ETSI TS 103 321 V1.1.1 (2015-04)

Mobile Standards Group (MSG);
eCall HLAP Conformance Testing;
Abstract Test Suite (ATS) and
Protocol Implementation eXtra Information for Testing (PIXIT)

Reference
DTS/MSG-0015

Keywords
ATS, eCall, testing

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Contents

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://ipr.etsi.org).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Mobile Standards Group (MSG).

The present document is a single-part deliverable covering the "Abstract Test Suite (ATS) and Protocol Implementation eXtra Information for Testing (PIXIT)".

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

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

1 Scope

The present document contains the Abstract Test Suite (ATS) for eCall (Higher Layer Application Protocols) HLAP for the test purposes (TPs) as defined in CEN EN 16454 [i.1] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [i.11].

The ISO standard for the methodology of conformance testing (ISO/IEC 9646-1 [i.8] and ISO/IEC 9646-2 [i.9]) as well as the ETSI rules for conformance testing (ETSI ETS 300 406 [i.12]) are used as a basis for the test methodology.

The TPs defined in CEN EN 16454 [i.1] are implemented by different ATSs. The eCall HLAP ATS is defined in the present document. The relevant eCall tests related to GSM and UMTS technologies are identified in ETSI TS 102 936-1 [i.4] and ETSI TS 102 936-2 [i.5].

The eCall HLAP ATS of this present document contains only tests which do not require the MNO test point and hence the ATS implements only a subset of all available TPs. The detailed ATS coverage is defined in clause 5.

The support of optional features is defined by the Protocol Implementation Conformance Statement (PICS) in clause 7.

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

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

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

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

Not applicable.

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

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

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] CEN EN 16454:2012: "Intelligent transport systems - eSafety - eCall end to end conformance testing".

[i.2] CEN EN 15722:2012: "Intelligent transport systems - eSafety - eCall minimum set of data".

[i.3] CEN EN 16062:2012: "Intelligent transport systems - eSafety - eCall high level application requirements (HLAP) using GSM/UMTS circuit switched networks".

[i.4] ETSI TS 102 936-1 V1.1.1: "eCall Network Access Device (NAD) conformance specification; Part 1: Protocol test specification".

[i.5] ETSI TS 102 936-2 V1.1.1: "eCall Network Access Device (NAD) conformance specification; Part 2: Test suites".

[i.6] ETSI TS 134 123-3: "Universal Mobile Telecommunications System (UMTS); User Equipment (UE) conformance specification; Part 3: Abstract test suite (ATS) (3GPP TS 34.123-3 version 11.4.0 Release 11)".

[i.7] ETSI TS 151 010-3: " Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 3: Layer3 (L3) Abstract Test Suite (ATS) (3GPP TS 51.010-3 version 6.3.0 Release 6)".

[i.8] ISO/IEC 9646-1 (1994): "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 1: General concepts".

[i.9] ISO/IEC 9646-2 (1994): "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 2: Abstract Test Suite specification".

[i.10] ISO/IEC 9646-6 (1994): "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 6: Protocol profile test specification".

[i.11] ISO/IEC 9646-7 (1995): "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 7: Implementation Conformance Statements".

[i.12] ETSI ETS 300 406 (1995): "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[i.13] ETSI ES 201 873-1: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 1: TTCN-3 Core Language".

[i.14] ETSI ES 201 873-7: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 7: Using ASN.1 with TTCN-3".

[i.15] ETSI TS 122 011: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Service accessibility (3GPP TS 22.011)".

[i.16] ETSI TS 123 122: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Non-Access-Stratum (NAS) functions related to Mobile Station (MS) in idle mode (3GPP TS 23.122)".

[i.17] ETSI TS 126 267: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); eCall data transfer; In-band modem solution; General description (3GPP TS 26.267)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in CEN EN 16454 [i.1], ISO/IEC 9646-1 [i.11] and ISO/IEC 9646-7 [i.11] apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in CEN EN 16454 [i.1] and the following apply:

AL	Application Layer
AL-ACK	Application Layer Acknowledgement
ATM	Abstract Test Method
ATS	Abstract Test Suite
CTP	Conformance Test Purpose
GIS	Geographic Information System
GSM	Global System for Mobile communications
HLAP	Higher Layer Application Protocols
IUT	Implementation Under Test
IVS	In-Vehicle System
LL-ACK	Link Layer Acknowledgement

MNO	Mobile Network Operator
MSD	Minimum Set of Data
MSISDN	Mobile Subscriber ISDN number
PICS	Protocol Implementation Conformance Statement
PIXIT	Partial Protocol Implementation Extra Information for Testing
PSAP	Public Safety Answering Point
SCS	System Conformance Statement
SUT	System Under Test
TC	Test Case
TTCN	Testing and Test Control Notation
UMTS	Universal Mobile Telecommunications System

4 Test Method

4.1 Abstract test method (ATM)

4.1.1 ATM used by the ATS in the present document

The ATM used is the single layer distributed test method.

4.1.2 ATM used by the ATSs for GSM and UMTS protocol conformance testing

The ATM used for the UMTS TCs is the single layer distributed test method and is identified in ETSI TS 134 123-3 [i.6], clause 6.3.1.

The ATM used for the GSM TCs is the single layer distributed test method and is identified in ETSI TS 151 010-3 [i.7], clause 6.

4.2 Test Configuration

4.2.1 Configuration 1: IVS SUT

4.2.1.1 General configuration

Figure 1 describes the general configuration for IVS SUT.

