_List**;
Headers =	"?" header *("&" header)	type set of GenericParam **AmpersandParam_List**;

- Any more specific parameter rule (e.g. uri-param, user-param, lr-param , digest-cln, etc.) is simplified to the generic-param rule which will be mapped as a record structure of two charstrings (ID and paramValue). This is equivalent to a token with an optional generic value (token [EQUAL gen-value]).

Digest-cln =	realm
	/ domain
	/ nonce
	/ opaque
	/ stale
	/ algorithm
	/ qop-options
	/ auth-param
		type record **GenericParam** {
		charstring id ,
		charstring paramValue optional
		}

- In addition to the pure charstring as a base type, the TTCN-3 type system provides base integer types which are unrestricted to the model e.g. the portField, Cseq number, maxForward digit.

User =	1*(unreserved / escaped / user-unreserved) telephone-subscriber as defined in RFC 2806	**charstring**
password =	*(unreserved / escaped /"&" / "=" / "+" / "$" / ",")	**charstring**

Port =	1*DIGIT	**integer**
Status-Code =	Informational / Redirection / Success / Client-Error / Server-Error / Global-Failure / extension-code	**integer**

- Where the same header type can appear multiple times within a message, they will be decoded as a single header field, with multiple list elements. The order of appearance of the headers will be preserved within the header list value.

Contact =	("Contact" / "m") HCOLON
	(STAR / (contact-param
	*(COMMA contact-param)
	)
	)
		type record Contact {
		FieldName fieldName(CONTACT_E),
		ContactBody contactBody
		}

contact-param =	(name-addr / addr-spec)
	*(SEMI contact-params)
		type record ContactAddress {
		Addr_Union addressField,
		SemicolonParam_List contactParams optional
		}
		
		type union ContactBody {
		charstring wildcard,
		ContactAddress_List contactAddresses
		}
		
		Used in
		
		type set of ContactAddress **ContactAddress_List;**

- The BNF (clause 7.3.1 Header Field Format RFC 3261 [16]) specifies that several WWW or Proxy Authentication/Authorization headers should not be combined into a single header; however they will be decoded into such in the codec. If these need to be sent downlink then a new, 'raw' (pure charstring) message type will be introduced.

Authorization =	"Authorization" HCOLON credentials	type record Authorization {
		FieldName fieldName(AUTHORIZATION_E),
		Credentials body
		}

Credentials =	("Digest" LWS digest-response)
	/ other-response
		type union Credentials {
		CommaParam_List digestResponse,
		OtherAuth otherResponse
		}

- The different schemes (sip, sips, tel, fax, absoluteUri) in the SIP URI are all handled via the same type definition. The union “UriComponents” can be enhanced to support further specific URI formats. Nevertheless it is possible to use the “other” branch of “UriComponents” for any other URI format in which case the charstring shall contain the URI without the scheme and the first “:”.

Request-URI = SIP-URI
/ SIPS-URI
/ absoluteURI
 	
with
 	
SIP-URI = "sip:"
[userinfo]
hostport
uri-parameters
[headers]
 	
and
 	
SIPS-URI = "sips:"
[userinfo]
hostport
uri-parameters
[headers]
 	
and
 	
absoluteURI = scheme ":" (hier-part / opaque-part)
	type record SipUriComponents {
	// sip-uri acc. To RFC 3261 [16] cl. 19.1
	UserInfo userInfo optional,
	HostPort hostPort
	}
	
	type record TelUriComponents {
	// tel-uri acc. To RFC 3966 [38]
	charstring subscriber
	}
	
	type record UrnUriComponents {
	// urn-uri acc. To RFC 2141 [39]
	charstring namespaceId, // e.g. "service"
	charstring namespaceSpecificString // e.g. "sos"
	}
	
	type union UriComponents {
	SipUriComponents sip, // scheme: "sip" or sips"
	TelUriComponents tel, // scheme: "tel"
	UrnUriComponents urn, // scheme: "urn"
	charstring other
	}
	
	type record SipUrl
	{
	charstring **scheme**,
	UriComponents components,
	SemicolonParam_List urlParameters optional,
	AmpersandParam_List headers optional
	}type record SipUrl {
	charstring **scheme**,
	UserInfo userInfo optional,
	HostPort hostPort,
	SemicolonParam_List urlParameters optional,
	AmpersandParam_List headers optional
	}

- Universal charstrings shall be supported by the codec especially for the Display name in the URI.

- For downlink messages the len field in the ContentLength header is always set to 0 by TTCN; in case of the SIP message containing a message body SS shall replace the value by the actual length of the encoded message body (see clause 7.3.4).

- According to the SIP type definitions there are many ‘charstring’ fields being optional in records;
  ⇒ in UL the decoder shall map missing information by setting the respective field to omit rather than by assigning an empty string (“”).

- type union Addr_Union
  As in 'NameAddr' the field 'displayName' is optional in the first place the two branches of 'Addr_Union' are equivalent when there is no 'displayName'; nevertheless in UL the decoder shall use the branch ‘nameAddr’ if – and only if – the address information is surrounded by ‘<’ and ‘>’ (what is needed at least when there is a display name followed by the address information)

- Ipv6 address in URI
  When an Ipv6 address is used as hostname in a SIP URI it is typically surrounded by ‘[‘ and ‘]’ what is matter of the codec: in DL the codec shall add ‘[‘ and ‘]’ when needed, in UL the ‘[‘ and ‘]’ shall be removed i.e. in the ‘host’ field of the SipUriComponents’ hostPort there shall be no ‘[‘ or ‘]’ at the beginning or at the end.

7.3.3.2 URL Encoding

Several fields or parameters in SIP headers require URL encoding (e.g. Contact header, Accept-Contact header). In TTCN there is no encoding rule defined for URL encoding and there is no specific type definition for URL encoded strings. For that reason URL encoding/decoding is not a matter of codec implementation but shall be done in TTCN.

7.3.4 Additional requirements for codec implementations (Message Body)

The message body of a SIP message may contain the message of other protocols (SDP, SMS, etc.) and can be represented e.g. by XML. Therefore the type definitions for these protocols can be TTCN-3 as well as XSD definitions.

As in principle the message body of a SIP message may host any XSD definition, SIP and XSD definitions are decoupled:
To avoid import of all potential XSD definitions the XML body of SIP messages is defined as a charstring. This requires a two-stage encoding and decoding: In DL an XML message needs to be encoded in TTCN first before it gets put in the message body of a SIP message, in UL the XML message contained in the message body needs to be explicitly decoded in TTCN. By defining the XML message body as a charstring the SIP definitions are independent from any XSD definitions and a specific XSD definition needs to be known only when it is really used.

An SDP message may be contained in the message body itself or in a MIME message. In both cases the SDP message is represented as charstring in the SIP message and as for XML a two-stage encoding and decoding is applied in TTCN. This allows explicit fail assignments in case of syntactically incorrect SDP messages when syntactical correctness is a test requirement.

NOTE: Test specifications (e.g. TS 34.229-1 [5]) define the criteria for syntactical correctness and codec implementations follow these criteria.

In detail the message body for SIP messages is defined as:

```
type charstring XmlBody;
type charstring SdpBody;

type union MessageBody {
    SdpBody             sdpMessageBody
    XmlBody             xmlBody,
    MIME_Message        mimeMessageBody,
    charstring          sipfrag,
    charstring          textplain,
    SimpleMsgSummary    simpleMsgSummary,
    octetstring         smsMessage
};
```

NOTE: In contrast to SIP and SDP definitions which are commonly defined by ETSI the definition of the message body is project specific i.e. other IMS test projects at ETSI may use different definitions of the message body.

7.3.5 Additional requirements for codec implementations (SDP Body)

The Session Description Protocol is defined in RFC 4566.

- The 'type' fields (such as 'v' and 'o' are not represented).
- For the defined attributes, the att-field is also not represented (e.g. 'curr' is not represented in SDP_attribute_curr).
- The Messages which are not of interest to a test suite are left undecoded as a charstring and will not be further structured.

7.3.5.1 Differences between BNF - SDP Type Mapping

In normal cases the mapping is straight forward. Below are the exceptions which differ.

- The numerical fields in the origin-field, the time-field and the timezone field have been defined as charstring because they may not fit into a 32-bit signed integer.

BNF Rules of RFC 4566	TTCN 3 Type Mapping

origin = username
sess-id
sess-version
nettype
addrtype
unicast-address
	type record SDP_Origin {
	charstring username,
	charstring session_id,
	charstring session_version,
	charstring net_type,
	charstring addr_type,
	charstring addr
	}

time-fields = start-time
stop-time
repeat-fields
[zone-adjustments]
	type record SDP_time_field {
	charstring start_time,
	charstring stop_time
	}

zone-adjustments = time
typed-time
	type record SDP_timezone {
	charstring adjustment_time,
	SDP_typed_time offset
	}

- The zone-adjustments field in the time-fields has been included as an additional field in the top-level message definition.

BNF Rules of RFC 4566	TTCN 3 Type Mapping
session-description = proto-version origin-field session-name-field information-field uri-field email-fields phone-fields connection-field bandwitdh-fields time-fields key-fields attribute-fields media-descriptions	type record SDP_Message { integer protocol_version, SDP_Origin origin, charstring session_name, charstring information optional, charstring uri optional, SDP_email_list emails optional, SDP_phone_list phone_numbers optional, SDP_connection connection optional, SDP_bandwidth_list bandwidth optional, SDP_time_list times, SDP_timezone_list timezone_adjustments optional, SDP_key key optional, SDP_attribute_list attributes optional, SDP_media_desc_list media_list optional

time-fields = start-time
stop-time
repeat-fields
[zone-adjustments]
	type record SDP_time {
	SDP_time_field time_field,
	SDP_repeat_list time_repeat optional
	}

- The mappings for the email-address, phone-number and connection-address fields have been simplified.

BNF Rules of RFC 4566	TTCN 3 Type Mapping

email-address = address-and-comment
/ dispname-and-address
/ addrspec
	type record SDP_contact {
	charstring addr_or_phone,
	charstring disp_name optional
	}

phone-number = email-safe
/ email-safe "<" phone ">"
/ phone
	type record SDP_contact {
	charstring addr_or_phone,
	charstring disp_name optional
	}

connection-address = multicast-address
/ unicast-address
	type record SDP_conn_addr {
	charstring addr,
	integer ttl optional,
	integer num_of_addr optional
	}

7.3.5.2 Defined attributes

The SDP_attribute type is defined as a union of the following attribute types. There is an unknown attribute given to decode undefined attributes with a name and value.

SDP Attribute	TTCN 3 Type Mapping

cat	type record SDP_attribute_cat {
	charstring attr_value
	}

charset	type record SDP_attribute_charset {
	charstring attr_value
	}

conf	type record SDP_attribute_curr {
	charstring preconditionType,
	charstring statusType,
	charstring direction
	}

curr	type record SDP_attribute_curr {
	charstring preconditionType,
	charstring statusType,
	charstring direction
	}

des	type record SDP_attribute_des {
	charstring preconditionType,
	charstring strength,
	charstring statusType,
	charstring direction
	}

fmtp	type record SDP_attribute_fmtp {
	charstring attr_value
	}

framerate	type record SDP_attribute_framerate {
	charstring attr_value
	}

inactive	type record SDP_attribute_inactive { }

keywds	type record SDP_attribute_keywds {
	charstring attr_value
	}

lang	type record SDP_attribute_lang {
	charstring attr_value
	}

orient	type record SDP_attribute_orient {
	charstring attr_value
	}

ptime	type record SDP_attribute_ptime {
	charstring attr_value
	}

quality	type record SDP_attribute_quality {
	charstring attr_value
	}

recvonly	type record SDP_attribute_recvonly { }

rtcp	type record SDP_attribute_rtcp {
	charstring attr_value
	}

rtpmap	type record SDP_attribute_rtpmap {
	charstring attr_value
	}

sdplang	type record SDP_attribute_sdplang {
	charstring attr_value
	}

sendrecv	type record SDP_attribute_sendrecv { }
sendonly	type record SDP_attribute_sendonly { }

Tool	type record SDP_attribute_tool {
	charstring attr_value
	}

Type	type record SDP_attribute_type {
	charstring attr_value
	}

SDP Attribute	TTCN 3 Type Mapping

Unknown	type record SDP_attribute_tool {
	charstring name,
	charstring attr_value optional
	}

7.3.6 Additional requirements for codec implementations (HTTP)

For HTTP the same types and header are used as for SIP.

⇒ Rules and requirements are applicable as defined for SIP in clause 7.3.

7.3.7 Additional requirements for codec implementations (XML)

XML data schema is used in IMS conformance testing according to ETSI ES 201 873-9. No further requirements are necessary.

7.4 Requirements for codec implementations (DHCP, DNS)

The DHCP/DNS codec converts TTCN descriptions into/from octet streams as specified in the RFCs. The TTCN type defintions for DHCP/DNS types closely follow the data formats defined in the corresponding RFCs (RFC 1035, RFC 1533, RFC 2131, RFC 3315, RFC 3319 and RFC 3361).

8 Design consideration

8.1 Void

8.2 Void

8.3 Void

8.4 AT commands

All mandatory and optional AT commands are sent as AT command strings as defined above. If an optional AT command is not implemented in the UE, the system adaptor needs to parse the AT command and map it to an appropriate MMI command (which is out of scope for this document).

The following AT commands are applied in TTCN.

Table 8.4-1: AT Commands

Command
AT+CLIP
AT+CLIR
AT+COLP
AT+CCFCU
AT+CHLD
AT+CDU
AT+CHCCS
AT+CDEFMP
AT+COLR
AT+CCWA
AT+CNAP
AT+CLCK
AT+CCMMD

AT commands are referred to TS 27.007 [49].

8.5 Timer Tolerances

For timers used in conformance test cases according to TS 34.229-1 [5], a tolerance of 10% shall be applied.

8.6 Bearer information for UTRAN

The Radio Access Bearer for IMS signalling is configured according to TS 34.108 [7] clause 6.10.2.4.1.26.

Annex A (normative): Abstract Test Suites (ATS)

This annex contains the approved ATSs.

The ATSs have been produced using the Testing and Test Control Notation version 3 (TTCN3) according to ES 201 873 [12].

A.1 Version of specifications

Table A.1 shows the version of the test specifications which the delivered ATSs are referred to.

Table A.1: Versions of the test and Core specifications

Core specifications	3GPP TS 24.229 [11]
Test specifications	3GPP TS 34.229-1 [5]
	3GPP TS 34.229-2 [6]
	3GPP TS 34.123-3 [2]
	3GPP TS 36.523-3 [30]

A.2 IMS-CC ATS

Table A.2 lists all approved test cases.

