

A dark blue world map is visible in the background of the slide, showing the continents in a lighter shade of blue.

ETSI TC INT IMS Network Testing Group

Giulio Maggiore
TC INT Chair

Summary

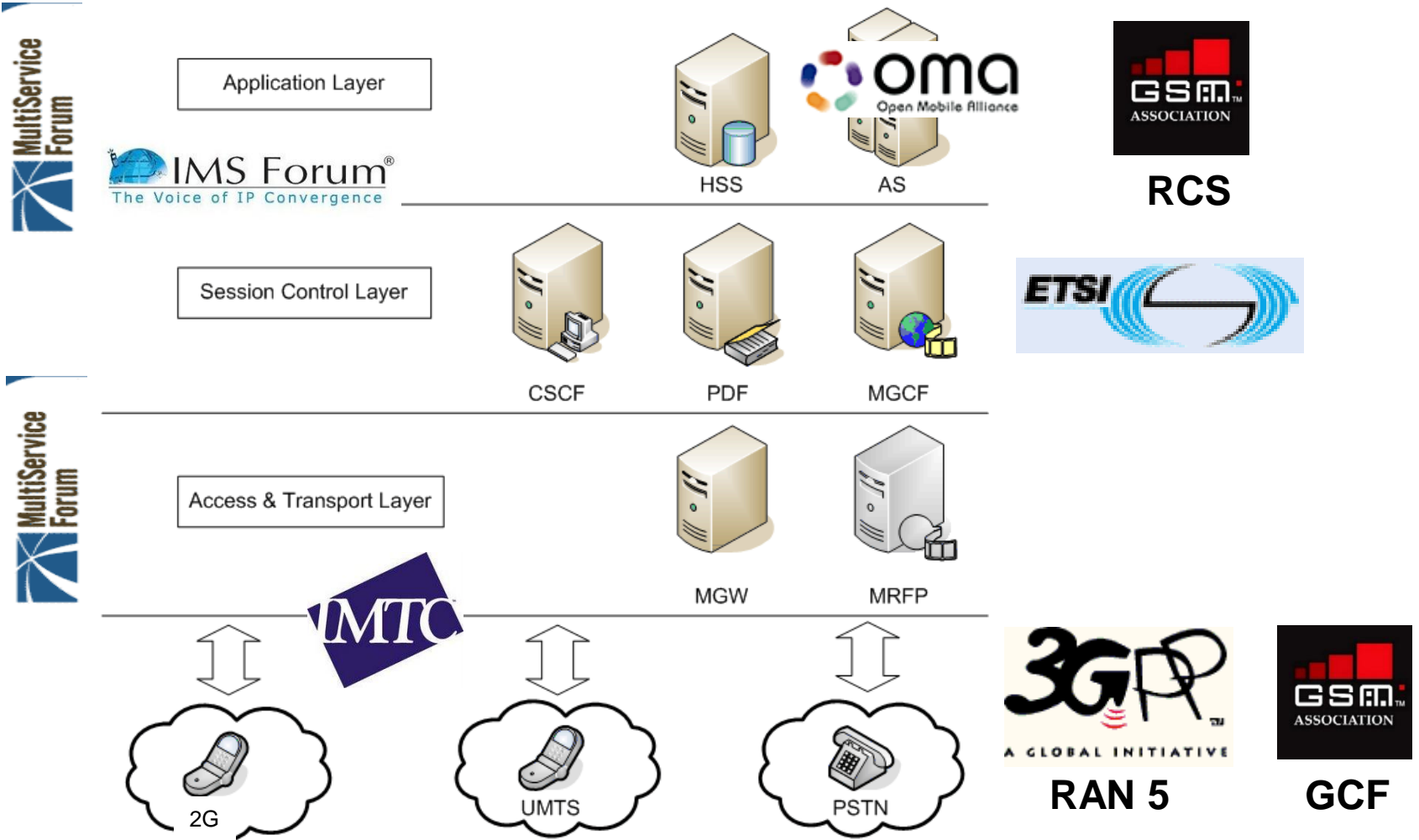
- ❑ Rationale
- ❑ *IMS Interoperability Landscape*
- ❑ 3° ETSI IMS Interoperability Event Preparation
- ❑ Backup slides with more information on:
 - TC INT
 - Results from ETSI IMS Interoperability Events
 - 3° ETSI IMS Interoperability Event Preparation