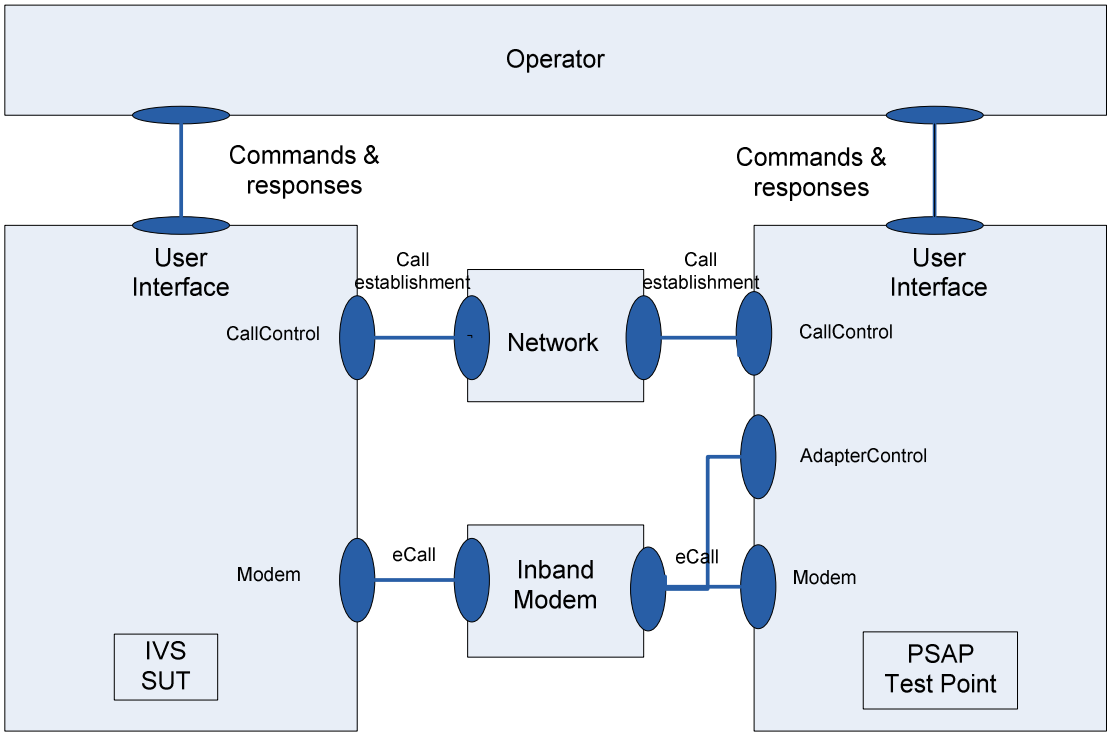

Figure 1

4.2.1.2 TTCN configuration

Figure 2 describes the TTCN configuration for IVS SUT

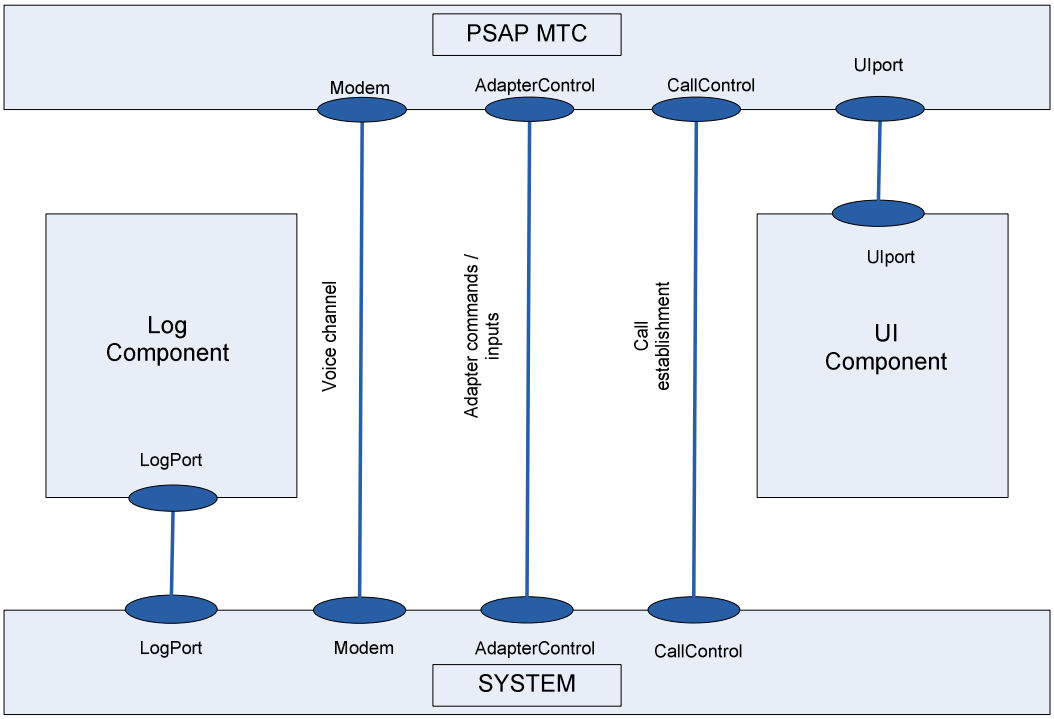

Figure 2

4.2.2 Configuration 2: PSAP SUT

4.2.2.1 General configuration

Figure 3 describes the general configuration for PSAP SUT.

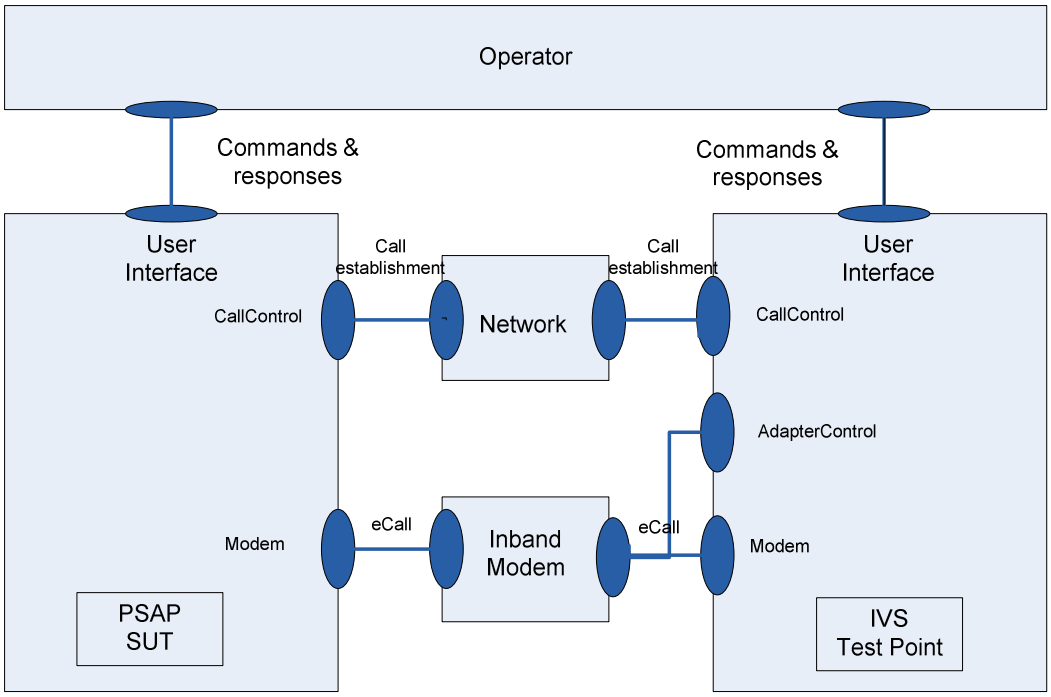

Figure 3

4.2.2.2 TTCN configuration

Figure 4 describes the TTCN configuration for PSAP SUT.

