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Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON); Verification Demonstration and Interoperability (VDI) activities; Version 3

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Foreword

This Technical Report (TR) has been produced by ETSI Project Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON).

1 Scope

The present document introduces the activities of the Verification-Demonstration-Interoperability (VDI) working group of TIPHON which organizes interoperability events and provides remote testing facilities (Implementers Net).

2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

[1] TS 101 335: "Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON); Test specifications".

[2] ITU-T Recommendation H.323: "Packet based multimedia communications systems".

[3] ITU-T Recommendation H.245: "Control protocol for multimedia communication".

[4] ITU-T Recommendation H.225.0: "Call signalling protocols and media stream packetization for packet-based multimedia communication systems".

3 Abbreviations

For the purposes of the present document the following abbreviations apply:

BRI	Basic Rate Interface
CoIP	Conferencing over IP Activity Group of IMTC
IMTC	International Multimedia Teleconferencing Consortium
INOW!	Interoperability NOW, Activity Group of IMTC
ISDN	Integrated Services Digital Network
LAN	Local Area Network
NDA	Non-Disclosure Agreement
PBX	Private Branch eXchange
PRI	Primary Rate Interface
PSTN	Public Switched Telephone Network
STF	Specialist Task Force
VDI	Verification-Demonstration-Interoperability
VIMP	Virtual Interop Meeting Place
WG	Working Group

4 Interoperability Testing

4.1 Purpose/ Objectives

The purpose of interoperability testing is to verify the TIPHON specifications and interoperability of different implementations. These tests can either take place in a single room, “classic" or “face-to-face" Interoperability Events, or can be spread over the whole world using remote connectivity, then they are called remote Interop events.

4.2 Testing

Testing will verify all TIPHON scenarios (that is, PC to PC, PC to Phone, Phone to PC, and Phone to Phone). Testing will attempt to completely demonstrate and debug these services, rather than just concentrate on the specific protocol elements that are required.

4.3 Privacy

The result of the tests will not be in any case available outside TIPHON membership, nor may it be used in any case under any situation to promote some products as being "more" TIPHON compliant than others, or for any other purpose other than the verification and debugging of the TIPHON specifications.

There will be no formal kind of NDA to be filled out, but there is always a kind of gentleman’s agreement not to disclose any individual results.

Documents that request changes to the TIPHON specifications as a result of the Interoperability events will not directly reference the vendor that found the fault.

4.4 Responsible WG

Interoperability events will be operated under the responsibility of WG6, with support from the relevant protocol generating and specifying WGs (i.e. WG3, WG4, and WG5).

4.5 Test Procedures

Test specifications of all TIPHON scenarios can be found in TS 101 335 [1].

4.6 Test Scoring

In tests which are scored, score sheets are distributed based on TS 101 335 [1].

4.7 Participation

4.7.1 Joint events

TIPHON interoperability events are in general organized jointly with IMTC CoIP.

4.7.2 Who can participate

Participation is open to ETSI members, ETSI associate members, IMTC members, and companies in the application process to become a member of ETSI or IMTC. Participants need to have products or services available for testing with other companies. Companies simply wanting to observe the testing will not be allowed to attend the event.

5 Interoperability Events

Interoperability events can take place as face-to-face events, or as remote events.

5.1 Face-to-face Interoperability Events

The classical way to test interoperability is to meet in a room and connect multiple systems together.

5.1.1 Organization

Interoperability events are in general organized together with the CoIP (Conferencing over IP) Activity Group of IMTC (International Multimedia Teleconferencing Consortium).

Annex 1, "Guidelines for the organization of interoperability events", summarizes the experience gained from multiple interoperability events and may prove useful for future organizers of Interoperability events.

5.1.2 Registration

Prior to any Interop the participants have to register. To optimize this process and to easily provide detailed information to the other participants ETSI has installed the VIMP. More details are described in clause 7 of the present document.

5.1.3 Scheduling

Scheduling is one of the most difficult aspects of Interop Events. As a consensus we can state that the participants prefer 65% of the time as ad hoc, self scheduled tests and 35% of the time as scheduled by the organizers.

Scheduled tests in face-to-face interoperability events are intended to test the interoperability of a large number of participants in a minimum of time. Thus the timeslots are pretty short and there is no time for the companies to debug. Extensive analyses and debugging can take place in the ad-hoc test time after the scheduled tests.

5.1.4 Frequency

Here is some feedback collected at two post Interoperability Events in Boston and Sophia Antipolis.

How many Interop Event should there be per year?

	4-99 Boston	**6-99 Sophia Antipolis**
1 per year	0%	2 %
2 per year	18 %	18 %
3 per year	30 %	45 %
4 per year	49 %	30 %
6 per year	3 %	5 %
Average	**3,4**	**3,2**

5.2 Remote Interoperability Events

Remote Interoperability Events provide companies the opportunity to test interoperability in their own labs without buying other companies equipment. They can interconnect to other parties via the public Internet or the ETSI ISDN router.

5.2.1 Organization

The organization of a remote interoperability event is different from a face to face event. There is no need to arrange a room and prepare accommodation, but in order to organize an effective event the information for the participants have to be much more detailed and precise, as communication is much more complicated and solving simple problems may be very time-consuming.

5.2.2 Registration

Prior to any Interop the participants have to register. To optimize this process and to provide detailed information to the other participants in any effective way, ETSI has installed the VIMP. More details are described in clause 7 of the present document.

The information provided about other participants equipment is very important for remote interoperability events, as it is much more complicated to collect details at a later stage.

These details include:

- Time of day the contact person is present in the company and able to do testing;
- Ability to test using the pubic internet;
- Ability to test using the TIPHON Interop Router;
- IP-Address of device (if known and important for test);
- Alias the Endpoint is going to register with;
- Gateway Prefix, the Gateway is going to register with, or Endpoint Alias;
- Number an Endpoint has to dial to reach a telephone connected to the Gateway.

5.2.3 Communication

The communication is simple if you are sitting together in one room. If you test remotely, you must have a telephone conference or a simple chat tool to communicate the progress of the test. A chat tool also allowS the co-ordinator to be informed about the progress of a test.

5.2.4 Time

As TIPHON is a world-wide project we have different time zones for the participating companies. It is not complicated to calculate the actual time in another parts of the world but causes sometimes confusion. To simplify this, TIPHON should use a common time-base to schedule tests. UTC or the InternetTime can be used as a common time.