Rationale

- ❑ TC INT has been asked by Board#71 to provide a benchmarking document and/or short paper showing the IMS Testing landscape of who is doing what .
- ❑ TC INT presented a preliminary version of that document for Board#72 for information
- ❑ TC INT produced a final version of the document for Board#73

- ❑ TC INT as well as IMS TEST_BOARD is continuously looking to the IMS Interoperability scenario updating periodically the document “Overview of IMS testing and interoperability initiatives”

Landscape of IMS Testing



Actions Taken by TC INT

- ❑ **MOU between ETSI and MSF to create the right synergies and possible cooperation on technical level for the IMS Interoperability demonstrations. As effect of this MOU MSF will be technical partner for the 3rd IMS Interoperability Events in October 2009.**
- ❑ **LOI between ETSI and IMS Forum to create the right synergies and possible cooperation on marketing and promotions of Interoperability events. No Action so far. A working group will be created to define any possible joint activities**
- ❑ **LS sent to RCS to help GSMA in reaching the goal of RCS launch and benefit from RCS clients for Interoperability demonstrations. Joint interoperability event can be evaluated. TC INT is waiting for RCS reply to setup the proper actions.**

Actions Taken by TC INT (2)

- ❑ **LS received from ITU-T SG11 for endorsement of Interoperability Test Specifications and participation to Interoperability events. A meeting with ITU-T SG11 has been held in April in Moscow where INT Chairman participated on behalf of the group. Strong Interest was expressed by ITU-T SG11 WG4 in the IMS Testing activities and Interoperability Events.**
- ❑ **Co-operation Agreement between ETSI and OMA: TC INT requested to be inserted in the cooperation agreement for interaction with OMA IOP Group. OMA IOP Chair stated “a strong relationship is necessary between OMA IOP and ETSI INT covering exchange of information on planning of enablers development, use of TTCN-3 codes and interest of joint testing event”.**

Priority selection for 3° IMS Interoperability Events

The features that will be tested in 3° IMS Interoperability Events have been identified and selected according to:

- ❑ Identified from a wish list collected from participating companies in 2° IMS Interoperability Event
- ❑ Selected according to priority given by:
 - MSF (Multi Service Forum)
 - GSMA IREG Packet Group
 - Questionnaire issued on 3° IMS Interoperability Events web pages
 - TC INT members
 - Other operators fora

About 3rd IMS Plugtests™

- ❑ Evaluates interoperability of IMS core networks with other IMS core networks and 3rd party application servers driven by commercial user equipment
 - IMS interworking
 - IMS roaming
 - topology hiding
 - presence and/or HOLD, CONF, OIP/OIR, ACR, CFU service
- ❑ Intended for vendors of complete IMS core networks (or its components), IMS UEs, MMTEL and presence applications servers, and IMS test tools
- ❑ Recorded test sessions based on ETSI TS 186 001-2
 - Assess compliance of NNI and ISC interface to TS 124 229 R7
- ❑ Dedicated testing area for ad-hoc testing with UEs and test tools
- ❑ Questionnaire for test prioritization available to collect test wishes

More information

- ❑ **Join the Plugtests™ mailing lists by sending an email to listserv@list.etsi.org**
 - **For the 3rd IMS Plugtests use the body:**
`subscribe IMS_IOP <first name> <last name>`
 - **For the IPTV Plugtests use the body:**
`subscribe IPTV_PLUGTESTS <first name> <last name>`
 - **Both mailing lists are open to anybody interested in participating to the event**
- ❑ **Visit event web site**
http://www.etsi.org/plugtests/IMS3_IPTV1/IMS_IPTV.htm

Testing Workshop in 2010

- ❑ to promote awareness of **TESTING** activities inside ETSI and coordination with external bodies.
- ❑ Open to all TBs, already MTS, TISPAN WG6, and ITU-T SG11 WG4 have expressed their interest in such a workshop
- ❑ Invitation to be extended to other organisations, including 3GPP and GSMA testing group
- ❑ The workshop will organized in coordination with CTI that play a central role being the heart of testing technical competence in ETSI.