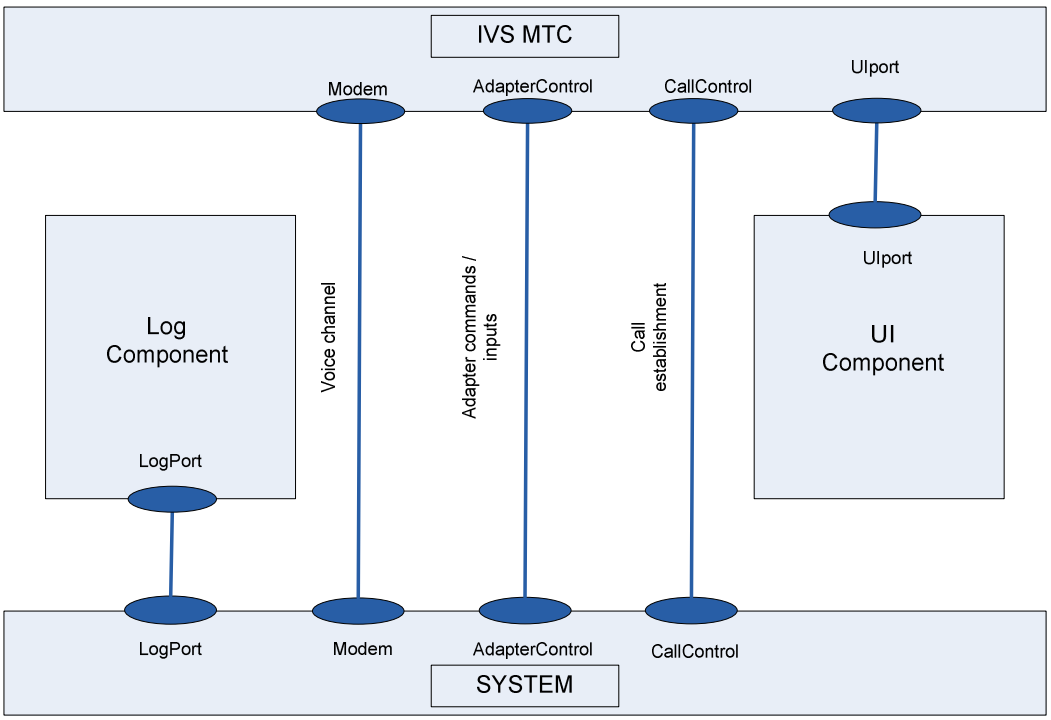

Figure 4

4.3 Ports

The UIPort handles the interaction with the operator by providing a means to display information about required operator actions as well as a way of capturing input from the operator.

Table 1: UIPort

UIPort	
in	ShowMessageBox, MessageBoxSelection
out	ShowMessageBox, MessageBoxSelection

The LogMessagePort is intended for debugging information from the adaptation. Debug messages are processed by the log component to separate them from the main body of the test case and also to provide an efficient means of filtering them out.

Table 2: LogMessagePort

LogMessagePort	
in	LogMessage
out	-

Table 3: ModemPort

ModemPort	
in	ModemEvent, LogMessage
out	SetConfigCmd, InbandRequestMsdCmd, InbandSendAlAckCmd

Table 4: CallControlPort

CallControlPort	
in	CallEvent
out	CallAcceptCmd, CallHangUpCmd, CallRejectBusyCmd, CallCreateCmd, CallCancelCmd

Table 5: AdapterControlPort

AdapterControlPort	
in	AdapterEvent
out	SetConfigCmd

4.4 Messages

4.4.1 In Messages

Table 6: ModemEvent

ModemEvent
Port: ModemPort
InbandMsdReceivedEvent, InbandLlAckSentEvent, InbandLlAckReceivedEvent, InbandAlAckSentEvent, InbandAlAckReceivedEvent, InbandSendSignalReceivedEvent, InbandNackSentEvent, InbandNackReceivedEvent, CallVoiceConnectionEstablishedEvent, InbandStartSignalReceivedEvent, TimerExpiredEvent.

Table 7: CallEvent

CallEvent
Port: CallControlPort
CallCanceledEvent, CallIncomingEvent, CallOutgoingEvent, CallEstablishedEvent, CallRejectedEvent, CallHangUpEvent, CallAbortedEvent

Table 8: AdapterEvent

AdapterEvent
Port: AdapterControlPort
ConfigChangedEvent

Table 9: LogMessage

LogMessage		
Port: LogMessagePort , ModemPort		
instanceId	integer	ID of the instance emitting the log message
time	charstring	Timestamp of the log message
level	e_debug, e_info	Level of criticality of the log message
text	charstring	Text of the log message

Table 10: InbandMsdReceivedEvent

Port: ModemPort		**IUT: PSAP**
Indicates the successful reception of an MSD		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
level	ECallMessageUnion	Received raw message

Table 11: InbandLlAckSentEvent

Port: ModemPort		**IUT: PSAP**
Generated when sending a LL-ACK indicating successful reception of an MSD to the IVS		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
count	AckNumberType	count

Table 12: InbandLlAckReceivedEvent

Port: ModemPort		**IUT: IVS**
Generated when sending a LL-ACK indicating successful reception of an MSD to the IVS		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
count	AckNumberType	count
reliable	boolean	reliable

Table 13: InbandAlAckSentEvent

Port: ModemPort		**IUT: PSAP**
Generated when sending an AL-ACK indicating the format of the MSD is ok		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
count	AckNumberType	count
val	AckValueType	AL ACK value sent

Table 14: InbandAlAckReceivedEvent

Port: ModemPort		**IUT: IVS**
Generated when receiving an AL-ACK indicating the format of the MSD is ok		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
count	AckNumberType	count
val	AckValueType	AL ACK value sent
reliable	boolean	reliable

Table 15: InbandSendSignalReceivedEvent

Port: ModemPort		**IUT: PSAP**
Indicates the reception of a SEND signal		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp

Table 16: InbandNackSentEvent

Port: ModemPort		**IUT: PSAP**
Generated when sending a NACK indicating that the MSD was not yet received		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
count	PositiveInteger	count

Table 17: CallVoiceConnectionEstablishedEvent

Port: ModemPort		**IUT: PSAP, IVS**
Generated whenever bidirectional voice communication is possible		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp

Table 18: InbandStartSignalReceivedEvent

Port: ModemPort		**IUT: IVS**
Indicates the reception of a START signal		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
count	PositiveInteger	count
reliable	boolean	reliable

Table 19: TimerExpiredEvent

Port: ModemPort		**IUT: PSAP, IVS**
Generated when a timer expires		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
name	charstring	The name of the timer
val	float	The value of the timer in seconds

Table 20: CallCanceledEvent

Port: CallControlPort		**IUT: PSAP, IVS**
Generated when an incoming call is cancelled by the remote end before it was accepted or rejected		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp

Table 21: CallIncomingEvent

Port: CallControlPort		**IUT: PSAP, IVS**
Informs about an incoming call		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
from_	TelephoneNumber	Caller ID
to_	TelephoneNumber	Calling ID

Table 22: CallOutgoingEvent

Port: CallControlPort		**IUT: PSAP, IVS**
Informs about an outgoing call request		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
from_	TelephoneNumber	Caller ID
to_	TelephoneNumber	Calling ID

Table 23: CallEstablishedEvent

Port: CallControlPort		**IUT: PSAP, IVS**
Informs about an outgoing call request		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp

