

Approved by General Counsel

TR-41 Meeting Report Date: 11/10/06 Location: Las Vegas, NV

> Approved: 12/15/06 **T# 10364**



The Telecommunications Industry Association represents the communications sector of 🖉

Telecommunications Industry Association Standards and Technology Department

Engineering Committee TR-41 User Premises Telecommunications Requirements

Meeting Report

Chair: Stephen R. Whitesell Vice-Chair: Roger W. Britt Secretary: Phillip Havens Date: November 10, 2006 Venue: Embassy Suites City: Las Vegas

1. Call to Order and Opening Business

a. Call to Order and Introductions

Chair Steve Whitesell called the meeting to order at 8:00 am, and the attendees introduced themselves.

b. Roll Call and Quorum

Roll call was taken and a quorum was declared with 11 of 14 voting member companies represented.

1) Quorum Members or Alternates Present

AST – James Bress Avaya – Joanne McMillen Cisco – Kirit Patel Embarq – Amar Ray Littelfuse – Phillip Havens Nortel – Roger Britt

2) Quorum Members Absent

Alcatel – Arnaud Vergnol Mitel – [Vacant]

3) Others Present

Avaya – Joachim Pomy Bourns – Mick Maytum Hewlett-Packard – Bharat Singh Plantronics – Allen Woo Telcordia – Jeff Boksiner UL – Randy Ivans Uniden – Al Baum VTech – Steve Whitesell

Thomson – Roger Hunt

Siemens – Solomon Wu TIA Staff – Stephanie Montgomery

c. Review of Notice for Participation

The Chair brought the attention of meeting participants to the following Important Notice for Participation as found in the TIA Engineering Manual:

Participation in, or attendance at, any activity of a TIA Formulating Group or any subelement thereof, constitutes acceptance of and agreement to be bound by all provisions of the TIA Engineering Manual and permission that all communications and statements, oral or written, or other information disclosed or presented, and any translation or derivative thereof, may without compensation, and to the extent such participant or attendee may legally and freely grant such copyright rights, be distributed, published, and posted on TIA's web site, in whole or in part, on a non-exclusive basis by TIA or TIA's licensees or assignees, or as TIA directs. Exceptions to the foregoing may be granted or permitted in writing to the Chair of the Formulating Group by TIA's Senior Vice President, Standards and Special Projects on a case-by-case basis.

d. Review and Approve Agenda

The agenda was submitted for review with the addition of TR-41.1 Montreal Meeting Report Approval as Item 3e under Subcommittee Reports. Liaison reports from ATIS NIPP and TR-42 were also added as Items 4b and 4c. The agenda was annotated with relevant document numbers and approved as modified.

e. TIA Patent Policy

The Chair made the attendees aware of the following statement concerning TIA's Patent Policy and the desire for early disclosure of patents, the use of which may be essential to any standard or other document being developed for publication:

TIA's Intellectual Property Rights Policy can be found in Statements of Policy and subsequent sections of the TIA Engineering Manual. Participants in the work of the TIA Formulating Group are urged to review the appropriate Sections. Individual participants are encouraged to notify TIA of any patent(s) or published pending patent application(s) of which they are aware that may be essential to the practice of a proposed TIA Publication early on in its development to reduce the possibility for delays in the development process and increase the likelihood that the proposed TIA Publication will become a Standard. However, a Patent Holder who has provided TIA with the statement set forth in ANNEX H with respect to the applicable proposed TIA Publication need not (but may elect to) identify its specific patent(s) or published pending patent application(s) that may be essential to the practice of the proposed TIA Publication in question. Patent searches are not required to comply with the TIA Intellectual Property Rights Policy.

He pointed out that this policy encouraging disclosure of intellectual property rights applies equally to all normative elements of documents under development, whether included directly in the text or incorporated by reference. No disclosures were made.

f. Chair's Remarks

None.

g. TIA Staff Remarks

None.

2. Previous Meeting Report

The report of the previous meeting was reviewed and approved without change.

3. Subcommittee Reports and Requests

TR-41's subcommittees and working groups met at various times from Monday through Thursday.

a. TR-41.3 – Analog and Digital Wireline Terminals – James Bress

Subcommittee TR-41.3 met on Thursday afternoon, November 9, 2006. Its various working groups met from Monday through Wednesday and on Thursday afternoon.

Project Status: The following is a summary of the status of each Project assigned to TR-41.3.