Backup

TC INT (IMS Network Testing)

- ❑ **BOARD-IMS-TEST ad hoc group became a self-standing TC after ETSI Board #66 decision (March 2008). The initial scope:-**
 - **Develop IMS Core Network test specifications (interoperability, conformance, network integration etc.) from 3GPP and TISPAN specifications**
 - **Initiate and supervise interoperability events (such as IMS Plugtests) as well as other events**
 - **Coordination of IMS interoperability efforts with other organisations such as IMS Forum, GSMA, OMA, MSF, etc**
 - **Endorsement of test specifications to other standardization bodies, e.g., ITU-T.**
 - **Coordination with ETSI TC MTS in order to have the right methodologies and tools to ensure effective test specifications**
 - **Close liaison with OCG-IOP for topics of common interest**

Relationship with 3GPP

- ❑ **3GPP TSG SA acknowledges the ETSI initiative to establish a new TC on IMS Network Testing and agrees that it does not conflict with the work on 3GPP IMS conformance terminal testing carried out in 3GPP RAN WG5.**
- ❑ **3GPP Recognising that IMS represents a standard of global and industry-wide interest,**
- ❑ **3GPP TSG SA also encourages the new TC to develop close collaboration with all groups active on IMS testing.**

TC INT Areas of activity

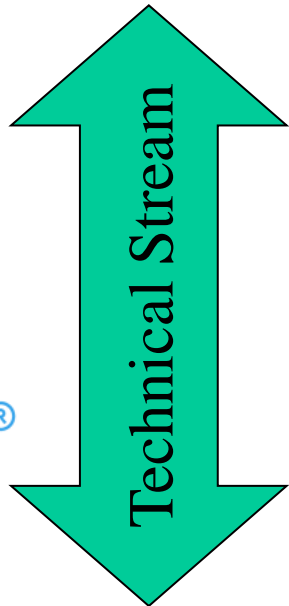
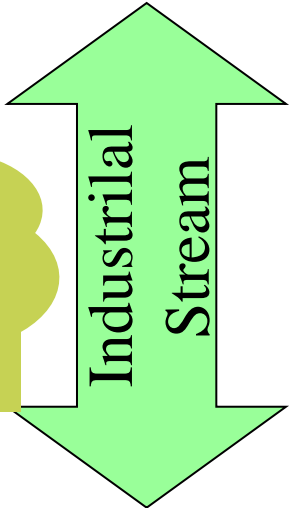
- ❑ Write and validate test specifications
 - test purposes, test descriptions, TTCN-3 test cases
- ❑ Continue working on the current TISPAN WG6 IMS core testing standards/specifications activities
- ❑ Feasibility studies on standardization activities in all relevant areas of IMS core network standards/specification testing;
- ❑ Preparation of ETSI Technical Reports and ETSI Guides describing the feasibility of standardization IMS core network standards/specifications testing;
- ❑ Provision of feedback to 3GPP and TISPAN on base specifications
- ❑ Provision of the ETSI main centre of expertise in the area of IMS core network standards/specifications testing and be able to offer advice to ETSI Technical Bodies, the ETSI Board and the General Assembly;
- ❑ Organization of regular interoperability events with appropriate stakeholders;
- ❑ Liaison with relevant external organizations
 - such as OMA, MSF, IMS Forum, GSMA, etc;