Table 24: CallRejectedEvent

Port: CallControlPort		**IUT: PSAP, IVS**
Generated when a call was rejected		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp

Table 25: CallHangUpEvent

Port: CallControlPort		**IUT: PSAP, IVS**
Informs about the end of a call		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp

Table 26: CallAbortedEvent

Port: CallControlPort		**IUT: PSAP, IVS**
Generated when a call ends and neither call_hang_up nor call_cancelled nor call_rejected are applicable		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
reason	charstring	A hint to why the call was aborted

Table 27: ConfigChangedEvent

Port: AdapterControlPort		**IUT: PSAP, IVS**
Generated whenever one or more configuration options changed		
instanceId	integer	ID of the instance that generated the event
time	charstring	Event timestamp
parameters	ModemConfiguration	Configuration parameters

Table 28: ShowMessageBox

Port: UIPort		**IUT: PSAP, IVS**
Message box request		
title	charstring	title
msg	charstring	message
buttonLabels	ButtonLabels	button labels
defaultSelection	integer	default button selection
msgTimeout	Integer - Optional	the message box is hidden after msgTimeout seconds if no button is selected by the user

Table 29: MessageBoxSelection

Port: UIPort	**IUT: PSAP, IVS**
Selected button of the message box	
integer	

4.4.2 Out Messages

Table 30: SetConfigCmd

Port: ModemPort , AdapterControlPort		**IUT: PSAP, IVS**
Change configuration options		
instanceId	integer	Target instance process
parameters	ModemConfiguration	Configuration parameters

Table 31: CallAcceptCmd

Port: CallControlPort		**IUT: PSAP, IVS**
Accept an incoming call		
instanceId	integer	Target instance process

Table 32: CallHangUpCmd

Port: CallControlPort		**IUT: PSAP, IVS**
End a call in progress. Always ends both the external call and the internal call		
instanceId	integer	Target instance process

Table 33: CallRejectBusyCmd

Port: CallControlPort		**IUT: PSAP, IVS**
Reject an incoming call with the busy signal		
instanceId	integer	Target instance process

Table 34: CallCreateCmd

Port: CallControlPort		**IUT: PSAP, IVS**
Create an outgoing external call request		
instanceId	integer	Target instance process
to_	charstring	Call destination

Table 35: CallCancelCmd

Port: CallControlPort		**IUT: PSAP, IVS**
Cancel an outgoing external call request		
instanceId	integer	Target instance process

Table 36: InbandRequestMsdCmd

Port: ModemPort		**IUT: PSAP**
Request retransmission of an MSD. Only works if there is no MSD transmission already in progress		
instanceId	integer	Target instance process

Table 37: InbandSendAlAckCmd

Port: ModemPort		**IUT: PSAP**
Send an application layer acknowledgment		
instanceId	integer	Target instance process
val	AckValueType	Acknowledgement value

Table 38: ShowMessageBox

Port: UIPort		**IUT: PSAP, IVS**
Message box request		
title	charstring	title
msg	charstring	message
buttonLabels	ButtonLabels	button labels
defaultSelection	integer	default button selection
msgTimeout	Integer - Optional	the message box is hidden after msgTimeout seconds if no button is selected by the user

Table 39: MessageBoxSelection

Port: UIPort	**IUT: PSAP, IVS**
Selected button of the message box	
integer	

4.5 Primitives

Table 40: f_userAction primitives

f_userAction
IVS SUT
"With the vehicle ignition set to OFF, attempt to trigger an eCall automatically in accordance with the manufacturer's instructions"
"Apply new trigger (manual or automatic) while eCall is in progress"
"Generate invalid trigger (below relevant threshold) for """ & PX_SUPPORTED_CRASH_TYPES[v_crashType] & """ crash-type"
"Apply new trigger (manual or automatic) while eCall is in progress"
"Attempt to disconnect eCall using vehicle HMI"
"Switch OFF ignition"
"Establish non eCall communication"
"Trigger test eCall (to the provisioned non-emergency number)"
PSAP SUT
"Request MSD data using PSAP application"
"Clear down PSAP"
"Clear down eCall"
"Initiate call back procedure"

Table 41: f_userVerify primitives

f_userVerify
IVS SUT
"Was visual and/or audible information of eCall activation provided?"
"Did the IVS initiate an automatic eCall?"
"Did the IVS attempt to establish a ""hands-free"" voice connection?"
"Was an audio/visual alert displayed to the occupants?"
"Did the IVS send data?"
"Did the IVS successfully clear-down?"
"Was the eCall in progress disconnected?"
"Was an HMI alert provided to occupants that an eCall is being started?"
"Are all components required for an eCall available and not influenced by the previously running communication?"
"Is voice communication possible?"
"Was audio muted during MSD transmission?"
"Was the call connected to the PSAP test point?"
"Was voice 2-way voice communication possible after receiving positive AL_ACK or within 5s of LL_ACK?"
"Is speech conversation in progress between the IVS and PSAP?"
"Was IVS audio muted during MSD transfer?"
"Was 2-way voice communication possible after T5 has expired?"
"Was 2-way voice communication possible after T6 has expired?"
"Was 2-way voice communication possible after T7 has expired?"
"Is the IVS cleared down?"
"Is a record of the received application layer acknowledgment (AL-ACK) and time stamp, sent from the PSAP test point, stored in the IVS?"
"Was the call-back automatically answered by the IVS?"
"Was visual and/or audible information of eCall activation provided by the IVS?"
"Is 2-way speech possible?"
"Was visual and/or audible information of eCall activation provided by the IVS?"
"Was the IVS microphone muted during MSD transmission?"
"Was the entertainment system muted for the duration of the call?"
PSAP SUT
"Was the call correctly queued and routed to a free operator?"
"Is the TS12 and MSD data correctly displayed in the PSAP operator interface?"
"Was the call treated as a normal TS12 call and routed to operator?"
"Was audio-link established with vehicle occupants?"
"Was the call routed to the operator and audio link is established with vehicle occupants?"
"Is the car description information correctly displayed in the PSAP operator's interface?"
"Was the MSD correctly displayed on the operator's interface and audio link with vehicle was re-established?"
"Is the eCall routed to the most appropriate PSAP and routed to an operator?"
"Is the operator line free?"
"Is voice communication between PSAP operator and vehicle established?"
"Was two way speech possible after" & fx_float2str(PX_T4_TIMER) & " seconds of call establishment?"
"Was the eCall (voice and MSD) correctly routed to an available operator?"

5 Test Purposes Coverage

This clause lists all test purposes of CEN and indicates which are implemented and which are not implemented. A reason is given for at least those test purposes which are not implemented.