 PN-3-0208, Comparison of TIA-470-C and ETSI TS 103 021 Requirements (to become TSB-470)

Current Status: This project on hold until other projects requiring the same resources are completed.

Target Completion Date: 11/2007

• PN-3-0219, Measurement Procedures and Performance Requirements for Handset Generated In-Band Magnetic Noise (to become TIA-1083)

Current Status: TIA-1083 was submitted for ANSI ballot on October 23, 2006 and will close on December 8, 2006. There was considerable work performed on this document via WebEx meetings after the Montreal meetings with input from several project members. It is expected this ballot will pass and any ballot comments will be reviewed and resolved and the document will be voted to go out for publication in the February 2007 TR-41.3 meetings.

Target Completion Date: 02/2007

• PN-3-4350.110-AD1, Addendum 1 to Handset Acoustic Performance Requirements for Analog Telephones (to become TIA-470.110-1)

Current Status: TIA-470.110-C-1 was submitted for ANSI ballot on September 19, 2006 and closed on November 3, 2006. There was a unanimous vote to publish the document in a late session of TR-41.3 (with a quorum of 6/11) after the early session adjourned.

Target Completion Date: 11/2006

Plenary Action Requested: TR-41.3 requests concurrence to publish TIA-470.110-C-1.

Plenary Action Taken: Unanimous concurrence.

 PN-3-4350.120-RV3, Hands Free Acoustic Performance Requirements for Analog Telephones (to become TIA-470.120-C)

Current Status: Contributions were reviewed and several changes were made to the document with significant help and input from the IEEE STIT members participating in the working group meeting. Requirements for SDN (signal distortion noise) related to low frequencies were resolved. Requirements for listening level (receive level) were agreed upon. Progress on this project is continuing well.

Target Completion Date: 05/2007

 PN-3-4350.130-RV3, Headset Acoustic Performance Requirements for Analog Telephones (to become TIA-470.130-C)

Current Status: The committee ballot planned after the previous meeting was delayed. The document was edited during the working group meeting with several technical criteria improved and clarified. A decision was made to use P.50 artificial speech as a test signal and not R40 sine test signals. The document will be sent out for a committee ballot after editorial cleanup.

Target Completion Date: 05/2007

Plenary Action Requested: TR-41.3 requests concurrence to send TIA-470.130-C for Committee ballot.

Plenary Action Taken: Unanimous concurrence.

 PN-3-4350.210-AD1, Addendum 1 to Resistance and Impedance Performance Requirements for Analog Telephones (to become TIA-470.210-C-1)

Current Status: This document has been submitted to TIA for publication and is expected to be published within the month of November.

Target Completion Date: 11/2006

 PN-3-4350.320-RV3, Cordless Telephone Performance Requirements (to become TIA-470.320)

Current Status: This document has been submitted to TIA for publication and is expected to be published within the month of November.

Target Completion Date: 11/2006

• PN-3-4350.330, Telephone Answering Devices (to become TIA-470.330-C)

Current Status: Contributions for the standard were reviewed during the working group meeting. There has been considerable discussion regarding the use of objective measurement tools to measure speech quality, including PAMS and PESQ, related to answering machine's incoming and outgoing messages.

Target Completion Date: 02/2008

• SP-3-4352-RV2, Transmission Requirements for Narrowband Voice over IP and Voice over PCM Digital Wireline Telephones (to become TIA-810-B)

Current Status: This document was officially published by TIA on November 9, 2006. This project is completed.

Target Completion Date: 11/2006

 PN-3-4705-RV1, Transmission Requirements for Wideband Digital Telephones (to become TIA-920-A)

Current Status: Progress is being made on the TIA-920-A wideband standard. The document scope was modified to handle issues of narrowband and wideband interaction. Participation in the meetings from IEEE STIT members was helpful for resolving several technical issues. There was agreement made for the handset frequency response masks and a move to have only a mandatory and no desirable mask.

Target Completion Date: 02/2008

 PN-3-0191, Analog Telephone Port Requirements for Packet-based User Premises Terminal Adapter (to become TIA-1063)

Current Status: The ballot for this document was extended into October and closed with 20 / 22 voting unanimously to approve including 5 with comments. Editorial comments were reviewed and the document edited during the working group meeting. The editor will cleanup the document and send to the project group for a last review before being sent to publication. TR-41.3 voted unanimously to publish TIA-1063.