Table A.2: IMS-CC TTCN test cases

Test case	Description
6.3	Dedicated PDP Context Establishment
7.1	P-CSCF Discovery via PDP Context
8.1	Initial registration
8.2	User Initiated Re-Registration
8.3	Mobile Initiated Deregistration
8.4	Invalid behaviour- 423 Interval too brief
8.15	Refresh for ISIM parameters
8.16	User initiated re-registration- 423 Interval Too Brief
9.1	Invalid Behaviour – MAC Parameter Invalid
9.2	Invalid Behaviour – SQN out of range
10.1	Invalid Behaviour – 503 Service Unavailable
11.1	Network-initiated deregistration
11.2	Network initiated re-authentication
12.2	MO Call – 503 Service Unavailable
12.2a	MO Call – 504 Server Time-out
12.12	MO MTSI Voice Call Successful with preconditions
12.13	MT MTSI speech call
12.18	MTSI MO speech call / SSAC / 0% access probability for MTSI MO speech call
12.19	MTSI MO video call / SSAC / 0% access probability for MTSI MO video call
12.20	Emergency call / Success / SSAC / 0% access probability for MTSI MO speech call
12.21	MO MTSI Video call
12.22	MT MTSI Video call
12.23	MO MTSI speech call / EVS
12.24	MT MTSI speech call / EVS
12.25	MO MTSI speech call / EVS / AMR-WB
12.26	MT MTSI speech call / EVS / AMR-WB IO mode
15.1	Originating Identification Presentation
15.2	Originating Identification Restriction
15.2a	Originating Identification Restriction / Signalling
15.3	Terminating Identification Presentation
15.4	Terminating Identification Restriction
15.4a	Terminating Identification Restriction / Signalling
15.5	Communication Forwarding unconditional
15.7	Communication Forwarding on non Reply: activation
15.8	Communication Forwarding on non reply: MO call initiation
15.9	Communication Forwarding on Busy
15.10	Communication Forwarding on Not logged-in
15.10a	Communication Forwarding on Not reachable
15.11	MO Call Hold without announcement
15.11a	MO Video Call Hold without announcement
15.12	MT Call Hold without announcement
15.12a	MT Video Call Hold without announcement
15.13	Incoming Communication Barring except for a specific user
15.14a	Communication barring while roaming
15.14b	Outgoing Communication Barring while roaming
15.15	Subscription to the MWI event package
15.17	Creating a conference
15.19	Inviting user to conference by sending a REFER request to the conference focus
15.19a	Inviting user to conference by sending a REFER request to the conference focus / Video
15.21a	Three way session creation
15.21c	Three way session creation / Video
15.25	MO Explicit Communication Transfer – Consultative Call Transfer
15.27	Communication Waiting and answering the call
15.28	Communication Waiting and cancelling the call
15.29	GBA authentication
16.2	Speech AMR, indicate selective codec modes
16.3	Speech AMR-WB, indicate all codec modes
16.4	Speech AMR-WB, indicate selective codec modes
17.1	MO Speech, add video remove video
17.2	MT Speech, add video remove video
18.1	Mobile Originating SMS
18.2	Mobile Terminating SMS
19.1.1	Emergency call with emergency registration / Success / Location information available

19.1.2	Emergency call with emergency registration / Success / Location information not available
19.1.3	Emergency call with emergency registration / Abnormal case / IM CN sends a 380 / UE performs emergency call via CS domain / UTRAN or GERAN
19.1.5	Emergency call with emergency registration / Emergency SIP signalling and media in parallel with an other ongoing IM CN subsystem signalling and media
19.1.6	Emergency call with emergency registration / Success / GIBA against a network with GIBA support only
19.3.1	Non-UE detectable emergency call / IM CN sends a 1xx response / UE geographical location information available
19.3.2	Non-UE detectable emergency call / IM CN sends 380 Alternative Service including emergency service URN and no emergency subservice type / Non-emergency IMS registration / UTRAN or GERAN
19.3.2b	Non-UE detectable emergency call / IM CN sends a 380 with unavailable emergency service URN / UE performs normal call via CS domain / UTRAN or GERAN
19.3.2c	Non-UE detectable emergency call / IM CN sends a 380 with available emergency service URN / UE performs CS Emergency call via CS domain / UTRAN or GERAN
19.3.3	Non-UE detectable emergency call / IM CN sends 380 Alternative Service / Emergency IMS registration
19.3.4	Non-UE detectable emergency call / IM CN sends 380 with an Alternative Service / Previous emergency IMS registration not expired
19.4.1	Emergency call without emergency registration / EPS / UE does not contain an ISIM or USIM
19.4.2	Emergency call without emergency registration / EPS / UE contains an ISIM or USIM / UE is in state EMM-REGISTERED.LIMITED-SERVICE
19.4.5	Emergency call without emergency registration / UE credentials are not accepted
19.4.6	Emergency call without emergency registration / Failure of registration / Rejected by 403(Forbidden)
19.4.7	Emergency call without emergency registration / Failure of registration / against a network with GIBA support only
19.5.1	New initial emergency registration / UE obtains from the serving IP-CAN an IP address different than the IP address used for the emergency registration
19.5.6	User-initiated emergency reregistration / UE has emergency related ongoing dialog
19.5.7	User-initiated emergency reregistration / The user initiates an emergency call
19.5.8	User-initiated emergency reregistration / Standalone transactions exist
19.5.9	In parallel emergency and non-emergency registrations
19.5.10	Deregistration upon emergency registration expiration
20.1	Mobile Originating CAT – Forking Model
G.8.1	Initial Registration / WLAN
G.12.1	MO MTSI speech call / WLAN
G.12.2	MT MTSI speech call / WLAN
G.12.3	MO MTSI video call / WLAN
G.12.4	MT MTSI video call / WLAN
G.15.2	Originating Identification Restriction / WLAN
G.15.4	Terminating Identification Restriction / WLAN
G.15.11	MO Call Hold without announcement / WLAN
G.15.12	MT Call Hold without announcement / WLAN
G.15.13	MO video Call Hold without announcement / WLAN
G.15.14	MT video Call Hold without announcement / WLAN
G.15.17	Subscription to the MWI event package / WLAN
G.15.18	Inviting user to conference by sending a REFER request to the conference focus / WLAN
G.15.20	Three way session creation / WLAN
G.15.21	Inviting user to conference by sending a REFER request to the conference focus for video / WLAN
G.15.23	Three way session creation for video / WLAN
G.15.24	Communication Waiting and answering the call / WLAN
G.15.25	Communication Waiting and cancelling the call / WLAN
G.17.1	MO Speech, add video remove video / WLAN
J.8.1	Initial Registration / UE category M1
J.12.1	MO MTSI speech call / UE category M1
J.12.2	MT MTSI speech call / UE category M1
J.15.1	Communication Waiting and answering the call / UE category M1
J.15.2	Communication Waiting and cancelling the call / UE category M1
J.15.3	Subscription to the MWI event package / UE category M1
J.15.4	Originating Identification Restriction / UE category M1
J.15.6	Communication forwarding on non reply: MO call initiation / UE category M1

J.18.2	Mobile Terminating SMS / UE category M1
J.19.1	Emergency call with emergency registration / Success / Location information available / UE
J.19.2	Emergency call with emergency registration / Success / Location information not available / UE category M1

The Test Suite in TTCN3 is contained in multiple ASCII files which accompany the present document.

A.2.1 Void

A.2.2 Void

A.2.3 Void

Annex B (normative): Partial IXIT proforma

B.0 Introduction

This partial IXIT proforma contained in the present document is provided for completion, when the related Abstract Test Suite is to be used against the Implementation Under Test (IUT).

Text in *italics* is comments for guidance for the production of an IXIT, and is not to be included in the actual IXIT.

The completed partial IXIT will normally be used in conjunction with the completed ICS, as it adds precision to the information provided by the ICS.

B.1 Parameter values

B.1.1 PIXITs

Table B.1.1: PIXIT

Parameter name	Description	Type	Default value	Supported value
px_IMS_AssociatedTelUri	TEL URI for the user	charstring	“+331234567”	format shall be TEL URI
px_IMS_CalleeUri	URI of Callee, send by the UE in INVITE (MO call establishment) to address the remote UE	charstring	"sip:User-B@3gpp.org"	
px_IMS_CalleeUri2	URI of Callee, sent by the UE in INVITE (MO call establishment) to address the remote UE	charstring	" sip:User-C@3gpp.org "	
px_IMS_CalleeContactUri	URI provided by the remote side (i.e. by SS) to be used by the UE as contact address in further SIP signalling of the dialog NOTE: in general this URI shall be different than the one in px_CalleeUri	charstring	"sip:User-B-Contact@3gpp.org"	
px_IMS_CalleeContactUri2	URI provided by the remote side (i.e. by SS) to be used by the UE as contact address in further SIP signalling of the dialog NOTE: in general this URI shall be different than the one in px_CalleeUri2	charstring	"sip:User-C-Contact@3gpp.org"	
px_IMS_CiphAlgo_Def	Ciphering Algorithm; NOTE: Unless specified otherwise in the test prose „nociph“ shall not be used for verification	CiphAlgo	des_ede3_cbc	enumerated type: des_ede3_cbc, aes_cbc or nociph
px_IMS_HomeDomainName	Home Domain Name. Applicable when using an ISIM: same value as EF_{DOMAIN}. (derived from the IMSI otherwise) FBBA: value as preconfigured at the UE	charstring	As defined in TS 34.229-1 [5], Annex E	
px_IMS_HomeDomainName_Refreshed	used in 8.15	charstring	"refreshed3gpp.org"	
px_IMS_Private_UserId_Refreshed	used in 8.15	charstring	"privateuser@refreshed3gpp.org"	
px_IMS_PublicUserIdentity1_Refreshed	used in 8.15	charstring	"sip:PublicId1@refreshed3gpp.org"	

Parameter name	Description	Type	Default value	Supported value
px_IMS_MessageAccountIdentity	used in 15.15	charstring	""	
px_IMS_SPI_ValidValueList_PDN1	List of comma separated integer values that can be used as SPI values for IMS security on PDN1; each value shall be ≥ 256	charstring	""	
px_IMS_SPI_ValidValueList_PDN2	List of comma separated integer values that can be used as SPI values for IMS security on PDN2; each value shall be ≥ 256	charstring	""	
px_IMS_IPSecAlgorithm	Integrity Algorithm	IntAlgo	hmac_sha_1_96	enumerated type; hmac_md5_96, hmac_sha_1_96
px_IMS_Private_UserId	Private User Identity. Applicable when using an ISIM: same value as EF_{IMPI}. (derived from the IMSI otherwise) FBBA: username as used for authorization	charstring	As defined in TS 34.229-1 [5], Annex E	
px_IMS_PublicUserIdentity1	Public User Identity. It is set to the same value as the first record in EF_{IMPU}. FBBA: IMPU preconfigured in the UE	Charstring	As defined in TS 34.229-1 [5], Annex E	
px_IMS_PublicUserIdentity2	It is set to the same value as the second record in EF_{IMPU}.	Charstring	As defined in TS 34.229-1 [5], Annex E	
px_IMS_PublicUserIdentity3	It is set to the same value as the third record in EF_{IMPU}.	Charstring	As defined in TS 34.229-1 [5], Annex E	
px_SMS_SMSC_InternationalNumber	international number of the SMSC: Dialled number string of the TS-Service Centre Address according to clause 4.5.3.9 "EFSMSP (Short message service parameters)" in TS 31.121 [52] (TON is assumed to be "International Number").	charstring	As defined in Annex E.3.2.14 of TS 34.229-1 [5]: “112233445566778” according to TS 31.121 [52].	
px_UEwithISIM	true: UE has ISIM false: UE has USIM only	boolean	true	
px_DigestPasswordForXCAP	XCAP password	charstring	"XCAP-Password"	
px_DigestPasswordForSIP	SIP password	charstring	"SIP-Password"	
px_XCAP_RootUri	XCAP Root URI according to section 6.1 of RFC 4825 [70] as configured at the UE	charstring	"/XCAP.3gpp.org"	
px_XCAP_TargetUri	Target (SIP or TEL URI) where to forward to	charstring	"sip:user@domain.com"	
px_XCAP_Username	username to be used for HTTP authentication in case of pc_XCAP_UsernameIsConfiguredInUE ==true	charstring		

B.2 MMI Commands

In addition to the MMI commands defined in TS 36.523-3 clause 5 there are further MMI commands for IMS:

Table B.2.1-1: MMI commands

Command	Parameters	
	Name	Value
"DEREGISTER"	(none)	
"ACCEPT_MTSI_TEXT"	(none)	
"ACTIVATE_MESSAGE_WAIT_INDICATION"	(none)	
"TRIGGER_SMS"	(none)	
"TRIGGER_2ND_IMPU"	(none)	
"TRIGGER_3RD_IMPU"	(none)	
"REFRESH"	"Uri"	<Callee's URI>
" INVITE_TO_CONFERENCE"	"Uri"	<Refer-To Uri>
"IMS_INITIATE_CONFERENCE"	(none)	
"ACTIVATE_IMS_TIR"	(none)	
"DEACTIVATE_IMS_TIR"	(none)	

Annex C: Void

Annex D: Void

Annex E (informative): TTCN3 style guide for 3GPP IMS ATS

For IMS conformance tests, the style guide of 36.523-3[30], Annex B shall be applied

Annex F (informative): BNF Message Definitions

The BNF definitions required for the ATS are defined in the following RFCs:

3261, 3262, 3265, 3311, 3313, 3323, 3325, 3326, 3327, 3329, 3428, 3455, 3515, 3608, 3840, 3841, 3891, 3892, 3903, 3911, 4028.

Annex G (Normative): SIP Type Definitions and XSD References

G.0 References of XSD and SIP Type Definitions

G.0.1 XML Schema Definitions (XSD)

The XSD references listed in this Annex are imported in the Test Suite.

Table G.0.1-1: Common Definitions

XML Schema	Source	Name space	Modifications
reginfo	RFC 3680 [24]	urn:ietf:params:xml:ns:reginfo	
conference-info	RFC 4575 [45]	urn:ietf:params:xml:ns:conference-info	
gruuinfo	RFC 5628 [46]	urn:ietf:params:xml:ns:gruuinfo	
AlternativeService	TS 24.229 [11] Table 7.6.1	NoTargetNamespace	
pdif	RFC 3863 [47]	urn:ietf:params:xml:ns:pidf	definitions modified according to errata id 1606
pdif_geopriv10	RFC 4119 [44]	urn:ietf:params:xml:ns:pidf:geopriv10	NOTE: RFC's errata has no impact on definitions
pdif_geopriv10_basicPolicy	RFC 4119 [44]	urn:ietf:params:xml:ns:pidf:geopriv10:basicPolicy	NOTE: RFC's errata has no impact on definitions
pdif_geopriv10_civicLoc	RFC 4119 [44]	urn:ietf:params:xml:ns:pidf:geopriv10:civicLoc	NOTE: RFC's errata has no impact on definitions
SRVCC	TS 24.237 [51] Annex D.2	NoTargetNamespace	
xml	http://www.w3.org/2001/03/xml.xsd	http://www.w3.org/XML/1998/namespace	
EmergencyCallData.Control	RFC 8147	urn:ietf:params:xml:ns:EmergencyCallData:control	

Table G.0.1-2: XCAP specific definitions

XML Schema	Source	Name space
24604	TS 24.604 [40]	http_uri_etsi_org_ngn_params_xml_simservs_xcap
OIP-OIR	TS 24.607 [41]	http_uri_etsi_org_ngn_params_xml_simservs_xcap
TIP-TIR R2	TS 24.608 [42]	http_uri_etsi_org_ngn_params_xml_simservs_xcap
24611	TS 24.611 [43]	http_uri_etsi_org_ngn_params_xml_simservs_xcap
XCAP	TS 24.623 [36]	http_uri_etsi_org_ngn_params_xml_simservs_xcap
xdm_commonPolicy-V1_0		urn_oma_xml_xdm_common_policy
common-policy	RFC 4745 [48]	urn_ietf_params_xml_ns_common_policy

Table G.0.1-3: GBA specific definitions

XML Schema	Source	Name space
24109	TS 24.109 [33]	uri_3gpp_gba

G.0.2 Common TTCN-3 Libraries

Additionally the Test Suite imports the following modules of ETSI's LibSip (ETSI SIP Library, see):

Module	Revision
LibSip_Common	LibSip v3.0.5
LibSip_SDPTypes	LibSip v3.0.5
LibSip_SimpleMsgSummaryTypes	LibSip v3.0.5
LibSip_SIPTypesAndValues	LibSip v3.0.5

The LibSip module LibSip_MessageBodyTypes (imported by LibSip_SIPTypesAndValues) contains type definitions for the message body of SIP messages which in general are project specific. For 3GPP conformance testing LibSip_MessageBodyTypes is defined as shown below.