Table 42: Test purposes of CEN

Test purpose	Implemented Yes/No	Reason
CTP 1.1.0.1	No	Out of scope (MNO test point required) of the present document. Covered by ETSI TS 102 936-1 [i.4] and ETSI TS 102 936-2 [i.5] - PE eCall IVS
CTP 1.1.0.2	No	Out of scope (MNO test point required) - PE eCall
CTP 1.1.0.3	Yes	CTP step indicates "PSAP test point or MNO test point". It is possible to achieve the step by using the PSAP test point - PE eCall IVS
CTP 1.1.1.1	No	Out of scope (no protocol test) - PE eCall IVS
CTP 1.1.1.2	No	Out of scope (MNO test point required) - PE eCall only IVS
CTP 1.1.1.3	No	Out of scope (No test required) Covered by ETSI TS 122 011 [i.15] and ETSI TS 123 122 [i.16] - PE eCall only IVS
CTP 1.1.2.1	No	Out of scope (MNO test point required) - PE eCall IVS
CTP 1.1.2.2	Yes	PE eCall IVS
CTP 1.1.2.3	Yes	IVS
CTP 1.1.2.4	Yes	IVS
CTP 1.1.2.5	Yes	IVS
CTP 1.1.3.1	No	Out of scope (MNO test point required). - PE eCall IVS
CTP 1.1.3.2	Yes	PE eCall IVS
CTP 1.1.4.1	No	PE eCall IVS
CTP 1.1.5.1	No	Out of scope (MNO test point required). - PE eCall IVS
CTP 1.1.5.2	Yes	PE eCall IVS
CTP 1.1.5.3	Yes	PE eCall IVS
CTP 1.1.5.4	Yes	PE eCall IVS
CTP 1.1.5.5	Yes	PE eCall IVS
CTP 1.1.5.6	Yes	CTP step indicates "PSAP test point or MNO test point". It is possible to achieve the step by using the PSAP test point. - PE eCall IVS
CTP 1.1.5.7	No	Out of scope No test required - PE eCall IVS
CTP 1.1.6.1	Yes	PE eCall IVS
CTP 1.1.7.1	No	Out of scope (MNO test point required). TS12 automatic - PE eCall IVS
CTP 1.1.8.1	No	Out of scope (MNO test point required). TS12 manual - PE eCall IVS
CTP 1.1.9.1	Yes	CTP step indicates "PSAP test point or MNO test point". It is possible to achieve the step by using the PSAP test point. - PE eCall IVS
CTP 1.1.10.1	No	Test purposes does not define parameters for limited service condition. Out of scope (MNO test point required). - PE eCall IVS
CTP 1.1.10.2	Yes	PE eCall IVS
CTP 1.1.10.3	Yes	Timer 2 s - PE eCall IVS
CTP 1.1.10.4	No	Out of scope (MNO test point required) - PE eCall only IVS
CTP 1.1.11.1	Yes	PE eCall IVS
CTP 1.1.12.1	Yes	PE eCall IVS
CTP 1.1.13.1	Yes	PE eCall IVS
CTP 1.1.14.1	Yes	T6 - T4 and T8 for pass condition - PE eCall IVS
CTP 1.1.14.2	Yes	PE eCall IVS
CTP 1.1.15.1	Yes	Timer 5 s. - PE eCall IVS
CTP 1.1.15.2	Yes	T6, T7 and T8 used - PE eCall IVS
CTP 1.1.15.3	Yes	T5 used - PE eCall IVS
CTP 1.1.15.4	Yes	T6 used - PE eCall IVS
CTP 1.1.15.5	Yes	T7 and T8 used - PE eCall IVS
CTP 1.1.16.1	Yes	PE eCall IVS
CTP 1.1.16.2	Yes	T2 used - PE eCall IVS
CTP 1.1.16.3	Yes	PE eCall IVS
CTP 1.1.17.1	Yes	PE eCall IVS
CTP 1.1.17.2	Yes	PE eCall IVS
CTP 1.1.17.3	Yes	T6 and T8 used - PE eCall IVS
CTP 1.1.17.4	Yes	Note the CLI MSISDN - PE eCall IVS
CTP 1.1.17.5	No	Out of scope (MNO test point required) Note the CLI MSISDN - PE eCall only IVS

Test purpose	Implemented Yes/No	Reason
CTP 1.2.0.1	No	Out of scope -TPS-IVS
CTP 1.2.0.2	No	Out of scope -TPS-IVS
CTP 1.2.1.1	No	Out of scope -TPS-IVS
CTP 1.2.1.2	No	Out of scope -TPS-IVS
CTP 1.2.2.1	No	Out of scope -TPS-IVS
CTP 1.2.2.2	No	Out of scope -TPS-IVS
CTP 1.2.2.3	No	Out of scope -TPS-IVS
CTP 1.2.2.4	No	Out of scope -TPS-IVS
CTP 1.2.2.5	No	Out of scope -TPS-IVS
CTP 1.2.3.1	No	Out of scope -TPS-IVS
CTP 1.2.4.1	No	Out of scope -TPS-IVS
CTP 1.2.5.1	No	Out of scope -TPS-IVS
CTP 1.2.5.2	No	Out of scope -TPS-IVS
CTP 1.2.5.3	No	Out of scope -TPS-IVS
CTP 1.2.5.4	No	Out of scope -TPS-IVS
CTP 1.2.5.5	No	Out of scope -TPS-IVS
CTP 1.2.6.1	No	Out of scope -TPS-IVS
CTP 1.2.6.2	No	Out of scope -TPS-IVS
CTP 1.2.6.3	No	Out of scope -TPS-IVS
CTP 1.2.7.1	No	Out of scope -TPS-IVS
CTP 1.2.8.1	No	Out of scope -TPS-IVS
CTP 1.2.9.1	No	Out of scope (MNO test point required) -TPS-IVS
CTP 1.2.9.2	No	Out of scope -TPS-IVS
CTP 1.2.9.3	No	Out of scope -TPS-IVS
CTP 2.0.1	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.0.2	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.0.3	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.0.4	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.1.1	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.1.2	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.2.1.1	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.2.1.2	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.2.1.3	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.2.2.1	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.2.3.1	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.2.3.2	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.2.3.3	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.3.1	No	Out of scope No test required (Test of PLMN network only) - MNO
CTP 2.4.1	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.5.1	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.6.1	No	Out of scope No test required- MNO
CTP 2.7.1	No	Out of scope No test required- MNO
CTP 2.11.1	No	Out of scope (Test of PLMN network only) - MNO
CTP 2.11.2	No	Out of scope Capability included within CTP 2.11.1. - MNO
CTP 3.1.0.1	No	Out of scope (MNO test point required) - PSAP PE eCall
CTP 3.1.0.2	No	Out of scope (Geographic Information System (GIS) needed) - PSAP PE eCall
CTP 3.1.1.1	No	Out of scope (MNO test point required) - PSAP PE eCall
CTP 3.1.1.2	No	Out of scope (MNO test point required) - PSAP PE eCall
CTP 3.1.2	No	Out of scope (MNO test point required) - PSAP PE eCall
CTP 3.1.3.1	Yes	MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.3.2	Yes	Timer 2 s - MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.3.3	Yes	Timer 2 s T4 - MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.4	No	Out of scope (MNO test point required)