Target Completion Date: 11/2006

Plenary Action Requested: TR-41.3 requests concurrence to send TIA-470-1063 for publication.

Plenary Action Taken: Unanimous concurrence.

Additional Information: TR-41.3 would like to provide the following additional information.

 TR-41.3 voted unanimously to open a new project to create a TSB to provide guidelines for product marking and labeling for products conforming to TIA-1083 for HAC magnetic noise performance. This project was requested to be undertaken by TR-41.3 by the HLAA and by UPED.

Plenary Action Requested: TR-41.3 requests concurrence to start a new project to develop a TSB.

Plenary Action Taken: Unanimous concurrence.

b. TR-41.4 – IP Telephony Infrastructure and Interworking – Joanne McMillen

Subcommittee TR-41.4 met on Tuesday and Wednesday, November 7 & 8, 2006.

Project Status: The following is a summary of the status of each Project assigned to TR-41.4.

• PN-3-0061, IP Telephony Security Framework (to become new TSB)

Current Status: This project is still lacking an editor. There is still a possibility that Broadcom will pick up this work so the project will be left open until February. If an editor is still not available the project will be closed at that time.

Target Completion Date: unknown (cannot be determined until an editor is assigned and a scope is available)

 PN-3-0102, Requirements for a Wireless LAN Based IP Telephony Subsystem (to become TIA-1002)

Current Status: This project is on hold pending completion of PN-3-0103.

Target Completion Date: 05/07

 PN-3-0103, Requirements for a Wireless LAN Based IP Telephony Endpoint (to become TIA-1003)

Current Status: The proposed final version for ballot was targeted to be posted for editorial comment two weeks after the August meeting. Instead it was received for this meeting. The editor could not attend the meeting so the document was divided among all partcipants to make editorial changes. The chair will fold all changes into a clean version and submit for ballot so that ballot comments can be addressed in February.

Target Completion Date: 04/07

 PN-3-0202, Technical Assessment of Syncronization Methods in IP Networks from a Quality of Experience Perspective

Current Status: There was an updated version presented that incorporated additional modifications to be in line with ETSI. Minor additional changes are required to references and then it will be submitted for ballot. Ballot comments will be addressed at the February meeting.

Target Completion Date: 04/07

 PN-3-4726-RV1, Location Identification and Callback Procedures for IP Terminals (to become TSB-146-A)

Current Status: This is still pending a final clean version for publication based on comments from legal. The chair will update the latest available version. Committee members requested another review prior to submitting for publication. The chair will post the updated document in the protected working folder and allow two weeks for adding any additional editorial changes. The chair will then submit the document for publication.

Target Completion Date: 04/07

• SP-3-4826-RV2: Voice Gateway Transmission Requirements (To become ANSI/TIA-912-B)

Current Status: There was an updated version presented that incorporated additional modifications to be in line with ETSI. Minor additional changes are required and then it will be submitted for ballot. The vote to send the updated version to ballot was unanimous. Ballot comments will be addressed at the February meeting.

In addition, a vote was taken to withdraw TSB-122-A since it was replaced by TIA-912. The vote was unanimous.

Target Completion Date: 04/07

Plenary Action Requested: Concurrence to send SP-3-4826-RV2 for ballot after final revision.

Plenary Action Taken: Unanimous concurrence.

Plenary Action Requested: Concurrence to withdraw TSB-122A.

Plenary Action Taken: Unanimous concurrence.

Additional Information: TR-41.4 would like to provide the following additional information.

• TR41 liaison letter to TIA NGN Formulating Group

Joachim Pomy (TR41 Liaison to TIA NGN FG) reported that the FG has a proposed final version of their document "Converging NGN Technical Framework – TIA Principles and Issues". This document was obtained from the ETSI web site and was not liaised to TR41. TR41.4 has several concerns with this formulating group and proposes sending a liaison.

Plenary Action Requested: Approval of liaison to TIA NGN FG.

Plenary Action Taken: Unanimous approval.

• TR41.4 liaison letters to ATIS NGES, ATIS PTSC, and ITU-R

ATIS NGES (Next Generation Emergency Services): This is a subcommittee of the Emergency Services Interconnection Forum (ESIF). TR41.4 received a liaison letter regarding their intent to create emergency calling standards. The draft documents were not sent with the notice. TR41.4 is responding with a request to form a formal liaison and obtain current and future draft documents.