ETSI TC INT role



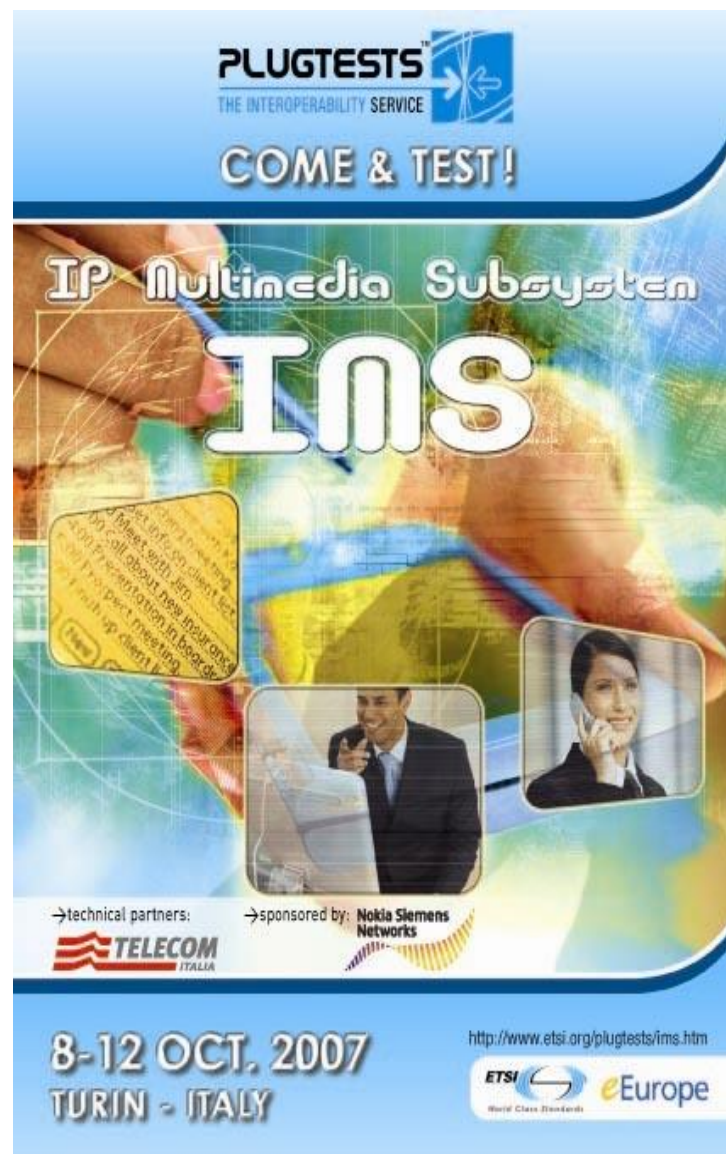
Fora and Organization
Dealing with IMS IOP
Demonstrations

ETSI TC INT
IMS Inter-OP &
Interconnect.
Test specs & events



1° ETSI IMS Interoperability Test Event

World Class Standards



PLUGTESTS™
THE INTEROPERABILITY SERVICE

COME & TEST!