Test purpose	Implemented Yes/No	Reason
CTP 3.1.5.1	Yes	Timer 2 s T4 - MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.5.2	Yes	Timer 2 s T4 - MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.6	Yes	Timer 2 s T4 - MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.7.1	Yes	T5 - T6 - T7 - Verify MSD - PSAP PE eCall
CTP 3.1.7.2	Yes	Verify MSD - PSAP PE eCall
CTP 3.1.7.3	Yes	Verify MSD -PSAP PE eCall
CTP 3.1.7.4	No	T4,T& and T8 used - Out of scope Corrupted MSD - PSAP PE eCall
CTP 3.1.7.5	No	Timer 5s - Out of scope MSD transfer fail - PSAP PE eCall
CTP 3.1.8	No	Out of scope - Covered by CTP 3.1.7 - - PSAP PE eCall
CTP 3.1.9	Yes	MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.10	Yes	MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.11	Yes	MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.12	Yes	MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.13	Yes	T6 and T7 used - PSAP PE eCall
CTP 3.1.14.1	Yes	Timer 2 s T4 - T8 - MNO test point used in CTP step "eCall routed to the most appropriate PSAP". For testing, the SUT shall be considered the most appropriate PSAP, and hence the MNO test point is not required.
CTP 3.1.14.2	Yes	Timer 2 s T4 - T8 - CRC check with the behaviour, inputs and outputs as defined in ETSI TS 126 267 [i.17] - PSAP PE eCall
CTP 3.1.15	Yes	Audio link - PSAP PE eCall
CTP 3.1.16	Yes	T6 and T7 used - CRC check with the behaviour, inputs and outputs as defined in ETSI TS 126 267 [i.17] - PSAP PE eCall
CTP 3.2.0,1	No	Out of scope - PSAP TPS eCall
CTP 3.2.0.2.1	No	Out of scope - PSAP TPS eCall
CTP 3.2.0.2.2	No	Out of scope - PSAP TPS eCall
CTP 3.2.0.3	No	Out of scope - PSAP TPS eCall
CTP 3.2.0.4.1	No	Out of scope - PSAP TPS eCall
CTP 3.2.0.4.2	No	Out of scope - PSAP TPS eCall
CTP 3.2.0.5	No	Out of scope - PSAP TPS eCall
CTP 3.2.1	No	Out of scope (MNO test point required) - PSAP TPS eCall
CTP 3.2.2	No	Out of scope (MNO test point required) - PSAP TPS eCall
CTP 3.2.3	No	Out of scope (MNO test point required) - PSAP TPS eCall
CTP 3.2.4	No	Out of scope - PSAP TPS eCall
CTP 3.2.5	No	Out of scope - PSAP TPS eCall
CTP 3.2.6	No	Out of scope - PSAP TPS eCall
CTP 3.2.7	No	Out of scope - PSAP TPS eCall
CTP 3.2.8	No	Out of scope - PSAP TPS eCall
CTP 3.2.9	No	Out of scope (MNO test point required) - PSAP TPS eCall
CTP 3.2.10	No	Out of scope (MNO test point required) - PSAP TPS eCall
CTP 3.2.11	No	Out of scope - PSAP TPS eCall
CTP 4.0.1	No	Out of Scope (TPSP)
CTP 4.0.2	No	Out of Scope (TPSP)
CTP 4.0.3.1	No	Out of Scope (TPSP)

Test purpose	Implemented Yes/No	Reason
CTP 4.0.3.2	No	Out of Scope (TPSP)
CTP 4.0.4	No	Out of Scope (TPSP)
CTP 4.0.5.1	No	Out of Scope (TPSP)
CTP 4.0.5.2	No	Out of Scope (TPSP)
CTP 4.0.5.3	No	Out of Scope (TPSP)
CTP 4.0.6	No	Out of Scope (TPSP)
CTP 4.0.7	No	Out of Scope (TPSP)
CTP 4.0.8	No	Out of Scope (TPSP)
CTP 4.0.9	No	Out of Scope (TPSP)
CTP 4.0.10	No	Out of Scope (TPSP)
CTP 4.1.1.1	No	Out of scope (TPS-R)
CTP 4.1.1.2	No	Timer 15 s - Out of scope (TPS-R)
CTP 4.1.2.1	No	Out of scope (TPS-R)
CTP 4.1.2.2	No	Out of scope (TPS-R)
CTP 4.1.3.1	No	Out of scope (TPS-R)
CTP 4.1.3.2	No	Out of scope (MNO test point required) (TPS-R)
CTP 4.1.3.3	No	Out of scope (TPS-R)
CTP 4.1.4	No	Out of scope (TPS-R)
CTP 4.1.5	No	Out of scope - covered by performing tests CTP 4.2.4.1 and CTP 4.2.4.2 (TPS-R)
CTP 4.1.6	No	Out of scope (TPS-R)
CTP 4.1.7	No	Out of scope (TPS-R)
CTP 4.1.8	No	Out of scope (TPS-R)
CTP 4.2.1	No	Out of scope - No test required - (TPS-N)
CTP 4.2.2.1	No	Out of scope (TPS-N)
CTP 4.2.2.2.1	No	Out of scope (TPS-N)
CTP 4.2.2.2.2	No	Out of scope (TPS-N)
CTP 4.2.3	No	Out of scope (TPS-N)
CTP 4.2.4.1	No	Out of scope (TPS-N)
CTP 4.2.4.2	No	Out of scope (TPS-N)
CTP 4.2.5	No	Out of scope (TPS-N)
CTP 4.2.6	No	Conformance tested by CTP 4.1.6. Out of scope (TPS-N)
CTP 4.2.7	No	no conformance tests associated .Out of scope (TPS-N)
CTP 4.2.9	No	Test requirements are covered by CTP 4.1.8. Out of scope (TPS-N)

6 ATS conventions

6.0 Introduction

The ATS conventions are intended to give a better understanding of the ATS but they also describe the conventions made for the development of the ATS. These conventions shall be considered during any later maintenance or further development of the ATS.

The ATS conventions contain two clauses, the testing conventions and the naming conventions. The testing conventions describe the functional structure of the ATS. The naming conventions describe the structure of the naming of all ATS elements.

To define the ATS, the guidelines of the document ETSI ETS 300 406 [i.12] are considered.

6.1 Testing conventions

6.1.1 Testing states

6.1.1.1 Initial state

All test cases start with the function f_configIvsUp for IVS IUT and f_configPsapUp for PSAP IUT. This function brings the IUT in an "configured" state by creating and invoking components and ports.

6.1.1.2 Final state

All test cases end with the function f_configIvsDown for IVS IUT and f_configDown for PSAP IUT. This function brings the IUT back in an "idle" state.

As necessary, further actions may be included in the f_ configIvsDown function and f_configDown function.

6.1.2 ASN.1 definitions

ASN.1 definitions for the MSD are used for the TTCN.

