ETSI CTI Report 0.1 (2014-10)

eCall#3 Testfest;
Vigo, ES;
27 - 31 October 2014

ETSI

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Contents

1 Executive Summary

The 3rd eCall Testfest was held from 27 to 31 October 2014 in Vigo (Spain).

This event was co-organized by ETSI and ERTICO and hosted by CTAG. Technical support was provided by CETECOM and QUALCOMM. This event was developed in coordination with the HeERO Standardisation Task Force.

It aimed to test the interoperability of Pan-European eCall equipments from all key vendors.

28 companies participated in this event testing 37 devices. Vendors came from Asia – EU – USA.

More than 2000 tests were executed during 350 pairing sessions. The results of the test show showed a significant level of interoperability (success rate higher than 90%).

In the final wrap session vendors stated that a certification framework is necessary for device manufacturer to ensure matching a set of minimum requirements; and that harmonisation with Glonass Union standards and certification is wanted.

2 Introduction

This Testfest aimed to verify the interoperability between different manufacturers of solutions for eCall IVS and PSAP devices, as well as operational eCall PSAPs from different countries.

The implementations were connected using a public Mobile Network and local ISDN lines at CTAG.

A test plan was provided by ERTICO – ITS Europe and ETSI CTI, containing 30 interoperability tests, including 8 mandatory test cases and 22 optional ones.

ETSI CTI provided the interoperability tool suite of scheduling and test reporting tool.

Each day test sessions for IOP assessment were conducted. A wrap-up meeting was held each day to discuss main interoperability points and other remarkable behaviours concerning special points within the used standards.

The goal of interoperability test is to check that devices resulting from protocol implementations are able to work together and provide the functionalities provided by the protocols. As necessary, one message may be checked during a test, when a successful functional verification may result from an incorrect behaviour for instance. Detailed protocol checks are part of the conformance testing process and are thus avoided during the interoperability tests.

The test sessions have been executed between 2 devices (IVS and PSAP eCall modem-server) from different vendors and between IVS devices and PSAP simulators.

In addition to the 8 mandatory interoperability tests, 22 other ‘optional’ tests have been specified, and these may be used to help diagnose basic call set-up problems and high level application protocol (HLAP) timing issues that may be encountered during the interoperability testing phase.

Test tool vendors provided test environment during the event:

- ANRITSU: simulated eCall test environment for IVS
- Rohde and Schwarz: simulated eCall test environment for IVS
- NavCert: PSAP simulator
- Head Acoustics: speech quality test system for IVS

Therefore test session between IVS and the test tool vendors were also carried out.

3 Abbreviations

EUT	Equipment Under Test
NO	Test is recorded as NOT successfully passed.
NA	Test is not applicable.
OK	Test is recorded as successfully passed.
OT	Test is recorded as not being executed due to lack of time.
Test Session	A paring of vendors that test together during a given time slot.
TRT	Test Reporting Tool.
GPS	Global Positioning System
GPRS	General Packet Radio System
GSM	Global System of Mobile telecommunications
HLAP	High Level Application Protocol
IVS	In Vehicle System (eCall terminal and associated sub-systems in vehicle)
MSD	Minimum Set of Data
MSISDN	Mobile Subscriber Integrated Services Digital Network Number
PLMN	Public Land Mobile Network
PSAP	Public Service Answering Point
SIM	Subscriber Identity Module
VIN	Vehicle Identification Number

4 Acknowledgement

This is to acknowledge the effort of

- Ralf WEBER, QUALCOMM, for his contribution during the event preparation and his technical support during the Testfest.

5 Host

This event was hosted by CTAG who realized the test site layout, provided the test facilities and test support.

6 Participants

In this section all the vendors, the organization as well as the support team are listed.

Table 1: List of IVS vendors

#	Company Name	Country
1	Anritsu	GB
2	CETECOM	DE
3	CESTEL	SP
4	Continental Automotive	US
6	FICOSA	SP
7	Flaircomm Microeletronics	CN
8	Fujitsu TEN Europe GmbH	DE
9	Gemalto M2M GmbH	DE
10	GMV	SP
11	HEAD acoustics	DE
12	Huawei Technologies Düsseldorf GmbH	DE
13	Hyundai Mobis	KR
14	HYUNDAI Motors	KR
15	NavCert GmbH	DE
16	Novero GmbH	DE
17	Marvell	GB
18	Movon Corporation Ltd.	KR
19	OECON Products & Services GmbH	DE
20	Peiker acustic GmbH & Co. KG	DE
21	PicoSoft s.r.l.	IT
22	Rohde & Schwarz	DE
23	Sierra Wireless	FR
24	Spectracom	FR