IP Multimedia Subsystem
IMS

→ technical partners: **TELECOM ITALIA**

→ sponsored by: **Nokia Siemens Networks**

8-12 OCT. 2007
TURIN - ITALY

<http://www.etsi.org/plugtests/ims.htm>

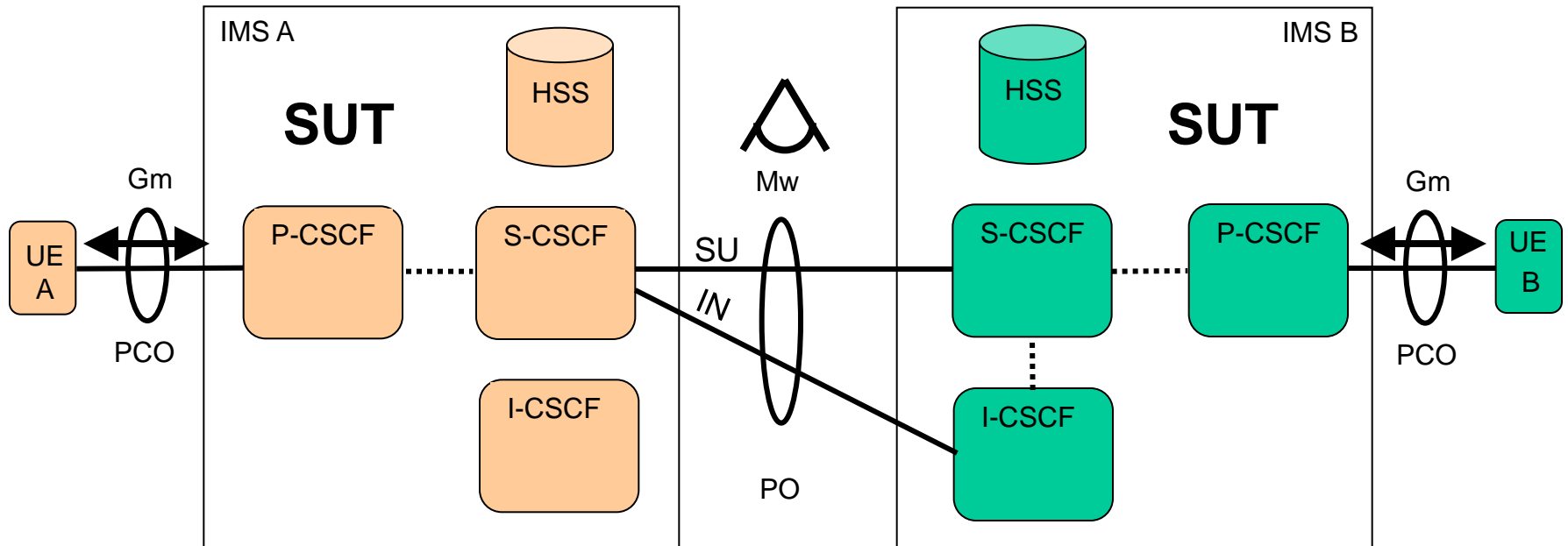
ETSI  Europe
World Class Standards

1° ETSI IMS Interoperability Event

- First IMS Plugtest took place in Telecom Italia labs on 8 to 12 October 2007
- Test List was agreed in advance
- 10 companies, 6 suppliers, 4 operators participated
- 30 test sessions
- 482 tests executed
- Overall percentage of IOP success 94%
- Satisfaction survey indicates 4,7 / 5
- 100 % of participants indicate they would like a see further events
- Press release published

http://www.etsi.org/website/NewsandEvents/2007_10_IMS_iop.asp

IMS core network interoperability tests



UE = User Equipment (Terminal)
 CSCF = Call Session Control Function (~Proxy)
 HSS = Home Subscriber Function (~User Database)

Comment from participants

- Need some more test specs**
 - **Joint UNI/NNI tests**
 - **UNI interoperability tests**
 - **Tests with one AS (e.g. telephone)**
- Excellent test scheduling and organisation**
- Good opportunity for all the vendors to come together and to verify their IMS solutions**
- Good to see so many different vendors performing the same tests in the same environment**
- Very useful from the operators' point of view**
- To have IOT results in short times**
 - **Having seen in one week what could happen in 6 months, or more**
- Time to analyse the traces**



2nd ETSI IMS Interoperability Test Event

eEurope

SINTESIO

Bled Slovenia

10 - 14 November 2008

ISKRATEL

2° ETSI IMS Interoperability Event

- ❑ **Second IMS Plugtests took place in Bled, Slovenia from the 10 to 14 November 2009**
- ❑ **13 companies, 6 suppliers, 5 operators, 2 commercial IMS clients provider**
- ❑ **30 Test sessions**
- ❑ **410 tests were executed**
- ❑ **Overall percentage of IOP success 82%**
- ❑ **Satisfaction survey indicates 4.7/ 5**
- ❑ **100 % of participants indicate they would like a next event**
- ❑ **Press release published**

http://www.etsi.org/WebSite/NewsandEvents/IMS_PLUGTESTS_NOV2008.aspx

Comment from participants

What was good about this plugtests?

- For my company the possibility to check with other "big" vendors our level of compliance to standard
- Possibility to find interworking issues in a short time frame
- Excellent organisation, great cooperative spirit, remarkable place, very good results achieved
- Meeting people from suppliers to operators. Discussions about IMS
- Good that all test sessions are in the same room
- Good way to see the maturity of implementations, roaming scenarios
- The atmosphere of cooperation