The following example shows the TTCN-3 import statement used to import ASN.1 definitions in the TTCN-3 modules:

```
import from MSDASN1Module language "ASN.1:1997" all
```

6.1.3 Specific TTCN-3 naming conventions

Next to such general naming conventions, table 43 shows specific naming conventions that apply to the ECALL TTCN-3 test suite.

Table 43: specific TTCN-3 naming conventions

Language element	Naming convention	Prefix	Example identifier
Module	Use upper-case initial letter	Ats"IUTname"_	AtsECall_
Module containing types and values	Use upper-case initial letter	Libits"IUTname"_TypesAndValues	LibItsECall_TypesAndValues
Module containing Templates	Use upper-case initial letter	Libits"IUTname"_Templates	LibItsECall_Templates
Module containing functions	Use upper-case initial letter	Libis"IUTname"_Functions	LibItsECall_Functions
Module containing external functions	Use upper-case initial letter	Libits"IUTname"_ExternalFunctions	LibItsECall_ExternalFunctions
Module containing components, ports and message definitions	Use upper-case initial letter	Libits"IUTname"_Interface	LibItsECall_Interface
Module containing main component definitions	Use upper-case initial letter	Libits"IUTname"_TestSystem	LibItsECall_TestSystem

6.1.4 Test Case (TC) identifier

The TCs are named accordingly to the naming conventions defined in CEN EN 16454 [i.1].

6.2 On line documentation

Using the T3D tool enables providing on-line documentation browser in HTML, by tagging TTCN-3 comments. These tags are defined in table 44.

Table 44: TTCN-3 comment tags

Tag	Description
@desc	Describes the purpose of a particular piece of TTCN-3 code. The description should be concise yet informative and describe the function and use of the construct.
@return	Provides additional information on the value returned by a given function.
@param	Documents the parameters of parameterized TTCN-3 definitions.

6.3 Timer

6.3.1 Timer Checking

Special hardware in the test setup would be required to observe the exact timer behaviour. Therefore in the present document the protocol timers are checked by operator commands. Some examples of operator commands are listed in table 45.

Table 45: Operator Commands

"Was 2-way voice communication possible after T5 has expired?"
"Was 2-way voice communication possible after T6 has expired?"
"Was 2-way voice communication possible after T7 has expired?"

6.3.2 Timer Tolerances

The timer values are defined as constant values according to CEN 16 062 [i.3], clause A.1. The timer tolerances are defined to ± 10 %.

7 Support of optional features

Table 46: Test Cases Selection

Item	Mnemonic	Comment	Reference	Status	Support
1	PICS_ECALL_ONLY	IVS - eCall Only	CEN EN 16454 [i.1] clause 9.5	o	
NOTE: PICS_ECALL_ONLY is not used in the ATS, as eCall only tests are not yet implemented; it is kept here for future usage.					

Table 47: IUT MSD parameters

Item	Mnemonic	Comment	Reference	Status	Support
1	PICS_MSD_numberOfPassengers	Does the IUT provide information on the number of occupants?	CEN EN 15722 [i.2] clause 6.3.2	o	
2	PICS_MSD_recentVehicleLocationN1	Does the IUT provide information for the recentVehicleLocationN1 MSD field	CEN EN 15722 [i.2] clause 6.3.2	o	
3	PICS_MSD_recentVehicleLocationN2	Does the IUT provide information for the recentVehicleLocationN2 MSD field	CEN EN 15722 [i.2] clause 6.3.2	o	
4	PICS_MSD_optionalAdditionalData	Does the IUT provide information for the optionalAdditionalData MSD field	CEN EN 15722 [i.2] clause 6.3.2	o	

8 MSD Version

In the present document the MSD version 1 is used.

Annex A (normative): TTCN-3 library modules

A.0 Introduction

This ATS has been produced using the Testing and Test Control Notation (TTCN) according to ETSI ES 201 873-1 [i.13].

This test suite has been compiled error-free using three different commercial TTCN-3 compilers.

A.1 TTCN-3 files and other related modules

TTCN-3 and ASN.1 sources have been compiled error-free with DANET V4.1.2, TESTCAST V6.8.0.13, TTWB V1.1.18 and TITAN V5.1.

The TTCN-3 and ASN.1 sources are contained in archive ts_103321v010101p0.zip which accompanies the present document, or alternatively TTCN-3 and ASN.1 sources can be downloaded at https://forge.etsi.org/svn/ECall_HLAP/releases/TS103321/V1.1.1/.

Annex B (normative): Partial PIXIT proforma for eCall HLAP

B.0 Introduction

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the Partial PIXIT proforma in this annex so that it can be used for its intended purposes and may further publish the completed Partial PIXIT.

The PIXIT Proforma is based on ISO/IEC 9646-6 [i.10]. Any needed additional information can be found in this international standard document.

The supplier of the implementaiton shall complete the PIXIT proforma contained in the present annex.

B.1 Identification summary

Table B.1

PIXIT Number:	
Test Laboratory Name:	
Date of Issue:	
Issued to:	

B.2 ATS summary

Table B.2

Protocol Specification:	CEN EN 16454
Protocol to be tested:	eCall HLAP
ATS Specification:	TS 103 321
Abstract Test Method:	Clause 4

B.3 Test laboratory

Table B.3

Test Laboratory Identification:	
Test Laboratory Manager:	
Means of Testing:	
SAP Address:	

B.4 Client identification

Table B.4

Client Identification:	
Client Test manager:	
Test Facilities required:	

B.5 SUT

Table B.5

Name:	
Version:	
SCS Number:	
Machine configuration:	
Operating System Identification:	
IUT Identification:	
PICS Reference for IUT:	
Limitations of the SUT:	
Environmental Conditions:	