25	Telit Communications S.p.A.	IT
26	Testing Technologies IST	DE
27	U-Blox Italia Spa AG	IT
28	Visteon	US

Table 2: Organizer/Support Team

Organizer / support
CETECOM
ERTICO - ITS Europe
ETSI - CTI
QUALCOMM

7 Technical and Project Management

7.1 Test Description document

The Test Description document from Testfest#2 was updated and reused. It contains a set of pro-forma table corresponding to test scenarios to be executed by vendors, and it provides guidance to participants for executing and assessing the test sessions.

The Test Description document was distributed to participants some weeks before the event, proposing them to contribute or comment on the tests, or proposing additional tests. The tests were grouped in mandatory and optional tests, where mandatory tests where prioritized in the execution.

Table 3: Mandatory Tests

Nr	Test case ID	Summary
1	TD_MAN_PUSH_01	MSD transmission / reception /acknowledgement using the PUSH mode
2	TD_MAN_01	MSD transmission / reception /acknowledgement using the PULL Mode
3	TD_MAN_02	Voice communication after receipt of AL-ACK
4	TD_MAN_03	Retransmission of MSD on request from PSAP
5	TD_MAN_04	Voice communication after retransmission of MSD
6	TD_MAN_05	Clear down / PSAP initiated network clear down
7	TD_MAN_06	Clear down / PSAP initiated application layer AL-ACK Clear-down
8	TD_MAN_07	Call Back / PSAP initiated call back to IVS

NOTE: The mandatory tests are used to verify the interoperability between the IVS, PLMN and PSAP.

Table 4: Optional Tests

Nr	Test case ID	Summary
1	TD_OPT_01_IVS	Emergency call set-up with eCall identifier (flag) set to 'Automatically Initiated' in Service Category message – **for simulated or private mobile network only**
2	TD_OPT_02_IVS	Emergency call set-up with eCall identifier (flag) set to 'Manually Initiated' in Service Category message – **for simulated or private mobile network only**
3	TD_OPT_03_IVS	MSD call type indicator set to 'Automatically Initiated'
4	TD_OPT_04_IVS	MSD call type indicator set to 'Manually Initiated'
5	TD_OPT_05_IVS	MSD call type indicator set to 'Test Call'
6	TD_OPT_06_IVS	Duration of Initiation Signal does not exceed 2 seconds from when call is answered
7	TD_OPT_PUSH_07_PSAP	PSAP does not send 'SEND MSD' request if valid Initiation Signal is not received within 2 seconds from answering call
8	TD_OPT_08_IVS	Mute IVS audio during MSD transmission and un-mute after application layer acknowledgement
9	TD_OPT_09_PSAP	Mute PSAP audio during MSD request / MSD transfer and un-mute after application layer acknowledgement
10	TD_OPT_10a_IVS	Auto redial following busy during call set-up
11	TD_OPT_10b_IVS	Auto redial following no-answer during call set-up
12	TD_OPT_11_IVS	Auto redial if call drops before MSD acknowledged and does not redial if MSD has been acknowledged (LL)
13	TD_OPT_12_PSAP	Un-mute PSAP audio when Initiation Signal not received (T4 expired)
14	TD_OPT_13_IVS	Un-mute IVS audio when SEND MSD not received (T5 expired)
15	TD_OPT_14_IVS	Un-mute IVS audio when AL-ACK not received (T6 expired)
16	TD_OPT_15_IVS	Un-mute IVS audio when LL-ACK not received (T7 expired)
17	TD_OPT_16_PSAP	Un-mute PSAP audio when MSD not received within (T8 expired)
18	TD_OPT_17_IVS	Format of encoded and decoded MSD in accordance with EN 15722
19	TD_OPT_18_IVS	IVS configured for eCall 'only' service (restricted)
20	TD_OPT_19_IVS	IVS maintains register of recent calls
21	TD_OPT_20_PSAP	PSAP handling of more than 1 eCall simultaneously
22	TD_OPT_21	Check handling of HLAP MSD request when PSAP is using NEC disabling tone.