3° ETSI IMS Interoperability Test Event

One spot – two technologies

- ❑ **The event will take place from Fri Oct 16th to Fri Oct 23rd 2009**
- ❑ **The venue is Complexe des Ursulines in Lannion, France**
- ❑ **Orange Labs provides the technical support for the event**
- ❑ **The Multi Service Forum (MSF) is a technical partner of the event and is contributing to event test specifications**
- ❑ **The venue will be divided into three separate areas**
 - **Common area including exhibition booths, internet access, etc**
 - **Area for 3rd IMS Plugtests**
 - **Area for IPTV Plugtests**
- ❑ **Participation is open for participation for IMS and IPTV equipment vendors as well as operators (as observers)**
 - **One NDA to sign for the entire event**
 - **Participation is open to ETSI members as well as non-members**
 - **Registration deadline is Fri Sep 25th 2009**

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About IPTV Plugtests™

- ❑ **Evaluates interoperability of IMS-based IPTV systems composed of equipment by different vendors**
 - **Start up**
 - **Broadcasting**
 - **Trick play**
 - **Content on Demand**
 - **Personal Video Recording**
- ❑ **Intended for vendors of IMS aware IPTV UE, IPTV application servers, video media servers, RACS gateways, core IMS as well as products that integrate two or more of these functions**
- ❑ **Tests functionality defined in ETSI TS 182 027 and TS 183 063 R2**
 - **Basis are test descriptions ETSI TS 186 020**
 - **Derived from MSF 2008.169.06**

Pre-Event Organisation

❑ Communication

- **Launch of event website in May**
[http://www.etsi.org/plugtests/IMS3 IPTV1/IMS IPTV.htm](http://www.etsi.org/plugtests/IMS3_IPTV1/IMS_IPTV.htm)
- **Pre event press release will be issued end of May**
- **ETSI collective letter sent out to all ETSI members end of May**
- **Posters**

❑ ETSI event preparation

- **Opening online registration Jun 9th**
- **Handling of online registration, NDA, and payment**
- **Opening of ETSI event wiki for registered participants mid-June**
- **Preparation of the test result reporting tool**

Sponsorship

- ❑ **The event offers sponsorship opportunities**
 - **Boost your image**
 - **Promote your brand**
 - **Target the active audience**
 - **Create new business opportunities**
- ❑ **Sponsoring package 1500€ per company includes**
 - **Logo on the event website with link to the sponsor's website**
 - **Free exhibition booth**
 - **Logo in the event Wiki**
 - **2 persons free at the event for all week**
- ❑ **Exhibition day in common area Mon Oct 19th**
 - **Product presentation to operators**

Pre-Event Technical Organisation

- ❑ **Regular conference calls for IMS Plugtests and IPTV Plugtests**
 - Clarification of respective test specification
 - Sharing of detailed event planning status
- ❑ **Design & setup of test infrastructure by Orange Labs in coordination with ETSI**
 - Set up of VPN connections for remote equipment
 - Design of test network topology map, assignment of IP address ranges, etc
- ❑ **ETSI event preparation**
 - Scheduling of vendors in test sessions
 - Definition of test execution groups, priorities, and sequence

Event Organisation Overview

- ❑ Venue opens for ad-hoc testing to participants Fri Oct 16th
 - **Presence of all participating vendors is mandatory**
 - Installation of shipped equipment
 - Final connectivity check (including also remote equipment)
 - Set up of exhibition booths
- ❑ Event opening and recorded tests start Sun 18th - Thu Oct 22nd
 - Will also include further possibilities to perform ad-hoc testing
 - IMS and IPTV testing will happen in parallel in respective areas
 - At each Plugtest multiple test sessions will happen in parallel
 - Each test session lasts half a day and includes analysis of selected IOP traces
- ❑ Exhibition day in common area Mon Oct 19th
- ❑ Joint final event wrap up Fri 23rd in the morning

Some common basic rules for testing

- ❑ **All tests must be driven and observed from the event venue**
 - All IMS / IPTV user equipment must be located at the hosting venue
 - For each equipment under test (local as well as remote) at least one technical expert must be present during test execution, monitoring, and analysis of selected traces at the end of each test session
- ❑ **Equipment related to signalling traffic can be either shipped to the hosting venue or connected remotely via a VPN connection**
 - Remote equipment must route all their IP traffic via the central test infrastructure router in the hosting venue
 - Participants that plan to connect remotely must provide VPN info prior to the event!
- ❑ **Recorded test sessions should focus on interoperability assessment – not debugging**

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