ATIS PTSC (Packet Technologies and Systems Committee): This is a committee intending to define interoperablity SIP profiles for "Device to Network" and "Enterprise Network to Service Provider Network". TR41.4 received a liaison letter regarding their intent and draft documents were included with the liaison. TR41.4 has major concerns with this work both in the sense that it is duplication of effort with the SIP Forum and is also requesting that industry support IETF drafts that have been abandoned. TR41.4 is sending a response to that affect and is requesting a continuing liaison relationship for future document drafts.

ITU-R (Radio Communication Study Group): This liaison was forwarded by the chair of TR41 for consideration regarding impact on the WLAN work. Although this work is not directly related to TR41.4's work, it was noted that the document is not in line with ITU-T SG12 so TR41.4 is responding with a request to forward the liaison to that group.

• Update TR41.4 scope to incorporate the work being brought in from TR41.1

This action item is being postponed to the February meeting as the scopes that are currently available on the web are not the correct scopes for either TR41.4 or TR41.1. It will take some time to trace that far back to find the correct mission and scope for both groups.

c. TR-41.7 – Environmental and Safety Considerations - Randy Ivans

Subcommittee TR-41.7 met on Thursday afternoon, November 9, 2006. Its 41.7.5 Working Group met on Wednesday, and its 41.7.1 Working Group met on Thursday morning.

Project Status: The following is a summary of the status of each Project assigned to TR-41.7.

• SP-3-3283-RV2, Environmental Considerations (to become ANSI/TIA-571-B)

Current Status: Because of some technical changes required to resolve comments from the last ballot, the document was sent out for a default ballot and the final results were 16 yes, 1 yes with an editorial comment, 2 abstentions and 8 ballots not returned.

Target Completion Date: 11/2006

Plenary Action Requested: TR41.7 asks the plenary for concurrance to send the document TIA-571-B out for publication.

Plenary Action Taken: Unanimous concurrence.

• PN-3-0129, Telecom Circuit Overcurrent Protectors (to be submitted to UL)

Current Status: The document is well along now, with sections 1-6 completely reviewed. Frank Ladonne, UL has been attending. He is the UL Principal Engineer who will carry the work forward at UL. The group expects to complete the work in February but is leaving open the possibility that another meeting might be needed to resolve unforseen issues in the testing section 7.

UL suggested that it might be desirable to initially publish the requirements as a UL Outline of Investigation rather than an ANSI standard to expedite getting it out there for use and to allow startup issues to be ironed out before seeking ANSI status. This still permits devices to be certified to the requirements and makes it publically available.

Target Completion Date: 05/2007

Additional Information: TR-41.7 would like to provide the following additional information.

• UL has proposed to reintroduce the use of acoustic couplers for all equipment that are clearly inappropriate for many modern earpiece designs (into UL 60950-1 2nd edition). A letter was sent to UL during the preliminary review process stating TR41.7's objections. The proposal has now been formally distributed for comment.

Plenary Action Requested: TR41.7 asks for concurrance to send a letter to UL reaffirming their objection to the proposal to reintroduce acoustic couplers that are inappropriate for certain designs of equipment.

Plenary Action Taken: Unanimous concurrence.

• There were concerns expressed in TR41.7 about the high cost (\$160 + 17% tax) of the hotel rooms for the Houston meeting.

d. TR-41.9 – Terminal Attachment Programs – Phillip Havens

Subcommittee TR-41.9 met on Tuesday, November 7, 2006. Its 41.9.1 Working Group met on Monday.

Project Status: The following is a summary of the status of each Project assigned to TR-41.9.

• SP-3-0016-AD4, Technical Criteria for Terminal Equipment to Prevent Harm to the Telephone Network (Fourth Addendum to ANSI/TIA-968-A)

Current Status: Published

Target Completion Date: completed

• SP-3-0016-RV2, Technical Criteria for Terminal Equipment to Prevent Harm to the Telephone Network (to become ANSI/TIA-968-B)

Current Status: on going

Target Completion Date: 11/2007

• PN-3-3602-RV3, Rationale and Measurement Guidelines for TIA-968 (to become TSB-31-C)

Current Status: submitted for default letter ballot

Target Completion Date: 12/2006

Plenary Action Requested: Seek concurrence to submit TSB-31-C for publication IF no negative votes from default letter ballot.

Plenary Action Taken: Unanimous concurrence.