7.2 Test Scheduling

ETSI CTI provided an initial test schedule. The requirement for the schedule was that each IVS could test against every PSAP. Based on the initial proposal the ERTICO team updated and managed the schedule modifications. There were 14 test sessions of 2 hours, and the test schedule provided pairing sessions for the whole week. Additional pairing sessions were arranged between vendors.

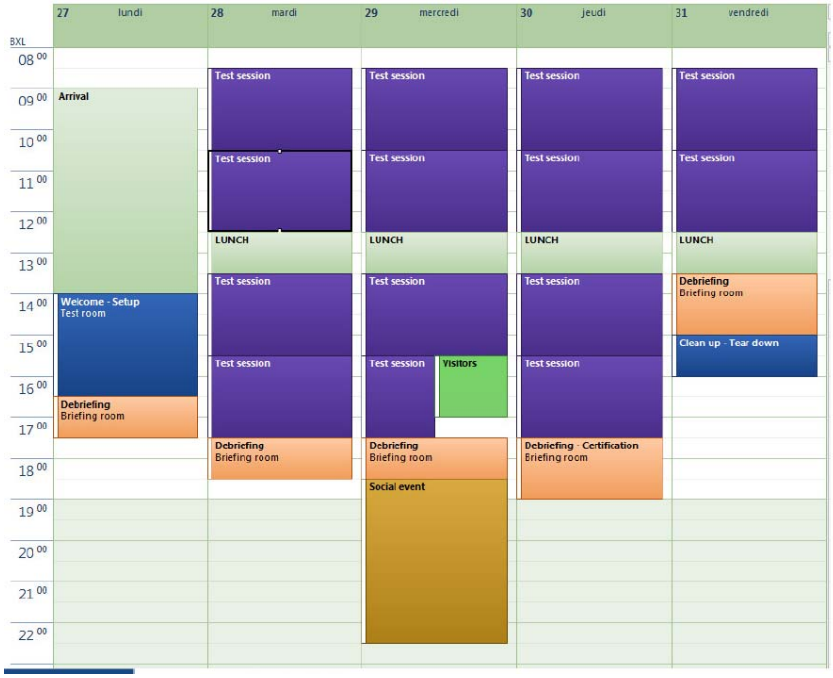

Figure 1: Agenda of the TestFest

7.3 Test Site Layout

The test site layout comprised a public GSM network. 4 x E1 / ISDN (PRI) and BRI interfaces connected to the PSAPs.