G.1 LibSip_MessageBodyTypes

G.1.1 MIMETypes

MIME_ContentDisposition

TTCN-3 Record Type			
Name	**MIME_ContentDisposition**		
Comment	RFC 2183		
fieldName	MIME_FieldName (MIME_CONTENT_DISPOSITION_E)		
dispositionType	charstring		
dispositionParams	SemicolonParam_List	opt	

MIME_ContentType

TTCN-3 Record Type			
Name	**MIME_ContentType**		
Comment	RFC 2045 clause 5		
fieldName	MIME_FieldName (MIME_CONTENT_TYPE_E)		
typeAndSubtype	charstring		
typeParams	SemicolonParam_List	opt	

MIME_ContentId

TTCN-3 Record Type			
Name	**MIME_ContentId**		
Comment	RFC 2045 clause 7		
fieldName	MIME_FieldName (MIME_CONTENT_ID_E)		
msgId	charstring		

MIME_Part_Header

TTCN-3 Set Type			
Name	**MIME_Part_Header**		
Comment			
contentType	MIME_ContentType		
contentDisposition	MIME_ContentDisposition	opt	
contentId	MIME_ContentId	opt	

MIME_Part_Body

TTCN-3 Union Type		
Name	**MIME_Part_Body**	
Comment		
sdpMessageBody	SdpBody	
xmlBody	XmlBody	
msdBody	MsdBody	
mikeyMsg	MikeyMsg	

MIME_Part

TTCN-3 Record Type			
Name	**MIME_Part**		
Comment			
header	MIME_Part_Header		
body	MIME_Part_Body		

MIME_Message

TTCN-3 Record Type			
Name	**MIME_Message**		
Comment			
boundary	charstring		boundary according to RFC 2046 clause 5.1.1
mimePartList	MIME_Part_List		

MIME_Part_List

TTCN-3 Set of Type	
Name	**MIME_Part_List**
Comment	
set of MIME_Part	

LibSip_MessageBodyTypes: Basic Type Definitions

TTCN-3 Basic Types		
XmlBody	charstring	
SdpBody	charstring	
MikeyMsg	charstring	Base64 encoded MIKEY message RFC 3830 clause 6
MsdBody	octetstring	Minimum Set of Data: Binary data according to RFC 8147 clause 5 and 14.3; 24.229 clause 5.1.6.11

MIME_FieldName

TTCN-3 Enumerated Type	
Name	**MIME_FieldName**
Comment	
MIME_CONTENT_DISPOSITION_E	
MIME_CONTENT_TYPE_E	
MIME_CONTENT_ID_E	

MessageBody

TTCN-3 Union Type		
Name	**MessageBody**	
Comment		
sdpMessageBody	SdpBody	if there is only SDP part
xmlBody	XmlBody	if there is XML body
mimeMessageBody	MIME_Message	if there is SDP and encapsulated ISUP part
sipfrag	charstring	if content-Type is message/sipfrag (cp. NOTIFY, cp TS124147 A.4.3.1.2)
textplain	charstring	if content type is text/plain (for testing long messages)
simpleMsgSummary	SimpleMsgSummary	RFC 3842
smsMessage	octetstring	encoded SMS message 3GPP 23.040, 24.011

G.2 References to TTCN-3

References to TTCN-3		
LibSip_MessageBodyTypes	IMS_LibSip/LibSip_MessageBodyTypes.ttcn	Rev 22868

Annex H (informative): TTCN-3 Definitions of Common Interfaces

The multi-testers model according to clause 5 provides interfaces which can be re-used by implementations of the IP-CAN test model according to TS 34.229-4 [50].

NOTE: Common type definitions are according to annex D of TS 36.523-3 [30].

H.1 IMS_PTC_CoordMsg

IMS_TestProcedure_Type

TTCN-3 Enumerated Type	
Name	**IMS_TestProcedure_Type**
Comment	
IPCAN_InitialRegistration	EUTRA/EPS signalling acc. to 36.508 cl. 4.5.2.3 without RRC Connection Release at the end of the procedure NOTE: As working assumption the UE does IMS REGISTRATION automatically after RRC/NAS registration
IPCAN_EmergencyCall_NormalService	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.4.3
IPCAN_EmergencyCall_NoRegistration	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.4.3, but with Call Release according to 34.229-1 C.32a
IPCAN_EmergencyCall_LimitedService	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.5.3
IPCAN_MO_SpeechCall	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.6.3
IPCAN_MT_SpeechCall	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.7.3
IPCAN_MO_VideoCall	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.8.3
IPCAN_MT_VideoCall	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.9.3
IPCAN_MO_AddVideo	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.11.3
IPCAN_MT_AddVideo	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.12.3
IPCAN_ReleaseVideo	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.15.3
IPCAN_MO_IMS_Signalling	EUTRA/EPS signalling acc. to 36.508 cl. 4.5.3.3 with m = n = 0; used e.g. for MT SMS test case 18.2
IPCAN_MT_IMS_Signalling	EUTRA/EPS signalling acc. to 36.508 cl. 4.5.3.3 Steps 3 to 9 with m = n = 0; used e.g. for MT SMS test case 18.1
IPCAN_XCAP_Signalling	EUTRA/EPS signalling acc. to 36.508 cl. 4.5A.14
IPCAN_MCPTT_Registration	EUTRA/EPS signalling acc. to 36.579-1 clause 5.4.2
IPCAN_MCPTT_MOSpeechCall	EUTRA/EPS signalling acc. to 36.579-1 clause 5.4.3

IMS_TestConfiguration_Type

TTCN-3 Enumerated Type	
Name	**IMS_TestConfiguration_Type**
Comment	
IPCAN_SignallingOnly	EUTRA: default DRB is used only
IPCAN_SpeechCall	EUTRA: one dedicated UM bearer; for normal speech calls and emergency call for limited services
IPCAN_VideoCall	EUTRA: two dedicated UM bearers
IPCAN_EmergencyCall	EUTRA: second default bearer (AM) and one dedicated UM bearer
IPCAN_SpeechAndEmergencyCall	EUTRA: default bearer + dedicated bearer for normal speech call and another default bearer + dedicated bearer for emergency call
IPCAN_XCAP	EUTRA: second default bearer (AM) for second PDN used for XCAP signalling

IPCAN_INFO_Type

TTCN-3 Record Type			
Name	**IPCAN_INFO_Type**		
Comment			
RanType	IPCAN_RAN_Type	opt	
UE_Release	integer	opt	
AuthResLength	integer	opt	
NetworkSupportsVoiceOverIMS	boolean		

IMS_IPCAN_CommandName_Type

TTCN-3 Enumerated Type	
Name	**IMS_IPCAN_CommandName_Type**
Comment	
IPCAN_INIT	trigger the IPCAN_PTC to create a cell and do further appropriate initialisation; which RAN technology to be use is decided by the IPCAN_PTC based on PIXITs; as test procedure shall be specified which procedure is used during the test body to know which DRBs need to be pre-configured; IPCAN returns response indicating the RAN type
IPCAN_STARTPROCEDURE	trigger the IPCAN to expect (MO) or page (MT) the UE to establish an RRC connection; depending on the connection type triggers may need to be sent from IPCAN to IMS or from IMS to IPCAN to synchronise establishment of dedicated DRBs (EUTRA) or secondary PDP contexts (UTRAN)
IPCAN_ENDPROCEDURE	trigger RRC connection release by the IPCAN_PTC; as a SIP message may be sent out just before end of the procedure in general a delay of 2s shall be added before sending IPCAN_ENDPROCEDURE to IPCAN; for UTRAN it is up to IPCAN and SS implementation to cope with possible/necessary release of (secondary) PDP context; a trigger shall be sent from IPCAN to IMS to indicate when RRC connection is released
IPCAN_RELEASE	Detach UE and release cell (postamble); a trigger is shall be sent from IPCAN to IMS to indicate when IPCAN is released
IPCAN_QUERY	query information from the IPCAN PTC
IPCAN_PROVIDELOCATIONINFORMATION	trigger IPCAN to provide UELocationInformation to the UE acc. to 36.509

IMS_IPCAN_Command_Type

TTCN-3 Record Type			
Name	**IMS_IPCAN_Command_Type**		
Comment	Messages IMS_PTC -> IPCAN		
Name	IMS_IPCAN_CommandName_Type		
TestConfiguration	IMS_TestConfiguration_Type	opt	
TestProcedure	IMS_TestProcedure_Type	opt	

IMS_IPCAN_ResponseName_Type

TTCN-3 Enumerated Type	
Name	**IMS_IPCAN_ResponseName_Type**
Comment	
IPCAN_INIT	response for INIT command: carries the RAN type as used by the IPCAN PTC; the RAN type depends on PIXIT settings: part 4 model: px_RANTech part 3 model: EUTRA_FDD or EUTRA_TDD depending on px_ePrimaryFrequencyBand (px_ePrimaryFrequencyBand < 33 => FDD)
IPCAN_QUERY	

IPCAN_IMS_Response_Type

TTCN-3 Record Type			
Name	**IPCAN_IMS_Response_Type**		
Comment			
Name	IMS_IPCAN_ResponseName_Type		
IpcanInfo	IPCAN_INFO_Type	opt	

IPCAN_IMS_Control_Type

TTCN-3 Union Type		
Name	**IPCAN_IMS_Control_Type**	
Comment		
Reset	Null_Type	to reset IMS after UE has been switched off and gets switched on again
IpcanInd	Null_Type	to indicate to IMS which IPCAN is active (at port IPCAN or at port OtherIPCAN)
ReregistrationStart	IPCAN_RAN_Type	to prepare IMS PTC for (optional) re-registration
ReregistrationStop	Null_Type	to indicate to IMS PTC that no re-registration will happen anymore
NoRegistration	Null_Type	no IMS registration shall happen (e.g. due to test loop mode being activated)

IMS_IPCAN_Coordination_MSG

TTCN-3 Union Type		
Name	**IMS_IPCAN_Coordination_MSG**	
Comment		
TriggerEvent	Null_Type	any trigger of confirmation
AbortEvent	Null_Type	sent instead of TriggerEvent if procedure shall be aborted
IPCAN_IMS_Control	IPCAN_IMS_Control_Type	IMS <- IPCAN: to control IMS (default behaviour)
IMS_IPCAN_Command	IMS_IPCAN_Command_Type	IMS -> IPCAN: command from the IPCAN to control IMS (mainly for IMS default behaviour)
IPCAN_IMS_Response	IPCAN_IMS_Response_Type	IMS <- IPCAN: response for previous command
ProtocolConfigOptions	NAS_ProtocolConfigOptions_Type	IMS <-> IPCAN: PCOs to be used in NAS signalling
IPCAN_IMS_Data	charstring	IMS <- IPCAN: to send data from IPCAN to IMS

IMS_IPCAN_CO_ORD_PORT

TTCN-3 Port Type		
Name	**IMS_IPCAN_CO_ORD_PORT**	
Comment		
out	IMS_IPCAN_Coordination_MSG	
in	IMS_IPCAN_Coordination_MSG	

H.2 IMS_ASP_TypeDefs

IMS_ASP_TypeDefs: Basic Type Definitions

TTCN-3 Basic Types		
IMS_Request_Type	RequestUnion	Alias for "RequestUnion" as defined in LibSip_SIPTypesAndValues
IMS_Response_Type	Response	Alias for "Response" as defined in LibSip_SIPTypesAndValues
IMS_PortsAndSecurityConfigCnf_Type	Null_Type	SPIs and protected ports are fully controlled by the IMS PTC => it is not necessary anymore to return IMS_ProtectedPorts_Type, IMS_SPIs_Type to the IMS PTC

IMS_SecurityContextEnum_Type

TTCN-3 Enumerated Type	
Name	**IMS_SecurityContextEnum_Type**
Comment	
unprotected	
protectedContext1	
protectedContext2	

IMS_RoutingInfo_Type

TTCN-3 Record Type			
Name	**IMS_RoutingInfo_Type**		
Comment			
Protocol	InternetProtocol_Type		UDP or TCP
Security	IMS_SecurityContextEnum_Type	opt	protected or unprotected (in DL omit when IP PTC shall decide what to do)
UE_Address	IP_AddrInfo_Type	opt	sent by the IP PTC when there is an initial request on unprotected connection
NW_Address	IP_AddrInfo_Type	opt	sent by the IP PTC when there is an initial request on unprotected connection

IMS_DATA_REQ

TTCN-3 Record Type			
Name	**IMS_DATA_REQ**		
Comment			
RoutingInfo	IMS_RoutingInfo_Type		
Request	IMS_Request_Type		

IMS_DATA_RSP

TTCN-3 Record Type			
Name	**IMS_DATA_RSP**		
Comment			
RoutingInfo	IMS_RoutingInfo_Type		
Response	IMS_Response_Type		

IMS_ProtectedPorts_Type

TTCN-3 Record Type			
Name	**IMS_ProtectedPorts_Type**		
Comment			
Port_us	PortNumber_Type		UE side: Server
Port_uc	PortNumber_Type		UE side: Client
Port_ps	PortNumber_Type		network side: Server
Port_pc	PortNumber_Type		network side: Client

IMS_SPIs_Type

TTCN-3 Record Type			
Name	**IMS_SPIs_Type**		
Comment			
SPI_us	IPsec_SPI_Type		SPI at UE side: assigned by the UE
SPI_uc	IPsec_SPI_Type		SPI at UE side: assigned by the UE
SPI_ps	IPsec_SPI_Type	opt	SPI at network side: to be assigned by TTCN
SPI_pc	IPsec_SPI_Type	opt	SPI at network side: to be assigned by TTCN

IMS_SecurityInfo_Type

TTCN-3 Record Type			
Name	**IMS_SecurityInfo_Type**		
Comment			
ProtectedPorts	IMS_ProtectedPorts_Type		
SPIs	IMS_SPIs_Type		
IntegrityAlgorithm	IPsec_IntegrityAlgorithm_Type		
CipheringAlgorithm	IPsec_CipheringAlgorithm_Type		

IMS_RegistrationInfo_Type

TTCN-3 Record Type			
Name	**IMS_RegistrationInfo_Type**		
Comment			
NW_Address	IP_AddrInfo_Type		network address of the chosen IMS server (e.g. IPv4, IPv6)
UE_Address	IP_AddrInfo_Type		UE address as used for security protected connections
SecurityInfo	IMS_SecurityInfo_Type	opt	omit in case of GIBA

IMS_PortsAndSecurityConfigReq_Type

TTCN-3 Record Type			
Name	**IMS_PortsAndSecurityConfigReq_Type**		
Comment			
UnprotectedPort_us	PortNumber_Type	opt	5060 per default
RegistrationInfo	IMS_RegistrationInfo_Type	opt	

IMS_SecurityRelease_Type

TTCN-3 Enumerated Type	
Name	**IMS_SecurityRelease_Type**
Comment	
full	
oldestProtectedContextOnly	

IMS_CONFIG_REQ

TTCN-3 Union Type		
Name	**IMS_CONFIG_REQ**	
Comment		
InstallKey	IPsec_SecurityKeys_Type	
PortsAndSecurityConfig	IMS_PortsAndSecurityConfigReq_Type	
SecurityRelease	IMS_SecurityRelease_Type	
CloseTCP	Null_Type	

IMS_CONFIG_CNF

TTCN-3 Union Type		
Name	**IMS_CONFIG_CNF**	
Comment		
InstallKey	Null_Type	
PortsAndSecurityConfig	IMS_PortsAndSecurityConfigCnf_Type	
SecurityRelease	Null_Type	
CloseTCP	Null_Type	

IMS_IP_CTRL_PORT

TTCN-3 Port Type	
Name	**IMS_IP_CTRL_PORT**
Comment	Control port at the IMS PTC to configure IP for IMS
out	IMS_CONFIG_REQ
in	IMS_CONFIG_CNF

IMS_IP_CLIENT_PORT

TTCN-3 Port Type		
Name	**IMS_IP_CLIENT_PORT**	
Comment	IMS client: send requests, receive response	
out	IMS_DATA_REQ	
in	IMS_DATA_RSP	

IMS_IP_SERVER_PORT

TTCN-3 Port Type		
Name	**IMS_IP_SERVER_PORT**	
Comment	IMS server: send response, receive requests	
out	IMS_DATA_RSP	
in	IMS_DATA_REQ	

H.3 HTTP_ASP_TypeDefs

H.3.1 HTTP_ASP_Definitions

HttpServerInfo_Type

TTCN-3 Record Type			
Name	**HttpServerInfo_Type**		
Comment			
serverAddr	IP_AddrInfo_Type		IP address of simulated server
serverPort	PortNumber_Type		Port number of simulated server
drbInfo	IP_DrbInfo_Type		DRB info as used by the IP PTC (LTE model, see TS 36.523-3 [30])
tlsConfig	TLSConfig_Type	opt	TLS parameters as used by the IP PTC (LTE model, see TS 36.523-3 [30]) (omit: no TLS)

HttpServerList_Type

TTCN-3 Record of Type	
Name	**HttpServerList_Type**
Comment	
record length (1 .. infinity) of HttpServerInfo_Type	

HTTP_CTRL_REQ

TTCN-3 Record Type			
Name	**HTTP_CTRL_REQ**		
Comment	ASP type to configure the http layer; when any of the optional fields is omitted the previous configuration of this field is kept		
httpServerList	HttpServerList_Type	opt	IP address and port of simulated HTTP servers

HTTP_CTRL_CNF

TTCN-3 Record Type			
Name	**HTTP_CTRL_CNF**		
Comment	ASP type to confirm HTTP_CTRL_REQ		
errorInfo	charstring	opt	string indicating a system error

HTTP_DATA_IND

TTCN-3 Record Type			
Name	**HTTP_DATA_IND**		
Comment	ASP type for sending a message from the http layer to TTCN; it transports relevant information of a http Request from the UE to the Tester		
routingInfo	IP_Connection_Type		TCP connection from which the request has been received; => response shall use the same
httpRequest	HttpRequest_Type		