• PN-3-4124, Responses to Part 68 and TIA-968 Questions (On-going effort)

Current Status: New question about volume control overide to be added.

Target Completion Date: N/A

Additional Information: TR-41.9 would like to provide the following additional information.

• Voted to formally withdraw TIA/EIA/IS-883 since it was superseded by TIA-968-A in 09/02 and its sunset date has passed.

Plenary Action Requested: Seek concurrence.

Plenary Action Taken: Unanimous concurrence.

 Voted to formally withdraw TIA/EIA/IS-968 since it was superseded by TIA-968-A in 09/02 and its sunset date has now passed.

Plenary Action Requested: Seek concurrence.

Plenary Action Taken: Unanimous concurrence.

 Voted to formally withdraw TSB-168 since it was superseded by TSB-168-A and its sunset date has now passed. Notify ACTA that we have removed it and they should archive the document at their site.

Plenary Action Requested: Seek concurrence and assistance in notifying ACTA.

Plenary Action Taken: Unanimous concurrence.

• Forward TIA-1096 to ACTA with a request to ACTA to include this with the TIA-968-A-4 posting.

Plenary Action Requested: Seek concurrence and assistance in notifying ACTA.

Plenary Action Taken: Unanimous concurrence.

e. TR-41.1 – Multiline Terminal Systems – Final Meeting Report Approval

Since the decision was made at the last meeting to make TR-41.1 inactive, it did not meet and could not approve the report of its August meeting in Montreal. That Meeting Report was made available as TR41-06-11-012-L. The report was reviewed and approved by unanimous consent.

4. Liaison Reports

Put notes on any liaison reports here – otherwise indicate None and delete following list.

a. IEEE 802.11/19

Steve Whitesell had nothing to report except that these groups would be meeting the following week in Dallas.

b. ATIS NIPP -

The chair noted that a liaison letter (TR41-06-11-009a) had been received from ATIS NIPP. Their recommendations for network harms criteria covering VDSL2 modems to be added to TIA-968-A were included as an attachment (TR41-06-11-09b). NIPP also sent a letter TR41-06-11-010) to ACTA, responding to ACTA's request on this matter and informing them they had provided the necessary information to TR-41.9. These matters will be addressed by TR-41.9.

c. TR42 –

The chair also noted that he had received an email (TR41-06-11-011) from the TR-42 chair concerning two joint sessions to be held with TR-42 at our collocated February meeting in Houston. The subject is the revision of J-STD-607-A. This will be handled by TR-41.7

5. Old business

Roger Britt reviewed the Project Status Spreadsheet.

6. New Business

a. TR41.9 Call for candidates

Greg Slingerland has resigned as chair of TR-41.9. As a result, an election will be held for the position of TR-41.9 Chair at the February 2007 meeting. In the event that the current vice-chair, Phillip Havens, chooses to be a candidate for chair and is elected, then an election will also be held for the position of vice-chair. If Phillip chooses not to be a candidate, or if he is a candidate but is not elected, then he will continue as vice-chair. This election is for a complete 2-year term. Anyone desiring to be a candidate for either or both positions should submit their nomination along with a letter of company support and a brief biographical sketch outlining their qualifications for the position to Dan Bart, TIA Senior Vice President, Standards and Special Project, with copies to Stephanie Montgomery and Steve Whitesell.

b. TIA/EIA-854 Status

Chair Steve Whitesell indicated this document, which was developed by the former TR-41.5 subcommittee, requires reaffirmation, revision, or withdrawal. It covers full duplex Ethernet at

1000 Mbps over CAT 6 wiring. Steve will try to contact Jim Romlein, the former TR-41.5 chair, as well as TR-42 to see if there is any interest in reaffirming or revising this standard. A decision is expected at the February meeting.

7. Meeting Schedules

a. Next Meeting

The next meeting will be held the week of February 5-9, 2001 in Houston, TX. The preliminary meeting schedule for the various TR-41 subcommittees and working groups is given in Appendix A. The details for the meeting hotel are as follows:

Houston DoubleTree Downtown 400 Dallas Street Houston, TX 77002 Phone: 713 351 5757 Fax: 713 752 2734 Room Rate: \$160 + 17% Tax Block Code: TIA/TR41 Cut off date: January 5, 2007

b. Future Meetings

The schedule for future TR-41 meetings is given below.