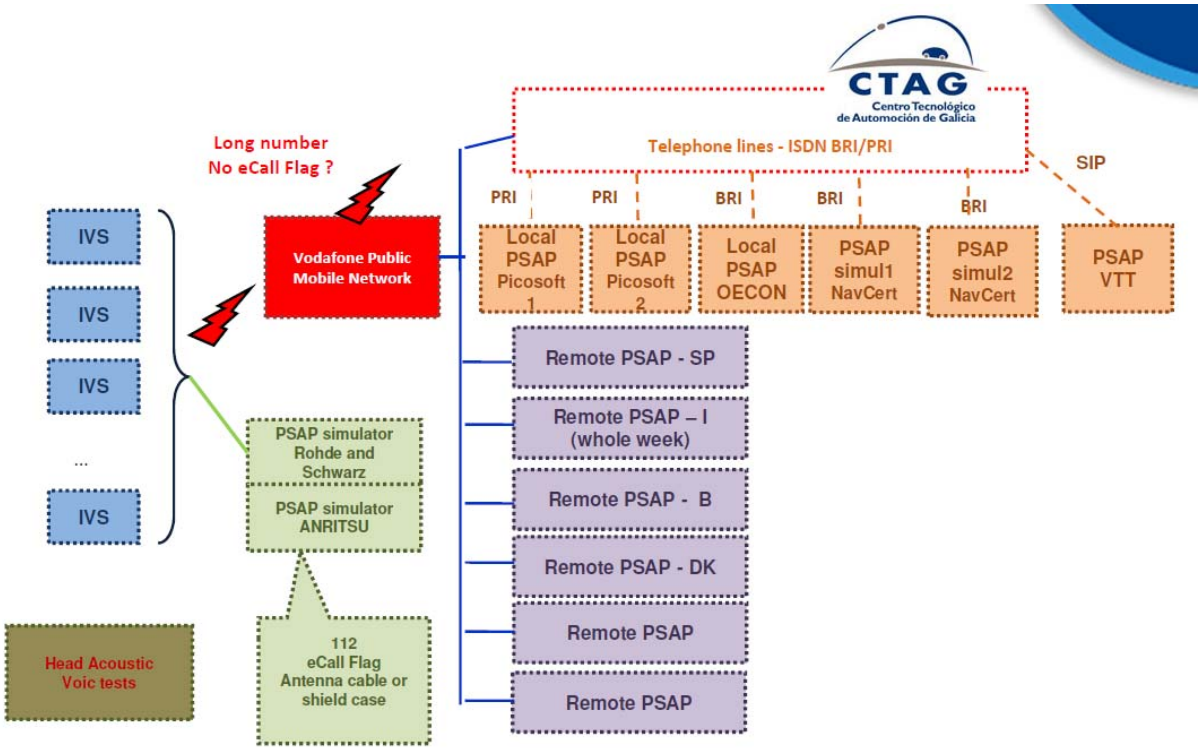

Figure 2: Test site layout

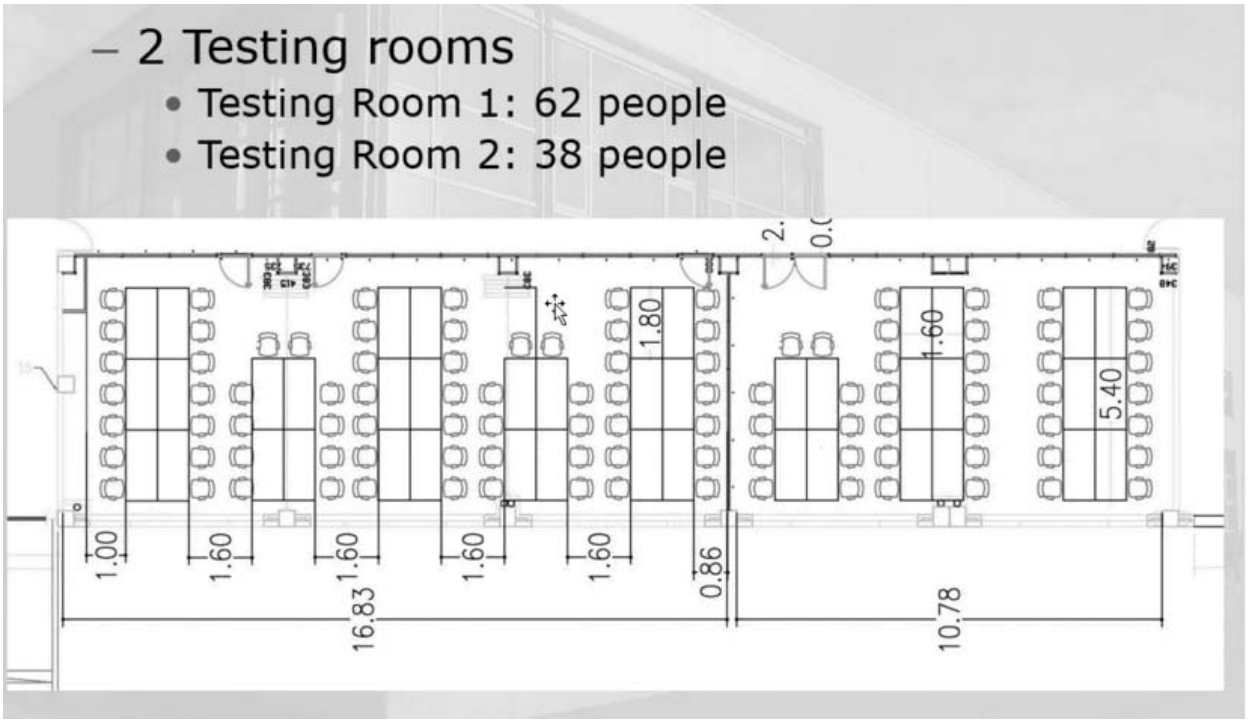

Figure 3: Test Room

7.4 Interoperability Test Procedure

Each test was executed in the same manner as listed below:

1) Connect devices from different vendors

2) Check connectivity between devices

3) Perform tests according to Test description document

4) Check if devices can send/receive frames from each other

5) Check if data is handled correctly in the network and facility layers

6) Result determination and reporting

7) Result OK: run next test

8) Result NOK: check monitor tools to identify source of error

9) Report results in ETSI Test Reporting Tool

7.5 Results reporting

The results of each interoperability test session have been recorded in dedicated web application software: the ETSI Test Report Tool (TRT). After each test execution the interoperability result is agreed among all participants and then recorded. After each test session the report is submitted to ETSI.