HttpRequest_Type

TTCN-3 Record Type			
Name	**HttpRequest_Type**		
Comment			
requestLine	HttpRequestLine_Type		RFC 2616 clause 5.1
userAgent	UserAgent	opt	User Agent according to RFC 2616 [27] clause 14.43
authorization	Authorization	opt	Authorization according to RFC 2616 [27] clause 14.8 (optional; NOTE: Same type definition as for SIP type definitions)
host	Host	opt	host according to RFC 2616 [27] clause 14.23
contentType	ContentType	opt	Content-Type according to RFC 2616 [27] clause 14.17 (optional, NOTE: Same type definition as for SIP type definitions)
cacheControl	HttpCacheControl_Type	opt	RFC 2616 clause 14.9
x3GPPIntendedIdentity	charstring	opt	3GPP TS 24.109 [33] clause G.2
messageBody	charstring	opt	e.g. XCAP Message

HttpResponse_Type

TTCN-3 Record Type			
Name	**HttpResponse_Type**		
Comment			
statusLine	HttpStatusLine_Type		Status-Line in RFC 2616 [27] clause 6.1
date	Date	opt	Date according to RFC 2616 [27] clause 14.18
eTag	SIP_ETag	opt	ETag according to RFC 2616 [27] clause 14.19
server	Server	opt	Server according to RFC 2616 [27] clause 14.38
wwwauthenticate	WwwAuthenticate	opt	WWW-Authenticate in RFC 2616 [27] clause 14.47 (NOTE: Same type definition as for SIP type definitions)
authenticationInfo	AuthenticationInfo	opt	Authentication-Info in RFC 2617 [37] clause 3.2.3 (NOTE: Same type definition as for SIP type definitions)
contentType	ContentType	opt	Content-Type in RFC 2616 [27] clause 14.17 (NOTE: Same type definition as for SIP type definitions)
location	HttpLocation_Type	opt	RFC 2616 clause 14.30
contentLength	ContentLength	opt	Content-Length in RFC 2616 [27] clause 14.13 (NOTE: Same type definition as for SIP type definitions)
expires	Expires	opt	Expires in RFC 2616 [27] clause 14.21 (NOTE: Same type definition as for SIP type definitions)
messageBody	charstring	opt	e.g. XCAP Message (XML document or XML fragment)

HTTP_DATA_REQ

TTCN-3 Record Type			
Name	**HTTP_DATA_REQ**		
Comment	ASP type for sending messages from TTCN to the http layer; it transports information needed by the http layer to generate a http Response to the UE		
routingInfo	IP_Connection_Type		TCP connection to be used in DL: shall be the same as for corresponding request
httpResponse	HttpResponse_Type		

HttpRequestLine_Type

TTCN-3 Record Type			
Name	**HttpRequestLine_Type**		
Comment	request line according to RFC 2616 [27] clause 5.1		
method	charstring		
uri	charstring		XCAP: selection expression, RFC 4825 [26]
version	charstring		

HttpStatusLine_Type

TTCN-3 Record Type			
Name	**HttpStatusLine_Type**		
Comment	status line according to RFC 2616 [27] clause 5.1		
version	charstring		
code	integer		
reasonPhrase	charstring		

HttpCacheControl_Type

TTCN-3 Record Type			
Name	**HttpCacheControl_Type**		
Comment	RFC 2616 clause 14.9		
cacheControl	charstring		

HttpLocation_Type

TTCN-3 Record Type			
Name	**HttpLocation_Type**		
Comment	RFC 2616 clause 14.30, see also RFC 3986 section 4.3		
uri	charstring		

H.3.2 HTTP_Port_Definitions

HTTP_CTRL_PORT

TTCN-3 Port Type		
Name	**HTTP_CTRL_PORT**	
Comment		
out	HTTP_CTRL_REQ	
in	HTTP_CTRL_CNF	

HTTP_DATA_PORT

TTCN-3 Port Type		
Name	**HTTP_DATA_PORT**	
Comment		
in	HTTP_DATA_IND	
out	HTTP_DATA_REQ	

H.4 References to TTCN-3

References to TTCN-3		
IMS_PTC_CoordMsg	IMS/IMS_PTC_CoordMsg.ttcn	Rev 22874
IMS_ASP_TypeDefs	IMS/IMS_ASP_TypeDefs.ttcn	Rev 18816
HTTP_ASP_TypeDefs	HTTP/HTTP_ASP_TypeDefs.ttcn	Rev 22875

Annex I (informative): Change history

Meet-ing	TSG doc	CR	Rev	Subject	Cat	Old vers	New vers	WG doc
RP-31	RP-060054	-	-	Update to version 1.0.0 and present to RAN#31 for information	-	-	1.0.0	R5-060513
RP-34	RP-060664	-	-	Present version 1.3.0 to RAN#34 for information	-	-	1.3.0	R5-063500
RP-35	RP-070010	-	-	Presented as version 2.0.0 for approval to go under revision control	-	-	2.0.0	R5-070456
-	-	-	-	Upgraded to version 5.0.0 by the 3GPP support	-	-	5.0.0	-
RP-36	RP-070352	0001	-	Addition of IMS-CC test case 8.6 to IMS_CC ATS V1.3.0	F	5.0.0	5.1.0	R5s070101
RP-36	RP-070353	0002	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	5.0.0	5.1.0	-
RP-37	RP-070594	0003	-	Extension to TTCN ASP DeactivatePDPContextReq	F	5.1.0	5.2.0	R5-072509
RP-37	RP-070594	0004	-	IMS CC / PIXIT parameter px_CellId	F	5.1.0	5.2.0	R5-072546
RP-38	RP-070870	0007		Addition of IMS-CC test case 8.5 to IMS_CC ATS V5.1.0	B	5.2.0	5.3.0	R5s070489
RP-38	RP-070870	0008		Addition of IMS-CC test case 8.7 to IMS_CC ATS V5.3.0	B	5.2.0	5.3.0	R5s070259
RP-38	RP-070870	0009		Addition of IMS-CC test case 9.1 to IMS_CC ATS V5.3.0	B	5.2.0	5.3.0	R5s070261
RP-38	RP-070889	0010		CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	5.2.0	5.3.0	-
RP-38	RP-070869	0006		Production of 34.229-3 pointer version in Rel-5 pointing to Rel-6 version	F	5.2.0	5.3.0	R5-073439
RP-38	RP-070869	0005		Addition of an MMI command	F	5.2.0	6.0.0	R5-073046
RP-39	RP-080098	0011		Update of MMI command strings	F	6.0.0	6.1.0	R5-080041
RP-39	RP-080089	0012		CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	6.0.0	6.1.0	-
RP-39	RP-080094	0013		Addition of IMS-CC test case 7.2 to IMS_CC ATS V5.3.0	B	6.0.0	6.1.0	R5s070535
RP-39	RP-080094	0014		Addition of IMS-CC test case 10.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070549
RP-39	RP-080094	0015		Addition of IMS-CC test case 8.3 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070545
RP-39	RP-080094	0016		Addition of IMS-CC test case 8.2 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070543
RP-39	RP-080094	0017		Addition of IMS-CC test case 7.6 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070539
RP-39	RP-080094	0018		Addition of IMS-CC test case 7.4 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070537
RP-39	RP-080094	0019		Addition of IMS-CC test case 11.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070551
RP-39	RP-080094	0020		Addition of IMS-CC test case 14.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070555
RP-39	RP-080094	0021		Addition of IMS-CC test case 13.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070553
RP-39	RP-080094	0022		Addition of IMS-CC test case 8.4 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070547
RP-39	RP-080094	0023		Addition of IMS-CC test case 8.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070541
RP-39	RP-080094	0024		Addition of IMS-CC test case 7.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070491
RP-39	RP-080094	0025		Common corrections to IMS-CC test cases	F	6.0.0	6.1.0	R5s070534
RP-40	RP-080369	0027		Correction to regular expressions in IMS	F	6.1.0	7.0.0	R5s080036
RP-40	RP-080369	0028		IMS ATS / handling of P-Access-Network-Info header over non secure ports	F	6.1.0	7.0.0	R5s080063
RP-40	RP-080369	0029		IMS ATS / test case 9.1 / handling of authorization header in Register messages	F	6.1.0	7.0.0	R5s080085
RP-40	RP-080376	0030		Extend test model supporting XCAP test	F	6.1.0	7.0.0	R5-081036
RP-41	RP-080654	0031		CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	7.0.0	7.1.0	-
RP-41	RP-080615	0032		Addition of IMS-CC test case 9.2 to IMS_CC ATS v.7.0.0	F	7.0.0	7.1.0	R5s080115
RP-41	RP-080615	0033		Addition of IMS-CC test case 7.3 to IMS_CC ATS v.7.0.0	F	7.0.0	7.1.0	R5s080114

Meet-ing	TSG doc	CR	Rev	Subject	Cat	Old vers	New vers	WG doc
RP-41	RP-080615	0034		Implementation of IPCanCtl code as a parallel test component	F	7.0.0	7.1.0	R5s080138
RP-41	RP-080615	0035		Addition of IMS-CC test case 8.9 to IMS_CC ATS v.6.2.0	F	7.0.0	7.1.0	R5s080145
RP-41	RP-080615	0036		Addition of IMS-CC test case 8.8 to IMS_CC ATS v.6.2.0	F	7.0.0	7.1.0	R5s080143
RP-41	RP-080615	0037		Addition of IMS-CC test case 7.5 to IMS_CC ATS	F	7.0.0	7.1.0	R5s080151
RP-41	RP-080740	0038		Update of TS 34.229-3 from Rel-6 to Rel-7	F	7.1.0	7.2.0	R5-083065
RP-42	RP-080959	0039		Correction of HW Type and HW Length fields in DHCP response messages	F	7.1.0	7.2.0	R5s080171
RP-42	RP-080959	0040		Minor correction of Route header template in the initial Register message	F	7.1.0	7.2.0	R5s080168
RP-43	RP-090210	0041		Update of TS 34.229-3 from Rel-7 to Rel-8	F	7.2.0	8.0.0	R5-090765
RP-43	RP-090210	0042		IMS CC ATS / Improvement: Stopping test case execution once a PTC fails	F	8.0.0	8.1.0	R5s090019
RP-43	RP-090210	0043		IMS CC ATS / Handling of non-default port number in the Contact Header	F	8.0.0	8.1.0	R5s090018
RP-43	RP-090210	0044		IMS CC ATS / Handling of Contact Header	F	8.0.0	8.1.0	R5s090005
RP-43	RP-090210	0045		IMS CC / Minor corrections on test 11.2 (re-authentication)	F	8.0.0	8.1.0	R5s090004
RP-43	RP-090210	0046		IMS CC / Addition of test case 11.2 to the IMS ATS	F	8.0.0	8.1.0	R5s080313
RP-43	RP-090210	0047		IMS CC test model / Addition of new ASP to reconfigure IP Layer	F	8.0.0	8.1.0	R5-090032
RP-43	RP-090210	0048		Removal of an unused pixit and other routine updates	F	8.0.0	8.1.0	R5-090056
RP-46	RP-091156	0049	-	CR to 34.229-3 (prose) update to v820	F	8.1.0	8.2.0	-
RP-47	RP-100146	0050	-	CR to 34.229-3 (prose) update to v830	F	8.2.0	8.3.0	-
RP-47	RP-100155	0051	-	Correction of IMS test model for XCAP-based SS test	F	8.2.0	8.3.0	R5-100087
RP-47	RP-100140	0052	-	Add bearer information for E-UTRA	F	8.2.0	8.3.0	R5-100414
RP-48	RP-100514	0053	-	CR to 34.229-3 (prose) update to v840	F	8.3.0	8.4.0	-
RP-48	RP-100511	0054	-	Update IMS test model	F	8.3.0	8.4.0	R5-103382
RP-50	RP-101146	0055	-	Routine maintenance of TS 34.229-3	F	8.4.0	8.5.0	R5-106088
RP-50	RP-101150	0056	-	CR to 34.229-3 update to v850	F	8.4.0	8.5.0	-
RP-51	RP-110165	0057	-	Mapping of some PIXIT parameters to ISIM Efs – 3 IMPU	F	8.5.0	8.6.0	R5-110694
RP-51	RP-110169	0058	-	CR to 34.229-3 (prose) update to v860	F	8.5.0	8.6.0	-
RP-52	RP-110651	0059	-	Removal of technical content in 34.229-3 v8.6.0 and substitution with pointer to the next Release	F	8.6.0	8.7.0	R5-112246
RP-52	RP-110651	0060	-	Routine maintenance	F	8.6.0	9.0.0	R5-112648
RP-52	RP-110655	0061	-	CR to 34.229-3 (prose) update to v870	F	8.6.0	9.0.0	-
RP-53	RP-111160	0062	-	CR to 34.229-3 (prose) update to v910	F	9.0.0	9.1.0	-
RP-54	RP-111584	0063	-	Routine maintenance and updates for IMS ASP	F	9.1.0	9.2.0	R5-115670
RP-55	RP-120187	0064	-	CR to 34.229-3 (prose) update to v930	F	9.2.0	9.3.0	-
RP-56	RP-120649	0065	-	Routine maintenance and updates	F	9.3.0	9.4.0	R5-121090
RP-56	RP-120802	0066	-	Correction to IMS CC test cases / Ipv6 address handling	F	9.3.0	9.4.0	R5s120108
RP-57	RP-121103	0067	-	34229-3: Routine maintenance and updates	F	9.4.0	9.5.0	R5-123085
RP-57	RP-121221	0068	-	TTCN IMS correction	F	9.4.0	9.5.0	R5s120530
RP-57	RP-121221	0069	-	Addition of GCF WI-031 IMS test case 8.10	F	9.4.0	9.5.0	R5s120537
RP-57	RP-121221	0070	-	Addition of GCF WI-031 IMS test case 8.12	F	9.4.0	9.5.0	R5s120539
RP-57	RP-121221	0071	-	Addition of GCF WI-031 IMS test case 8.13	F	9.4.0	9.5.0	R5s120541
RP-57	RP-121221	0072	-	Addition of GCF WI-128 IMS test case 18.1	F	9.4.0	9.5.0	R5s120543
RP-57	RP-121221	0073	-	Addition of GCF WI-128 IMS test case 18.2	F	9.4.0	9.5.0	R5s120545
RP-57	RP-121221	0074	-	Addition of GCF WI-103 IMS test case 16.1	F	9.4.0	9.5.0	R5s120547
RP-57	RP-121221	0075	-	Addition of GCF WI-103 IMS test case 16.2	F	9.4.0	9.5.0	R5s120549
RP-57	RP-121106	0076	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	9.4.0	9.5.0	-
RP-58	RP-121664	0077	-	34229-3: Routine maintenance and updates	F	9.5.0	9.6.0	R5-125120
RP-58	RP-121669	0078	-	Addition of GCF WI-103 IMS test case 12.12	B	9.5.0	9.6.0	R5s120605
RP-58	RP-121669	0079	-	Addition of GCF WI-103 IMS test case 12.13	B	9.5.0	9.6.0	R5s120607
RP-58	RP-121669	0080	-	Addition of GCF WI-103 IMS test case 15.11	B	9.5.0	9.6.0	R5s120609
RP-58	RP-121669	0081	-	IMS TTCN correction	F	9.5.0	9.6.0	R5s120729
RP-58	RP-121669	0082	-	Addition of GCF WI-103 IMS test case 15.8	B	9.5.0	9.6.0	R5s120730
RP-58	RP-121669	0083	-	Addition of GCF WI-103 IMS test case 15.12	B	9.5.0	9.6.0	R5s120732
RP-58	RP-121669	0084	-	Addition of GCF WI-103 IMS test case 15.27	B	9.5.0	9.6.0	R5s120733
RP-58	RP-121669	0085	-	Addition of GCF WI-103 IMS test case 15.28	B	9.5.0	9.6.0	R5s120736
RP-58	RP-121668	0086	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	9.5.0	9.6.0	-
RP-59	RP-130145	0087	-	34229-3: Routine maintenance and updates	F	9.6.0	9.7.0	R5-130198
RP-59	RP-130150	0088	-	Re-verification of IMS Registration test case 8.10 over LTE with 36.523-3 test model	F	9.6.0	9.7.0	R5s120858