B.6 Protocol layer information

B.6.1 Protocol identification

Table B.6

Name:	CEN EN 16454 [i.1]
Version:	
PICS References:	ETSI TS 103 321 clause 7

B.6.2 IUT information

Table B.7: eCall HLAP pixits

Identifier	Description	
PX_IGNORE_MSD_POSITION	**Comment**	Ignore MSD position. Controls whether vehicle location, direction should be checked or ignored
	Type	boolean
	Default value	true
PX_MODEM_INSTANCE	**Comment**	Default instance Id
	Type	integer
	Default value	0
PX_MODEM_INSTANCES	**Comment**	IDs of available modem instances
	Type	WorkerConfArray
	Default value	id := 0, phoneNumber := "", internalSubscriber := ""
PX_PSAP_PHONE_NUMBER	**Comment**	PSAP phone number
	Type	TelephoneNumber
	Default value	""
PX_IVS_PHONE_NUMBER	**Comment**	IVS phone number
	Type	TelephoneNumber
	Default value	""
PX_INTERNAL_SUBSCRIBER	**Comment**	SIP uri of internal subscriber or "inactive"
	Type	TelephoneNumber
	Default value	"inactive"
PX_CALL_HANG_UP_DELAY	**Comment**	Time to wait before issuing a clear down command
	Type	float
	Default value	5.0;
PX_TIMEOUT	**Comment**	Generic timeout for expected events
	Type	float
	Default value	30.0
PX_VEHICLE_TYPE	**Comment**	Vehicle type
	Type	Enumerated value
	Default value	passengerVehicleClassM1(1)
PX_VIN	**Comment**	Vehicle VIN number
	Type	VIN
	Default value	isowmi := "AAA", isovds := "AAAAAA", isovisModelyear := "A", isovisSeqPlant := "A123456"
PX_VEHICLE_PULSION_STORAGE_TYPE	**Comment**	Vehicle propulsion storage type
	Type	VehiclePropulsionStorageType
	Default value	gasolineTankPresent := true, dieselTankPresent := false, compressedNaturalGas := false, liquidPropaneGas := false, electricEnergyStorage := false, hydrogenStorage := false, otherStorage := false
PX_VEHICLE_LOCATION	**Comment**	Vehicle location
	Type	VehicleLocation
	Default value	positionLatitude := 0, positionLongitude := 0
PX_VEHICLE_DIRECTION	**Comment**	Vehicle direction
	Type	_0MSDStructure1
	Default value	0
PX_RECENT_VEHICLE_LOCATION_N1	**Comment**	Recent location 1
	Type	VehicleLocationDelta
	Default value	latitudeDelta := 0, longitudeDelta := 0
PX_RECENT_VEHICLE_LOCATION_N2	**Comment**	Recent location 2
	Type	VehicleLocationDelta
	Default value	latitudeDelta := 0, longitudeDelta := 0

Identifier	Description	
PX_NUMBER_OF_PASSENGERS	**Comment**	Vehicle passenger number
	Type	_0MSDStructure2
	Default value	1
PX_ADDITIONAL_DATA	**Comment**	Additional data
	Type	AdditionalData
	Default value	oid := objid { 0 },data := "O
PX_BAD_ECALL_MESSAGE	**Comment**	Malformed eCall message
	Type	ECallMessageUnion
	Default value	encoded := '0123456789'O
PX_CTP_1_1_17_3_CALL_BACK_DELAY	**Comment**	Delay until calling back during CTP_1_1_17_3
	Type	float
	Default value	3.0 * 60.0
PX_SUPPORTED_CRASH_TYPES	**Comment**	A list of IVS supported crash types, used by test CTP_1_1_2_5
	Type	CharstringRecord
	Default value	"FRONTAL", "LATERAL"
PX_IVS_REDIAL_GUARD_TIMER	**Comment**	Number of seconds to wait for a redial attempt after the two minute window
	Type	float
	Default value	30.0

Annex C (normative): PCTR Proforma for eCall HLAP

C.0 Introduction

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the PCTR proforma in this annex so that it can be used for its intended purposes and may further publish the completed PCTR.

The PCTR proforma is based on ISO/IEC 9646-6 [i.10]. Any needed additional information can be found in this International standard document.

The supplier of the implentation shall complete the PCTR proforma contained in the present annex.

C.1 Identification summary

C.1.1 Protocol conformance test report

Table C.1

PCTR Number:	
PCTR Date:	
Corresponding SCTR Number:	
Corresponding SCTR Date:	
Test Laboratory Identification:	
Test Laboratory Manager:	
Signature:	

C.1.2 IUT identification

Table C.2

Name:	
Version:	
Protocol specification:	
PICS:	
Previous PCTR if any:	

C.1.3 Testing environment

Table C.3

PIXIT Number:	
ATS Specification:	
Abstract Test Method:	
Means of Testing identification:	
Date of testing:	
Conformance Log reference(s):	
Retention Date for Log reference(s):	

C.1.4 Limits and reservation

Additional information relevant to the technical contents or further use of the test report, or the rights and obligations of the test laboratory and the client, may be given here. Such information may include restriction on the publication of the report.

.....

.....

.....

.....

.....

.....

C.1.5 Comments

Additional comments may be given by either the client or the test laboratory on any of the contents of the PCTR, for example, to note disagreement between the two parties.

.....

.....

.....

.....

.....

.....

C.2 IUT Conformance status

This IUT has or has not been shown by conformance assessment to be non-conforming to the specified protocol specification.

Strike the appropriate words in this sentence. If the PICS for this IUT is consistent with the static conformance requirements (as specified in clause C.3 in the present document) and there are no "FAIL" verdicts to be recorded (in clause C.6 in the present document) strike the words "has or", otherwise strike the words "or has not".

C.3 Static conformance summary

The PICS for this IUT is or is not consistent with the static conformance requirements in the specified protocol.

Strike the appropriate words in this sentence.

C.4 Dynamic conformance summary

The test campaign did or did not reveal errors in the IUT.

Strike the appropriate words in this sentence. If there are no "FAIL" verdicts to be recorded (in clause C.6 of the present document) strike the words "did or" otherwise strike the words "or did not".

Summary of the results of groups of test:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

C.5 Static conformance review report

If clause C.3 indicates non-conformance, this clause itemizes the mismatches between the PICS and the static conformance requirements of the specified protocol specification.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

C.6 Test campaign report

Table C.4: IVS Test cases

ATS Reference	Selected?	Run?	Verdict	Observations
CTP 1.1.0.3				
CTP 1.1.2.2				
CTP 1.1.2.3				
CTP 1.1.2.4				
CTP 1.1.2.5				
CTP 1.1.3.2				
CTP 1.1.5.2				
CTP 1.1.5.3				
CTP 1.1.5.4				
CTP 1.1.5.5				
CTP 1.1.5.6				
CTP 1.1.6.1				
CTP 1.1.9.1				
CTP 1.1.10.2				
CTP 1.1.10.3				
CTP 1.1.11.1				
CTP 1.1.12.1				
CTP 1.1.13.1				
CTP 1.1.14.1				
CTP 1.1.14.2				
CTP 1.1.15.1				
CTP 1.1.15.2				
CTP 1.1.15.3				
CTP 1.1.15.4				
CTP 1.1.15.5				
CTP 1.1.16.1				
CTP 1.1.16.2				
CTP 1.1.16.3				
CTP 1.1.17.1				
CTP 1.1.17.2				
CTP 1.1.17.3				
CTP 1.1.17.4				

Table C.5: PSAP Test cases

ATS Reference	Selected?	Run?	Verdict	Observations
CTP 3.1.3.1				
CTP 3.1.3.2				
CTP 3.1.3.3				
CTP 3.1.5.1				
CTP 3.1.5.2				
CTP 3.1.6				
CTP 3.1.7.1				
CTP 3.1.7.2				
CTP 3.1.7.3				
CTP 3.1.9				
CTP 3.1.10				
CTP 3.1.11				
CTP 3.1.12				
CTP 3.1.13				
CTP 3.1.14.1				
CTP 3.1.14.2				
CTP 3.1.15				
CTP 3.1.16				

C.7 Observations

Additional information relevant to the technical content of the PCTR is given here.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

History

Document history		
V1.1.1	April 2015	Publication