Date

April 30 – May 4, 2007 August 13-17, 2007 November 5-9, 2007 Location Florida Canada Southwest

8. Adjournment

There being no further business, the meeting was adjourned at 9:20 am. This meeting was conducted in accordance with the TIA Legal Guides and the Engineering Manual.

Phillip Havens Secretary, TR-41 Stephen R Whitesell Chair, TR-41

Appendix A			
Tentative TR-41 Meeting Schedule for Date			

Room				TR-42 Room at Hyatt
MONDAY	TR-41.3.10	TR-41.9.1		
MONDAY 0830 – 1230		_		
5 Feb 2007	Hands Free Telephones	Regulatory Criteria		
MONDAY	(Baum – 20) TR-41.3.10	(Hunt – 20) TR-41.9.1		
1330 – 1730 5 Feb 2007	Hands Free Telephones	Regulatory Criteria		
5 Feb 2007	(Baum – 20)	(Hunt – 20)		
MONDAY 1800 – 1930	TR-41 Leadership User Premises Eqpmt			
5 Feb 2007	(Whitesell – 20)			
TUESDAY	TR-41.3.11	TR-41.9	TR-41.4	
0830 – 1230	Headset Telephones	Regulatory	VoIP Systems	
6 Feb 2007	(Woo – 20)	(Slingerland – 20)	(McMillen – 20)	
TUESDAY	TR-41.3.12	TR-41.9	TR-41.4	
1330 – 1730	Telephone Ans Devices	Regulatory	VoIP Systems	
6 Feb 2007	(Ray – 15)	(Slingerland – 20)	(McMillen – 20)	
TUESDAY				TR-41.7/TR-42
1800 - 1900				Re: TIA-607-A Rev
6 Feb 2007				(Ivans/Congdon)
WEDNESDA	TR-41.3.3	TR-41.7.5	TR-41.4	
Y	Digital Xmission Perf	Overcurrent Protection	VoIP Systems	
0830 - 1230	(Britt – 20)	(Lindquist – 15)	(McMillen – 20)	
7 Feb 2007				
WEDNESDA	TR-41.3.3	TR-41.7.5	TR-41.4	
Y	Digital Xmission Perf	Overcurrent Protection	VoIP Systems	
1330 – 1730	(Britt – 20)	(Lindquist – 15)	(McMillen – 20)	
7 Feb 2007				
WEDNESDAY				
1930 - 2200				
7 Feb 2007				
	TD 44.0.0	TD 44 7 4		
THURSDAY	TR-41.3.9	TR-41.7.1		
0830 – 1230	Cordless Telephones	Int'l Safety Standards		
8 Feb 2007	(Bress – 20)	(Ivans – 15)		
THURSDAY	TR-41.3	TR-41.7		
1330 – 1730	Wireline Terminals	Environmental & Safety		
8 Feb 2007	(Bress – 20)	(Ivans – 15)		
THURSDAY				TR-41.7/TR-42
1900 – 2000				Re: TIA-607-A Rev
8 Feb 2007				(Ivans/Congdon)
FRIDAY	TR-41 Plenary			
0800 - 1030	User Premises Eqpmt			
9 Feb 2007	(Whitesell – 20)			

Appendix B Document List

Number TR41-06-11-001 TR41-06-11-002 TR41-06-11-003 TR41-06-11-004-MR1 TR41-06-11-005-M TR41-06-11-006-M TR41-06-11-007-M TR41-06-11-008-M TR41-06-11-009b TR41-06-11-010 TR41-06-11-011	Source Chair Chair Secretary Chair Bress McMillen Ivans Havens ATIS NIPP ATIS NIPP ATIS NIPP TR-42 Chair	Description Agenda for San Jose Meeting Document List Palm Springs Meeting Report Attendance Spreadsheet TR-41.3 Chair's Report TR-41.4 Chair's Report TR-41.7 Chair's Report TR-41.9 Chair's Report Liaison Letter to TR-41 Concerning VDSL2 Harms Criteria Draft Proposed VDSL2 Harms Criteria for Addition to TIA-968-A Liaison Letter to ACTA Concerning VDSL2 Harms Criteria Email Concerning J-Std-607-A and Feb 2007 Joint Meeting
TR41-06-11-011 TR41-06-11-012-L	TR-42 Chair Pomy	Email Concerning J-Std-607-A and Feb 2007 Joint Meeting TR-41.1 Meeting Report for August 2006 in Montreal