Meet-ing	TSG doc	CR	Rev	Subject	Cat	Old vers	New vers	WG doc
RP-59	RP-130150	0089	-	Corrections for IMS test cases with 34.229-3 test model	F	9.6.0	9.7.0	R5s120907
RP-59	RP-130150	0090	-	Re-verification of IMS Registration test case 8.4 over LTE with new 34.229-3 test model	F	9.6.0	9.7.0	R5s120945
RP-59	RP-130150	0091	-	Re-verification of IMS Authentication test case 9.1 over LTE with the new 34.229-3 test model	F	9.6.0	9.7.0	R5s120947
RP-59	RP-130150	0092	-	Corrections to IMS_36523_IWD_12wk48 test suite	F	9.6.0	9.7.0	R5s130011
RP-59	RP-130150	0093	-	Corrections for IMS TC 8.1 regarding Ipv6 privacy	F	9.6.0	9.7.0	R5s130049
RP-59	RP-130149	0094	-	CR to 34.229-3 (prose) update to v970	F	9.6.0	9.7.0	-
RP-60	RP-130611	0095	-	34229-3: Routine maintenance and updates	F	9.7.0	9.8.0	R5-131140
RP-60	RP-130617	0096	-	Corrections to feature parameter in MT call invitation	F	9.7.0	9.8.0	R5s130109
RP-60	RP-130617	0097	-	Re-verification of IMS Registration (IPSec) test case 8.1 over LTE with 36.523-3 test model	F	9.7.0	9.8.0	R5s130133
RP-60	RP-130617	0098	-	Re-verification of IMS test case 8.3 over LTE with 36.523-3 test model	F	9.7.0	9.8.0	R5s130181
RP-60	RP-130617	0099	-	Re-verification of IMS SMS test case 18.2 over LTE with 36.523-3 test model	F	9.7.0	9.8.0	R5s130183
RP-60	RP-130617	0100	-	Corrections for IMS TC 8.1	F	9.7.0	9.8.0	R5s130187
RP-60	RP-130617	0101	-	Re-verification of IMS Registration test case 8.2 over LTE with 34.229-3 test model	F	9.7.0	9.8.0	R5s130233
RP-60	RP-130617	0102	-	Re-verification of IMS SMS test case 18.1 over LTE with 34.229-3 test model	F	9.7.0	9.8.0	R5s130235
RP-60	RP-130617	0103	-	Correction to SIP template cr_FromWithTag	F	9.7.0	9.8.0	R5s130256
RP-60	RP-130617	0104	-	Re-verification of IMS Authentication test case 9.2 over LTE with 34.229-3 test model	F	9.7.0	9.8.0	R5s130264
RP-60	RP-130617	0105	-	Re-verification of IMS Notification test case 11.2 over LTE with 34.229-3 test model	F	9.7.0	9.8.0	R5s130266
RP-60	RP-130617	0106	-	Corrections for IMS Registration TC 8.3 over LTE with 34.229-3 test model	F	9.7.0	9.8.0	R5s130274
RP-60	RP-130617	0107	-	Re-verification of IMS Subscription test case 10.1 over LTE with 34.229-3 test model	F	9.7.0	9.8.0	R5s130294
RP-60	RP-130617	0108	-	Re-verification of IMS Registration test case 11.1 over LTE with 34.229-3 test model	F	9.7.0	9.8.0	R5s130296
RP-60	RP-130617	0109	-	Re-verification of IMS Call Control test case 12.12 over LTE with 36.523-3 test model	F	9.7.0	9.8.0	R5s130333
RP-61	RP-131107	0111	-	Correction to EPS ATTACH procedure to enable IMS Registration via NAS signalling	F	9.8.0	9.9.0	R5s130383
RP-61	RP-131107	0112	-	Correction to IMS test cases 8.1, 8.2, 8.3 and 8.4	F	9.8.0	9.9.0	R5s130454
RP-61	RP-131107	0113	-	Correction to encoding rules to be used for Reginfo_Type	F	9.8.0	9.9.0	R5s130474
RP-61	RP-131107	0114	-	Corrections for IMS call control test case 12.12	F	9.8.0	9.9.0	R5s130497
RP-61	RP-131107	0115	-	Addition of GCF WI-154/ee1 IMS Emergency Call over EPS test case 19.1.2 (using TS 36.523-3 test model)	B	9.8.0	9.9.0	R5s130508
RP-61	RP-131107	0116	-	Re-verification for IMS TC 12.13 over LTE with 34.229-3 test model	F	9.8.0	9.9.0	R5s130510
RP-61	RP-131107	0117	-	Corrections to GCF WI-128 SMS over IMS Testcase 18.1	F	9.8.0	9.9.0	R5s130514
RP-61	RP-131107	0118	-	Correction of IMS test case 9.2 over LTE with 34.229-3 test model	F	9.8.0	9.9.0	R5s130573

Meet-ing	TSG doc	CR	Rev	Subject	Cat	Old vers	New vers	WG doc
RP-61	RP-131107	0119	-	Verification for IMS test case 12.2 over LTE with 34.229-1 test model	B	9.8.0	9.9.0	R5s130580
RP-61	RP-131107	0120	-	Correction of IMS test case 12.12 over LTE with 34.229-3 test model	F	9.8.0	9.9.0	R5s130586
RP-61	RP-131106	0121	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	9.8.0	9.9.0	RP-131106
RP-61	RP-131100	0110	-	34229-3: Routine maintenance and updates	F	9.9.0	10.0.0	R5-133632
RP-62	RP-131875	0122	-	Splitting 34.229-3	F	10.0.0	10.1.0	R5-134070
RP-62	RP-132006	0123	-	34229-3: Routine maintenance and updates for multi-testers model	F	10.0.0	10.1.0	R5-134290
RP-62	RP-131868	0125	-	Regression CR for IMS registration procedure in ATS_13wk35	F	10.0.0	10.1.0	R5s130681
RP-62	RP-131868	0126	-	Correction of IMS test case 12.2 over LTE with 34.229-3 test model	F	10.0.0	10.1.0	R5s130684
RP-62	RP-131868	0127	-	Correction of IMS test case 12.13 over LTE with 34.229-3 test model	F	10.0.0	10.1.0	R5s130685
RP-62	RP-131868	0128	-	Correction of IMS test case 8.1 over LTE with 34.229-3 test model	F	10.0.0	10.1.0	R5s130710
RP-62	RP-131868	0129	-	Correction to usage of constant tsc_IMS_AcceptContactValue	F	10.0.0	10.1.0	R5s130738
RP-62	RP-131868	0130	-	Correction to SMS over IMS test case 18.2	F	10.0.0	10.1.0	R5s130739
RP-62	RP-131868	0131	-	Corrections to IMS codec selection test case 16.1 and 16.2	F	10.0.0	10.1.0	R5s130742
RP-62	RP-131868	0132	-	Correction to IMS Call Control test case 12.13	F	10.0.0	10.1.0	R5s130743
RP-62	RP-131868	0133	-	Correction to GCF WI-154 IMS Emergency Call over EPS test case 19.1.2	F	10.0.0	10.1.0	R5s130760
RP-62	RP-131868	0134	-	Corrections to number of channels in SDP in 34.229-3 test model	F	10.0.0	10.1.0	R5s130798
RP-62	RP-131867	0135	-	CR to 34.229-3 (prose) update to v10.1.0	F	10.0.0	10.1.0	RP-131867
RP-63	R5-140319	0136	-	Routine maintenance and updates	F	10.1.0	10.2.0	R5-140931
RP-63	RP-140313	0137	-	Addition of GCF WI-171 MTSI MO speech call / SSAC test case 12.18 (using TS 36.523-3 test model)	B	10.1.0	10.2.0	R5s130766
RP-63	RP-140313	0138	-	Addition of GCF WI-171 IMS Emergency call / SSAC test case 12.20 (using TS 36.523-3 test model)	B	10.1.0	10.2.0	R5s130768
RP-63	RP-140313	0139	-	Re-verification of MTSI MT speech call test case 12.13 (... using TS 36.523-3 test model)	F	10.1.0	10.2.0	R5s130770
RP-63	RP-140313	0140	-	Re-verification of IMS test case 16.1 over LTE with 34.229-3 test model	F	10.1.0	10.2.0	R5s130808
RP-63	RP-140313	0141	-	Re-verification of IMS test case 16.2 over LTE with 34.229-3 test model	F	10.1.0	10.2.0	R5s130810
RP-63	RP-140313	0142	-	Correction of IMS test case 12.2 over LTE with 34.229-3 test model	F	10.1.0	10.2.0	R5s130885
RP-63	RP-140313	0143	-	Correction of IMS test case 12.12 over LTE with 34.229-3 test model	F	10.1.0	10.2.0	R5s130894
RP-63	RP-140313	0144	-	Corrections for common IMS functions	F	10.1.0	10.2.0	R5s130897

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RP-63	RP-140313	0145	-	Correction to GCF WI-103 IMS test case 11.2 with 36.523-3 Test Model	F	10.1.0	10.2.0	R5s130900
RP-63	RP-140313	0146	-	Correction to Postamble handling for IMS deregistration procedure	F	10.1.0	10.2.0	R5s130901
RP-63	RP-140313	0147	-	Correction to fl_EUTRA_IPCAN_ActivateDedicatedEpsBearer_SpeechCall	F	10.1.0	10.2.0	R5s130916
RP-63	RP-140313	0148	-	Correction of IMS test case 8.10 over LTE with 34.229-3 test model	F	10.1.0	10.2.0	R5s130925
RP-63	RP-140313	0149	-	Addition of GCF WI-103 IMS MTSI test case 16.3 over 36.523-3 Test Model	B	10.1.0	10.2.0	R5s130956
RP-63	RP-140313	0150	-	Addition of GCF WI-103 IMS MTSI test case 16.4 over 36.523-3 Test Model	B	10.1.0	10.2.0	R5s130958
RP-63	RP-140313	0151	-	Correction to GCF WI-154 IMS Emergency Call over EPS test case 19.1.2	F	10.1.0	10.2.0	R5s130978
RP-63	RP-140313	0152	-	Correction to GCF WI-103 IMS MTSI test case 12.13	F	10.1.0	10.2.0	R5s130985
RP-63	RP-140313	0153	-	Addition of GCF WI-154 IMS Emergency Call over EPS test case 19.4.1	B	10.1.0	10.2.0	R5s130990
RP-63	RP-140313	0154	-	Correction to GCF WI-103 IMS MTSI test case 9.2	F	10.1.0	10.2.0	R5s131004
RP-63	RP-140313	0155	-	Correction to GCF WI-103 IMS MTSI test case 11.2	F	10.1.0	10.2.0	R5s131040
RP-63	RP-140313	0156	-	Correction of common altsteps in IMS PTC for test case 11.2	F	10.1.0	10.2.0	R5s140003
RP-63	RP-140313	0157	-	Correction for IMS common function f_IMS_InviteRequest_MessageHeaderRX()	F	10.1.0	10.2.0	R5s140005
RP-63	RP-140313	0158	-	Re-verification of IMS test case 15.11 over LTE with 34.229-3 test model	F	10.1.0	10.2.0	R5s140017
RP-63	RP-140312	0159	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	10.1.0	10.2.0	RP-140312
RP-64	RP-140812	0160	-	Routine maintenance and updates	F	10.2.0	10.3.0	R5-142961
RP-64	RP-140822	0161	-	Addition of GCF WI-154 IMS Emergency Call over EPS test case 19.5.6 (with TS 36.523-3 test model)	F	10.2.0	10.3.0	R5s140037
RP-64	RP-140822	0162	-	Addition of GCF WI-154 IMS Emergency Call over EPS test case 19.5.10 (with TS 36.523-3 test model)	F	10.2.0	10.3.0	R5s140039
RP-64	RP-140822	0163	-	Addition of GCF WI-103 IMS MTSI Testcase 15.28 with 36.523-3 Test Model	F	10.2.0	10.3.0	R5s140092
RP-64	RP-140822	0164	-	Re-verification of GCF WI-103 IMS MTSI Testcase 15.11 over 36.523-3 Test Model	F	10.2.0	10.3.0	R5s140121
RP-64	RP-140822	0165	-	Addition of GCF WI-154 IMS Emergency Testcase 19.4.5 with 36.523-3 Test Model	F	10.2.0	10.3.0	R5s140123
RP-64	RP-140822	0166	-	Correction of GCF WI-103 IMS MTSI Testcase 9.1	F	10.2.0	10.3.0	R5s140136
RP-64	RP-140822	0167	-	Correction to GCF WI-171 IMS SSAC testcase 12.20	F	10.2.0	10.3.0	R5s140137
RP-64	RP-140822	0168	-	Correction of P-Preferred-Service and P-Asserted-Service usage over LTE with 34.229-3 test model	F	10.2.0	10.3.0	R5s140141
RP-64	RP-140822	0169	-	Addition of GCF WI-103 IMS MO Call test case 12.2a (... with both TS 36.523-3 and TS 34.229-3 test model)	F	10.2.0	10.3.0	R5s140142
RP-64	RP-140822	0170	-	Correction to GCF WI-171 SSAC testcase 12.20	F	10.2.0	10.3.0	R5s140168

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RP-64	RP-140822	0171	-	Correction to GCF WI-154 IMS Emergency Call testcase 19.1.2	F	10.2.0	10.3.0	R5s140171
RP-64	RP-140822	0172	-	Correction to GCF WI-154 IMS Emergency Call testcase 19.5.6	F	10.2.0	10.3.0	R5s140172
RP-64	RP-140822	0173	-	Correction to IMS function f_IMS_Dialog_SetRemoteTag	F	10.2.0	10.3.0	R5s140173
RP-64	RP-140822	0174	-	Correction of IMS function f_IMS_PTC_ImsInfo_DialogInit	F	10.2.0	10.3.0	R5s140174
RP-64	RP-140822	0175	-	Correction to Postamble Procedure for IMS Testcases	F	10.2.0	10.3.0	R5s140175
RP-64	RP-140822	0176	-	Correction to GCF WI-103 IMS MTSI Testcases 9.1 and 9.2	F	10.2.0	10.3.0	R5s140176
RP-64	RP-140822	0177	-	Correction of GCF WI-103 IMS MTSI Testcase 15.28	F	10.2.0	10.3.0	R5s140178
RP-64	RP-140822	0178	-	Correction to IMS Route header in ACK sent by SS	F	10.2.0	10.3.0	R5s140194
RP-64	RP-140822	0179	-	Correction to 183 Session Progress Message	F	10.2.0	10.3.0	R5s140204
RP-64	RP-140822	0180	-	Correction to TCP Connection Close procedure for IMS Testcases	F	10.2.0	10.3.0	R5s140219
RP-64	RP-140822	0181	-	Correction to IMS Main PTC Function	F	10.2.0	10.3.0	R5s140243
RP-64	RP-140822	0182	-	Correction of f_IMS_AckRequest_MessageHeaderRX()	F	10.2.0	10.3.0	R5s140264
RP-64	RP-140822	0183	-	Correction of f_IPCAN_StartProcedure	F	10.2.0	10.3.0	R5s140265
RP-64	RP-140822	0184	-	spi and port values	F	10.2.0	10.3.0	R5s140266
RP-64	RP-140822	0185	-	Correction to GCF WI-103 IMS Call Control Test Case 11.2	F	10.2.0	10.3.0	R5s140303
RP-64	RP-140822	0186	-	Correction to SMS over IMS Test Case 18.1	F	10.2.0	10.3.0	R5s140304
RP-64	RP-140822	0187	-	Re-verification of IMS test case 15.27 over LTE with 34.229-3 test model	F	10.2.0	10.3.0	R5s140307
RP-64	RP-140822	0188	-	Re-verification of IMS test case 15.12 over LTE with 34.229-3 test model	F	10.2.0	10.3.0	R5s140324
RP-64	RP-140822	0189	-	Addition of GCF WI-154 IMS Emergency Call over EPS test case 19.5.9 with 36.523-3 test model	F	10.2.0	10.3.0	R5s140329
RP-64	RP-140822	0190	-	Correction to GCF WI-171 IMS SSAC Testcase 12.18	F	10.2.0	10.3.0	R5s140334
RP-64	RP-140822	0191	-	Correction to WI-103 IMS MTSI Testcase 11.1	F	10.2.0	10.3.0	R5s140342
RP-64	RP-140822	0192	-	Correction for checking of via Header in IMS response messages	F	10.2.0	10.3.0	R5s140350
RP-64	RP-140822	0193	-	Verification of IMS test case 8.11 over LTE with 34.229-3 test model	F	10.2.0	10.3.0	R5s140356
RP-64	RP-140822	0194	-	Corrections for IMS MO call setup sequence with preconditions	F	10.2.0	10.3.0	R5s140359
RP-64	RP-140822	0195	-	Corrections to de-registration procedure	F	10.2.0	10.3.0	R5s140428
RP-64	RP-140821	0196	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	10.2.0	10.3.0	RP-140821
RP-65	RP-141571	0197	-	Routine maintenance and updates	F	10.3.0	10.4.0	R5-144747