Vendors could edit their products as well as create, edit, and withdraw test session reports only of sessions that they have participated in.

8 Achieved Results

Below an extract from the ETSI test reporting tool is shown. There were 7 mandatory tests defined in the Test Description document and 21 optional ones.

From potentially 4836 tests, 2283 were performed, which gives an execution rate of 47%. This means that all mandatory as well as a significant amount of optional tests were performed.

From the 2283 tests performed, 2136 had a PASS rate (OK), which represents a success rate of 93,6%. This is an excellent result especially as so many different vendors attended this Test fest.

Interoperability		Not Executed		Totals	
OK	NO	NA	OT	Run	Results
2136 (93.6%)	147 (6.4%)	2060 (42.6%)	493 (10.2%)	2283 (47.2%)	4836

9 Feedback to standardization

9.1 CEN 16454:2014 Issues

Below all topics with CEN 16454:2014 are listed.

Type of comment (General/ Technical/Editorial)	**COMMENTS**

Type of comment (General/ Technical/Editorial)	COMMENTS
General	Availability and use of the MNO test point Most of the discussed test cases indicate in their initial conditions that “MNO and PSAP test points are available”.

Initial conditions	Ignition is ON and IVS is in mobile network coverage
	MNO and PSAP test points are available
	IVS has been programmed with the number to be used for test calls
	Tester has access to where the data is stored in the IVS

However, only a subset of the test cases make explicit use of the MNO test point in the expected behaviour description (“Test point” column). In particular the eCall Only IVS test cases employ the MNO test point.

This has lead to discussion about the modelling of the test configuration in the TTCN. Is it required to employ only one test model including the MNO Test Point, or is it acceptable to use a second test model excluding the MNO Test Point? In the latter case “in terms of the total eCall transaction, the IVS is the generator of input to the other actors, the MNO is a highway for the eCall and the PSAP is the recipient, within the actual transaction and of the actors may be at a particular stage conduct communication in either direction, as appropriate.” ([1], cl. 8.1.2). The second model could be considered a subset of first model.

The overall situation is roughly like this:

- 40 TCs of clause 9.4 list both test points in the initial conditions, only 4 of these actually make use of the MNO TP.
- 1 TC of clause 9.5 lists both test points in the initial conditions, but all 4 of these TCs actually make use of the MNO TP.
- In clause 11.4 initial conditions do not reflect the test points supposed to be available. 15 TCs out of 25 of this make use of the MNO TP.

As the wording used is not always consistent these numbers may slightly differ depending upon the way of counting. The numbers can be taken as representative to show the order of magnitude of the issue. Both test cases considered essential and test cases considered assumed as per clauses 7.x of [1] are concerned.

Clarification is sought from CEN if the test cases may be mapped to different test models as described before, and which of the test cases are to be realized with which of the test models. Such clarification should as well be documented unambiguously in [1].

Type of comment (General/ Technical/Editorial)	COMMENTS
Technical	TC 1.1.16.3 This test case expects the in step 5 that the “IVS microphone and loudspeaker are reconnected within T6 from receipt of a positive LL-ACK or after T6 has expired, and that two way speech is possible”. However, in preceding step 4 the existing call is cleared down. Therefore step 5 can never be realized. Furthermore, the PASS condition of step 5 does not seem to be aligned with the Tester action.

IVS SUT	4	Clear down call on receiving AL-ACK (clear down)	
IVS SUT	5	Verify that IVS microphone and loudspeaker are reconnected within T6 from receipt, of a positive LL-ACK, or after T6 has expired, and that two way speech is possible	A record of the received time stamped AL-ACK has been stored in the IVS If ALL individual pass conditions listed in this column above have been met THEN CTP PASS ELSE CTP FAIL

Type of comment (General/ Technical/Editorial)	COMMENTS
Editorial	TC 1.1.15.2 In the “Test point” column of this test case “IVS” is used instead of “IVS SUT”.