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RP-65	RP-141580	0217	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	10.3.0	10.4.0	-
RP-65	RP-141581	0198	-	Addition of GCF WI-154 IMS Emergency Call test case 19.5.7 with TS 36.523-3 test model	B	10.3.0	10.4.0	R5s140338
RP-65	RP-141581	0199	-	Correction for IMS Codec Selection test cases 16.3 and 16.4	F	10.3.0	10.4.0	R5s140360
RP-65	RP-141581	0200	-	IMS test case 18.1 for GIBA	F	10.3.0	10.4.0	R5s140469
RP-65	RP-141581	0201	-	Addition of GCF WI-154 IMS Emergency Call test case 19.3.3 with TS 36.523-3 test model	B	10.3.0	10.4.0	R5s140490
RP-65	RP-141581	0202	-	Correction to IMS function f_IMS_MTCallSetup_SendPRACK_ReceiveOK.	F	10.3.0	10.4.0	R5s140551
RP-65	RP-141581	0203	-	Correction to GCF WI-103 IMS MTSI test case 11.2.	F	10.3.0	10.4.0	R5s140561
RP-65	RP-141581	0204	-	Regression CR for IMS modules in ATS_14wk24	F	10.3.0	10.4.0	R5s140565
RP-65	RP-141581	0205	-	Corrections for IMS Codec Selection test cases 16.3 and 16.4	F	10.3.0	10.4.0	R5s140567
RP-65	RP-141581	0206	-	Correction to GCF WI-103 IMS test case 15.12	F	10.3.0	10.4.0	R5s140571
RP-65	RP-141581	0207	-	Correction of IMS SSAC Testcases 12.18, 12.19, 12.20, 12.18a, 12.19a and 12.20a	F	10.3.0	10.4.0	R5s140577
RP-65	RP-141581	0208	-	Re-verification of GCF WI-103 IMS Codec Selecting test case 16.2 with 36.523-3 test model	F	10.3.0	10.4.0	R5s140580
RP-65	RP-141581	0209	-	Corrections to IMS test case 15.11	F	10.3.0	10.4.0	R5s140602
RP-65	RP-141581	0210	-	Correction to IMS test case 15.27	F	10.3.0	10.4.0	R5s140606
RP-65	RP-141581	0211	-	Re-verification of IMS test case 15.8 over LTE with 34.229-3 test model	F	10.3.0	10.4.0	R5s140621
RP-65	RP-141581	0212	-	Correction to IMS test case 16.2	F	10.3.0	10.4.0	R5s140646
RP-65	RP-141581	0213	-	Correction to GCF WI-154 IMS Emergency Call Testcase 19.5.7	F	10.3.0	10.4.0	R5s140647
RP-65	RP-141581	0214	-	Correction to ContactIE and UL Grant to IMS messages	F	10.3.0	10.4.0	R5s140676
RP-65	RP-141581	0215	-	Bandwidth values for TCs 16.2, 16.3, and 16.4	F	10.3.0	10.4.0	R5s140678
RP-65	RP-141581	0216	-	Correction to Socket Handling during IMS registration procedure	F	10.3.0	10.4.0	R5s140713
RP-66	RP-142054	0218	-	Routine maintenance and updates	F	10.4.0	10.5.0	R5-145191
RP-66	RP-142064	0219	-	Correction of IMS test case 8.2 over LTE	F	10.4.0	10.5.0	R5s140779
RP-66	RP-142064	0220	-	Correction of IMS test case 12.2a	F	10.4.0	10.5.0	R5s140780
RP-66	RP-142064	0221	-	Correction to IMS Emergency Call test case 19.4.5	F	10.4.0	10.5.0	R5s140786
RP-66	RP-142064	0222	-	Addition of GCF WI-154 IMS emergency call testcase 19.1.3 over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s140788
RP-66	RP-142064	0223	-	Correction to IMS Emergency Call test case 19.5.7	F	10.4.0	10.5.0	R5s140791
RP-66	RP-142064	0224	-	Correction to GCF WI-103 IMS testcase 11.2	F	10.4.0	10.5.0	R5s140801
RP-66	RP-142064	0225	-	Correction to IMS test case 12.2a on branch parameter	F	10.4.0	10.5.0	R5s140802
RP-66	RP-142064	0226	-	Correction to GCF WI-103 IMS test case 12.2a	F	10.4.0	10.5.0	R5s140856

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RP-66	RP-142064	0227	-	Correction to GCF WI-103 IMS test case 15.8	F	10.4.0	10.5.0	R5s140905
RP-66	RP-142064	0228	-	Correction to WI-154 IMS Emergency Call Testcases 19.5.6 and 19.5.7	F	10.4.0	10.5.0	R5s140909
RP-66	RP-142064	0229	-	Correction of IMS test case 15.11	F	10.4.0	10.5.0	R5s140919
RP-66	RP-142064	0230	-	Corrections for Ipv6 address checking in common IMS functions	F	10.4.0	10.5.0	R5s140934
RP-66	RP-142064	0231	-	Correction of IMS test case 18.1	F	10.4.0	10.5.0	R5s140968
RP-66	RP-142064	0232	-	Verification of IMS test case 15.5	F	10.4.0	10.5.0	R5s140975
RP-66	RP-142064	0233	-	Verification of IMS test case 15.7	F	10.4.0	10.5.0	R5s140976
RP-66	RP-142064	0234	-	Verification of IMS test case 15.9	F	10.4.0	10.5.0	R5s140977
RP-66	RP-142064	0235	-	Correction to IMS Emergency Call test case 19.3.3	F	10.4.0	10.5.0	R5s140997
RP-66	RP-142064	0236	-	Correction to GCF WI-103 IMS MTSI test case 15.11	F	10.4.0	10.5.0	R5s141020
RP-66	RP-142064	0237	-	Addition of GCF WI-103 IMS XCAP Supplementary Service Testcase 15.1 over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s141051
RP-66	RP-142064	0238	-	Addition of GCF WI-103 XCAP supplementary service Testcase 15.3 over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s141053
RP-66	RP-142064	0239	-	Addition of GCF WI-103 XCAP supplementary service Testcase 15.4 over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s141055
RP-66	RP-142064	0240	-	Addition of XCAP supplementary service Testcase 15.14 over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s141113
RP-66	RP-142064	0241	-	Addition of GCF WI-103 XCAP supplementary service Testcase 15.14a over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s141115
RP-66	RP-142064	0242	-	Addidtion of IMS over UTRAN testcase 6.3 to IMS Utran testsuite	F	10.4.0	10.5.0	R5s141125
RP-66	RP-142064	0243	-	Re-Verification of IMS over UTRAN testcase 7.1 to IMS Utran testsuite	F	10.4.0	10.5.0	R5s141127
RP-66	RP-142064	0244	-	Re-verification of GCF WI-103 IMS XCAP Supplementary Service Testcase 15.5 over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s141130
RP-66	RP-142064	0245	-	Re-verification of GCF WI-103 IMS XCAP Supplementary Service Testcase 15.7 over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s141133
RP-66	RP-142064	0246	-	Re-verification of GCF WI-103 IMS XCAP Supplementary Service Testcase 15.9 over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s141135
RP-66	RP-142064	0247	-	Changes to XML templates	F	10.4.0	10.5.0	R5s141138
RP-66	RP-142064	0248	-	Verification of IMS test case 15.2 over LTE with 34.229-4 test model	F	10.4.0	10.5.0	R5s141140
RP-66	RP-142064	0249	-	Verification of IMS test case 15.13 over LTE with 34.229-4 test model	F	10.4.0	10.5.0	R5s141142
RP-66	RP-142064	0250	-	Correction to GCF WI-103 IMS call control test case 12.2a	F	10.4.0	10.5.0	R5s141154
RP-66	RP-142064	0251	-	Addition of GCF WI-103 XCAP supplementary service Testcase 15.10a over 36.523-3 Test Model	F	10.4.0	10.5.0	R5s141162
RP-66	RP-142063	0252	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	10.4.0	10.5.0	RP-142063

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RP-67	RP-150332	0253	-	Routine maintenance for TS 34.229-3	F	10.5.0	10.6.0	R5-150355
RP-67	RP-150332	0283	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	10.5.0	10.6.0	-
RP-67	RP-150333	0254	-	Addition of GCF WI-154 IMS emergency call testcase 19.3.1 over 36.523-3 Test Model	B	10.5.0	10.6.0	R5s141155
RP-67	RP-150333	0255	-	Correction of IMS test case 8.1: sip-instance	F	10.5.0	10.6.0	R5s141212
RP-67	RP-150333	0256	-	Addition of GCF WI-198 MO MTSI Video Call test case 12.21 (using 36.523-3 test model)	B	10.5.0	10.6.0	R5s141221
RP-67	RP-150333	0257	-	Correction to IMS Emergency call test case 19.4.1	F	10.5.0	10.6.0	R5s141232
RP-67	RP-150333	0258	-	Addition of GCF WI-154 Emergency Call Testcase 19.3.4 over 36.523-3 Test Model	B	10.5.0	10.6.0	R5s141237
RP-67	RP-150333	0259	-	Correction of o-lines in SDP bodies sent by SS	F	10.5.0	10.6.0	R5s141244
RP-67	RP-150333	0260	-	Correction to GCF WI-171 IMS SSAC test case 12.18	F	10.5.0	10.6.0	R5s141273
RP-67	RP-150333	0261	-	Addition of GCF WI-154 IMS Emergency Call test case 19.1.5	B	10.5.0	10.6.0	R5s141286
RP-67	RP-150333	0262	-	Correction to IMS Registration Procedure	F	10.5.0	10.6.0	R5s141322
RP-67	RP-150333	0263	-	Correction to GCF WI-103 IMS test case 11.2	F	10.5.0	10.6.0	R5s141326
RP-67	RP-150333	0264	-	Addition of GCF WI-198 MO MTSI Video Call test case 12.22 over 36.523-3 Test Model	B	10.5.0	10.6.0	R5s141329
RP-67	RP-150333	0265	-	Correction to GCF WI-154 IMS emergency test case 19.5.6 and 19 5.7	F	10.5.0	10.6.0	R5s141335
RP-67	RP-150333	0266	-	Correction to GCF WI-198 IMS MO Video Call Testcase 12.21	F	10.5.0	10.6.0	R5s141336
RP-67	RP-150333	0267	-	Correction to GCF WI-154 IMS emergency test case 19.3.4	F	10.5.0	10.6.0	R5s141337
RP-67	RP-150333	0268	-	Addition of GCF WI-103 IMS Conference Call Testcase 15.17 over 36.523-3 Test Model	B	10.5.0	10.6.0	R5s141341
RP-67	RP-150333	0269	-	Addition of GCF WI-103 IMS Conference Call Testcase 15.19 over 36.523-3 Test Model	B	10.5.0	10.6.0	R5s141343
RP-67	RP-150333	0270	-	Correction of IMS TC 15.10a: not-registered condition	F	10.5.0	10.6.0	R5s141350
RP-67	RP-150333	0271	-	Correction to GCF WI-103 IMS 15.x XCAP Testcases	F	10.5.0	10.6.0	R5s141351
RP-67	RP-150333	0272	-	Correction of XCAP TCs on usage of str2oct	F	10.5.0	10.6.0	R5s141353
RP-67	RP-150333	0273	-	Correction of IMS Emergency Call testcase 19.4.5	F	10.5.0	10.6.0	R5s141370
RP-67	RP-150333	0274	-	Correction of IMS SSAC Testcases 12.18, 12.19, 12.20, 12.18a, 12.19a and 12.20a	F	10.5.0	10.6.0	R5s141381
RP-67	RP-150333	0275	-	Correction of prefix to XCAP Root Uri	F	10.5.0	10.6.0	R5s150030
RP-67	RP-150333	0276	-	Correction to UPDATE message for IMS MT Call Testcases	F	10.5.0	10.6.0	R5s150035
RP-67	RP-150333	0277	-	Correction for record-route header in IMS MT call scenarios	F	10.5.0	10.6.0	R5s150039
RP-67	RP-150333	0278	-	Correction to cr_UE_RadioAccessCapability template for IMS UTRA test cases	F	10.5.0	10.6.0	R5s150054
RP-67	RP-150333	0279	-	Correction to IMS Multiple PDN	F	10.5.0	10.6.0	R5s150055

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RP-67	RP-150333	0280	-	Correction to DNS Query procedure for IMS Testcases	F	10.5.0	10.6.0	R5s150085
RP-67	RP-150333	0281	-	Correction to SessionID in IMS signalling procedures	F	10.5.0	10.6.0	R5s150086
RP-67	RP-150333	0282	-	Addition of GCF WI-171 MO MTSI Video Call test case 12.19 (using 36.523-3 test model)	B	10.5.0	10.6.0	R5s150115
RP-68	RP-150884	0284	-	Routine maintenance for TS 34.229-3	F	10.6.0	10.7.0	R5-151102
RP-68	RP-150894	0286	-	Corrections to Emergency Services Over IMS test case 19.1.3	F	10.6.0	10.7.0	R5s150061
RP-68	RP-150894	0287	-	Corrections for Emergency Services over IMS test case 19.1.5	F	10.6.0	10.7.0	R5s150091
RP-68	RP-150894	0288	-	Correction to IMS XCAP Testcases	F	10.6.0	10.7.0	R5s150148
RP-68	RP-150894	0289	-	Correction of RR and RS modifiers	F	10.6.0	10.7.0	R5s150153
RP-68	RP-150894	0290	-	Correction to IMS Emergency Call testcase 19.4.5	F	10.6.0	10.7.0	R5s150157
RP-68	RP-150894	0291	-	Correction to IMS Emergency Call testcase 19.3.1	F	10.6.0	10.7.0	R5s150158
RP-68	RP-150894	0292	-	Correction of SPI matching error at runtime	F	10.6.0	10.7.0	R5s150174
RP-68	RP-150894	0293	-	Correction for checking of video feature tag	F	10.6.0	10.7.0	R5s150180
RP-68	RP-150894	0294	-	Correction to IMS Emergency Call testcase 19.3.1	F	10.6.0	10.7.0	R5s150193
RP-68	RP-150894	0295	-	Correction to GCF WI-154 IMS Emergency Call testcase 19.5.7	F	10.6.0	10.7.0	R5s150195
RP-68	RP-150894	0296	-	Correction regarding XCAP Root URI	F	10.6.0	10.7.0	R5s150202
RP-68	RP-150894	0297	-	Correction to Annex Procedure C.28	F	10.6.0	10.7.0	R5s150205
RP-68	RP-150894	0298	-	Correction in IMS MTSI Video call test case 12.21	F	10.6.0	10.7.0	R5s150236
RP-68	RP-150894	0299	-	Correction of Require header in 200 OK	F	10.6.0	10.7.0	R5s150237
RP-68	RP-150894	0300	-	Corrections for upper tester for IMS XCAP call forwarding test cases	F	10.6.0	10.7.0	R5s150244
RP-68	RP-150894	0301	-	Corrections for Emergency Services over IMS test case 19.5.7	F	10.6.0	10.7.0	R5s150245
RP-68	RP-150894	0302	-	Addition of GCF WI-103 MTSI Message Waiting Indication test case 15.15 (using 36.523-3 and 34.229-4 test models)	B	10.6.0	10.7.0	R5s150259
RP-68	RP-150894	0303	-	Correction of multi-PDN PCO handling	F	10.6.0	10.7.0	R5s150267
RP-68	RP-150894	0304	-	Correction for inactivity timer in IMS XCAP test cases	F	10.6.0	10.7.0	R5s150269
RP-68	RP-150894	0305	-	Corrections for TCP connection handling for IMS test cases	F	10.6.0	10.7.0	R5s150270
RP-68	RP-150894	0306	-	Correction to IMS emergency services test case 19.1.3	F	10.6.0	10.7.0	R5s150273
RP-68	RP-150894	0307	-	Correction of Require header in 200 OK - continued	F	10.6.0	10.7.0	R5s150274
RP-68	RP-150894	0308	-	Correction of IMS TC 15.19	F	10.6.0	10.7.0	R5s150276
RP-68	RP-150894	0309	-	Addition of GCF WI-103 IMS XCAP Testcase 15.10 over 36.523-3 Test Model	B	10.6.0	10.7.0	R5s150289
RP-68	RP-150894	0310	-	Addition of GCF WI-154 IMS Emergency Call test case 19.4.2 (using 36.523-3 test model)	B	10.6.0	10.7.0	R5s150327
RP-68	RP-150894	0312	-	Correction to TC 8.2 on expiration values	F	10.6.0	10.7.0	R5s150342