IVS SUT	7	IVS receives an AL-ACK with status set to ‘positive’ before time T6 expires	IVS received an AL-ACK with status set to ‘positive’ before time T6 expires
IVS	8	Reconnects IVS audio following receipt of positive AL-ACK or, if not received, within 5 s following receipt of a positive LL-ACK	IVS audio was reconnected within 5 s from when MSD transmission ended (positive LL-ACK received) or no later than 20 s from start of MSD transmission

Editorial	Typographical error in clause 8.1.2 regarding MNO Test Point There is typographical error which makes the contents meaningless. — MNO test point This test point represents the ‘Public Land Mobile Network’ (PLMN) of the ‘Mobile network Operator’(MNO) or is a simulation of the behaviour of the PLMN with the IVS and/or the PSAP. The test point can be located at any network element that creates PLMN and is used for particular test purpose. Because some of the test purposes will be difficult to be executed in real mobile network, a MNO test point may mode land operate the MNO system software in a simulated environment. The MNO PLMN test point is used only for test purposes related to both Pan European eCall and TPS-eCall. Instead of /mode land/ the text should read /model and/.

Type of comment (General/ Technical/Editorial)	**COMMENTS**
Technical	Inconsistent description of the role of the MNO Test Point In clause 8.1.2 it is stated that “The MNO test point acts either as an endpoint for IVS testing, or as starter for PSAP testing.” — MNO test point This test point represents the ‘Public Land Mobile Network’ (PLMN) of the ‘Mobile network Operator’(MNO) or is a simulation of the behaviour of the PLMN with the IVS and/or the PSAP. The test point can be located at any network element that creates PLMN and is used for particular test purpose. Because some of the test purposes will be difficult to be executed in real mobile network, a MNO test point may mode land operate the MNO system software in a simulated environment. The MNO PLMN test point is used only for test purposes related to both Pan European eCall and TPS-eCall. The MNO PLMN test point is used only for test purposes related to both Pan European eCall and TPS-eCall. The MNO test point acts either as an endpoint for IVS testing, or as starter for PSAP testing. This is not in line with test cases CTP 1.1.7.1 and CTP 1.1.8.1 which allow the MNO Test Point a role as entity residing in between PSAP Test Point and IVS SUT.
Technical	Insufficient test specification / ambiguous specifications the MNO Test Point The role of MNO Test Point is not described in test case CTP 1.1.10.1 in which the IVS is to be put into limited service condition. This might require network specific interaction, not only monitoring, at the MNO Test Point. There are different possibilities to being the IVS into limited service condition: by removing the USIM or rejecting an attach attempt. In order to achieve reproducible and comparable behaviour it is required to specify in which way this condition is to be realized.
General	Initial condition/preamble(s) not well specified. The preambles of the test cases are not specified in a way that that test cases can be executed independently. Test cases may be affected by the outcome of previously performed test cases. Also 1.1.17.4 “Ignition is ON all the time and power was not exhausted while test purpose is executed” is not a preamble/initial condition. 1.1.17.2 precondition and the first steps are the same.

Type of comment (General/ Technical/Editorial)	COMMENTS
General	Implicit testing of IVS behavior. In IVS testing the IVS is to be considered a black box with a well defined external behaviour which a test equipment can observe. In some cases internal IVS behaviour is indicated as pass condition without identifying the external behaviour which shall be employed as proof. This opens the door for "implicit" test results and ambiguous test implementations.
Technical	CTP 1.1.5.7 insufficiently specified This test case points to TS 134 123-1 cl. 6 without identifying individual test cases. Again, this is not adequate for obtaining reproducible and comparable results
General	Test cases allowing to observe behaviour at the "PSAP test point or MNO test point" This leaves an ambiguity which may produce incorrect results. Discussion is related to what is the exact role of an MNO test point and test configurations. Affected test cases: CTP 1.1.0.3, 1.1.9.1, 1.1.2.1, 1.1.3.1, 1.1.5.6
Technical	CTP 1.1.16.1 provides confusing verdicts The pass conditions in steps 4 and 5 are confusing. In step 4 it is to be verified that "IVS cleared down the call following receipt of a clear down message from the network." In step 5 it is to be verified that at the IVS TP "Line disconnected"
Technical	Audio timers E.g. CTP 1.1.15.1 step 4 describes possible reactions of audio timers. There is no guidance provided how this can be achieved
Technical	MSD tests Should only use PSAP test point. Functioning across a network is tested separately. E.g. CTP 1.1.5.6
Technical	Default trigger for eCall A default trigger for eCall should be specified. In such cases when the test specification leaves open which type to apply the default should be used. The default shall be configurable

Type of comment (General/ Technical/Editorial)	**COMMENTS**
Editorial	CTP 3.1.8 refers to a test which does not exist **11.4.19 CTP 3.1.8 ACK – PSAP PE eCall** Covered by CTP 3.1.7
Editorial	CTP 4.2.1 is referenced in a lot of place but CTP 4.2.1 does nothing (it is an empty test)
Technical	CTP 1.1.5.6 “A conflicting communication is running on the IVS” should be made a test step
Technical	Proposal for new tests: a) Validate that the MSD messageIdentifier is be incremented with every application layer MSD retransmission following a new ‘Send MSD’ request after the incident event within the same transaction b) EN 16062 7.12.3 “When a call is "ringing" the IVS responsible for the eCall system shall maintain the connection for at least 60 s to allow the PSAP system to answer the call.” c) Verify that In the event that the initial eCall attempt fails to connect, or the call is dropped for any reason other than by the PSAP operator clearing the call down as specified in 7.9 or T2 (– IVS Call Clear-down Fallback timer) ends, then the IVS responsible for the eCall system NAD shall attempt to redial the call.
Technical	Instead of using “within 5 s” use rather the Timer names
Technical	CTP 1.1.10.2 step 4) it says monitor incoming call but do not answer. What shall be the tester behaviour? Do nothing or send busy etc?
Technical	CTP_1_1_17_3 and CTP_1_1_17_4 For each of these tests the three ways of clear down should be tested 1) using AL-ACK clear down 2) using NWK clear down 3) is AL-ACK with the first MSD (never switch to voice connection)

Type of comment (General/ Technical/Editorial)	COMMENTS
General	Define a generic postamble procedure Unless specifically defined, the network clear down shall always be used. (This means that only in cases where application clear down is defined in the test, the application clear down will be implemented in TTCN-3 The reason to use network clear down as default: appl clear down can only happen in special state where IVS has been requested to send another MSD (IVS appl clear down cannot be achieved in any state, and hence is more complicated to execute)

9.2 Test Plan Issues

Below all topics of enhancement of the Test Plan '2014 - eCall Testfest#3 -TestDescriptions v2.4.4.docx' are listed:

Page 13: Comment [seb2] mullers 10/31/2014 9:43:00 AM
Delete this chapter

Page 15: Comment [seb3] mullers 10/31/2014 9:44:00 AM
Change GSM network to PLMN

Page 16: Comment [seb4] mullers 10/31/2014 9:44:00 AM
Delete this chapter

Page 17: Comment [seb5] mullers 10/31/2014 9:47:00 AM
Delete everywhere 'Ignition is ON '. This is not a precondition for IOP test scenarios

Page 17: Comment [seb6] mullers 10/31/2014 9:46:00 AM
Review of all tests needed on usage of check commands. Every 'Check' step of a test description should be performed using a trace created by a monitor tool

Page 23: Comment [seb7] mullers 10/31/2014 9:49:00 AM
Add another step before step5 describing that PSAP requests retransmission of MSD (APLL clear down cannot happen when being in 2-way speech mode)

Page 23: Comment [seb8] mullers 10/31/2014 9:48:00 AM
This note is not needed here.

Page 24: Comment [seb9] mullers 11/5/2014 9:59:00 AM
This is not a precondition. It shall become a test step.
I have seen that not many test sessions did apply this. Perhaps best to make a dedicated test for background noise

Page 24: Comment [seb10] mullers 10/31/2014 10:31:00 AM

Comment not needed

Page 24: Comment [seb11] mullers 11/5/2014 9:58:00 AM
If they can be skipped then do not mention. However, in the method of interop, we should always run a complete scenario from start to end. Only in conformance do we look at a small part of a scenario

Page 25: Comment [seb12] mullers 10/31/2014 10:44:00 AM
Conformance test. Delete it. It is a duplicate of CTP 1.1.7.1

Page 26: Comment [seb13] mullers 10/31/2014 10:45:00 AM
Conformance test. Delete it. It is a duplicate of CTP 1.1.8.1

Page 27: Comment [seb14] mullers 10/31/2014 10:47:00 AM
Conformance test. Delete it. It is a duplicate of CTP 1.1.11.1

Page 28: Comment [seb15] mullers 10/31/2014 10:47:00 AM
Conformance test. Delete it. It is a duplicate of CTP 1.1.12.1

Page 29: Comment [seb16] mullers 10/31/2014 10:47:00 AM
Conformance test. Delete it. It is a duplicate of CTP 1.1.11.1

Page 30: Comment [seb17] mullers 10/31/2014 10:44:00 AM
Conformance test. Delete it. It is a copy of CTP 1.1.10.3
CTP 1.1.10.3 needs to be update withe PICS selection: only applicable in PUSH mode

Page 31: Comment [seb18] mullers 10/31/2014 10:58:00 AM
Conformance test. Delete it.