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RP-68	RP-150894	0313	-	Addition of GCF WI-103 IMS Testcase 15.12a over 36.523-3 Test Model	B	10.6.0	10.7.0	R5s150371
RP-68	RP-150894	0314	-	Addition of GCF WI-198 IMS Testcase 15.19a over 36.523-3 Test Model	B	10.6.0	10.7.0	R5s150373
RP-68	RP-150894	0315	-	Addition of GCF WI-103 IMS Testcase 15.21a over 36.523-3 Test Model	B	10.6.0	10.7.0	R5s150382
RP-68	RP-150894	0316	-	Correction to IMS Emergency Call test case 19.3.1	F	10.6.0	10.7.0	R5s150414
RP-68	RP-150894	0317	-	Correction of IMS TC 8.1	F	10.6.0	10.7.0	R5s150446
RP-68	RP-150893	0285	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	10.7.0	11.0.0	-
RP-68	RP-150894	0311	-	IMS type definition updates for rSRVCC	F	10.7.0	11.0.0	R5s150339
RP-69	RP-151409	0318	-	Routine maintenance for TS 34.229-3	F	11.0.0	11.1.0	R5-153257
RP-69	RP-151416	0319	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	11.0.0	11.1.0	-
RP-69	RP-151417	0320	-	Correction to IMS emergency services test case 19.3.3 with 34.229-3 IPCAN model	F	11.0.0	11.1.0	R5s150412
RP-69	RP-151417	0321	-	Addition of IMS test case 8.16 (… using 36.523-3 test model)	F	11.0.0	11.1.0	R5s150534
RP-69	RP-151417	0322	-	Correction to IMS video conferencing test case 15.19a	F	11.0.0	11.1.0	R5s150537
RP-69	RP-151417	0323	-	Correction for IMS test cases	F	11.0.0	11.1.0	R5s150630
RP-69	RP-151417	0324	-	Correction to de-registration sequence for IMS test cases	F	11.0.0	11.1.0	R5s150647
RP-69	RP-151417	0325	-	Correction to testcase 13.4.3.26 regarding 200 OK in C.28	F	11.0.0	11.1.0	R5s150665
RP-69	RP-151417	0326	-	Correction to IMS Call forwarding testcase 15.8	F	11.0.0	11.1.0	R5s150666
RP-69	RP-151417	0327	-	Correction to GCF WI-154 IMS emergency Call testcase 19.3.1	F	11.0.0	11.1.0	R5s150667
RP-69	RP-151417	0328	-	Correction to procedure for IPv6 address comparison	F	11.0.0	11.1.0	R5s150668
RP-69	RP-151417	0329	-	Addition of IMS test case 20.1 (… using 36.523-3 test model)	F	11.0.0	11.1.0	R5s150714
RP-69	RP-151417	0330	-	Correction to XCAP Call Forwarding testcases	F	11.0.0	11.1.0	R5s150725
RP-69	RP-151417	0331	-	Addition of IMS video conference call test case 15.21c	F	11.0.0	11.1.0	R5s150775
RP-69	-	-	-	update of the "non-specific references" in section 2 according to the approved R5-153582 and an action point on ETSI MCC	-	11.0.0	11.1.0	-
RP-70	RP-151693	0333	-	Correction to IMS Emergency Call test case 19.3.1	F	11.1.0	11.2.0	R5s150692
RP-70	RP-151693	0334	-	Correction to usage of GRUU in IMS registration	F	11.1.0	11.2.0	R5s150721
RP-70	RP-151693	0335	-	Correction to GCF WI-154 IMS emergency Call testcase 19.3.1	F	11.1.0	11.2.0	R5s150739
RP-70	RP-151693	0336	-	Addition of IMS video call test case 15.11a	F	11.1.0	11.2.0	R5s150755
RP-70	RP-151693	0337	-	Correction to IMS test case 10.1	F	11.1.0	11.2.0	R5s150786
RP-70	RP-151693	0338	-	Correction to IMS emergency test case 19.5.7	F	11.1.0	11.2.0	R5s150809

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RP-70	RP-151693	0339	-	Correction to initiation of Emergency Calls	F	11.1.0	11.2.0	R5s150817
RP-70	RP-151693	0340	-	Correction to IMS Emergency Call Test Case 19.1.5	F	11.1.0	11.2.0	R5s150818
RP-70	RP-151693	0341	-	Correction to IMS Registration	F	11.1.0	11.2.0	R5s150835
RP-70	RP-151693	0342	-	Correction to MTSI MO speech call procedures in AnnexC21	F	11.1.0	11.2.0	R5s150841
RP-70	RP-151693	0343	-	Correction to common IMS functions to handling IMS Dialogs	F	11.1.0	11.2.0	R5s150843
RP-70	RP-151693	0344	-	Correction to usage of Max-Forwards	F	11.1.0	11.2.0	R5s150850
RP-70	RP-151693	0345	-	Corrections to IMS emergency test case 19.3.1	F	11.1.0	11.2.0	R5s150851
RP-70	RP-151693	0346	-	Correction to number of SIP dialogs	F	11.1.0	11.2.0	R5s150854
RP-70	RP-151693	0347	-	Correction in IMS Emergency Call test case 19.5.7	F	11.1.0	11.2.0	R5s150864
RP-70	RP-151693	0348	-	Corrections to RTP and RTCP handling	F	11.1.0	11.2.0	R5s150865
RP-70	RP-151693	0349	-	Corrections to IMS Emergency call Testcase 19.1.3	F	11.1.0	11.2.0	R5s150868
RP-70	RP-151693	0350	-	Corrections to IMS authentication test cases 9.1 and 9.2	F	11.1.0	11.2.0	R5s150873
RP-70	RP-151693	0351	-	Correction to IMS registration expiry time	F	11.1.0	11.2.0	R5s150886
RP-70	RP-151693	0352	-	Correction to IMS REGISTER message	F	11.1.0	11.2.0	R5s150888
RP-70	RP-151693	0353	-	Correction to Emergency Call Normal Services in 34.229-1	F	11.1.0	11.2.0	R5s150900
RP-70	RP-151693	0354	-	Corrections to usage of GRUU	F	11.1.0	11.2.0	R5s150908
RP-70	RP-151693	0355	-	Corrections to IMS three-way session creation test cases	F	11.1.0	11.2.0	R5s150909
RP-70	RP-151693	0356	-	Correction to GCF WI-103 15.21a Three way session testcase	F	11.1.0	11.2.0	R5s150910
RP-70	RP-151693	0357	-	Correction to postamble for test cases 6.3 and 7.1	F	11.1.0	11.2.0	R5s150919
RP-70	RP-151693	0358	-	Correction to IMS emergency test case 19.5.6	F	11.1.0	11.2.0	R5s150972
RP-70	RP-151692	0359	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	11.1.0	11.2.0	-
RP-71	RP-160117	0382	1	Routine maintenance for TS 34.229-3	F	11.2.0	11.3.0	R5-160912
RP-71	RP-160123	0362	-	Correction to IMS test case 15.21a regarding Route header in REFER	F	11.2.0	11.3.0	R5s160011
RP-71	RP-160123	0365	-	Corrections to IMS emergency call test case 19.4.1	F	11.2.0	11.3.0	R5s160031
RP-71	RP-160123	0366	-	Corrections to IMS IRAT Emergency Call Limited Service Functionality	F	11.2.0	11.3.0	R5s160032
RP-71	RP-160123	0367	-	Correction to IMS test case 15.21a regarding TEL URI	F	11.2.0	11.3.0	R5s160043
RP-71	RP-160123	0368	-	Correction to Unsubscribe function in IMS De-Registration procedure	F	11.2.0	11.3.0	R5s160045
RP-71	RP-160123	0369	-	Corrections to bit rate for video calls	F	11.2.0	11.3.0	R5s160046
RP-71	RP-160123	0371	-	Correction to NOTIFY for 200 OK in Conferencing test cases	B	11.2.0	11.3.0	R5s160055
RP-71	RP-160123	0373	-	Addition of test case 19.3.2b	B	11.2.0	11.3.0	R5s160070

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RP-71	RP-160123	0375	-	Addition of test case 19.3.2c	F	11.2.0	11.3.0	R5s160072
RP-71	RP-160123	0377	-	Correction to IMS test case 8.16	B	11.2.0	11.3.0	R5s160075
RP-71	RP-160123	0378	-	Addition of test case 19.3.2	F	11.2.0	11.3.0	R5s160076
RP-71	RP-160123	0381	-	Correction to IMS_UTRAN_IWD_15wk50 test suite	B	11.2.0	11.3.0	R5s160090
RP-71	RP-160123	0363	1	Addition of IMS test case 15.14b	B	11.2.0	11.3.0	R5s160096
RP-71	RP-160123	0384	-	Addition of IMS test case 19.5.1	F	11.2.0	11.3.0	R5s160131
RP-71	RP-160123	0387	-	Correction to IMS test case 15.11 regarding Geolocation header	B	11.2.0	11.3.0	R5s150846
RP-71	RP-160123	0388	-	Addition of IMS test case 15.29	F	11.2.0	11.3.0	R5s150945
RP-71	RP-160123	0389	-	Correction to IMS test case 15.10	F	11.2.0	11.3.0	R5s150965
RP-71	RP-160123	0390	-	Corrections to fl_SIP_ParseURI for tel uri with phone context	F	11.2.0	11.3.0	R5s150968
RP-71	RP-160123	0391	-	Correction to f_URL_Decoding	F	11.2.0	11.3.0	R5s151006
RP-71	RP-160122	0385	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	11.2.0	11.3.0	R5s160177
RP-72	RP-160845	0406	-	Routine maintenance for TS 34.229-3	F	11.3.0	11.4.0	R5-162025
RP-72	RP-160849	0400	-	Correction to GCF WI-154 IMS emergency call TC 19.5.1	F	11.3.0	11.4.0	R5s160313
RP-72	RP-160849	0401	-	Correction to host name in Temp GRUU returned in 200 OK for REGISTER	F	11.3.0	11.4.0	R5s160324
RP-72	RP-160849	0402	-	Corrections to GRUU in XML body of NOTIFY request	F	11.3.0	11.4.0	R5s160325
RP-72	RP-160849	0403	-	Correction to authentication method used in XCAP test cases	F	11.3.0	11.4.0	R5s160338
RP-72	RP-160849	0404	-	Correction to IMS emergency call test cases 19.1.3, 19.3.2, 19.3.2b	F	11.3.0	11.4.0	R5s160339
RP-72	RP-160849	0405	-	Correction to XCAP encoding rules	F	11.3.0	11.4.0	R5s160353
RP-72	RP-160849	0407	-	Corrections to Contact header of MO INVITE	F	11.3.0	11.4.0	R5s160366
RP-72	RP-160849	0410	-	Addition of IMS EVS test case 12.23	F	11.3.0	11.4.0	R5s160379
RP-72	RP-160849	0411	-	Addition of IMS EVS test case 12.25	F	11.3.0	11.4.0	R5s160381
RP-72	RP-160849	0413	-	Correction to emergency call Testcases 19.3.2, 19.3.2b and 19.3.2c	F	11.3.0	11.4.0	R5s160406
RP-72	RP-160849	0416	-	Correction to IMS emergency call test case 19.5.1	F	11.3.0	11.4.0	R5s160439
RP-72	RP-160849	0417	-	Correction to XCAP GBA authentication procedure.	F	11.3.0	11.4.0	R5s160442
RP-72	RP-160849	0383	1	Corrections to IMS-IRAT Emergency Call test case 19.4.2	F	11.3.0	11.4.0	R5s160460
RP-72	RP-160849	0392	1	Correction to IMS Emergency Call test case 19.1.5	F	11.3.0	11.4.0	R5s160472
RP-72	RP-160849	0394	1	Correction to encoding for SipUrl type	F	11.3.0	11.4.0	R5s160490
RP-72	RP-160849	0396	1	Correction for IMS video call test cases	F	11.3.0	11.4.0	R5s160502
RP-72	RP-160849	0398	1	Corrections for IMS emergency call test cases 19.1.3, 19.3.2, 19.3.2b and 19.3.2c	F	11.3.0	11.4.0	R5s160514
RP-72	RP-160849	0399	1	Correction of fl_SIP_BuildReferToUri_RX	F	11.3.0	11.4.0	R5s160516

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RP-72	RP-160848	0421	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	11.4.0	12.0.0	R5s160457
RP-73	RP-161426	0441	-	Routine maintenance for TS 34.229-3	F	12.0.0	12.1.0	R5-165259
RP-73	RP-161397	0442	-	MTSI over WLAN: Introduction of Test Model	F	12.0.0	12.1.0	R5-165261
RP-73	RP-161396	0443	-	MTSI over fixed access: Introduction of Test Model	F	12.0.0	12.1.0	R5-165262
RP-73	RP-161430	0431	-	Correction to Recv-Info header checking in MO INVITE	F	12.0.0	12.1.0	R5s160616
RP-73	RP-161430	0434	-	Correction of fl_Authorization_GBA	F	12.0.0	12.1.0	R5s160642
RP-73	RP-161430	0435	-	Correction to applicability of IMS EVS test cases	F	12.0.0	12.1.0	R5s160645
RP-73	RP-161430	0418	2	Correction of URIs used in From and To headers	F	12.0.0	12.1.0	R5s160655
RP-73	RP-161430	0420	1	Correction to XML encoding of SIP instance ID for GRUU	F	12.0.0	12.1.0	R5s160656
RP-73	RP-161430	0422	1	Correction to IMS test case 19.5.1 for Multi-PDN configured UE's	F	12.0.0	12.1.0	R5s160658
RP-73	RP-161430	0424	1	Corrections to fl_HTTP_AuthenticationMethod	F	12.0.0	12.1.0	R5s160665
RP-73	RP-161430	0426	1	Corrections to IMS Emergency Call test case 19.4.5	F	12.0.0	12.1.0	R5s160669
RP-73	RP-161430	0427	1	Correction to GCF WI-103 IMS TC 11.1	F	12.0.0	12.1.0	R5s160674
RP-73	RP-161430	0436	-	Addition of IMS Supplementary Services test case 15.2a	B	12.0.0	12.1.0	R5s160687
RP-73	RP-161430	0438	-	Corrections for GBA authentication	F	12.0.0	12.1.0	R5s160710
RP-73	RP-161430	0444	-	Correction and simplification of the release of security contexts for IMS	F	12.0.0	12.1.0	R5s160735
RP-73	RP-161430	0445	-	Correction for IMS test case initialisation	F	12.0.0	12.1.0	R5s160736
RP-73	RP-161430	0446	-	Correction for IMS test cases	F	12.0.0	12.1.0	R5s160737
RP-73	RP-161430	0448	-	Corrections to IMS IRAT emergency call test cases 19.1.3, 19.3.2, 19.3.2b, 19.3.2c	F	12.0.0	12.1.0	R5s160754
RP-73	RP-161430	0414	2	Correction to IMS test case 15.11a on assigning the value of Logical Channel Priority for DRB-AM EPS bearers	F	12.0.0	12.1.0	R5s160804
RP-73	RP-161430	0415	2	Addition of IMS test case 19.5.8	B	12.0.0	12.1.0	R5s160805
RP-73	RP-161430	0423	2	Addition of IMS test case 17.2	B	12.0.0	12.1.0	R5s160806
RP-73	RP-161430	0428	2	Correction to IMS Conference call test case 15.17	F	12.0.0	12.1.0	R5s160807
RP-73	RP-161430	0429	2	Addition of IMS test case 17.1	B	12.0.0	12.1.0	R5s160808
RP-73	RP-161429	0449	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	12.0.0	12.1.0	R5s160803
RP-73	RP-161430	0440	-	Rel-13 baseline upgrade for IMS Test Suites	F	12.1.0	13.0.0	R5s160714
RP-74	RP-162106	0457	-	Corrections to IMS test case 17.2	F	13.0.0	13.1.0	R5s160842
RP-74	RP-162106	0458	-	Correction to IMS Mobile Originated Call test cases	F	13.0.0	13.1.0	R5s160855
RP-74	RP-162106	0459	-	Correction to GCF WI-154 IMS Emergency Call test case 19.3.2	F	13.0.0	13.1.0	R5s160856
RP-74	RP-162106	0460	-	Correcting the applicability check of IMS test case 19.5.8	F	13.0.0	13.1.0	R5s160862
RP-74	RP-162106	0461	-	Correction to CDU AT Command for IMS Video Call Establishment	F	13.0.0	13.1.0	R5s160879
RP-74	RP-162106	0450	1	Correction to GCF WI-154 IMS Emergency Call testcase 19.5.1	F	13.0.0	13.1.0	R5s160916

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RP-74	RP-162106	0451	1	Correction for HTTP authentication	F	13.0.0	13.1.0	R5s160923
RP-74	RP-162106	0452	1	Correction to IP PTC altstep a_IP_IMS_Config()	F	13.0.0	13.1.0	R5s160925
RP-74	RP-162106	0453	1	Correction to cr_ReferTo template as used in IMS Conferencing test cases	F	13.0.0	13.1.0	R5s160927
RP-74	RP-162106	0455	1	Correction to postamble procedure for IMS XCAP Testcases	F	13.0.0	13.1.0	R5s160931
RP-74	RP-162106	0454	1	Correction to Authentication-Info header used in fl_AuthenticationInfo_GBA	F	13.0.0	13.1.0	R5s160962
RP-75	RP-170095	0475	-	Routine maintenance for TS 34.229-3	F	13.1.0	13.2.0	R5-170558
RP-75	RP-170099	0468	-	Correction to GCF WI-154 IMS Emergency Call test case 19.1.3	F	13.1.0	13.2.0	R5s170044
RP-75	RP-170099	0469	-	Correction for IMS conferencing test cases	F	13.1.0	13.2.0	R5s170046
RP-75	RP-170099	0470	-	Correction for IMS authentication test case 9.1 and 9.2	F	13.1.0	13.2.0	R5s170050
RP-75	RP-170099	0471	-	Correction for IMS video call test case 12.22	F	13.1.0	13.2.0	R5s170056
RP-75	RP-170099	0472	-	Addition of IMS test case 12.24	B	13.1.0	13.2.0	R5s170066
RP-75	RP-170099	0473	-	Addition of IMS test case 12.26	B	13.1.0	13.2.0	R5s170074
RP-75	RP-170099	0474	-	Addition of IMS test case 15.4a	B	13.1.0	13.2.0	R5s170078
RP-75	RP-170099	0476	-	Removing temp-gruu from Contact header for IMS emergency registration	F	13.1.0	13.2.0	R5s170098
RP-75	RP-170099	0477	-	Adding P-Access-Network-Info header to f_IMS_PrackRequest_MessageHeaderRX()	F	13.1.0	13.2.0	R5s170099
RP-75	RP-170099	0462	1	Correction for AT command used in IMS Call forwarding Supplementary Service test cases	F	13.1.0	13.2.0	R5s170108
RP-75	RP-170099	0463	1	Correction to IMS Emergency call test case 19.5.6	F	13.1.0	13.2.0	R5s170112
RP-75	RP-170099	0464	1	Correction for IMS XCAP test cases using GBA Authentication	F	13.1.0	13.2.0	R5s170122
RP-75	RP-170099	0465	1	Correction to IMS Emergency Registration test case 19.5.9	F	13.1.0	13.2.0	R5s170143
RP-75	RP-170099	0467	1	Correction to WI-198 test case 17.2	F	13.1.0	13.2.0	R5s170148
RP-75	RP-170099	0466	1	Correction to WI-198 test case 17.1	F	13.1.0	13.2.0	R5s170166
RP-75	RP-170098	0482	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	13.1.0	13.2.0	R5s170184
RP-76	RP-171363	0494	-	Routine maintenance for TS 34.229-3	F	13.2.0	13.3.0	R5-172048
RP-76	RP-171367	0486	-	Correction to Annex C.11, C.26, C.45 and C.51	F	13.2.0	13.3.0	R5s170228
RP-76	RP-171367	0487	-	Corrections to IMS test case 12.2a	F	13.2.0	13.3.0	R5s170231
RP-76	RP-171367	0488	-	Further corrections to IMS test case 12.26	F	13.2.0	13.3.0	R5s170232
RP-76	RP-171367	0489	-	Correction for IMS authentication test cases 9.x	F	13.2.0	13.3.0	R5s170297
RP-76	RP-171367	0490	-	Correction for IMS video call test cases	F	13.2.0	13.3.0	R5s170299
RP-76	RP-171367	0491	-	Correction to SessionID in IMS signalling procedures	F	13.2.0	13.3.0	R5s170305
RP-76	RP-171367	0493	-	Correction for IMS emergency call test cases	F	13.2.0	13.3.0	R5s170327
RP-76	RP-171367	0495	-	Correction for IMS EVS test cases	F	13.2.0	13.3.0	R5s170336
RP-76	RP-171367	0496	-	Correction to GCF WI-198 IMS MTSI video Test Case 17.1	F	13.2.0	13.3.0	R5s170344
RP-76	RP-171367	0497	-	Correction to function fl_IMS_Server_SecurityContextCloseTCP	F	13.2.0	13.3.0	R5s170346
RP-76	RP-171367	0479	1	Correction to function fl_SS_CallForward	F	13.2.0	13.3.0	R5s170377
RP-76	RP-171367	0480	1	Correction to GCF WI-154 emergency call TC 19.5.8	F	13.2.0	13.3.0	R5s170378
RP-76	RP-171367	0483	1	Addition of IMS test case 8.15	B	13.2.0	13.3.0	R5s170390

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RP-76	RP-171367	0484	1	Correction to Remove security context procedure	F	13.2.0	13.3.0	R5s170391
RP-76	RP-171366	0500	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	13.2.0	13.3.0	R5s170415
RP-76	RP-171367	0481	1	Introduction of PIXIT for SPI calculation	F	13.2.0	13.3.0	R5s170417
RP-76	RP-171367	0485	1	Corrections to 180 Ringing	F	13.2.0	13.3.0	R5s170418
RP-77	RP-171688	0513	1	Routine maintenance for TS 34.229-3	F	13.3.0	13.4.0	R5-174564
RP-77	RP-171692	0507	-	Correction for UTRAN IMS test case 6.3 and 7.1	F	13.3.0	13.4.0	R5s170541
RP-77	RP-171692	0508	-	Correction to function fl_IMS_PTC_SPI_ValidValueList_Init()	F	13.3.0	13.4.0	R5s170544
RP-77	RP-171692	0509	-	Correction to IMS test cases 19.4.6 and 19.4.7	F	13.3.0	13.4.0	R5s170554
RP-77	RP-171692	0510	-	Correction to function to GCF WI-103 IMS TCs 16.2, 16.3 and 16.4	F	13.3.0	13.4.0	R5s170578
RP-77	RP-171692	0514	-	Correction to function fl_IMS_Server_GetServerAddrRx()	F	13.3.0	13.4.0	R5s170604
RP-77	RP-171692	0498	1	Addition of IMS test case 19.4.6	B	13.3.0	13.4.0	R5s170614
RP-77	RP-171692	0499	1	Addition of IMS test case 19.4.7	B	13.3.0	13.4.0	R5s170615
RP-77	RP-171692	0501	1	Correction to bandwidth used in IMS test case 12.23	F	13.3.0	13.4.0	R5s170622
RP-77	RP-171692	0502	1	Correction of f_IMS_BuildSDP_MOCallAudioVideo_Step4	F	13.3.0	13.4.0	R5s170626
RP-77	RP-171692	0503	1	Correction for IMS deregistration procedure	F	13.3.0	13.4.0	R5s170643
RP-77	RP-171692	0505	1	Correction to SPI initialization	F	13.3.0	13.4.0	R5s170645
RP-77	RP-171692	0504	1	Addition of IMS test case G.8.1	B	13.3.0	13.4.0	R5s170690
RP-77	RP-171691	0516	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	13.3.0	13.4.0	R5s170705
RP-77	RP-171692	0512	-	Rel-14 baseline upgrade for IMS Test Suites	F	13.4.0	14.0.0	R5s170600
RP-78	RP-172217	0521	-	EIEI: Introduction of Test Model	F	14.0.0	14.1.0	R5-176171
RP-78	RP-172241	0517	-	Correction to bandwidth value in IMS test case 12.26	F	14.0.0	14.1.0	R5s170817
RP-78	RP-172241	0515	1	Correction to IMS test case 12.2a	F	14.0.0	14.1.0	R5s170836
RP-78	RP-172241	0518	-	Extending timer tolerance for 19.5.7	F	14.0.0	14.1.0	R5s170876
RP-78	RP-172241	0519	-	Correction to SRVCC feature tag handling in IMS test case 12.22	F	14.0.0	14.1.0	R5s170877
RP-78	RP-172241	0520	-	Correction to f_IMS_MTCallSetup_Common_Steps12_13	F	14.0.0	14.1.0	R5s170883
RP-78	RP-172241	0522	-	Addition of IMS test case G.12.1	F	14.0.0	14.1.0	R5s170904
RP-78	RP-172241	0523	-	Addition of IMS test case G.12.3	F	14.0.0	14.1.0	R5s170906
RP-78	RP-172241	0511	1	Addition of IMS test case 19.1.6	F	14.0.0	14.1.0	R5s170951
RP-78	RP-172240	0526	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	14.0.0	14.1.0	R5s170959
RP-79	RP-180089	0551	-	EIEI: Test Model updates	F	14.1.0	14.2.0	R5-180613
RP-79	RP-180104	0552	-	Routine maintenance for TS 34.229-3	F	14.1.0	14.2.0	R5-180632
RP-79	RP-180112	0531	-	Correction of function f_IMS_CC_StartCall	F	14.1.0	14.2.0	R5s180023
RP-79	RP-180112	0538	-	Correction to IMS three way session creation test cases 15.21a and 15.21c	F	14.1.0	14.2.0	R5s180053
RP-79	RP-180112	0539	-	Correction for IMS UTRAN test cases 6.3 and 7.1	F	14.1.0	14.2.0	R5s180061
RP-79	RP-180112	0524	1	Clean-up and harmonisation of IMS test case implementation for EUTRA/WLAN/FBBA/CatM1	F	14.1.0	14.2.0	R5s180092
RP-79	RP-180112	0525	1	Correction of f_UTRAN_IPCAN_Release	F	14.1.0	14.2.0	R5s180093

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RP-79	RP-180112	0541	-	Correction to IMS function fl_IMS_Server_RemoveSecurityContext	F	14.1.0	14.2.0	R5s180112
RP-79	RP-180112	0530	1	Addition of IMS test case G.15.17	F	14.1.0	14.2.0	R5s180116
RP-79	RP-180112	0542	-	Addition of IMS test case J.8.1 for CAT-M1 UEs	F	14.1.0	14.2.0	R5s180126
RP-79	RP-180112	0543	-	Addition of IMS test case J.12.1 for CAT-M1 UEs	F	14.1.0	14.2.0	R5s180128
RP-79	RP-180112	0544	-	Addition of IMS test case J.12.2 for CAT-M1 UEs	F	14.1.0	14.2.0	R5s180130
RP-79	RP-180112	0545	-	Addition of IMS test case J.15.1 for CAT-M1 UEs	F	14.1.0	14.2.0	R5s180132
RP-79	RP-180112	0546	-	Addition of IMS test case J.15.3 for CAT-M1 UEs	F	14.1.0	14.2.0	R5s180134
RP-79	RP-180112	0547	-	Addition of IMS test case J.15.4 for CAT-M1 UEs	F	14.1.0	14.2.0	R5s180136
RP-79	RP-180112	0548	-	Addition of IMS test case J.15.6 for CAT-M1 UEs	F	14.1.0	14.2.0	R5s180138
RP-79	RP-180112	0549	-	Addition of IMS test case J.15.2 for CAT-M1 UEs	F	14.1.0	14.2.0	R5s180142
RP-79	RP-180112	0550	-	Addition of IMS test case J.19.2 for CAT-M1 UEs	F	14.1.0	14.2.0	R5s180144
RP-79	RP-180112	0555	-	Addition of IMS test case G.12.2	F	14.1.0	14.2.0	R5s180162
RP-79	RP-180112	0527	1	Postponing activation of dedicated bearer in MT call scenarios	F	14.1.0	14.2.0	R5s180200
RP-79	RP-180111	0564	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	14.1.0	14.2.0	R5s180209
RP-80	RP-180728	0569	-	Correction for IMS over UTRAN test cases 6.3 and 7.1	F	14.2.0	14.3.0	R5s180247
RP-80	RP-180728	0570	-	Addition of IMS test case G.17.1	F	14.2.0	14.3.0	R5s180267
RP-80	RP-180728	0571	-	Correction for IMS call control test case 12.2	F	14.2.0	14.3.0	R5s180278
RP-80	RP-180728	0574	-	Correction to IMS test case 17.2 regarding strength tag in video media	F	14.2.0	14.3.0	R5s180304
RP-80	RP-180728	0553	1	Follow-up to R5s170904 regarding IMS test case G.12.1	F	14.2.0	14.3.0	R5s180320
RP-80	RP-180728	0556	1	Addition of IMS test case G.12.4	F	14.2.0	14.3.0	R5s180323
RP-80	RP-180728	0557	1	Addition of IMS test case G.15.2	F	14.2.0	14.3.0	R5s180329
RP-80	RP-180728	0558	1	Addition of IMS test case G.15.11	F	14.2.0	14.3.0	R5s180330
RP-80	RP-180728	0559	1	Addition of IMS test case G.15.13	F	14.2.0	14.3.0	R5s180331
RP-80	RP-180728	0560	1	Addition of IMS test case G.15.18	F	14.2.0	14.3.0	R5s180332
RP-80	RP-180728	0561	1	Addition of IMS test case G.15.21	F	14.2.0	14.3.0	R5s180333
RP-80	RP-180728	0562	1	Check of codec parameters for C.44	F	14.2.0	14.3.0	R5s180342
RP-80	RP-180728	0563	1	Generic implementation of common checks for 180 and 183 responses	F	14.2.0	14.3.0	R5s180343
RP-80	RP-180728	0565	1	Addition of IMS test case G.15.20	F	14.2.0	14.3.0	R5s180357
RP-80	RP-180728	0566	1	Addition of IMS test case G.15.23	F	14.2.0	14.3.0	R5s180358
RP-80	RP-180728	0567	1	Addition of IMS test case G.15.12	F	14.2.0	14.3.0	R5s180362
RP-80	RP-180728	0568	1	Addition of IMS test case G.15.14	F	14.2.0	14.3.0	R5s180363
RP-80	RP-180727	0577	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	14.2.0	14.3.0	R5s180396
RP-81	RP-181585	0580	-	Addition of IMS test case G.15.4	B	14.3.0	14.4.0	R5s180433
RP-81	RP-181585	0581	-	Corrections to WLAN MT calls over IMS regarding returning 180 Ringing	F	14.3.0	14.4.0	R5s180436
RP-81	RP-181585	0582	-	Corrections to IMS emergency test case 19.1.6	F	14.3.0	14.4.0	R5s180463
RP-81	RP-181585	0575	1	Correction to f_IMS_MTCallSetup_AnnexC11aC11cC26aC26b	F	14.3.0	14.4.0	R5s180483

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RP-81	RP-181585	0578	1	Addition of IMS test case G.15.24	B	14.3.0	14.4.0	R5s180505
RP-81	RP-181585	0579	1	Addition of IMS test case G.15.25	B	14.3.0	14.4.0	R5s180506
RP-81	RP-181584	0584	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	14.3.0	14.4.0	R5s180524
RP-82	RP-182288	0591	-	MCPTT: Updates to common type definitions	F	14.4.0	14.5.0	R5-187458
RP-82	RP-182291	0586	-	Addition of IMS test case 15.25	F	14.4.0	14.5.0	R5s180548
RP-82	RP-182291	0588	-	Correction to race condition in IMS test case 12.2a	F	14.4.0	14.5.0	R5s180561
RP-82	RP-182291	0589	-	Addition of IMS test case J.19.1	F	14.4.0	14.5.0	R5s180564
RP-82	RP-182291	0590	-	Corrections to IMS test case 19.4.6	F	14.4.0	14.5.0	R5s180586
RP-82	RP-182291	0583	1	Addition of IMS test case 19.1.1	F	14.4.0	14.5.0	R5s180604
RP-82	RP-182291	0585	1	Addition of IMS Testcase J.18.2	F	14.4.0	14.5.0	R5s180609
RP-82	RP-182290/ R5s180635	0592	-	Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	14.4.0	14.5.0	R5s180635
RP-82	RP-182291	0587	-	Rel-15 Sep'18 baseline upgrade for IMS Test Suites	F	14.5.0	15.0.0	R5s180555

History

Document history		
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