Page 31: Comment [seb19] mullers 10/31/2014 10:55:00 AM
Wrong reference. It should be CTP 3.1.5.2

Page 32: Comment [seb20] mullers 10/31/2014 11:27:00 AM
This test can be kept in this document. Can be considered as interop test.

Page 32: Comment [seb21] mullers 10/31/2014 11:23:00 AM
Wrong reference. It should be CTP 1.1.6.1

Page 32: Comment [seb22] mullers 10/31/2014 11:30:00 AM
The stepped description is here better than in CTP 1.1.6.1. CTP 1.1.6.1 should be updated.

Page 32: Comment [seb23] mullers 11/5/2014 11:06:00 AM

[Feedback from Thomas Reschka, CETECOM]
In general I would assume that the CRC should always be OK, if there is no requirement to test the negative case (incorrect CRC).
I would suggest removing the *"CRC is OK"* part in the complete document and adding new conformance negative case(s) (incorrect CRC) if this is required

Page 33: Comment [seb24] mullers 10/31/2014 11:36:00 AM
This test can be kept in this document. Can be considered as interop test.

Page 33: Comment [seb25] mullers 10/31/2014 11:36:00 AM
Wrong reference. It should be CTP 1.1.6.1

Page 34: Comment [seb26] mullers 10/31/2014 12:32:00 PM
This is a IVS conformance tests, but can be easily realized. So keep it in document

Page 34: Comment [seb27] mullers 10/31/2014 12:31:00 PM
This is a IVS conformance tests, but can be easily realized. So keep it in document

Page 35: Comment [seb28] mullers 10/31/2014 12:07:00 PM
This is a conformance tests. Delete it.

Page 35: Comment [seb29] mullers 11/5/2014 9:58:00 AM
In the conformance test suite, split this test in 11a and 11b
11a until redial
11b after redial to test that no more redial happens

Page 35: Comment [seb30] mullers 11/5/2014 9:57:00 AM
In this step the following phrase should be added: and PSAP does not send AL-ACK

Page 36: Comment [seb31] mullers 11/5/2014 9:57:00 AM
This is a PSAP conformance tests. It can be easily realized, so it could be kept in the document.
But it needs to be merged with TD_OPT_PUSH_07_PSAP
And IVS should not be mentioned. Only mobile phone should be part of the configuration

Page 37: Comment [seb32] mullers 10/31/2014 12:42:00 PM
Conformance test. Delete it.

Page 37: Comment [seb33] mullers 11/5/2014 10:47:00 AM
Indicate in preconditions that test applies only to push mode

Page 38: Comment [seb34] mullers 10/31/2014 12:50:00 PM

Conformance test delete it.

Page 39: Comment [seb35] mullers 11/5/2014 9:28:00 AM
Conformance test delete it.

Page 40: Comment [seb36] mullers 11/5/2014 9:31:00 AM
Conformance test delete it. Slight variation of CTP 3.1.7.3. Check if CTP 3.1.7.3 needs to be updated with 'distortion of MSD transmission'

Page 41: Comment [seb37] mullers 11/5/2014 9:35:00 AM
Is a conformance tests, but could be kept here, as it can be realized without extra test tool. However, the conformance test CTP 1.1.14.1 is mandatory to run in any case.
Page 41: Comment [seb38] mullers 11/5/2014 10:56:00 AM
[Feedback from Thomas Reschka, CETECOM]
Another Conformance test should be added which checks that the message ID should be incremented for every New MSD within the same call; and should not be incremented for every MSD in a new call.

Page 43: Comment [seb41] mullers 11/5/2014 9:48:00 AM
Keep it. Can be performed in interop setup.
However, the reference CTP 1.1.16.1 is wrong, and I could not find a good reference

Page 45: Comment [seb43] mullers 11/5/2014 10:56:00 AM
Delete this chapter

Page 48: Comment [FF44] François Fischer 9/10/2013 6:20:00 PM
Add clarification, the intention is to be called back!

History

Document history		
V0.1	January 2015	Draft version
V0.2	February 2015	Update from ERTICO